But the odds are stacked against Paul, right from the start. Like 1 in 7 Aussie kids*, he’s financially disadvantaged, he’s already behind at school and without your tax-deductible donation he can forget about his dream.

Sadly, there are thousands of disadvantaged kids just like Paul we are unable to support through lack of funds. But with your help, these children can gain access to the financial and personal assistance they need to make the most of their education...and change their life.

*One in seven children in Australia under the age of 18 lives in a family where no resident parent is employed. Source: ABS data available on request, Survey of Income and Housing 2005-06.

Donate today to the Mid Year Appeal
Phone 1800 FAMILY or visit thesmithfamily.com.au/midyearappeal

Helping disadvantaged Aussie kids realise their potential through education.

"I really, really like animals. I used to like dinosaurs, but now I like things that are alive. When I grow up, I want to be an animal doctor." - Paul
Monitoring the Malleefowl

Few Malleefowl chicks survive to become adults, but two UWA students are working to ensure a better future for these threatened birds. (Photo: Jessica van der Waag)

Reaching for the stars

UWA expertise will advance the State’s bid for the world’s most powerful radio telescope, the Square Kilometre Array.
Deputy Prime Minister visits campus

While in Western Australia to open new training facilities that address the State’s skills shortage, the Deputy Prime Minister and Minister for Education, Julia Gillard, took the opportunity to visit the State’s longest established university. UWA Vice-Chancellor Professor Alan Robson and Deputy Vice-Chancellor Professor Margaret Seares welcomed the Minister and provided her with an overview of a range of UWA initiatives designed to effectively respond to the skills needs of industry. As a member of Australia’s Group of Eight research-intensive universities, The University of Western Australia plays a pivotal role in supporting the State’s current dynamic development.

While on campus, the Minister took the opportunity to discuss the Federal Government’s recently announced decision to endow a Chair in Australian Literature at the University.

Integrated Human Studies at UWA

When addressing the Melbourne Institute of Applied Economic and Social Research Conference recently, UWA Vice-Chancellor Professor Alan Robson told his audience that innovation was the driver of modern economies and the key to international competitiveness, employment growth and social well-being.

The Vice-Chancellor said that the role of universities in innovation was twofold: the production of well educated graduates; and the conduct of research and development. These goals will be advanced by a bold plan to bring together the sciences, social sciences, arts and humanities to address this century’s major problems. The establishment of Australia’s first Centre for Integrated Human Studies at UWA underscores the urgent need “for academe to connect more directly and boldly with the large questions of our time”. This challenge was identified earlier this year at the inaugural World Universities Forum.

Associate Professor Neville Bruce, who addressed the Forum and will head the UWA Centre, views the 21st century as a ‘make or break’ time for humanity. He believes that the relatively new field of Integrated Human Studies will educate people across a range of disciplines, equipping them with knowledge and competencies to shape a more sustainable future. The Centre plans to offer courses of study in 2009.

“Academically, we saw an inexorable trend to specialisation at the expense of holistic, interdisciplinary studies. The 20th century was incredible in relation to its massive gains in technology and increases in material well being for some, but it also spawned a litany of problems – global warming, population explosion, resource depletion and growing social inequities,” says Professor Bruce. “Academically, we saw an inexorable trend to specialisation at the expense of holistic, interdisciplinary studies.

UWA Motorsport – simply the best!

“As you know the Formula SAE World Championships are being held in Michigan, and I am absolutely rapt to report that UWA is now the Formula SAE World Champion!”

That was how Project Manager Gurkaran Bansal reported the UWA Motorsport team’s big win as 104 of the world’s best teams gathered in the US in May. In claiming the top spot, the distinctive yellow UWA racer left both the University of Stuttgart and the Technical University of Munich in the rear.

The Formula SAE contest offers engineering students the chance to conceive, design, fabricate and race an open-wheel race car, with support from the Faculty of Engineering, Computing and Mathematics and sponsors.

Says Dean of the Faculty, Professor Mark Bush: “Projects such as this ensure our graduates are exceptionally well-prepared for employment and are highly sought after.”
“If you are educating leaders and influential citizens of the world, what would you like them to know, understand and value? We believe that educating people across disciplines will equip them with knowledge and competencies to help shape a sustainable future.”

A/Prof Bruce developed policies for the Integrated Human Studies Centre with a committee including Professors Dennis Haskell, Graeme Martin and Colin MacLeod, and attributes the germ of the idea to conversations over more than a decade with Senior Honorary Research Fellow Dr Len Freedman, who introduced the study of human biology to UWA.

The Integrated Human Studies Centre in the School of Anatomy and Human Biology held a series of free seminars in April on the theme of *Seeking a wisdom for the 21st century*. A range of speakers discussed such topics as wisdom, keeping the arts alive in boom times, economic growth, and altruism. The series continues until June 25. You can check the program details by visiting the website: www.ihs.uwa.edu.au

**PROSH antics for a good cause**

Our campus is always a lively place to be, but come April – and PROSH – the cavalcade of characters rattling collection tins and making their way back to UWA adds an extra infusion of colour, and some bizarre costuming at lectures!

UWA students have been collecting for worthy PROSH causes since 1931. Much energy goes into creating the floats and costumes – and being just a tad outrageous, in line with tradition and PROSH’s send-up newspaper.

This year the Dyslexia SPED foundation, the RSPCA and Holyoake’s alcohol and drug abuse programs benefited from a record fund-raising effort, with $125,500 being collected.

Right: UWA students collecting for a worthy cause

---

**Student at United Nations**

2008 Australian Youth Representative to the United Nations, Elizabeth Shaw (Photo: Ron D’Paine)

At a Blackstone Society function back in 2004, UWA Law student Elizabeth Shaw found herself eloquently debating the case that ‘lawyers and politics do mix’ – while UWA Law graduate and Attorney General Jim McGinty argued the reverse!

It was a foray into public speaking she won’t forget, and one of many that helped to hone her skills for a forthcoming event. Chosen from 200 applicants as Australian Youth Representative to the United Nations for 2008, Elizabeth will spend from September to December working in New York as a fully accredited member of the Australian delegation. During that time she will address the General Assembly on behalf of Australia.

Elizabeth sees young people as ‘agents of change in their own communities’ and feels that her UWA studies have prepared her well for this latest challenge.

“UWA is one of the most active student bodies in the country and provides an unrivalled environment for students to cut their teeth in a diverse range of extra-curricular activities,” she says.

A former editor of *Pelican* and President of the Blackstone Society in 2006, Elizabeth’s own extra-curricular activities include chairing the Perth City Council’s Youth Advisory Council. She paid tribute to the University for helping to fund her United Nations trip.

---

**UWA wins national award**

UWA has become the first organisation in Western Australia to receive an award acknowledging its contribution to the rights and lives of children. Save the Children’s White Flame Award was named to honour its founder, Eglantyne Jebb, who was dubbed the ‘white flame’ for her passionate work for children after World War I.

The Save the Children annual book sale raises funds for projects in Australia and the region. The Undercroft sale opens on 22 August at 6pm and runs to 1pm on August 27. For further information, phone 9328 3111.

---

**Monitoring the Malleefowl**

In this issue we report on the research of two PhD students – Jessica van der Waag (a finalist in the 2008 WA Youth Awards) and CSIRO researcher Blair Parsons – who are battling to secure the future of the Malleefowl (see Monitoring the Malleefowl).

Also working to save this distinctive bird is UWA Honours student Sarah Arnold, who recently won a scholarship from the Wentworth Group of Concerned Scientists. Sarah is exploring how to achieve the best outcomes when creating reserves for the protection of the Malleefowl. She has been working in the Wheatbelt Shire of Westonia, where most of the birds have retreated to remnant bushland on farms. Her scholarship enabled her to attend mentoring sessions in Sydney with high profile scientists Professor Hugh Possingham, an Australian Research Council Federation Fellow and UWA graduate and President of WWF Australia, Dr Denis Saunders.

“The mentoring aims to widen your career aspirations,” explains Sarah, “and to help emerging scientists get a foothold and make a difference in areas of policy. And that is what interests me.”

---

Uniview The University of Western Australia | 3
Learning for Life: all in the Family

Many students realise their dreams of study at UWA through scholarships awarded from within or beyond UWA. An example of the latter are the Learning for Life scholarships awarded by The Smith Family, a not-for-profit organisation. Education breaks the cycle of financial disadvantage and in 1999 The Smith Family adopted the Learning for Life program that helps children to reach their full potential. Currently, more than 27,000 Australian scholars (including several at UWA) benefit from programs that assist with expenses and underwrite mentoring, tutoring and personal development programs. Already the program is paying dividends, with almost 48 per cent of Year 12 scholarship students successfully applying for university or TAFE scholarships – more than double the 2005 figure.

EXPO 2008: you’re welcome

On Sunday 10 August the University invites prospective students – and parents, children, friends and relations – to appreciate the exciting spectrum of courses on offer at the State’s flagship university. UWA Expo 2008 will follow the successful format of previous years, allowing prospective students to explore the many career paths that begin with study at this University. Closer to the event, you can check the final program at the website: www.expo.uwa.edu.au. The program will also be available in the Saturday 2 August issue of The West Australian.

Chevron/UWA partnership

With energy needs high on the global research agenda, a Chair in Natural Gas and Process Engineering has been established at UWA. Global energy company Chevron has invited this University to join its prestigious worldwide university partnership program. The $6.9m program will fund the Chair along with postdoctoral appointments and PhD scholarships. Vice-Chancellor Professor Alan Robson said the partnership cemented UWA’s place as a leading international university of excellence in the training of engineers and earth scientists.

“Our relationship with Chevron and its industry and academic partners will enable us to produce more job ready graduates and allow Chevron to draw on our substantial research and teaching expertise.”

A second UWA Wentworth scholarship winner, Tas Thamo, is using economic modelling to explore the implications of using a new soil testing method, Rapid Soil Testing, should help farmers work out the nutrient needs of their paddocks – saving dollars and preventing the run-off of excess nutrients. The two UWA Honours students are supervised by Dr Greg Hertzler of UWA’s School of Agricultural and Resource Economics.

“Our relationship with Chevron and its industry and academic partners will enable us to produce more job ready graduates and allow Chevron to draw on our substantial research and teaching expertise.”

Scholarship winner Sarah Arnold, a member of the UWA Outdoor Club, on Ben Nevis in Scotland

“Their relationship with Chevron and its industry and academic partners will enable us to produce more job ready graduates and allow Chevron to draw on our substantial research and teaching expertise.”

ORGANISATIONAL CAPACITY BUILDING THROUGH A SENIOR EXECUTIVE FOCUS

MANAGING SOCIAL PERFORMANCE, 24-25 July

This program examines the concepts of triple bottom line reporting with a particular focus on sustainability, environmental and social performance, reputation and stakeholder management, and corporate citizenship. Participants will work through cutting edge international and West Australian case material to: consider social performance in a commercial context; apply social performance in the context of their organisations; examine effective measurement of social performance; and examine stakeholder engagement strategies.

Cost: $1980
Registration: +61 8 9383 8090 or www.aimuwaalliance.com
Venue: The University Club, UWA
We are seeking individuals aged 18+ yrs, in the Perth metro area, with a medical condition (e.g., arthritis, stroke, MS, asthma, heart failure, kidney problems, lymphoma, thyroid problems, diabetes, etc.) to be examined by a supervised medical student in a clinical setting at UWA for teaching purposes. No treatment etc. will be offered. All tests are non-invasive. Travel reimbursements are available.

To register your interest or for further information please contact Dr Nicole Koehler on 9449 5179 (Tue, Wed, or Thurs morning) or email Nicole.Koehler@uwa.edu.au

**Beijing here we come!**

With the Beijing Olympics emerging as the Next Big Thing on the sporting horizon, the buzz surrounding the 2008 Games is palpable on campus.

UWA has a great track record, with the late Shirley de la Hunty serving as an inspiration to today’s contestants. The graduate was a triple Olympic gold medalist and the first Australian woman to win a track and field medal in London in 1948. She won back-to-back gold at Helsinki (1952) and in Melbourne (1956).

Several students and graduates have been pre-selected by their sports to compete in Beijing, although the final Australian Olympic Team will only be announced in the coming weeks. Those pre-selected include graduates Kylie Wheeler (Heptathlon) and David Dennis, along with Engineering and Commerce student Jeremy Stevenson (both in the Men’s Eight).

**UWA/WAIS benefit elite athletes**

Chairman of WAIS Grant Boyce, 50 metre freestyle world record holder Eamon Sullivan and UWA Vice-Chancellor Professor Alan Robson

Still in sporting mode, UWA and the WA Institute of Sport are developing a high performance sports centre for research, training and graduate sport science education at UWA’s Sports Park.

UWA Vice-Chancellor Professor Alan Robson sees the centre as an intellectual and academic resource for the nation.

“The centre brings together world-class science and world-class athletes and will benefit Australia’s elite athletes while furthering understanding of what makes them such high performers,” said the Vice-Chancellor. “The University has been an important partner with WAIS since day one and this agreement formalises a 24 year relationship and opens up new opportunities.”

On hand at the signing ceremony was Olympic swimmer Eamon Sullivan who has participated in current joint research into computational fluid dynamics (CFD) being conducted by WAIS sports biomechanist Dr Andrew Lyttle (whose PhD research at UWA looked at the hydrodynamics of swimming turns). Dr Little and current PhD student Matt Keys are examining how swimmers create propulsion in the water by studying kicking patterns and full stroking actions.

**Fancy a virtual trip to Mars?**

The Gingin Observatory at the Gravity Discovery Centre will be running stargazing nights especially for families during the July School Holidays. You’ll be able to join a Family Space Adventure with expert astronomers, take a virtual trip to Mars and study the Universe close up.

Bookings are essential – phone 9575 7740 or by emailing: stars@ginginobservatory.com

In addition the next BYO Telescope Class will be held on 15 June.

**PATIENT VOLUNTEERS NEEDED**

We are seeking individuals aged 18+ yrs, in the Perth metro area, with a medical condition (e.g., arthritis, stroke, MS, asthma, heart failure, kidney problems, lymphoma, thyroid problems, diabetes, etc.) to be examined by a supervised medical student in a clinical setting at UWA for teaching purposes. No treatment etc. will be offered. All tests are non-invasive. Travel reimbursements are available.

To register your interest or for further information please contact Dr Nicole Koehler on 9449 5179 (Tue, Wed, or Thurs morning) or email Nicole.Koehler@uwa.edu.au
Intelligence and Pragmatism:

Associate Professor Tim Mazzarol of the UWA Business School will conduct courses that range from strategic marketing principles and branding strategies to putting strategic planning tools to good use; Government Architect, UWA’s Professor Geoffrey London will share his ideas on Housing Australia: How we can make a difference; and Landscape Architect Professor Richard Weller will participate in a panel discussion on the Perth Waterfront Development. Professor Weller is working in association with Ashton Raggatt McDougall on the master planning of the Perth City Foreshore.

Leaving the 21st century behind will be Roman archaeology expert, Professor David Kennedy who will conduct a course on Roman Archaeology: everyday life in the Roman Imperial Army. His extensively illustrated talks examine the evidence from forts, artefacts and army documents.

To check out the full program, visit www.extension.uwa.edu.au or phone +61 8 6488 2433.

Friends inaugural lecture

UWA Friends of the Grounds are hosting the inaugural lecture honouring the late George Seddon on 19 June at 7.00pm at the UWA Watersports Complex (corner of Hackett Drive and Stirling Highway). The lecture Australian Icons: the eucalypt family - Myrtacea will be presented by Dr Neville Marchant, Honorary Research Fellow, Botanic Gardens and Parks Authority and former Director of the WA Herbarium.

In an era of climate change Dr Marchant’s choice of topic is timely, and reflects George Seddon’s lament that: “Our garden preferences are still English.” Shortly before his death, the UWA academic led a group of plant enthusiasts through his garden, giving an informative commentary on his collection of drought tolerant plants.

Seating is limited and bookngs can be made through the UWA Office of Development. Contact Judith Edwards by phone 6488 8541 or by email judith.edwards@uwa.edu.au.

On a night such as this...

On a balmy summer evening, as shadows enfolded the Sunken Garden, UWA graduate Faith Clayton struck a dramatic pose that, for many in her audience, conjured images of another opening night – some sixty years ago.

Business students... be the first.

Get tomorrow's news today!

Find out what’s happening in business first with FREE daily business alerts direct to your inbox. Simply register at:


Jump the job queue get connected first to WA employers through WA Career Connection, go to:

jobs.wabusinessnews.com.au

Call 9288 2100

Friend’s inaugural lecture

UWA Friends of the Grounds are hosting the inaugural lecture honouring the late George Seddon on 19 June at 7.00pm at the UWA Watersports Complex (corner of Hackett Drive and Stirling Highway). The lecture Australian Icons: the eucalypt family - Myrtacea will be presented by Dr Neville Marchant, Honorary Research Fellow, Botanic Gardens and Parks Authority and former Director of the WA Herbarium.

In an era of climate change Dr Marchant’s choice of topic is timely, and reflects George Seddon’s lament that: “Our garden preferences are still English.” Shortly before his death, the UWA academic led a group of plant enthusiasts through his garden, giving an informative commentary on his collection of drought tolerant plants.

Seating is limited and bookings can be made through the UWA Office of Development. Contact Judith Edwards by phone 6488 8541 or by email judith.edwards@uwa.edu.au.

On a night such as this...

On a balmy summer evening, as shadows enfolded the Sunken Garden, UWA graduate Faith Clayton struck a dramatic pose that, for many in her audience, conjured images of another opening night – some sixty years ago.

Business students... be the first.

Get tomorrow's news today!

Find out what’s happening in business first with FREE daily business alerts direct to your inbox. Simply register at:


Jump the job queue get connected first to WA employers through WA Career Connection, go to:

jobs.wabusinessnews.com.au

Call 9288 2100
**Unique art collection donated to UWA**

One of Australia’s most significant collections of women’s art has been donated to the University by Sir James and Lady Sheila Cruthers. The additions to the University’s collection of paintings by Australian women artists has delighted the Director of UWA’s Lawrence Wilson Art Gallery, John Barrett-Lennard, who believes that it adds a sense of cultural and social history to the University’s Art Collection.

“This is a unique collection reflecting nearly a century of women’s art in Australia as well as the passion and vision of its founders,” says the Director. You can read all about the donation in Advance UWA and you can check out the Lawrence Wilson’s program at http://lwgallery.uwa.edu.au/

The veteran actor was then a student, the play was Oedipus Rex and Sir Laurence Olivier and Vivian Leigh (who later saw the production) were generous with their praise.

Historian Professor Geoffrey Bolton launched the celebration to mark this first production staged in the unique performance space. He delivered a Shakespearean-style prologue that captured the nostalgia of the occasion and set the stage for Faith Clayton’s rendering of Jocasta’s passionate speech. She was followed by theatre doyenne Joan Pope who delivered a Puckish epilogue

in the spirit of the occasion, UWA Vice-Chancellor Professor Alan Robson agreed to match fund-raising dollar for dollar to produce this publication. An appeal will be launched in the near future. If you’d like to help, contact Joan Pope (popejoan@cygnus.uwa.edu.au) or Bill Dunstone (dunstonw@iinet.net.au)

**First year student at the 2020 Summit**

Among the 1,000 participants in the Australia 2020 Summit in Canberra earlier this year was UWA first year Arts/Law student Holly Ransom who discussed the future of Australian governance with delegates including the Governor General Sir William Deane, former WA Premier Geoff Gallop and businessman Kenny Stokes. An active member of Nedlands Council’s Youth Advisory Committee, Holly firmly believes that people should be more engaged in the political process. One of the youngest delegates, Holly was photographed with both government leaders and other delegates, including actor Hugh Jackman (right), UWA was well represented – by academics and graduates – at the Summit.

**Finding HMAS Sydney**

When Australia’s foremost naval mystery – the final resting place of the HMAS Sydney – was revealed in March, historian Glenys McDonald, author of the UWA Press title Seeking the Sydney: A Quest for Truth was among the first to see the wartime wreck.

“All we could see initially was a blue screen with a bright light and occasional fish,” recalls Glenys, an observer on the survey vessel. “Then there was a shadow and almost immediately HMAS Sydney appeared in front of us. It is impossible to convey the depth of feeling as we watched in awe as the stern of Sydney and her turret came into view. I cried, knowing what these photographs would mean to relatives of crew I had come to know and love over the years.”

Glenys, one of five volunteer Directors of HMAS Sydney Search as Trustee for the Finding Sydney Foundation, later read a poem by one of the lost crewmen during a simple ceremony when a wreath was cast into the ocean over the wreck site. It was a moment she won’t forget, and the culmination of a quest that began 16 years ago.

At the time, Glenys and her husband had gone to live in Port Gregory and she became intrigued by the tales of locals who claimed to have heard the sounds of the battle. She later moved to Geraldton and became Secretary of the HMAS Sydney Memorial Committee that was responsible for the beautiful Geraldton memorial (photographed above, along with the UWA title).

“Once you get hooked with the Sydney story, you can’t let it go,” says the author whose book was published by UWA Press in 2005. It was short listed for the Premier’s Book Awards and the Frank Broeze Memorial Maritime History Book Prize.

While this book makes use of oral history, another UWA Press publication by historian Wesley Olson brings together, clue by clue, a persuasive explanation for the tragedy of HMAS Sydney. Bitter Victory: The Death of HMAS Sydney has been described by the WA Maritime Museum’s Michael McCarthy as “a great book…the one you’ve been waiting for all these years…brilliantly researched and a compelling read.”

For a look at the full range of texts published by UWA Press, visit www.uwapress.uwa.edu.au
When did you last have a FREE screening mammogram?

Women 50 or over should have a screening mammogram for breast cancer at least every two years. Early detection is your best protection.

Phone 13 20 50 for an appointment.
Helping shape the ‘education revolution’

This year has brought significant opportunities for our University as we engage with a new Federal Labor Government committed to an ‘education revolution’.

We have seen the Government take a refreshing new approach to the funding of universities with announcements of substantial increased commitment to build an $11 billion Australian Education Fund for capital expenditure in higher education, as well as an immediate allocation for infrastructure funding, from which our University will receive more than $16 million.

The biggest opportunity still lies ahead in a national review of higher education which provides a real opportunity for the Government to translate its rhetoric into tangible support for universities through a new system of ‘compacts’.

Compacts have been described as university-specific performance-based funding agreements. They have the potential to form a sound basis for helping institutions to be competitive in their own mission-specific areas, while protecting the public good element of all higher education through appropriate regulation and funding. There is no doubt that the Government and all universities need to work together in a partnership.

There may also be a valuable role for an independent, expert advisory body for tertiary education in helping a smooth transition to a more sensitive and sustainable policy environment for achieving quality through diversity, and in negotiating compacts.

Our University supports a number of underlying principles which would form the framework for compacts. They are:

- **fitness for purpose** – public funding should assist each university to pursue its distinctive mission and to excel in what it does best;
- **accountability for outcomes** – universities have a reciprocal responsibility to report publicly on how well they have performed against their own goals and the performance standards expected of them;
- **simplicity** – compacts, including associated performance reporting, will be agreed in relation to block grants on a broad not detailed basis, will involve less regulation and will lead to a reduction in the current administrative and reporting burdens;
- **transparency** – decision making will be open to external scrutiny, and based on a fair application of consistent rules;
- **predictability** – compacts will provide the capacity for universities to plan ahead, being resourced according to published criteria and known parameters.

A compact system of funding must be part of a national strategy of international competitiveness and quality in which education and research is valued as a public good. Compacts also will need to operate in a context of significant additional public funding and a student-driven approach to higher education financing if they are to effect sustainable improvement in quality, responsiveness, diversity and cost-effectiveness across the sector.

Amidst these major national discussions, campus life continues apace, with the University’s primary mission being impressively reflected through our autumn graduation ceremonies at which more than 2,750 students received bachelor degrees, diplomas and masters and higher degrees.

The awards included 75 PhDs from across all faculties, as well as degrees and diplomas to 660 graduates from business, more than 200 engineers, 109 doctors and 98 teachers.

Our graduations, held in autumn and spring, become seasonal reminders of the human achievements that our University sustains. They also provide very tangible evidence of our contribution to society. Many of our highly talented graduates are destined to become leaders in business, industry, government and academia; all will contribute to our community more generally.

Alan Robson
Vice-Chancellor
UWA PhD student Jessica van der Waag has studied the Malleefowl (Leipoa ocellata) for almost a decade yet she still recalls the excitement of her first sighting of a chick emerging from its distinctive leaf litter nest.

Several months earlier, she had watched a handsome male bird using strong feet to rake a metre-deep depression, three metres across, in a bushland clearing in the State’s south-west. Over several weeks, the nest base was patiently filled with leaf litter and bark, eventually forming a mound that was assiduously turned and mixed – to encourage the breakdown of material, particularly after rainfall. The female later joined the male to make a chamber within the mound to protect eggs she would lay through summer.

As the summer waned, Jessica knew that the chamber held eggs turning from pink to beige during their 60-day incubation. In that time, the pair solicitously maintained the chamber at a comfortable 32 degrees, using their beaks as thermometers and regulating the temperature by opening and closing the mound.

The UWA student knew that after shattering its thin-shelled egg, the chick would make its way to the surface through the decaying material and sand that had incubated it – but that now presented the new-born with its first challenge. Scrambling to the surface could take anything from a couple of hours to more than a dozen.

Land owners report fewer sightings of the elusive Malleefowl as its habitat is encroached across Australia and feral foxes and cats take their toll. Two UWA graduates are working to assure its future – and they have gained valuable support from local communities. Trea Wiltshire reports.

Monitoring the Malleefowl

ONLY A FEW CHICKS SURVIVE TO BECOME ADULTS – PERHAPS TWO PER CENT

UWA PhD student Jessica van der Waag has studied the Malleefowl (Leipoa ocellata) for almost a decade yet she still recalls the excitement of her first sighting of a chick emerging from its distinctive leaf litter nest.

Several months earlier, she had watched a handsome male bird using strong feet to rake a metre-deep depression, three metres across, in a bushland clearing in the State’s south-west. Over several weeks, the nest base was patiently filled with leaf litter and bark, eventually forming a mound that was assiduously turned and mixed – to encourage the breakdown of material, particularly after rainfall. The female later joined the male to make a chamber within the mound to protect eggs she would lay through summer.

As the summer waned, Jessica knew that the chamber held eggs turning from pink to beige during their 60-day incubation. In that time, the pair solicitously maintained the chamber at a comfortable 32 degrees, using their beaks as thermometers and regulating the temperature by opening and closing the mound.

The UWA student knew that after shattering its thin-shelled egg, the chick would make its way to the surface through the decaying material and sand that had incubated it – but that now presented the new-born with its first challenge. Scrambling to the surface could take anything from a couple of hours to more than a dozen.

Left: UWA PhD student, Jessica van der Waag (Photos of Malleefowl by Jessica van der Waag)
As the bird matures its mottled feathers streaked with black prove to be excellent camouflage.
When the chick finally emerged, it was on its own – no parent to guard it from predators, nor to provide a first feed. However, it was prepared for its largely solitary existence. Urgent, fluttering movements took it towards the shelter of the bush, and, as Jessica observed in her notes, the fledgling – small enough to cup in her hand – could run within a couple of hours, and in a day was able to fly to escape danger and to roost in trees.

And danger there is aplenty in the form of foxes and feral cats that feast on chicks and adults and occasionally dig up unhatched eggs. As the bird matures its mottled feathers streaked with black prove to be excellent camouflage. “Only a few chicks survive to become adults – perhaps two per cent,” says Jessica, who lives in Ongerup, a small wheat and sheep town on the south-east corner of the Wheatbelt, 153 km north of Albany. She began her studies examining road-kill gathered by the Malleefowl Preservation Group in Ongerup.

The UWA researcher graduated from studying the stomach content of the birds to observing adult birds at the mound. Whereas it was thought the male bird did most of the obsessive nest-building, her observations suggest that females help.

Now engaged in writing up her PhD studies, Jessica is examining the dispersal, development and survival of young Malleefowl and chicks through radio tracking.

Her research is supported by the Malleefowl Preservation Group (MPG) through the Community Conservation Trust, a tax deductible conservation trust that has raised funds to cover some of the costs of radio tracking devices. Her fieldwork is sometimes solitary, but she also depends on the help of volunteers from Ongerup, a town committed to preserving remnant populations of the species.

Support also came from the Yongergnow Australian Malleefowl Centre in Ongerup that officially opened last year. The Centre, which welcomes school visits, raises awareness about the bird’s plight and provides researchers with facilities and a band of able volunteers.

“The majority are locals willing to forego sleep to come trapping in the small hours of the morning or late at night. During the day I work on my own, but I rely on volunteers to join me tracking at night and assisting with recaptures, when we replace transmitters that have fallen off or are nearing the end of their power supply,” says Jessica, who camps in the bush during summer while the chicks are dispersing.

She is now science advisor on the MPG committee and her presentations to community groups, Rotary, botanical, photography and conservation groups have done much to interest the public in this conservation issue.

“Malleefowl are listed as threatened,” she says. “That makes them particularly rewarding to work with because the information gained from research can be used in implementing conservation strategies,” she says. “My research is focussed on the behaviour and ecology of the bird. My interest lies towards developing conservation strategies for small remnant populations.”

Jessica’s research is supervised by Dr Barbara Cook, Centre of Excellence in Natural Resource Management (UWA Albany), Dr Stephen Davies and Dr Dale Roberts (UWA Animal Biology).

Another UWA PhD student, Blair Parsons, is conducting Malleefowl research in the Wheatbelt where farmers celebrate sightings of the bird on their land, but admit to seeing less and less of them.
Blair, who works as a researcher with CSIRO Sustainable Ecosystems, says that his research builds on that of past CSIRO scientists working in the area of landscape ecology and threatened species research. “While a wealth of biological and ecological work exists for Malleefowl the majority of this material originated in eastern Australia, so may not be applicable given climate and vegetation differences,” he says.

Blair has been involved in threatened fauna research since 2000. His studies of the ecology of Burrowing Bettongs at Shark Bay’s Heirisson Prong formed the basis of an Honours degree. Later research with the CSIRO exposed him to the issue of declining native fauna species in the Wheatbelt.

“I spent several years in the central and northern Wheatbelt determining how birds, mammals and reptiles were affected by the size and configuration of remnant bushland,” he recalls. “I first came into contact with the Malleefowl in the Buntine-Marchagee area whilst surveying for birds, and discovered that many landholders were concerned for the species. Most were proud that they still had the birds on their properties, and considered it an indicator of good environmental health.”

Blair’s research data is informed by community-collected sightings, plus his own observations in visiting reserves ranging from the Mt Gibson Sanctuary (owned by the Australian Wildlife Conservancy) to Lake Magenta Nature Reserve in the deep south of the Wheatbelt.

“The past decline of Malleefowl in the Wheatbelt can be largely attributed to the loss and fragmentation of habitat due to land clearing. Over 93 per cent of native vegetation has been cleared and remnant bushland – within a sea of cropping and grazing lands – is often too small to support Malleefowl.”

Blair’s research suggests that the bird is still widespread through the eastern fringes of the Wheatbelt where agricultural operations dwindle.

“If we can protect remaining habitat from too-frequent burning and grazing by stock, and provided we control introduced predators, then this adaptable species stands a good chance of persisting. The fact that they are known to feed on wheat also helps!”

Blair’s research is supervised by Professor Dale Roberts from UWA’s School of Animal Biology and Dr Jeff Short, Director and Principal Research Scientist with Wildlife Research and Management Pty Ltd.

The UWA student pays tribute to farmers, whose intimate knowledge of Malleefowl, and the landscape in general, is critical to the successful management of the species into the future. He also acknowledges the support and dedication of the Malleefowl Preservation Group, North Central Malleefowl Preservation Group and Friends of North Eastern Malleefowl.
**City of Subiaco**

**Local History Awards**

Entries close 5pm

Wednesday, 3 September 2008

Major award $1000

Entry forms – Subiaco Museum, library and Administration Centre or www.subiaco.wa.gov.au

**FACULTY OF LAW**

**POSTGRADUATE STUDIES**

**RESOURCES LAW**

The Centre for Mining, Energy and Natural Resources Law is offering opportunities for Postgraduate studies in Resources Law.

These units are valuable for lawyers and other professionals working with Resources Law in the business and government sectors.

**Water Resources Law**

18 – 20 June

Registration for non-degree purposes at: http://www.cmenrl.law.uwa.edu.au/welcome (degree enrolment for this unit has closed)

**Mining Law**

5 – 7 November (enrolments close 26/10/08)

**Commercial Aspects of Resources Development**

19 – 21 November 2008 (enrolments close 9/11/08)

**CONSUMER LAW**

The Centre for Advanced Consumer Research is offering opportunities for Postgraduate studies in Consumer Law.

The approach taken to the subject area is multi-jurisdictional and multi-disciplinary.

The course faculty includes leading specialists in consumer law drawn from private practice and the state government.

**Current Issues in Consumer Law and Policy**

30 June – 4 July 2008 (enrolments close 29/06/08)

For enrolment details for both areas of study contact the Faculty at law-postgrad@law.uwa.edu.au or for more information on postgraduate courses visit www.lawstudents.law.uwa.edu.au/postgrad

www.sport.uwa.edu.au

Get a grip

at the UWA fitness centre

Memberships start from as little as $230!

Find out about UWA Staff Debit & Salary Sacrifice Options!

Visit us at the UWA Recreation Centre
Car Park 1, The University of Western Australia
Ph: 6488 2286
UWA has been quick to respond to the need to reverse the decline in language education in Australia and to strengthen Chinese language teaching as the People’s Republic of China becomes this State’s biggest export market. The University is also playing a role in improving educational outcomes in China.

As 2008 – UNESCO’s International Year of Languages – unfolds, one message that is not going to be lost in translation is the year’s mantra: “languages matter!”

It’s a message endorsed by Australia’s Prime Minister Kevin Rudd, who has been internationally acknowledged as the only Western leader to have mastered Mandarin. As such he has become a role model for language teachers lamenting the decline in foreign languages in Australian schools.

It came as no surprise that, on achieving office, the PM announced a $68 million plan to revive Asian languages with additional teacher training and support and a specialist curriculum for above-average students.

Government research indicates that fewer than half the nation’s students study a second language and this is compounded by a critical shortage of language teachers. Only 13 per cent of Year 12 students study a language other than English (down from 40 per cent in the 1960s) and over the same period language studies in Australian universities have also plummeted from 66 to 29 per cent.

The problem is recognised within the Group of Eight leading universities. Their Language in Crisis discussion paper concluded that “the decline in language education poses serious national security and international relations risks for Australia”. The paper recommends compulsory language teaching from primary school to the end of Year 10.

UWA was quick to play its role in reversing the decline by putting high schools on notice that, as from 2011, the University will give bonus Tertiary Entrance Aggregate points to students who have studied a second language.

“We believe language studies should be recognised and rewarded even when students choose not to continue such study at tertiary level,” says UWA Vice-Chancellor Professor Alan Robson, who views the decline as “a disturbing loss to our State and nation”.

Above: Children in Gongsham can attend school every day thanks to an all-weather path funded by UWA and Rotary
Associate Professor Jane Long, Pro Vice-Chancellor (Teaching and Learning), believes the bonus scheme will advance the University’s commitment to ‘cultural competence’.

“We recognise that students often come to us with a degree of cultural competence and this is positively reflected in our diverse student population,” she says.

The bonus scheme was an initiative proposed by a working party on cultural competence. Other initiatives in line with UWA priorities included support for study abroad opportunities (UWA now has exchange agreements with 33 universities in North America, Europe, South East Asia, South Asia and New Zealand) and the development of English language units for exchange students coming to UWA.

“All such initiatives embrace the cultural richness of our students and equip UWA graduates to interact in a culturally sensitive way as they become effective global citizens,” said A/Professor Long.

Research undertaken by the Group of Eight indicates a similar decline in language studies in the United Kingdom.

“It’s a trend lamented by many universities and by business groups aware that effective global participation requires cultural competence. I think the notion of English as the lingua franca is unacceptable. Language study is a good of itself and enables us to engage with issues of cultural difference.”

A/Professor Long hopes the bonus scheme – which received a positive response from language teachers – will also play a role in addressing the serious lack of language teachers in Australia.

The Group of Eight report notes that as English is now in the school curriculum of many countries from Europe to Asia, Australians will increasingly compete for jobs with those as competent in English as they are in their native language – and possibly one or two additional languages.

Currently a number of high-achieving language students at UWA are using their knowledge of European languages to pursue interesting research. Ashok Collins is using his excellent knowledge of French to study the fictional works of French writer Romain Rolland; Josh Brown’s proficiency in Italian is advancing a PhD that explores the letters of a 14th century Tuscan merchant; while Leith Passmore’s German is helping him to complete a thesis on Performing Terrorism: a case study of Ulrike Meinhof.

In this article we talk to two fluent Mandarin speakers – Dr Gary Sigley, one of several UWA staff to be invited to the 2020 Summit in Canberra and PhD student Russell Harwood whose Mandarin studies have opened up rewarding career prospects.

Mastering Mandarin

While the People’s Republic of China is WA’s largest export market and Chinese languages including Mandarin constitute the State’s second most widely spoken language group, levels of Chinese language teaching and learning in no way match the strength of this economic and political relationship.

With trade, education and scientific research collaborations strengthening our links with China and agriculture and tourism showing significant potential for growth, a recent UWA report has urged the State Government to promote the teaching and learning of Chinese and to cultivate stronger ‘China literacy’ within the State.

The author of the report requested by WA Premier Alan Carpenter is Dr Gary Sigley, Director of the UWA Confucius Institute and a Senior Lecturer in UWA’s School of Asian Studies.

Dr Sigley (who is also fluent in Mandarin and was one of several UWA academics to attend the 2020 Summit in Canberra) shares Prime Minister Kevin Rudd’s concern about the decline in Asian language studies and the critical lack of teachers. He says research indicates Australian school students spend less time learning a second language than students in all other OECD countries, and that bringing the foreign language issue to the fore is long overdue.

-----------------------------------------------

Left: Associate Professor Jane Long
In recent years, the number of foreign students travelling to China to learn the language has grown significantly. The Office of the Chinese Language Council International estimates it will reach the 100 million mark in a few years—a phenomenon the Chinese media has dubbed the ‘Chinese craze’.

Many of WA’s trade competitors are promoting Mandarin, demonstrating a willingness to deepen friendships and links. Speaking the language helps contribute to a competitive edge.

Only a handful of schools in WA teach Mandarin which lags significantly behind other languages. In WA’s public schools in 2006, more than 32,000 and 29,000 studied Indonesian and Japanese respectively, but only 1,377 studied Chinese.

Dr Sigley’s report urges the government to consider a range of initiatives including developing a strategic plan for Chinese language teaching and learning; establishing a School of Languages offering after-hours classes and distance education to students from private and public schools; improving training opportunities for teachers; raising the number of language teaching hours (currently two hours a week in Year 8 – 10); strengthening links with the Office of the Chinese Language Council International; developing sister city relationships to enhance learning experiences of teachers and students; and supporting the language initiatives of the Confucius Institute.

The Senior Lecturer says that while English is acknowledged as the language of business and scientific research, becoming monolingual is not in Australia’s national interest.

“Australians cannot rely on others to do their interpreting, particularly in the area of foreign affairs and business,” said Dr Sigley. “Business people relying on interpreters often find they are not getting all the information they need.

“Language competency also bestows other benefits. It encourages cultural-social awareness and allows students to imagine what it is like to live in a different society.”

Dr Sigley is confident that the demand for Mandarin studies will eventually replicate the rise of Japanese language studies in the 1970s.

“Japan’s emergence as an economic power coincided with the push to get foreign languages into Australian schools, and the Japanese Government was very proactive in supporting language studies abroad,” explains Dr Sigley. “The Chinese Government is similarly supportive through the 195 Confucius Institutes around the world and through the Office of the Chinese Language Council.

“UWA’s Confucius Institute works closely with local teachers in the school system and with teachers in the Chinese community schools that offer language lessons to the children of migrants.”

He said the Institute aimed to provide professional development programs in association with the Chinese Language Teachers Association of WA. Dr Sigley is currently Vice-President of this Association, a Council member of The Chinese Studies Association of Australia and a member of the Academic Advisory Board of the International College at Zhejiang University.

Dr Sigley says that Mandarin students in UWA’s School of Social and Cultural Studies benefit from opportunities to immerse themselves in the language during in-country programs, including an eight-week summer break trip and a semester-length exchange program with Zhejiang University.

The Confucius Institute’s annual China Study Tour, a nine week language and culture study program in China over the Australian summer break, is open to the general public.

Seeing a country through a different lens

When Russell Harwood began studying the complex tonal challenges of Mandarin, he never suspected that his language studies marked the start of an incredible journey that would provide him with rewarding career prospects.

UWA PhD student Russell Harwood recalls that passionate Mandarin teachers at Mt Lawley Senior High School, Geoff Davis and Anita Chong, spurred his interest in the culture of China, and that a school visit during summer holidays further increased his appreciation of things Chinese.

“When you learn a foreign language at school or university, only using it in the classroom, it seems quite abstract,” observes the UWA researcher. “However, on a visit to the country you become immersed in the language – speaking it every day and appreciating its relevance and practical advantages.”

A year-long exchange in China in 1998 as part of undergraduate studies at Murdoch University further immersed Russell in a country undergoing dramatic changes. His subsequent Honours research at UWA highlighted one such change—the migration of
China’s rural poor to its cities. His study documented the growing social and economic divide that sees poorly educated rural migrants exploited in urban factories and the booming construction industry that is creating glitzy urban centres.

“In factories and on construction sites, the rural poor are treated as cheap human fuel,” observes the UWA researcher. “They are second-class citizens and do not receive equal access to subsidised education and healthcare.”

Fluency in Mandarin allowed him to trawl through Chinese texts and to “see the country through a different lens”.

“My study looks at various government interventions in relation to agriculture and education and at the impact on locals of turning the area into a UNESCO World Heritage site. The aim is to preserve a biodiversity hotspot, but the result is that local subsistence farmers in this isolated rural community can no longer hunt in the forests or collect mushrooms and medicinal plants.

“Because of flooding on the Yangtze in 1998, steep sloping land in upriver provinces such as Yunnan can no longer be cultivated because silt and run-off end up in the river systems. The farmers are given cash and grain subsidies to return steep sloping agricultural land to forest, but the subsidies won’t last and there are no jobs.”

Education is the key that will enable children to seek jobs beyond the village and Russell is determined to ‘give back to the community’ he is researching. With the help of UWA’s Confucius Institute, the Rotary Club of Matilda Bay and the UWA Institute for International Development, Russell raised funds and coordinated the construction of an all-weather concrete path linking the mountain-top village of Sazimenken with the local primary school at the foot of the mountain.

“It’s an area with lots of rain and frequent landslides, often making it too dangerous for the children to walk to school,” says Russell. “Local parents worked hard to build the 1.3 km path and their children can now safely attend school all year round”.

The path project was the first that Russell initiated through the Confucius Institute Australia-China Education Fund. Russell is now seeking to raise $7,000 for a new project called the ‘Women in University Initiative’ that will fund a four-year university scholarship (covering fees, living expenses and transport costs), providing an opportunity for a young woman from Gongshan to further her education at university. While the Chinese government has recently implemented free nine-year compulsory education in rural areas, university fees remain out of financial reach for most Gongshan parents and education for rural women is an area of particular need.

You can contribute to the Women in University Initiative by contacting Russell (Russell.harwood@uwa.edu.au).

Russell’s own career path has clearly been shaped by his Mandarin studies. When he has completed his PhD, he will seek work in China with community development organisations such as UNESCO or AusAID.

His thesis earned him First Class Honours and an Australian Postgraduate Award for PhD studies at UWA, supervised by Senior Lecturer Gary Sigley, and Associate Professor Lyn Parker of the Discipline of Asian Studies.

These studies introduced him to the dramatic Nu River (Nujiang) gorge of Yunnan Province and China’s ethnic minorities. Russell undertook his PhD field work in the far north of the Nujiang gorge in the county of Gongshan. Gongshan is one of China’s poorest and most isolated rural communities, its mountainous terrain keeping its ethnic minority people sealed off from the economic development that is transforming the nation beyond their mountain villages.
UWA graduate Lyndon da Cruz recently attracted international attention when he performed two successful operations to implant an artificial electronic retinal device – dubbed Britain’s first ‘bionic’ eye – in the eyes of blind patients.

Mr da Cruz graduated from UWA in 1987 and went on to complete an Ophthalmic Fellowship at Oxford University. He returned to UWA to study for a PhD at the Lions Eye Institute and completed his retinal specialist training with Professor Ian McAlister at Royal Perth Hospital. A Howard Florey Postdoctoral Fellowship took him to London where he completed his retinal speciality training at Moorfields Eye Hospital in London, where he is now a consultant surgeon.

The British media became interested in the UWA graduate when he successfully transplanted healthy cells harvested from a patient’s own eyes into the damaged area behind the centre of the retina – “a difficult procedure fraught with complications,” as the Financial Times observed.

Mr da Cruz said that three specialist groups are currently working in parallel: the team in Sheffield testing the safety of the cells; the Institute of Ophthalmology confirming that they retain their function and preparing them for transplant; while at Moorfields, strategies for surgery and patient selection are being developed.

“By driving these in parallel, the development time will be significantly reduced,” he said.

Mr da Cruz recently attracted more media attention when – for the first time in Britain – he performed two successful operations to implant an artificial electronic retinal device in the eyes of two blind patients.

Hailed by the media as Britain’s first ‘bionic’ eye, the operation is part of a clinical trial to restore a basic level of useful vision in those suffering severe blindness due to Retinitis Pigmentosa, a group of inherited eye diseases.
Reaching for the stars
Everything about the Square Kilometre Array (SKA) Radio Telescope project is astronomical, including a $2 billion price tag. This giant ‘eye on the sky’ will combine signals from 5,000 radio dishes across Australia and New Zealand. It will be 50 times more sensitive than any other radio telescope on Earth and will revolutionise our understanding of the far reaches of space, and the evolution of the Universe. It could also establish Western Australia as a global hub of radio astronomy.

The frontier science that the SKA will employ puts a 21st century face on a quest that began in the 17th century when Italy’s ‘father of astronomy’, Galileo Galilei, for the first time trained a telescope on a canopy of stars.

“Galileo was first in realising how powerful a telescope could be,” says UWA’s Professor of Astronomy Peter Quinn. “He was able to increase his ability to look at the sky by a factor of about 20. For the very first time he saw millions of stars that no one had ever seen before. All of a sudden our Universe got a lot bigger!

“Since then, every time we’ve built a new telescope it has been about twice as big as the one it replaces. Now we’re on the brink of building a telescope that is 100 times bigger than anything that exists today – a telescope with a collecting area of almost one square kilometres that will require massive super-computers to create virtual images of the Universe.”

Just as the size of optical telescopes is vital in improving the image clarity of distant planets, so this ‘array’ of radio telescopes has a scale that exponentially increases the amount of data that the SKA can process.

It looks like any other stretch of remote outback: a swathe of barren earth broken by rocky outcrops that rise above the red and gold dirt of the Murchison. But if Western Australia wins the right to build the world’s most powerful radio telescope, the site could accommodate the 21st century’s biggest science project, turning the State into a global hub of radio astronomy.
In February the State Government committed $20 million to establish an International Radio Astronomy Research Centre. Announcing the funding, Premier Alan Carpenter did not mince words: “We want to win the SKA for Australia,” he said. “We already have the best site in the world. Now we want the best science, the infrastructure, the people doing the core science and engineering.”

The Centre will involve UWA, Curtin University of Technology, CSIRO, national and international research institutions and industry.

UWA Vice-Chancellor, Professor Alan Robson emphasises that UWA has been a key driver of the SKA project to position Western Australia as the centre for the next generation radio telescope. “The importance of the bid for Western Australia cannot be underestimated,” he says.

The ‘buzz’ that surrounds this project was palpable when students from Perth Modern School filled the spacious atrium of UWA’s Molecular and Chemical Sciences Building to view an exhibition focussed on the SKA. Out There! introduced students to the science of astronomical interferometry which utilises the signals from an array of radio telescopes (often thousands of kilometres apart) in such a way that they simulate a single telescope.

Opening Out There!, the Chief Scientist for Western Australia, UWA’s Professor Lyn Beazley, told the students that she considered the project most important for Australia.

Professor Quinn reels off another astronomical fact – in a single day, the SKA will process the equivalent of global data generated from all sources over a year.

It’s these ‘off the planet’ figures that make the SKA the most exciting project on global science’s drawing board right now. So it’s little wonder that providing a suitable site for astronomy’s most glittering ‘prize’ is fiercely contested.

There are two main contenders for the SKA that will be built by 2020 – Southern Africa and Australia – and the quest to win the radio telescope is pitting determined government negotiators, passionate radio astronomers and a phalanx of upper echelon scientists against one another.

With its low population density, Australia’s interior is uniquely positioned, but we’ll have to wait until 2012 to learn whether that stretch of the Murchison has been acknowledged as the best site. One of its attractions is its radio-quiet remoteness, excellent sky coverage, ionospheric stability and benign tropospheric conditions. The WA Government is currently undertaking measures to establish the Murchison Radio-Astronomy Observatory, some 600 km from the capital city of Perth, and to declare the area a radio quiet zone.

Meanwhile, Western Australia’s radio astronomers aren’t sitting on their hands – they’re preparing the groundwork in a range of ways including building what will be the best radio telescope in Australia, the Pathfinder, independent of whether the nation secures the SKA.

Federal and State Government funding is playing a big part in helping the State to gather its own array of unassailable assets in its SKA bid. UWA has seen the appointment of two internationally recognised radio astronomers, who have become Premier’s Research Fellows in the School of Physics: Professor Peter Quinn, and Professor Lister Staveley-Smith.
"The SKA project is an opportunity to make us the science focus of the world for the next century," she said. "No single project beats it in the public imagination because it will help to answer big questions about the Universe."

"I believe we have the best argument, the most stable environment, and the greatest potential to attract radio astronomers, engineers and computer scientists necessary for a massive project such as this."

UWA's Professor Peter Quinn (who has impressive credentials in astronomy and astrophysics in Australia, America and Europe) was also keen to inspire secondary school students about career prospects in radio astronomy. He said that with an annual operational budget of $100 million, the SKA would bring significant industrial development, research, educational and employment opportunities for WA.

"Astronomers are like time travellers and the greater distances we are able to cover, the further back in time we are able to go," he told students. "We want to use the SKA to understand the first page of the story of the Universe, the beginning of the cosmos. To date, we've only been able to get half way there, but the SKA will extend our reach to a phenomenal degree."

"This is a very big project. Some 19 countries will be involved. As science students, you will be in the very best place to pursue careers in a whole range of areas – from super computers to physics to astronomy. And whether or not we get the SKA, we will have Australia's biggest telescope, the Pathfinder. If we go on to get the SKA, the centre of the Universe will be here in Western Australia."

That was certainly the feeling when, shortly afterwards, more than 160 of the world’s top radio astronomy experts from a dozen different countries gathered at UWA for a conference featuring work by Australian and international astronomers on SKA-related science and technology. The focus was the SKA Pathfinder telescope that will be up and running well in advance of the full SKA.

The conference reflected WA's new presence in the world of radio astronomy with the establishment of the Radio Astronomy Research Centre and the building of the $100 million Pathfinder by the CSIRO. This radio telescope, destined for the Murchison in 2009, will produce more new data in the first six hours of operation than all other radio telescopes combined.

"The conference was an important opportunity for radio astronomers to come together and discuss progress with numerous SKA Pathfinder projects," says Professor Lister Staveley-Smith. "These projects are helping to develop cutting-edge technology for the SKA itself and will provide important results within the next few years. The conference was also extremely successful in showcasing Western Australia as a potential SKA site."

Judging by the interest of students examining the scale model of the SKA, the displays in Out There! generated wide interest. During the exhibition, Year 12 students from participating SPICE schools Mt Lawley, Duncraig and Willetton Senior High Schools joined a select group of Australian high school students who had an opportunity to control the Parkes radio telescope in New South Wales. All the schools involved were participants in the State Government-supported SPICE program, a UWA-initiated science enrichment program.

Rob Hollow, Education Officer for the Australian Telescope National Facility, came to Perth to present this exhibition activity. Through the SPICE room in the Centre for Learning Technology, a link to the telescope's computer network was established, as well as a direct link to an astronomer in the telescope tower.

Professor Staveley-Smith said that there was enthusiastic feedback from the students involved. "The fact that they were operating the Parkes telescope and were able to plot the position of the pulsar on a map of the galaxy is something they will remember for a long time," he said.

Meanwhile back in the School of Physics, UWA's two Premier's Fellows were advancing the Pathfinder project and WA's bid for the SKA. They're pleased that Australian and international companies are already registering their interest in being involved with SKA.

"This will be a software telescope, more software than metal," explains Professor Quinn. "SKA will need access to the world's most sophisticated computers, many yet to be developed, and to the world's biggest data managing, storing and transport systems. Its fibre-optic capability is at the limit of what is possible now."

"The world's biggest computing, fibre-optic, data, software and hardware companies will be involved.
Half the budget is to build the 4,000 dishes that have to be cost-effectively designed and manufactured for maintainability in harsh environments.

“SKA’s power systems will cost $100 million and will require tens of megawatts to be available in the desert. We are looking at green energy and the feasibility of using geothermal power.

“There will a 3,000km network of fibre-optics cabling with a bandwidth 1,000 times bigger than exists now.

“The receiver dishes will resemble radio digital cameras for wide-angle, detailed pictures of the sky. Industry partners, working with organizations like CSIRO, will need to mass-produce integrated systems.”

Professor Peter Quinn took up a Research Fellowship in the School of Astronomy and Astrophysics at the Australian National University in 1989. His work on computational astrophysics won him a NASA award in 1992. His work on the world’s largest optical and infra-red observatory won him a Computerworld 21st Century Achievement Award in Science in 2005.

Professor Staveley-Smith has worked at the Australia Telescope National Facility (CSIRO) in Sydney as an Australian Research Council Postdoctoral Fellow and a staff scientist. He was responsible for the first Radio imaging of the nearest and brightest supernova for 400 years. He was awarded the CSIRO medal in 1998 and was Director of the Gemini and SKA Major National Research Facility from 2004.

Professor Quinn is confident that the Murchison radio Astronomy Observatory site has many advantages, including political stability.

How do they rank our chances of securing the SKA?

“Southern Africa has political and infrastructure issues we don’t have,” says Professor Quinn. “The 4,000 SKA dishes will be spread across 3,000km and here, that represents one country. In Southern Africa, the spread would be over multiple countries, raising possible political issues.

“The country that wins this contest will have to have a skilled workforce, capable industries and infrastructure available at an internationally competitive cost. Our radio astronomy community is one of the best in the world – so I would say we are ahead.”

Contact

SKA website: www.atnf.csiro.au/projects/ska
SPICE website: http://sponsored.uwa.edu.au/spice/home
Professor Peter Quinn: +61 8 6488 4553
Professor Lister Staveley-Smith: +61 8 6488 4550

Right: 1. Professor Peter Quinn explains the workings of a radio telescope to Professor Lyn Beazley and students
2. Students from Perth Modern at the launch of Out There!
3. UWA’s Professor Lister Staveley-Smith with students from Duncraig Senior High School. (Photos: Paul Ricketts)
Neuroscientists have long known that stimulating the brains of infants and toddlers is vital in creating the functional cerebral circuits important to healthy development. However, few of us appreciate that during adolescence, the brain conducts a complex ‘clean-up’, getting rid of synaptic connections and circuits that are redundant in favour of those that are important for decision-making as teenagers adapt to their changing worlds and grow into young adults.

“In the adolescent brain, nothing is redundant,” observes neuroscientist Dr Anke van Eekelen, a Research Fellow at the Telethon Institute for Child Health Research and Adjunct Senior Lecturer at UWA. “During the teenage years, the brain gets rid of circuits created over time that aren’t being used, in favour of those that are the most efficient. We call this periodic event adolescent synaptic pruning or elimination, and in science it is one of those areas in which we still have much to learn.

“In the last decade we have become more and more aware of this period in adolescence through evidence from Magnetic Resonance Imaging (MRI). MRI is able to distinguish between white matter (myelin coated axons of brain cells that process information from one neuron to the next within a brain circuit) and grey matter (neuron cell bodies).”

Researchers from the National Institute of Health in the US began doing brain scans on hundreds of healthy teenagers to get an idea of how a typical teenage brain looks. They found that the ratio of grey and white matter changes during adolescence.

“A loss of grey matter due to synaptic pruning might seem dramatic, because teenagers are still developing, but we think this ‘rearrangement’ in fact preserves the functional circuits that are most efficient for cognitive development,” explains Dr van Eekelen. “To understand the implications of this on brain function beyond adolescence, we need to work across several disciplines including basic and cognitive neuroscience and psychology.

“As you approach adult life in almost any society, you have to develop important skills – you need to fit in socially, adapt to new environments, behave appropriately, achieve academically – and all that requires a certain level of cognitive function. We think the most efficient circuits preserved during adolescence underlie a healthy maturation of cognitive function in the late teenage years.

“Our hypothesis is that if the adolescent brain fails to do this pruning appropriately, a child’s ability to mature and make sound judgements will be affected.

**THE BRAIN HAS MANY CORTISOL RECEPTORS AND OVER-EXPOSURE TO THE HORMONE MAY IMPACT ON WHICH BRAIN CONNECTIONS ARE ELIMINATED DURING ADOLESCENCE**
Helping the Institute with this vital research are teenagers involved in the Western Australian Pregnancy Cohort (Raine) Study that began in the late 1980s. The Raine Study aims to explore how events during pregnancy, birth and early childhood influence the subsequent health of children and adolescents.

Data on almost 3,000 pregnant women was gathered at King Edward Memorial Hospital and the health and development of their children has been monitored by the study team at the Telethon Institute for Child Health Research since then. With the initial cohort of participants now in their teens, Dr van Eekelen and her colleagues are checking their thinking skills (through a series of specially designed computer games) and their cortisol levels (through saliva and blood tests) when they feel relaxed – to provide a baseline figure – and when they are presented with a challenging new situation.

“When individuals are confronted by a challenging situation, a cascade of releases start in the brain, taking in the pituitary and ending with the release of cortisol from the adrenal glands into the blood,” says Dr van Eekelen.

“Our aim is to assess how well the teenagers cope with stress. In a healthy person, cortisol levels will return to that baseline level after a stressful situation, but if an individual is not able to achieve that within a reasonable period of time, the body is exposed to elevated levels of cortisol for longer, which can have damaging consequences.

“We know that there are children in our society who don’t have time to recover from stressful situations because the source of their trauma is ongoing, so you find a chronic over-exposure to cortisol. That may later contribute to health problems like cardiovascular disease or diabetes, both of which can be linked to high cortisol levels. There might also be genetic determinants in the system’s ability to copy with stress.

“Our overall aim is to get a better understanding of how certain levels of cortisol that circulate in our body relate to the development of mental health and physical diseases. Other studies have recruited cohorts of people with a disease and take their histories. We are taking a different route in using an unbiased cohort of teenagers to learn how individuals differ. And because this cohort has been followed from in utero, it will be interesting to see how, over time, some are more resistant to certain diseases than others.”

Dr van Eekelen is working with cognitive neuroscientist Dr Jonathan Foster of Edith Cowan University (Adjunct Associate Professor at UWA) and epidemiologist Dr Eugen Mattes at the Telethon Institute for Child Health Research (Clinical Senior Lecturer at UWA) on this important research that is funded by the Australian National Health and Medical Research Council. The genetic investigation and the stress tests are performed in collaboration with Dr Craig Pennell (Senior Lecturer in Maternal Fetal Medicine at UWA) and funded by the Canadian Institutes of Health Research. Each researcher is studying a different aspect of this mental health study, and it is this that makes their collaborative research unique.

Dr van Eekelen is also working with research collaborators in The Netherlands and Germany who pioneered work on stress and adaptation, including the genetic determinants of stress sensitivity.

The result of this biochemical reorganisation might be psychosocial behaviour that is unacceptable, or it could be linked to mental health problems like depression and even schizophrenia, which can appear in late adolescence.

“We need to explore the links between these events, and to discover whether the process of pruning is influenced by the release of the stress hormone, cortisol. The brain has many cortisol receptors and over-exposure to the hormone may impact on which brain connections are eliminated during adolescence. We already know that sustained high levels of cortisol are damaging to physical and mental health.”

Above: The Raine Study teenagers: (back row) Rachael, Samantha and Jess; (front row) Scott, Jessica, Aislin and Roland

Dr Anke van Eekelen
Telethon Institute for Child Health Research
Phone: +61 8 9489 7886
Email: ankev@ichr.uwa.edu.au
Institute website: www.ichr.uwa.edu.au
UWA graduate Carmen Lawrence is taking up a new challenge at UWA following a high-profile political career spanning more than two decades.

Is there life after politics?

There appears to be little time for reflection as Carmen Lawrence assumes a challenging new role at the campus where she honed what became formidable Parliamentary debating skills. While stepping out of the political limelight has only marginally decreased the community’s demands on her time, the former Federal Member for Fremantle confesses to being delighted not to be shuttling between Perth and Canberra and “never having a sense of ‘home’.”

It’s no surprise that Western Australia’s first female Premier, who went on to become the Labor Party’s National President, is now seen as an invaluable ‘community resource’. As a passionate advocate for Indigenous Australians and human rights, her connections, knowledge and long experience in the corridors of power generate a steady stream of requests for advice.

“At this stage I’m happy to be seen as ‘a resource’ and I haven’t yet learnt to say ‘no’,” says the graduate who left politics at the last Federal election.

Returning to the campus where she studied is clearly a pleasurable experience. Carmen Lawrence, the student, graduated with First Class Honours in 1968 and collected a swag of prizes and two scholarships for her 1983 doctorate. Now back on campus, Dr Lawrence is establishing a highly relevant research centre that will put to good use the intellect and scholarly background of a singular politician.

At her suggestion, and with enthusiastic support from UWA, she is establishing a ‘think tank’ that will work across disciplines to unravel the origins of fanaticism and extreme behaviour. The aim is to encourage some of the best scholars in Australia and the region to consider the roots, motivations and pathways that can turn fanatical thinking into action.

“We’ll be exploring the historical and social circumstances that give rise to fundamentalism – of which terrorism is an extreme expression,” she explains. “We will study the roles of political indoctrination and the exclusion of groups on grounds of race, religion or politics.

“In studying social conflict around identity questions, we’d like to work with people in South East Asia conducting related research. This academic quest is less about security and more about contributing to long-term understanding of these issues through deeper analysis.

“And we’re not just looking at extreme behaviour in individuals or groups, but at states that adopt attitudes based on race or religion, or that develop a totalitarian response to criticism. After all, more people died in the 20th century as a result of the actions of states than were killed in civil conflicts.”

This is a vital area of research that will draw together people from different academic traditions and Dr Lawrence hopes that other backers will join UWA in its support for the centre. She is confident that the research outcomes of the proposed centre will find applications in many spheres.

“While there is contemporary research in the security/political arena, what has been missing is study at the level of how such behaviour develops,” she says.

Dr Lawrence says that her decision not to contest the seat of Fremantle was the realisation that “repetitive and demanding public elements” of being a Federal MP were beginning to dilute her enthusiasm.

“I am still passionate about political policy and practice, but not on a day-to-day basis,” she observes. “Fremantle deserves a fully committed representative and I’m delighted Melissa Parke won the seat because she had a long association with the party in terms of grass roots political engagement well before her high-profile work with the United Nations.”

As an advocate for constitutional changes to the Labor Party’s pre-selection process that now ensures 40 per cent of candidates are women, she was also delighted to be replaced by a female MP.
Carmen Lawrence sees the opportunity to serve the community as a privilege. “A lot of the things you do as a politician, especially those that are problem-solving, are very rewarding,” she says. “And it’s wonderful to work with interested and motivated people.”

She recalls with pleasure involvement in many campaigns that had wide community support – like saving Bold Park – and of seeing fledgling initiatives, like the Men’s Shed movement, take flight.

“Campaigns like these give you an insight into the lives of the people who energise such campaigns – like the men who started the Fremantle Men’s Community Shed. This is now part of a national network tackling long-overlooked problems of men’s health, isolation, loneliness and depression. The role of the group is very practical in addressing these issues and in offering training courses and mentoring.

“Seeing a group such as this get off the ground, knowing its positive aims – getting people together, offering companionship and training – is inspiring.”

When she studied at UWA, Carmen Lawrence was a resident of St Catherine’s College. “I was 16 when I began studying,” she recalls, “and I made good friends, some of whom remain close. It was good being among women with ideas of their own and I really benefitted from College tutors – in some respects gaining more from them than from formal lectures, because you built a more intimate relationship.”

Her leadership potential was acknowledged on campus when she became President of the Newman Society and Senior Student at St Cat’s. The year she completed her PhD (1983) she also stood for Parliament, but in an unwinnable seat. Three years later, she contested and won the Legislative Assembly seat of Subiaco, held by political opponents for 27 years.

In those early years Carmen Lawrence acknowledges that she was learning all the time and that by the time she became State Premier, politics had become all-absorbing. When she took her seat as a Federal MP, she was viewed by the media as an articulate, feisty and straight-talking parliamentarian who could well become Australia’s first female prime minister. But she also faced some daunting challenges in those early years in Canberra.

Today, as she becomes a familiar face on campus, Carmen Lawrence will undoubtedly be seen as an excellent role model for liberal arts and humanities students. She believes these disciplines have been neglected in the national discourse on the value of university education. Study within this area is not, she emphasises, an “expensive indulgence”, but rather “the best way to enable citizens to participate in a democratic society”.

Dr Lawrence emphasises the importance of a literate and articulate society, and the value of collective decision making.

“It has become a very bad habit for governments to be so identified by their leadership that the collective nature of decision making is overlooked and underestimated,” she said at a recent conference. “I think it’s fair to say that the more we give credence to the idea of the omnipotent and omniscient leader, the more likely it is to become fact. And that’s a dangerous trend – especially in a democracy.”

While she is no longer at centre stage politically, Carmen Lawrence’s insights into Australian society will continue to be perceptive and provocative. In the post-Howard years she looks forward to the unfurling of another Australia, generous of spirit, inventive and forward looking. She is also convinced that, given the challenges of the 21st century, the world of ‘big ideas’ is engaging more and more Australians.

“We are wealthier than we’ve ever been, but no more content,” she said in a recent speech. “We have more ‘stuff’ than ever before and we are, in aggregate, three times richer than our grandparents, but we are no happier. At the same time as our GDP continues to grow, poverty and homelessness is rising. While unemployment is down, the distribution of work is more unequal than ever. There are clearly many groups of Australians who feel marginalised and under siege.”

And from the UWA campus, you can be sure that Dr Carmen Lawrence will continue to speak on their behalf.
Archivists and historians from around the world will gather in Western Australia in August to discuss the particular challenges of being an archivist and historian at a time when there has never been more information at our fingertips.

Given the wealth of information at our fingertips, there has never been a better time to record history and create the archives that will inform future generations. But the sheer volume and variety of sources bring challenges that exercise the minds of archivists, historians and librarians, including Dr Toby Burrows, Principal Librarian of the Scholars’ Centre in UWA’s Reid Library.

Dr Burrows is one of the organisers of the Fourth International Conference on the History of Records and Archives (ICHORA), to be held in August at The University Club. Speakers from around the world will look at the different ways in which Indigenous and community voices have been recorded, not just in traditional Western ‘archives’ but in other formats like Australia’s rock art.

An Honorary Research Fellow in the School of Humanities, Dr Burrows is working on a theoretical framework that will indicate how best to include biographical information in the archival record.

“As a researcher you need a starting point from which to explore different avenues of information – biographical data in libraries and archives, private and public collections, the papers of notable people – like those of poet John Kinsella and historian Les Marchant, both of which are held at UWA – plus countless websites. The challenge for archivists is to work out what is the best way of recording and linking all that information so that people can find it and use it.”

Dr Burrows will be talking on this topic at another important conference in Perth during August. The Australian Society of Archivists annual conference (7 – 9 August) will attract archivists from across the United States, Europe, the United Kingdom, Canada and Australia. The conference theme is Archives: Discovery and Exploration.

Whereas hard copy books and journals once provided the bulk of information for UWA researchers and students, today most of the information they access is electronic. But does anything compare with handling one of the leather-bound volumes with marbled endpapers and gilt tooling in UWA’s Special Collections?

“Not really,” concedes Dr Burrows as he pages through John Gould’s The Birds of Australia (London, 1848), one of many Reid Library treasures. “There’s always a special pleasure in handling a book like this, even though the National Library of Australia has put a complete digital version on the web…”

The particular pleasure of getting to know the collections in the Reid Library is that you can range from the 21st century to eras long gone – in hard copy and electronically.

The Marchant collection mentioned above is supported by the Woodside Valley Foundation which has a particular interest in the early French and Dutch exploration of Australia’s west coast. Currently making good use of the collection is Honours student Sophie Doughty in the School of Earth and Geographical Sciences.

Sophie, one of many UWA students benefitting from the Reid Library’s Special Collections, is studying French explorers who visited the State’s south-west, particularly focussing on their contribution, significance and the associated heritage tourism.

“Leslie Marchant completed over 30 years of research into the French (and other) explorers,” says Sophie. “When I gained access to his archival collection, I concentrated on his published/unpublished papers, conference speeches/papers, correspondence and information from national archives in France – which changed a lot of what was printed in many historical accounts.

“It was important for me to look at this archival collection as part of my thesis, which comprises theory, field trip investigations and archival research.”

>>CONFERENCE DETAILS

www.archivists.org.au/ichora/ICHORA4;
Rita Clarke caught up with Megan Bagworth, a recipient of a 2008 Convocation Sports Bursary, to talk about her ambitions.

In 2012 Megan Bagworth will be 27 and in her prime. Across the globe, London will also be in its prime and hosting the Olympic Games. All things being equal, and going to plan, Megan will be there, not only to witness London in all its pre-eminence, but to take top honours rowing with her Australian crew.

“It’s good timing, because 27 is the prime age for rowers,” she says, “it’s quite a high age for sports – if you think of swimmers. Rowers don’t usually stay in it that long though, because they start having families and work commitments and it’s not a lucrative sport.” (Unless, perhaps, you’re one of the Oarsome Foursome.)

2012 and all that

So what technique is a rower to aim for in her prime at the Olympics? “You need to time catches right,” explains Megan. (A catch is when the oar goes to the water and before you push.) “In a crew you have to have the same timing. You’re always trying to perfect it. You try to make it look easy and the boat smooth through the water.”

A rower also needs endurance and aerobic fitness. It’s good to be tall and slim, but determination and mindset can outweigh physical attributes. You have to do a lot of strength work and you need to be flexible. She says that while rowers and cyclists have similar body frames, rowers are often leaner than swimmers, and that apart from swimming, rowing is the sport that uses the most muscles. She trains 30 hours a week – weights, runs, cycling, cross country training – up early, bed at around 8.30pm. “It’s mentally and physically draining. You ache all over.”

Above: Megan Bagworth in action and (opposite) being awarded a Full Blue by UWA Sports President Pino Monaco at the Sports Awards Night in 2007.
No stranger to physical activity, she did ballet and tried nearly every sport, including cricket, before someone said she would be good at rowing because she’s tall and has the body frame. She tried it with her sister but only she persevered. She’s the youngest of a tall family, growing up in Applecross with two brothers and a sister. “I got away with a lot and would blame the others when we got into trouble,” she says, laughing, “and anything my sister did I had to do too.”

Her Mum would drive her to training in the early hours of the morning. “You have some surreal moments in the summer with the water flat and you’re rowing single. All you can hear is the oar going into the water,” she says.

Megan prefers sweep rowing though (one oar) and likes to row in the fours, but her favourite is the eight. She claimed Bronze in the Under-23 Pair, Gold in the Under-23 Four, Bronze in the Open Women’s Eight and the Interstate Eight at the 2007 Nationals. She was selected in the Australian Under-23 Women’s Four, claiming Silver at the world championships. Her performance at the 2007 WA State Championships was excellent according to Garth Lucas, Captain of the UWA Boat Club, where she was part of UWA’s winning Open A Women’s Eight and Four, a result not achieved by UWA men or women in over a decade.

Megan received a University Blue in 2007 and is now Women’s Vice-Captain of the UWA Boat Club. This involves helping out at regattas and coaching, “which can be somewhat time-consuming”.

If that’s not enough, she also works one day a week at the Department of Indigenous Affairs. Her final year Honours in Anthropology is concerned with Non-Indigenous belonging and ideas of place. “I wanted to see how Non-Indigenous people authenticate their legitimacy.” She is a practicum student with the South West Aboriginal Land and Sea Council, and proposes to work in heritage and native title.

But that is, of course, alongside whatever it takes to make the 2012 Olympics – lots of selection processes to go through, time trials, and training before she gets into the squad. However, to reiterate a point, she’ll be in her prime, she’s tall and slim and it’s patently obvious she has the mindset and the determination.
Susan Hayes, School of Anatomy and Human Biology will address the Second Ordinary Meeting of Convocation, the UWA Graduates Association, on 19 September at The University Club. She speaks to Rita Clarke about the lines of her PhD research.

Sitting in her office in UWA’s Anatomy Department facing rows of charcoaled portraits of men and women, Sue Hayes laughs and calls them “long suffering” friends and colleagues. All agreed to let her draw their faces as part of her ongoing research into forensic facial reconstruction.

Alongside the drawings are the subjects’ black and white photographs. The likeness is remarkable, but on closer examination you can see how the drawings digress – the bow of a lip not quite as wide, an eye smaller.

“You can have levels of distortion in a drawing yet the face is recognisable,” Sue explains. “What is often overlooked in facial reconstruction is that you’re dealing with an image, not a person. You choose certain lines. It’s a real challenge. For instance, you need to work out what the nose would look like from the measurements of the skull and then you have to find a nose like it – then you can draw it.” She has hundreds of photographs of noses.

Sue trained initially in clay reconstruction under Ronn Taylor, Forensic Sculptor for the Victorian Institute of Forensic Medicine, and with Dr Caroline Wilkinson, who demonstrated her considerable expertise in the BBC series Meet the Ancestors. Now she prefers two dimensional drawing. “It travels better and you can audit it better.”

She herself travelled a circuitous academic route until arriving at her present calling. Having started Science at UWA, she went on to study Fine Arts at Monash University, where she “didn’t quite fit the mould”.

“I was very obsessed with making heads out of cloth, using a wire matrix as the frame. I cut bits of material out and sewed them onto the wire. Kids loved them,” she recalls.

On one occasion when exhibiting the cloth heads, a taxidermist offered to teach her the rudiments of taxidermy. He must have sensed that she found the dead more interesting than the living.

In 2000, while edging up the academic ladder without a specific research interest, she went browsing in Collins’ Secondhand Bookshop and picked up Helmer and Iscan’s Forensic Analysis of the Skull.

“It cost me $24.95. It is the bible for facial reconstruction and is now out of print – if you could find one secondhand it would cost you $450. I read it from cover to cover. And it just got to me. I wanted to know all about this,” she recalls.

She sought help from Taylor, who proved a generous mentor, and later began a PhD with the support of Professor John Clement, Head of Human Identification at the University of Melbourne. Clement is Sue’s external supervisor, together with UWA’s Professor Neville Bruce (Director of the newly launched Integrated Human Studies project)

---

Left: Susan Hayes at the Western Australian Museum

In pursuit of this research she might consult another book she treasures: Wilkinson’s *Forensic Facial Reconstruction* (Cambridge University Press). Sue worked briefly with Wilkinson in Melbourne and was able – because of the Convocation Postgraduate Travel Award she received in 2006 – to accept her invitation to train in the 2D reconstruction method at the University of Dundee.

Last December, she again profited from a Travel Award. “As a result of studies in Scotland, I received another grant to attend a conference in New Zealand to work on remains of the Teouma Lapita people which had been found in Vanuatu,” she explains.

The Lapita were a seafaring people, the first to settle in the Western Pacific Islands 3,000 years ago. With a team of researchers, Sue worked on four facial reconstructions. They used the 2D drawing method (rather than clay reconstructions) since the skulls lacked lower jaws and margins of error could be incorporated into the results through facial orientation and shading techniques.

Margins of error are something Sue would like to pursue in future research if she can secure a fellowship. She would also like to explore changes to facial tissue that could have practical applications in surgical operations. And this time she would benefit the living instead of the dead.

**Note:** Sue Hayes will speak about the facial reconstructions of the Lapita People at the Second Ordinary Meeting of Convocation in the University Club on 19 September 2008. Please call +61 8 6488 3006 or email convocation@uwa.edu.au for more information.

All welcome.

---

**50th Anniversary Reunion Luncheon**

Coming soon – Convocation’s famous annual 50th Reunion Luncheon, to be held this year in Winthrop Hall on Sunday 23 November 2008. Graduates who have already celebrated their 50th Anniversary with us (or who couldn’t get to earlier functions) are welcome. A formal invitation will be sent to all. Any volunteers who would like to help organise the event are invited to join a small sub-committee.

We’ve lost contact with a few graduates and list those below. If you have an idea of their whereabouts could you please let us know.


Please contact Acting Convocation Officer Christopher Gorham on +61 8 6488 1336 if you have information or if you would like to help organise this year’s event.
1950s

Geoffrey Playford (BSc, Hons 1958; DSc 1978) continues research and postgraduate supervision as Emeritus Professor of Earth Sciences at the University of Queensland. Petroleum-prospective sedimentary basins of Brazil and Argentina are a particular focus of his research, conducted in association with colleagues at the Petrobras Research Center in Rio de Janeiro and the State University of Rio de Janeiro. He recently returned from a fourth assignment at the Petrobras Research Center at Ilha do Fundão, Rio de Janeiro. His two sons, both medical specialists, based respectively in Sydney and Brisbane, have extended the family with seven grandchildren.

1960s

Ian Alexander (BA(Hons) 1969, MA 1971) is Adjunct Professor in the Department of Urban and Regional Planning at Curtin University of Technology. He is co-editing a book on Readings on Planning in WA due for publication in 2009. Ian is President of the Freemantle Society and Vice-Chair of Habitat for Housing, a group providing low income housing opportunities.

Stewart Huat-Guan Chew (BSc 1969; MSc 1987) is a senior lecturer in Biomedical Science at Curtin University. His graduate students work as medical scientists in pathology laboratories in major hospitals as well as private diagnostic laboratories.

1970s

Geoffrey Hosford (BEd 1975) lives in Melbourne and is Director of the forensic movement analysis company, Perform Enhance, working in accident analysis. He represents clients at AFL tribunals and the Victorian Supreme Court. Geoffrey is the author of several texts in biomechanics and recently published a book, *The Science of Kicking – kicking for distance and accuracy* in Australian football. Former classmates can contact him at hostford@primus.com.au.

Peter Lourvanij (BCom 1978) is the owner/manager of a furniture factory in Thailand. His company exports to the US, Japan and the UK.

Jennifer Clark (née Stukely) (BSc(Agric)(Hons) 1979) is Production Manager at Barwick Estates Winery in the Margaret River region. She previously worked in the State Telecentre Network. Jennifer’s oldest son started at UWA this year. Former classmates can contact her at jClark@barwickwines.com. Pictured is Jenny with her oldest son, Rowan, who is a first-year resident at St George’s College.

1980s

Salmjah Surf (BSc(Hons) 1980) completed PhD studies at the University of Lancaster and began teaching at Universiti Kebangsaan Malaysia, where she is now Professor in Environmental Toxicology and also Deputy Dean of Research and Development in the Faculty of Science and Technology.

UWA Athletics Club turns 80!

Celebrations were in order at the April dinner marking the 80th anniversary of UWA’s Athletics Club. Olympic athlete and UWA graduate Kylie Wheeler, Australian heptathlon champion 2003-2008 and dual Commonwealth Games silver medallist, delivered the address and it was announced that Brian Oliver, 1950 Commonwealth Games triple jump champion and 1958 Olympian, had been given a Life Membership of the Club. Pictured is Kylie Wheeler, John Down (1940 State 100 yards sprint champion) Motte Dingham (Club secretary/treasurer 1942-43) and Brian Oliver.

Antonio Tropiano (MB BS 1983) is in general practice at Mundurah Station Medical and Obstetrics. His passions are photography, construction of energy efficient buildings and the physics of motion (motorsport), as pictured. He is married with five children; three are studying at UWA.

1990s

Graham Hay (BEd 1991) is a sculptor and converted half a tonne of company reports into a sculpture he named C6 for the 2008 SouthSound Music Festival. His next project is to grow fungi in paperwork for the Melville Sculptor Competition. Later this year, he will be demonstrating papercraft techniques at the New Zealand National Pottery Conference and conducting five workshops across WA.

Roger Gott (BSc 1991; DipEd 1992) is Director of Cave Health Clubs in East Perth and Perth.

Saras Henderson (MEd 1991) is Deputy Head at Griffith University’s School of Nursing and Midwifery. She is currently involved with another colleague conducting research in health service delivery for multicultural people with chronic illness and their project was awarded $250,000 by Queensland Health.
Kyle Hammond (BA 1993) established an executive search firm in Sydney, called Amazing Results. Former classmates can contact her at kylie@amazingresults.com.au.

Gabrielle Meller (née Evans) (BSc 1993) lives in London and is married with two children. She is a Programme Officer for Help Age International and works to improve the lives of disadvantaged older people in developing countries. Gabrielle previously worked as an Australian Volunteer Abroad in New Delhi from 1997 to 1999.

John Cailes (DipEd 1995) completed his PhD in Creative Writing at Edith Cowan University in 2004. He still writes short stories and is working on a new novel, however, most of his time has been spent composing music for an opera for which he also wrote the libretto. John, who is 74, is also learning to play the clarinet and violin.

Michael Tarling (BCom 1995) is General Manager (Sales, Milling & Distribution) for Mine Feeds. He lives in Perth and is married with two children.

Shai Harris (née Hayworth) (BSc 1996) is HR Manager for one of Perth’s integrated spatial information and communications solutions providers, NGIS Australia. Former classmates can contact her at shai.harris@ngis.com.au.

Molly Dragiewicz (MPhi 1997) has been living and working in Canada since 2006. She is Assistant Professor of Criminology at the University of Ontario Institute of Technology, where she studies violence and gender and human trafficking. Former classmates and St Catherine’s residents can contact her at molly.dragiewicz@uoit.ca.

Hsien-Jin Teoh (PhD 1997) is a consultant at molly.dragiewicz@uoit.ca. Catherine’s residents can contact him. Former classmates and St Catherine’s residents can contact him. Former classmates and St Catherine’s residents can contact him.

Helen Barning (née Dixon) (BSc( hon)s 1998) writes that she has worked in industry for 10 years and now runs a business, Consolidated Contracting, in Margaret River with her husband.

Christina Wang (née Yap) (MB BS 1998) lives in New South Wales and is a practising General Practitioner. She is married with two infant boys.

Fleur Tyn (née Allen) (BMusEd 1999) writes that after teaching for five years and working in the arts industry for four years, she has now started her own business, Interactive Arts. Fleur is married with an infant son and they live in Shenton Park. Former classmates can contact her at fleur@interactivearts.com.au.

Sarah Boden (MEMM 2001) is a Senior Research Manager and works in Sydney for Telstra Strategic Marketing. She looks after strategic market research for the Big Pond brand. Former classmates can contact her at sarah.boden@hotmail.com.

Mia Fox (née Williams) (BSc(hons) 2002; PhD 2006) is a lecturer in Viticulture at Curtin University of Technology, Margaret River. Mia was married last December.

Graduate’s unique contribution

“The retirement of Alasdair Courtney marks the end of a remarkable chapter of the College’s history. His 50 years of service to Scotch is a record unlikely ever to be equalled, and has been marked in various celebrations during the year.”

That is how Scotch College’s Clan newsletter marked the retirement of Alasdair Courtney who graduated from UWA in 1968 with a BA in Latin – a degree that helped to shape the unique contribution he made to the college where he had been teaching for some years.

“Originally intending to major in English, I was seduced into Classics by Greek – and that led me into Latin and Ancient History,” recalls Alasdair. “My first tutor, Dr Cornells de Heer, was a first rate teacher and in fact the School of Classics was entirely staffed by highly qualified academics, which helped to make these studies so rewarding.”

When Professor Mervyn Austin retired in 1978, he invited Alasdair to spend a couple of hours a week at his home reading Horace’s Odes.

“He had a wealth of knowledge and knew his Horace in extraordinary detail,” says Alasdair. “He was kind enough to share his enthusiasm with me, so when I am approached by someone with that rare desire to learn Latin, I feel I must help.”

In recent years Alasdair has tutored several pupils privately in the Cambridge Latin Course. He currently takes a Latin reading group one evening a week at UWA under the auspices of Adepte Humaniores, a community outreach group associated with the School of Humanities.

As Scotch College archivist Alasdair was of great assistance to UWA historian Dr Jenny Gregory in the writing of the college’s centenary history, Building a Tradition published in 1996. He retired at the end of last year.

New play from graduate

UWA graduate Andrew Bovell, an award-winning screenwriter and playwright, must be hoping his most recent play, premiered at the Adelaide Festival, enjoys the success generated by his play Speaking in Tongues that was turned into the film Lantana.

When The Rain’s Stops Falling was an eagerly-awaited production at the Adelaide Festival this year. The visual backdrop is the Australian landscape and a dramatically changing climate. The play weaves together four generations of interconnected stories and was described as a powerful piece of storytelling about the legacy we inherit from our parents and the legacy we leave behind for our children.

Andrew Mellor (BSc 2003) has established a catalogue publishing business in all the capital cities in Australia and also in Auckland, NZ. She is based in Sydney and former classmates can contact her at andrewmel@emeraldmediagroup.com.au.

Sarah Boden (MEMM 2001) is a Senior Research Manager and works in Sydney for Telstra Strategic Marketing. She looks after strategic market research for the Big Pond brand. Former classmates can contact her at sarah.boden@hotmail.com.

Lynda Greening (MBA 2003) has established a catalogue publishing business in all the capital cities in Australia and also in Auckland, NZ. She is based in Sydney and former classmates can contact her at lynda@emeraldmediagroup.com.au.

Glenn Samuelsen (MBA 2003) is Lead Engineer in production control systems for Alkoven’s Subsea. He writes that he went back to technology-based work to gain more knowledge of subsea oil and gas technology. Glenn lives in Norway and can be contacted at glennsamuelsen@gmail.com.

Eva Armstrong (BCom 2004) has been working since January in the UK as an HR Advisor with BHP Billiton. She met her fiancé during her London trip in 2004 and they plan to wed in London in 2009.

Andrew Mellor (BSc 2003; DipEd 2004) will coach the WA State Schoolboys Hockey team at the Pacific School Games in Canberra in November 2008, after schooling them to National Champions in 2006, and third place in 2007. He is the WA Assistant Coach for the Under 18 Mens’ Hockey team and is the Manager of their tour of South Africa in August. Andrew is completing his Master’s degree.
grad briefs

Uniview

Visiting Malaysia, Singapore and the UK during the year.

Anna Parsons (BCom 2005) is very proud of the campus, the collegiality that UWA provides for people and the local and global identity. This work was central to his PhD at UWA. He has taught in Australia, USA, China and Indonesia.

Jia Min Teng (BCom 2005; LLB 2005) is a solicitor and works for DLA Philips Fox, within their mining and energy team, in Perth. Former classmates can contact her at jmteng@hotmail.com.

Coralie Vallet (BCom 2005) has been working since 2005 as a HR Advisor in a fly-in fly out situation. She is planning a future move to London and hopes to travel around Europe. Coralie lives in Victoria Park and can be contacted on coza05@hotmail.com.

Richard Stern (GradDipBA 2006) is Supervisor in the Scheduling/Meter Reading Department of the Water Corporation. Richard previously worked for Deloitte Touche Tomatsu on a short-term contact basis.

Joseph Njiru (PhD 2007) is a psychometrcian and researcher officer and is employed by the Curriculum Council of Western Australia. Former classmates can contact him at josenjiru@yahoo.com.

Jinsvent Svatos (HBS(Hons) 2007) worked on two contracts with the Department of Environment and Conservation, in air quality and compliance. He is now learning about the art and picture framing industry and hopes to have more environmental work in the future. Former classmates can contact him at karl_svatos@hotmail.com.

UWA – the perfect setting for films!

New York-based actor Kane Manera studied politics, industrial relations and European Studies at UWA, then went on to pursue a career in film and television that recently brought him back to Perth to play the lead in the film Crush. Due to be released next year, Kane plays an American exchange student studying architecture at The University of Western Australia – so he enjoyed a return to campus for location shooting.

“I always wanted to act but at UWA that was just a dream. While studying I was involved in local productions but knew I had to complete my education, to have something solid and stable,” says Kane.

“I believe, 100 per cent, that my Arts degree made me a richer, fuller person. That’s important in any career but particularly in a field like this, when you’re dealing with people all the time.”

After graduating, Kane worked with his father, an antique dealer, before heading for the United States. “When I got to New York, I knew it was time to get into acting and work on my skill set, so I enrolled in the Stella Adler Studio of Acting.” Roles in television and film followed.

The cast of The Course: Emma Henman, and UWA graduates Tom O’Sullivan, Khrob Edmonds and Trilby Glover

Another local film that used UWA’s National Estate registered campus as a location is The Course, written, directed and produced by UWA graduates Miranda Edmonds and Khrub Edmonds. This brother and sister team wanted to write a film that combined their love of Shakespeare and of university life, and UWA’s Mediterranean Romanesque architecture made it a perfect location.

The Course, their debut feature, was selected to open the Stratford-Upon-Avon Digital Film Festival recently and the team travelled to the UK for the event. It has since screened at the Portobello Independent Film Festival (London) and the Fremantle Outdoor Film Festival.

“My brother and I have very strong links to the University,” says Miranda. “We attended the course kindy, then studied at the University where our parents had met while working together at the Octagon Theatre 30 years ago! The campus was an obvious choice of location because it’s so beautiful and provided an instant set.”

Khrub studied computer science at UWA and then founded Souptoys, which has developed innovative new computer toys. Miranda studied Law at UWA and practised as a corporate commercial solicitor before completing a postgraduate degree in Film and Television at the Victorian College of the Arts in 2005. Miranda and Khrub’s next project is a short film based on the Tim Winton short story The Water Was Dark and It Went Forever Down. You can find out more about The Course at www.thecoursemovie.com.
Don’t get caught in the car yard with in-house finance.

Pre-approve your car loan with:

- 9.90% comp. rate*
- No establishment fee
- No ongoing fees
- No early repayment fees

Call into your campus branch, phone Unicredit on 9389 1011 or apply online to arrange a pre-approval in just a few days.

*9.90% pa comp. rate applies to cars up to one year old. 10.90% pa comp. for cars up to 5 years old. Comparison rate is for a loan of $10,000 for a term of 3 years. WARNING: This comparison rate is true only for the examples given and may not include all fees and charges. Different terms, fees or other loan amounts might result in a different comparison rate. All loan applications are subject to Unicredit’s normal lending criteria. Please refer to our Fees and Charges Schedule, available from Unicredit branches. 1. Establishment fee waived for loans secured by a vehicle up to 5 years old. The University Credit Society Ltd. ABN 90 087 651 901. AFSL 244168.
Many Members of The University Club of Western Australia have enjoyed the personalised service, attention to detail and magnificent ambience of the Club for their wedding day festivities.

With a range of special venues catering from intimate dinners to sit down events for 250 people, as well as a dedicated wedding coordinator, the Club is perfectly placed to ensure an unforgettable experience for all who attend.

DON’T JUST TAKE OUR WORD FOR IT.

Here are just some examples of the positive feedback we have received from Members in our first year:

“The quality of service provided by the staff on the night was simply superb. The food was outstanding - we have received so many compliments from our guests since!”

“All our guests remarked on how impressed they were with the standard, atmosphere and setting of the pre-dinner drink and reception areas plus the quality and presentation of the food. The service and sense of occasion delivered by the staff on the night was outstanding.”

“Many guests commented that it was one of the best weddings they had attended and a great part of the success of the reception is due to your organisation, the quality of the food presented and to the skill and courtesy of the staff who served it. Thank you once again.”

CONTACT US

To find out more about how The University Club can create a truly memorable experience, contact our friendly Conferences and Events team on +61 8 6488 4820 or visit our new website at www.universityclubconferences.com.au