Chronicle

UC UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

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Top UC accolade for renowned philosopher

Internationally renowned University of Canterbury philosopher Professor Denis Dutton (Humanities) has been awarded one of the University's highest honours.

Professor Dutton is the recipient of the University of Canterbury Research Medal, the University's highest recognition of an outstanding contribution to research. It will be presented during next Wednesday's graduation ceremony.

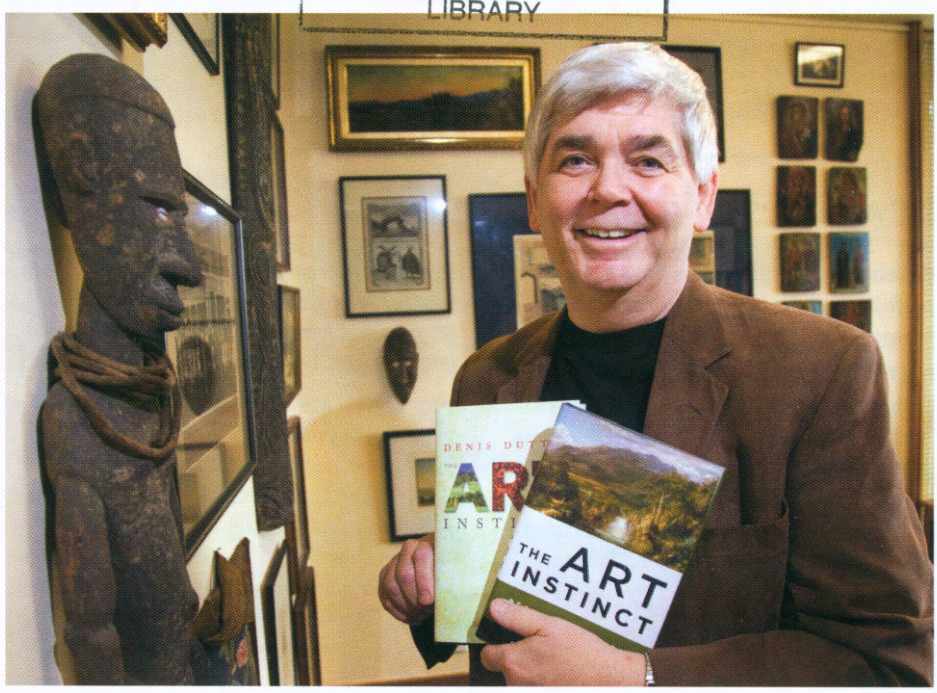
Professor Dutton's prolific and celebrated contributions to the field of the philosophy of art have placed him at the forefront of academic excellence.

His magnum opus, *The Art Instinct: Beauty, Pleasure and Human Evolution* (Oxford University Press and Bloomsbury Press, 2009), has accomplished the rare feat of becoming a hugely respected academic study that has also achieved commercial success. It has so far been translated into five languages.

The Art Instinct has already become a landmark in its field. The philosopher Carlin Romano described the book as combining "a magisterial command of the history of aesthetics back to Plato and Aristotle with an up-to-the-minute grasp of almost every trend on the contemporary cultural scene" that creates "a history of art for the ages". The *Journal of Aesthetics and Art Criticism* called the book "one of the most exciting and far-reaching philosophy books in some time".

Comparing the book to the work of such eminent figures as John Dewey, Ernst Kris and Sigmund Freud, the *Journal of the American Psychoanalytic Association* noted "the house of aesthetics has many mansions; Dutton's will doubtless stand for a long time".

As a referee for Professor Dutton's nomination, Professor Steven Pinker of Harvard University said: "Dutton is a true intellectual leader, an astonishingly productive and daring scholar and one of the most influential academics in the world. The University of Canterbury is fortunate to have such a brilliant and hard-working polymath on its faculty."



Philosopher Professor Denis Dutton will be presented with the UC Research Medal during the graduation ceremony on the morning of 15 December. He is pictured at the launch of his latest book The Art Instinct.

Joseph Carroll, Curators' Professor at the University of Missouri, said Professor Dutton "has been a pivotal figure in the gradual emergence of a major new movement — evolutionary study in the arts. I don't know what we would have done without him. There are many scholars and scientists at the highest level who have been influenced, and for the good, by his work."

As well as developing philosophical theories, Professor Dutton has sought to encourage recognition of the work of others. In 1976, while working at the University of Michigan, he founded the journal *Philosophy and Literature* as an outlet for new ideas in a developing field. Such was the journal's success it was taken over in 1983 by Johns Hopkins University Press, where it remains one of their flagship journals. It has also received the coveted "A" rating in the European Union's international rating of scholarly journals. Thirty-five years on, Professor Dutton continues as editor.

In October 1998, Professor Dutton created Arts & Letters Daily, a website with carefully selected links to essays, articles and book reviews on an extremely broad range of topics. When the site was barely three months old, the *Guardian/Observer* named Arts & Letters Daily

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Inside your C

Message from the Chancellor

In this final edition of *Chronicle* for 2010, I would like to take this opportunity to thank the University community, on behalf of Council, for its handling of the September earthquake and its aftermath.

The University has been acknowledged widely for its preparedness and responsiveness. This is something you can all be very proud of — from our security personnel who were first on the scene, to our emergency response team, our facilities management team, communications professionals and Contact Centre personnel, and our staff who volunteered for the clean-up days. I also want to acknowledge our academics who worked hard to minimise disruption to the examination timetable.

Then there were our students who, after moving from their social-media community to the streets of Christchurch, were held up by many, including the Prime Minister, as an example of the human spirit shining through in a time of significant adversity for many people in our region.

As one correspondent to *The Press* later said, the images of our students with their shovels and wheelbarrows would be an abiding memory of the September 2010 quake.

I have been delighted at the way in which our experts have helped us all make sense of what happened. Hundreds of people have attended lectures by our geologists, with many thousands more exposed to their knowledge through their extensive media engagements. Our engineers have used their expertise to help the region recover and rebuild, and will continue to do so for some time yet.

Thank you all for demonstrating the University's commitment to making a difference.

Have a happy and safe holiday season and best wishes for 2011.

Rex Williams
Chancellor

New professorial appointments

Eleven associate professors have become professors in the latest round of academic promotions.

The new professors are: Jennifer Hay (Languages, Cultures and Linguistics), Janinka Greenwood (Literacies and Arts in Education), Jennifer Brown (Mathematics and Statistics), Charles Semple (Mathematics and Statistics), Milo Kral (Mechanical Engineering), Elizabeth Toomey (Law), Angus McIntosh (Biological Sciences), Anthony Fairbanks (Chemistry), Tim Davies (Geological Sciences), Simon Brown (Physics and Astronomy) and Randolf Grace (Psychology).

Seven senior academics have been promoted to associate professor. They are: Kevin Glynn (Humanities), Susanne Ledanff (Languages, Cultures and Linguistics), Roger Buckton (Fine Arts, Music and Theatre), Peter Falkenberg (Fine Arts, Music and Theatre), Andrew Maples (Accounting and Information Systems), Gunter Steinke (Mathematics and Statistics) and Steven Gieseg (Biological Sciences).

Twenty-one academics have been promoted to the rank of senior lecturer over the bar. They are: Dr Linda Jean Kenix (Social and Political Sciences), Dr Donald Matheson (Social and Political Sciences), Dr Camilla Obel (Social and Political Sciences), Dr Evgeny Pavlov (Languages, Cultures and Linguistics), Dr Maros Servatka (Economics), Dr Natalia Chaban (National Centre for Research on Europe), Dr Lucie Ozanne (Management), Dr Ekant Veer (Management), Jo Fletcher (Literacies and Arts in Education), Dr Elisabeth Bowman (Civil and Natural Resources Engineering), Dr Michael Spearpoint (Civil and Natural Resources Engineering), Dr Richard Green (Computer Science and Software Engineering), Dr Philippa Martin (Electrical and Computer Engineering), Dr Luis Apiolaza (Forestry), Dr Christopher Price (Mathematics and Statistics), Dr Mark Jermy (Mechanical Engineering), Dr Mark Staiger (Mechanical Engineering), Dr Hazel Chapman (Biological Sciences), Dr Jason Tylianakis (Biological Sciences), Dr Peyman Zawar-Reza (Geography) and Dr Juergen Meyer (Physics and Astronomy).

Twenty-nine academics were also promoted to the rank of senior lecturer. All promotions take effect from 1 January 2011.

Chronicle

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Top UC accolade for renowned philosopher *continued from page 1.*

the best website in the world. The site, now owned by the *Chronicle of Higher Education* in Washington, receives 3.7 million page views a month.

As a widely recognised leader in his field, Professor Dutton has received numerous prestigious invitations. He delivered the 25th Anniversary Gilbert Ryle Lectures at Trent University in Canada and earlier this year delivered an address at the noted TED conference in Long Beach, California, alongside luminaries such as Bill Gates, Craig Venter, Nobel Prize Laureate Daniel Kahneman and the inventor of the worldwide web, Sir Tim Berners-Lee.

Professor Dutton received his PhD in philosophy from the University of California Santa Barbara in 1975. He has been on staff at the University of Canterbury since 1984 and has been Professor of Philosophy at UC since 2009.

Top Māori research award for UC academic

An academic from the University of Canterbury is to be honoured for his commitment to Māori education and prolonged research achievement.

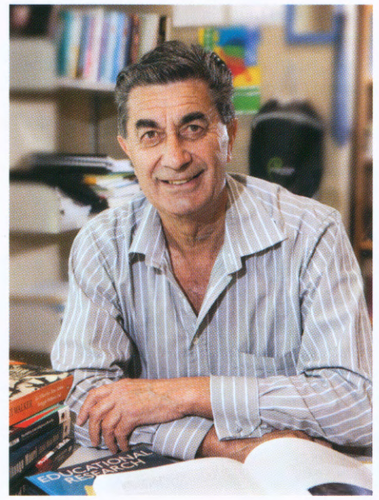
Professor Angus Macfarlane (Māori, Social and Cultural Studies) has won the New Zealand Association for Research in Education's Te Tohu Pae Tawhiti Award.

The award recognises researchers who have made a significant contribution to Māori research through conducting high-quality research over an extended period.

Throughout a distinguished career, Professor Macfarlane has received the Tohu Kairangi award for academic excellence in Māori education and was awarded the inaugural Research Fellowship by the New Zealand Council for Educational Research.

He has authored three books in his field and has lectured on culturally responsive educational approaches across the world, yet remains humbled by his latest achievement.

"This type of recognition is quite special since there appears to have been significant advancements in Māori research in recent years. Progress in research keeps the flame of scholarship alive and if one can contribute in that vein then it is a very satisfying feeling," Professor Macfarlane said.



Professor Angus Macfarlane.

He was also keen to acknowledge others who have supported his work and played a significant role in his success.

"To be recognised for my contributions brings about a feeling of modesty on one hand and on the other gratification that I can share this with others.

"When awards like this are made, it is really to recognise a mosaic of talent that has made the award possible. There is a whakatauki, or proverb, that sums this up: Ehara taku toa, i te toa takitahi, katahi, ko taku toa he toa takitini — mine is not the strength of one alone, it is the strength of many. So it is for whānau and iwi who supported me and colleagues who mentored me."

It is the first time a researcher from the University of Canterbury has won the award, a source of great pride to Professor Macfarlane.

"The University of Canterbury is my alma mater, so to be the first from UC to receive this award is a privilege of the highest order. The University declares a commitment to ensuring it enhances the capability and quality of research and creative work relevant to Māori. This is an opportunity for me to give something back to the University and to mana whenua."

Professor Macfarlane was presented with a written citation, taonga and a prize of $1500 at a ceremony in Auckland on 9 December.

Innovative UC librarian's contributions recognised

Library IT Manager Anne Scott has been awarded a fellowship of the Library and Information Association of New Zealand Aotearoa (LIANZA).

The fellowship is the highest level of professional attainment awarded by LIANZA and is only awarded to a personal member of the association who has made a significant contribution to the advancement of librarianship and/or information management through a sustained record of achievements.

Ms Scott said it was a surprise and a pleasure to be recognised by her colleagues in this way.

"Working as a librarian has provided many opportunities to work with great people at the University of Canterbury and beyond, and I look forward to the challenges and innovations of the future."

Ms Scott was one of the first systems librarians in New Zealand to implement an integrated library management system (ILMS) at Lincoln University where she was the deputy university librarian from 1989-1994, before taking up her current position at UC in 1995.

Her citation referred to her "outstanding and sustained leadership and management".

"She is user-focused, can see the big picture (and where the Library needs to fit), and uses her networks to make things happen in a way which gives maximum benefit to the library and its users. Anne is enthusiastic and passionate in conveying her vision and in inspiring others. She is a role model to her staff," the citation read.

Library IT Manager Anne Scott with her LIANZA fellowship certificate.

Ms Scott was seconded to be the University of Canterbury Web Project Manager from 2003–2005 and the citation noted that her work on this project "made it clear to the University community that the modern librarian's skill set is highly valuable to an institution".

Ms Scott has also participated in many external IT working groups and advisory committees, including the Kiwinet Advisory Group and the National Digital Forum Board. Her 19 years' service on the IT19 Standards Committee has involved organising seminars for the library profession in New Zealand as well as contributing to standards debates across Australasia.

iPhone app for UC designed puzzle

Two University of Canterbury academics have developed an iPhone puzzle game they believe will be the next big thing in the international electronic puzzle world.

Dr Nicola Petty and Dr Shane Dye from the University's Department of Management, with former UC staff member Bruce Webster, have created an iPhone application for a puzzle game they invented called Rogo.

Originally developed by Dr Petty and Dr Dye for pencil and paper, Rogo is a treasure hunt that challenges players to plot a path around numbers on a crossword-like grid, gathering the highest possible score. Players are told the maximum number of moves allowed and the perfect score — the better the path chosen the closer to the score you get. A video on how to play the game is available on YouTube.

Each Rogo puzzle has a unique solution, which has been generated and tested using a special computer algorithm designed by Creative Heuristics Ltd, the company set up by Dr Petty and Dr Dye.

The application went on sale on the Apple App Store on 2 December and Dr Petty and Dr Dye said that if the game was half as popular as Angry Birds, a game created by a Finnish developer that has sold 6.5 million copies, they would be "extremely happy".

"Rogo is completely new and original," Dr Petty said.

"It's a mixture of a maze, word-search and Sudoku, with an innovative and intuitive interface. It will soon be played on the iPhone, iPad and iPod touch in subways, in waiting rooms, and even in classrooms in the United States, Japan and China as well as in its home town of Christchurch, New Zealand."

The idea for Rogo came from the outdoor sport of rogaining, a long-distance cross-country navigation event similar to orienteering in which teams visit as many checkpoints as they wish in a set time. Each checkpoint has a different value assigned to it, making strategy and route selection vital to achieving the best score.

However, the mathematics behind the game comes from the field of operations research, the field in which Dr Dye and Dr Petty are involved as academics.

Dr Petty said the application took just over a year to develop and was programmed by Mr Webster.

"Bruce has brought his own brilliance and originality to the game play that takes it out of being simply a converted paper-based game and into a category of its own. The graphics are original and a little quirky, and the background music has been provided by friends and relatives. Photographs of handmade paper provide backgrounds to the different sets of puzzles."

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(From left) Bruce Webster, Dr Nicola Petty and Dr Shane Dye with their new iPhone Rogo app.

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UC student first to receive new speech and language therapy prize

Communication disorders student Sarah Davies is the inaugural recipient of a new prize named after three people who made a significant contribution to speech and language therapy in New Zealand.

Sarah, who has just completed a Bachelor of Speech and Language Therapy degree, has been awarded the Nuthall/Beaven/de Seriere Prize by the New Zealand Communication Disorders Trust.

The prize, worth $1500, is named after the late Graham Nuthall, who was professor of education at UC; Sir Donald Beaven, who was adjunct professor in the Communication Disorders Department at Canterbury; and Jo de Seriere, who was director of the speech and language therapy programme at the former Christchurch College of Education.

The biennial prize is awarded in recognition of academic excellence by a senior student (fourth-year undergraduate, masters or PhD) undertaking a degree in UC's Communication Disorders Department.

Sarah said she was "overwhelmed, flattered and surprised" to receive the prize.

"I'm really, really happy as it makes all the hard work I've done worthwhile and it's nice to have that recognised."

Head of Department Professor Michael Robb said Sarah was a fitting recipient.

"She was the logical choice as she has a stellar academic and clinical record. She also completed a research project this year that was above and beyond what undergraduate students complete as part of their educational programme."

Sarah said the prize money would go towards her master's degree, which she intended to begin next year. While her undergraduate research focused on stuttering in young children, she planned to focus her master's research on the swallowing disorder, dysphagia.

The New Zealand Communication Disorders Trust was set up in 1993 to raise funds with a main focus on research and education in the areas of communication and communication disorders. Professor Nuthall, Professor Beaven and Ms de Seriere were all inaugural members of the trust.

UC student Sarah Davies with Professor Michael Robb.

UC academic named engineering innovator of the year

University of Canterbury engineer Associate Professor Keith Alexander has picked up a prestigious award at the New Zealand Engineering Excellence Awards.

Professor Alexander was presented with the 2010 New Zealand Engineering Innovator of the Year award at a gala event in Wellington on 24 November, which was attended by more than 350 people.

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He has developed a reputation for being both an innovative engineering designer and a great practical teacher.

"At a time when academic staff are being drawn more heavily into published research it is vital that New Zealand has academics like Keith Alexander," said Institution of Professional Engineers Chief Executive Andrew Cleland.

"He is not only a leading teacher of innovation in design and a commercially successful innovator, but also an engineer whose innovative designs are directly serving the community."

Responsible for many innovative solutions, Professor Alexander has worked on a diverse range of projects including the water jet system of the Hamilton jet boat, a patient lifting system, a quiet propulsion fan for a hovercraft, a snow probe for predicting avalanche risk and a pin-jointed press system for wool. He has also been involved with the ongoing development of the Martin Jetpack.

However, he is best known for the Springfree Trampoline which has vastly reduced injuries. This design won the 2010 Consumer Product of the Year Award in the United States following earlier awards in Australia, Canada and New Zealand. In total, there are 19 patents to protect his novel elements of the design. More than 35,000 units a year are sold worldwide.

Professor Alexander was not the only award-winner with UC connections. Alumnus Matthew Lander won the prestigious Young Engineer of the Year award for 2010.

Mr Lander is an Associate — Structural Engineering at Beca Carter Hollings and Ferner in Wellington and was one of three finalists for the prestigious award. He holds a Master of Engineering with distinction in civil engineering from UC and is a chartered professional engineer. He has worked for nine years as a structural engineer and has been the lead structural engineer on several major projects, including structural engineering manager for the new BNZ building on Wellington's waterfront.

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The building has already been recognised with several awards including the New Zealand Green Building Council 5 star education design award, the Designers Institute Gold award for interior design and the New Zealand Institute of Architects Canterbury Architecture award. NZi3 was also short-listed for the World Architecture Awards in 2009.

Photo supplied by New Zealand Engineering Excellence Awards.

Associate Professor Keith Alexander (centre) with the 2010 New Zealand Engineering Innovator of the Year award he received at the New Zealand Engineering Excellence Awards. Pictured with him are Associate Dean of Engineering and Forestry Dr Hamish Cochrane and Pro-Vice-Chancellor (Engineering) Professor Jan Evans-Freeman.

Seeking inspiration

Looking for inspiration among the 36 medals awarded to Ernest, Lord Rutherford, are (from left) The Arts Centre of Christchurch Director Ken Franklin and Deputy Director Jennie Currie.

Mr Franklin and Ms Currie recently viewed the collection of medals, held in the University of Canterbury's Macmillan Brown Library, to gather ideas for a medallion that The Arts Centre planned to award to those who had helped the central-city arts precinct after the 4 September earthquake.

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UC geologists in hunt for geothermal resources

An international research project spearheaded by the University of Canterbury is digging deep to find sources of renewable and sustainable energy.

The group, led by Dr Darren Gravley (Geological Sciences), aims to enhance techniques to explore the country's geothermal steam resources which can be used to drive turbines to generate electricity.

The five-year project is backed by Mighty River Power Ltd (MRP), which will finance 16 graduate students and a postdoctoral research fellow.

The team will investigate the Taupo Volcanic Zone using a "source to surface" approach to identify underground reservoirs heated by magma.

Gases released from magma can be measured in soils to help determine how much heat is rising to the surface. This helps locate reservoirs of heated water.

"Source to surface means we want to see the vertical distance from the heat source at depth through to where gases and hot water appear at the surface but we also want to look at areas where there is no obvious signature at the surface but there may be a reservoir at depth," Dr Gravley said.

"We're getting involved in exploring by using different field and laboratory techniques that measure the flux, chemistry and isotopic composition of fluids."

About 15 per cent of New Zealand's electricity is produced from geothermal energy but Dr Gravley hoped this research would provoke a significant increase.

"MRP has a goal of producing 1000 megawatts of power by 2020. To put that into context, until a couple years ago New Zealand had about 600 megawatts of installed geothermal capacity. With MRP's help we could be creating a couple of thousand megawatts of power from geothermal resources by 2020."

The team will work in conjunction with MRP geoscientists and national groups, such as GNS Science, with the intention of building a world-class knowledge and staff base in New Zealand. They will also collaborate internationally with the United States Geological Survey and the University of Washington, which are involved with similar studies.

"We and MRP are very keen on building human capacity in New Zealand and we're part of a whole group of researchers representing 'NZ Inc.' in geothermal.

"In the fifties and sixties New Zealand was at the top of geothermal research and development. There's now a big gap and we need to get some momentum because the time is nigh for geothermal. There's a lot of investment in it, particularly by the US government and this is setting a global trend."

Dr Darren Gravley.

Outreach programme inspires science teachers

The creator of "slowmation" was on campus recently to inspire science teachers from around the Canterbury region with his 21st century solution for engaging students in their learning.

Associate Professor Garry Hoban from the University of Wollongong, Australia, was one of the keynote speakers at this year's annual professional development day for Canterbury science teachers. More than 100 secondary science teachers attended the day organised by UC Science Outreach.

Professor Hoban shared with the attendees an approach he developed to teach science concepts called "slowmation", which is short for slow animation, whereby students design and make their own simplified stop-motion animations to explain a concept or tell a story. Taking digital still photos of manually moved models and playing them at two photos per second to produce a slow moving image, which can be enhanced with narration, text or music, the students devise their own unique representation of their learning and become more engaged in the learning process.

College of Science Outreach Coordinator Joan Gladwyn said the day-long event gave science heads from around the Canterbury region the opportunity to get together for professional development, networking and the sharing of ideas.

Associate Professor Garry Hoban demonstrates "slowmation".

Over the course of the day the science teachers participated in a range of workshops including how to make a slowmation animation with their students; a laboratory practical looking at the ways harakeke (NZ flax) can be used in a science lesson to explain concepts such as fibre extraction, tensile strength measurement and the science of Māori dyes; and a new approach to attract more senior students to participate in science fairs.

Mrs Gladwyn said she had received fantastic feedback from those attending the day about the two speakers: Professor Hoban, and Stephen Williams from Hutt Valley High School who talked about exploring the science already present in the culture of the learner.

"Typical feedback was that teachers saw slowmation as a useful hands-on tool that could be readily used by students and would lead to greater engagement and understanding of science concepts, and that Garry's talk was motivating, inspiring, but most of all relevant. Many commented that each of the talks had something that could be picked up and used immediately in their classrooms," Mrs Gladwyn said.

Scholarships

Jun Bouterey Ishido has been awarded the Anne Reid Memorial Trust Scholarship, valued at $20,000.

Other scholarship recipients are: **Aaron Staples**, Henry Vale Scholarship in Mechanical Engineering ($3500); and **Gary Vogel**, Joan Burns Memorial Scholarship in History (fees).

Rhodes Scholarship a dream come true for UC graduate

Photographer: Barry Durrant

UC graduate Ryan Manton (left) is one of three recipients of a Rhodes Scholarship. He is pictured with Vice-Chancellor Dr Rod Carr.

UC graduate Ryan Manton, who recently completed a Bachelor of Arts in classics with First Class Honours and a Bachelor of Laws with First Class Honours, has been awarded a prestigious Rhodes Scholarship.

Tenable at Oxford University, Rhodes Scholarships constitute the pinnacle of achievement for university graduates wishing to pursue postgraduate study at one of the world's leading universities. The scholarship covers fees at Oxford University and a living allowance of $25,000 a year for up to three years.

Ryan, one of three Rhodes Scholars for 2010, said it was very exciting.

"I am extremely pleased. It's always been a dream and not only because of the incomparably prestigious law programme, but the all-round Oxford experience, including the annual Oxford-Cambridge football match, cricket on Christ Church meadow and pheasant and trout in the banquet halls all stand out for me," he said.

At Oxford, Ryan will study towards a Bachelor of Civil Law (BCL) which is a one-year degree with four selected courses with lectures and tutorials. He will then do a one-year Master of Philosophy degree in law (MPhil) which is by thesis.

"I am particularly interested in both criminal law and international law, and where those two intersect," he said.

"The international framework for bringing to justice the world's worst criminals — the torturers, the war criminals, the genocidaires — as well as those criminals that transcend borders — the traffickers of people, drugs, diamonds etc — is still very underdeveloped, so I feel being involved in that area of the law allows me to be involved in something that will hopefully be taking great strides for the better in the next few decades."

Currently a judge's clerk at the Court of Appeal in Wellington, Ryan said that he has been able to get an insight into the many facets of law "more than I would have if I went into private practice straight away".

"One morning I might be working on a criminal file and then that afternoon I might have to work on a tax case."

Ryan chose law because it is very varied. "It affects just about everything. With so much variety it's difficult to get bored with the law — if you get sick of one area, you just go find another," he said.

His undergraduate law degree was coupled with a BA in classics and an honours year in ancient history.

"I've always been interested in the ancient world, its epic stories and its timeless characters. I had some superb lecturers and it's a bit of a shame really that I can't keep studying everything."

Travelling to England for the first time, Ryan was looking forward to making the most of Oxford. He planned to do plenty of travelling in the UK and Europe, though he knew that the workload for the degrees he would be taking was very high. "I imagine my time will pass me by all too quickly."

Born in Wellington, Ryan went to school at Christchurch Boys' High School and said that after studying at Canterbury he considered Christchurch home.

Ryan is passionate about writing and served as a member of the Editorial Board for the *New Zealand Law Students' Journal*. He is also a talented soccer player, having represented Canterbury under-18s and was selected in the Mainland Football National Youth League Team. He is also a keen runner and has competed in several half-marathons.

"I find keeping the body as well as the mind busy gives me a lot more energy. It's great to back up a long day in the library or office by running around on an already frosty football pitch on a freezing July night," he said.

College helps celebrate international children's convention

The College of Education joined with UNICEF NZ recently to host the 21st birthday celebrations of the United Nations Convention on the Rights of the Child (UNCROC).

Senior lecturer Colleen Lockie (Māori, Social and Cultural Studies) said that as UNICEF NZ, which celebrates the anniversary of UNCROC each year in a different NZ city, and UC wanted the 21st celebration to be one that as many children as possible could participate in, two forms of celebration were organised: birthday parties for children and resources for teachers.
She said the birthday parties took place on 19 and 20 November at 12 public libraries, the Christchurch Art Gallery and six Kidsfirst Kindergartens.

"At each event adults supported children to read and understand the book, *For Every Child: the United Nations Convention on the Rights of the Child in words and pictures*, illustrate their own personal copy, sing happy birthday to UNCROC and eat birthday cake. Over the two days, 400 children, 100 adults, 64 students and six organisations — UNICEF NZ, UC, Kidsfirst Kindergartens, Kiwanis, Rangi Ruru Early Childhood College and the Christchurch City Council — collaborated to make the parties a success."

Ms Lockie said the resources for teachers took the form of a special commemorative edition of the *For Every Child* book with illustrations, as well as a copy without illustrations which children could personalise over time.

Two hundred and forty Christchurch graduating early childhood students from UC, Rangi Ruru Early Childhood College and the New Zealand College of Early Childhood would also receive both a copy of the book with illustrations and a master copy of the version for children.

Ms Lockie said Kidsfirst Kindergartens would also distribute both versions to their 65 kindergartens.

Grant boosts study of South-Asian mathematical history

A University of Canterbury mathematician whose work also straddles the arts and sciences has received a major grant for her multidisciplinary research.

Dr Clemency Montelle (Mathematics and Statistics) has been awarded $276,000 by the Marsden Fund over the next three years. She will investigate Sanskrit computational tables from the period 900 to 1800AD to illuminate how they contributed to social and scientific development when Indian cultures first encountered the Islamic world and emergent Western societies.

The fund is regarded as a hallmark of research excellence and is administered by the Royal Society of New Zealand on behalf of the New Zealand government.

"I was overjoyed to get this grant. It is an acknowledgement of the relevance and importance of the discipline even in modern times and recognition of this particular aspect of the field being an innovative and dynamic avenue of inquiry," Dr Montelle said.

"Personally, it was a great boost of confidence and real incentive, particularly because the history of mathematics straddles at least two fields. This means generally you have to work twice as hard to satisfy two different research audiences so this recognition is a welcome and gratifying validation."

Although primarily a maths lecturer and mathematical historian, Dr Montelle has a double major in mathematics and classics, proficiency in ancient astronomy and considerable experience in the translation of ancient Greek, Latin, Arabic, Sanskrit and Akkadian texts; a rare depth of expertise in a field often overlooked.

"Mathematics is a discipline in which some of the greatest insights and developments have been made by practitioners studying the works of their predecessors. The relevance of the history of mathematics to mathematics itself is not just the ways in which it helps us understand our intellectual inheritance but it is also defining of it," she said.

Dr Montelle will be assisted in her research by Dr Kim Plofker of Union College, New York, a colleague for many years.

"Our collaborative arrangement is very much in the spirit of the fast-start grant, in which an emerging scholar is given support and resources to maintain an active and mutually supportive collaboration with a recognised senior scholar with international expertise. Professor Plofker is a leading scholar in the field and it is a wonderful opportunity for New Zealand's research environment to benefit from her presence and participation."

Dr Clemency Montelle.

The study is part of a growing body of research into South Asia studies, centred on the New Zealand South Asia Centre, a research group based at the University of Canterbury.

Preliminary results out from student earthquake response survey

The responses from a student survey on UC's response to the Canterbury earthquake will contribute to international hazards research, and help Canterbury and other universities improve disaster response.

More than 3500 students completed the survey in October, which was organised by the Natural Hazards Research Centre with the support of emergency response team members and student support staff. The information provided by the students will be used for research, to help improve responses to earthquakes and emergency preparedness, as well as give the University a better idea of how students experienced the earthquake and feel about the University's response.

An added incentive to participate in the survey was the lucky draw to win an Apple iPod Touch, which was won by engineering student Ciaran Byrne.

Student Support Advisor Dr Sarah Beaven said the responses were "insightful, courageous and honest, revealing what a truly awesome student community we have at this University".

"The ability of our students to cope and deal with a disaster has greatly exceeded all expectations."

The research team working on the survey results are busy analysing the data and will release findings in more detail at a later stage but have released some of the main findings.

The survey revealed that only 15 per cent of responding students had experienced a serious earthquake before the 4 September event, and most either stood in a doorway (32%) or stayed in bed (39%) during the initial earthquake.

Ninety-three per cent of those surveyed lived in accommodation that was undamaged or only slightly damaged, while approximately 500 left Christchurch to escape the aftershocks for a time.

On the subject of the University's response and emergency communications, 87 per cent said they had received news about UC by the end of 5 September, with the website used most often for earthquake news, followed by student email, Facebook and UC Live.

About 98 per cent said they found the UC updates and news after the earthquake useful or very useful. This was also reflected in the comments about what UC did well, with most survey respondents saying communication from the University was excellent. Ninety-six per cent said they would recommend the University of Canterbury to other students.

"These results are a tribute to a well prepared and very capable University emergency management and communications team," said Dr Tom Wilson from the Natural Hazards Research Centre.

Engineering student Ciaran Byrne (centre) receives his Apple iPod Touch from Dr Tom Wilson (Natural Hazards Research Centre) and Dr Sarah Beaven (Student Support).

For more results visit the UC Re-start website: www.canterbury.ac.nz/restart/survey_results.shtml.

Engineers build on knowledge gained from quake

Three months on from the Canterbury earthquake, UC engineering PhD student Patricio Quintana has completed a series of earthquake simulation tests that recreated in a UC laboratory what Mother Nature unleashed in the real world.

Patricio simulated a 7.1 magnitude earthquake, like that which hit the Canterbury region at 4.35am on Saturday 4 September this year, shaking a 40 per cent-scaled three-storey non-ductile pre-1970s reinforced concrete building.

Patricio's doctoral research is on the dynamic behaviour of seismically-retrofitted multi-storey reinforced concrete buildings. The Canterbury earthquake, however, offers an interesting opportunity to further the understanding of the seismic response of as-built reinforced concrete structures under different types of earthquakes and of the efficiency of alternative retrofit solutions to minimise earthquake damage.

The model building was built and tested on the shaking-table testing facility in the Department of Civil and Natural Resources Engineering's Structural Laboratory, under the supervision and assistance of technicians John Maley and Mosese Fifita. It was tested under a set of simulated earthquakes prior to the 4 September earthquake, but the model sustained further damage during the Canterbury earthquakes and numerous aftershocks.

With the assistance of a specialist concrete-repair company, the model building was repaired for a follow-up series of tests using the earthquake motions recorded during the 4 September Canterbury and the 27 February 2010 magnitude 8.8 Maule, Chile, earthquakes.

Associate Professor Stefano Pampanin (Civil and Natural Resources Engineering), Patricio's primary supervisor, said the opportunity to simulate the Canterbury earthquake on the available model building "confirms our belief that the characteristics of the ground motions play a significant role in the damage response of these buildings".

Photo supplied.

Technician Mosese Fifita (left) and PhD student Patricio Quintana.

The tests simulated the low-to-moderate earthquake damage done to reinforced concrete buildings observed in the Canterbury earthquake. With the possibility of reproducing further and larger earthquakes, the final tests with the Maule earthquake input have simulated an extreme event that could occur with the rupture of the Alpine fault.

The observed severe to near-collapse damage in the final test was a clear reminder to engineers and society of the need to seismically upgrade buildings built prior to the introduction of modern seismic codes.

"It is not always that a researcher has the opportunity to have a 'real-life' testing from Mother Nature, and then, the chance to repeat the experiments," Professor Pampanin said.

Patricio said that after performing the series of tests related to earthquakes with different characteristics, shaking intensities and earthquake magnitudes, it seemed clearer to him that "common earthquake 'demand' parameters such as the Mw magnitude are just part of the picture".

"Earthquake shaking is a very complex physical phenomenon and the earthquake responses of buildings are even more complicated. That's why we need more research despite the significant advancement in seismic engineering in the past decades," Patricio said.

The large-scale experiment was carried out as a part of the six-year (2005-2010) $3 million Foundation for Research, Science and Technology-funded project "Seismic Retrofit Solutions for NZ Multi-storey Buildings". Professor Pampanin is the University of Canterbury Principal Investigator for this collaborative research project running with the University of Auckland. More information of the project is available at www.retrofitsolutions.org.nz.

In addition to Professor Pampanin, Patricio's PhD research is supervised by Professor Athol Carr (Civil and Natural Resources Engineering) and Professor Patricio Bonelli (USM, Chile).

Graduation shuttle

15 and 17 December

Avoid parking hassles by taking advantage of the free graduation shuttle service running between the University, Arts Centre and Town Hall. Departs from the Fine Arts car park and returns from the Town Hall. Staff, graduands, friends and family are all welcome to use this service.

For more details see www.canterbury.ac.nz/graduation/shuttle.shtml or contact the Graduation Office (graduation@canterbury.ac.nz or phone 364 2987 ext 4112).

Scholarship helps geographer pursue his dream

UC master's student Tristan Shepherd has been awarded an AMP National Scholarship for 2010 to follow his dream of finding a way to mitigate the effects of climate change.

From an application pool of more than 2500 New Zealanders, Tristan was one of just 11 national winners of the scholarships designed to help Kiwis do great things in their respective fields.

Tristan, who has been a teaching fellow in the Geography Department for the past three years, gained an MSc with distinction in 2007 for his research into tropical cyclones in Bangladesh.

Earlier this year Tristan was awarded a full tuition fees scholarship to complete a doctoral degree at the University of Manchester, in the School of Earth, Atmospheric and Environmental Sciences and the $15,000 AMP scholarship, which he received at an awards ceremony at the Auckland Museum on 15 October, will further set him up on his way to turning his academic aspirations into reality.

Photo supplied by AMP New Zealand.

Tristan Shepherd (centre) receives his AMP National Scholarship from Finance Minister Bill English (left) and Managing Director of AMP Financial Services NZ Jack Regan.

Tristan's proposed research will employ complex numerical models to study the processes initiating, and operating within, convective clouds. His research has the potential to revolutionise common theories of cloud development, with significant implications for severe weather forecasting and water resource planning for regions adversely affected by climate change.

Ultimately Tristan would like to find a solution to maintaining a high growth, but sustainable economy with a low carbon output from production.

Power quality issues outlined during MEM presentations

Poor power quality could be costing the New Zealand economy millions of dollars each year but a University of Canterbury student's research may help find possible solutions to the problem.

Master of Engineering Management (MEM) student Ryan Taylor has been working on a project looking at the economic impact of power quality issues in New Zealand's electricity network.

Ryan, who presented an update on his research during the MEM 2010 Annual Progress Presentations to Industry event at the Millennium Hotel on 26 November, said there were three main power quality issues affecting users: power outages, voltage dips and harmonics. All three could have financial implications for businesses in terms of production and equipment.

"Production costs could range from damaged raw materials affected by interrupted processing, product quality and idle staff while equipment costs could stem from damaged equipment, a reduction in the useable life of equipment and maintenance costs."

The project is sponsored by the Electric Power Engineering Centre (EPECentre) within the University's Department of Electrical and Computer Engineering and is funded by the electricity industry through the Electricity Engineers' Association and the Foundation for Research Science and Technology.

Ryan said he had been gathering information from case studies provided by Orion to gauge how end users were being affected by power quality and what issues they were experiencing with electricity supply.

"From the information I'm gathering I hope to be able to quantify the cost of power quality to the New Zealand economy. This will inform decisions on priority fixes and allow a cost-benefit analysis of possible solutions."

He said solutions to power quality issues were currently being investigated by the EPECentre.

EPECentre Manager Joseph Lawrence said Ryan's project was of incredible value to the industry "as it adds an economic dimension to the technical solutions being researched by us and will be incorporated into the power quality guidelines being developed through our project for uptake by the electricity industry".

Having done the MEM himself, Mr Lawrence said he had a firm belief in the value of what a MEM could add. Mr Lawrence's MEM research in 2002 was to write the strategic business plan to establish the EPECentre at the University, which is New Zealand's Centre of Excellence for Electric Power Engineering, with 35 industry partners and a network of more than 700 international and national participants.

UC MEM student George Lilley (right) is presented with the MEM of the Year trophy by Alan Thomas from ProDirections.

Ryan's project was one of 19 presented during the MEM 2010 Annual Progress Presentations to Industry event. The one-year MEM course, which can take up to 25 students each year, aims to give engineering graduates an insight into the business world, provide them with management knowledge and social and networking skills to make them better prepared as future professional engineers. As part of the course, students undertake industry-sponsored projects where they use their skills to tackle real-life issues.

Other topics presented on during the event included a study of re-mining a section of Huntly East Coal Mine, an investigation into the operations of an educational training centre in China, analysis of a courier franchise to determine the most effective sales strategy, and the development of a risk management plan for WindFlow Technology's partnership with UK-based wind turbine distributor, Ventus Green Energy Ltd.

Six of the 19 projects this year were sponsored by overseas companies, which Engineering Management Director Piet Beukman said represented a significant shift towards the course becoming a more international programme.

New Student Services Centre opened

Reverend Wharekawa Kaa (pictured front) officiates at the blessing and opening ceremony of the new Student Services Centre last week.

Student Services staff, which included Pro-Vice-Chancellor (Student Services and International) Professor Nello Angerilli, and guests followed Reverend Kaa as he moved through the two levels of the building, formerly the Physical Sciences Library, blessing the new work spaces. Also leading elements of the ceremony were Professor of Māori Research Angus Macfarlane and Duane Culshaw (Aotahi: Māori and Indigenous Studies).

UC Vice-Chancellor Dr Rod Carr spoke following the blessing, acknowledging the "enormous amount of disruption, reorganisation and reconfiguration of work groups" who had come to work in the newly refurbished building and thanking all the student services staff for their "special contribution" to helping facilitate change while still getting on with "business as usual".

Honours for teaching trio

The College of Business and Economics will present three College Teaching Awards during its second annual celebration of research, development, innovation and creativity in teaching and learning.

The awards will be presented on 15 December to Steve Agnew (Economics and Finance), Trevor Nesbit (Accounting and Information Systems) and Russell Wordsworth (Management).

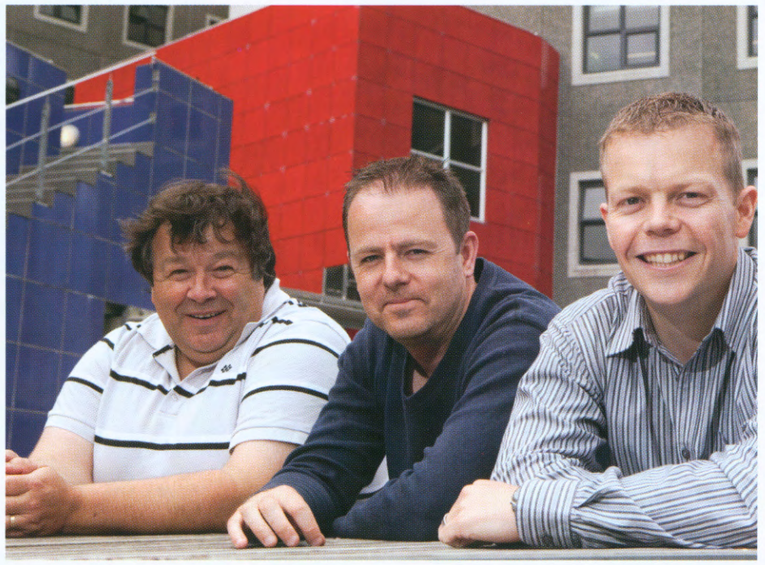
The recipients said they felt honoured to have been nominated. Mr Wordsworth summed up the sentiments of the trio saying he "did not expect to receive the award given the excellent and innovative teaching by colleagues throughout the College".

"My motivation for teaching comes from my students. Awards such as the College Teaching Award serve as a welcome reminder that I am at least on the right track."

Of the numerous qualities identified in each recipient's nomination, a common theme was genuine accessibility. All three teach in first and second-year courses where large class sizes can easily result in students feeling estranged from their courses and lecturers.

In addition to office hours, each recipient has worked to encourage student engagement through the use of technologies such as email, mobile phones and e-learning programmes.

Mr Nesbit has successfully used short-message-services (SMS) to allow students to ask him questions and seek student feedback during lectures.



College of Business and Economics Teaching Award recipients (from left) Trevor Nesbit, Steve Agnew and Russell Wordsworth.

"A much larger number of students have utilised this channel for asking questions than would ask verbally," he said.

At the 2010 Computing and Information Technology Research and Education New Zealand conference, Mr Nesbit and colleague Angela Martin presented their work on mobile technology and student engagement, winning the Alison Young Cup for Best Paper.

Mr Agnew said he aimed to "provide quality delivery of a course that extends able students, but does not sacrifice academic achievement of average students in the process".

"Every lecture or office hour conversation I try to stimulate a genuine interest in the subject of economics and an interest in simply learning."

Teaching Award recipients will share their experiences and reflections at the 15 December ceremony.

Averlea Burgess

Earthquake experiences to be captured for future generations

Argene Montgomery-Honger (right), a Psychology master's student, has embarked on a large project to gather experiences of the 4 September earthquake to preserve for 50 years in a time capsule.

She has invited anyone in Canterbury to record their experiences, their vision and hopes for the future to post in a "chimney" made for the project. The time capsule will be opened in 2060.

"Everyone has something to say, we all have a different experience and way of dealing with what happened and I thought 'what if we captured those experiences and looked back on them in 50 years time?'" said Argene.

Nearing the end of her master's study, Argene said that she had enjoyed doing something quite different from her thesis. She is writing her thesis on parents' experiences of having a baby in the Neonatal Intensive Care Unit in Christchurch Women's Hospital.

People have a year to post their earthquake stories, with the time capsule being sealed on 4 September 2011.

"We'd expect that as the year goes on we will capture a different perspective and experience of the time than what people experienced immediately after the earthquake," she said.

Argene said the submissions so far had been incredibly interesting, including letters, photos, poems and lyrics. A copy of the earthquake edition of the *Chronicle* had also been included.

"We have had a great response. We have had letters from the Prime Minister John Key, Christchurch Mayor Bob Parker and Civil Defence heads Michael Aitkin and Murray Sinclair. UC's Dr Mark Quigley and the Vice-Chancellor have also contributed."

Argene and her team of volunteers will also be contacting schools for children to write about their experiences and hopes for the future.

"It will be so exciting to see the capsule opened in 50 years. Just think 5-year-olds who write their story will be 55 years old then. Imagine looking back and seeing what we wrote back in 2010."

Letters about experiences of the quake and hopes for the future can be sent to canterburytimecapsule@gmail.com.

Canine intelligence not dependent on size

Discussing canine intelligence are Dr William Helton and Nui, a Sydney Silky Foxy cross.

In the canine world, size really doesn't matter, at least in terms of intelligence, according to Dr William Helton of UC's psychology department.

His study on dog intelligence has received international attention since its publication in *Behavioural Processes*, a scientific journal dedicated to understanding animal behaviour.

While it may seem incongruous for a psychologist specialising in ergonomics, the study of work and workers, to analyse dog behaviour, Dr Helton hoped his research would enhance the understanding of how humans and dogs work together, enabling dogs to make a bigger contribution to people's lives.

To test whether larger dogs were better able to discern human pointing cues, an experiment was undertaken involving 104 dogs — 61 large (heavier than 22.7kg) and 43 small dogs (lighter than 22.7kg).

The dogs were trained to retrieve food from a bowl. Then, as they were held by their owners, another bowl was placed alongside the first. A visual cue was given toward a certain bowl and the dog was released. The test was repeated 20 times for each dog.

Dr Helton discovered larger dogs chose correctly more often than smaller dogs.

This supported the general perception that larger dogs seemed more intelligent as they were generally more trainable, however Dr Helton believed physical attributes, rather than a bigger brain, were the deciding factors.

"There is a lot of mythology regarding differences amongst dog breeds and dogs generally. Our research would suggest that medium-sized dogs are perceived to be the most intelligent generally. This is probably because they are the easiest to train physically.

"Really small dogs are hard to train, really big dogs are hard to handle, hence medium dogs, the 'Goldilocks' dogs, are seen as being the most intelligent."

Dr Helton suggested that increased depth perception stemming from the eyes being spaced wider apart may be an important factor. This may improve the way they saw and followed human cues.

"If the two eyes are spaced apart they provide slightly different information about what you are looking at, as the two eyes get closer together the advantage starts to disappear. At the very limit, they eventually become one eye.

"So far, I'm not convinced that dog breeds do differ in actual intelligence in terms of problem-solving capacity and learning rates. They do differ in shape, and shape makes a difference for many physical capacities and abilities."