Spin doctors build new image

by Lindy Brophy

The dots multiplying on a computer monitor are the closest we will probably ever get to actually seeing an electron.

The image, provided by the National Facility for Electron Spin Correlations and Spintronics, in the Centre for Atomic, Molecular and Surface Physics, School of Physics, allows researchers Jim Williams and Sergey Samarin to see, count and characterize the electrons (and their spin) as they bounce off the surface of a thin magnetic film in the vacuum inside the specialised equipment.

Dr Samarin explains that the vacuum chamber contains fewer molecules than would be found in the same volume space, that is, it has a cleaner environment, and the apparatus is so sensitive that it can detect even less than one extra atomic layer on the surface.

“Ten years ago, it would have taken the best lab in the world a few years to accumulate a small fraction of this information,” said Professor Williams. “Now it’s done in real time – as we watch, in Perth.”

All the researchers and postgraduate students who work in the Centre for Atomic, Molecular and Surface Physics, are very excited about their latest ARC LIEF grant of $590,000 to construct and purchase surface characterisation equipment.

The grant is the third from the Australian Research Council for the National Facility for Electron Spin Correlations and Spintronics, making it the world’s leading research project into electron spin phenomena with some of the world’s best equipment.

“There is nothing comparable in Australia, if anywhere.”

Spin-electronics (spintronics or magnetoelectronics) is the modern aspect of electronics in which, in addition to the charge of the electron, the spin is a determining factor.

Continued on page 4

“... these techniques will open new windows ... for the mining industry and ... the biochemistry industries”
“The Earth squeezes, space sucks...”

… so Paul Davies evocatively described the forces that have shaped our transforming universe — from its creation and evolution to its future destiny involving the dark energy of space.

Speaking at the Opening of the educational part of the Gravity Wave Centre of UWA at Gingin, Paul Davies held a mixed audience of some 400 of us entranced as he showed why he is one of the world’s leading theoretical physicists but also a popular communicator of science. By the end of his address he had drawn us all into the fascination with our universe and wonderfully set the stage for the Premier, Dr Geoff Gallop, formally to open the facilities.

Serious science, under the inspired leadership of our Professor David Blair of our Faculty will happen at the Gingin facilities. But so too will major popular WA involvement in science education. Tourist buses will call on the way to the Pinnacles, and many school groups will make intensive visits to excite new generations about science at a time when school enrolments fell 23 per cent over 1993-2000 in studying the natural sciences.

I encourage you to visit the Centre, with your families: it is easily found just past Gingin on the Lancelin Road, off the Geraldton Highway! The displays, telescope and art will captivate you. And give pride that this is a UWA initiative, in partnership with government, industry and the community.

Those partnerships will indeed be critical in the years ahead as universities deepen their engagement with a range of stakeholders; and as government resourcing comparatively declines.

Other good initiatives abound for UWA: ranging from a recent positive report from our Office of Industry and Innovation to the progress being made in our research CRC and linkage programs, to the success of the UWA Albany Centre and the Combined Universities Centre at Geraldton.

Those are ‘quiet’ successes: others are more public in their achievement.

Recently I attended the 2003 Premier’s Awards for Excellence in Public Sector Management. More than 100 well developed submissions competed for the eight major prizes. UWA was a nominated finalist in three categories and the absolute winner (with our partners, the Department of the Arts and Department of Industry and Resources) for the Innovation Award.

The UWA Perth Arts International Festival office played a vital role in our being recognised in the Western Australian Arts Showcase. As the citation said, “The key success of the Showcase lay not only in the project’s impressive and unique array of promotables — i.e. the wealth of traditional and contemporary Indigenous culture to be found in this State — but also by harnessing the creative, management, networking, funding and new media proficiencies of those involved with private sector partners in new and innovative ways”.

What better description of the collaborative and engaged ways in which the modern university builds its critical alliances and linkages?

Universities without successful external strategies and partnerships will be universities without a future.
The invisible ultra-violet rays in sunlight that can cause sunburn and, eventually, skin cancer, have another, more insidious property, that increases their ability to cause such cancers.

Research by Dr John Finlay-Jones, the new assistant director of the Telethon Institute for Child Health Research (ICHR), and Dr Prue Hart, principal research fellow at ICHR, has confirmed that UV rays can also cause suppression of the immune system.

“Not only can UV rays change normal skin cells to cancerous cells, they can also suppress the immune system,” Dr Finlay-Jones said. “As a result, it fails to reject the growing cancer.”

Dr Finlay-Jones and Dr Hart spent many years working on UV radiation, skin cancer and sunscreen evaluation and development at Flinders University’s School of Medicine.

They recently relocated to Perth with Dr Finlay-Jones taking up the new position, assisting Professor Fiona Stanley, and Dr Hart transferring her National Health and Medical Research Council fellowship and project grants to ICHR.

“It was known, by the early 1980s, that exposing human skin to UV radiation could lead to suppression of the immune system, which had already been proved with mice,” Dr Finlay-Jones said.

“We found that the numbers of mast cells in the skin of mice determined how susceptible they were to suppression of their immune systems by UV radiation. We’ve more recently studied patients with different types of skin cancer and, interestingly, found patients had, on average, higher mast cell densities in their skin than the people we used as controls.

“The question of why our bodies have evolved like this is still a mystery,” he said.

“One downside, of course, is cancer. But the upside might be that immunosuppression actually stops an overzealous immune system from rejecting sun damaged skin, the way it might attack a foreign skin graft. Keeping the skin intact is an important defence for the body.”

The team also studied sunscreens and whether they stopped the immunosuppressant effect of UV rays. Some were very good, but some, even high-SPF broad-spectrum products, were not.

The SPF rating tells us about the ability of a sunscreen to stop sunburn. More generally, sunscreens can provide good protection to the genes in skin cells, preventing the UV rays from turning a normal cell cancerous. But they are not perfect. A little UV radiation can still penetrate sunscreen-protected skin. Their variable ability to protect the immune system could mean that skin cells damaged during episodes of sunburn in our youth might develop into cancers later in life, even with more regular sunscreen use.

“We see the best sunscreens as protecting against all the adverse effects of UV radiation, including immunosuppression. We also see sunscreens as only part of a sensible approach to sunlight, which minimises necessary exposure.”

Dr Finlay-Jones and Dr Hart were partly funded by an Australian manufacturer of sunscreen, and their research eventually helped the company to make a sunscreen that blocked the immunosuppressant factor.

“But there are no Australian standards yet to evaluate which sunscreens protect against that factor. We believe such information would be a valuable addition to product description,” Dr Finlay-Jones said.

Even if sunscreens were made and marketed with an IPF (immune protection factor) as well as an SPF (sun protection factor), health professionals would continue to recommend sunscreen as only part protection against skin cancer, encouraging hats, protective clothing and staying out of the sun in the middle of the day.
Spin doctors at work

Professor Williams explains: “Within a single atom and between any number of atoms, either within a molecule or composing a surface or solid (in the bulk of the material), there are always electron ‘correlations’. It is impossible not to have correlated electrons’. However there are varying amounts of correlation (i.e. the effect of the position or spin of any electron upon another) in all materials and these correlations give rise to the characteristic properties of any substance.

“The positions of atoms are more readily studied than their spin; position has been studied for many decades, but spin has been studied quantitatively for only about 20 years and then only in a few laboratories around the world. New technology and very specialised equipment is required. Hence the importance of the grants. The facility is unique in Australia.”

Electron spin is occasionally likened to either an upwards or downwards pointing arrow. A material becomes magnetised when the numbers of upward and downward pointing electrons are not equal.

Because of this two-state nature of spin, spin-polarised electrons are said to exist in either of the two ‘logic states’ similar to binary ‘zero’ and ‘one’. Expectations are that these spin states may be used as a basis for a new quantum computer with smaller size and much greater speed and storage.

“For the future we ask: Can we combine ferromagnetic metals and semiconductors in integrated circuits? How do we make and control semiconductors that are ferromagnetic at room temperature? What is an efficient way to inject spin-polarised electrons (currents) into a semiconductor? How long can a spin current retain its polarisation in a material?”

Over the past seven years, the collaborators — UWA, the Australian National University and Murdoch University — have received ARC linkages grants totaling almost $1.4 million. While UWA retains a significant amount of the funding since as the facility is here, the collaboration has been essential.

The University has been named the Prime Minister’s Employer of the Year for the second successive year.

The award, in the higher education category, was for UWA’s strong commitment to employing people with disabilities.

It follows recognition of UWA’s human resource practices earlier last month when the University won another national award for strategies aimed at establishing an appropriate work/life balance for its staff.

The Vice-Chancellor, Professor Deryck Schreuder, said that UWA was committed to developing strategies that would maximise opportunities for all Western Australians to access and actively participate in employment.

UWA has more than 100 employees with disabilities in a total staff of around 2,500. Employees with disabilities are employed in a full range of academic and general staff positions. While the University has always responded effectively to the needs of people with disabilities, the establishment of a Workforce Diversity Strategy in 2001 accelerated its activity in this area.

Director of Human Resources, Bob Farrelly, said the diversity approach placed a strong emphasis on analysing, understanding and changing the culture of the University.

“Diversity is a continuous process of culture change, and it goes beyond fixing numbers to creating an inclusive environment. Equal employment opportunity is about opening the door. Diversity builds on this to open the mind,” Mr Farrelly said.
The Guild village courtyard has a new name, which honours Nyoongar people as the traditional owners of the land.

Koort Kwoba Dandjoo is the Indigenous term for peace and harmony, Happy Hearts Together. And the student Guild council decided to rename the courtyard to demonstrate their commitment to fostering a safe, inclusive and welcoming environment for all students.

First year health sciences student Chantel Thorn designed the logo which appears on the new brass plaque at the entrance to the courtyard. She explained that at the centre of the pattern is a campfire to which the people are drawn. The artwork relates both to the University community and the Nyoongar community.

Nyoongar elder Cedric Jacobs, whose ancestor Yellagonga lived in the area, unveiled the plaque, saying it was a great day for Australia and that UWA was breaking new ground in its recognition of the Nyoongar people.

Social work student Melissa May said she always had a sense of pride when she walked through the campus. “I know my Nyoongar ancestors lived here, walked here, camped here. Everything has changed since then, of course, but their spirit is still here.”

After the unveiling of the plaque, traditional dancers from the Middar dance group entertained the crowd, performing to didgeridoo music, played by Richard Walley.

No language? No problem!

The skills of effective counselling are the same worldwide, regardless of language and culture.

When Dr Jan Fletcher recently ran a week-long professional development course for school counsellors from Thailand, she concentrated on ethical issues, cultural context, establishing rapport, active listening skills, and all the areas a good counsellor needs to be effective.

“But they spoke no English and I speak no Thai!” said Dr Fletcher, Director of the School of Psychology’s Child Study Centre.

Using interpreters and translated materials, she conducted the course with associate lecturer Dr Steve Heath, and both the Thai contingent and the UWA team felt the week had been successful.

“The language barrier made it an exhausting week, but they were a great interactive and warm group of people, and their feedback indicates that they all gained and learned from the course,” Dr Fletcher said.

Dr Fletcher spent a week of her study leave last year in Thailand to get a clear idea of how their education system worked.

“I found many similarities with our system and structure, so I knew I would be able to put together a course for them, as long as I could get round the language problem,” she said.

Her chief interpreter was Piangchai Jennings, a graduate student in psychiatry. “Both Piangchia’s English and her Thai are excellent and, even though she couldn’t be with us all week, she did a great job,” Dr Fletcher said.

The counsellors were taken to Shenton College and Sevenoaks Senior College, to talk to members of the schools’ pastoral care teams, including chaplains, police and Aboriginal liaison officers, nurses and counsellors.

They were awarded certificates at the end of the week, and have returned to Thailand to pass on their newly-developed skills to more junior teachers and counsellors.

Dr Fletcher (left) and Piangchai Jennings (right) enjoy the company of some of the counsellors from Thailand.
The desperate shortage of doctors in rural areas is a complex problem and one that staff in the School of Primary, Aboriginal and Rural Health Care are trying to solve.

Wendy Noris is the school’s undergraduate placement officer and coordinator of rural options for medical students. She travels the state, often accompanied by Associate Professor Bob Moorhead, encouraging rural general practitioners to take senior medical students on placement.

“We need good people who are doing a great job in rural areas and who love their work to show the students how rewarding life as a rural practitioner can be,” Wendy said.

“We have had some wonderful doctors over the years, but it is a changing scene now,” she said.

“Currently, rural WA is a complex changing environment with increasing demands on teaching practices, an increase in overseas trained doctors and increased mobility of doctors.”

On her travels, Wendy has been asking some of the long-term practitioners to write their perspective of a rural medical career. She hopes to use these memoirs to encourage students to consider rural practice and to convince doctors to take on students.
Dr Ivan Jansz is a UWA graduate who has worked as a general practitioner for 12 years in Narrogin. He has regularly taught final year medical students in his practice.

“One of the more memorable highlights of my time in rural practice occurred during the first few days of my arrival in the country— I felt a great sense of affirmation that I was in the right place at the right time!,” said Ivan.

“The outgoing GP, Dr Robert Turnbull, asked for assistance with an emergency caesarean. Seeing an emergency caesar in a small rural hospital was a truly eye-opening experience. Being accepted as part of a team, observing a specialist surgeon, paediatrician, GP, obstetrician and nursing staff working together and providing excellent care, with a good outcome, was very special.

“Another highlight was doing obstetrics in the country and having patients visit you from all over rural WA — from Meekatharra to Mandurah — because they knew the quality of medical care available. Working in rural WA gave the sense that I was making a difference and increased my awareness and appreciation of being part of a team.

“Continuity of care (sometimes over generations), and living among the practice’s patients provided a sense of belonging to a real community. The specialness of the doctor-patient relationship is exemplified in their small gifts, like jars of homemade jam, and Easter eggs for the children. I appreciated patients acknowledging the private contribution that my family made in allowing me to be available to them.

“Living in the country for me is like relaxing in my favourite armchair. “

We have everything (school, work, shopping) within a three minute drive! My room at the surgery looks over the children’s school playground and I can trot next door to see their assemblies. Pretty idyllic!”

Dr Jansz said he particularly liked the idea of being a generalist early in his career and being in the country was something that had always appealed to him. His father was a photographer with assignments that took him to the country and the family grew up with a love of the country. Narrogin gave me a great sense of familiarity.

Ivan and his wife Elaine went to Narrogin with the idea of staying for four or five years. “But after we renovated a home and reared a young family of three children, coupled with work commitments, it wasn’t easy to move around. Our surroundings provided a warm and wonderful environment resulting in us staying for 12 years in Narrogin.

“However, you reach a point where you feel the need to change and perhaps work less ‘full’ time. I sense that as a family, we have grown and learnt a lot from a ‘Country Practice’, and we should now move together into the next stage and build on the experience. I am very fortunate to have enjoyed a rural medical life.”

Dr Jansz said he had thoroughly enjoyed teaching sixth year medical students for more than 10 years. “It makes one focus on clinical and basic elements of the consultation process. As a teacher you try to inspire students and in doing so become ‘inspired’ yourself as you see them learn and grow. There is a freshness and idealism that you encounter repeatedly and yet it always seems like the first time. One learns things from that and from the questions that students ask; in a way it’s like peer review – if you don’t know the answer to their question, you research it and this keeps you on your mettle.”

His mentors have been Professor Max Kamien, Foundation Professor of the chair of General Practice who gave him confidence that he could practise in a rural setting. Doug Pritchard and Dr Barry Fatoovich at the School of Primary, Aboriginal and Rural Health Care also contributed to his decision to follow a career in Rural General Practice. “I am aware that all of the General Practitioners I respect most have been country doctors themselves.

“It is easier now than it has ever been to be in rural practice. There have been improvements in indemnity, improved agreement with the Health Department and hospital, more visiting specialists, better support for practice nurses, and a greater rural focus. Working in the country is certainly more financially rewarding relative to urban general practice.”

He said the West Australian Centre for Remote and Rural Medicine was doing a wonderful job of presenting career options to rural students and inspiring them.

Narrogin Regional Hospital
**Better deals for diversity**

A significant number of commencing university students drop out within their first six weeks.

UWA’s Student Services has been granted Diversity Initiatives Funding to run a program during week three of first semester, aimed at helping students to develop networks and assist them over what can be a difficult period for first years.

Dr Judy Skene is coordinating Link Week, a week three transition support initiative, in which all staff who have anything to do with first years, will wear badges and encourage students to talk to them about their problems.

“We plan to have an event, something like a campus run, with a quiz in which teams of five first-year students will compete, going all over the campus to answer questions that will help them find their way around, help them to get to know each other and also give them important information. And of course, there will be prizes for the winning teams,” Dr Skene said.

She hopes to encourage all faculties to host an event that week, perhaps a morning tea for all first year students and all first year teachers, so they can meet and chat in a relaxed atmosphere. The Ally project will also be promoted during that week to ensure that all students are included.

At the end of the week, the transition support team hope to host a festival, with food, music, perhaps some theatre sports.

“We’re still at the planning stage, so if anybody has any good ideas, please call me on 9380 2424 or at jskene@admin.uwa.edu.au”

Link Week is just one of seven successful applications for Diversity Initiatives Funding. The funding provides the opportunity for faculties, schools, groups and individuals to assist in the development of targeted diversity initiatives that enhance equity for students and staff.

This year, $15,000 has been shared between the Link Week project, a program aimed at encouraging girls to study physics, assistance for students prior to exams with mental health problems, improving access for staff and students with colour deficient vision, directional signage for people with disabilities, evaluation of the recruitment and retention of Indigenous students, and the publication of Stories of Success: 10 years of Leadership Development for Women participants.

Barbara Levit, Students Services’ disability officer, has been working with Averil Riley from the Safety and Health Office, on better signs on campus for people with disabilities.

“For people with vision impairment, we might have tactile signs, for those in wheelchairs, we hope to be able to map out the best routes, and so on,” Barbara said.

“Oh campus, we have 643 students registered with us as having a disability. There are also staff with disabilities, and we would like to improve signage for visitors to the campus who may have disabilities too.”

They have organised a meeting at the end of November with student and staff representatives of people with disabilities to ask them for their ideas. If you would like to go to that meeting, call Barbara on 9380 3809 or at blevit@admin.uwa.edu.au

---

**T Rex meets Elvis**

When the pre-primary class at Psychology’s Child Study Centre finished making a huge papier mache dinosaur recently, the children insisted she go on an outing.

They had named the Tyrannosaurus rex Ruby, dressed her in a colourful paper frock, and added a hat, lipstick and handbag (into which they put a mobile phone and a credit card).

“They said she was then ready to go out but, as they insisted it had to be that day, there was no opportunity to get permission from their parents for them to accompany Ruby, so the task fell to the teaching assistant, Lisa Christensen,” said Dr Jan Fletcher, director of the centre.

The children took Ruby to the bus stop on Fairway and helped to bundle her on to the Kings Park tram. When Ruby and Lisa got to their destination, they came across an Elvis impersonator, who took a shine to the T Rex and crooned to her as she sat on the steps of the tram.

Returning to the Child Study Centre, Lisa excitedly told the children that she and Ruby had met Elvis! “Who’s Elvis?” they asked, unimpressed.

The Centre is an off-site campus of Nedlands Primary School and has 25 pre-primary children and two groups of 20 four-year-old children in the kindergarten program.
Temperatures and spirits soar in cathedral of science

The day the foundation stone for the Gravity Discovery Centre was laid, sharp winds whipped cold rain from the grey skies into the faces and coats of the assembled guests.

The day the Centre was opened, 18 months later, the heat and dust of summer in the mid-west attracted the bushflies, and guests celebrated the opening with the ‘Aussie salute’.

But inside the stunning cathedral-like Centre, the air conditioning soothed tempers. The soaring ceiling, magnificent mural and intriguing hands-on exhibits are the embodiment of a dream by physics Professor David Blair.

Funded by donations from the corporate world, the centre aims to revitalise science education and reverse the decline in science graduates, while being an exciting tourist destination.

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

We walked there

“Let’s do this every Friday” was the consensus from about 300 staff who walked across the new treetop bridge in Kings Park, then enjoyed a free picnic lunch.

The UWA walk and picnic was part of Walk There Today to Find 30 week, being marked with thousands of walks and celebrations all over the state.

UWA Transport officer, Naomi White, the walk organiser, was delighted with the response to her project, aimed at raising awareness of the benefits of walking, in terms of fitness and the environment.

Vice-Chancellor Professor Deryck Schreuder, while not taking part in the walk, talked to the staff during lunch, saying that the University encouraged staff to find a balance in their lives and that it was committed to sustainable transport options, including walking and cycling to and from the campus.

State Health Minister, Bob Kucera, also addressed the staff, commending the University’s promotion of health through both its research and events such as the Kings Park walk.

Population Health researcher, Dr Billie Giles-Corti, launched a UWA staff transport study undertaken by her team, which found that only 21 per cent of staff “actively commuted” to the campus.

“Our project brought together health, the environment and traffic management,” she said. “We estimate that UWA staff generate 1.8 million trips to and from the campus a year, that is 38,000 each week.”

The survey showed that 1.1 million of these trips are made in single occupant vehicles.

“But I’m happy to report that 28 per cent of staff are currently considering a more active mode of commuting,” she said.

Naomi White said that if the Kings Park walk encouraged just a few people to take up walking regularly, it had been a success.
Science and German a winning combination

Two UWA science students have won a new language travel scholarship.

Sharon Perks, a third year animal science student, and Alison Fowler, who is finishing second year physics, are both also studying German. And are so good at it that they have each won a trip to Germany over the summer, including a three-week intensive language course at the Goethe Institute, with other winning international students.

“Goethe would have been proud of them,” said their German teacher, Dr Alexandra Ludewig, convenor of German studies in the School of Humanities.

“He too was an all-rounder, a mathematician and scientist as well as a humanist,” she said. “Studying a language while they are studying science ensures that students use both sides of their brains.”

The all-expenses-paid scholarship is open to German diploma students who are studying engineering, maths or science.

Alison also recently won a place at an international undergraduate summer school on particle physics and astronomy, at Durham University. While she was there, she heard of her win from the Goethe Institute.

Studying German means that Alison can read papers by leading German physicists in their original language, and, eventually, talk with these scientists. Sharon agreed that there was a lot of scientific literature published in German.

“All is the stage now where I can get the gist of a paper, if not the specifics. But I’m sure the intensive language course will help me improve,” she said.

Dr Ludewig said the diploma course in German was very popular. “There is more interest than there are places,” she said.

What is that number again …?

Our phone numbers are about to change.

The University currently has a total of 4,300 telephone numbers with two different prefixes — 9380 and 9347. Our usage is increasing by about 100 new numbers each year and we are now running out of them.

We have a new prefix range, 6488, to replace the current two prefixes and to ensure that sufficient numbers are available for projected expansion for the next 10 years. The 4-digit extensions to remain the same so that intra-campus dialling will be unaffected. Only people dialling in from outside will need to be aware of the change.

We will start the change - bring the new numbers into effect — at the end of this year, 2003, but the old numbers will remain operational until towards the end of 2004.

This will affect the numerous University documents that carry telephone and fax numbers, such as letterheads, business cards, web pages, email signatures and official publications.

The transition to the new prefix will be done over an extended period to allow staff to make the changes without causing unnecessary disruption to publication life-cycles.

Over coming months, staff are encouraged to plan for the change by ensuring that, as stationery orders are refilled, documents carrying phone and/or fax numbers are updated. Although the old prefixes will remain operational until late 2004, it is recommended that these updates are done as old stocks run out to encourage people to start using the new prefix and thus minimise inconvenience at the later stages of the move.

To minimise the inconvenience to external callers it is proposed to phase in the change-over:

• Once the new number prefix has been activated, and for most of 2004, both the old and the new numbers will connect directly to the desired extension.

• After the White Pages are published in September 2004, when a call is made to an ‘old’ (voice) number, the caller will hear a message advising of the change and requesting the caller re-dial using the new number.

The old prefixes will be completely withdrawn in late 2004.

Services will be put into place to facilitate Schools and departments with the updates and these can be found on the web at: http://www.ucs.uwa.edu.au/web/staff/phone/number_migration

Also on this web page will be more details about the project as well as the answers to frequently asked questions (FAQs). Enquiries should be addressed to: phone-migration@ucs.uwa.edu.au
The very word festival implies fun, frivolity and good times.

And, in keeping with this mood, the UWA Perth International Arts Festival’s Lotterywest film season at the Somerville Auditorium is loaded this year with ‘feel-good movies’—comedies and love stories, which Festival film manager, Sherry Hopkins says, are guaranteed to delight.

Of course festival, in the context of the arts, also implies that new, adventurous and ‘important’ works will be showcased. And those films will also be part of the Somerville season: films like *Osama* (March 15–21), the first film to come out of Afghanistan since the end of the Taliban rule. It centres on a girl forced to disguise herself as a boy to escape the intolerable conditions inflicted on women in the regime.

*Owning Mahowny* March 8–14) is a Canadian film based on the life story of the biggest one-man bank fraud in Canadian history. The mild-mannered assistant bank manager has access to a multi-million dollar account, coupled with a devastating appetite for gambling.

The film has echoes of an almost identical local situation!

From Africa comes *Masai* (February 23–29), an epic tale of a Masai tribe and its people’s will to survive drought and famine.

Lightening up on the other side of Africa is *Amandla!* (December 8–14), the audience award winner from both the Sundance and Sydney film festivals. It is the inspiring story of the role music played in South Africa’s struggle against apartheid.

The joyous *Amandla!* follows the Festival opener, the traditional English-language comedy, *Plots with a View* (December 1–7). Two rival undertakers in a Welsh village go to extraordinary lengths to control the market.

You can pick the love stories this year: four films with the word ‘heart’ in the title. From the UK, *Lawless Heart* (December 22–28) and — *The Heart of Me* (January 26–February 1). The first is a sharp, modern story of love, lust and loyalty, while the latter is a beautiful chamber drama staring Helena Bonham Carter.

A Heart Elsewhere (January 5–11) is from Italy and *Open Hearts* (January 19–25) is a Danish romance.

Festival film manager Sherry Hopkins has included two films from China which she describes as “exquisite”. *Together* (January 12–18) is the emotional story of a teenage boy’s struggle to reconcile his musical talents and his relationship with his father; and Springtime in a Small Town (December 15–21) is the delicate study of a love triangle and a disintegrating marriage.

One of the hits of the Festival is expected to be French director Francis Veber’s latest offering *Tais Tois!* (December 29–January 4) meaning, literally, Shut up! Veber’s previous big hits, *The Dinner Game* and *The Closet*, from the 2002 and 2001 Festivals, both starred Gerard Depardieu, and this film is no exception.

This time he plays a dim-witted garrulous giant who finds himself in gaol and turning life upside down for his fellow inmate.

The season, which runs until the end of March, also includes two short films from local company Screenwest. “These are outstanding films from talented local directors Elissa Down and Corrie Jones,” says Sherry.

*The Bathers* (Elissa Down) is part of a double bill with *Noi the Albino* (from Iceland) from March 1–7. *Victim* (Corrie Jones) is screening with *Osama* from March 15–21.

Programs and tickets are available now from BOCS outlets including the Octagon Theatre, with big savings if you purchase film packs in advance. Prices have remained at $13, $11 (Friends of the Festival) and $8 for concession card holders and backpackers.
Learning to be part of the community

As we approach the end of formal teaching for 2003, we would like to reflect on some of the less visible components of the learning environment for students at UWA or what is known as the ‘UWA Experience’.

The classroom, laboratory, field, workplace and other venues that form part of the teaching environment provide highly visible structured and unstructured experiences for student learning. In addition to this, many students participate in a very wide range of other activities that make significant contributions to their education. Perhaps more importantly, these extra-curricular activities can allow students to improve their leadership skills. This might be even more valuable to them in the longer term than some of their more structured learning programs.

The Guild of Undergraduates is well known as a centre for student-initiated activities. It has had considerable success as a platform for leadership development. Participation on Guild Council allows students to develop organizational and problem solving skills. Student involvement includes representation at various levels within the committee structure of the university. As an example, the Guild President is a member of the UWA Senate. Outstanding examples of student contributions through their involvement with the Guild are UniCamp for Kids and Prosh. Students develop skills that ensure success in fundraising, coordination, communication and interactions with community organisations. The Faculty Societies also provide important learning experiences for students with valuable contributions made across the university. Many of the Faculty Societies also provide educational opportunities for their members, most organise careers forums and some run various forms of academic activities to complement what is taught by their faculty, such as the mooting competitions run by Blackstone. The social events organised by Faculty Societies give students some of their best memories of their time at UWA, such as interfaculty sports, annual balls and end of semester parties. All of these examples (and there are many more) extend the learning environment well beyond specific courses of study for students who organise these functions.

The recent ceremony held to recognise students who have been mentors in the Uni Mentor program (some for three years) was evidence of the outstanding contributions that can be made by students. This program of students supporting other students facilitates transition from school to university and gives student mentors an opportunity to learn skills that will also be highly applicable in their future careers. Furthermore, this type of student activity contributes positively to the culture of the university.

The extent to which extra-curricular student activities such as those mentioned here provide effective learning experiences for students depends on the individuals involved and the support they receive. Students may waste valuable time learning simple procedures if information and advice is not passed on from previous committee members. In November each year, the Guild runs training days for student representatives in Faculty Societies. Practical information about budgeting, committee function, risk management and planning successful social activities is provided in these sessions. Inductions for student representatives on Faculty Boards are also provided by the Guild.

We ask the following questions: Can we make participation in extra-curricular activities such as those discussed here more effective learning experiences? Do all faculties have formal links and maintain a good working relationships with their respective Faculty Societies? Are orientation programs for student representatives supported by Faculties? Do Faculties have regular contact with student representatives or induction programs for the various committees? Do Faculties acknowledge and facilitate the learning experiences of students outside formal unit structures? How can we capitalise on the great potential for students to contribute positively to the university community? We are fortunate that a number of students already make very valuable contributions to the learning environment of the university. However, it is our view that greater benefits could be achieved by introduction of a more formal network of support across the university. This would ensure that the leadership aspirations of our students are developed and their considerable, but often hidden contributions, are more widely recognized.
Among the hundreds of works of art on paper in UWA's art collection, the enduring theme is the human condition.

Voyages of discovery, folly and foible, perspectives of identity and human vulnerability are all represented in the exhibition, *Paper Matters*.

Marc Chagall, Toulouse Lautrec, Tom Roberts, Russell Drysdale and Brett Whiteley are mingled with lesser known artists, and their works range from tiny sketches and photographs to expansive colourful paintings.

The folly of war is seen first in a sad, muted pen and ink creation by George Coates, who painted *Disabled Soldier* while an orderly during the Great War. It is imbued with the stoic heroism of fighting for one's country.

On the wall opposite is a huge, boldly coloured painting decrying the British terrorists in Ireland, with the word murder splashed across it; as angry as the other is resigned.

Such a contrast also starts with an engraving of Tom Roberts' monumental oil painting, *Opening of the First Parliament of Australia*. The artist painted some of it on site in Melbourne in 1901, then moved to England, from where most of the 250 invited guests had come for the ceremony.

Curator of *Paper Matters*, Janice Baker, explained that Roberts had each of the 250 guests sit for him in London, so he could add their likenesses to the painting. It was then sent to a printmaker in Paris to be engraved.

An alternative view of colonialism comes from Keith Looby, whose work, *A History of Australia*, rejects the celebratory discourse of Empire, concentrating on an imagined history from an Aboriginal perspective.

The works of political cartoonist Ben Strange appeared in Perth’s Western Mail in the 1930s. Like most of them, Fremantle Wharf is created with pen, ink and pencil.

In the same room is a painting by Aboriginal artist Albert Namatjira, which uses European techniques, rather than his people’s traditional methods.

Some of the most eye-catching pieces are from local artists. Miriam Stannage’s photographic series, *Seven Deadly Sins*, are made up of local images, using cuttings from *The West Australian* newspaper, a Swan Lager beer bottle, gum nuts and leaves, and a $1 note.

Cathy Gordon’s big painting, *Honeymooners*, is a subtle study of life behind the lace curtains. And Susanna Castleden creates a tropical cyclone from metres of white cotton name tapes, designed to be sewn on clothing, but used against a black background to evoke the wild force of an Australian cyclone.

The Gallery often tries to include something for everyone, and, in this regard, *Paper Matters* is successful. It fills the gallery until February 2.
### Monday 17 November

**ASTHMA AND ALLERGY RESEARCH INSTITUTE MEDICAL RESEARCH SEMINAR**
‘Update on PARS’, Professor Geoff Stewart, Microbiology. 12.30pm, Joske Seminar Room, Medicine, Fourth Floor, G Block, SCGH.

### Tuesday 18 November

**ANATOMY AND HUMAN BIOLOGY SEMINAR**
‘Anatomy and art—rehumanising the body’, Professor John McLachlan. 1pm, Room 1.81, Anatomy and Human Biology Building.

**PSYCHOLOGY COLLOQUIUM TALK**
‘Neural dissociations between vision for perception and action’, Petroc Sumner, Cognitive Neuroscience and Behaviour, Imperial College, London. 11am, Rm 2.33, North Block of Psychology Building.

### Thursday 20 November

**PATHOLOGY SEMINAR**
‘Edible solutions to vaccine delivery’, Prof Steve Wesselingh, Director of The MacFarlane Burnet Institute for Medical Research and Public Health (Burnet Institute), Melbourne. 5pm, Pathology Conference Room G14, Ground Floor, M Block, The Queen Elizabeth II Medical Centre.

### Wednesday 26 November

**PSYCHOLOGY COLLOQUIUM TALK**
‘Sleep and cognition’, Richard Bootzin, Psychology, University of Arizona. 11am, Rm 2.33, North Block of Psychology Building.

### Friday 28 November

**PERTH MEDIEVAL AND RENAISSANCE GROUP ANNUAL END-OF-YEAR PARTY**
To be held at St Catherine’s College, UWA, starting at 7pm, with a full buffet dinner served at 7.30pm. The entertainment will be provided by Sneak’s Noise and other mystery items. Bring your own mead, wassail, etc. The charge is $25 per person for the meal and entertainment, payment by mail to Talia Marsh, c/- PMRG, English. Enquiries to Charles Acland on 9423 9428.

**CLIMA SEMINAR**
‘Use of pasture legume compounds in medicine’, Dr Peter Leedman, Medicine; and ‘Investigation legumes into pharmaceutical and aquaculture potential’, Dr Wang Shao Fang, CCWA. 4pm, CLIMA Seminar Room.

### Sunday 30 November

**UNIVERSITY SUNDAY WORSHIP**
Worship God at the end of University year. Bring a chair or rug and picnic lunch at 11am to the lawns of Prescott Court, near Agricultural Science. Anglican Chaplain, Anna Killigrew, will lead a worship to celebrate God’s active presence in our midst as the University year draws to a close. Watch or participate as you feel inclined.

### Monday 1 December

**ASTHMA AND ALLERGY RESEARCH INSTITUTE MEDICAL RESEARCH SEMINAR**
‘Toll receptors’, Dr Andrew McWilliam, Microbiology. 12.30pm, Joske Seminar Room, Medicine, Fourth Floor, G Block, SCGH.

---

**Beyond Good and Evil? Or Trapped Within Them?**

As long ago as 1885 Nietzsche published an essay that claimed we could move “beyond good and evil”, thinking that the concepts were socially determined but masqueraded as moral absolutes. However, at the beginning of the twenty-first century we do not seem beyond good and evil at all. The US President’s verbal and physical attack on an “axis of evil” suggests a corollary axis of good, on which the USA and its allies live. Such declarations have encouraged a revival of interest in Huntington’s thesis of a “clash of civilisations”, in intellectual circles and in the media. In popular culture, works in which there are clear cut divisions between good and evil, such as novels, computer games or films of mythology and fantasy, have enormous appeal.

It now seems necessary to ask how meaningful are these terms, “good” and “evil”. Why have they reasserted central importance in contemporary cultures? Have they always been crucial? Are they terms of meaning or merely rhetoric? Do they necessarily revive a concern with cultural clash – between east and west? between different religious orientations? between different ethnic groups? In a world of globalised trade and communications is such talk nonsense? How are these issues reflected in contemporary cultural genres and societies? What can the past teach us about good and evil, or about their representation?

Papers are invited on any aspect of these issues as they appear in literature, culture, society and politics in the Asia-Pacific.

Enquiries to: Dennis Haskell or Megan McKinlay Phone: (++61.8) 9380 2071 Fax: (++61.8) 9380 1030 Email: paminari@cyllene.uwa.edu.au
Workskills Professionals are proud to be a wholly owned and operated WA Company and are preferred suppliers to State and Federal Government agencies. Supplying staff in the areas of:

- Administration/Clerical
- Professional/Technical
- IT/Computing
- Skilled/Unskilled Labour

We have been supplying candidates with previous tertiary (University) experience to UWA since 1993. We have developed a Star Education Performers list to capture these experienced people, enabling us to deliver a fast quality service.

Try us — we are sure you will notice the difference

Give our friendly staff a call on
Ph: (08) 9201 7777  Fax: (08) 9201 7778
requestwa@workskillsprofessionals.com.au
www.WorkskillsProfessionals.com.au

It’s time to organise your Christmas cards for 2003. At UniPrint we can show you a range of pre-printed cards or we can design cards that specifically suit your needs.

For more information contact
Ray Horn on 9380 8790
Email uniprintjobs@admin.uwa.edu.au  Website www.uniprint.uwa.edu.au

TEACHING INTERNSHIP SCHEME 2004 Interns

The Teaching and Learning Committee is pleased to announce the successful applicants under the Teaching Internship Scheme for 2004.

31 applications were received and the following 12 doctoral research students (listed in alphabetical order) have been offered a Teaching Internship in 2004:

<table>
<thead>
<tr>
<th>NAME</th>
<th>FACULTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Susan Bailey</td>
<td>Arts, Humanities and Social Sciences</td>
</tr>
<tr>
<td>Mr Russell Chapman</td>
<td>Life and Physical Sciences</td>
</tr>
<tr>
<td>Mr Johann Edge</td>
<td>Life and Physical Sciences</td>
</tr>
<tr>
<td>Ms Kym Guelfi</td>
<td>Life and Physical Sciences</td>
</tr>
<tr>
<td>Ms Karen Hall</td>
<td>Arts, Humanities and Social Sciences</td>
</tr>
<tr>
<td>Ms Amy Hearman</td>
<td>Natural and Agricultural Sciences</td>
</tr>
<tr>
<td>Ms Georgiana Kirkham</td>
<td>Arts, Humanities and Social Sciences</td>
</tr>
<tr>
<td>Ms Michelle Ching-Yi Lin</td>
<td>Economics and Commerce (UWA Business School)</td>
</tr>
<tr>
<td>Mr Graeme Miles</td>
<td>Arts, Humanities and Social Sciences</td>
</tr>
<tr>
<td>Ms Lucy Reilly</td>
<td>Education</td>
</tr>
<tr>
<td>Ms Baige Smith</td>
<td>Architecture, Landscape and Visual Arts</td>
</tr>
<tr>
<td>Mr Paul Stanwix</td>
<td>Life and Physical Sciences</td>
</tr>
</tbody>
</table>

As in the past competition for these internships has been extremely high and the Teaching and Learning Committee congratulates these successful students.

The Teaching Internship Scheme has been very successful since its introduction in 2000 and will continue to be funded on an annual basis by the Teaching and Learning Committee. Any queries with regard to this scheme should be directed to the Executive Officer of the Teaching and Learning Committee, Sue Smurthwaite, on extension 2459 or email: ssmurthwaite@admin.uwa.edu.au
Identifying cancer risk factors using linked databases

on Monday 1 December 2003 at 5pm

in

The Mary Lockett Lecture Theatre
FJ Clark Lecture Theatre Complex

The QEII Medical Centre

UWA HOST
Associate Professor Lin Fritschi
School of Population Health
Telephone: 9380 2981
lin.fritschi@uwa.edu.au

ENQUIRIES
Lyn Ellis
Raine Medical Research Foundation
Telephone: 9386 9880
lellis@raine.uwa.edu.au

PHONE NUMBER CHANGE
From January 2004, a new UWA phone prefix range 6488 will replace the current two prefixes 9380 and 9347. While internal extension numbers will remain, the change will be implemented throughout 2004 and the old numbers remain operational until at least September. Enquiries about the change should be addressed to phone-migration@ucs.uwa.edu.au

for more information visit: www.ucs.uwa.edu.au

For more information call Ails 9380 7835.

HOUSESITTER AVAILABLE, mature-age woman with good references and responsible for plants. For more information call Alia 9380 7835.

HOUSESITTER AVAILABLE over summer. Female, clean, tidy and able to look after pets and plants. For more information call Ails 9380 7835.


Nuclear envelope proteins and premature ageing diseases

on Wednesday 19 November 2003 at 5.30pm

in

The Mary Lockett Lecture Theatre
FJ Clark Lecture Theatre Complex, The QEII Medical Centre

All welcome

UWA Host:
Professor Arun Dharmarajan
School of Anatomy and Human Biology
Telephone: 9380 2981
dharma@anhb.uwa.edu.au

Enquiries:
Lyn Ellis
Raine Medical Research Foundation
Telephone: 9386 9880
lellis@raine.uwa.edu.au

FOR RENT
APPLECROSS, three bedrooms (all with br), one bathroom, 2 wc, family room, formal lounge study, renovated kitchen with gas stove and dishwasher, laundry, double garage with automatic door, reverse cycle ducted air-conditioning, outstanding security, Jaccaranda-lined street easy walking distance of Applecross Primary School, shops, restaurants and public transport. First-time let, very neat and clean. Secure gardening suitable for small children. Barbecue with mains gas. $285 per week. Available from 12 December 2003 for long-term lease. Tel: 9364 1181.

AVAILABLE LATE NOV/DEC 2003, CRAWLEY, furnished accommodation, ideal for visiting academics. Short and long term. Two bedroom self-contained apartment in Fairway, next to UWA. Fully furnished and fitted out (including linen). Air-conditioning, heating, TV, telephone, undercover parking. Short walk to shopping centre, transport, restaurants, tavern, cinema, Swan River and Kings Park (bushland and recreational facilities). Email: crawley-apartment@ines.net.au. Web address: www.goodstay.com/perthapartment. Mobile: +61 0418 914 204. $375 per week; lower rates for long duration (6 months or more); telephone charges extra.

WANTED TO RENT
UWA COUPLE between houses seeking to rent fully/part-furnished 2-bedroom accommodation with parking and garden/ courtyard, within cycling distance of UWA Dec 03-June 04. Call 9397 5767 (evenings) or email mjones@admin.uwa.edu.au.

ACADEMIC seeking furnished accommodation for himself and family (wife and 2 boys, 8 and 11 years) for 5 months from January to May 2004. Prefer something near UWA/Subiaco. Please contact Warren Young direct, wyoung@ballarat.edu.au, tel. 02 5327 9685 or Dr Sandy Gordon at UWA on 9380 2375.

HOUSESITTER AVAILABLE over summer. Female, clean, tidy and able to look after pets and plants. For more information call Ails 9380 7835.


Redundant Equipment for Sale

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PRICE</th>
<th>AGE</th>
<th>COND.</th>
<th>DEPT.</th>
<th>CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor Raiser</td>
<td>Offers</td>
<td>—</td>
<td>2</td>
<td>Library</td>
<td><a href="mailto:bids@library.uwa.edu.au">bids@library.uwa.edu.au</a></td>
</tr>
<tr>
<td>30 x pentium II 350Mhz, 128MB RAM, 3.2GB Hard disk, 15 inch Multimedia monitor, CDROM, network card, sound card, floppy drive or Zip drive, OS redhat 9</td>
<td>—</td>
<td>—</td>
<td></td>
<td>Mark 9380 1405</td>
<td></td>
</tr>
<tr>
<td>Apple i5inch laptop, 550MHz G4 PPC, 768MB, 20GB, DVD/CD-RW, airport card, OSX 10.2.8.</td>
<td>$2000</td>
<td>2</td>
<td>1</td>
<td>Computer Science</td>
<td>Chris, ext 2533</td>
</tr>
</tbody>
</table>

Bids should be accepted by Monday 1 December with schools to have first option.

Schools are reminded that all University equipment available for sale must be advertised in the UWAbbs. Receipts should be PeopleSoft account coded 490 (computing with barcode), 491 (non-computing with barcode) or 493 (items with no barcode). If equipment has an existing barcode please contact extension 3618/2546 for details.

CONDITION refers to the general condition of item (1 = as new; 2 = good; 3 = serviceable; 4 = unserviceable). AGE refers to the nearest year.