University of Otago MAGAZINE

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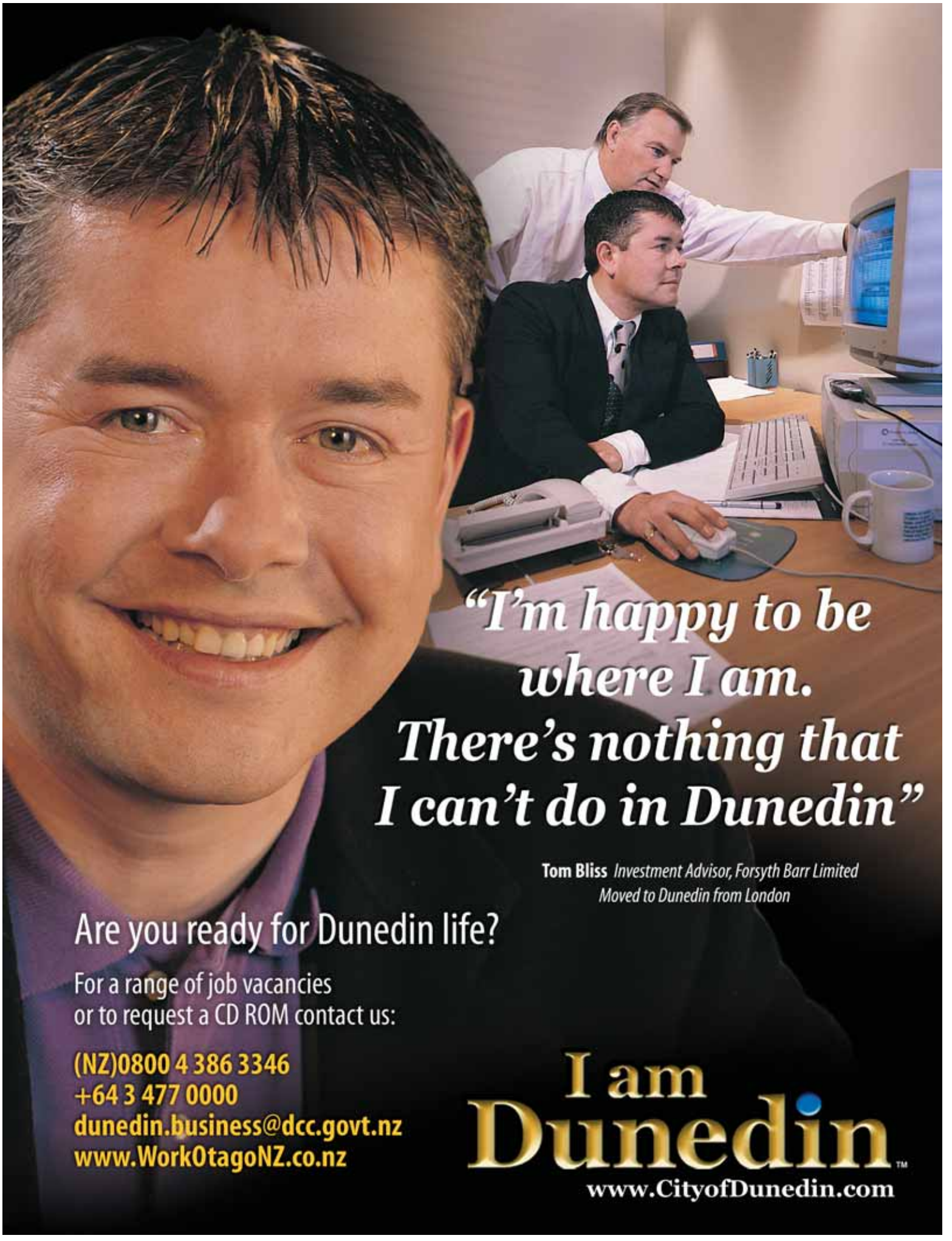
PARTY AT THE CASTLE FLAT

UNIVERSITY of OTAGO
SAPERE AUDE
Te Whare Wānanga o Otāgo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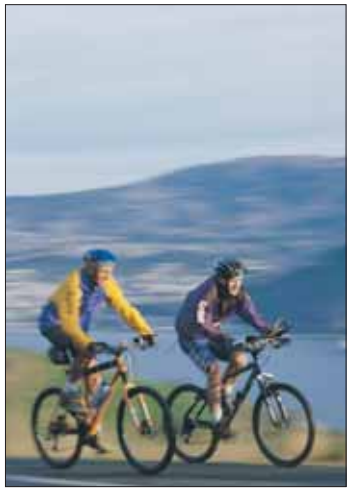

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magazine
A magazine for alumni and friends of the University of Otago

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VC's COMMENT

One of the University's most important group of stakeholders is its own graduates and other alumni members. Indeed, the importance of graduates to our University is recognised by Government, ensuring by legislation, that there is substantial Court of Convocation representation on Council.

Most universities have the greatest proportion of their graduates and alumni living close by. However, the majority of Otago students come from outside Dunedin and when they graduate, diversify throughout New Zealand and the world to pursue their careers. I believe this helps to build a special bond among our graduates and is why we attract so many to our functions in New Zealand and throughout the world.

Such functions do not happen by chance – indeed an enormous amount of time and effort has to be put into organising them. Earlier this year Council decided it was appropriate to recognise outstanding alumni service with the award of a University of Otago Medal. The objective is very simple, to recognise outstanding service given voluntarily by graduates and alumni, over an extensive period of time in one or more of the following:

- helping Otago develop and maintain links with alumni and friends of the University;
- promoting the University to potential students and their families;
- providing support for Otago students and graduates who have been selected to undertake further study and/or employment in another country.

Council resolved that the Awards be restricted in number and given only where there is clear evidence of outstanding service. A Medal will be struck and the recipient will receive it together with an appropriate scroll in recognition of his/her service.

Recently Council resolved that the Inaugural Medal be awarded to John Zinzan. The Chancellor and I were both delighted that we were able to be present in London to share this occasion with John. It is recognition from the University which is richly deserved.

Dr Graeme Fogelberg
Vice-Chancellor – University of Otago

OTAGO MEDAL AWARDED TO LONDON ALUMNUS

The University's inaugural Otago Medal for Outstanding Alumni Service has been awarded to London alumnus John Zinzan (BDS 1969). The medal was presented by Chancellor Eion Edgar and Vice-Chancellor Dr Graeme Fogelberg at a festive reception at New Zealand House in London on 26 August. There to share the moment with John were family, friends and many of the alumni he has had close connections with over the years.

John, a practising dentist in London for 30 years, arranged the first alumni function in the United Kingdom for the University. In 1990, after an approach by the University, he sent invitations to more than 700 graduates in the UK with the help of his staff and his Samsung 20mhz laptop which had on it the University's DOS database of graduates living in the UK.

"I was asked to organise the event but at the time had no idea what this was going to involve," John said.

"The list of graduates was much greater than anticipated, but it was fascinating to discover the diversity of the careers of these people who were of all ages. Most were delighted to have an opportunity to recognise their old University and meet up with other graduates to share experiences and reminisce on life at Otago."

His invitations also encouraged graduates to keep in contact and, from this beginning, an up-to-date alumni database was rigorously maintained and developed by him for the next ten years. After the first function, a small London-based graduate committee was set up, but it was John who continued to organise regular Otago functions at New Zealand House and keep in touch with the growing list of alumni in the UK. The University's Alumni Office in Dunedin now looks after the UK database.

Photo: Anthony Epes

Vice-Chancellor Dr Graeme Fogelberg (left) and Chancellor Eion Edgar (centre) congratulate John Zinzan after the presentation of the Otago Medal at New Zealand House in London on 26 August.

IN**BRIEF**

COOL ICE

Platelet ice can form on objects that have been dangling in water tens of metres below the sea ice. This rope was supporting oceanographic instrumentation and the attached platelets were brought to the surface when the instrument was retrieved.

The formation of a special leaf-like form of ice, first measured by Scott's expedition in 1910-1913, is still largely a mystery. Its presence is one of the main areas of investigation for Physics Senior Lecturer Dr Pat Langhorne, and Wellington scientist Dr Tim Haskell's research team wintering over in Antarctica.

This platelet ice, its crystals up to the size of a hand, appears in water beneath the sea ice of McMurdo Sound and other regions of Antarctica and is related to flows of fresher water from beneath the ice shelves. The team is busy taking temperature and salinity measurements in a layer of supercooled water below the sea ice/water interface where the platelet ice is growing, in an attempt to understand exactly what triggers its formation.

"We're keen to find out what it is that flicks the switch from columnar ice to platelet ice forming. We know that columnar ice forms in temperatures near freezing point, and it appears that the water has to drop below freezing for platelet ice to form," says Langhorne.

"We're only talking a matter of 0.01 degrees here, but it may be enough to make the switch from one type to the other," she says.

The sea ice didn't break up as it usually does in summer, but was there when the team arrived in February. Langhorne believes the formation of an iceberg "about the size of Jamaica" from the Ross Ice Shelf in March 2000 may have something to do with it. This iceberg has moved to within 75 km of McMurdo Sound and will be interfering with the currents in the ocean.

SHARING RESEARCH FINDINGS WITH THE BUSINESS COMMUNITY

"If you want to be successful internationally, you can be," says Professor Vivienne Shaw.

The University's marketing academics are leading the way in connecting with industry. Marketing Professor Vivienne Shaw is sharing some of her department's recent findings with business professionals and policy makers in seminars in Auckland and Wellington.

"We're giving feedback to the firms that took part in our research and the wider business community," says Shaw. "It's a good way of maintaining our links with the practising business world."

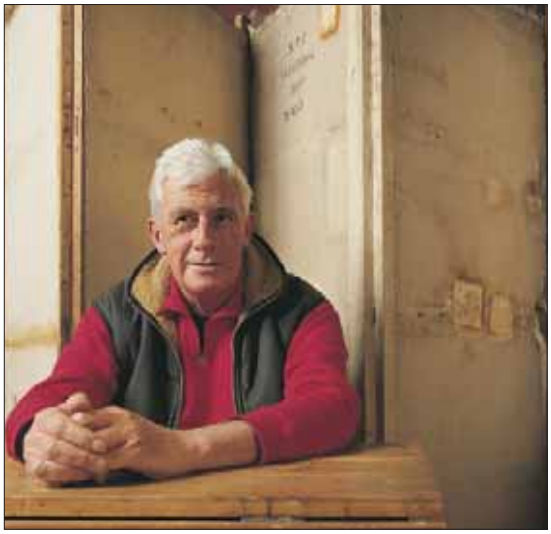
Shaw's research, funded by the New Zealand Trade Development Board, investigated how many service companies were involved in international business, and how competitive they were. She found their returns were proportional to the effort they put into securing overseas contracts.

"A lot of what we've found is common sense," she says, "but if it's so obvious, why aren't people doing it?" Shaw's team found several New Zealand companies simply didn't want to look for work offshore, or said they were too small to take it on.

"Some were just lifestylers, not interested in expanding, and some used their size as an excuse. But in this case size really doesn't matter. There are enough small companies being successful to show that. If you want to be successful internationally, you can be."

The seminars were Shaw's second feedback tour. The first was a report road trip around the country for business people interested in the latest research findings. "They really appreciated that we had made the effort to go out there to share our research with them."

LUXURIATING IN MOZART FELLOWSHIP



Mozart Fellow Noel Sanders: Walking the dog and reading are the only distractions from composing at Otago.

Track Mozart Fellow Noel Sanders through his teenage years and it's clear that destiny already has him well in hand.

At 12, he is a regular in the "cold as charity WEA rooms" listening to live music by local classical musicians. Soon after, he is often found in the Auckland Public Library, absorbed by written music scores which he hears played out in his imagination.

It is not a great leap, when at 15, he begins to write his own compositions –"not worth a pinch of you-know-what" – but his first foray into a passion which has shaped his life.

The composer, who learnt piano for just three years in boyhood, now has 55 completed works to his credit – about a quarter of which have been performed. The remainder, alive in his bottom drawer, resonate in the sounding chamber of his mind, but have never been heard.

"I'm technologically backward. I have no computer (to score and play compositions) and I'm not tempted." Instead, Sanders plies his pen to pristine sheets of paper like art on a canvas, and relies on his symphonic internal capacity to "hear" his finished works, primarily orchestral pieces and art songs.

Sanders speaks of "getting worse" to describe his increasingly prolific output and welcomes performance opportunities afforded by the scholarship. At home in New South Wales, he would compose for five hours after working a full day as a university lecturer. Now, as full-time Fellow, walking the dog and reading are the only distractions to composition. "It's a luxury. I'm very thankful."

TISSUE BANK VALUABLE ASSET

Helen Morrin freezing a sample ready for the Christchurch School of Medicine and Health Sciences Tissue Bank.

Over the last decade the Christchurch School of Medicine and Health Sciences has built up one of the largest and most comprehensive tissue banks in the country. The collection of over 1300 samples of tissue from 18 different tumour types is a unique resource for scientists and clinicians engaged in medical research at the University of Otago.

"The major advantage for our research groups is that they have immediate access to a wide range of frozen tissues for research purposes," explains curator Helen Morrin.

"Without the bank, researchers might otherwise have to wait two years or more to obtain sufficient numbers of prospectively consented tumour samples. For instance, we have over 267 different samples from bowel cancer tumours, which can be immediately matched to patient clinico-pathological data and blood samples on our confidential database."

The fingernail-sized samples are collected from patients following a rigorous consent process.

"Most people are happy to co-operate as we have fully explained what it all means and it is clear that it might help not only immediate family members, but also others with a similar condition," says Morrin. "Gifting does not affect their surgery or future treatment and patients can withdraw at any time."

Currently five research groups are uplifting cancer tissues from the Christchurch Tissue Bank for varied projects. Breast, bowel, kidney and endometrial cancers are being used for angiogenesis research, genetic profiling, gene expression, screening of prognostic markers and an innovative vaccine development. The international reputation of these University of Otago research groups is supported and enhanced by the quality and integrity of these valuable banked tissues.

IN**BRIEF**

FIBRINOGEN PUZZLES

Amy Dear: unravelling the mysteries of genetic mutations in the blood protein fibrinogen.

The blood protein fibrinogen is a puzzle. It is vital for the coagulation of our blood and too little of it can have serious consequences, particularly if someone is facing an operation. But it can also cause cirrhosis of the liver if the genes controlling its manufacture have certain abnormalities.

Christchurch School of Medicine and Health Sciences PhD student, and Top Achiever Doctoral Scholarship holder, Amy Dear, is in the midst of her first big scientific challenge. She is trying to unravel the mysteries of genetic mutations in fibrinogen to better understand why some individuals' blood does not clot, and how fibrinogen can cause liver disease.

"We know that mutations within the three fibrinogen genes can result in defective fibrinogen synthesis, and some also cause liver disease. These health conditions run in families," she says.

"What I am trying to uncover is the mechanism by which these genetic mutations cause liver disease and determine if there are other gene variants that may result in fibrinogen not working as a clotting agent in the blood."

Dear is investigating how particular mutations cause the damaging accumulation of fibrinogen in the liver She is cultivating the mutated fibrinogen in yeast cells to investigate what actually triggers fibrinogen accumulation, trapping the protein in the liver rather than allowing it to move out into the blood stream.

"I am looking at what yeast does with the mutant proteins, and whether there are any changes in the structure or function of the proteins in yeast cultures. Hopefully I will be able to relate this information to the accumulation of fibrinogen seen in humans."

BRASCH PAPERS LURE BURNS FELLOW

Photo: Neil Pardington

Dr Sarah Quigley: Charles Brasch's papers are an untested treasure.

The Hocken beckoned across the globe to Robert Burns Fellow Dr Sarah Quigley, who aimed her tilt at the tenure to coincide with the lifting of a 30-year embargo on the papers of Charles Brasch.

As spring begins to stretch the days, she expects to be cloistered in the historical research library shuffling through the papers of the influential poet and editor.

It is not without irony, then, that it was Brasch's poetic portraiture of the outdoors which attracted the novelist and poet to the subject of her first biography. "He seemed to be one of the first New Zealand poets to capture our landscape in poetry, rather than looking back to the English Georgians for a poetic model," she explains.

Dr Quigley, who has taken up the second half of a fellowship split with poet Nick Ascroft, decided to stay in the German city after winning the Inaugural Creative NZ Berlin Writer's Fellowship in 2000-2001. However, the attractions of a humming European cultural centre were not enough to keep her from the archive which she hopes will help complete research on Brasch she started as a PhD student at Oxford University.

"He was in Oxford in the late 1920s so it was a good place to carry out research." Dunedin-born Brasch returned home in 1946 and remained there until his death in 1973. His papers are an untested treasure.

"I'm not sure how much I'll get done during the tenure until I've looked at how much material is in the archives," Quigley says.

TO THE RESCUE

Almost ready to fly – Simon McCallum with Computer Science's aeroplane.

An unpiloted aeroplane able to locate and photograph disaster sites, perhaps even crash-land at sea with a flotation device and two-way radio on board, is being developed in the Computer Science Department and could well be flying test runs by the time this magazine is out.

If the test flights are successful, the aeroplane looks set to revolutionise search and rescue operations in New Zealand. With a price tag of around $3,000 per plane, every search and rescue team around the country can feasibly afford one. A two-stroke aviation-fuel engine powers the 1.7m wingspan plane and the running costs are only around $10 per hour, comparing favourably to the thousands of dollars it costs to put a helicopter in the air.

Lecturer in the department and one of the supervisors, Simon McCallum, says the applications are endless. "The plane can fly at 300 to 400 feet and can go as far as 100 kilometres," he says. "With a full computer on board, it achieves a level of complexity not yet seen in this country. And with the addition of a camera, it will become an intelligent eye in the sky," he says. Taking magnetometer readings of the earth's crust to locate oil deposits, aerial surveying of farmland and forestry to record growth rates and the health of trees are just some of the many tasks this intelligent aeroplane will be able to perform.

WEB SURVIVORS CUSTOMER SAVVY

Dr Ken Deans (left) and Phil Osborne say strategic focus is vital for firms on the web.

Over the last five years Dr Ken Deans of the Marketing Department has seen major changes in the ways firms make their mark on the web.

He is researching how New Zealand firms use the Internet and comparing the results with co-researchers in Australia and the UK. Recently he and Phil Osborne, also from the Marketing Department, have looked at web use by the tourism and service industries.

"Successful companies understand their customers and what they need and communicate with them effectively in ways suited to the market for their particular product," says Deans.

"They've worked out their customer base and looked at such things as the cost of setting up and maintaining a site and integrated it with everything else they are doing. They build their websites into an overall plan."

This kind of strategic focus is vital, says Deans, and is now much more in evidence than it was in his early studies.

"In 1998 there was an impulse reaction to get onto the Internet. Companies did it just because they could. They thought it was sexy to have a web address."

Deans reckons websites have gone through the early goldrush days, when anything went, progressed through the inevitable shakeout when companies fell by the wayside, and have now reached a period where common sense prevails.

"It's really no different from many other new technologies where we've seen this kind of thing happening," says Deans. "In our collective naivety we over-valued dot.coms and backed them in some sort of e-race. This has largely stopped. Smart companies have worked out what's right for their customers and what's right for them."

IN**BRIEF**

KID SPACE

(From left) Ruth Johnston, Dr Claire Freeman and Nicola Atwool are asking the question: Do young people influence planning?

Every town and city has them – areas for children to play in and be, well, just be kids. However, as planner Dr Claire Freeman points out, children and young people inhabit much more than playgrounds and skateboard parks.

Her research, with team members planning student Ruth Johnston, Nicola Atwool of Community and Family Studies and Elizabeth Aitken from the Auckland University Planning Department, is looking into how children and young people's views and needs can be taken into account in planning physical environments – everything from housing subdivisions to roads.

"There are many ways young people participate in local government, through youth forums, info days, surveys, but do they actually influence local authorities when it comes to planning on a day-to-day basis?"

Freeman's interest in the subject comes from her days as a planner in the UK in the 1990s where her interest was in open space and its loss to development. "I used to think how does what we build and where we build it affect the places children and young people use?"

The current research has been twofold, firstly surveying planners throughout New Zealand about how they deal with children and young people's needs and secondly looking at local bodies which are successfully incorporating these needs and views into their planning.

"The response so far has been great. Planners are really keen to take children and young people's needs into account and want guidelines on how to do it."

The team's findings will be released at the end of the year through the New Zealand Planning Institute.

MOBILITY AFTER STROKE

Sue Lord explains the skills needed to walk in hospital corridors are quite unlike those needed for busy streets, especially for someone recovering from a stroke.

What happens to people following a stroke, as they make efforts to become re-involved in their communities?

Sue Lord, from the Wellington School of Medicine and Health Sciences' Rehabilitation Teaching and Research Unit, is studying this issue, and has come up with interesting findings with implications for rehabilitation programmes for people following stroke.

Lord found that about a third of people living at home who were discharged from hospital and rehabilitation services with reasonable mobility were not getting out and about on their own in the community.

The study found some participants lacked the confidence to walk on their own outside and in shopping centres, some had lost their driver's licence and were unwilling to use public transport. Others had to rely on family members for assistance to take them out.

Lord says the skills required for community mobility such as walking on uneven surfaces, negotiating crowds and accessing buildings are different to those usually practised in a predictable hospital environment. Rehabilitation that concentrates on preparing people for this challenging task by practising the skills in the community itself may be more successful, she says.

This idea is going to be tested in the second phase of Lord's PhD study, which compares rehabilitation based out in the community with out-patient physiotherapy-based programmes carried out in the hospital.

Lord is the recipient of an Otago University Fanny Evans Scholarship and the research is also funded by the New Zealand Society of Physiotherapists and Lotteries Health.

NEW TEST METHODS FOR GARMENTS

Dr Cheryl Wilson (left), Associate Professor Raechel Laing (front) and Dr Debra Carr from the Department of Clothing and Textile Sciences taking another look at merino wool.

A team from the Department of Clothing and Textile Sciences is hoping to make experiencing the great outdoors just that little bit more comfortable.

Associate Professor Raechel Laing, Dr Cheryl Wilson, and Dr Debra Carr are researching the further development of merino wool-based fabrics and garments for those who work and play outdoors. And in order to study various materials and finishes, they will have to develop several new laboratory-testing methods.

The two-and-a-half-year project also involves the New Zealand Merino Company Ltd in Christchurch and Designer Textiles Ltd in Auckland. Funding comes from the two firms and Technology New Zealand (Foundation for Research Science and Technology).

Laing says the project will begin by examining the end-use of garments rather than what a particular fibre may provide. The team will study demands on garments and combinations of garments, where previous testing focused only on individual fabrics or fibres.

"There's no standard laboratory test method," says Laing. "Where a method does exist, typically it relates to new fabrics and a single layer, and thus may not be a satisfactory representation of actual performance.

"We expect to examine several new fabric structures, finishes, and some different blends. Besides the use of merino wool, the inclusion of other fibres will depend on the application.

"One of the critical aspects of the work is to optimise the various performance properties, given that it is not possible to maximise all of them."

SCHOOL OF BUSINESS RELEASES DRAGON

Dr Malcolm Cone on the Upper Yangtze River, Yunnan Province, China.

An innovative DVD teaching tool recently produced by the School of Business is shedding new light on China's burgeoning small-business sector.

The DVD, *Releasing the Dragon*, became a reality after Management's Dr Malcolm Cone gained unprecedented permission from Communist Party officials to enter workplaces and film interviews with company managers in China's rural Hubei province.

Releasing the Dragon contains four case studies of small-to-medium enterprises, a sector that now accounts for half of China's massive GDP and is the major driver behind the country's emergence as the economic power of the 21st century.

Armed with two digital cameras, remote mikes and an interpreter, Cone says he and his fellow researchers were "warmly welcomed into the workplaces by managers who were keen to share the stories of how they're attempting to grow their enterprises in a challenging environment".

Drawing on over 80 hours of interviews, the case studies illuminate how the businesses are coping with the challenges of market liberalisation, China's entry into the WTO, motivating staff and operating in overseas markets.

Management Department Head Associate Professor Graham Elkin says the DVD is part of a valuable long-term collaborative project with researchers at Huazhong University in Wuhan, and marks a "significant milestone in the internationalisation of both the Department's and School's teaching and research".

Dr Cone has two further films in the pipeline; one nearly completed which investigates the social and economic status of minorities in China, and another that examines Chinese efforts to manage the natural environment.

FEATURE

the global weather report

Photo: Alan Dove

GLOBAL WARMING IS A FACT. TEMPERATURES ACROSS THE GLOBE, ON AVERAGE, ARE GETTING WARMER, AND GLOBAL CLIMATE MODELS PREDICT A CONTINUING RISE. AN IMPORTANT FACTOR IN THE CHANGE IS THE HUGE INCREASE IN POPULATION IN THE LAST 200 YEARS. AFTER A LONG PERIOD OF REASONABLE STABILITY, THE POPULATION HAS RISEN FROM LESS THAN ONE BILLION TO MORE THAN SIX BILLION.

THE ENORMOUS IMPACT WE'VE HAD IN THOSE TWO CENTURIES IS EPITOMISED BY AN EXPONENTIAL GROWTH IN FOSSIL-FUEL EMISSIONS AND THE ASSOCIATED INCREASED CONCENTRATION OF CARBON DIOXIDE TRAPPED IN THE ATMOSPHERE.

Across the spectrum of research, the University of Otago is actively contributing to fully understanding the processes involved with global change, both past and present – the first step in evaluating the likely impact and developing strategies to mitigate the effects.

THE EFFECT ON THE GLOBAL CRYOSPHERE – OR THE earth's snow and ice – is Geography Department's Professor Blair Fitzharris' area of interest and he heads one of the research teams of the Intergovernmental Panel in Climate Change (IPCC), set up to provide definitive advice on climate change. Sea ice, ice shelves, ice sheets, seasonal snow and permafrost in both the Arctic and Antarctic regions are all under scrutiny. Already there has been spectacular break-up of ice shelves on part of the Antarctic peninsula.

"Ice sheets will continue to grow because, even with global warming, there will be an increase in snowfall. But warming will eventually threaten the stability of the West Antarctic ice sheet." Any sudden collapse would see the sea level rise by several metres, he says – but "it would take centuries to occur".

In the Southern Ocean, the formation of sea ice every year causes salty water to be expelled and sink deep into the ocean. This process is what drives the ocean's conveyer belt - or thermohaline circulation – and in turn, is an important climate regulator. "With less sea ice forming in the future, the whole circulation system will be weakened and the impact will be felt right across the globe," says Fitzharris.

As well as the effect on climate, the marine food chain itself is under threat. "There is a huge biological flourishing that takes place in the Southern Ocean in spring, as the sea ice breaks up, and the nutrients accumulated during winter are flushed into the ocean. A weakening or latitude shift at the start of the food chain will have far-reaching effects."

With a projected average rise in sea level of 10 – 90 cm globally by 2100, coastal wetlands are also at risk. These ecosystems are often important sites of biodiversity and biological productivity, as well as for the removal of sediment, nutrients and contaminants from inflowing rivers. The effects of a change in climate, including sea-level rise, are likely to intensify the salt water intrusions into coastal lakes and wetlands, which will potentially impact on those ecosystems.

A study of zooplankton in Lake Waihola, being carried out by Zoology's Professor Carolyn Burns and Dr Marc Schallenberg, has already shown that even minor increases in the salinity of the lake greatly affect these important crustaceans. "Zooplankton eat algae and are important food for fish. If their numbers are depleted, or there is a major shift in species composition, the functioning of the whole ecosystem can be perturbed," says Schallenberg.

So far in New Zealand, however, there's no sign of any change in the rate at which the sea level is rising. The average 1.6 mm per year has remained constant since the turn of the 20th century (which fits neatly within the global average rate of 1-2 mm per year). Professor John Hannah of the School of Surveying says our long-term records are proving very important "because there is a lack of useful long-term information,

Professor John Hannah says there is no sign of any change in the rate at which sea levels are rising so far in New Zealand.

particularly in the Southern Hemisphere". Between 40 or 50 years of data are needed to pick up rates of change.

Because one of the factors helping to drive sea-level rise is the warming of the atmosphere, any significant change will be seen there first. "It takes time for the atmospheric heating to feed into the oceans," Hannah says. "There was widespread concern in the 1980s that increased concentration of gases trapped in the atmosphere would accelerate warming, but we're not yet seeing this as accelerating sea-level rise."

According to Chemistry's Dr Henrik Kjaergaard, water complexes must be included in any climate change models if we want to get an accurate picture of what the future will look like. Water itself is the primary absorber of solar radiation - it picks up about 75 per cent of incoming sunlight. Of that, about one per cent is absorbed by naturally occurring complexes called water dimers. These complexes are formed by two water molecules held close together by a weak hydrogen bond - and it was only in June this year that they were first detected in our atmosphere.

"We estimate the ratio of water dimers in the atmosphere to be one-in-a-thousand water molecules," says Kjaergaard. "While that might sound insignificant, it's about 10 times the abundance of methane and about a tenth of atmospheric carbon dioxide. Water dimers, along with water, carbon dioxide and methane, are significant contributors to the trapping of radiation emitted from Earth, and subsequent global warming," he says.

"The reason water dimers are so important is that as the global temperature increases, the proportion of water dimers also increases," says Kjaergaard. "This will lead to an increase in the amount of radiation absorbed and accelerate the process of warming still further. But so far, water dimers have been missing from atmospheric modelling."

Carbon dioxide, on the other hand, is one of the renowned "greenhouse gases" contributing to global warming and a major player in current climate change models. As part of an international effort, Chemistry's Professor Keith Hunter is involved in a collaborative project with the National Institute of Water and Atmospheric Research (NIWA) looking at the carbon dioxide exchange between the ocean and the atmosphere.

"We have a picture of the ocean as a sink for fossil-fuel carbon dioxide but we need to know how much is being taken up by the ocean, and how much goes into the atmosphere," he says.

"In New Zealand, we know that about 50 per cent of all fossil-fuel carbon ends up in the atmosphere. Some of the remaining 50 per cent goes into the ocean and some is taken up by trees. While we predict that most will end up in the ocean, we don't yet know how it happens – whether it's being taken up uniformly, for instance."

Measurements of the transfer of carbon dioxide from one place to another have been taken around the world since the 1950s, and from reconstructions of carbon dioxide in past atmospheres, it's known there's been an increase of 25 per cent in atmospheric carbon dioxide in the last 200 years. "The cause is the population increase - if the earth had a much smaller population," says Hunter, "this increase would also be much smaller and wouldn't make any difference in terms of global warming.

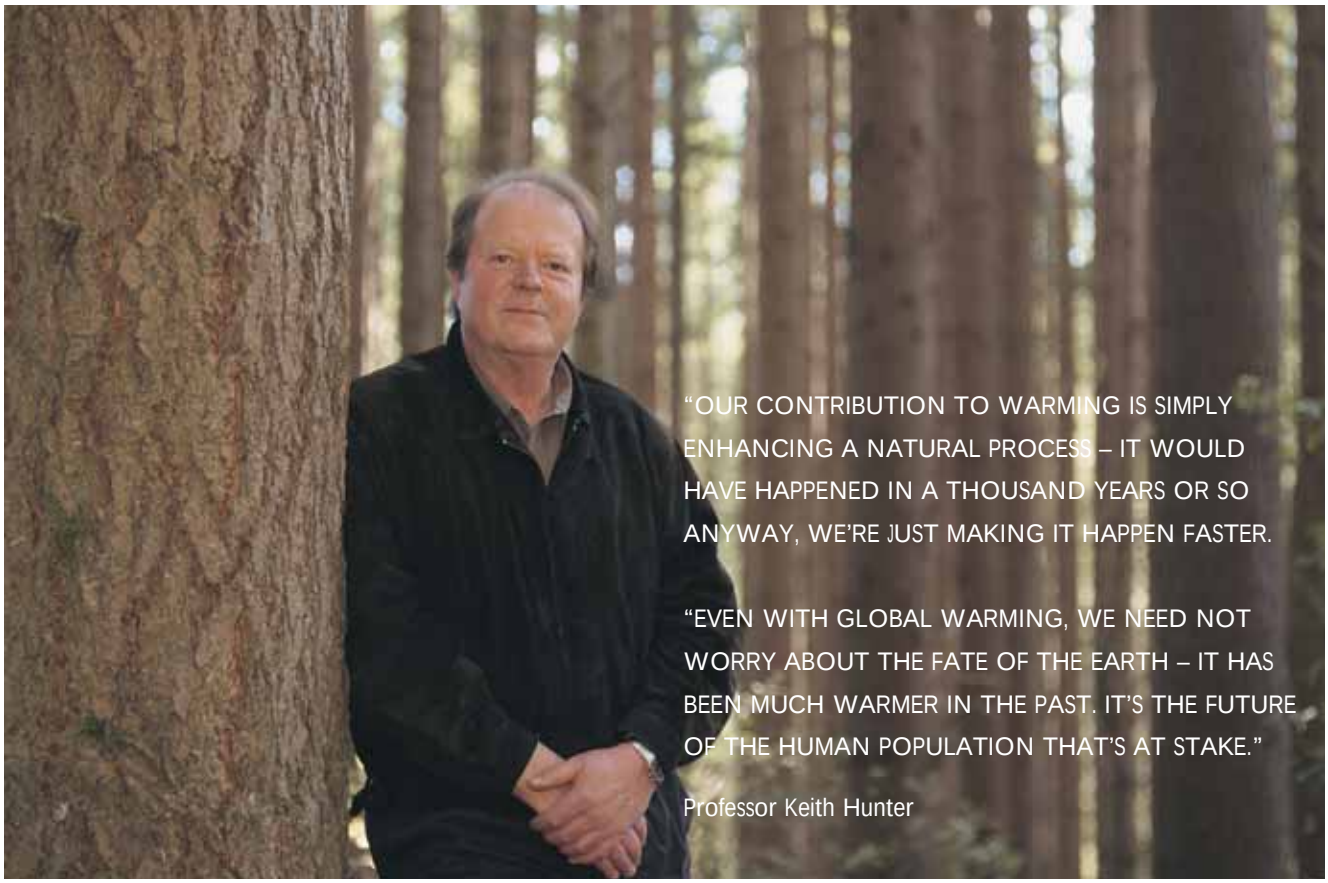
"Our contribution to warming is simply enhancing a natural process – it would have happened in a thousand years or so anyway, we're just making it happen faster.

"Even with global warming, we needn't worry about the fate of the earth – it has been much warmer in the past. It's the future of the human population that's at stake," he says.

"We've only been around as an organised society for 12,000 years – since the end of the last ice age – in a warm climate system where agriculture has been possible. But we're nearing the end of this period. While there'll be warming in some areas, there'll be cooling in others and when parts of the world are covered in ice, billions of people won't have anything to eat."

Even minor changes in the salinity of coastal lakes greatly affect zooplankton, say Dr Marc Schallenberg (left) and Professor Carolyn Burns.

Photo: Alan Dove



Professor Keith Hunter says about 50 per cent of all fossil-fuel carbon ends up in the atmosphere. Some of the remaining 50 per cent goes into the ocean and some is taken up by trees.

Though it's clear that glacial cycles are associated with a major shift in atmospheric carbon dioxide, and that oceans play a key role, it's not well understood what finally tips the balance. What is now emerging is the importance of the iron supply to the oceans – how this affects their plant growth, which in turn has a major bearing on the levels of carbon dioxide in the atmosphere.

Iron is one of the most abundant metals, making up six per cent of the earth's crust. And oceans rely on run-off from land for their share of this. In the Southern Ocean, however, where there is not much land, the ocean is relatively anaemic and plant growth is poor. Hunter and Chemistry colleague Dr Russell Frew are involved in another joint project between the University and NIWA, to determine how important this is to the bigger picture.

Plant growth increased tenfold in parts of the ocean where iron was added. But iron occurs as the virtually-insoluble iron (III) form in ocean waters, rapidly sinking away from the surface where plankton could use it. The presence of iron-binding molecules, or ligands, produced by the algae are also important for manipulating the iron supply and helping the algal community to flourish. "It's exciting to think that some of the smallest organisms on earth can have a global impact," says Frew.

"Obviously, changes in glacial cycles are not regulated by iron supply alone," he says, "but we believe it accounts for 15-20 per cent of change to levels of atmospheric carbon dioxide. And if this coincides with other major contributing factors, then iron supply could be extremely significant," he says.

What's going on in the mountains is also significant. And it's not quite what we might expect. With predicted warming, there is likely to be less snow in alpine regions in New Zealand. Without the insulation provided by snow, conditions for alpine plants will become more, not less, severe. Depending on the altitude, some plants may only survive the effects of global warming by retreating to sites where snow still accumulates.

Work initiated by the Botany Department is going on at three sites in Central Otago trying to simulate the conditions predicted in an attempt to see how the plants will fare. The research team, led by Associate Professor Kath Dickinson and Dr Janice Lord, is trialing snow fences on the Pisa Range. These fences prevent snow from accumulating, leaving the plants in those areas exposed and vulnerable to frost. At a second site on the Rock and Pillar Range, they have transplanted snowbank plant communities to exposed areas to study their responses to reduced duration and depth of seasonal snow cover. "Already the transplanted turfs look very stressed," says Research Fellow Tania Maegli.

Theirs is the only study of its kind anywhere in the world. "It's the first to attempt large-scale continuous snow reduction using permanent structures," says Lord. "The only other similar studies have involved small-scale intermittent shovelling to remove snow."

The team is also studying the long-term effects of a snow fence on the Old Man Range, erected in 1959 by Botany Professor Alan Mark. This fence accumulates snow and their aim is to show the importance of snow cover to the plant

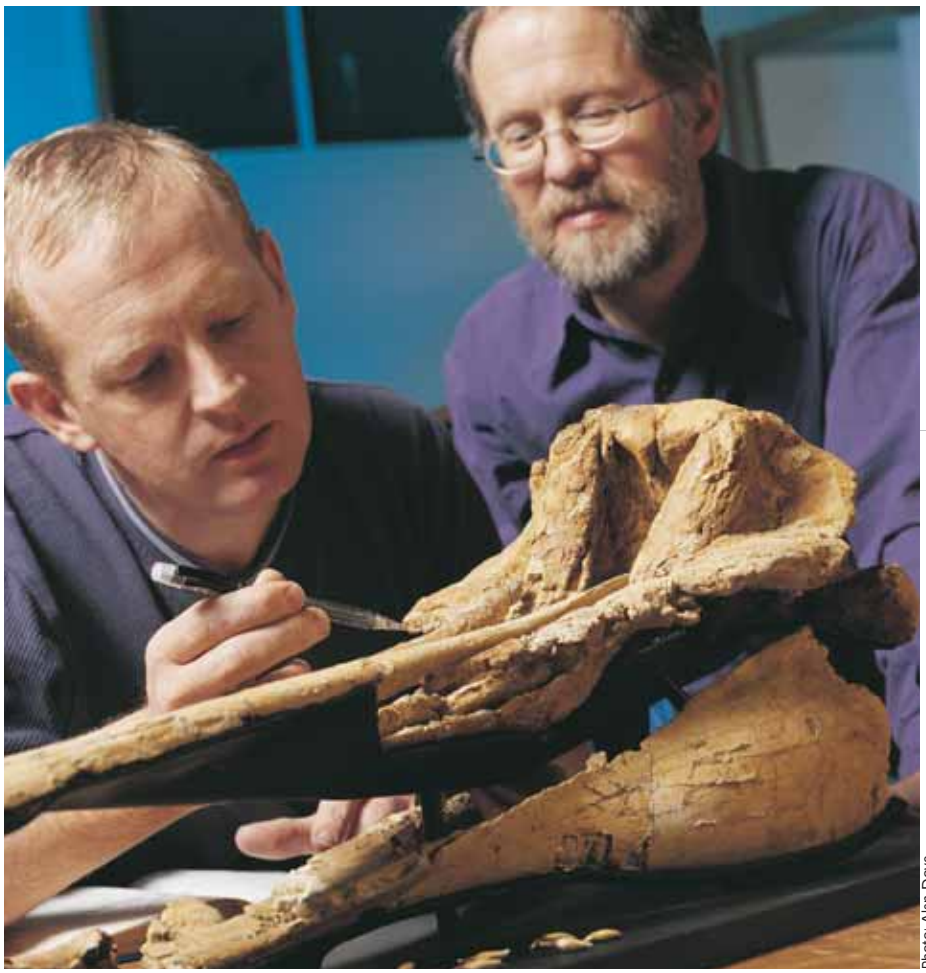


Photo: Alan Dove

Fossil material holds clues to the past that can help predict the future, say Dr Russell Frew (left) and Associate Professor Ewan Fordyce.

communities there. It's the oldest monitored snow fence in the world, and has clearly induced snowbank vegetation.

There is still a high degree of uncertainty about exactly how things will be in the future – and current climate change models are only as comprehensive as the data being put in. Gaining a better understanding of past climates is one way of helping to predict future change more accurately.

The Geology Department's new supercooled magnetometer "is capable of dating past climatic changes to a precision of less than a thousand years," says Dr Gary Wilson, who initiated the construction of the department's palaeomagnetic research facility. "It's a timescale we can relate to, and certainly one that applies to the problem of global warming facing us now."

Around 34 million years ago, there was a major shift in the earth's climate from warm "greenhouse" to cooler "ice-house" conditions which have persisted. But was it simply continental drift and the growth of the Antarctic ice sheet that started the process, or was it the changing levels of greenhouse gases, like carbon dioxide?

For the first time, we may be able to establish the temperature and volumes of ice during that time and better understand the processes driving such drastic change. Geology's Associate Professor Ewan Fordyce has been working with Chemistry Department's Frew, developing new techniques to measure the chemical signals stored in fossil material from North Otago and South Canterbury.

"Isotopes from fossil bones and shells track long-term changes in sea water and in the volume of ice around the globe," he says. "And magnesium and calcium ratios will give us information on the surrounding temperature at the time. If we can pinpoint what happened then, we can factor it into the models."

As well as understanding, we need to find solutions. One government initiative the Physics Department is involved in is making public housing more energy efficient to help reduce the build-up of greenhouse gases. Associate Professor Bob Lloyd is working with Housing New Zealand, monitoring the energy use in 100 state houses between Timaru and Invercargill, to come up with an energy efficient model. "We're looking at the effect of insulating the walls and the hot water cylinder, for instance, as well as making rooms draught proof," he says.

"At present, there's no incentive in New Zealand to look at alternative energy supplies, like wind turbines, because the cost of electricity generation is so low here. But when our natural gas supply runs out, we're going to need to look hard at alternatives."

With the world's population predicted to be well over eight billion by 2010, however, there are some things we can't afford to put on hold. "The kind of solutions we need are global and technological," says Physics Department Head, Professor Gerry Carrington. It's not just a matter of sourcing more energy, but using what we've got more efficiently. "The government needs to provide leadership," he says. "But at the moment there seems to be largely a sense of denial."

Dianne Pettis

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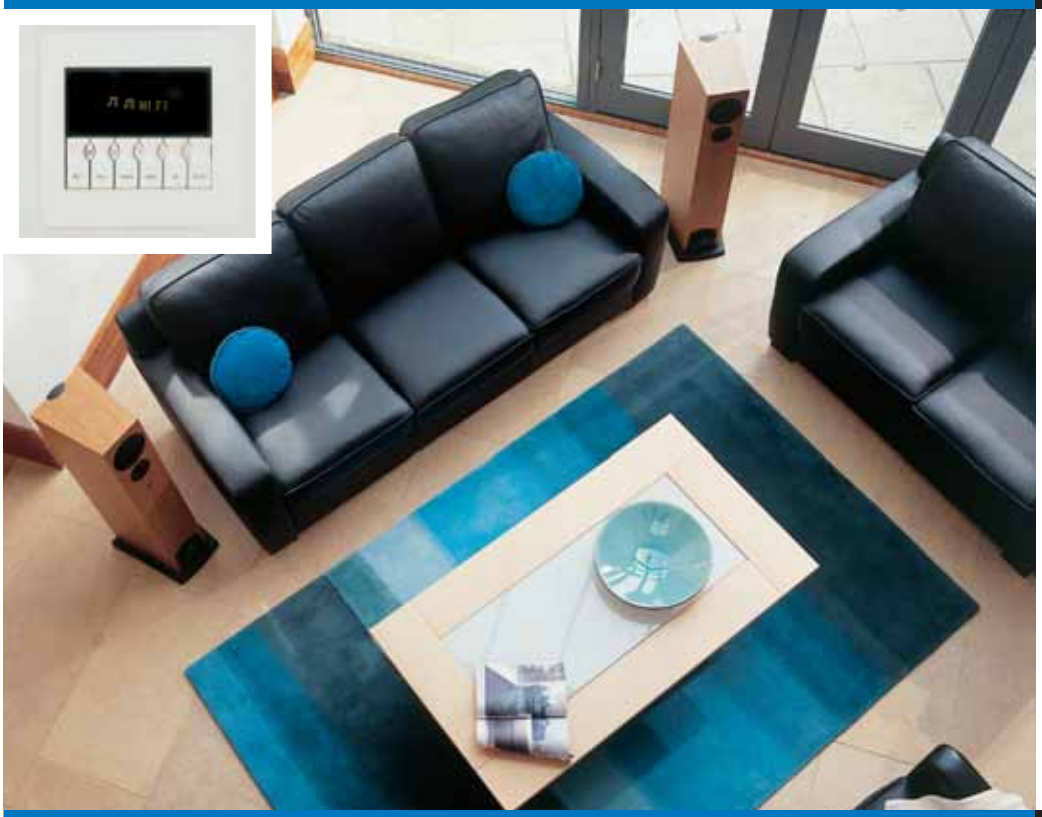

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Photo: Alan Dove

Dame Judith Mayhew Jonas outside her old school, Otago Girls' High, on a recent visit back to Dunedin.

"I THINK THERE ARE PROBABLY ENOUGH WOMEN DOING THINGS IN NEW ZEALAND NOW – I THINK IT PROBABLY BEHOVES THE REST OF THE NEW ZEALAND FEMALE POPULATION TO WORK ABROAD."

THE VERY NEW ZEALAND DAME

THE WOMAN WHO SITS AT THE HEART OF THE WORLD'S largest international financial centre – the City of London – began her fiscal responsibilities as Pie-Money Collector at Corstorphine Primary School in Dunedin. Dame Judith Mayhew Jonas is one of our most stellar New Zealand exports – an Otago product who left New Zealand at the age of 22 with a suitcase, a box of books, a few records, and somewhere along the way just happened to become one of the most powerful women in Britain. As you do.

She has a swift mind, incombustible energy and a robust self-assurance. Anything less and she'd be gobbled alive by the British business world. She's City and Business Advisor to Ken Livingstone, Mayor of London; outgoing Chair of the Corporation of London's Policy & Resources Committee; and Special Advisor to the Chairman of Clifford Chance (the world's largest law firm). And those are just her main day jobs. She is also involved in many private-sector, public-sector and voluntary endeavours. And she's a Dame - was included on the 2002 Queen's Birthday Honours List for services to the City of London – one of few women from commercial or professional fields to receive such an honour.

Though her days are now spent rubbing shoulders with Europe's political elite, her state-school Dunedin years are deeply imprinted on her core. When asked what she valued most about her upbringing, she talks of a free, independent youth with lots of cultural stimuli. Hers was a solo parent household. Had Mayhew's father not died when she was five, things might have been quite different: "I think I wouldn't have had the solo female breadwinning role model and that sense of super achievement that my mother transferred to me."

The passage from Corstorphine Primary School mince-pie run to the lofty heights of British politics was all rather unplanned. Mayhew's first impression of England left her a little underwhelmed: as a five-year-old she glimpsed the Queen during the 1953 Royal visit to New Zealand: "I was appalled that she was so small and white and tiny. Our mothers were so brown and tall in comparison. I began to wonder if all English people were tiny and white."

By the age of 11 Mayhew had already determined that she would live out her days in England. Her best friend Marian Roydhouse called her a "fuddy duddy" – Roydhouse's sights were set on far groovier America (where she indeed ended up). She recalls the Mayhew determination: "Judith was always strong-minded and driven to do well…we knew we all had good minds and could use them. I think the single-sex school (Otago Girls' High) had a good deal to do with this – it encouraged independence and independent thinking."

Having decided that she didn't want to be a teacher or a librarian ("teachers had to work too hard") Mayhew enrolled in Law at the University of Otago in 1967 and was one of only two women in the class. Though small in number, their presence had quite an impact: one lecturer announced to the class that due to the presence of females they would not cover sexual offences in the course that year. By the time of her graduation in 1972, the ratio of men to women was something like 50/50.

Mayhew soon became an assistant lecturer in the Otago Law Department before winning another university position in Southampton, England. Ironically, having chosen law to avoid education, she spent her first professional years teaching, but gradually strayed from the university path: "Although I liked research I disliked writing it up in huge academic tomes. I like communicating instantly and getting feedback."

She soon left university life, moved towards practising law, and became increasingly involved in management, business and local-body politics. Enter Ken Livingstone: he was quick to spot the Mayhew talent, inviting her to become his Finance & Business Advisor in 2001. He says she was a "first-class choice" and has "great respect for her hard work and dedication". Mayhew says of Livingstone: "We're friends" but adds that she also gets on well with the government. "Ken and I are both outsiders. My radicalism is my New Zealandness."

After nearly thirty years of living and working in England, she's still regarded as "the New Zealander": "It's my directness and the fact that I can't be classed in any English way, I can't be pigeon-holed or traced back to family or school." She prizes the egalitarian style of her New Zealand upbringing, and lists

an ability to get on with a huge range of people as one of the distinguishing New Zealand characteristics that gives her the edge in London politics. Corstorphine Primary School in action? "Absolutely. You learn to deal with everyone. I think it was very formative."

Her rigorous intellect was nurtured by her mother and by the environment of Otago Girls' High: "The school I went to was fantastic – partly because it didn't dumb-down in any way and in fact stretched us enormously over a whole range of fields, whether it was academic, sporting or cultural."

Asked to pinpoint what has given her the edge in the business world, Mayhew says: "I think flexibility, the ability to get on with a large number of people. I think openness and directness has been very useful. I think being a female has probably been more useful. There are ways of working that create consensus. Being able to achieve and having those achievements to your credit means that you get on without antagonising men who might feel threatened by you."

Life isn't slowing up for her yet either. She's newly married (is now Dame Judith Mayhew Jonas), has just become the first woman to chair the Royal Opera House ("when I learnt ballet all those years ago, dreaming unrealistically of dancing with the Royal Ballet I never imagined I would end up as the Chairman of the Board at Covent Garden") and has recently been appointed to the post of Provost of King's College Cambridge – the first non-Kingsman in over 500 years.

So she won't be returning her business acumen to our shores in the foreseeable future – besides, she thinks we are well-stocked with female achievers: "I think there are probably enough women doing things in New Zealand now – I think it probably behoves the rest of the New Zealand female population to work abroad."

She misses New Zealand lots though: "I still have an enormous affection for New Zealand. Obviously I miss friends (particularly good school and University friends), I miss the landscape of Central Otago, which I think just has a special attraction for any child that's grown up in it. And I miss my family…I can imagine buying a place where I can escape from the heat, or coming to an arrangement with friends that I provide the Northern Hemisphere refuge, and they a Southern one."

London enthrals her: "It has an enormous cultural depth, but it also has a cutting edge and a buzz about it. It's that which keeps me here more than anything else. But it's also the fact that it's the world's biggest international financial centre. It's very cosmopolitan and very exciting."

I ask her where she finds the time to squeeze so much in: "I don't sleep much – I don't *have* to sleep much – I can get by on four hours. I occasionally 'sleep camel' over the weekend." And if she was given five extra hours a day? "More culture. I might even get a life."

Claire Finlayson

TEACHING THE DOCTORS OF TOMORROW?

Photo: Alan Dove

Associate Professor Dave Loten takes a third-year medicine tutorial in Dunedin.

TEACHING MEDICINE HAS ALWAYS BEEN A BIT DIFFERENT from teaching other University courses. Medical students need to have at least some grasp of all aspects of medicine and consequently medical examinations rarely offer students a choice of questions. However, both the breadth and depth of medical knowledge are increasing enormously so that the task facing both teachers and students is becoming more challenging each year. To make things more difficult there are now increasing pressures from a better-educated public who demand a role in decisions affecting their health and expect clear and sympathetic counselling from their doctors. An increased range of effective and usually expensive therapies have raised ethical dilemmas around the allocation of necessarily limited resources with which practitioners must now grapple.

In response to these changes the Otago Medical School is changing the way it selects medical students and how it teaches them. From 2004 we will be using a new selection process that will admit students with high academic achievement, as we do now, but will also select for the ability to communicate and to empathise. The Undergraduate Medical Admission Test (UMAT) and an interview will be the new components of the selection process. A cohort of graduates will also be admitted to the course, merging with the undergraduate stream in the third year.

What we teach and how we teach must also be appropriate to the task. It is simply not possible for one person to comprehend the vast amounts of medical information now being generated. It is pointless to expect students to learn vast arrays of facts that will become outdated and rarely be used. What our new curriculum will have to do is concentrate on a core set of principles that will not change and foster the skills and nurture the habits which will enable students to take charge of their own learning, both while at medical school and throughout their professional careers.

After selection for medicine we plan for students to spend only one year in Dunedin before dividing to complete their studies in one of the three Clinical Schools in Dunedin, Christchurch or Wellington. This will increase their exposure to patients, but will also pose a challenge in that we will need to find innovative ways to use the expertise of the Dunedin-based School of Medical Sciences to deliver basic science material to students in the distant sites. All students will graduate with the same Otago degree and will sit common examinations so their experiences must be broadly comparable. We must therefore define a common core for the course with common objectives. The goal of learning in context has prompted our move to introduce students to patients earlier and to teach clinical skills from the outset. These goals will be difficult to achieve, but the introduction of a case-based core curriculum will provide a framework that should facilitate the process.

What we are aiming for is not only a doctor who can function adequately at graduation, but one who has an understanding of his or her capabilities and limitations and who also has the motivation and skills to continue to learn in the post-graduation years, throughout specialist training and on into a life of medical practice.

Associate Professor Dave Loten
Pathology
Dunedin School Of Medicine

SOUTHERN TR

Photo: Alan Dove

IN THE NAME OF SCIENCE, DR JIM COTTER OF THE UNIVERSITY OF OTAGO'S SCHOOL OF PHYSICAL EDUCATION,

IN NOVEMBER, COTTER WILL BE TACKLING THE SOUTHERN Traverse, one of the world's toughest endurance races, with two goals ahead of him. One, naturally, is to win the race. The other is to learn more about how the human body and mind cope with the pressures of extreme adventure racing.

He won't be alone in his quests. In the event he'll be one of a team of four, joining old race-mates from Queenstown, Eric Billoud, Rachel Barton and Bas Smith. In the research he'll be joined by a group of dedicated colleagues from several University departments.

Cotter, 37, lecturer and researcher in Exercise and Environmental Physiology, has been in a winning team in three of the ten Traverses he's entered since the event began in 1991. When he found out that the 2003 race was going to be held around Dunedin, he realised the huge potential for the University of Otago to access a unique research opportunity on its own doorstep.

The logistics of researching any event held in wilderness are tough, but they become almost impossible when the course is kept secret until hours before the race begins — which is one of the rules that makes the Traverse such an adventure, and such a draw for elite athletes.

Cotter says that having the race so close to Dunedin is a golden opportunity to take advantage of the University's outstanding research expertise in human performance, with access to laboratories, equipment and expertise, and the ability to test local athletes before and after the event as well as during it.

"It would be very difficult to do if it was not around Dunedin, where we have the resources at the University," he admits.

Cotter's academic team includes School of Physical Education colleagues Associate Professor Greg Anson, Dr Nancy Rehrer and Dr Chris Button of the Human Performance Centre (hpc@otago.ac.nz). They'll be working with research students and senior academics from other departments to maximise the

AVERSE 2003

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Phil Cox (left) and Dr Jim Cotter train on the Otago Peninsula.

IS PUTTING HIS BODY ON THE LINE.

opportunities for working with top athletes in one of very few multi-day ultra-endurance events in the world.

The University is helping, partially funding two Southern Traverse teams, and the New Zealand Academy of Sport is offering support in kind. This includes use of a vehicle which will help get people and equipment to transition stages in the race, and will provide a mobile laboratory with facilities for storing samples, charging batteries and running computers.

Cotter's research team is still applying for funding to support the science. "We've got a wish list of research topics that are easy to measure before and after and even during the event," says Cotter, "but the analysis is expensive." The project has been submitted to the University of Otago Human Ethics Committee and final ethical approval is expected soon.

The project has generated interest not just around the University but internationally. Associate Professor and ex-Olympic athlete Dave Gerrard of the Department of Medical and Surgical Sciences will take muscle biopsies from selected athletes. The biopsies will be analysed by Associate Professor Jörn Helge at the Panum Institute in Copenhagen. Helge was a recent visitor at Otago.

"You can do a lot with a small amount of muscle," says Cotter. "It's only possible to do this now because the athletes we're testing are local and available for baseline testing well before the event so they can heal before the race."

Cognitive testing, including measurement of changes in brain electrical activity, will be a major part of the research, seeing how quickly and how accurately athletes can make decisions as sleep deprivation and physical exhaustion start to take over.

The race is a team affair, with all four members having to stay together and help each other through four-to-six-days of fierce competition on a demanding course that will challenge them mentally as much as physically. They'll battle

nature and each other 24 hours a day, mountain running, trekking, kayaking, mountain biking, abseiling and coasteering (travelling between the low-tide mark and the top of the beach zone) through some of the most spectacular scenery of the South Island. How much of it they actually see is anyone's guess, but the memories – real or imagined – seem to keep athletes coming back for more.

Traverse organisers expect around 200 entrants this year, with at least 700 people coming to Dunedin to race, to crew and to support. The event attracts top-level international competition, yet it is still accessible to anyone with the multisport skills and fitness to take part – true adventure sport as well as racing.

And although the name of the game is sport, Cotter believes science will be able to learn much from researching the unique demands of this level of human performance. There has been talk of a military team entering to discover how their cognitive responses fare in a challenge akin to those sometimes experienced in less-peaceful circumstances.

Whatever the results, says Cotter, there will be a lot of interest. Southern Traverse director Geoff Hunt, himself one of New Zealand's most experienced endurance racers, is fully supportive of the search for knowledge.

Testing total energy use over the whole race will be done by Department of Human Nutrition lecturer Ien Hellemens and graduate student Kyle Doel. They'll be using doubly-labelled water – water with isotopes of hydrogen and oxygen that are rare in nature – and checking how it is excreted to identify the body's use of oxygen, and therefore energy. Senior Lecturer Dr Russell Frew of the Department of Chemistry will do this by analysing urine samples.

Further research support may come through consultation with the Department of Medical and Surgical Sciences, Professor Rob Walker (renal function) and Professor Patrick Manning (endocrine function), and the Department of Microbiology's Professor Frank Griffin (immune function). Craig Palmer, exercise scientist from the Human Performance Centre, Dr Nancy Rehrer and PhD student Sam Lucas will be involved in physical capacity testing to examine just how much different aspects of movement performance are affected. "We've done some testing of athletes in endurance races," says Rehrer, "but this is the first multi-day non-stop event of this length that will see extensive testing. There are only about ten events like this in the world."

Rehrer knows how Cotter must be feeling, as both athlete and scientist. She was a subject of her own research when she

Photo: Alan Dove

Associate Professor Greg Anson adjusts the electrode cap on Southern Traverse athlete Vicky Sanford before she performs a modification of the Stroop Test. Research assistant Darren Hight, of the Neuromotor Control Laboratory at the School of Physical Education, watches the electroencephalography (EEG) equipment pick up the electrical changes occurring in Sanford's brain as she decides as quickly and accurately as she can, the colour of the word "red" she sees on her screen is blue. By using the test on a laptop computer, scientists will try to determine how sleep deprivation and the demands of the Southern Traverse affect athletes' speed and accuracy in decision making.

ran a 67 km marathon in the Swiss Alps. "We hope that Jim will just have to worry about the race and not the science," she says. "We hope that we can do that. We'll just grab him and poke him and prod him and then let him go again."

Cotter doesn't think he'll have time to think about the science once he starts racing. "There's always a lot on your mind when you come into a transition point," he says. "There's a lot going on. You're thinking about food and water, looking towards the next stage, planning and hoping to get through in the right conditions…. The experiments will be incidental to all this – just another element. There will be so much pressure that we won't want to miss anything thinking about science."

The rest of Cotter's team will be taking part in the research. But they're all seasoned athletes, and in with a chance of winning. Multi-sport guru Eric Billoud is a two-time Traverse winner, a regular top five finisher in the Coast to Coast and other events, and lives for adventure. Rachel Barton won the Traverse in 2001, and came ninth in 2002 while suffering bronchitis. Mountaineer Bas Smith took up multi-sport to get fit for climbing and caught the bug.

In short, they're competitive, so during the event, testing will have to be discrete, Dr Greg Anson, a Kepler Challenge participant himself, points out. "We are asking a lot of the athletes and we don't want to detract from their race. One of our challenges is to get the best data with minimum interference in their performance and adventure experience."

The researchers will also be testing at least one other team – experienced Dunedin-based athletes who are competing more for a good result than an outright win. Surgeon Phil Cox has been in 11 Traverses, and is a veteran of several Coast to Coasts and other multisport events. Fellow Coast to Coast veteran and businessman Ron Anderson has entered ten Traverses. School-teacher and triathlete Vicky Sanford and Coast to Coaster and triathlete Jeff Richardson both took part in their first Traverse last year.

And an all-female team from Otago, the Thunderbirds, is also lining up to take part in the science: Jess Townshend, Jo Campbell, Anneliese Carlson and Erin Greene.

The research team is impressed at the willingness to help out, but always conscious that the race must come first for the participants. The more invasive testing such as tissue sampling will be performed on a small number of athletes, but more volunteers will be available for less-demanding research – even the front runners.

"There are a couple of teams with fantastic people in them," says Cotter, "and they will help us after the event." The Southern Traverse is nothing if not a team event. And it looks as if this year's Traverse is going to have yet another team running alongside it, this one competing for the prize of knowledge.

Nigel Zega

JUDGE EPATI

"Everything in life is connected to the law."

HE WAS SO "HOOKED" ON THE STUDY OF PHILOSOPHY that law was practically a sideline for New Zealand's first Pacific Island judge, A'e'au Semi Epati, when he was studying at Otago University between 1967 and 1972. It was only on returning to Samoa to take up office as the Senior Legal Officer in 1973, he knew he would "never want to do anything else".

By the time he was sworn in as a judge in New Zealand in February 2002, at the age of 55, Judge Epati had already enjoyed a very busy and successful legal career covering 17 years based in Samoa and 12 in Auckland with extensive travel throughout the Pacific and a two-year stint as Attorney General for Niue.

Now based at the District Court in Manukau, he lives in Onehunga, Auckland and has two adult children living in the city – Tiana (27) who is a prosecutor with the Crown Solicitor's Office at Meredith Connell, and Mana (26), a computer science professional. Judge Epati has the quiet dignity of a man of real mana, a man carrying a mantle of responsibility. He also has tremendous warmth and a delightful sense of humour. "Look out for a tanned Mel Gibson," he told the writer when the interview was setup and he laughs with real glee talking about his early days in Otago. "I nearly froze," he says, quickly adding how he enjoyed the warmth of the southern hospitality.

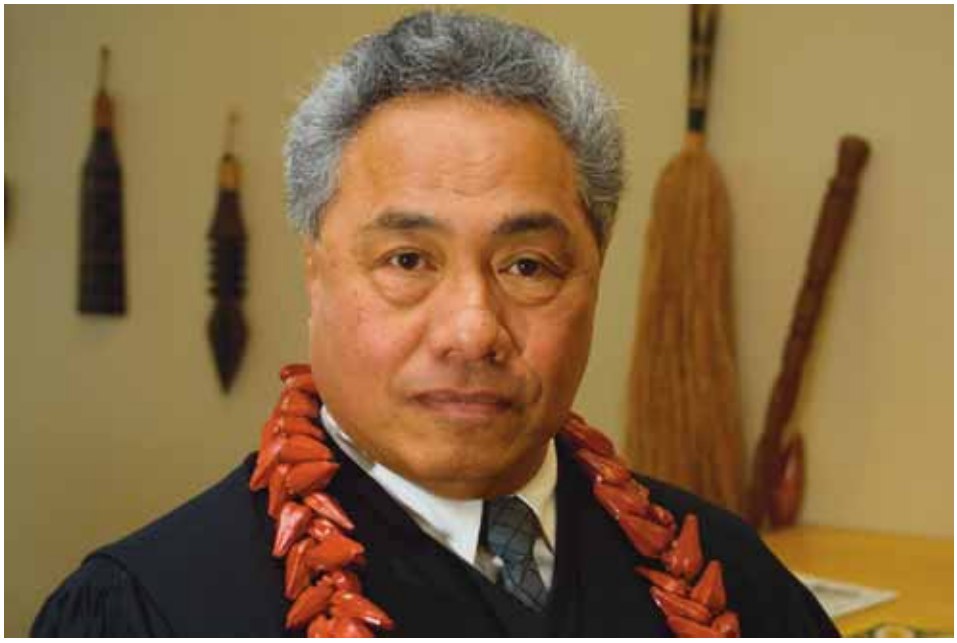
The transition from theory at Otago to practice in Apia wasn't a gentle process – his first case was a murder trial. "I had to combine all that theory I had learned with a Samoan slant or flavour - cultural interspersions to criminal law," he explains.

Raised mainly by his grandparents in the small Samoan village of Falealupo on the island of Savai'i, Judge Epati - who did not start formal schooling until he was about eight or nine years old - was transplanted to the very different atmosphere of Waitaki Boys' High School in Oamaru in 1966. He'd passed School Certificate and UE back in Samoa, but needed to improve his spoken English.

Judge Epati was very, very homesick, but absolutely enthralled by the education on offer to him. "I was homesick at nights – trying to get warm to go to sleep, but the days were very exciting with the learning and getting to know the Kiwis and their way of life." He also missed his grandfather terribly (and his memory still brings a tear to his eye today) who was his greatest mentor. Sadly, he passed away before Judge Epati had completed his studies.

"He was very wise. He could read and write Samoan having attended a pastor's school, but had no formal schooling. He taught me that life itself is an education – all through life you are learning about yourself. Education to me is not just in the classroom," the charismatic judge explains.

Because he was unsure of his career path when he started at Otago University, Judge Epati took on a double degree – quite unusual at that stage. As well as his Law Degree, he took a BA majoring in philosophy. By the end of his first year, he was "hooked" by philosophy. "I wanted to learn more about philosophy – law was a side issue at that time." By the time he had reached Stage III, Judge Epati was one of seven students and all the others were studying theology.



A'e'au Semi Epati enjoyed the warmth of southern hospitality during his days at Otago.

"I could stand my own with these Knox College guys because of my early studies of the Bible in Samoa – I went to the pastor's school before starting my formal schooling on the main island. I could quote passages from the Bible and stood my own in every argument," he chuckles. He describes himself now as "not religious, but very spiritual" and is interested in the Buddhist approach to enlightenment.

Starting out as a resident of Arana Hall, Judge Epati went on to live in several student flats in his Dunedin days. He was also a popular face at the lounge bar of the then terribly trendy European Hotel – he was the piano player in a music group formed along with the three other Samoan students at Otago at the time.

And surprisingly for someone who speaks English so eloquently, William Shakespeare (and a particular sonnet sticks in his mind) was the bane of his student days. "*Shall I compare thee to a summer's day*? …. I could never get past that first line … possibly because every day is a summer's day in Samoa," he laughs.

After he finished his BA, Judge Epati really had to make a conscious decision to finish his law studies as he was very interested in philosophy. "I knew I couldn't go back to Samoa with such a nebulous degree. I couldn't just lie under a banana tree and think," he grins. "So I attacked my law degree and went home."

It was a Vocation Guidance Officer at Waitaki Boys' High School back in 1966 Judge Epati credits for initially setting him on his brilliant career path. "Why don't you enrol in law while you decide and if you change your mind halfway through you won't have wasted those years as everything in life is connected to law," she told the young Samoan. Those words "everything in life is connected to law" have stayed in Judge Epati's mind and he wishes he could now thank this woman for her advice.

Straight out of Otago University and back in Samoa as the Senior Legal Officer ("My Kiwi friends were very impressed, I never told them I was one of only two working for the Government," he chortles) he knew immediately his choice of vocation had been the right one.

He moved to Auckland in 1990, becoming very involved with the local Pacific Island community – particularly in demand as a motivational speaker for young people. Judge Epati also co-launched the multi-lingual newspaper, *Samoan Times*, and followed this by helping establish the Pacific Island radio station, 531 PI (he was a talkback host) before launching into television work giving legal advice on Mary Lambie's *Good Morning Show* and the Pacific programme, *Tagata Pasifika*.

Judge Epati's aspirations for the future are straightforward. "I want to do the best I can, and work hard in whatever I do." And if possible - he will always incorporate lots of laughter in whatever he does.

Robyn Yousef

Judge Epati was a guest speaker at the recent opening of the Pacific Islands Centre at the University of Otago.

party at the castle

GRADUATES OF A CERTAIN AGE, ASK YOURSELVES - COULD you party like it was 1973? More to the point, would you want to?

For those who lived at 467 Leith St 30 years ago, the answer is a resounding "almost".

It was the second weekend of August – the weekend the All Blacks pulled out a gritty performance against an improved South African side to win the Tri-Nations at Carisbrook. The big test was just the occasion they needed. Ten ex-flatmates from the iconic student dwelling now known as the Castle took the opportunity to reunite at their old flat for a party, and then make the pilgrimage to Carisbrook the following night.

It was Phil Broughton's idea. Then a science student, now an accountant and a legendary innovator of social gatherings, he ingratiated himself to the current tenants with promises of a party and tickets in his corporate box. The rest, as they say, is reliving history.

But this is not a story about long-lost flatties, reunited again at last. Rather it's about ten people whose bonds of friendship have survived 30 years since they lived together in varying combinations from 1972-75 as scarfies, and then got together for some drinks and the rugby. Their achievement is perhaps all the more exceptional for it.

Among the ten of them there are several partners of accountancy firms, an owner of a technology company, an international sharebroker, the head of physical education at a Christchurch high school and the owner of a clothing chain.

But at the cocktail party on the Friday night, the ex-flatties were valiantly harking back to their student days. There was copious imbibing, loud calling of one another by nicknames. Rod Inglis (now married to his Castle-dwelling girlfriend of the time, Julie Clayton) was cadging cigarettes.

But the signs were there that they'd all moved on. It was called a "cocktail party" for a start. Quite a few of their children were there. Hairstyles had gone from one extreme to the other. And, in perhaps the final blow to any latent student ethos they might have had, the party involved professional catering, with the current flatload of students engaged as waiters. (Truth is, the student-waiters admit, they didn't have to do much – it

Thirty years on! Former flatmates in the centre, current flatmates on the left, the former flatmates' children on the right – many who are now at Otago.

Photo: Alan Dove

seems a scarfie's homing instinct for the wine table never leaves you. They tidied up the flat for the occasion though.)

Nevertheless, their contribution was considered to be instrumental to the success of the evening. Phil comments how "touched" all the past residents were that, "despite being a generation apart in age, the current students embraced the event so wholeheartedly".

And so the memories flowed.

Card games, cricket in the hallway, capping parades. Digging up the backyard for a hangi. Pyjama parties, pink parties, the Gardies. There was the time when Lindsay McLean locked Sue Edelson in the cupboard to calm down. (They're married now, with three kids.)

Keith Ferguson – Fergie – was the flat's founding father. He took it over in 1972 in its first year as a student flat; it had been a family home until then. The bath was tin, he remembers, with green scales.

There was Johnny Matenga, who was only planning to stay at the flat for three days when he holed up in the laundry. He lived there for a year, and tamed a rat from the Leith by feeding it regularly.

All this, while making history at the same time. "We were on the vanguard of mixed flatting," remembers Julie Inglis. No one found this barrier-breaking behaviour much of an issue – except Fergie's mum. "I remember her cautioning me that one day I might want to marry a 'nice' girl, and she might not like it if she knew I had lived with other women," he recalls.

But the reminiscing brought back more than anecdotes. Thoughts are spared for their one absent flatmate, Tony Gillies, who passed away several years ago. And there was time for reflection of the role Otago played in their young lives. About developing as individuals while experiencing their first taste of freedom. The place Otago has retained in these ex-scarfies' hearts.

Of the ten, eight have had children at the University of Otago. Five married (and remain married to) their partners of the time, while two others married ex-Otago students.

Ensuring her children had an Otago experience was a priority for Julie. When she and her daughter disagreed over which secondary school she would attend, the matter was resolved by the daughter being allowed to choose her high school, but Julie insisting she then come to Otago for university.

"They actually were the best years of our lives, weren't they?" remarks Julie, almost caught off guard by her own admission. "Things change, they're not bad, but they don't actually get any better."

Nostalgia doesn't get any better than that either.

Nicola Mutch

MY HOUSE... ...MY CASTLE

Photo: Alan Dove

It's unclear exactly when 467 Leith St came to be known as the Castle – sometime after 1975 and before 2003, it would seem. About five years ago, a mock fortress-style parapet was temporarily erected around the turret, and the flat immediately became a distinctive feature of the North Dunedin landscape.

The turret room is unoccupied now, deemed unsafe on account of the steep stairs that lead to it. According to the flatties, its three walls of windows made it incredibly cold, not to mention it requiring the inhabitant to be something of an exhibitionist. All the same, it was the preferred spot in the '70s, and Lindsay got to call it home.

The flat has changed since those days. The kitchen has been reconfigured and extra rooms added, the flat going from five to seven bedrooms. Rooms went for $6 a week back then, now they fetch $85.

MORE TO LIFE THAN MEANS, MEDIANS AND STANDARD DEVIATIONS

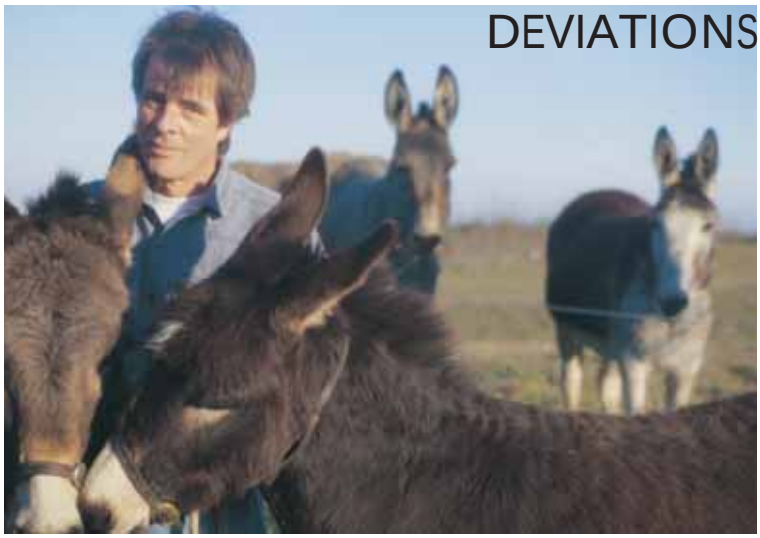


Photo: Ross Coombes

Chris Frampton: "You have to keep your eyes open for the odd bite or kick (from donkeys), but then I'm a kind of kicked and bitten sort of guy."

MEETING BIOSTATISTICIAN ASSOCIATE PROFESSOR CHRIS Frampton for the first time is a different and interesting experience. With his somewhat dishevelled look, a wicked smile and well-worn jean jacket, he is not the usual image of a senior academic and biostatistician at the Christchurch School of Medicine and Health Sciences.

Neither are his after hours' interests, which range from amateur donkey breeding to driving his latest recreational hobby, a 993 Porsche through the traffic free roads of the South Island. After all, he is adamant that a fully rounded and balanced biostatistician needs more in life than means, medians and standard deviations. German beer, firewood, forestry, hunting, sailing are some of the vital ingredients; as are the donkeys...

"I know this is not very PC in New Zealand, but I'm not a big sheep aficionado," he whispers, " too stupid. Donkeys are geniuses by comparison, and quite relaxing and affectionate as well. What I really like about our donkeys is that they're a cross between a dog and horse, and all have their own personalities," he explains with a wry grin.

It is obvious that Dudley, Daisy, Dexy, Dolly and the non-alliterating Harriet are a colourful part of the "good life" that he and his partner Alison enjoy on a prime lifestyle block at West Melton on the outskirts of Christchurch, and another 30 hectares plus bach and bush on Banks Peninsula. After all it was Alison's equestrian interests which resulted in the first pet donkey, and then the further increase of the herd.

"Take Dudley for instance, the de facto Dad. Although being totally subjugated by his female companions, he's the most subtle, slyest animal you can imagine, and yet has a warm personality even when he has his hooves trimmed. Although you have to keep your eyes open for the odd bite or kick, but then I'm a kind of kicked and bitten sort of guy anyway, so I'm used to it."

Despite this self-effacing attitude, in his professional role, Frampton is a vital part of the scientific research effort at the Christchurch School of Medicine and Health Sciences. Without his knowledge and expertise in statistical methodology, medical research projects at the School wouldn't get past first base, or would be rejected for publication because of inappropriate data or incorrect analyses.

Making sure that the figures "stack up" is where biostatisticians like Frampton play a pivotal role in evidence-based medical research. He is one of four such people at the School, and the only one outside the Department of Public Health, providing statistical advice and analysis for research groups.

"Over the last decade the roles of Biostatistics in study design and result presentation have become much more important in research. The data underpinning any research project are now seen as fundamental; everything flows from that. If you haven't got the numbers correct, then the research may be seriously flawed."

Frampton's role, from the start of any study is to discuss statistical issues with the Principal Investigator and research team to make sure the project is designed correctly. Some of the key issues associated with research design that he can influence are the number and type of patients, what data is to be collected and when, and what analyses are going to be appropriate for the data. During the period of the study, which can run into years, he is often called upon to answer questions relating to recruitment, data collection and interim statistical analyses, and finally to analyse the data when the collection has finished.

"All quality academic and clinical journals demand excellence in statistics. They are rightly very wary of 'spin' being used in the analysis and discussion of results. The best journals always have a statistician as a referee, who is able to recommend a paper be rejected for publication."

He says the old saying that there are "lies, damn lies and statistics" is more correctly applied to what is done with statistics, and how they may be manipulated politically after the event, not so much to the raw figures themselves. But he says it is vital that the original design of the study is as objective as possible to get the most accurate and conclusive results.

But who would want to be a biostatistician, with a public perception of a creature inferior to an accountant, and how does someone become such a person? Are they taken quietly aside by their school careers advisor and informed there is a

desperate shortage of such people? Apparently not. In Chris Frampton's case he might just as easily have become a botanist, following a double major in botany and statistics, which then continued on to a doctorate in 1987 from the University of Canterbury.

Frampton started his career at the Christchurch School of Medicine and Health Sciences in 1985, was diverted back to ecology at the Forest Research Institute, then Landcare Research and Lincoln University, eventually returning full-time to the School of Medicine. However, he is adamant botany has provided him with an awareness of biological functions outside the area of statistical formula, enabling him to communicate well with medical scientists. He says there are too many statisticians who are limited to pure maths and statistics and therefore, have little pragmatic understanding of biological variability and systems.

"In fact I don't like dealing with stats on their own. That was driven home when I lectured commerce students at Lincoln University. It's the combination of biological systems and the quantification of this through statistics which gives me a buzz; the variety of research projects I have to work with and assist.

"Usually a research team comes to me when it's about to design a project and wanting some guidance so there aren't critical problems later on. At the other end of the spectrum I will see studies which have come back from a journal with statistical or design problems which need to be sorted out and may be unresolvable. This situation can be very difficult. However much less 'damage control' goes on now because of the more rigorous and formal nature of the funding process and ethics committee approval for a study."

Even then there are constant hassles which biostatisticians are called upon to resolve. Missing data, data not collected appropriately, people not turning up at the right time, patients lost to follow-up, data not being appropriate for standard statistical tests. He says the list is almost endless. At times he even has to write software to deal with these problems, but they are all part of the daily challenge of "getting the figures right". "It could be very dull without these many and varied glitches," he says with a grin.

And also life wouldn't be the same for Frampton without the joys of his Porsche: "Well, I've always quite liked speed. It could be the classic mid-life crisis, it might be a reaction to all those numbers…. But I've had a series of motorbikes over the years, Nortons and Ducatis, until I had a bad smash, and more recently three fairly exotic and quick cars, although the 993 Porsche is certainly the most exciting. Wonderful vehicle."

But when you ask him what he uses to get to work every day, he laughs and whispers conspiratorially, "Honda Civic".

Ainslie Talbot

HOCKEN LEGACY

RUDI GOPAS (1913 – 83)
Old Wharf, Kaikoura, 1960
Oil & gouache on board: 838 x 787 mm
Mona Edgar Collection, Hocken Library

A WORLD AWAY

KAIKOURA YES, BUT NOT AS WE KNOW IT: NEW ZEALAND coastline meets the hot, pure palette of German Expressionism and the Baltic-tinged longing of a Lithuanian immigrant.

Arriving in New Zealand in 1949 as a war refugee, Rudi Gopas brought with him the potent legacy of Europe's bold expressionist trends – traces of which had only been available to our South Pacific shores in meek reproduction. When he first began teaching at the University of Canterbury's School of Fine Arts in 1959, he delivered new vigour and strident colour to Christchurch's then tepid art diet.

One student - a careful dabber of paint - recalls Gopas squeezing a precious week's allowance of ultramarine directly onto her work and saying, in his thick European accent: "You must use da colour". Though his tongue was often brutal and withering (he reputedly told one student to make smaller paintings, and when asked why, replied that they would "more easily fit in zee rubbish bin") he made a lasting impression on a generation of young New Zealand artists, including Philip Trusttum, Philip Clairmont, and Philippa Blair.

Old Wharf, Kaikoura is Gopas at his expressionistic best. In its agitated brushstrokes and vivid colour, this work salutes the bold endeavours of van Gogh and those early twentieth century German Expressionists who gave governance to their emotions and dragged colour from its traditional, naturalistic perch.

Michael Trumic, a close friend and fellow immigrant, felt that Gopas only ever landed in New Zealand with one tentative foot – that his mind was ever colonised by his mid-European roots. When Trumic accompanied the artist on trips to the Kaikoura Coast, Gopas would imagine he was on a Baltic Sea beach. *Old Wharf, Kaikoura*, then, is less an ode to New Zealand's coastal life than a heartfelt song to his native Lithuania by a man whose emotional compass remained locked on middle-Europe.

Claire Finlayson

HOCKEN LIBRARY GALLERY EXHIBITIONS

11 July - 4 October 2003	John Turnbull Thomson: nineteenth century painter and surveyor of the south
16 August - 4 October 2003	Joanna Margaret Paul: poet and painter
11 October 2003 - 17 January 2004	McCahon: A Typeface by Luke Wood

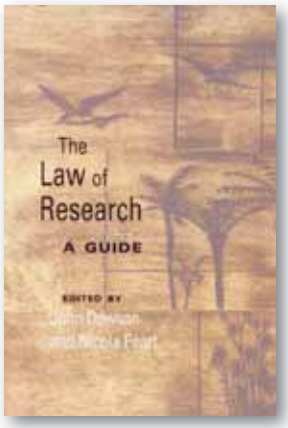
BOOKS

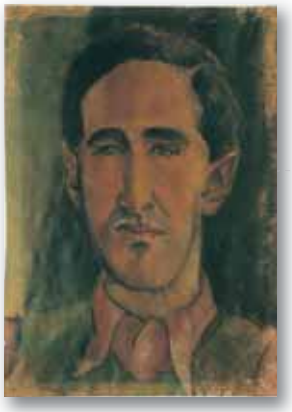
MONTANA NEW ZEALAND BOOK AWARDS

University of Otago Press was one of only two publishers to have more than one title recognised in this year's Montana New Zealand Books Awards.

No Idle Rich: The Wealthy of Canterbury and Otago, 1840-1914, by Jim McAloon was winner of the History section. Entrants in this category were judged on their ability to enhance our understanding of people in society, their history, beliefs, arts and language and achievements. *No Idle Rich* was, in the eyes of the judging panel, "academic history at its very best - a well written book with sound documentary research". *No Idle Rich* is based on a PhD thesis done at the University of Otago.

Kay McKenzie Cooke was awarded the New Zealand Society of Authors' Jessie Mackay Best First Book Award for Poetry, with her collection *feeding the dogs*. This collection was seen by the judges as being "the work of an extremely intelligent poet with a fine awareness of the possibilities of language, and the power of a well-turned image".





THE LAW OF RESEARCH: A GUIDE

The first of its kind, this book surveys the law concerning research in New Zealand and its implications for researchers. Issues relating to the regulation of research are increasingly debated and a legal guide is needed for anyone undertaking research or working in a related field. Principally a reference work, it also contains introductory material and has a strong focus on general principles.

It is edited by John Dawson and Nicola Peart. Most of the contributors are members of the Faculty of Law, University of Otago.

ENDURING LEGACY: CHARLES BRASCH, PATRON, POET, COLLECTOR

In the mid 20th century Charles Brasch was a major figure in New Zealand's cultural life – a poet, patron and founding editor of *Landfall*, the country's premier journal of letters and art. Published to coincide with the release of his papers at the Hocken Library from a 30-year embargo, this volume celebrates his life and legacy in a series of essays by writers and critics, including people who knew him. It is well illustrated with biographical photographs and colour reproductions of works from his art collection, some of which have never before been published. Brasch encouraged many New Zealand writers and artists and was an early collector of works by Colin McCahon, Toss Woollaston and many other important New Zealand artists.

Editor Donald Kerr is Special Collections Librarian at the University of Otago Library. He has curated an exhibition at the Library, *Harmonizing my Starting Place: Charles Brasch: Poet, Patron, Collector.*

RECENTLY PUBLISHED BOOKS OF UNIVERSITY ALUMNI

The Case of the Missing Kitchen, Barbara Else. Vintage 2003
Understanding Religion, S A Grave. The Fox Press, 2003

UNIVERSITY OF OTAGO PRESS

Borderland Practices: Regulating Alternative Therapies in New Zealand, by Kevin Dew (June 2003)
Living Space: Towards Sustainable Settlements in New Zealand, edited by Clare Freeman & Michelle Thompson-Fawcett (June 2003)
Ngā Pikitūroa o Ngāi Tahu: The Oral Traditions of Ngāi Tahu, by Rawiri Te Maire Tau (August 2003)
Continuity amid Chaos: Health Care Management and Delivery in New Zealand, edited by Robin Gauld (August 2003)
Adventures in Democracy: A History of the Vote in New Zealand, by Neill Atkinson (August 2003)
The Heart Sutra by Caren Wilton (September 2003)
Lily's Cupola by Bronwyn Tate (September 2003)
The Law of Research: A Guide, edited by John Dawson & Nicola Peart (September 2003)
Enduring Legacy: Charles Brasch, Patron, Poet, Collector, edited by Donald Kerr (September 2003)
The Prickly Pair: Making Nationalism in Australia and New Zealand, by Denis McLean (September 2003)

Alumni: written a book, produced a CD or held an exhibition lately? Email the editor at mag.editor@otago.ac.nz

OTAGO ROLL CONTINUES TO GROW

The University's roll has reached an all-time high, second semester enrolment figures show.

With nearly 18,750 students on the books, the student headcount is already up four per cent on last year's final total of 18,026.

The number of equivalent full-time students (EFTS) has now risen to 16,591, up 6.2 per cent on the 2002 final figure of 15,623 EFTS.

While the EFTS growth was spread across all the academic divisions, Humanities and Commerce showed the largest rises attaining 7.8 and 7.9 per cent increases to reach 4,920 and 3,456 EFTS respectively. Health Sciences enjoyed a 3.8 per cent rise, with the division breaking the 4,000 mark for the first time (4,024 EFTS), while Sciences increased by 5.7 per cent to 4,191.

Marketing and Communications Director Phil McKenzie says that the continuing growth across the disciplines is a "testament to the increasing attractiveness of Otago as an institution dedicated to fostering academic excellence while offering a unique campus lifestyle".

ZOOLOGY BUILDING OPENED

The University's new $7.7 million Zoology building was officially opened at a ceremony in July by University Chancellor Eion Edgar.

The three-storey Benham Building was constructed on budget within a tight 18-month timeframe, and is now home to about 30 of the Department of Zoology's 50 academic, research and technical staff.

Adjoining the existing main Zoology building in Great King Street, it houses a series of offices, a seminar room, seven specialist laboratories, and one teaching laboratory.

The state-of-the-art facilities, which are compliant with the latest legal and safety requirements, replace ones that had become cramped and outdated.

OTAGO INTRODUCES NEW MEDICAL ADMISSIONS TEST

As part of Otago's new vision for medical education, over 600 students sat the Undergraduate Medicine and Health Sciences Admission Test (UMAT) for the first time in July.

UMAT and its North American equivalents are standard requirements for entry into many top overseas medical schools.

The new test measures factors other than academic performance such as logical reasoning and problem-solving, interaction skills, and non-verbal reasoning. UMAT now accounts for 34 per cent of an applicant's assessment, with the balance based on their first year marks.

The move reflects a recognition that today's doctors must be more than just top scholars, they must also be good communicators, have excellent people-skills, be critical thinkers and have keen problem-solving abilities, says Dean of the Faculty of Medicine Dr John Campbell.

The University also plans to introduce interviews as part of the selection process next year.

The wider curriculum is currently under review, with the aim of shifting away from a narrow emphasis on academic knowledge to training people for a profession.

Proposed changes arising from a series of discussions within the Faculty will shortly be put to the public for consultation in each of the three centres where Otago offers medical education - Dunedin, Christchurch and Wellington.

OTAGO LAUNCHES PACIFIC CENTRE

The University officially opened its Pacific Island Centre in July at a ceremony attended by about 150 people from around New Zealand.

An initiative to make the University more welcoming to Pacific Island students, the Centre aims to accommodate their cultural needs while supporting academic achievement.

Among the guests were several Pacific alumni of Otago, including the first Pacific Islander to be appointed to the district court bench in New Zealand, Judge A'e'au Semi Epati.

ONE HOCKEN BETTER THAN TWO

The University's Hocken Building has been renamed the Richardson Building to overcome confusion between it and the Hocken Library, which relocated from the building to Anzac Avenue premises in 1998.

The change was prompted by numerous ongoing mix-ups involving taxis delivering fares to the wrong destination, people turning up for meetings at the wrong building and goods being misdelivered. The name was chosen in honour of the first Vice-Chancellor of the University, Sir John Richardson, who succeeded the Reverend Doctor Thomas Burns as Chancellor in 1871.

INTERNATIONAL ALLIANCE TO EASE RADIATION THERAPIST SHORTAGE

Otago has formed an alliance with the University of Sydney in another step towards solving New Zealand's shortage of radiation therapists.

The new alliance means radiation therapists will have access to quality postgraduate education, encouraging graduates to stay in New Zealand, as well as assisting recruitment from overseas.

Otago already offers New Zealand's only undergraduate training in radiation therapy at its Wellington School of Medicine and Health Sciences. Sydney and Otago will now collaborate to offer distance-learning programmes for graduates, with specialisation available in advanced radiation therapy.

Radiation Therapy Department Head Karen Coleman says both Otago and Sydney are regarded as the Australasian leaders in radiation therapy and a collaborative approach will bring even higher levels of expertise to postgraduate teaching.

The Wellington School of Medicine and Health Sciences has also increased the number of undergraduate radiation therapy students with 100 students now enrolled. About 32 of these will graduate at the end of next year.

MADAMA BUTTERFLY TRIUMPHS

Madama Butterfly, the University's first foray into professional opera, has been an unqualified success, wowing audiences and critics alike.

The innovative production of Puccini's famous work ran over three nights at Dunedin's Regent Theatre in August, attracting well over four thousand people.

The final performance, which played to a capacity house, earned a standing ovation from the audience.

Feedback has been "extremely positive" says Executive Producer Judy Bellingham, with one leading figure in the New Zealand arts community describing it as the best staging of *Butterfly* he had ever seen, she says.

Vice-Chancellor Dr Graeme Fogelberg's decision that modestly-priced tickets should be made widely available to students was "nothing short of brilliant", she says. It resulted in "very pleasing" audience demographics which would hopefully help build a new generation of opera-goers, she added.

Everyone involved found the experience immensely enjoyable and rewarding, she says. In particular, the University's performing arts students had benefited greatly from exposure to the highly talented principals and artistic personnel.

Madama Butterfly (Yi-Lin Hsu) with, at right, Sharpless (Roger Wilson) and Goro (Brendon Mercer).

NEW MĀORI RESOURCE COLLECTION

The University's diverse body of Māori-related materials has now been brought together in one space to aid student learning across many Māori subject areas.

The new Māori Resource Collection, opened in July at the Information Services Building, is made up of duplicates of all relevant materials held at the university's libraries.

Professor Tania Ka'ai, Dean of Te Tumu, School of Māori, Pacific and Indigenous Studies, says the Collection will be a valuable resource to students in a variety of disciplines. "Having these materials more easily accessible all in one room will also be a great help for our students."

Two Māori Resource Librarians are also available to assist students.

Materials in the Collection cover areas such as Māori language, literature, linguistics, education, politics, history, material culture, music, traditional arts and natural history.

NATIONAL DIABETES CENTRE TO COORDINATE RESEARCH

The University's new Edgar National Centre for Diabetes Research (ENCDR) is now up and running.

An initiative under the University's Advancement Campaign, it will help in the coordination of research currently being conducted throughout New Zealand.

Leading international diabetes researcher, Professor Jim Mann, has been appointed Director of the ENCDR, which is based at the Dunedin School of Medicine.

Centre Advisory Committee members include representatives from Otago's three medical schools in Dunedin, Christchurch and Wellington, as well as the Auckland School of Medicine, the Ministry of Health and diabetes organisations from around the country.

University Chancellor Eion Edgar, who chairs the Committee, says closer collaboration among research partners will bolster efforts to prevent the disease and to help those who already suffer from its effects.

ISSUE 5 APOLOGY

In the last issue of the *University of Otago Magazine* a photo of Mai Chen and her family taken for a private purpose was published, through a third party error, without the consent of either Mai Chen or her husband John Sinclair.

The University regrets the error and apologises to Mai Chen and her family for any breach of their rights to privacy.

UNICLIPPINGS

APPOINTMENTS

Pamela Tate SC (BA (Hons) 1979), as the State of Victoria's first female Solicitor-General.

John Austin (LLB 1976, BCom 1979, MBA 1981) as the Executive Director of the World Bank. Mr Austin began his new role in August, prior to which he was an Executive Director of Nimmo-Bell Limited.

Tim Gibson (BA (Hons) 1981, LLB 1983) as the CEO of the recently-formed government agency New Zealand Trade & Enterprise. He was most recently Managing Director of Kapiti Cheeses Ltd.

Dr Rod MacLeod to New Zealand's first-ever Chair in Palliative Care at the University's Dunedin School of Medicine. Dr McLeod was formerly Director of Palliative Care at Wellington's Mary Potter Hospice.

Dr Robert Love has been appointed to the New Zealand Dental Council. Dr Love is currently Head of the Department of Stomatology in the School of Dentistry.

Brendan Boyle (LLB 1990) as CEO of Land Information New Zealand. He was previously director of the e-government unit at the State Services Commission.

OBITUARIES

Gill Parata (56). After being appointed as Assistant Registrar, International Office, Academic Section, in 1991, Gill became Head of the University's International Office in 1992.

In 1996, the University's Research and International Offices were combined and she moved to the Vice-Chancellor's Office as International and Community Relations Advisor. In 2000 she became Head of the Alumni and Development Office.

Professor **David Poswillo** (76), (BDS 1949, DDS 1962, DSC 1975) Pursued a distinguished career in facial surgery in Australia and the United Kingdom, including teaching and research at the universities of Adelaide and London. Noted for making a significant contribution to the safety of dental practice.

Emeritus Professor **Thomas McKellar** (82). An internationally leading psychologist who headed the University's Psychology Department from 1968-81, Professor McKellar was a distinguished scholar, teacher and an effective administrator who rebuilt and expanded the department.

Emeritus Professor Sir **John Walsh** (92), (Hon DSc 1975) Dean of the University's School of Dentistry (1946-1972). Sir John was a highly distinguished academic who played an enormous part in establishing the ongoing reputation of dental education, research and teaching in New Zealand.

Emeritus Professor **John Desmond Hunter** (77), (MBChB 1948, MD 1962) eminent cardiologist, former Dean of the Faculty of Medicine (1974-1977 and 1986-1990) and Christchurch School of Medicine (1982-1986), as well as Assistant Vice-Chancellor Health Sciences (1989-91). Noted for his extensive contributions to medicine and effectiveness as an administrator.

Dr **Mark Tunstall** (39). A postdoctoral fellow in the Department of Anatomy and Structural Biology, Dr Tunstall made important contributions to neuroscience.

Dame **Ella Orr Campbell** (92), (BA 1932, MA 1935, DSc 1976). A world-renowned botanist, Dame Ella was a pioneer in the field of university botanic research and began her career as a Botany Lecturer at Otago (1937-1944).

Michael (Mick) Connelly (87), (BCom 1949). Labour Member of Parliament for various Christchurch electorates 1956-1984, Cabinet Minister during the 1972-1975 Labour Government.

Howard Paterson (50), (BA 1980). Entrepreneur extraordinaire and visionary who was the driving force behind the development of Dunedin's biotechnology industry. His foresight, energy and commitment saw the University realise the successful commercialisation of its cutting-edge research, most notably in the case of BLIS Technologies.

Ernest 'Roy' Snow (80). Former University Chief Architect. Closely involved with renovating nearby villas as university offices, and laying out the design of the modern campus.

ACHIEVEMENTS

Emeritus Professor **George Petersen** of Biochemistry, acknowledged as New Zealand's "father of DNA", was awarded the Royal Society of New Zealand's Rutherford Medal for his outstanding contributions to Science.

Soprano **Anna Leese** (BMus (Hons) 2003) won the McDonald's Operatic Aria Scholarship, worth $43,180, at the New Zealand and Australia Aria Competition in Sydney.

Associate Professor **Jim Reid**, Head of General Practice at the Dunedin School of Medicine, was awarded a Distinguished Fellowship for outstanding services to medicine by the Royal New Zealand College of General Practitioners.

Professor **David Skegg,** Head of Preventive and Social Medicine and Professor **Rick Sibson** of Geology are to receive the University's Distinguished Research Medal in recognition of their outstanding contributions in their respective fields of epidemiology and structural geology. In May, Professor

Sibson was also accorded the rare honour of election to the Fellowship of the Royal Society of London.

Associate Professor **Peter Schwartz** of Pathology in the Dunedin School of Medicine and Associate Professor **Steven J. Jackson** of the School of Physical Education were honoured at the Tertiary Teaching Excellence Awards in Wellington. Associate Professor Schwartz received the prestigious $30,000 Prime Minister's Supreme Award, while Professor Jackson won a Sustained Excellence Award.

QUEEN'S BIRTHDAY HONOURS

University of Otago Chancellor **Eion Edgar** became a Distinguished Companion of the New Zealand Order of Merit in recognition of his services to education, business and sport, while Dr **Frank Griffin**, director of the University's Deer Research Unit, became an honorary Officer of the New Zealand Order of Merit for his services to science. **Alison Roxburgh**, (BHSc 1955) former university lecturer (1957-59) and a current Vice-President of the Otago University Graduates' Association, was honoured for her services to women's affairs and the community through becoming a Distinguished Companion of the New Zealand Order of Merit. **Roger Hall**, former Burns Fellow (1977-78) and English Department teaching fellow (1979-94), was made a Companion of the New Zealand Order of Merit for his services as a playwright.

SCHOLARSHIPS/FELLOWSHIPS

Wendy Brooks (MSc 2000) won a prestigious FiRST Scholarship from the Foundation for Research, Science and Technology for her research on Alzheimer's Disease, and was named overall winner of the 13 Scholarships for 2003. She is currently completing her PhD at Cambridge University in the United Kingdom.

Zoology PhD student **Anna Santure** (BSC Hons 2001) has been awarded a two-year $25,000 Enterprise Scholarship from the Foundation for Research, Science and Technology, for her research into genetic variation.

Dr **Martin Jarvis** of the Christchurch School of Medicine and Health Sciences was the South Island winner of the New Zealand Science & Technology Post Doctoral Fellowship, and also the Health Research Council of New Zealand's prize for health research, for a study into hormones and heart failure.

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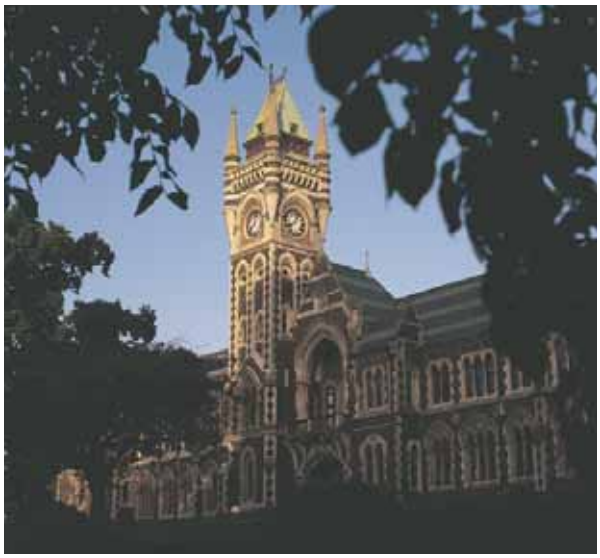

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University of Otago, PO Box 56, Dunedin, New Zealand.
telephone 64 3 479 5246, facsimile 64 3 479 6522
or email alumni@otago.ac.nz

ADVANCEMENT

"BRAIN DRAIN" DIRECTLY ATTACKED

PHILANTHROPIST SUPPORTS PROVINCE WHERE HE "MADE HIS SALT"

He may now live in Christchurch but he still remembers where he came from.

Farquhar McKenzie, with his wife Josephine, lives the retired life in their Sumner home, playing bowls, helping their grown-up children. It is far away from his life as managing director of Alliance Textiles in Dunedin but that is a life he has not forgotten. His recent financial contribution to the University of Otago's Advancement Programme "Leading Thinkers" has enabled the setting up of the McKenzie Repatriation Fellowship which aims to attract young doctors back to Otago for research and teaching.

"My Christchurch bowling mates can't understand it. I tell them I support the province where I made my salt and I always will." The McKenzies were both born in Dunedin and two of their children are Otago alumni.

The McKenzie Fellowship has been set up by the University to attack the "brain drain" problem directly . New Zealand's most promising surgeons and physicians often go overseas for postgraduate research and never return.

The fellowship will allow the University to compete directly with overseas opportunities by offering to New Zealand's "best and brightest" the chance to return to well-supported research and teaching positions, allowing them to establish research reputations free for a time from immediate clinical demands.

Undoubtedly, the generosity of the McKenzies will help not only the University but also the patients of tomorrow.

Photo: Ross Coombes

Farquhar McKenzie in his workshop at his Sumner home.

TRACE ELEMENT CENTRE WILL OPEN UP EXCITING NEW RESEARCH OPPORTUNITIES

COMMUNITY TRUST OF OTAGO CONTRIBUTES TO ADVANCEMENT PROGRAMME

In the 1980s Otago took the bold step of establishing Australasia's first trace element clean laboratory - at the time one of less than a dozen in the world. Now, 20 years later, the University still enjoys a leading reputation for trace element research and will build on it with the upcoming purchase of a state-of-the-art high-resolution mass spectrometer with an inductively-coupled plasma source (HRICP-MS). It will be one of only a few outside Europe and North America and form the heart of a new world class Trace Element Analysis Centre at the University.

The Community Trust of Otago will contribute up to $800,000 towards the new facility through the University's Advancement Programme "Leading Thinkers". Chairman of the Trust, John Farry, says "we might not understand how this machine works but we do know it does amazing scientific detective work".

The facility will open up new possibilities to researchers across many scientific disciplines, including the environment, geology, fisheries, animal and plant nutrition and medicine, forensics and archaeology. Researchers can study plankton growth, help understand climate changes, date rocks, work out where fish have been living, track trace element pathways through biological systems, tell where an explosive was manufactured or who was holding a gun, check the authenticity of artwork or wine, or test artefacts for their composition and origin without damaging them.

Project leader and Chemistry Professor Keith Hunter expects that the ability to measure the isotopic composition of almost any element will provide "a completely new dimension to research fields where Otago is already strong" and will open up new linkages with industrial and other research partners.

Mr Farry says that the Community Trust unanimously agreed to support "the finest educational institution in New Zealand" both for the project outcomes and because of the "huge economic impact that the University has on the Otago region".

Chairman of the Community Trust of Otago, John Farry.

A TALE OF NINE CITIES:

More alumni event reports…

A schedule of over 20 alumni functions for a year makes for a lot of places to go, people to see. Since late May, the Vice-Chancellor and the alumni office have notched up another 11 events in nine cities, with some 1000 guests accepting the invitations.

But it's not all statistics by any means, and the Vice-Chancellor – whose commitment to alumni is such that he attended all of these receptions – is delighted with the individual character of each group of alumni, and each individual event.

Following another well-attended reception at the Centra **Christchurch** on 22 May, it was time to hit the skies for the northern hemisphere alumni circuit. This year, the Vice-Chancellor and the Head of the Alumni & Development Office, Gill Parata, were joined by Professor Linda Holloway, Assistant Vice-Chancellor, Health Sciences, and the Dean of Law, Professor Mark Henaghan. Professor David Buisson, Assistant Vice-Chancellor, Commerce and Dean of the School of Business, caught up with the rest of the team along the way.

CHRISTCHURCH, 22 MAY 2003

L to R: Peter Joyce, Annabel Menzies-Joyce, Alan Clarke (front), Linda Holloway (Assistant Vice-Chancellor, Health Sciences), and Laurence Malcolm.

L to R: Rebecca Donaldson, Dwayne Rosie, Philip Couper, Amie-Jane Shaw

The North American welcome was as warm as last year. Otago's first activity in **San Francisco** on 12 June was co-ordinated by LA's Jenny Schreiber (DipHSc 1964) and local contacts Bill (BE 1964) and Helen (BSc 1964) Lindqvist. Otago colours and a nostalgic photoboard greeted alumni on their arrival at the Marriott Hotel. Guests brought their own sense of community, even organising of rideshares from downstate.

Up to **Vancouver** on 13 June, where the Westin Bayshore's banquet room renovations caused an upgrade to the hotel's yacht. Unsurprisingly, spending a sparkling evening on a gleaming white yacht against an Otago-blue sea was perfectly acceptable to over 40 alumni and an assortment of Dunedin-based staff independently visiting Canada at the time. After dusk, several locals escorted the Otago visitors to the Royal Club for traditional New-Zealander-offshore entertainment – finding cable TV for an All Black rugby test, the season opener against England. Thanks are due to Angie Driscoll (BCom(Hons) 1988, BPhEd 1988, MCom 1990) and Kelvin Broad (BEd 1992) for their help with the Vancouver arrangements.

Otago's colours flew again in **New York** on 17 June, where the Metropolitan Club's floral decorations were obligingly gold-toned. Another good mix of alumni entertained each other until late in the evening.

One more stop on the mid-year overseas alumni circuit: **London**, where the regular functions have been so popular over the last two years that this year the University booked the New Zealand High Commission's Penthouse for two nights on 24-25 June. Tickets were a hot commodity because the venue's capacity was restricted, but its views were not. After more than a decade of Otago events at the Penthouse, the best outlook of London impresses even those who attend each year, and as always, John Zinzan (BDS 1969) provided considerable local support for the alumni office.

Back in the southern hemisphere, attention turned to Australia, where the success of last year's events left behind motivated alumni networks. **Melbourne**'s committee, led by Trevor Moyle (BCom 1972), with particular assistance this year from Katharine Tapley (BA 1993, LLB 1994), again organised a winter dinner at the Leonda on the Yarra on 24 July for around 70 guests. The event was punctuated by Otago videos, the Vice-Chancellor's speech, and a continuation of Victoria's own tradition of local alumni speakers, this year John Salmond (BA 1958, MA 1960), the recently retired Pro-Vice-Chancellor of La Trobe University.

ALUMNI

Sydney alumni were also busy at the end of July, with Tim Bartley (BSc 1989, MSC 1991) on the ball in organising the traditional pre-Bledisloe Cup party for 25 July. Around 80 local and visiting alumni made it to the University & Schools Club for an informal event which went on close to midnight. As a pleasant change from the last year or two, they got to continue celebrating after the next day's rugby as well, as the All Blacks resoundingly defeated the Wallabies.

From Australia in July to the north of New Zealand in August, with the first-ever function in **Whangarei** on 18 August drawing over 50 guests from a wide range of ages and disciplines. The Vice-Chancellor then returned to **Auckland** for the year's largest events, on Tuesday 19 and Wednesday 20 August. Because there are so many alumni in the greater Auckland area, the invitations are split by date of graduation, but over 200 guests brought an Otago atmosphere to the Auckland Hilton each evening. On Tuesday night, for pre-1990 alumni: much loud conversation and conviviality, warm toasts to the Vice-Chancellor and Chancellor at what will be their last Auckland appearances before their successors are announced, and appreciative laughter for the Vice-Chancellor's best lines. On Wednesday, large clusters of enthusiastic post-1990 alumni who'd rounded up their friends, plenty of glamour and party spirit and a pronounced pride in the University and sense of camaraderie with the campus community.

Only a handful of events remain for 2003, but the University is busy confirming dates for 2004. The schedule will be available on the website towards the end of the year and in next February's *University of Otago Magazine*.

Thank you to all of you who attended alumni functions in 2003. We hope you enjoyed catching up with Otago and your friends as much as we enjoyed catching up with you, and we look forward to seeing you again.

ALUMNI FUNCTIONS	
Dunedin	Tuesday 7 October 2003 Wednesday 8 October 2003

AUCKLAND, 19 AUGUST 2003

L to R: Don Calder, Jim Oxley, Aldyth Nelson.

L to R: Jeremy and Judith Hopkins, Peter Herdson, Ron Trubuhovich, Carol Herdson.

L to R: Margie Kydd, Ali Reeves, Marilyn Best.

L to R: John Sullivan (Dean of the School of Physiotherapy), Marie and Les Williams.

Reports and photos from alumni events feature online at www.otago.ac.nz/alumni

Alumni events and services are constantly under review. New information is published in the *University of Otago Magazine*, but schedules, new Departmental alumni programmes and other services are updated at www.otago.ac.nz/alumni

Please keep your contact information current via the web so we can continue to let you know what's going on at Otago and what's available to alumni throughout the world.

A TRIBUTE TO GILL PARATA

Gill Parata, Head of the Alumni & Development Office, died on 15 September after a short illness.

Gill was well known to many alumni from her years with the International, Vice-Chancellor's and Alumni & Development offices. Tributes received since her death have invariably mentioned her enthusiasm and passion for the University, for building relationships between alumni and Otago, but above all for people. It is testament to her gregarious and empathetic personality that many of those she met in the course of her work became friends, and that she considered meeting Otago's many and various alumni and friends the great privilege of her work.

On a personal level, she will be much missed by the team she fostered and nurtured in her inimitable way. Her legacy will be Otago's ongoing commitment to involving all its alumni in the University community.

HOW THE HUMAN PERFORMANCE CENTRE CAN HELP YOUR FITNESS

OTAGO IS NO ISOLATED INSTITUTION: THE MODERN university engages the community and commercial sector with its academic pursuits. We especially like to encourage alumni to make use of facilities with public access, and you will be most welcome at Otago's two **Human Performance Centres (HPCs)** in Dunedin and Wellington. While very much involved in academic research into the capabilities of the human body, they are also able to cater professionally to individual or corporate demand for cutting-edge scientific techniques and equipment designed to measure, improve and enhance fitness and performance.

The HPC launches its new **Performance Enhancement Plan (PEP)** in September, 2003. Whether you're an athlete wanting to improve your fitness, or an employer wanting to help keep staff in shape for physically demanding jobs, the HPC can design appropriate packages. It's about working smarter, not harder, says new HPC Director, Dr Chris Button.

As a special offer, Otago alumni will receive a reduced rate for the PEP between September and December, 2003, so if you've always wanted to know exactly how well your body is working, and to take a more educated approach to improving your physical performance, it's the best time to contact the University of Otago's Stadium Centre at the Westpac Stadium in Wellington or the HPC based at Dunedin's School of Physical Education and see what the HPC can offer you. To receive this special rate, please mention this article when you contact the HPC. The rate also applies to organisations which book through alumni.

www.hpc.otago.ac.nz Email: cbutton@pooka.otago.ac.nz
Tel: 04 460 9813 (Wellington) 03 479 9122 (Dunedin)

WORLDBEATERS — On the subject of peak performance, warm congratulations to New Zealand's world champion Silver Ferns netball team which includes Otago alumnae captain Anna Rowberry (BPhEd 1999), 102-match veteran Lesley Nicol (BPhty 1997, MBChB 2002), Belinda Colling (BA 1997), Adine Harper (BPhEd 2002) and current physiotherapy student Anna Scarlett.

WHATEVER HAPPENED TO

Academic Dress Convenors Sue Cathro (left) and Pat Mark in Geology's north basement with some of the trenchers.

THE FEDERATION OF UNIVERSITY WOMEN

IT'S ALIVE AND KICKING – BUT CHANGED ITS NAME IN New Zealand to the Federation of Graduate Women.

It's the group which hires out gowns, hoods and trenchers for graduations – an involvement of more than seventy years. Many university buildings have housed academic dress but Geology's north basement is currently where the 1000 gowns, 900 trenchers and 2500 hoods await the next Otago graduation ceremony. The profit (and it beats running cake stalls any day) is ploughed back into fellowships and scholarships to encourage women into higher education.

The Otago branch of the Federation was the first in New Zealand, founded in 1921 by Helen Rawson, Professor of Home Science, the country's first and, for many years, only woman professor. Now there are 16 branches of NZFGW affiliated to the International Federation which has its headquarters in Geneva and 180,000 members in 72 countries. The Federation aims to encourage the education of women and promote international peace, understanding and cooperation.

Otago graduates have always been at the forefront of this unashamedly feminist organisation. Otago graduate Dame Daphne Purves (MA(Hons) 1931) is the only world president (1977-1980) to have come from the Southern Hemisphere. The last five Presidents of the New Zealand Federation have all been Otago graduates: Lorraine Isaacs (MA(Hons) 1967), Stephanie Hutchinson (BHSc 1966), Dorothy Meyer CNZM (BHSc 1952), Ellen McCrae (BPharm 1970) and, elected last month, Rae Duff (BSc 1965).

To cap it all, Louise Croot (BA 1962, DipGrad 1998) and Dorothy Meyer both hold international office, Louise as vice president.

But then, we would expect nothing less from Otago graduates!

Lorraine Isaacs

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