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UWA Internet: http://www.uwa.edu.au
UWA is consistently acknowledged as an invaluable community resource and an employer that ‘leads the way’ by giving a high priority to equity and diversity. Towards the end of last year these twin commitments were recognised by a string of high profile awards and commendations.

In November, the University was highly commended by the State Government for its contribution to the Western Australian community through support – over more than a half century – for the UWA Perth International Arts Festival. The festival, now in full swing across venues throughout the State, had its modest beginnings on the campus that still accommodates many performances. The accolade came at the 2003 State Arts Sponsorship Scheme Awards.

UWA also featured prominently in the 2003 Premier’s Awards for Excellence in Public Sector Management. The UWA Perth International Arts Festival and its partners (the Department of Culture and the Arts, and the Department of Industry and Resources) won the Innovation category of the awards for the Western Australian Indigenous Arts Showcase; and with its partners (the Mid West Development Commission, Geraldton University Access Group and Geraldton Universities Centre) the Education and Skills Development category.

A month earlier, UWA had – for the second year running – been named winner of the Prime Minister’s Employer of the Year Awards. With more than 100 employees with disabilities in a range of academic and general staff positions, UWA’s commitment to diversity and to changing the culture of the University had been accelerated through strategies introduced in 2000. Human Resources Director Bob Farrelly said that diversity went far beyond fixing numbers to creating an inclusive environment: “Equal employment opportunity is about opening the door. Diversity builds on this to open the mind.”

Having been a finalist in the Premier’s Award category of Leadership in Equity and Diversity, November saw the University carry off the GU Corporate Award in The Australian HR Awards for assisting its employees to find a balance between their personal lives and work. Deputy Vice-Chancellor, Professor Margaret Seares, said that UWA Human Resources strategies played a significant part in employees choosing to work at the University. These include taking into account family responsibilities and offering permanent part-time work, job sharing, flexible hours, on campus child care, and courses on achieving a good work/life balance.

Lucette Cant, an Employee Relations Officer in the Human Resources Department, is one of many who benefit from UWA’s friendly approach which allows her to take off all the school holidays. “Rather than farming my two children out to relatives, I can spend time with them, and have a break myself,” says Lucette. “It works really well.”

The award judges commented on the high levels of staff satisfaction at the University and “innovative and ground-breaking initiatives that serve as a role model for other organisations”. Among the staff of just under 3,000, about ten per cent have worked on campus for 25 years or more.

The Federal Government’s Equal Opportunity for Women in the Workplace agency also confirmed the University’s on-going status as an Employer of Choice for Women.

NEW APPOINTMENTS

The University of Western Australia begins 2004 with a new Vice-Chancellor, Professor Alan Robson, who we profile in this issue of the magazine, and several new appointments to the University Executive. Professor Margaret Seares, who had held the post of Pro Vice-Chancellor (Community and Development) moves into the role of Deputy Vice-Chancellor that Professor Robson had held for a decade. Professor Seares has played a major role in the arts in Australia. The former head of UWA’s School of Music spent four years as Chair of the Australia Council and is currently a board member of the National Portrait Gallery in Canberra, the Australia-Japan Foundation and the ABC’s Arts Advisory Committee. Another new appointment to the UWA Executive is Professor Doug McEachern (formerly an Executive Director with the Australian Research Council) who is UWA’s new Pro Vice-Chancellor (Research and Innovation). Other new appointments include Professor Robyn Owens taking on the role of Dean of Postgraduate Research and Ms Gaye McMath assuming the post of Executive Director (Finance and Resources).

UWA graduates like nothing more than an excuse to get together, and next month will see an unusual reunion of graduates with a shared interest in making music. For some – like composer, performer and music producer Peter Kaldor, who was behind the success of many bands and now runs a production company in Sydney – making music eventually eclipsed all other interests, and they went on to make highly successful careers in the entertainment industry. For others – like Peter’s brother, the highly regarded epidemiologist Dr John Kaldor, Professor of Epidemiology at The National Centre in HIV Epidemiology and Clinical Research at the University of New South Wales (who is also an inspirational guitarist and clarinet player), music has remained an abiding interest.

Says Haydn Pickersgill, an engineering graduate who is a musician and production manager: “Back in the 70s, university life went hand in hand with live music and many bands featured students from that era. Twelve of the best will be featured playing in a variety of bands for the Old Day Out – the first such gathering of its kind since we all went our separate ways.”

Performers will include guitarist and CEO of King’s Park, Dr Steve Hopper; Gary Burke, an instigator of the Community School in Fremantle, who played a major role in the formation of the band Rich and Famous; lawyers Murray Campbell, Tim Coyle and Michael Fagan (now based in Hong Kong); Professor Owen Hughes, Academic Director of the Australia and New Zealand School of Government; Attila Oszdoly, a graduate of Mathematics and Physics, who is a Library Officer at UWA and has a varied career in music, television and theatre; Scott Wise, who majored in Geology but is now a world class lather and musician based in Margaret River; Arts graduate Dave Warner who is writing novels and screenplays in Sydney; and Curtin University graduate and actor Terry Serio who has been closely associated with UWA through theatre and music. The Old Day Out day-long concert, the brainchild of UWA graduate Joe Fisher who created and operated Clancy’s Fish Pub, is on March 13 at Princess May Park in Fremantle. For more information visit Clancy’s website at www.clancysfishpub.com.au or at www.clycitc.com.au.

GRADS PLAN MUSICAL REUNION
Laura, who runs the Tango Takes 2 dance studio.

The tango was choreographed for male and female partners. They would later display to impress workers shaped the dance routines that led into formal studies while the Abelarg Pro-Medicine Summer School offers an intensive course that prepares students for Medicine. Dentistry or a Health Science degree.

The school also provides a range of resources and services such as academic advice, tutorial assistance, financial and accommodation information. Shenton House, a favourite meeting place, provides a computer lab and study rooms. The WA Sherrington Corporation organises social, cultural and sporting events on campus.

If you would like to know more about the School, visit: www.uwa.edu.au/prospective/undergraduate/about-the-school.

### A GARDEN OF REMEMBRANCE

Hans Arkeveld's Celestian greets visitors beyond those working on the campus. Further information about this program can be obtained from Ms Lesley Hicks on 618 6488 3288.

The garden, situated at the School of Anatomy and Human Biology, was created with a generous donation from the late Julius and Jean Tahija, an Australian/Indonesian family whose granddaughter Cindy is currently studying at UWA. Former patients of Adjunct Professor Richard Vaughan, the Tahijas hoped the funding of the garden would encourage close Indonesian/Australian relations.

Within the garden is a bronze winged embroyo set upon a wheel, created by the School’s resident artist Hans Arkeveld and symbolising the cycle of life.

Associate Professor Brendan Waddell, Head of the School of Anatomy and Human Biology, said that without the donation of bodies, the School and the UWA-based Centre for Medical and Surgical Skills would not be able to train surgeons. Approximately 50 people per year bequeath their bodies to the School. Further information about this program can be obtained from Ms Lesley Hicks on 618 6488 3288.

### CALLING UWA

UWA's School of Indigenous Studies recently won an Australian Award for University Teaching that acknowledged its innovative and practical approach to providing services to Indigenous students.

Vice-Chancellor Professor Alan Robson said that the school's outstanding work has been supported by staff across the campus and in particular from Law and Medicine. The School and the Centre for Aboriginal Medical and Dental Health, located in Shenton House, offer three enabling programs that lead on to the full range of UWA degree courses.

The Aboriginal orientation course develops generic study skills and offers units in physics, chemistry, mathematics, law, human biology and Aboriginal studies. The Aboriginal Pre-Law program is a highly successful five-week course that leads into formal studies while the Aboriginal Pre-Medicine Summer School offers an intensive course that prepares students for Medicine, Dentistry or a Health Science degree.

The school also provides a range of resources and services such as academic advice, tutorial assistance, financial and accommodation information. Shenton House, a favourite meeting place, provides a computer lab and study rooms. The WA Sherrington Corporation organises social, cultural and sporting events on campus.

If you would like to know more about the School, visit: www.uwa.edu.au/prospective/undergraduate/special/aboriginal.

With some 4,300 phones on campus to tempt you to don your dancing shoes in 2004 – introduces you to that most sensuous of dances, the tango, and to one of many courses on offer over the next two months through UWA Extension. The fetching exponents of the dance are UWA graduate Laura Groombridge and her partner, Argentinian Pedro Arandia, a professional dancer who runs the Tango Takes 2 dance studio.

The pair present workshops and performances across Australia.

In her other life, Laura is a Research Registrar with the Calcium and Bone Research Group at Sir Charles Gardiner Hospital, and is currently completing specialist training in nuclear medicine. But, as she puts it, “When the sun goes down, out come the tango shoes…”

Five years ago Laura met Pedro at a tango conference in Argentina, and he abandoned tertiary studies to come to Australia. In Buenos Aires he lived in the port city of La Boca where, decades ago, the tango originated. It evolved during evening all-male dance sessions when dock workers shaped the dance routines they would later display to impress female partners.

“The tango was choreographed by street people – not by a dance elite – so although it has virtuosic versions, basically it is easily learned and can be danced by people of all ages. In South America I have watched 90-year-old women dance and Pedro’s school has pupils from 14 to 70! And because it is a very masculine dance, men don’t feel silly doing it. Apart from being a very social dance, it’s a gentle way to exercise, because it’s a walking dance. Tango now has a worldwide reach, so you meet exponents of the dance in all major cities.”

So, if you have dreams of slipping on those highly polished dance shoes, go to www.extension.uwa.edu.au and find A Taste of Tango which runs from 8 March to 5 April. It could be your first step in learning to tango. Another website you might like to visit is www.tanganorte.com.

Health and medical research projects at The University of Western Australia aimed at improving health outcomes for Australians suffering from a range of diseases have gained more than $9.9 m of support from Australia’s peak health funding body, the National Health and Medical Research Council (NHMRC) which supported a total of $10.2m to Western Australia.

UWA Vice-Chancellor, Professor Alan Robson said that some 26 Western Australian research projects have benefited from the grants, 25 of which are being undertaken at UWA. In addition, the University’s researchers were awarded three career development grants totalling $1.2m. Projects winning NHMRC support include research on aspects of fibrotic lung diseases, asthma, heart and liver disease, aortic aneurysms and neurological disorders.

Towards the end of last year the Australian Council of Deans of Education and the Australian Council of Deans of Science expressed concern at both the decline in university enrolments in science, mathematics and technology and in teacher shortages in secondary schools in Australia. And with 30 per cent of teachers abandoning the profession in their first few years of teaching before they reach their full potential – it’s little wonder that local science teachers have much to discuss when they attend the UWA.

UWA graduate Pam Garnett, who addressed a recent Science Networking and Strategic Planning Breakfast hosted by UWA’s Faculty of Life and Physical Sciences, believes that three steps are vital to halt the losses and make good the current shortage of science teachers.

“Schools need to mentor their young staff better,” says Dr Garnett who is a member of the Premier’s Science Council and winner of the Prime Minister’s Prize for Excellence in Science Teaching. “I also believe that teacher training and support need to extend beyond the university degree, and government needs to look at reducing the teaching load for first year teachers.

Another challenge is to develop school science courses that cater for the needs of all students. We tend to overemphasise teaching what we already know and not address potential developments in science. It is these frontiers of science that capture the minds of our young.”

Dr Garnett is Dean of Curriculum at St Hilda’s Anglican Girls School and Chair of the Curriculum Council Chemistry Syllabus committee. She has built a strong science department within the school and has pursued considerable research into classroom practice. Making it her mission to attract more girls into sciences, she has had the satisfaction of knowing that more than half of the school’s students now select science-related careers.

The UWA graduate is enthusiastic about the benefits for cross-sectorial networking provided by the annual Science Networking Breakfast held at UWA. She is also enthusiastic about the State Government’s initiative of allocating $50,000 to each local university for the next four years to run a peer tutoring program. This involves university students tutoring secondary school science students and becoming valuable role models. The university students also benefit by learning to communicate their science.

A recent faculty initiative in this area was a UWA professional development workshop during which science teachers were able to draw on the teaching and learning experiences
If you would like to know more about the networking breakfasts contact Ms Eva Chye on (08) 6488 3263. When Dr Pam Garnett talks about the networking breakfasts.

DANCE AT PIAF

Dance is also on offer at the UWA Perth International Arts Festival, with the WA Ballet offering three world premieres in its under-the-stars program at Quarry Amphitheatre that includes the return of Stephen Page’s extraordinary *Munaldjali*.

The Festival has always been a meeting point for different cultures – and nowhere is that more apparent than in Guan Wei’s *Ned Kelly encounters the troopers in the Mystic Mountains*, 2003. You can see this work and others by one of the most significant painters to emerge from China at *The Church* Gallery in Claremont until 7 March. The exhibition is entitled *Guan Wei Prediction-Reflection* and the artist’s work draws on the experience of his move to Australia and the cultural differences he encounters.

More much-discussed art works will be on display at the Lawrence Wilson Art Gallery as part of the Festival. *Lisa Roet: Pri-mates* opens on 15 February and runs to 20 April. The artist has worked with apes as the subject of her drawings, sculpture and video for many years. Her digitally edited photograph *Three Wise Men* features an ape and *Antwerp Zoo* appears on the Contents page of this issue.

Meanwhile, champagne, picnic hampers, movie buffets and fine films continue to be a winning mix at the Lotterywest Film season at UWA’s Somerville Auditorium and Joondalup Pines. The season that opened with comedy in early December, will close with the psycho drama of *The Mother*, which runs until 28 March. Check the program at www.perthfestival.com.au

The WA Ballet's *Munaldjali* (Photo: Jon Green)

FUNDING BOOST TO FARM RESEARCH

Communications, Information Technology and the Arts, UWA graduate Daryl Williams, launched a new research program at the UWA-based Cooperative Research Centre for Plant-based Management of Dryland Salinity in December.

The Salinity CRC, also funded by industry and in-kind support from its national research partners, was awarded an additional $5m in the latest round of Commonwealth funding. This will support research into livestock production from salt-tolerant pastures and into conserving wildlife through new approaches to farming.

Professor Phil Cocks, Chief Executive Officer of the CRC, says that salt-tolerant plants – such as saltbush – have long been grazed by livestock, but as the State’s agricultural land falls prey to salinity, such plants are now being used commercially. UWA researchers have done much to increase our understanding of the mechanisms of plant tolerance to waterlogging and salt. “In the last few years, the use of salt-tolerant pasture has grown rapidly,” said Professor Cocks, “and we need to explore the use of such plants in areas that might become affected by salinity.”

“The funding boost will also be used to increase our understanding of the impact of agriculture on native species so that we make sure new farming systems have an overall positive impact, and that we don’t release any plant introduced to the environment that could become environmental weeds.” If you’d like to know more about this CRC, visit the website www.crcsalinity.com

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supporting the UWA PIAF, the UWA Library, the Berndt Museum of Anthropology and the Edward de Courcy Clarke Geological Museum, UWA Press, the UWA Grounds and the Lawrence Wilson Art Gallery. The gallery, acknowledged as one of Australia’s premier university art museums, now has additional support from a new chapter of the Friends of the Lawrence Wilson Art Gallery that has been formed to encourage new and youthful involvement with the gallery. The group, known as Artique, will assist the gallery in achieving its goals and will provide members with opportunities for active engagement with the University’s collections. Invites to openings and VIP events will be part of Artique’s attractions, and if you’d like to know more, email Artique@lwgallery.uwa.edu.au or phone the gallery on 618 6488 3707. In this issue of UNIVIEW we range through diverse territory, visiting the UWA Perth International Arts Festival, exploring current UWA research, and relishing the music of current percussion students and graduates. We also journey to Rottnest, very much in the news now right now as a task force (headed by UWA Senate Member Alex Allan) considers its future. We explore the many ways in which UWA research is contributing to the bank of knowledge that could well inform future management decisions relating to this iconic island, and speak to graduate Brian Easton, a former CEO of the island who remains a committed member of the Rottnest Foundation.

The paintings that illustrate this major feature – and capture the essence of Rottnest – are by artist Jan Grainger, who has found the island an inspiration for many works. Mrs Grainger, a graduate of the University of Queensland and a former microbiology tutor at UWA, came to Rottnest from her Mt Claremont studio. This award-winning artist has held solo exhibitions of watercolours, acrylics and mixed media works of Rottnest, the Kimberley region and the Karri forests of the State’s Southwest. UWA Press, one of a diminishing number of academic presses, is
If you get bored with the bush, you can always turn to the sex life of an olive python.

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27 Mar  Ross Avins - Neil Diamond Tribute

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widely recognized – through awards and national sales – as a publishing house that produces quality books that make a vital contribution to debate about the environment, history and culture in Australia.

Last year saw the release of many notable titles including Legacies of White Australia: Race, Culture and Nation edited by Lakshiri Jayasuriya, Jan Gothard and David Walker; and Contested Country by noted historians Trish and Ian Crawford.

Two of the Press’s most recent titles look set to be winners, John Dowson’s Old Fremantle has already won high praise for its lively text and evocative photographs that span a century. In City of Light, a History of Perth since the 1950s, historian Dr Jenny Gregory charts our capital city’s transformation from years of postwar reconstruction to more recent endeavours to revitalize the city in the mid-90s. Coverage of major events – subscription during the Vietnam War, the Poseidon boom, WA Inc, the Americas Cup triumph to mention but a few – allow us revisit the stories that shaped the once-isolated capital city dubbed the ‘city of light’ by a lone astronast back in the 1960s.

All UWA Press titles are available at the University’s Co-op Bookshop and major book stores. His Majesty’s Theatre has been the elegant centre of a host of theatrical happenings for a century and UWA is very much a part of its centenary celebrations.

Having played a central role in Perth cultural life since its own inception in 1911, the University is a keen supporter of the His Majesty’s Theatre Foundation, which fundsraise to enhance and promote the theatre, and to underwrite its community programs. As a foundation sponsor, UWA has acquired the naming rights to one of the theatre’s attractive dress circle lounges.

“UWA will use the lounge for functions such as get-togethers for alumni who work in the city, and for other groups and individuals with whom we have important relationships,” says Deputy Vice-Chancellor, Professor Margaret Sears.

“There are many people in both the private and public sectors, working in the CBD, with whom we have had limited contact up to now. The lounge provides a venue clearly identified with UWA to which staff of the University can invite alumni and other colleagues so they can renew acquaintances and develop long-term relationships. It would also provide an opportunity for staff to introduce final-year students to potential employers.”

The UWA lounge will be used for hospitality by the University and other Foundation sponsors and will be an ideal venue for small city functions, and theatrical entertaining. Some of the University’s early photographs and artworks now adorn the lounge’s walls.

The theatre is planning a series of celebratory events during the year, including an evening of live entertainment during which the theatre will celebrate the careers and talents of Jill Perryman, actor Edgar Metcalfe, ballerina Lucette Aldous and opera singer Gregory Yurnich. Another highlight will be a production of Carmina Burana, which (for the first time) brings together the West Australian Symphony Orchestra, the WA Ballet and the WA Opera.

Last year’s Study Tour of Roman Britain organized by Professor David Kennedy of UWA’s School of Humanities was so successful that there are plans to repeat the tour in July of 2004. Says Professor Kennedy: “The tour ran for three weeks and took us around some 40 sites from Kent to Aberdeen. It included behind-the-scenes access at some excavations and museums; the Roman Palace at Fishbourne; a guided tour around Had Hill fort by a ‘Roman legionary’; a walk along a few kilometres of Hadrian’s Wall and a sniff of newly excavated Roman leather sandals at Vindolanda…”

“For more information, contact dkennedy@cyllene.uwa.edu.au or +618 6488 2150 and see www.uwa.edu.au/Classics/RE_Tour_2004.pdf

Another successful tour in its eighth year is the UWA French-in-Action program that involves a three-week linguistic tour to Paris and Provence. Originally a refresher course for local French language teachers, this tour soon gained a life of its own as its appeal to current UWA language students and those studying at other institutions (plus Francophiles keen on polishing their language skills) became apparent. The tour is now offered in June/July and in December and is led by UWA Senior Lecturer Hélène Jaccomard. Apart from providing expert guidance, Hélène sets various tasks for participants that encourage conversation with Parisians.

If you’d like to know more, contact Hélène at hjaccom@arts.uwa.edu.au

The Tall Poppies (Photo:The West Australian)

TALL POPPIES MAKE MUSIC

When Noise, a month-long publicity initiative sponsored by the Federal Government, showcased the work of young WA artists, musicians, writers and filmmakers last October, UWA students and twin sisters Catherine and Susan Hay were among those featured. The sisters (Catherine is a commerce graduate, Susan a medical student) have been writing their own music and performing as an acoustic guitar pop duo – Tall Poppies – for more than two years. In 2002, Susan took a break from studies to accompany her sister to London where the pair performed and recorded a demo that they hope could lead to a CD this year.

“We went to London because there is a real buzz in the music scene,” says Susan, who returned from the UK trip to the very different world of obstetrics and gynaecology at Perth’s teaching hospitals. At the beginning of 2004, the sisters were back in London, talking to a producer and working towards production of a CD.

Having music as a sideline to medicine is, of course, far from rare. Some 120 doctors from around Australia exchanged stethoscopes and scalpels for violins and cellos last year for the 10th anniversary concert of the Australian Doctors’ Orchestra. Some 23 WA doctors (most of them UWA graduates) and 11 medical students were among the performers raising funds for the Cancer Foundation of WA.

David Kennedy of UWA's School of Humanities was so successful that there are plans to repeat the tour in July of 2004. Says Professor Kenneth: “The tour ran for three weeks and took us around some 40 sites from Kent to Aberdeen. It included behind-the-scenes access at some excavations and museums; the Roman Palace at Fishbourne; a guided tour around Had Hill fort by a 'Roman legionary'; a walk along a few kilometres of Hadrian's Wall and a sniff of newly excavated Roman leather sandals at Vindolanda…"
The day the foundation stone for the Gravity Discovery Centre was laid, sharp winds whipped cold rain from the grey skies into the faces of the assembled guests. Eighteen months later – amid the heat and dust of summer in Western Australia’s mid-west – guests gathered to celebrate the centre’s official opening.

Inside the stunning cathedral-like interior, the centre’s soaring ceiling, magnificent mural and intriguing hands-on exhibits clearly represent the embodiment of a dream for UWA physicist, Professor David Blair.

Funded by donations from the corporate world, the Gravity Discovery Centre at Gingin aims to revitalise science education and reverse the decline in science graduates. It also provides an exciting destination for local and overseas visitors, and is welcomed by local business.

The Gravity Discovery Centre is a gallery of ideas, a gallery of concepts and a gallery of questions – the big questions of the universe. A huge team of scientists and artists have collaborated to create art that has grown out of the quest to understand space, time and the universe.

Some of Perth’s top innovators and entrepreneurs have sponsored displays of Western Australian innovations, and the creativity of local inventors.

An enormous tower houses a set of extraordinary pendulums that mysteriously gain energy and move to hidden forces. Acoustic devices allow you to hear yourself in the past. Supermagnets exert unbelievable forces and light slows down. Lasers expose curved space and telescopes become time machines. Sound artists explore the sounds of gravity waves and a giant mural depicts the history of the universe. Waves ripple across the floor and a giant mosaic depicts the largest single structure in the universe.

The complex includes the biggest public astronomy centre in the Southern Hemisphere and the largest telescope in Western Australia. Day time viewing of stars is possible, and there is a one kilometre scale model of the solar system, “the walk to the end of the universe”.

The Gravity Discovery Centre is the public arm of the Australian International Gravitational Observatory and was opened in November by the Premier, Dr Geoff Gallop, along with Australia’s pre-eminent cosmologist and science communicator, Professor Paul Davies.

Students from the local Gingin school and Shenton College amazed the throng of adult guests by diving straight into the experimental exhibits, almost unaware that they were soaking up the lessons of physics and the universe by having fun, and making themselves look and sound strange.

Emeritus Professor John de Laeter, Chair of the Gravitational Observatory Board, said the centre was a gift to the children of Western Australia and described David Blair as having “unchecked rampant enthusiasm.”

It was one of many similar epithets applied to David Blair at the opening of the centre, which the visionary physicist accepted with his usual grin. Premier Dr Geoff Gallop said: “We need a formula for David Blair!”

Paul Davies, whom Professor Blair described as “one of the greatest drawcards in science on this planet” talked to the gathered schoolchildren and guests about gravity and anti-gravity, about Einstein’s equations replacing Newton’s theories, and how, in some trillions of years, these forces would finally pull the universe further and further apart.

“But trillions of years will be ample time for somebody like David Blair to finally come to grips with these waves,” he said, reassuringly.

Professor Blair himself says he doesn’t know what difference the discovery of gravity waves will make to humanity, but adds: “Heinrich Hertz, the discoverer of electromagnetic waves, could not have imagined the mobile phone and all the other devices of the electronic revolution of the 20th century either!”

The Gravity Discovery Centre’s website is www.gdc.asn.au
UWA’s New Vice-Chancellor

Alan Robson arrived at UWA in 1966 to begin research aimed at discovering why pasture legumes failed to thrive on Australia’s acidic soils. Wider cultivation of the legumes promised economic rewards, and his PhD study was the first in a series that significantly advanced our understanding of the legumes that are today cultivated on a wide range of Australian soils.

UWA’s new Vice-Chancellor grew up in rural Victoria among relatives evenly divided between the two professions of farming and teaching, so his career path seemed ordained. Holidays were spent doing hands-on farm work that ensured he was inured to the industry’s highs and lows before beginning studies in agricultural science at the University of Melbourne during the 1960s.

“How did the industry respond to the new breed of agricultural scientists? In Alan Robson’s experience, the agricultural community has been incredibly ready to accept new ideas. “This is particularly so in WA,” he says. “I think that is borne out by the fact that UWA was able to persuade farmers to put a levy on production to pay for research. That idea was the basis of what became a national funding program.

“The result is that today Australia spends more on agricultural research in terms of gross volume of production than most other countries and the whole area has become a very internationally competitive field. The fact that we are out there successfully competing is very much due to those initial levies that are now matched by government.

“Technology has of course totally changed the research scene – collecting data that would once have taken a day, now takes 10 minutes. In a way there are no new questions in science. There are just better ways of understanding them, better ways of describing them and better technology. And the growth of molecular techniques gives us a far greater capacity to answer questions we once posed, but did not have the techniques to answer.

“What disappoints me is that people still tend to think of agriculture as a mud-on-the-boots industry bumbling along as it copes with droughts and floods and fire. Agriculture today, as reflected in UWA teaching and research, is a high tech, high science, very efficient operation – its productivity growth far exceeds that of many other sectors.

“The industry is internationally competitive, relatively unsubsidized and the fact that it is now so efficient is important for the entire community in terms of maintaining rural infrastructure and ensuring good opportunities for kids from rural areas.

“Today the real challenge for Australia is to build sustainable agricultural production. The industry has to be three things: financially viable, ecologically sound and...
socially acceptable. The environmental degradation that has happened on and off the farm clearly cannot be allowed to continue and that is why the UWA-based Cooperative Research Centre for Dryland Salinity is so important.

“Sustainability is not something you ever fully achieve. You think you have a sustainable system and then another problem appears. Sustainability is a goal you have to be constantly working towards.”

Alan Robson also sees issues surrounding water use in agriculture as being one of the nation’s major challenges. On the day we spoke there was media coverage of the possibility of pumping excess water from the Fitzroy River to boost agricultural production in WA’s North-West, while on the other side of the continent, attempts are being made to tackle the monumental problems created by irrigation in the Murray Darling Basin.

“The question increasingly is going to be irrigated agriculture versus using the water in other ways. It is a big issue in terms of social and economic policy and it is a complex one. Frankly, not addressing it is not an option. What is important is that we address these issues based on the best information that is available.

“I think that while we have many excellent scientists working in these vital areas, some are better than others at influencing governments because they make the effort and take the time to explain their science in language that people can understand. The ability to communicate your science is hugely important.”

Alan Robson was well aware, when he came to UWA, that the University had pioneered agricultural research since its benefactor and first Chancellor, Winthrop Hackett, had personally endowed a chair of Agriculture. Today he proudly notes that UWA ranks 36th in the world in terms of citations in agricultural science and is the only Australian faculty to be ranked within the top 100.

As he assumes the helm of the State’s leading University, what strengths does Alan Robson bring to the job? He is confident that he has earned the trust of colleagues and staff during a decade as Deputy Vice-Chancellor and that he has demonstrated a strong commitment to the University.

“I believe I am approachable and straightforward,” he says. “I also think I have a clear idea of where we should be heading. My focus will be on UWA achieving international excellence and we will be pursuing a whole range of strategies to bring this about – the most important being to build our resources, and our research and teaching infrastructure.

“I think our staff are currently very stretched. As a university we achieve well above our funding level because of their commitment. I want to retain that commitment but lift our capacity by increasing our budget base. There is no single way of doing this – we have to work on our research funding, our international and local fee-paying students, our development fundraising, our commercialisation of intellectual property and our investments.”

It will be a big challenge, but Alan Robson clearly relishes such challenges and has the capacity to appreciate “the big picture”. He admits to being something of a workaholic. He wakes at five, walks with his dog, spends 20 minutes meditating (a tried and tested way to reduce stress, he says) and is at work by seven-thirty. When he closes his office door, he is invariably the last out of the Vice-Chancellorship.

UWA’s new Vice-Chancellor enjoys sport, having played cricket, tennis and squash at a competitive level. He loves spending time with his three children and wife Gwenda (a UWA Arts graduate he first met at primary school and later during student days in Victoria).

The University’s new Vice-Chancellor has always been involved with innumerable research committees, having chaired the Federal Government’s Grain Legumes Research Council and helped to establish the Grain Research and Development Council, the amalgamation of four research councils. As Foundation Director of the Cooperative Research Centre for Legumes in Mediterranean Agriculture (a cooperative venture with the CSIRO and Murdoch University) he has also had the satisfaction of seeing research affiliations forged across Australia.

In 2001 he headed the State Government’s Review of Secondary Education, is on the Premier’s Science Council, and in 2003 was appointed to the board of the CSIRO. He conceives that, in assuming the mantle of Vice-Chancellor, the demands on him will increase, but he is determined to get full value for the University from the areas in which he becomes involved.

“It is important in a position such as this that you connect the internal and external worlds in which you move,” he says, “and to be able to do that, you have to have a very good understanding of the internal world.”

Alan Robson is passionate about equity within the workplace and about advancing tertiary education opportunities for Indigenous Australians. “A fair go is probably a major driving force for me,” he says. “I am delighted that we have won – for the second time – the Prime Minister’s Employer of the Year award. I want to ensure that we continue to be a model employer.”

He is also passionate about the quality of the University’s teaching and learning.

“At the end of the day, the students are the reason we are here, so our first responsibility must be to provide a stimulating and rewarding intellectual life for them on this campus.”

– Professor Alan Robson
Because of its unique environment, scientists have for decades used Rottnest Island as a base for research and learning in a range of disciplines – from zoology and geology to history and marine science.

UWA postgraduate students are currently studying areas as diverse as the ocean currents that keep the island’s waters warmer than those off the mainland and the mutton birds that are fast multiplying on the West End. Their studies will contribute vital data to the body of information that informs future management decisions.

Two noted scientists from The University of Western Australia — Dr Ernest Hodgkin and Professor Horace (‘Harry’) Waring – turned Rottnest into a ‘laboratory’ for themselves and their students in the 1950s.

Writing about Professor Waring in his history of UWA, Campus at Crawley, published by UWA Press, the late Emeritus Professor Fred Alexander noted:

“It was more than a little ironical that it was not until the middle of the twentieth century that any Australian university had made a substantial research attack on major scientific problems of Australia's symbolic national animal, the kangaroo. The fact that Western Australia also offered a researcher the diminutive quokka had been among the additional attractions which UWA had for Dr Waring. His avowed aim was to ‘monograph work on the quokka’ so that it would become ‘the best known animal in the world’.”

Since then several UWA academics and postgraduate students have added significantly to our knowledge of Rottnest’s unofficial emblem: the quokka (Setonix brachyurus), and to its impact on the island’s vegetation.

UWA's Professor Don Bradshaw of the School of Animal Biology believes that salmonella infections in the island's quokka population are a clear indication of its degraded habitat.

“We took over 2000 samples from tammars on Garden Island where the tree canopy is intact and never had a single positive isolation for salmonella,” he says. “We also found that quokkas in poor condition are more susceptible to the disease.”

“I have always been in favour of research as a means of finding solutions to intractable problems and the problem with the quokka is that the population is too high and is regulated by starvation and death of the young and infirm in late autumn.”

“Research has also shown that any available water over the hot dry summer would improve chances of survival,
RESEARCHING ROTTNEST

however in the 1970s available freshwater swamps were bulldozed to get road marl and these swamps became saline and undrinkable. At least now, after much urging, the Rottnest Island Authority is trying to rehabilitate Lighthouse Swamp.

“What the island needs to do is to return the Rottnest vegetation to something like Garden Island and this would result over time in a much smaller but healthier population of quokkas.”

Professor Bradshaw’s research on salmonella in quokkas was presented to the Rottnest Island Authority during the 1970s. He says that attempts at revegetation are ongoing but progress is very slow – due in part to the quokka’s appetite for saplings and the consequent need to fence revegetated areas. Much of the island is still degrading from the point of view of effective vegetation cover.

Professor Bradshaw and other researchers have benefited from having a research base on the island. Over the years, a research station on Wadjemup Hill was well utilised by visiting academics and students. When this building near the main lighthouse (which had housed female naval officers during World War II) was restored as a heritage attraction, the research station moved to an alternative house near the airport. Today researchers from most of the State’s universities use this as a base for projects that will provide a better understanding of the island’s unique environment. Professor Bradshaw also holds a discussion course for fourth-year Honours students there each year on the History, Philosophy and Ethics of Science.

Whereas in the past the island’s management – through the Rottnest Island Authority (RIA) – and scientists doing field research have tended to work in isolation, there is now a wide appreciation that sound scientific research must underpin future management decisions.

Dr Ian Eliot, Senior Lecturer in UWA’s School of Earth and Geographical Sciences and a member of the Rottnest Island Environmental Advisory Committee, says that the committee is called upon to look at issues as diverse as waste recycling, water supply, sewerage disposal and dune erosion.

“The aim is to go through layer after layer of fundamental research that has been done over the years and reinterpret it so that it is useful and readily available to the RIA,” says Dr Eliot. “A university scientist doing fundamental research in a specific area does not always interpret it in a management context and RIA employees are usually not trained to interpret academic research in a way that is useful to the island’s management. There needs to be a buffer between the two. That is one of the tasks of the committee which comprises environmental officers from Rottnest, researchers from WA tertiary institutions, plus government officials and community representatives.”

Dr Eliot is currently supervising the PhD studies of Kristy Olivia Winn who hopes to show how science and management can be integrated from the bottom up (see Using the past to chart the future).

Probably the most dramatic UWA research in relation to Rottnest involves the island’s only marsupial – the quokka – which, in the 1960s, was studied by UWA student, Byron Kakulas.

Marsupials and Muscle

The quokkas of Rottnest were the starting point for groundbreaking research that ultimately led to a dramatic reduction in the incidence of muscular dystrophy and put WA at the forefront of neuropathology.

Before UWA postgraduate student Byron Kakulas began feeding paralysed quokkas Vitamin E tablets in the 1960s as part of his MD studies, the world assumed that once muscle had degenerated, it was incapable of regeneration. The UWA student’s astonishing results – revealed in the thesis Man, Marsupials and Muscle – changed that thinking and proved to be the starting point for far-reaching medical advances in a range of neuromuscular disorders.

Professor Kakulas still recalls his delight as he watched his caged quokkas make a dramatic recovery – and assume ‘star’ status on the international stage. His discovery aroused worldwide interest, as did further research that revealed the biochemical causes of diseases such as muscular dystrophy, and has seen the development of gene therapy techniques that put WA at the forefront of neuropathology.

Professor Kakulas, who established the Neuropathology Department at Royal Perth Hospital, is Medical Director of the Australian Neuromuscular Research Institute and a past director of UWA’s Centre for Neuromuscular and Neurological Disorders, both of which are furthering our understanding of inherited neuromuscular disorders, diseases such as Alzheimers and raising the possibility of repairing human spinal injuries.

“Royal Perth Hospital is one of the few centres in the world that offers a comprehensive and integrated molecular genetics service,” says the much honoured UWA academic. “This means we can provide accurate diagnosis, prognostic information, carrier detection and pre-natal counselling.”

As a result of research at the UWA centre, the incidence of muscular dystrophy has been cut by two-thirds in WA.

There is worldwide interest in the research happening at UWA, with both France and Japan sending scientists to
learn gene therapy techniques and PhD students from China, Europe, India, Indonesia, Japan, Thailand and the Middle East doing postgraduate studies at the centre.

**Studying the ‘good life’ current**

**UWA research is unlocking the secrets of the warm Leeuwin Current that has a major impact on Western Australia’s enviable climate.**

Without the south-flowing warm Leeuwin Current, says Professor Chari Pattiaratchi, we would not enjoy the good life on offer in ‘the West’.

“We would not have the rain or the climate, the wines or the lobsters,” he points out. “While we would still have a Mediterranean climate, we’d have half the rainfall, winters would be colder and so would the waters of the Indian Ocean. And there would be no coral reefs at Rottnest and far fewer tropical fish and plants.”

The Professor of Coastal Oceanography within UWA’s School of Water Research has been charting the impact of the Leeuwin Current with some of his PhD students. He points out that the large body of warm tropical water driven down our west coast brings the benign winters and the high rates of evaporation off the north-west coast that increase our rainfall. The tropical cloudbands generated in the north-west interact with storm systems coming up from the south-west, providing far more rainfall than is enjoyed by other coastal locations at a similar latitude.

At present several students (including Christine Hanson and Mun Woo) are studying how the Leeuwin Current interacts with the continental shelf currents.

“The Leeuwin flows outside the continental shelf along the continental slope where the water depth is 200 metres. Especially during summer, the Capes and Ningaloo Currents that flow north bring cooler water, nutrient-rich, from beneath the Leeuwin Current and we need to know how these currents interact.” An oceanographic cruise, headed by Prof Pattiaratchi, aboard the National Research Vessel, Southern Surveyor, investigated the interaction between the Abrolhos Islands and Cape Leeuwin, last November.

Another aspect of the Leeuwin that interests researchers is the current’s eddies and PhD student Michael Meuleners has developed a computer model to simulate these eddies.

“We are trying to find out why the Leeuwin Current has so many eddies and to predict how, why and where they occur,” says the UWA researcher. “The eddies are important because they carry heat and salt and larvae of both fish and rock lobsters. They have their own environment in terms of biota and we’d like to find out how the physical processes affect the biology of the plants and animals within these eddies.” An oceanographic cruise last October, headed by Dr Anya Waite of the School of Water Research, further advanced our understanding of these eddies.

For the north-flowing shelf currents, Rottnest Island is a big barrier that they are forced to move around, creating a patch of cool water that sits to the north of the island. The action of the currents moving around the island brings colder water from the Rottnest canyon to the surface. The patch of cold water is also associated with higher biological productivity.

The Rottnest canyon reminds us of a very different coastal landscape. It marks the old river bed of the Swan River. Some 18,000 years ago, the Western Australian coastline was 12km west of Rottnest and the canyon traces the path of the river in a landscape that was drowned when sea levels rose with the melting of glacial ice.

“The canyon begins at a depth of 50 metres and falls to 5,000, making it one of the world’s largest submarine canyons. It is a fascinating area that annually attracts pygmy blue whales, drawn by an abundance of krill. During summer, as many as 20 whales may be found at one time at this site.

“The whales eat up to 10 tonnes of krill a day and we
want to find out whether there is a correlation between the presence of the canyon and the physical oceanography and the biological productivity of krill.”

Susan Rennie, who is jointly supervised by Prof Pattiaratchi and Dr Rob McCauley from Curtin University of Technology, is examining oceanographic processes of the canyon with funding from the Royal Australian Navy. The latter want to know what attracts the whales to the canyon which is also the closest water (of sufficient depth) for submarine exercises.

Dr Jane Prince of UWA’s School of Animal Biology is the current Officer-in-Charge of the Rottnest Island Research Station which has been a base for research activities for half a century. Working alongside Associate Professor Bob Black, she monitors the status of populations of invertebrates – abalone, limpets, cowries and sea urchins – that live on the island’s limestone platforms.

Last year, UWA researchers Dr Jane Prince and Associate Professor Bob Black of UWA’s School of Animal Biology recorded massive deaths on Rottnest’s limestone platforms apparently due to the El Nino effect. Global climate change appears to be increasing the frequency of El Nino events that affect the all-important Leeuwin Current. The latter’s warm water plays a vital role in keeping waters around Rottnest stocked with tropical fish and invertebrate species.

“While our monitoring has recorded no measurable human impacts on the island’s populations of invertebrates, we do notice big oceanographic changes,” says Dr Prince. “Because our study is long-term, we can see patterns in the populations and relate them to oceanographic or weather events like El Nino.

“The warm south-flowing Leeuwin Current is driven by the build-up of water flowing through the Timor Sea from the Pacific. However, El Nino conditions direct the water back to the Pacific, so you don’t get that build-up that is the driving force behind a strong Leeuwin down our west coast. When the current is affected, it doesn’t bring larvae from the tropics to replenish the island’s populations of invertebrates or fish.

“The strength of the current also affects sea levels on Rottnest: the stronger the current, the higher the levels. When it is weak – as happened last year – low sea levels, combined with low tides, exposed large areas of the rock platforms and we had a couple of big die-off events. One of the reefs was completely devastated. This year, depending on the strength of the current, we hope to be able to follow the recolonisation process on this reef.

“Most of the animals we study have a lifecycle that involves a planktonic stage. This is a very risky process (that also applies to many fish stocks on Rottnest) in which larvae may be swept far away from the colony that produced them. Because of this, it is vital to replenish the marine populations with new recruits carried down from the north on the current.

“With climate experts predicting more frequent El Nino events there will undoubtedly be implications in relation to good fish recruitment – and of course fishing is one of Rottnest’s attractions.”

UWA has a long association with marine research on Rottnest – with Dr Ernest Hodgkin, who died five years ago at the age of 90, doing pioneering work on the island. A research laboratory has been named after him at the Fisheries Research Laboratory at Waterman where current UWA PhD students work.

Dr Prince has been snorkelling in Salmon Bay for two decades and has never lost her sense of wonder at the diversity of the fish life. In a single dive she may see 50 species. She was introduced to Rottnest as a fieldwork location in 1967, when participating in Zoology camps as an undergraduate. Her biological studies have made her a regular visitor to the island ever since.

“At present we have only monitored areas where people tend not to go and I am discussing with the RIA the possibility of extending our research to look at frequented reefs to monitor the impacts,” says Dr Prince.

One of the great summer sights on Rottnest is watching flocks of mutton birds wheeling over Cape Vlamingh as they return to their burrows in the evening. PhD student Wes Bancroft is studying the birds and their effect on the fragile ecology of the island.

If you’ve explored Cape Vlamingh, you will know the importance of keeping to the boardwalk so that you don’t damage the burrows of the wedge-tailed shearwaters (or muttonbirds) that nest in this arid corner of the island. UWA PhD student Wes Bancroft is currently in the final stages of a study of the birds and the impact of their burrowing on the...
fragile ecology of Rottnest.

“My study ties into the theory of ecosystem engineering, which suggests that organisms can physically modify their habitat in a way that affects the ecosystem’s resource flows. The way they live, the way they breed and feed, will impact on the environment.”

Wes has established that there are some 11,500 muttonbird nesting burrows on Rottnest – and numbers have almost doubled in a decade. While muttonbirds displace soil to create a burrow that may be two metres long, 30cm wide and may end 1.5 metres below the surface, there has been little evidence to suggest that the birds are a serious threat to the environment. However, the fact that they turn over about 210 tonnes of soil per hectare, clearly has an impact on the vegetation by reducing the number of species.

“In areas where the birds are present, the heathland shrubs tend to be replaced by introduced plants that are mostly succulents – like the iceplant, that is able to survive the soil’s high nutrient content as a result of the accumulation of guano.”

Wes has also looked at the birds’ impact on fauna. In this windswept part of the island, there are quokkas, King’s skinks and house mice. “We need to know if the birds are altering the habitat and making it unsuitable for other animals. It appears that it is quite common for the birds’ burrows to be used by other fauna – particularly skinks that need to regulate their temperature and shuttle between areas that are warm and cold. They appear to go down the burrows mainly for shelter. They may also take the odd egg, but once the chicks are hatched – and there is one per burrow – they are almost predator free.

“The wedge-tailed shearwater is a tropical seabird that, in WA, mostly inhabits the waters of the mid- to north-west. However, global warming means that many of these birds are extending their breeding areas and establishing colonies further south,” explains Wes. Associate Professor Dale Roberts of UWA’s School of Animal Biology and Dr Mark Garkaklis of Murdoch University’s School of Biological Sciences, are supervising the study.

Using the past to chart the future

UWA PhD student Kristy Olivia Winn is currently studying changes in the terrestrial landscape of Rottnest Island over the past 60 years and her research could provide useful data for future environmental management.

PhD student Kristy Olivia Winn is analysing environmental change on Rottnest in the hope of developing sustainable management practices.

“The Rottnest Island Authority seeks to promote the island as a model of sustainability, but in order to do that we need to understand how the environment has changed. While there has been a lot of biological research done on the island, there has not been much that relates to the coastal environment, or human impacts on the environment. We need to look at the impacts of quokkas, fires, coastal erosion and tourism developments,” says Kristy.

“One of my key goals is to indicate how one can integrate science and management. My study has brought me into contact with all levels of management within the RIA, from directors down to on-the-ground officers. All have the same goals, but all are approaching those goals from a different angle.”

“While there might have been quite a lot of research done in the past, there has not been effective communication or application of that research. However, in the last decade the Authority has been very proactive in improving relationships with scientists. There has also been a shift in the aims of research, with much of it now being steered into areas that have direct management implications.”

For instance, Kristy is looking at the stability of coastal dunes and identifying areas of significant erosion – such as at Narrow Neck – to assess their impact on infrastructure such as roads. “I am also looking at the environmental impact of the roads and buildings that were built in the last half century and I hope to come up with multiple landscape scenarios as to how more sustainable management can be achieved,” she says.

The Rottnest Island Authority has been actively engaged in the implementation of a woodland restoration strategy on the island. Baseline information is limited and the UWA student is investigating key restoration processes to develop a conceptual framework for woodland restoration. She will be examining the loss and fragmentation of woodlands resulting from the impacts of fire (1941 to 2002); and determining the extent to which the terrain, biotic grazing and planting techniques are influencing the growth rates of woodland species in the restoration plots. This information will be used to devise a framework for woodland restoration on the island which has a long-term goal of creating a self-sustaining system.

Kristy is using geographical information systems (GIS) technology to examine spatio-temporal changes in landscape patterns associated with the terrestrial vegetation, coastal and built environments. “These GIS systems are emerging globally as powerful tools for analysis of environmental change and as decision support systems for environment management given their ability to integrate, manipulate and rapidly analyse a wide range and volume of geographical data,” she says.
Kristy’s PhD studies are being supervised by Dr Ian Elliott and Dr Kimberly Van Niel of UWA’s School of Earth and Geographical Sciences and Professor Richard Hobbs of Murdoch University.

Rottnest’s unique geology

Rottnest was attached to the mainland before melting glaciers from the last ice age caused the ocean to rise and isolate it. The island boasts sites of geological significance contained on the Register of the National Estate.

Associate Professor David Haig of UWA’s School of Earth and Geographical Sciences annually takes his Geology 309 class for a weekend of study on biogenic sedimentation at Rocky Bay.

“Rottnest lies on the outer continental shelf which represents one of the largest subtropical marine platforms in the world covered by calcium-carbonate sediment formed by the skeletons of organisms,” says Professor Haig.

“We work from the UWA Marine Research Station and the students undertake transects from the shoreline out into the bay and then analyse the grain-size and composition of the sediment to determine the sources of the sand and sediment transport pathways. They also compare the sand composition – a mixture of skeletons from tropical and temperate organisms – with that from the north and south coasts of WA.

“Rottnest is a perfect site for this study because it comes under the influence of the warm Leeuwin Current and contains more tropical elements than the adjacent mainland coast.”

Dr Jenny Bevan, Curator of the E de C. Clarke Geology Museum on the UWA campus, has taken groups of the museum Friends on field trips to the island. On such occasions, Dr Bevan’s ‘bible’ is the Guidebook to the Geology of Rottnest Island, written by UWA graduate Phillip Playford, who surveyed the island extensively when working with Geological Survey in the 1970s.

Comparing island and mainland quokkas

While quokka populations on the mainland have declined dramatically, large populations of the marsupials still exist on Rottnest and Bald Island. UWA graduate Dr Elizabeth Sinclair completed a PhD on the relationship between island and mainland quokkas.

In 1994 when searching for quokkas near Albany, UWA zoology students Elizabeth Sinclair and Adrian Wayne found a Gilbert’s potoroo – a marsupial that had not been seen since 1869 and which was thought to be extinct. After a flurry of newspaper headlines, the UWA zoology student resumed her search for quokkas that were the subject of her PhD thesis.

“Rottnest Island quokkas had been the subject of numerous PhDs before my time, so I was able to design my sampling based on this earlier work. I sampled from five locations that corresponded with previous ‘populations’ and also from mapped ‘sub-populations’ on the West End of the island.”

“I used a combination of five morphological measures, protein variation and mitochondrial DNA sequences to look at the broad scale geographic patterns in variation. I found differences were mostly between the two island populations. The inheritance of the morphological characters was examined by comparing island populations with those of the captive colony at UWA (made up of animals originating from Rottnest Island).”

Her study revealed that the mainland populations contained the highest amount of genetic diversity, with each population having a unique set of sequences. “Of the 20 Rottnest Island animals sequenced, only seven had unique (but very similar) sequences, consistent with a small founding population. Overall, the patterns of genetic variation reflect a relatively recent history of fragmentation, but with restricted gene flow across the species’ range. More significantly, the majority of genetic diversity exists within the very small, isolated mainland populations: those experiencing the most serious threats to long-term survival (through introduced predators and loss of habitat).

“There was very limited protein variation in the species and evidence for a small founding population from the DNA sequences - a result of island formation 6,000 to 10,000 years ago. Significant heterogeneity was observed among the Rottnest Island populations, but not within the West End. The population level subdivision may be playing an important role in slowing the rate of loss of variation, however more variable genetic markers will be required to better understand patterns of variation at this level.”

Her research was funded by UWA and a grant from Alcoa of Australia and resulted in several publications.

Since submitting her thesis in January 1998, Elizabeth has been working as a research fellow in integrative biology with Keith Crandall at Utah’s Brigham Young University in the United States. She has been involved in population genetics research with many different species.

“I’m now looking at defining species boundaries, using molecular markers, in salamanders and Central American
lizards, as well as being involved in applied conservation genetics projects on the giant Tasmanian freshwater lobster and miniature Andean deer,” she says.

**The impact of fire and quokkas**

UWA graduate Elizabeth Rippey recently completed a study of the dynamics of the vegetation of Perth’s offshore islands.

If, during visits to Rottnest, you have acquired some of the attractive brochures on the island’s flora and fauna, you will already be acquainted with Elizabeth Rippey’s work – for she illustrated all of them and wrote a number. The UWA graduate has a long association with the island, having joined the Rottnest Voluntary Guides soon after arriving in Western Australia 20 years ago.

In 2002 she completed a PhD at UWA’s School of Earth and Geographical Sciences on the dynamics of the vegetation of islands off Perth.

“Garden Island today is probably what Rottnest used to be like – it has not had the same level of human pressure so you still see beautiful stands of Rottnest Tea Trees (Melaleuca lanceolata) and Rottnest Island Pines (Callitris preissii),” says Dr Rippey, who has a degree in Geography and Economics from the University of Natal.

“Quokkas and fire have been the most important variables affecting Rottnest’s vegetation. Prior to the arrival of settlers, occasional lightning fires would have swept through the island – we know that from cores taken from the sediments in the swamps. The fires would have reduced quokka grazing for a time, and the burned tea trees and pines would have released their seeds,” she says.

“Once the settlers and the prisoners arrived there were far more frequent burns and the fire-tolerant acacias began to dominate what had been a forested landscape. Then, when quokkas were protected, they became the most important factor in reducing the vegetation cover to a prickly heath.”

Elizabeth Rippey and Barbara Rowland are authors of Plants of the Perth Coast and Islands, a popular book that won a Premier’s Award in 1995. This book will be reissued by UWA Press in 2004 as a slimmer volume, but covering the flora of the entire coastline of the Swan Coastal Plain from Dongara to Dunsborough.

**Rotnest: an Indigenous perspective**

When UWA lecturer Grant Revell ran a Landscape Architecture Design Studio – the Human Terrain Project – that focussed on Rottnest Island, it had a profound effect on students who participated.

Working together with Ms Jill Milroy, who heads UWA’s School of Indigenous Studies, Tjalaminu Mia, Research Fellow in Oral History, and UWA design tutor Richard Coldicutt, Landscape Architecture Lecturer Grant Revell challenged his students to research the cultural landscapes of Wadjemup – Rottnest – through Indigenous and non-Indigenous eyes.

Through the dark prism of the island’s term as a prison, the students were exposed to a perspective many had never confronted and that led some to question the current use of the old prison quadrangle as bizarre and insensitive.

As Murdoch Senior Lecturer Len Collard, and Aboriginal elders presented their Rottnest perspective, the students appreciated the undercurrent of suffering and injustice that exists on the ‘holiday island’.

“The experience really highlighted the need for inquiry, sensitivity and respect for the cultural significance of any site, which is something I will benefit from in my future work as an architect,” wrote one student. “I admire the connectedness Aboriginal people have to the land and spirit and I hope to see paths of cross-cultural communication open to allow for a more sympathetic understanding between peoples and the land.”

This, of course, was the intention of the design studio which resulted in several excellent design projects. Students designed a raised walkway along the shoreline of the salt lakes; a water feature in front of the Visitor and Information Centre and a ridgeline walk trail that linked major features of the island. Each project also made them consider both the island’s ecological problems – its fragile physical environment and lack of water – and its ecological strengths in relation to available renewable energy sources.

“One of the first exercises the students did was to identify and map the island’s bio-regions and that exercise suggested
the orientation of the walkway. The students were encouraged
to use ecologically responsible materials for the walkway and
to devise water conservation features as part of it.”

Following discussions with Len Collard, other students
produced a site design to protect the Aboriginal burial
grounds and allow the public to interpret it. “This work
could in future assist Indigenous peoples to develop their
own design options for the conservation and interpretation
of the burial grounds,” says Grant Revell.

Each participant in the design studio made a clay and
and wax mask that was cast in bronze. The striking and varied
masks of Indigenous and non-Indigenous people associated
with the island now reside in a bronze boat, for the students
wished the collection to remain intact. The boat seemed an
appropriate vehicle for them – for it was a boat that took
prisoners to and from the island and, in this art work, that is
the link between the past and the present.

“The Human Terrain project launched a radical voyage
for design students interested in opening themselves up to
an important part of WA’s living history,” says Grant Revell.
“It quickly became a personal journey that acknowledged
the chasm between Western Australian cultures. We learnt
that how one deals with this deep subjective gap really
defines one’s Western Australian identity.

“Previous design studio experience had taught us that the
critical thing with sharing Aboriginal culture is firstly to create
the mutual space to stop and spend real time with Aboriginal
people. The rewards are great for those that wise up to the
ongoing obligation and need to read and experience a deeper
understanding of a place like Wadjemup.”

As a result of this some students had access to what Jill
Milroy and Grant Revell describe as the ‘cross culture spaces’
accessible to those who make such a journey. Architecture
and Landscape Architecture students at UWA are frequently
involved in design studios, some of which are real life
projects.

Archives and artworks
focus on human rights

The artworks produced by Landscape Architecture students
as part of the design studio on Rottnest were part of a wider
project mounted by UWA’s School of Indigenous Studies.

The suite of bronze masks exhibited at the WA Maritime
Museum following the UWA design studio on Wadjemup
were part of a wider project curated by Tjalaminu Mia, a
Nyoongar Research Fellow in Oral History and the Arts at
UWA’s School of Indigenous Studies.

The project entitled Gnyung Waart Kooling Kulark –
released: going home, focussed on human rights and social
justice. The exhibition was a major cross cultural exchange
initiative comprising the perspectives of both Indigenous
and non-Indigenous artists.

Says Tjalaminu Mia: “The exhibition displayed archival
photographs, objects, artworks and literary material related to
the dispossession of Aboriginal people from traditional lands,
the removal of children from their families, and the incarceration
of Aboriginal men – all of which have left a legacy of cultural
disruption, physical displacement, neglect and exploitation that
continues to affect families and communities. One result is the
disproportionate rates of incarceration of Aboriginal men and
women throughout Western Australia.”

“Wadjemup has always been, and always will be, important country for Nyoongar people, its history not new
but thousands of years old, part of Nyoongar Dreaming. Sitting uncomfortably atop the landscape, the renamed,
illegally claimed, ‘Rottnest Island’ is a far more recent
colonial construct, its history a painful one for Aboriginal
peoples throughout Western Australia.”

“For nearly one hundred years, from 1838-1931, Rottnest
Island was a prison for more than 3,600 Aboriginal men and
boys, shipped in chains from the mainland, not just from the
Southwest, but from the Kimberley, Pilbara, Murchison and
Goldfields, following colonial ‘expansion’.

“In association with the exhibition’s theme and to highlight
this, a major cultural component of this project was the launch
of Nyoongar writer and poet Graeme Dixon’s latest published
work – Holocaust Revisited: killing time. Graeme’s book is a
personal chronicle of aspects of his life through oral histories
and poems. It shows us a boy growing up with the certainty of
experiencing what other members of his family had: the reality
of being one of the over-represented Aboriginal juveniles and
men incarcerated in juvenile detention facilities and maximum
security prisons.

“It is hoped the significant collection brought together for
the project, and accompanying components like Holocaust
Revisited: killing time, will play a further role in reconciliation,
as it is envisaged in the future that the exhibits may journey
through Western Australia to Aboriginal communities and
hopefully overseas.”
When he left UWA with a degree in Psychology, Brian Easton envisaged using it to provide counselling in a service area before moving into clinical work. But...”I was high jacked quite early in the piece,” recalls the well-respected graduate.

The former CEO of Rottnest Island is known for his vision, administrative skills and environmental commitment – all of which have seen him playing essential roles in diverse areas of the Federal and State Governments, including posts as CEO of Rottnest Island and Perth Zoo.

In 1995 he was asked by the then Premier and Minister for Tourism, Richard Court, to undertake a comprehensive review of all aspects of Rottnest’s operations. “The island had become somewhat run-down, and many loyal holidaymakers – who had supported it for years, even generations – were beginning to holiday elsewhere,” he recalls. “There were complaints about the absence of true customer service and of less than satisfactory facilities at a time of rising customer expectations.”

“Western Australians were travelling more, had a taste for good wines and were demanding improved eating-out opportunities beyond the island’s pub and bakery – and they especially wanted a decent coffee shop. They were also tired of hard mattresses, generally inefficient cleaning regimes and were more aware of the island’s fragile environment.”

His report made some 150 recommendations and when become CEO of the island, he had the satisfaction of seeing more than 95 per cent implemented as the government provided much needed funding for an upgrade of accommodation and some major administrative changes – including the outsourcing of cleaning and other services and the relocation of staff formerly accommodated on the island. These were changes that people long associated with the island agreed were vital and they resulted in improved facilities and service, the abolition of some visual eyesores – and a decent cup of coffee!

Mr Easton then moved on to become CEO of Perth Zoo for four years. He retired in July of last year after 43 years in the public service – and then came the offer from Melbourne.

Brian Easton’s association with Rottnest continues as one of the legion of Western Australians who are intent on preserving one of this State’s greatest icons. He is a member of the Rottnest Island Foundation (which raises funds for important environmental and conservation projects) and the Rottnest Society.

“Rottnest is hugely important in terms of its built and natural environment, because of its historical links – from its discovery and the early history of Aboriginal incarceration, to its wonderful heritage of colonial architecture.
– and its geological, terrestrial and marine environment. Rottnest presents as an island in the sun. It is very attractive to visitors, especially locals – but its popularity results in enormous pressures.

“While the island needs a single administration, there has to be a clear recognition of its two very different agendas: the need to maximise revenue from tourism (commercial opportunities, licensing fees and so on) and the need to balance this side of operations against the historical, cultural and environmental aspects – all of which require the sort of investment that cannot possibly be met by revenue raised from tourism.

“The island needs sufficient resources to fund sound environmental management practices. It has to look after the environment in a grass roots way and also to monitor the behaviour of both business operators and holiday-makers – making sure that boat-owners do the right thing in terms of sullage; that recreational fishers are not greedy; that ferry operators don’t overload the island during peak periods. To me it is all about people taking responsibility for the way they behave on the island, plus careful monitoring by the Rottnest Island Authority.

“The cost of running the environmental management side of the island is always going to be considerable and includes restoring the salt lakes and repairing past damage. You can’t expect the revenue return from business interests to cover all these needs. And while accommodation should be appropriately costed, we have to accept that the cost of repairing old dwellings and an ageing infrastructure needs the continuing support of the government of the day.”

Invariably, when the island fails to balance its budget, there are calls for it to open itself to private development. Having occupied the CEO’s chair, Brian Easton says that such pressure is ongoing.

“There are always calls to develop the island as a typical international tourism des—tination, which usually ends up pushing locals out. I can’t see the people of Western Australia allowing that to happen, because the island has always catered principally to locals. But that doesn’t mean that you can’t have a hotel that offers high quality accommodation for international and local visitors, or that you can’t do more to attract day-trippers.”

Is he confident about the island’s future?

““There is no place as special and as historically important to Western Australians as Rottnest,” says the former CEO. “Many of us have the most wonderful memories of the island as children, students, young lovers, parents and grandparents. No one wants to lose the essential characteristics of the island – laid back, casual, no cars, safe. I think people will ensure it stays that way.”

A decade ago UWA’s flagship publication UNIVIEW appeared in its current format. It has since been judged the best university publication in Australia and New Zealand and has also won several state awards as the best local tertiary publication and the Alex Harris Award for science and environment coverage. The magazine has a print run that is expected to reach 50,000 in 2004. UNIVIEW is read by the nation’s leaders and decision makers, including chief executives of major corporations, top government officials, parliamentarians and diplomats – as well as UWA graduates in Australia and across the world covering the spectrum of professions. Copies are distributed to every secondary school in Western Australia and all public libraries. To date our advertisers have included technology, tourism and theatre companies, banks, wineries, bookstores and international and national conservation and charity foundations.
When UWA teacher Tim White was studying for a Master of Music degree at the University’s School of Music in the 1980s, he sat performance exams in Perth, but had to go to Denmark to study his repertoire with noted solo percussionist Gert Mortensen. Since then the percussion scene has changed dramatically.

“Classical percussion is now a very different instrument because our techniques and repertoire have grown so quickly – it’s been something of a revolution!” says Tim White who is now principle percussionist with the WA Symphony Orchestra. “The best music for percussion has been created over the past 20 years and one reason for the change is that Western musicians have become more open to the music of other cultures.

“Over the last half century, composers have been looking for new ideas that break away from the musical traditions of past centuries. Percussion today represents a whole new world of sound. As a result, it has moved from being a fringe instrument to being seen as a fresh and exciting new avenue of expression for composers.

“Twenty years ago there were no classical percussion students at UWA. Now there are nine and it is growing every year. Twenty years ago it was unusual for a TEE student to study percussion. Today it is the sixth most studied instrument – ahead of the violin and cello!”

Suddenly percussion is hugely popular and WA seems to be leading the move towards making music on instruments such as the marimba and the vibraphone. Of course percussion makes use of a huge range of instruments – Tim White has some 350 ranging from the traditional to the bizarre.

Along with what Tim White calls ‘the percussion boom’ has come the birth of several impressive ensemble groups – from the well known and highly professional Nova Ensemble and Tetrafide Percussion (which performed in Kalgoorlie as part of the UWA PIAF) to Defying Gravity which comprises percussion students, half from UWA, half from the WA Academy of Performing Arts at Edith Cowan University.

Defying Gravity was formed in 1987 with a far more traditional name. When Tim White took over the running of the group in 1994, he approached Carl Vine – one of UWA’s most distinguished music graduates – to request use of the title of one of the composer’s most dynamic compositions: *Defying Gravity*. At that time the group was performing once a year; last year the award-winning group gave 23 concerts, was involved in a radio broadcast for Classical FM, and was also featured on ABC TV.

Two current members of Defying Gravity, Helena Cook and Louise Conroy, are joint winners of the 2003 Vose Prize.
for Music. Both began percussion in high school and are now fourth year Bachelor of Music (Performance) students.

“The highs of playing percussion come from the sheer diversity of the field,” says Helena, “and the fact that the best music is being written now, which makes it exciting. The only low is transporting equipment – we’re always first to arrive and last to leave any gig!

“We love being part of Defying Gravity and have done concerts in Burswood, the WA Art Gallery and Forrest Place, plus many gigs around Perth. We have also taken part in many of the Totally Huge New Music Festivals – one year this took us to Mt Wogarno for a drummers in the outback venture.

“In Defying Gravity, we play anything from timpani, drums, gongs, xylophone to smaller percussion instruments. We also do some body percussion and have even played spoons on tables!”

For the Vose Prize they played marimba and vibraphone in Anders Koppel’s virtuosic Toccata for Vibraphone and Marimba with what their teacher Tim White describes as “grace, beauty and a special sense of magic.”

Vose Prize winners Louise Conroy and Helena Cook

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The upbeat tempo of Tanner & co

Talk to UWA graduate and percussion teacher Paul Tanner and you get the feeling that the racy excitement that drives his performances is echoed in the upbeat tempo of his musical career.

Paul Tanner has Bachelor and Master’s degrees in Music from UWA, and, recalling his time at UWA, he says: “I was heavily into contemporary classical music and performed many avant-garde multi-percussion works by composers like Stockhausen and Xenakis that involved huge set-ups of many different instruments. “These composers are the greatest challenge for percussionists.”

In 1991 an Australian Postgraduate Research Award took Paul to San Diego where he studied with virtuoso percussion soloist Steve Schick. Touring the US, Latin America and Africa not only augmented his diverse range of percussion techniques, but gave him a taste for the music of continents that are adventurous in their use of percussion.

Steeping himself in an eclectic range of musical styles, he has moved between orchestral percussion with WASO, contemporary percussion with Nova Ensemble and Magnetic Pig, and jazz with the Scope quartet he formed.

In October 2000, Paul formed OgdenTanner with UW A graduate and guitarist, Craig Ogden, who is gaining an international reputation from his base in the United Kingdom. The pair performed in Australia and the UK, have appeared on ABC TV and radio and in mid-2005 plan to tour Europe. They have released a CD Songs from the Forest (www.ogdentanner.com) and their first performance had music critics suggesting the pair were well on their way to international stardom.

Paul Tanner, observed The West Australian, “displayed a nonchalant mastery of a battery of instruments seemingly unfazed while steering a faultless way through music that is a closed book to any but the most adept and experienced of musicians.”

“Vibes and marimba have always been my favourite instruments and when Craig wanted to form a duo, this was the excuse to buy a full five-octave marimba (still fairly rare in Australia) and to memorise the repertoire for our duo, plus a complete solo repertoire for vibraphone and marimba. When we tried the repertoire together, it just fell into place,” says Paul.

WASO, Nova and UWA teaching continue to be Paul Tanner’s main income support as he continues to explore the potential of percussion. Recently he formed a quintet with his fiancé, UWA graduate Cath Cahlil (clarinet), Zak Rowntree (violin), Pete Jeavons (bass) and Tom O’Halloran (piano). The pair performed in Australia and the UK, have appeared on ABC TV and radio and in mid-2005 plan to tour Europe. They have released a CD Songs from the Forest (www.ogdentanner.com) and their first performance had music critics suggesting the pair were well on their way to international stardom.

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Doctors in developing countries are eagerly awaiting the commercial availability of a portable, low-cost hand-held imaging device that will radically improve the detection of panretinal eye diseases in remote areas and that has the potential to be further developed for use in dentistry, dermatology, and otolaryngology.

Designed by a team headed by Associate Professor Kanagasigam Yogesan at The University of Western Australia’s Centre for Ophthalmology and Visual Science (which incorporates the Lions Eye Institute, the device is currently being tested and discussions are being held with US companies interested in commercialising it.

The portable device – the only product of its kind – enables both retinal (back of the eye) and anterior segment (front of the eye) pictures to be captured. “At present there are two types of imaging devices: the slit-lamp device and the retinal camera which capture images of the front and the back of the eye respectively. We have developed a single device – substantially less expensive – that does both,” says Professor Yogesan.

“So far we have tested the front of the eye module on 196 patients and it is being used in Carnarvon hospital on a regular basis for remote diagnostic purposes. The retinal module is being tested in the clinic at the Lions Eye Institute.”

Professor Yogesan predicts worldwide demand for the device and related software that enable images to be studied by specialists far from remote health centres where screening takes place. The development of both the device and software has been supported by grants from the National Health and Medical Research Council.

Professor Yogesan says that imaging devices currently used in all-important eye disease screening programs are costly and that GPs in developing countries simply cannot afford them.

“We are already getting emails from doctors in developing countries who have heard about our research and are keen to acquire this new device. The digital device is easy to operate and gives us images that assist in the diagnosis of glaucoma, diabetic retinopathy and other diseases.”

The dental, dermatology and otolaryngology modules are also ready for testing and this will be done with our collaborators at Stanford Medical School in the United States.

“We are in the process of setting up a National Centre for a Health in order to expand our expertise to other medical fields and develop affordable remote diagnostic technologies. We have received interest from the World Health Organisation and major universities in Australia, India, Sri Lanka and Indonesia, all of whom are interested in working with us on clinical trials and the development of training programs.”

The Centre and the Lions Eye Institute have a well-earned reputation for the development of products used in the detection, diagnosis and treatment of eye problems. This development marries the expertise in the design of ophthalmic imaging instruments and systems with the extensive experience of UWA ophthalmologists.

Known as Roma, Gypsies or Travellers, those belonging to what is now a worldwide diaspora have indeed travelled far from their country of origin: India. Once thought to have come from Egypt – a belief that probably dates to the name ‘gypsy’ – the Roma have lived in Europe for at least 800 years. Their long and difficult history has encompassed enslavement and discrimination, yet this long-suffering group may well reward the world with invaluable clues to genetic diseases.

UWA researcher Luba Kalaydjieva, Professor of Molecular Genetics at the WA Institute for Medical Research/UWA Centre for Medical Research, was among the first scientists to study the Roma living in her native Bulgaria. She is now acknowledged as a world authority on their complex genetic make-up, shaped by centuries of migration, marriage within the group and genetic drift.

While other genetically isolated populations, such as the Finns, have been studied in great detail, little was known about the Gypsies until Professor Kalaydjieva, her co-workers in Perth, and a team of researchers at the Medical University in Sofia began their clinical and molecular genetic studies and appreciated that the Gypsies represent in microcosm the major issues in human population genetics. Such studies allow scientists to understand genetic dispersion, to compare genetic and linguistic diversity and to get an insight into the genetic basis of human disease.

The UWA researcher’s studies, published in leading journals and in The Nature Encyclopedia of the Human Genome, indicate that some 10 million Roma are currently living in Europe descended from a small group of Asian ancestors, probably originating in India about 1,000 years ago. After their arrival in Europe, the Roma split to take different routes of migration, and form numerous socially and genetically divergent endogamous groups.

Genes that predispose to disease are often easier to find in genetically homogeneous populations. “When there is a common ancestor, leading to the so-called founder effect, it is easier to identify the causes of single-gene and, hopefully, of complex disorders than in the general population. Once you identify a gene linked to a specific disease, you can then go back to individuals of diverse ethnicity all over the world, and examine that gene to find additional causes for related diseases. We have just done that with a gene we identified a couple of years ago that is related to disorders of the peripheral nervous system.”

“Such studies also help researchers to understand the normal function of the human body. For example, our recent discovery of the mutation causing a novel developmental disorder, published in the October issue of Nature Genetics, is likely to change the concepts of how human cells regulate gene expression.”

“The Roma we have studied live mainly in Bulgaria. In this area the traditional structure of Gypsy society is well preserved and has been studied in detail by excellent cultural anthropologists,” says Professor Kalaydjieva who was formerly head of the molecular genetic laboratory at the Medical University in Sofia.

“When the Roma arrived in Europe, some settled in the Balkans, and others continued to other parts of Europe, but the Balkans remains their major homeland. The worldwide diaspora began in the 1890s, with new waves of migration to Europe in the last decade because of the war in Yugoslavia. And when the Roma and western Europe began seeing diseases they hadn’t known existed and my research group got many referrals for diagnostic analysis from countries like Austria, Germany, Italy and Ireland, and even Utah in the US.”

“The Gypsies remain isolated from the mainstream partly because of the social traditions of the groups discourage intermarriage with other populations – and to a large extent because of xenophobia and discrimination. Their access to medical care is limited, particularly in countries with generally poor health care systems. “It has been very important to establish a clinical team that people could go to for help at any time. If you just take DNA samples...
Professor Kalaydjieva’s research is supported by grants from National Health and Medical Research Council (NHMRC), the Australian Research Council, the Muscular Dystrophy Association of the USA, the French Association against Muscular Dystrophy and The Wellcome Trust.

PhD student David Johnson and Professor of Coastal Oceanography Chari Pattiaratchi hope that in understanding these strong, narrow currents that flow seaward through the surf zone, UWA research will improve beach safety and the management of our coastline.

Professor Pattiaratchi of UWA’s Centre for Water Research is an authority on oceanic currents, and he has seen rips in action, having been involved in at least one surf rescue. His current research project, which is nearing completion, will be as relevant to beach safety in other parts of the world as it will in Australia.

“We need to increase our understanding of where, when and why rips occur and to use this material to educate the public,” says the UWA researcher. “There are several different types of rips, including mega rips associated with headlands and coastal features – such as those off Trigg Island – and others that occur adjacent to breakwaters and groynes, as Centre for Water Research – and in demand around the world – was in action measuring rip currents and sediment concentration. The accumulated data will also help the researchers analyse the effects of wave conditions and tide-induced water level changes on rips.

MINDING THE MOLECULES

Chemists have revolutionised our material world over the last century, however the industries that gave us synthetic fabrics, plastics and fertilisers, have also, in some instances, proved to be polluting and problematic. Enter the ‘green chemists’ who aim to produce products that are better and cleaner than those produced by conventional industrial processes, and who envisage a 21st century in which the waste of one industry will become the fuel of another. One such visionary is UWA’s new Professor of Chemistry, Colin Raston who had already garnered international reputation in the world of green chemistry.

This year, UWA becomes only the third university in the world to offer a Batchelor of Science (Green Chemistry) – a degree that is expected to rapidly gain international recognition as the move towards global sustainability gains momentum.

In 1999 Professor Raston established Australia’s first centre of excellence in green chemistry at Monash University and has lectured widely on its benefits. Awarded the Royal Australian Chemical Institute’s Green Chemistry Challenge Award in 2002, he thinks that being in the vanguard of the green chemistry movement is important for UWA in that it anticipates an inevitable shift to sustainable industrial practices.

“As new industrial processes become available that are less polluting, one senses that environmental protection authorities around the world will make pollution legislation more stringent so that industries are forced to adopt environmentally-friendly technologies.”

“Some major multinational chemical companies are already converting to green chemistry – they appreciate that it can solve costly problems related to waste management. Already green chemistry techniques mean that the manufacture of paper is possible without chlorine bleach and that water can be used as a solvent rather than traditional toxic solvents.”

“It’s all about the triple bottom line – being economically viable, environmentally feasible and socially acceptable. Green chemistry is driven by innovation. Adopting its solutions may not be cheaper at the outset, but eventually they will be. And this entire movement will become even more relevant as resources such as oil and coal are depleted. Why wait until then before we question burning some 14 million tonnes of waste from Western Australia’s wheat crop annually when this biomass could be used to generate energy and commodity chemicals? Chemists need to communicate widely with industry and agriculture because our interests can be integrated. The take home message is that the future is looking good if we engage science and engineering to solve the issues of sustainability.”

Professor Raston and his team have received an Australian Research Council linkage grant for green chemistry research. His research interests also encompass nanotechnology, an exciting branch of the discipline that is creating molecules – at a billionth of a metre in size – capable of solving all sorts of environmental and health

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University of Western Australia researchers are currently studying the chemical make-up of forage legumes in the hope of identifying compounds that could be used in anti-cancer drugs. Their major research program also hopes that legumes will become the source of a new product to compete with or replace soy as an aquaculture feed in the burgeoning Southeast Asian market.

The ambitious five-year research project, that promises public health benefits as well as improving the cash-flow of farmers, is supported by industry and the Rural Industries Research and Development Corporation (RIRDC).

Professor Clive Francis of the UWA-based Centre for Legumes in Mediterranean Agriculture (CLIMA) says that RIRDC funds product-oriented research and that the centre is excellently placed to conduct this major research project because it has a unique genebank of Mediterranean legumes, plus international linkages. Some of the legumes being studied – such as red clover – have already been developed as pharmaceutical products, while others are not known commercially.

Dr Shao Fang Wang, who has wide international research experience in natural product chemistry and traditional Chinese medicine, is conducting the research in collaboration with medical Professor Peter Leedman and Ms Viki Russell from the Centre for Medical Research (WAIMR) and School of Medicine and Pharmacology at UWA) and agricultural scientists (Associate Professor John Howieson from Murdoch University and Dr Kevin Foster from the WA Department of Agriculture). Dr Wang, an Honorary Research Fellow at CLIMA, is currently testing 25 legumes from the centre’s unique gene library of Mediterranean legumes.

“We believe there is untapped potential for the utilization of forage legumes,” says Dr Wang. “On the medical side, we know that in Asia, where soy products are widely used, breast cancer rates are lower than in the West. Soy and other legumes contain isoflavones which may have a role in inhibiting the proliferation of breast cancer cells and in protecting against hormone-dependent cancer. To date, only one case-control study conducted in the United States has indicated that tofu consumption was protective in both premenopausal and postmenopausal women. In animal models, isoflavones appear to reduce growth rates and may prevent formation of tumours.

“The phytoestrogens that exist in red clover and other legumes have stirred interest as cancer preventative and as treatments for menopause, osteoporosis and a range of other conditions. Legumes are also thought to contain chemicals that may prove useful for their antibiotic, antiviral, antimicrobial, anti-inflammatory and anti-allergenic activities.”

Turning to the aquaculture feed component of the research project, Dr Wang says that advances made at CLIMA in the understanding of aeriel seeding of annual pasture legumes means that researchers can now look for appropriate genotypes with which to develop secondary industries for WA farmers. However, first they need to study the basic chemical constituents of pasture legume germplasm.

Aquaculture is an emerging industry in Australia, and a vibrant one in Southeast Asia (a market which imports over 250,000 tonnes of feed, primarily as soymeal, from the US). Local production of aquaculture feeds would be an advantage not only to the WA marine prawn industry, but as an export item for the region. It would benefit the seed industry and growers in southern Australia by developing a new niche product that fits synergistically with broad-acre agriculture.

**FRONTIER RESEARCH IN USE OF MAGNETS**

Almost all materials – from human cells to plastic – have magnetic properties, but very often the magnetism is too weak to be observed in everyday life. Once we knew little about such magnetic materials but technology now allows us to measure the magnetic properties of a human cell, and to see how they can be usefully used. Apart from its frontier research into the use of magnets in the delivery of drugs to targeted sites in the body, UWA’s Biomagnetics Group is at the forefront of using magnetic nanoparticles in treating cancer.

Dr Wang says that advances made at CLIMA in the understanding of the magnetic properties of this protein.

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**IDENTIFYING POTENTIAL ANTI-CANCER DRUGS**

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At the age of four, Alan Harvey wrote his first musical composition. He plays piano, guitar and mandolin. He composes and performs. He played soccer and was opening bat for schoolboy county cricket in the UK. He’s even tried stand-up comedy.

For a day job he researches and teaches in the School of Anatomy and Human Biology – and he’s a good choice for speaker at the First Ordinary Meeting of the UWAGA. What couldn’t he talk about - especially as he’s all geared up to write a book about why humans respond to music.

We’ll have to wait to hear more about that, however, because on 19 March 2004, at UWAGA’s First Ordinary Meeting, the UWA neuroscientist is going to talk about what the future holds for neural repair.

Professor Harvey’s research currently concentrates on neural transplantation and genetic manipulation of tissue in the nervous system.

“I’m looking into the developmental as well as the repair process, because if you know how the brain puts itself together in the first place you can use that information to reconstruct it, or perhaps you can find ways of getting the adult neurons to think they’re young again and regenerate.”

When Alan Harvey first arrived at UWA in 1984, he was the only neural transplantor on campus. Now he’s one of a team of about 15 collaborating on brain and spinal cord repair including Dr Giles Plant, who directs the spinal cord laboratory, and Dr Qi Cui, who runs peripheral nerve repair studies in the visual system. Both are ex-students of Professor Harvey and both decided to come back to Perth to further their careers at UWA.

The team in UWA’s School of Anatomy and Human Biology works closely with the neural regeneration group based in the School of Animal Biology led by Professor Lyn Beazley and Associate Professor Sarah Dunlop.

“Overall, we’re looking at areas of damage and trying to decide what kind of bridges you can make to repair them and promote regrowth,” says Professor Harvey.

Growing up in north east London, Alan’s principal interest was music. He lived within an echo of the famous Walthamstow Assembly Hall recording studio. But he didn’t know that at the time.

“To think I could have watched while the most famous musicians in the world were recorded,” he says ruefully, certain that the caretaker would have let a little boy in through the back door.

He bought his first LP – Swan Lake - in Walthamstow market at the age of seven, and sat clutching it all the way home on the bus. The composition he wrote when he was four consisted of a series of notes on music paper. His Scottish aunt came down to stay and played it to him. Good? “Utter rubbish,” he says, but that didn’t put him off. He still composes songs and thoroughly admires his cousin, the song-writer and performer, Eric Bogle, who, he says, will leave a wonderful legacy. “Just think of ‘And the Band played Waltzing Matilda.”

Although having considered dropping out to become a musician and composer, fate and family circumstances sent Alan on to academe. He won a series of scholarships to good schools and Emmanuel College, Cambridge, where he discovered folk music while studying neuroscience. But every time an opportunity in music came up where he could have switched careers, he somehow didn’t.

After studying physiology at Cambridge, Alan resisted the lure of music and decided to do a PhD. He was told about a great lab in Canberra and won a scholarship to the Australian National University to study under Professor Peter Bishop, a Fellow of the Royal Society.

“I arrived in Canberra at the age of 21. It felt a bit isolated and lonely at first, but I got to like it there very much in the end.” He even got close to musing about a career as a stand-up comic having been very successful on
the University boards. “There certainly have been moments when I almost jacked it all in to do music.” But he didn’t.

Let’s hope what he calls the “bad funding situation” won’t make him jock it all in either. It frustrates him that although UWA provides a fertile environment for growth, and people come here to study neuroscience from all over - the Netherlands, Hong Kong, Sweden, USA, Czech Republic WA sometimes seems irrelevant to the eastern states, where so many of the decisions on funding are made.

“We often don’t hear about developments or announcements on funding. It’s difficult to know what’s going on and there’s never enough money coming. Even so, Australia has punched above its weight in fields like neuroscience, immunology and cancer research for many years. We’re making great progress, but funding remains a big bugbear. In WA, I hope we can bring all the neurotrauma researchers together into a new centre that will help us to secure major long-term funding.”

Getting back to that book he intends to write about humans’ response to music. Now, why doth music soothe the savage soul, but not make adequate funding for medical research a given? There’s a neural element to the answer. But, as I said, we’ll just have to wait a bit to read about it.

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helps steer the course of education at UWA by providing four of the 21 members of Senate—the University’s governing body—and acting as a body of review over statutory amendments
communicates with graduates concerning University-affiliated interest groups and special events

For more information contact the UWA Graduates Association office on +618 6488 3006

UWAGA, First Ordinary Meeting, Friday 19 March, 6.30 for 7 pm University House. Guest Speaker: Professor Alan Harvey. “Neural Repair – what does the future hold?”
CONVOCATION, THE UWA GRADUATES ASSOCIATION ANNUAL ELECTIONS

- Election of Warden and Deputy Warden
- Election of thirteen members of the Council of Convocation, the UWA Graduates Association

Nominations are now called for these positions.

Mr Peter Clifton will complete his one-year term as Warden of Convocation, the UWA Graduates Association in March 2004.

Mr Matthew Zilko will complete his one-year term as Deputy Warden of Convocation, the UWA Graduates Association in March 2004.

Eight members of the Council of Convocation, the UWA Graduates Association will complete terms in March 2004, and there are 5 additional vacancies.

Nomination forms for all of these positions now are available from Convocation, the UWA Graduates Association. Please telephone Juanita Perez, the Graduates Coordinator on +61 8 6488 1336; fax 6488 1110; email: uwaga@admin.uwa.edu.au

The closing date for nominations of the positions listed is 5pm Friday, 23 January 2004.

Nominations received after this date will be declared invalid.

UWAGA Travel Awards

The UWA Graduates Association Postgraduate Research Travel Awards assist full-time postgraduate research students of UWA to travel interstate or overseas to augment their research. If you would like to donate to this Postgraduate Research Travel Award, please contact Juanita Perez, Graduates Coordinator on +61 8 6488 1336; fax 6488 1110; email: uwaga@admin.uwa.edu.au

(Winners: Abigail Klopper and Ryota Nishino were not able to attend the ceremony.)

THE UNIVERSITY OF WESTERN AUSTRALIA invites all graduates and other members of Convocation to attend the FIRST ORDINARY MEETING of Convocation, the UWA Graduates Association which will be held on Friday 19 March 2004 at 6.30pm for 7pm start at University House

The address - Neural Repair – What does the future hold? - will be given by Professor Alan Harvey Faculty of Life and Physical Sciences of The University of WA
More than 150 people attended the 50th reunion luncheon of the graduates of 1953, at which the principal speaker was Ms Katharine Brisbane AM. An arts student, Katharine went on to co-found (in 1971) the influential Currency Press, Australia’s performing arts publisher. Until her retirement in 2001, she remained its managing editor and publisher. She also founded the Australian National Playwrights’ Conference in 1972. Honoured and awarded for outstanding service to theatre, music and publishing, Katharine has also written extensively on Australian theatre.

Graduates who have previously celebrated their 50th reunion, were also invited to attend. This annual function is fast becoming known as the UWA Graduates Association’s ‘50 Year Club’. Friends and graduates of previous years, who have not attended the reunion for their year, are also welcome to attend. For information contact Juanita Perez, Graduates Coordinator on 618 6488 3006, or email on uwaga@admin.uwa.edu.au.
REUNION FOR MID-WEST GRADS

The provision of university services to the Geraldton region was recently acknowledged by a 2003 Premier’s Award to UWA and its partners (see In Focus), and Geraldton has also been the scene of an alumni reunion for UWA graduates resident in the Mid-West region.

Hosted by the Vice-Chancellor, Professor Alan Robson, the reunion was held in the Geraldton Universities Centre and attracted some 58 graduates and guests. Many had studied Agriculture under Professor Robson.

The Geraldton Universities Centre presents courses from UWA, Edith Cowan University and Curtin University and is the base for the Combined Universities Centre for Rural Health. Catering to students in the Mid-West region, demand for the centre’s services is such that a new building is currently being designed for a neighbouring site.
Busy with bees...

Roderick J. Hale (Ph.D UWA 2000) and his wife, Dr Marie L. Cooper (Ph.D UWA 2000) have been working with an East European authority on the medicinal properties of wildflowers. Their field work took them through the Pirin Range of south-west Bulgaria.

The UWA graduates who were on detachment from the UK’s University of Newcastle-Upon-Tyne, and were helping Assistant Professor Ekaterina Kozuharova of the Department of Pharmacognosy and Botany of the University of Sofia.

A paper by Dr Cooper (with other researchers), Impact of Landscape Management on the Genetic Structure of Red Squirrel Populations, appeared in the journal Science in September 2001.

Dr Roderick Hale is currently making a three-year study of the impact of farm management practices on bumblebees. It is hoped the eradication of favourite foods-saffron, clover-by herbicides causes bees to migrate, reducing their activity as pollinators.

Professor Kozuharova’s research into the pollination of wildflowers may throw new light on this.

An offshoot of Dr Hale’s work on Australian grasshoppers, the subject of his doctoral dissertation, was a chapter The Gryllacrididae for a book then in preparation. He is at the School of Biology, Porter Building, University of Newcastle-Upon-Tyne, NE1 7RU, Tyne and Wear, UK.

Photo: Dr Roderick Hale and Professor Ekaterina Kozuharova.

1940’s

Alexander Gorrie (B.E(Hons) 1948) writes that he has been retired for several years. He lives in Melbourne and enjoys travelling to Perth to visit family and friends and attending the annual November gathering of UWA graduates in Westthrop Hall.

Jack Gubbay (B.Sc 1949) lives in Bunnville, S.A. and writes that he is planning an extended overseas holiday this year and expects to visit and view developments at UWA.

1950’s

David Baker (BA 1953; TCert 1955; DipEd 1963; MA 1968) taught history at St Stephen’s College, University of Western Australia.

Gary Collignon (BA 1975) is a paediatric emergency nurse at Royal Perth Hospital. He still enjoys coming back to the campus when attending exhibitions and concerts. Gary is married with two children.

1960’s

John Williamson (BEd 1961; MEd 1972) was recently inducted as a life member of the Australian College of Educators and last year was awarded a Centenary Medal for services to music education in Western Australia.

John Hallsworth (B.Sc.(Agri) 1953) writes that she made a mid-life career change from teaching secondary school science to psychology and is still working as a senior psychologist at the Armidale Community Health Centre and as Area Adviser (Psychology) for the New England Area Health Service in NSW. In her spare time, Muriel has become a breeder of silver Abyssinian cats. She can be contacted at muriel@bigpond.com.

Vaucor Arkin (B.Sc 1958) has worked extensively in Israel, the United Kingdom and the United States, and is an Emeritus Senior Researcher at the Geological Institute, in Jerusalem. Dr Arkin’s recent geotechnical activities include consulting on bridges, tunnels and ground stability problems and research using remote sensing techniques. In 2001, he presented his latest research in the geological application of satellite radar imagery at the University of NSW and at UWA’s Geology Department. A graduate of the Imperial College, London and the University of London, Yaacov has served on several Israeli National Committees including the Mediterranean-Dead Sea Hydroelectric Scheme.

Roderic Hallsworth (BSc(Hons) 1953) retired recently as Executive Director of Stuart Petroleum, in Adelaide, although he remains a non-executive director on the board. Roderic and his wife now live in Brighton, Vic, where he will spend most of his time with occasional visits to South Australia.

1970’s

Tim Hanke (BCom 1970) stepped down as Snap Printing Group’s Chief Executive last year after a 14 year career with the company. He presided over a period of enormous growth which saw the company grow into the southern hemisphere’s biggest printing network and one of Australia’s most successful franchise organisations. He began his career with Bradford Insulation after graduating, and then worked for CSR and Universal Waldeck. Tim now runs his own consultancy business, Franchising Solutions.

Pauline Bunce (BA 1971; DipEd 1975; BEd 1978; MEd 1982) continues to live and teach in Hong Kong. She joined the Hong Kong International School two years ago and has successfully introduced geography to the curriculum of this American school. Pauline is currently undertaking doctoral studies externally from the Northern Territory University.

Leonora Ritter (BA(Hons) 1971) is Associate Professor in History and Politics and has recently accepted the new position as Head of School of Social Sciences and Liberal Studies at Charles Sturt University.

1980’s

Zhakov Pervan (M.B BS 1969) has been practising in Midland, WA, since 1971, specialising in clinical and chronic fatigue syndrome since 1977. His recent appointments include directorships to the boards of Visiting Global Ltd, Australian Biogen Ltd. He is Convocation’s nominee to UWA’s Faculty of Medicine and Dentistry Advisory Board.

1990’s

Robert Troughton (B.A 1981; B.Ed 1984) is the Managing Director of Troughton Australia. He writes that it is exciting to be making a contribution to the University and the State, drawing on a wealth of experience elsewhere, including a period as President of the Royal Australian Chemical Institute. (See UWA Snapshots in this issue).

Kevin Findlay (M Phil 1973; DipEd 1977) writes that he married for the second time last year and has been retired for the past eight years - and loves it! He is still involved with music, especially jazz. Kevin lives on a two acre property in Lewisham, Tas.

Ian Smith (BA(Hons) 1973; MA 1979; PhD 1986) and Robin Smith (BA 1972) own Nearby Organic Farm, a bed and breakfast farm on 20 hectares on the banks of the Gingin Brook. The rammed earth and timber homestead has three double rooms and can be booked through their email contact: noi.smith@inet.net.au.

1990’s

Gary Collignon (BA 1975) is Managing Director of Alena Chemicals of Canada. He is the author of 19 books and over 120 research papers. His research work and teaching was conducted in universities in Czechoslovakia, Italy, France, USA and Canada. Vijay is married with three daughters and one son and lives in Ontario, Canada.

1990’s

Vijay Bhattacharjee (MSc 1975) is a Managing Director of Aken Chemicals of Canada. He is the author of 19 books and over 120 research papers. His research work and teaching was conducted in universities in Czechoslovakia, Italy, France, USA and Canada. Vijay is married with three daughters and one son and lives in Ontario, Canada.

1990’s

Gary Collignon (BA 1975) is a paediatric emergency nurse at Royal Perth Hospital. He still enjoys coming back to the campus when attending exhibitions and concerts. Gary is married with two children.

Neal Earlwright (BA(Hons) 1975) completed a PhD at ANU, then taught at McGill University, Canada and Auckland University, NZ. He joined the University of Melbourne’s Geography Department.

June Boddy (BA 1972) has always been passionate about the need to preserve cultural and natural assets and has maintained a constant and active commitment over the past 30 years through her close association with the Fremantle Society, Fremantle City Council and the Fremantle Arts Centre and other cultural organisations. June was recognised for her contribution to the protection of Fremantle heritage and was presented with a heritage award, as pictured, in June 2003. She also volunteers her time as a Justice of the Peace and at UWA’s Visitors Information Centre.
Department in 1989, becoming a Professor in July, 2000. Neal has on-going collaborations with colleagues at UWA and Curtin University collaboratively and independently, and have published extensively in Mediterranean-type shrub lands in South-West Australia and regularly returns to Peru to conduct research.

**Suryakumara Shah** (MEd 1977) was the first Professor of Occupational Therapy in Australia, having been in that role for five years. He then retired in 2001 and went to the USA in 2002. He joined the University of Tennessee in Memphis and became the first professor of occupational therapy at the university’s Health Sciences Centre. Last year, the Tennessee Association honoured his outstanding and exemplary research leadership in the field of occupational therapy.

**Marisa Serra** (BA 1977; DipEd 1978) is an export sales executive and has been living in Italy since 1978. Marisa has two daughters.

**1980’s**

**Jason Gardosi** (MB BS 1981) left Perth in 1984 with his wife for a planned short spell in the UK. The visit extended indefinitely when Jason decided to specialise in Obstetrics and Gynaecology. He has since set up the West Midlands Perinatal Institute in Birmingham (www.gynimed.org) and is Professor of Maternal and Perinatal Health at the University of Warwick. They have two girls (16 and 12) and return to Perth regularly to visit grandparents and old friends.

**Roma Sayers-Wiseman** (BA 1983) writes that she has moved to Melbourne to be closer to her daughters and grandchildren. Roma hopes to work either as a volunteer or on a part-time basis and is currently working as a carer for Brightwater.

**Debra Fitzsimons** (BEd 1984) has been the Health and Physical Education teacher for the past 18 years at Cyril Jackson Senior High School, in Perth.

**Wing Keung Patrick Fong** (BE 1984) writes that after working in Canada for six years, he is now working for the Government of Hong Kong. Former classmates can contact him at patrick.wk.fong@hotmail.com

**Sumathy Tamilvan** (née Rajaratnam) (BA 1984) worked for Singapore’s Ministry of Education for six years before joining her husband’s business, specialising in aviation security and communications. She writes that they have three sons and former classmates can contact her at sumathy@nimrod.com.sg

**Nikki Fitzgerald** (née Weinman) (BSc(Hons) 1986) writes that she finds her new role as an advocate for People with Disabilities (WA), both rewarding and challenging. After 10 years working in medical research as a microbiologist, Nikki’s career change has given her the commitment and passion to further advance the rightstand equity of West Australians with a disability.

**Taj Usalan Hashmi** (PhD 1987) was the Visiting Professor in Asian Studies at the University of British Columbia in 2003. His previous appointments were as Professor of History and Dean of the Faculty of Liberal Arts and Sciences, Independent University 1998-2002 and Senior Lecturer in History at the National University of Singapore 1989-1990. Former classmates can contact him at taj.hashmi@hotmail.com

**Jeremy Legge** (BE(Hons) 1988; PhD 1994) spent two years as chief economist at the Water Corporation for four years, before he returned to UWA and completed his PhD. He then took up a post-doctoral appointment at Los Alamos National Laboratory in New Mexico. He is now a Professor in the Chemical Engineering Department at Texas Technical University, in Lubbock, Texas.

**Michael Schaper** (BA 1988) has been appointed to the inaugural chair in small business and entrepreneurship at the University of Newcastle, NSW effective from 1st December 2003. Prior to this, Michael spent six years lecturing in the School of Management at Curtin University. He was the UWA Guild President in 1986 and a Member of UWA Senate from 1985-88.

**Roslina London** (BSc(Hons) 1988; PhD 1996) is senior research scientist at the Liver Unit at the Westmead Millennium Institute, in Sydney.

**Paulene Vassiliou** (née Matthews) (BSc 1988) worked for 10 years as an IVF Embryologist in Perth then moved to Kumurrara where she lived for six years. Paulene writes that the family is now living in Carnarvon and her two children are adjusting well to the cooler climate. She has been working in the banking industry for the past three years and studying financial planning which she hopes to continue. Former classmates can contact Paulene at svassiliou@bigpond.com.au

**Natalie McDonald** (née Mairs) (BCom 1989) transferred to US in 1992 with Deloite & Touche, working in Miami for two years and New York City for four years. In 1999, she opened her own accounting firm, Natalie lives in Rhode Island and is married with two children. Former classmates can contact her at nmacdonald@blackcloud.net

**Craig Walton** (BSc(Hons) 1989) is a policy analyst and ecologist with the Queensland Department of Natural Resources and Mines. He married in 2001 and writes that he and his wife are happy living in Brisbane with their cat, Tigger.

**1990’s**

**James Bannerman** (BSc 1991; DipEd 1992) teaches political and legal studies, economics and social studies, at Frederick Irwin Anglican School, in Mandurah.

**Tasara Kamien** (BSc(Hons) 1993) lives in San Francisco and is completing her PhD in cultural anthropology at the University of California.

**Judith ‘Vikki’ MacQueen** (BA 1993) read her own research and teaches at the University of Sydney. She has been in Uganda with the company, Omni Training Solutions, based in Bangkok. She completed an MBA at Edith Cowan University and now, returned to Thailand, she is enjoying her third year as proprietor of Omni. Former classmates can contact her at macqueen@omnihaitland.com

**Abigail Bartell** (née Wheatcroft) (BA 1994) and her husband are Managers of Camp Kennedy, a youth camp at Perkins Beach, situated 20 minutes west of Albany.

**Haia Ber** (BPsysc 1994) writes that she has completed her PhD and will graduate in April this year. Haia is planning to take a six-month holiday and travel the world.

**Lyle Gunn** (BSc(Hons) 1994; PhD 1999) has recently become senior lecturer in the Epidemiology and Biostatistics Unit, at the School of Population Health, University of Melbourne. He previously spent several years as a biostatistician in medical research and two years as a quantitative risk analyst for National Australia Bank and BHP Billiton.

**Annmarie Sparrow** (MB BS 1994) has completed her training in Paediatrics and is presently Paediatric Consultant at Alice Springs Hospital. She will undertake a Master of Public Health degree at Harvard School of Public Health in 2004.

**Stephen Cummins** (BSc 1996) works in the Geological Survey of British Columbia and is an Economic Research Officer with the Goldfields Esperance Development Corporation and Department of Commerce and Trade. He then spent a year with his wife, Linda, teaching business English at the American School in Japan. After a few weeks back in Perth, they went to Europe and ended up staying for four years. Stephen worked as a Business Analyst in London for the Department of Environment, Transport and Regions, Clifford Chance LLP and Woolworths UK. They also worked for four years with Europe’s largest clearing and settlements bank, Clearstream International. After traveling through Europe and Egypt, they decided to settle back in Perth to be with family and friends.

**Genevieve Ng** (MBA 1996) is Manager, Special Projects, International Carrier Services for Singtel Optus Pty Ltd in North Sydney. Singtel is the largest listed company in Singapore.

**Jono Roy** (née Ingram) (BSc(Hons) 1998) is the proud proud of daughter No 2, Ella Alexis. Jane and her husband recently sold their family business and they now live in Albany.

**Long Xuan Dang** (BCom 1999) is currently working as an...
Scholarship visit recalled

UWA students benefit from many scholarships provided by individuals and major corporations – some help to finance further studies, others provide a window onto a world of employment opportunities.

For graduate Ga Vin Lee, who has combined BSc/BE degree, a scholarship visit to Japan sponsored by the Mitsubishi Educational Foundation capped five years of study at UWA, and let him sample life in Japan – a chance that the enthusiastic graduate clearly relished. His recollections of the trip underscore the importance of embracing other cultures – which is very much part of study at this University.

Recalling some of the trip’s highlights Ga Vin remembers: “Being taken out on a ‘typical date’ in Yokohama City by graduates Mitsui were employing in 2003, singing karaoke and chatting about life... Visiting the Toyota factory, and seeing cars built on an assembly line ... Visiting the smallest Ginza bar we’d ever been to (3 x 2 metres) run by a really funky 40-year-old Japanese guy with a ponytail ... Catching a glimpse of geishas as they rushed past into a taxi in Kyoto ... Travelling via Shinkansen, going at 270km/hour up and down the mountainous terrain, and then going past Mt Fuji ... Dressing up in kimonos for a tea ceremony with my host family ... Going up a small mountain in Hakone, and looking out over the awesomely quiet lake and its surroundings and bathing in hot springs in a nearby Japanese inn – we looked for yakuza but we didn’t see any! ... Meeting elite Japanese students from Keio University and chatting to them about student life in Japan ... Watching Kabuki in Tokyo – a play filled with murder, suicide, magic, love and intrigue; it had everything! ... Meeting two Mitsui ex-presidents at head office and wandering through a corporate art gallery with works by Renoir, Monet and Cezanne ....”

The UWA graduate stayed with a host family just outside Tokyo. “I had told my host father that I’d never seen snow – and at 3am he woke me to see it fall. Watching snow fall in the darkness was one of the most beautiful memories I have. And we were lucky because it almost seldom snows in Tokyo in December!”

Ga Vin is currently working for the Kingston International College as Director of Operations. He is a Council Member (and Assistant Secretary) at the WA Chinese Chamber of Commerce Council. “My Engineering studies at UWA helped me build very solid analytical skills and I know that my Electrical Engineering and IT Systems majors will be very relevant to my future work. I see my future path in business and while I’m still very much in a training phase at the moment, my goal is to be one of those brave people who forge their own destinies! My passion is in building businesses and in focussing people towards goals.”

Ga Vin’s family are Malaysian-Chinese and they emigrated from Malaysia in 1988. He began studies at UWA in 1998, getting involved with the International Networking Club and the University Buddhist Club. He was also involved in starting a part-time business at UWA – which was one of the reasons he was selected for the Mitsui scholarship.

Craig Medley (BEc(Hons) 2000) is completing PhD studies at the Whitley Laboratory, University of Cambridge, UK. Former classmates can contact him at craig_medley@sta.nsw.gov.au.

Daren McNamara (MBA 2000) spent a short time in Melbourne then moved to Sydney to become Chief Operating Officer at MIA Group Limited. He will be getting married in November this year.

Alexander Simpson (BE(Hons) 2000; BSc 2000) is a science teacher at Hale School and also has a role as a pastoral care leader. He is the conference convenor for the Science Teachers’ Association of WA and is also President of the Waveakers Longboard Club, in Scarborough.

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Michael Davidson (BA(Hons) 2003) works for the Department of Health and Ageing in their Graduate Scheme, in Canberra. He writes that so far the job has been fantastic, even though it is only early days.

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GRAD BRIEFS

2000’s

Craig Medley (BEc(Hons) 2000) After graduating, Craig moved to Singapore for 14 months and worked in Business Development for a start-up IT company. He then moved to Sydney, where he is now part of the graduate program in the State Transit Authority. Craig is also studying for his MBA at the Australian Graduate School of Management. Former classmates can contact him at craig_medley@sta.nsw.gov.au.

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Alexander Simpson (BE(Hons) 2000; BSc 2000) is completing PhD studies at the Whitley Laboratory, University of Cambridge, UK. Former classmates can contact him at aks35@eng.cam.ac.uk.

Paul Devlin (LLB(Hons) 2001; BA 2001) recently graduated from Harvard Law School with a Master’s degree in Law. He started working in a New York law firm last October. Former classmates can contact him at paul.devlin@post.harvard.edu.

Tito Tecunde (MMktg 2002) is managing the commercial and marketing department for Mozambique Television. He also lectures part-time at a local university in Maputo and lists his favourite hobby as parachuting.

Daryl Purnata (BE(Hons) 2002) is a risk and safety engineer working with Perth-based company, Vanguard Solutions, that specialise in oil and gas engineering risk management. Daryl writes that last year he enjoyed doing a short course on reliability and risk engineering at UWA’s School of Oil and Gas Engineering.

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