Is it art or science? Do I drink it or wear it?

A dress made from fermented red wine by scientist and technician Gary Cass in the laboratories of the Faculty of Natural and Agricultural Sciences was the centrepiece of National Science Week in Sydney.

Living microbes are used to ferment wine down to a smelly sludge which, when moulded onto a mannequin and left to dry, creates a delicate cellulose fabric which Gary and his partner-in-art (or is it science?) Donna Franklin call Micro’be’ fermented fashion.

Inspiration for the cellulose garments came when Gary noticed a skin-like layer covering a vat of wine at his friend’s winery. The wine had been contaminated with a bacteria called Acetobacter, which transformed the wine into vinegar. The by-product of the Acetobacter activity was the formation of cellulose, chemically similar to cotton.

In its early stage, the Micro’be’ material has a ‘morning after the night before’ smell of stale, vinegary wine. As it dries, the smell disappears and the fabric shrinks to fit snugly with its delicate micro-fibrils of cellulose.

“At temperatures around 25°C and 30°C, we can create a thick skin from a vat of wine in about a week,” Gary said. “In winter, it’s more difficult.”

Donna Franklin, a sessional lecturer in contemporary arts at Edith Cowan University came to UWA initially to do a Masters degree with SymbioticA. Working with the art in science group in the School of Anatomy and Human Biology, she created a living fungal dress. She and Gary teamed up with a $10,000 grant from ArtsWA in 2006 to develop the idea of a totally new material that could one day transform fashion and the fabric industry.

“We’ve had a lot of fun and we’ve had the arts funding, including $4,000 from the Vice-Chancellor to exhibit at the Venice Biennale fringe. It’s been an incredibly successful art project. But now I want to develop the science,” said Gary, who has a Bachelor of Science in Horticulture and is a Chief Technician in the Faculty’s laboratories.

He has done a small amount of collaboration with scientists working on similar materials in the US and the UK. Professor Malcolm Brown (University of Texas at Austin) has used treated microbial cellulose to help burns victims.

In the UK, Susannah Lee creates a similar material by fermenting kambuchea tea. The fabric she creates has some different properties which she can shape and stitch.

“We need to increase the science and technology, just as Dupont did with nylon,” Gary said. “In the early days of the development of nylon, it was only useful in the production of toothbrushes!”

Gary said he was not motivated by fame or fortune, but wanted to develop the material to become a viable, environmentally sustainable fabric option. “If somebody else takes it and gets it to that point, then I will still feel I’ve made a worthwhile contribution.”

The dress in the perspex wine barrel (pictured left) is for sale until next month on an Italian art dealers’ website, ARTantide.com
Every year thousands of 1080 poison baits are scattered across WA to control fox and rabbit numbers. Our native animals have developed a tolerance to the poison, and the pests have not – yet. Could this be changing?

The UWA node of Metabolomics Australia had just opened for business, making research such as this now possible on campus - an opportunity that School of Animal Biology Research Fellows Dr Oliver Berry and Dr Jennifer Rodger have been one of the first to put to use.

Research at the metabolomics centre will focus on medical, agricultural and environmental applications of the metabolomics technology.

Metabolomics is the study of the unique chemical fingerprints that specific cellular processes leave behind, essentially being the analysis of anything from individual cells to an entire organism. In addition to genomics (the study of genes in an organism) and proteomics (the study of all proteins in an organism), metabolomics has emerged as the newest member of this family to analyse metabolites, the end-products of gene expression.

Already plant biology has taken up the challenge. The Centre of Excellence in Plant Metabolomics is part of the ARC Centre of Excellence in Plant Energy Biology. Now Animal Biology is on the trail.

“We are using it to investigate how it is that native animals in south-western Australia like foxes and rabbits,” said Dr Berry.

“Every year thousands of 1080 baits are scattered via aerial drop in WA. This is a highly cost effective way to control pests and is only possible because our native animals have a high level of tolerance to 1080, but pests do not,” he said.

“West Australian poison peas (Gastrolobium spp) naturally contain high levels of 1080, and the tolerance shown by the native animals reflects their long co-evolutionary history with the plants.

“Introduced species such as foxes and rabbits have not had the time or exposure to the toxin to also develop resistance. However, as time goes by there is growing concern that they too may one day acquire the mechanism behind the resistance. We hope our understanding of this mechanism will allow us to prevent this,” Dr Berry said.

The Metabolomics Australia facility at UWA is funded for the next four years under the Federal Government’s $500 million NCRIS initiative, forming part of Australian Life Science research conglomerate Bioplatforms Aust Ltd (BPA). UWA has also received $1 million funding from BPA, matched by another $217,000 from the Department of Industry and Resources and Infrastructure.

The facility provides access for academic and industrial researchers to the most advanced metabolomics technology, including state-of-the-art chromatography and mass spectrometer equipment. Funding has also enabled the employment of two staff, Technical and Operations Officer Ricarda Fenske and Development Scientist Matthew Timmins.

Use of the facility comes at almost no cost, with researchers only having to pay for the chemicals and disposables that they use.

It will stimulate new research, train researchers in new skills, increase competitiveness of researchers for new research grants and help increase the quality and impact of our world-class research.

Other projects currently being undertaken at the centre include the metabolic basis of childhood leukaemias (Telethon Institute of Child Health), hydrogen production from algae (ARC Centre of Excellence in Plant Energy Biology), root exudates in plant material nutrition (Plant Biology) and waxes present in insect cuticle.

The facility will help underpin the imminent WA biotechnology boom.
Somebody must have wished EXPO co-ordinator Ian Lilburne good luck with the phrase “break a leg”.

Just 40 hours before EXPO started, Ian was putting together the last minute details when he slipped on some stairs in the Anatomy and Human Biology building.

“I was walking down the stairs with Heather Morton when she dropped a pen and I stepped on it and fell down,” Ian said. “We all thought I had broken my left leg and an ambulance was called and I was taken to hospital.”

He did have the good luck though because his leg was not broken. He had strained a muscle and after his colleagues in Public Affairs, Kim Brown and Natali Morgan, took over his job on Friday afternoon, Ian was able to return to campus, on crutches, on Saturday to put the finishing touches to EXPO.

A beautiful sunny, if cold, day welcomed visitors to information sessions, hands-on activities, entertainment and innovative displays.

Students competing in the Australian University Games in Melbourne next month took turns training on James Oval, to give future students a taste of the other side of university life.

Acting Vice-Chancellor Professor Margaret Seares thanked all the staff who worked on making EXPO a success, particularly those who gave up their Sunday to show off the University.
Growing our links with Singapore

It was rewarding earlier this month to witness the first cohort of 34 science students who had completed their studies in Singapore. This inaugural group of Life and Physical Sciences students joined almost 140 students from the UWA Business School at a Presentation Ceremony in Singapore earlier this month.

To mark the occasion, the Chancellor Dr Michael Chaney and Nobel Laureate Barry Marshall joined University staff at the ceremony.

These Singapore students have completed their studies through the partnership we have developed with Singapore’s PSB Academy. Our unique approach involves UWA staff teaching in Singapore in high-quality facilities backed by high-quality administration provided by PSB Academy.

The UWA-PSB Academy Singapore partnership continues to attract large numbers of students. Currently, there are more than 500 students studying science programs and almost 300 in business programs.

The particularly strong interest in the science program reflects Singapore’s priority to become a life-sciences hub in the Asian region. It also is a very positive reflection of the strength and quality of the relationship between our University and PSB Academy.

The presentation ceremony has become an important annual event strengthening the University’s priority to become a life-sciences hub in the Asian region. It also is a very positive reflection of the strength and quality of the relationship between our University and PSB Academy.

The graduates to whom they are awarded provide us all with a powerful reminder of our role as a provider of high-quality education at international standards of excellence.

For almost a century, our University has produced graduates who have made major contributions to the economic and social wellbeing of local, national and international communities.

New SDVC and Dean

The University will start the new year with two changes in senior staff.

Dean of Education, Professor Bill Louden, will be the new Senior Deputy Vice-Chancellor when Professor Margaret Seares leaves at the end of the year.

And the Faculty of Arts, Humanities and Social Sciences has a new Dean, Professor Krishna Sen, who will join UWA in January next year.

Professor Louden (pictured below), also chair of the Curriculum Council of Western Australia, is a widely respected educator and academic whose expertise is sought by governments and fellow educators across Australia.

He was a member of the National Inquiry into the Teaching of Literacy in 2005 and chaired the WA Government’s Literacy and Numeracy Review taskforce the following year.

Professor Sen (pictured below) is currently Executive Director, Humanities and Creative Arts at the Australian Research Council. She holds a Personal Chair in Asian Media at Curtin University and is a member of Murdoch University’s Asia Research Centre.

Professor Sen is a Fellow of the Australian Academy of the Humanities, with a PhD in Politics, MA in International Relations and a BA History (Honours).
Rewarding those *Eureka* moments

Dryland salinity, crystal engineering and sensing technology have gone under National Science Week’s microscope.

They are all fields of scientific research in which UWA teams are finalists in the Australian Museum’s annual Eureka Prizes.

The three teams are engaged in research that will benefit both the community and industries ranging from defence and security to primary industries and medicine.

**Professor Laurie Faraone and his Microelectronics Research Group** are finalists in the *Science in Support of Defence or National Security* category. They have developed sensing technology with unique capabilities and wide applications.

The research is part of Australian Research Council funded Discovery Projects, with funding from the Australian Defence Science and Technology Organisation and a $3.5 million grant from the US Defence Advanced Research Projects Agency.

“*The technology addresses not only defence and security areas, but can be used for low-cost, unmanned autonomous surveillance of Australia’s large coastline, as well as surveillance systems for threat detection and protection of defence platforms.*” said Professor Faraone. “There are also applications in agriculture, food science, environmental monitoring and medicine.”

Another Eureka contender, in the *Scientific Research* category, is a team that includes **Professor Mark Spackman, Associate Professor Dylan Jayatilaka and Dr Joshua McKinnon**. Their exploration of the interactions of molecules and their structure in crystals has the potential to revolutionise crystal structure analysis.

Their work involves an original computational approach to the exploration and visualisation of intermolecular interactions in molecular crystals and the development of tools and techniques for crystal structure analysis and engineering incorporated in user-friendly software.

“This research is a wonderful example of serendipity, the result of a simple ‘What if...?’ question,” said Professor Spackman. “However, a considerable amount of hard work – and a great deal of trial and error – has underpinned all the outcomes reported so far. There are no comparable approaches in the fields of crystallography or crystal engineering.”

The research has been funded by the University of New England, UWA and the Australian Research Council.

The third Eureka team is Federation Fellow **Professor David Pannell from UWA** and co-researcher **Dr Anna Ridley** from the Department of Primary Industries, Victoria, whose entry in the category of *Environmental Research* has already won high praise.

**Salinity Science: From Complexity to Simplicity** is reshaping the way communities respond to Australia’s dryland salinity problems.

The Salinity Investment Framework (SIF) is a tool to guide and evaluate salinity investments at regional levels. It is designed for use by governments and regional bodies responsible for salinity investments. It integrates hydrological, biological, economic and social research to help catchment managers understand how best to respond to salinity in different circumstances.

*The winners of the Eureka Prizes were due to be announced in Sydney on August 19.*
I don’t know what it is about a person going into the desert. After writing 100,000 words, I still can’t put into a few words how it affects people.
Hope will not desert you in the outback

Australia’s deserts, with their harsh yet nurturing qualities, have all but replaced the altar as a place of worship, discovery and renewal.

The University’s new Uniting Church chaplain, Dr Ian Robinson, encourages people to go to the desert to experience the inspiration which changed his direction in life.

“He was very sick for a long time, and, as I started to get well, I felt I wanted to go out to the desert. I almost felt drawn towards it, rather than choosing it,” Dr Robinson said.

“I later found out that this is what happened to Jesus after his baptism. The bible says ‘the spirit expelled him … into the desert’. There, he found strength and hope and a focus, as I did.”

Dr Robinson, his wife and 15-year-old daughter became the first people to cross all of Australia’s seven major deserts in one journey.

“It took 11 weeks to travel 15,000 kilometres, from Sydney, across the continent to 80-mile Beach, where we took a break for a week, then back through the Tanami and Central deserts to Broken Hill,” he said.

The two big outcomes of this pilgrimage were a PhD and an Australia-wide movement, Spirit Journeys, guiding people through desert experiences.

Dr Robinson did his PhD through Charles Sturt University, looking at the effect of place on a person, specifically the desert. He was supervised by a theologian who used to be a geophysicist and turned to a life devoted to religion after feeling he was ‘called’ while exploring for oil in the Simpson Desert.

On Dr Robinson’s first great journey, the people who supported or joined his family along the way, were all profoundly affected.

“I felt different, they felt different. And I asked why did I feel this was so important? And that led to the PhD. Meanwhile some of our friends were saying, let’s do it again. And Spirit Journeys was born. At first it was by word of mouth. Now there’s a website and I’ve been training people to take groups on different desert journeys.”

He and Anglican chaplain Michael Wood took a group of students away earlier in the year to the Koora Centre, Australia’s only desert retreat, between Kalgoorlie and Coolgardie. It is run by former UWA chaplain Anna Killigrew and her husband (both Anglican priests). “It was so successful, we plan to do it again,” Dr Robinson said.

“The emphasis of the desert journeys are on simply being rather than doing,” he said. “Some involve a lot of travel, others very little. The rhythm is dictated by sunrise and sunset – the rest is optional.

“For the past 200 years, our philosophy has been tied to our economy and religion has lost its place in the public square. Spirituality has been relegated to the private, rather than the public domain.

“But in this world of peak oil and climate change, we must learn to live differently. People who come out to the desert with us always say it was great. But often they go back to their old lives. Our lifestyle, tyrannised by choice, is addictive, no matter how profound an experience they may have had.

“But some people make big decisions when they come back from the desert. Others have an epiphany: God shows up in the desert, one of the few places in our lives that has a pure spirituality about it.”

Dr Robinson said the Spirit Journeys groups always try to connect with local Indigenous people where they can.

He is deeply involved with Indigenous people and their culture and was one of the organisers of the Apology event on the Perth Esplanade in February, to listen to and celebrate Prime Minister Kevin Rudd’s apology to the Stolen Generation.

“I don’t know what it is about a person going into the desert. After writing 100,000 words, I still can’t put into a few words how it affects people. It throws up the big life questions and those realms of spirituality go beyond words,” he said.
A new era for gas exploration and development

The Western Australian Energy Research Alliance (WA:ERA), described by UWA's Director of the Energy and Minerals Initiative, Tim Shanahan, as a "competitive collaboration", brought the best researchers from UWA, Curtin University of Technology and the CSIRO together with a State Government Major Research Facility (MRF) grant of $20 million nearly four years ago.

The UWA hub focuses on facilities research.

The alliance has attracted more than $30 million in research contracts and formed partnerships with industry giants Chevron and Woodside.

WA:ERA manager Jill Stajduhar said the initial grant was designed to build energy research capability in the resource sector.

“This grant financially supports PhD top-up scholarships, post-doctoral research fellows and full-time staff. Despite the boom making it difficult to find research staff, the recruitment has gone relatively well and more than 50 new researchers across the joint venture have been engaged through this process.”

“Their projects have successfully attracted industry and Federal funding.”

Earlier this year, UWA became the first Australian university to sign a partnership with global energy company Chevron. The three-year $2.3 million commitment includes funding of a Chair in Natural Gas Processes.

Chevron is also jointly funding (with Woodside) a Chair in Petroleum Geoscience, to be based in the School of Earth Sciences.

WA:ERA has certainly brought millions of dollars into UWA but Mr Shanahan, who joined the University in November last year and the board of WA:ERA in March, says the collaboration of institutions and companies is hard work. “The trust and communication between the partners in a competitive collaboration can never be taken for granted,” he said.

“But my view is that it has a great future because I think there will always be a market for this sort of collaboration and co-operation.”

WA:ERA has three research themes: subsurface research is co-ordinated mainly by the CSIRO, led by Horst Zwingmann; gas technology by Professor Mark Trebble at Curtin; and facilities research is based at UWA, headed up by Professor Krish Thiagarajan.

The facilities program focuses on the research and development needs of industry in the areas of offshore infrastructure on the seabed (subsea), through water column, and on the surface (floaters). It works towards maintaining a reliable long-term gas supply while protecting the sensitive marine environment.

The group’s challenges include the stability of the North West Shelf, deepwater pipeline and integrated rise systems, and integrated floating facilities modelling as well as asset management, which incorporates the human factor as one of the issues that influence productivity.

Tight gas, GTL and a $300,000 cryogenic calorimeter are all facets of the busy WA:ERA hub, delivering world class research and development to the energy industry.
A new era for gas exploration and development

Professor Thiagarajan, based in the School of Mechanical Engineering, is also working on two projects funded by the ARC and Chevron respectively, on transport problems associated with liquefied natural gas (LNG).

There are few problems when containers on a big ocean-going tanker are full, but when they are only partly full, the LNG sloshes around when the tanker is at sea and can affect the stability and integrity of the tanker hull.

“There are often tankers with partly-filled containers as the vessels ply from one field to another. The market factors dictate when and where it is picked up and transported; the convenience and safety of having full containers is not part of the economic equation,” Professor Thiagarajan said.

He has bought a hexapod motion simulator, similar to a flight simulator used in training pilots or creating showground rides.

“We will be putting a tank of different safe liquids on top of the hexapod and capturing how the sloshing occurs to measure the impact,” he said.

Dr Eric May from the School of Mechanical Engineering also has an interesting and expensive piece of equipment in his laboratory.

A $300,000 cryogenic calorimeter, the only one in the southern hemisphere, is being used by Dr May and his team in a project to establish a new set of thermodynamic data for LNG fluids, including vapour-liquid equilibria, phase densities and heat capacities. This data is needed to improve simulation models for LNG plants.

GTL technology ... could help clean up the mega-cities that are regularly blanketed in smog, such as Beijing.

Chevron is funding Dr May and his group (currently two PhDs, one Masters student and three post-doctoral fellows) to come up with a new set of data at the challenging high-pressure, low temperature conditions present in LNG plants.

The group’s second project, again funded by Chevron, is also aimed at making LNG more efficiently. Both projects involve collaborators across WA:ERA, such as Professor Trebble at Curtin, Professor Trimm at CSIRO and A/Prof Trengove at Murdoch.

“To make Australia’s gas reserves viable for international trade, we have to convert the gas to LNG to transport it,” said Dr May. “But some of our gas, for example from the Gorgon deposit, has a lot of CO2 in it, which makes the process problematical because the CO2 freezes, so we have to remove it.

“Nitrogen is also a problem. It doesn’t freeze but needs large amounts of energy to cool it. We are testing new materials to use in the separation, and we even try to invent our own materials.”

Mr Shanahan said the alliance was putting a lot of effort into tight gas and GTL (gas to liquid).

“This research feeds into diversity of energy for WA, of which everybody is so keenly aware since the explosion on Varanus Island,” he said.

Tight gas is gas that is held within rocks which makes it difficult to get a commercial flow. A workshop was held in Perth last week, bringing together policy makers and engineers to start working on how to access tight gas, including moving equipment here from the US.

GTL technology is another area of research for WA:ERA. By converting gas to a liquid, it can provide one of the answers to the oil crisis. WA:ERA CEO Ian Finnie said that because GTL did not have the particulates of crude oil-based petrol or diesel, it could help clean up the mega-cities that are regularly blanketed in smog, such as Beijing.

“There is no one answer to the oil crisis, but tight gas, GTL and even coal to liquid can provide some of the solutions. They are real challenges for WA:ERA,” Mr Shanahan said.

Dr Eric May and some of his research team, PhD candidate Paul Hofman from Wollongong and Dr Guillaume Watson from France, use the cryogenic calorimeter to measure heat capacity...
Architecture skills learnt at UWA, a sense of philanthropy and a willingness to accommodate a new culture have resulted in a health centre as a cornerstone for a new village in Papua New Guinea.

Two final year Architecture students, Ciaran Acton and Kukame McKenzie, and Landscape Architecture graduate, Julia Robinson, volunteered their services for two months last summer to be part of Design Build: PNG, a collaborative project to help the village of Labu-Tale to relocate inland.

Students and early career graduates from Australia joined seven students from PNG’s University of Technology in Lae (PNG’s second biggest city) to help the little north coast village of about 500 people to design and start to build 2.5 kilometres inland.

“Over the past 20 years, the shoreline has shifted dramatically as sea levels have risen, which means the village was regularly flooded,” Ciaran explained.

“The old village was also a long walk to the land where they grow their food (nearby land is too swampy) and the river where they collect water.”

The group was sponsored by various architecture companies and their universities to help the remote village survive and to do it sustainably.

They worked on three projects: the health centre (which was the focus for the UWA trio); a master plan for the new village, including a school and church (these were also a long way from the old village); and a sanitation program in which the students taught the locals how to build well-ventilated pit toilets, designed a hygienic rubbish disposal system, built simple platforms out over the river to help women collect water more safely and easily, and constructed a simple communal laundry.

“It was important that we didn’t just go in and deliver,” Kukame said. “We built a relationship with the ‘uncles and aunts’ and learnt about their culture, while we were teaching them western building skills.”

“They loved the idea,” said Ciaran. “And many of them had really good building skills to teach us.”

Before any work started on the health centre, the students looked at how the local cultural practices could influence their design to make it meaningful and beautiful and to give it a sense of place and identity, creating a building that was inviting and useful.

They consulted with the villagers, and decided to orient the centre towards the women, helping them, their babies and children.

They worked out how they could draw on traditional building techniques and use local materials; they looked at successful techniques in other villages and designed something that would be easily maintained by the local people.

Bark from the local sago tree was used to create woven blind walls, blending traditional and western construction methods.
“The timber was cut down and prepared with a portable mill. Our nuts and bolts came on a banana boat from Lae. For concrete, we had to find a river bed with the right sort of aggregate in it,” Ciaran said.

“One day, we were working with 50 women walking back and forth all day, carrying rocks in their rice bags on their heads.”

All the adults in the village who were not working in Lae helped to construct the building, which has a first aid post, two treatment rooms, a separate maternity wing with a shower, run by water collected on the roof, and a training room, for learning about sanitation, nutrition, manual handling and disease control.

A solar panel is mounted on the roof to provide enough power to run a refrigerator in which to keep medicines. They also planted a traditional medicine garden.

“Julia went around and learnt all about the plants and herbs they use in their traditional medicines and planted a garden of these,” Ciaran said.

“The locals were so happy to work with us, even though some of them had never seen white people before. They are a forward-thinking community and, they were delighted to see that women were leading the group --Kate Ferguson, a Curtin student and Rosemary Korawali from Lae University of Technology.”

Kukame was one of three Australians in the group who came down with malaria soon after they arrived home. “It was a pretty awful few days in hospital, but it didn’t lessen the fantastic experience,” he said.

The students thanked their Dean Dr Clarissa Ball, their associate dean Grant Revell, the chair of Landscape Architecture, Tinka Sack, and the Vice-Chancellor, Professor Alan Robson, for their financial and moral support.

“The Faculty has been fantastic,” Ciaran said. “They have given us exhibition space and unit credits for the work we did in PNG.”

Their exhibition Design Build: PNG opens at the Cullity Gallery on September 4.

Project Partners
UNESCO Observatory on Multi-disciplinary Research in the Arts
Papua New Guinea University of Technology
Huon District Health Administration
Village Development Trust [Local NGO]
Student Organised Network of Architecture [Australia]
Curtin Volunteers
Sponsors
Principal Sponsor: The Buchan Group
PNG Sustainable Development
Australian High Commission
PNG University of Technology
Curtin University of Technology
Royal Australian Institute of Architects
Silver Thomas Hanley Architects
Bluescope Steel
Six Degrees Architects
Armstrong Parkin Architects
Strategic Scan
Denton Corker Marshall

The maternity ward

Women carried rocks for concrete

Walls were constructed of timber and sago bark
Teaching awards
ALTC 08

Four teaching academics have had their exceptional efforts recognised by the Australian Learning and Teaching Council (formerly the Carrick Institute).

They are all recipients of Citations for Outstanding Contributions to Student Learning.

Citations acknowledge and reward teachers who have demonstrated a commitment towards improving the quality of student learning in Australian higher education.

The individual winners for 2008 come from a range of faculties.

Di Gardiner from the Faculty of Education has been recognised for her sustained and consistent commitment to excellence in teaching.

Associate Professor Tony Celenza (School of Primary, Aboriginal and Rural Health Care) was rewarded for his dedication to the development of undergraduate emergency medicine clinical education, and improving the integration of undergraduate learning with early professional practice.

Professor Geoffrey Soutar from the UWA Business School has been awarded a Citation for more than 30 years of effective leadership and excellence in teaching.

Professor Philippa Maddern, Head of the School of Humanities, has been recognised for her sustained and consistent commitment to excellence in teaching.

Professor Geoffrey Soutar from the UWA Business School has been awarded a Citation for more than 30 years of effective leadership and excellence in teaching and supervision within the management and marketing disciplines.

Professor Philippa Maddern, Head of the School of Humanities, has been recognised for her 20 years practice and development of skills and resources that engage all students of medieval history in active, exciting and reflective study.

Vice-Chancellor Professor Alan Robson congratulated UWA’s winners who will be celebrating their success at this years Citations Awards ceremony.

Details of the 2008 Citation winners are at: http://www.altc.edu.au/carrick/go

Cultivating a clean campus

There’s money in muck, as the saying goes.

Civil Engineering student Leon Wilson spent his lunch hour recently picking up rubbish around the campus with his friend Ryan Wilson, an Environmental Science and Economics student, and finished up $200 richer.

Leon Wilson (left) and Ryan Wilson are not related but share an interest in a clean environment

Mr Walsh said he had been impressed by Disneyland which has a culture of picking up rubbish. “Everybody from the CEO to Donald Duck picks up any litter they see and it makes it a great place to visit,” he said.

The FM team is considering another clean up competition with more cash prizes, but in the meantime, their message is, if you see litter, Pick It Up.

Leon Wilson and Ryan Wilson

The pair shared one of two $100 prizes offered by Facilities Management on Pick It Up Day, the launch of a program to engender a clean campus culture. The friends collected the most recyclable material. Then Ryan was lucky enough to find the ‘mystery prize’, a business card of University landscape architect Helen Whitbread, inside a plastic bag, looking for all the world like another piece of rubbish.

The mystery prize was $150, making picking up rubbish even more worthwhile.

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A team from Records, Gail Blake, Maria Brown and Jen Smith, also collected a $100 prize for bringing back the most litter over one lunch hour.

UWA Environmental Manager Gordon Walsh, waste management officer Alain Twynham and Helen Whitbread encouraged staff and students to pick up litter around the campus to clean it up for Expo. “But it was really a way of saying that we want everybody to take responsibility for litter,” Ms Whitbread said.

“I was picking up some rubbish on campus one day when somebody said ‘that’s not your job’. And I replied, it is — it’s everybody’s job.”

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Mr Walsh said he had been impressed by Disneyland which has a culture of picking up rubbish. “Everybody from the CEO to Donald Duck picks up any litter they see and it makes it a great place to visit,” he said.

The FM team is considering another clean up competition with more cash prizes, but in the meantime, their message is, if you see litter, Pick It Up.

Leon Wilson and Ryan Wilson

The pair shared one of two $100 prizes offered by Facilities Management on Pick It Up Day, the launch of a program to engender a clean campus culture. The friends collected the most recyclable material. Then Ryan was lucky enough to find the ‘mystery prize’, a business card of University landscape architect Helen Whitbread, inside a plastic bag, looking for all the world like another piece of rubbish.

The mystery prize was $150, making picking up rubbish even more worthwhile.

A team from Records, Gail Blake, Maria Brown and Jen Smith, also collected a $100 prize for bringing back the most litter over one lunch hour.

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A gift of flight

The School of Physics came to the rescue recently with a hundred ‘balloonsful’ of helium, for a good cause.

Nola Cronin, an aged care occupational therapist, wanted the balloons for a fundraising event supporting the National McAuley Foundation (for Alzheimer’s and Dementia). The balloons were to be released by grandchildren to celebrate the lives of their now deceased grandmothers on National Nanna’s Day, last month.

But commercially-priced helium was beyond the event’s budget.

More than 200 nursing home residents were expected to attend the special event afternoon tea to witness the release of the balloons to the skies by the children.

“A couple of residents who had previously had connections with UWA suggested I contact the School of Physics to help,” Nola said.

She called Jay Jay Jegathesan, manager of the School of Physics and within five minutes the problem was resolved with the School staff agreeing to provide all the helium needed to support the event, and also to provide manpower to help prepare anything that was required.

The day before the event, Physics’ Amanda Atkinson, Gay Hollister and Dave McPhee joined forces with Nola and two of her colleagues in the liquid helium and liquid nitrogen plant in the basement to fill the balloons.

“It was wonderful to be able to help out for such a good cause,” Amanda said.

More than 100 sparkling purple helium balloons each represented a grandmother and the love and respect that friends, family, work colleagues, school mates and grandchildren had for her.

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APPLICANTS FOR

2008 Diversity Initiatives Fund Grants

NOW OPEN

Is there an equity or diversity initiative in your part of the campus that you would like to see implemented, but have no funds to develop? Have you considered applying for a Diversity Initiative Fund grant?

Applications are invited from individuals, groups, schools or faculties seeking funding to assist in the development of targeted diversity initiatives that will enhance equity for students and/or staff. The purpose of the Fund is to provide financial assistance to new projects that aim to enhance educational and employment access, participation and outcomes for groups of students and staff identified as priority areas of focus:

- women and men in non-traditional areas of employment/study
- people from culturally and/or linguistically diverse backgrounds
- people with a disability
- Indigenous Australians
- age
- flexible work practices and life balance
- sexual orientation and gender identity
- family and carer responsibilities
- issues of access for rural and remote students

For 13 years the Diversity Initiatives Fund has kick started many UWA projects and initiatives that have proved so successful they have become ongoing. Often it is staff or students at the local level who can best identify an initiative that will meet a particular need or fill a gap in their area, and frequently that initiative has relevance for the wider campus.

Applications for funding close on Friday September 26, and successful applicants will be notified by late October. Successful applicants have a year within which to complete their project.

An application form can be downloaded from the Equity and Diversity web site at www.equity.uwa.edu.au or by contacting Lesley Roberts on ext 3873. Applications should be sent to Equity and Diversity, MBDP 350.

SCHOOL OF ANATOMY AND HUMAN BIOLOGY

Second Semester Seminars 2008

Held on Tuesdays 1-2pm Room 1.81, 1st Floor

ALL WELCOME

7th October  Linc Schmitt School of Anatomy & Human Biology
Do bats fly? Genetic diversity of bats on the islands of Wallacea between Bali and Timor

8th October  Rachel Sherward School of Anatomy & Human Biology
The ups and downs of repairing neural circuits: attractiveness, maturity and meeting your partner

14th/15th October  Final Honours Seminars

21st October  PhD duo School of Anatomy & Human Biology
- Maria Grade Godinho On the regeneration of peripheral nerves
- Kasie Mearns Pteropus spp: a potential reservoir for Dengue Virus in the Asia-Pacific region

28th October  Paul McMenamin School of Anatomy & Human Biology
Anatomy teaching in future medical curricula: Don’t Look Back.

4th November  no seminar  (Study break & Melbourne cup!)

11th November  SymbioticA School of Anatomy & Human Biology
Ionat Zur Growing Semi-Living Art
Guy Ben Ary Silent Barrage

18th November  Jason Kirkness and Jennifer Walsh School of Anatomy & Human Biology
Sleep and the upper airway

Enquiries Vicki Wallis 6488 3288 or vwallis@anhb.uwa.edu.au

Call for nominations to the Academic Board

Nominations are invited for the election of academic staff and general staff to the Academic Board. Elections will be carried out by postal ballot in these two categories. Research staff should apply in the relevant category according to whether they hold an academic or general staff appointment.

Further details of the requirements in each category, nominations forms and optional proformas for summarising prior experience may be found at the Academic Secretariat website.

Given that there is considerable gender imbalance on the Board, nominations from women are encouraged.

Completed nomination forms, together with optional experience summary proformas, must be returned to the Secretariat by 5pm Monday 8 September 2008.

Prospective nominees should note that the Academic Board has four scheduled meetings per year, at 2.15pm on the third Wednesday of March, June, September and November. The meeting dates in 2009 will therefore be: 19 March, 18 June, 17 September and 19 November.

Information on the Board can be found at: http://www.secretariat.uwa.edu.au

If you have any queries regarding the above or would like further information on the role of the Academic Board, please do not hesitate to contact the Academic Secretary on 6488 2457.

CENTRE FOR INTEGRATED HUMAN STUDIES

PUBLIC SEMINAR

The Human Spirit

Chaired by Professor Dennis Haskell

With panelists Professor Mike Anderson, UWA chaplain Michael Wood and Peter Docker

5.30 – 7pm Wednesday 3 September
Seminar Room 1.81 School of Anatomy and Human Biology

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Get noticed
The end of French Colonialism: the Algerian War
Associate Professor Hélène Jaccomard,
The University of Western Australia
Wednesday 6-7pm, 27 August, Geography Lecture Theatre 1, UWA
All welcome, no RSVP necessary. Further information at www.ias.uwa.edu.au
From the establishment of Port Royal in what is now Canada in 1605, France’s colonial empire ebbed and webbed in size and significance over the following centuries. If the French empire has a birth date, it also has a date when its death became inevitable: 1954, when the French lost the battle of Dien Bien Phu in Indochina. Whereas around that time some French colonies got their independence relatively peacefully (equatorial Africa for instance), a traumatic “War without a name” was waged both on Algerian and French soils. This lecture will look at the decolonisation process in Algeria, its actors, main events, and consequences.

The End of Fish?
David Ritter, Greenpeace UK
Thursday 6-7pm, 28 August 2008,
Social Sciences Lecture Theatre UWA
All welcome, no RSVP necessary. Further information at www.ias.uwa.edu.au
Some scientists estimate that all current fisheries will have gone in our lifetimes from overfishing and destructive fishing methods. The future of the hundreds of millions of people who depend on fish as their protein is in the balance. But there are simple solutions and it is not too late to act. Come and hear about the problems, the campaign’s frontline and the solutions.

Blue Covenant
The Global Water Crisis and the Coming Battle for the Right to Water
Maude Barlow, activist and author
Monday 6-7pm, 1 September 2008, Social Sciences Lecture Theatre
Scientists call them “hot stains” – the parts of the earth running out of clean, drinkable water. They now include northern China, large areas of Asia and Africa, the Middle East, Australia, the Midwestern United States, and sections of South America and Mexico. How did the world’s most vital natural resource become so imperilled? And what must we do to pull back from the brink? In this timely lecture, world-renowned activist and author Maude Barlow will discuss these important questions.

All lectures are provided free and all are welcome. We look forward to seeing you at one of our events.

For more information please contact the IAS on 6488 1340 or email iasuwauadmin.uwa.edu.au and remember to check the IAS website for updates: www.ias.uwa.edu.au.

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A journey from teaching to learning

Professor Denise Chalmers
Director, Centre for the Advancement of Teaching and Learning (CATL)

I have been involved in teaching in one way or another for more years than I care to remember.

I started my working life as a swimming teacher but also a shop assistant, house cleaner and cook/waitress in an all-night pancake parlour. But they were student and holiday jobs till I got my first ‘real’ job as a primary school teacher.

I thought then that this was to be my only career choice and happily settled in to teaching students in years 3 to 7. Classes were bursting with up to 37 students crammed in open plan classrooms designed for 25 which meant my teaching and classroom management skills developed pretty quickly.

Some more study and a couple of children later found me working at Murdoch University as a research assistant and tutor. Not a planned career move, simply triggered by the need for adult conversation and thinking and the scarcity of part-time teaching positions. At Murdoch I was challenged to look at education, not from a teaching perspective but from a learning perspective, something of a worry for someone who had been teaching for more than seven years.

The opportunity to be involved in researching really interesting questions about how we think and learn, at all stages of life, was an eye opener. I expected young people and young adults to be engaged in learning, but for some reason I thought older and really old people stopped learning at some point and then just started forgetting. Clearly that was a mistake, as I saw in just a small way that old people were learning new things and learning to adjust and cope with their world.

At this stage in my education, I was meeting leading researchers in adult learning and human development from different discipline perspectives. This triggered my next move to what was then WACE, the year before it became Edith Cowan University, teaching human development and learning to first year teacher education students.

There was a lot of teaching going on with 17 -19 hours allocated teaching time, subject coordination with more than 800 students and a large team of lecturers and tutors, and practicum supervision in the schools. There was very little research time and limited research money.

But this was also a time of great excitement for a new university and there were opportunities to try out ideas. We ran research projects with our students to identify ways to assist them to learn more effectively and we got good, independently verified improvement. Focusing on students’ learning really made a difference, but this required teachers to do things differently.

Though I did not know it then, this signaled my next career move into professional development, eventually moving from teaching students into professional and resource development. From there it was a move “East”, to the University of Queensland and then the Carrick Institute in roles that continued to develop and promote more effective university teaching and student learning. This led me to thinking about developing quality teaching indicators in universities that would enhance student learning, and resulted in the Teaching Quality Indicators project.

I am convinced that the overall quality of teaching in universities is significantly better than it was 25 years ago, and that the importance of teaching is more fully recognized. More significantly, the focus on students – their learning and their university experience – now takes a central place in university policy, planning and practice. There has been a change in the way we think about teaching - we have added the word ‘learning’ and sometimes we just use the word ‘learning’.

Learning was not a word you heard very much around universities 25 years ago. I remember a colleague in those early days complaining about me: “She has a bit of a bee in her bonnet about learning”. Today, that would not be an accusation as it was then, but an expectation.

As I move steadily towards what is unkindly called the ‘older’ end of the age spectrum, I am finding that what I observed as a young researcher is even more true as I live the experience — I am still learning, constantly having to adjust and cope, enjoying working with teachers and leaders who are committed to maximizing the learning opportunities of their students and — sadly — sometimes forgetting.