

MONASH News

Research, news and opinion from Monash University

Volume 7 | Number 6 | August 2004

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Law

Each edition in 2004 highlights the work of one of the 10 faculties



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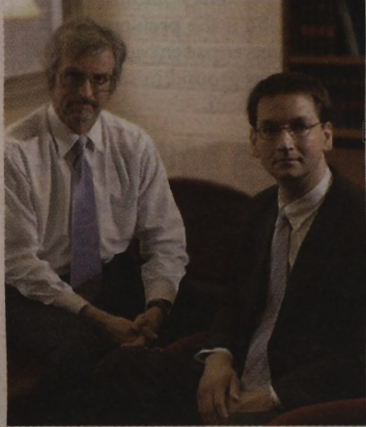


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Duo fears for DNA privacy



Government action needed: Professor Graeme Hodge and Dr Jonathan Clough. **Photo: Greg Ford**

Law

Two Monash law academics are calling for urgent state government action following the disclosure that a private Melbourne company holds the DNA records of millions of Victorians.

Professor Graeme Hodge and senior lecturer Dr Jonathan Clough from the Law faculty have expressed alarm at a recent newspaper report regarding Genetic Health Services Victoria (GHSV) controlling cards that contain blood samples taken from Victorian newborns since 1970.

They believe a joint parliamentary committee should be set up to investigate the ownership of all records

from state-contracted work, as well as the ethical and legal aspects of using the blood sample cards.

Every baby born in hospital in Australia undergoes a routine heel prick test, in which a small amount of blood is soaked onto an absorbent card and then tested for a range of conditions. In Victoria, this testing has been conducted by GHSV under government contract since 1970.

According to the newspaper report, the Parkville company believes it owns the cards and controls access to them.

Professor Hodge, director of Monash's Centre for the Study of Privatisation and Public Accountability, wants the state government to clarify

its position on ownership of records held by GHSV.

"I would like to know what privacy safeguards are in place regarding the files at GHSV," he said.

"I understand that files can be accessed by police under an agreement with GHSV, and the state coroner has used samples to confirm the identity of bodies. But what would stop the company providing access to its files to insurance companies, or to someone pursuing a paternity case?"

Dr Clough said medical technology appeared to have outstripped the contractual relationship between the government and the company.

"When they started testing all Victorian newborns 34 years ago,

the concept of accessing DNA was not on the horizon," he said. "Now I believe it is vital that the state government reviews the ownership and control of the file cards and ensures they are subject to all the proper safeguards."

Professor Hodge said it would be a tragedy if parents contemplated refusing blood testing of their newborns because of concerns over inadequate ethical and legal safeguards.

— Robyn Anns

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Fired up over electrical cables

Physics and materials engineering

A material that changes from a plastic to a ceramic, jointly developed by a team of scientists including Monash researchers, is being used to protect electrical cabling from fire.

The 'ceramifiable polymer' is an insulating material that behaves as a plastic at normal temperatures. But at high temperatures, such as those experienced during a fire, it changes into a hard ceramic that protects wiring and enables electrical systems in buildings to continue functioning.

Dr Yi-Bing Cheng and Dr Don Rodrigo, from Monash's School of Physics and Materials Engineering, were part of the material development team of researchers from Monash, RMIT, the University of New South Wales, CSIRO, the Defence Science Technology Organisation and Olex Cables.

The team, brought together under the Cooperative Research Centre (CRC) for Polymers, was recently presented with a CRC Association Award for Excellence in Innovation by Federal Science Minister Mr Peter McGauran.

In conventional electrical cables, the plastic insulation that surrounds the copper conductors breaks down under conditions of extreme heat, causing the cable to short and its associated electrical systems to shut down.

But the protective properties of ceramifiable polymer mean that electrical devices such as sliding doors, elevators and computer and emergency equipment can continue to operate during a fire.



New polymer 'fire-proofs' electrical cabling: Dr Yi-Bing Cheng and Dr Don Rodrigo.

Photo: Melissa Di Ciero

Dr Cheng and Dr Rodrigo were involved in developing the ceramic material that is blended with the plastic.

Olex's range of Pyrolex Ceramifiable fire performance electric cables made using this new material was launched onto the marketplace in July last year and already millions of dollars worth of cables have been sold.

An independent company, Ceram Polymerik, has been established to develop other products made from ceramifiable polymers.

Dr Cheng said the one of the first products to be created was a foam that can be used to slow the spread of flames by insulating walls and ceilings in buildings and around windowsills and doorframes.

"At the moment, we are looking at the material

for commercial use, but eventually it could be used to help protect homes and vehicles from fire damage," he said.

Cables coated with the material have already passed a performance test, during which they were heated to 1050° Celsius and compared to conventional cables.

The plastic used in the conventional cables lasted less than 10 minutes, flame-retardant plastic lasted slightly longer, while the ceramifiable plastic continued to provide insulation even after two hours.

— Diane Squires

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Monash athletes bound for Athens

Six Monash students will be part of Australia's team at the Olympic Games in Athens this month.

The students are Lauren Hewitt (athletics), Patrick Murphy (swimming), Travis Brooks (hockey), David Zalberg (table tennis), Daniel Trenton (taekwondo) and Andrew Collett (judo).

Mr Trenton, who also coaches the Monash taekwondo team, won a silver medal at the 2000 Olympic Games. Mr Collett will be competing in his second Olympics, while it will be Ms Hewitt's third.

Earlier this year, new Olympian Mr Murphy (pictured) swam the men's 200m backstroke in the seventh-fastest time recorded in Australia. Also this year, Mr Zalberg won his first international table tennis title, taking gold in the men's doubles at the Oceania Championships in New Zealand.

Mr Brooks is one of only three Victorians in Australia's Olympic hockey squad.

From the vice-chancellor's desk

A monthly column by the vice-chancellor of Monash University,
Professor Richard Larkins

At the recent Council meeting, a report on the progress achieved and future directions for Monash's South

African campus that I commissioned from an external consultant's report was overwhelmingly positive. He felt that the achievement to date had been quite spectacular, and that the campus had the potential to be a "jewel in the crown for Monash". He had some very specific recommendations about improving the efficiency of the campus and for increasing student flows and attracting external funding support for more of the students. His projections indicated that the campus was likely to break even by 2007 or 2008.

Despite the selective comments in the media, the external consultant's report was overwhelmingly positive. He felt that the achievement to date had been quite spectacular, and that the campus had the potential to be a "jewel in the crown for Monash". He had some very specific recommendations about improving the efficiency of the campus and for increasing student flows and attracting external funding support for more of the students. His projections indicated that the campus was likely to break even by 2007 or 2008.

His views confirmed my own impressions. Having come from outside the university, and having heard some negative comments about the progress of the campus, I have been both surprised and very impressed by what has been achieved. I was delighted to find a campus buzzing with excitement and with outstanding students from all over Africa and very committed and enthusiastic staff. The first graduation ceremony last year and the subsequent dinner were very moving events, and it was clear that the campus was transforming the lives of many Africans.

Originally, the motives for establishing the campus were complex and included the prospect of having a net financial return to Monash University in Australia. Like many new enterprises, the original plan has needed to be extensively modified in the light of experience. I do not believe that we should view the South African campus as a source of net revenue for Monash in Australia. Certainly we wish it to be self-sustaining and to recover the original investment, but I do not



think it appropriate that we should be intending to make a profit out of education in Africa, a continent in the early stages of a huge economic transition. Whatever the initial rationale underpinning the decision for Monash University to invest in the development of a campus in South

Africa, we can now state that the purpose of the campus is to expand the international perspective and experience of our students and staff, to build enduring educational, research, professional, business, trade and other forms of links with Africa and to enhance the international standing of Monash. We will also engage constructively with the governments and the people of Africa to ensure that we play a small part in advancing human rights and social justice. The campus over time will be cost-neutral in net financial terms from the viewpoint of Monash University in Australia, and it will return many indirect benefits.

Monash is benefiting enormously from its bold steps embracing education in South East Asia in its first two decades. We think that the links we are building with the African continent will be just as significant for us in the next few decades. But to gain maximum benefit, we must be much more active in providing opportunities for students and staff from Monash Australia to spend time at the wonderful campus in South Africa and for our African students to have time at Monash in Australia. We will be careful and realistic about economic management of the campus so that it will become cost-neutral and our financial investment in the campus will be returned, but we will not expect to take a net profit from the campus. We will reinvest in the campus to ensure that it is a first-class university contributing to the development of education and research in Africa and helping that continent to overcome the enormous difficulties it faces as it attempts to realise its immense potential.

Reinvestment of a small proportion of the revenue from our international activities in this developing region will return great benefits to Monash and to Australia.

— Richard Larkins

Monash leads in research grants

Monash University researchers have snared the largest slice of funding of any Australian research institution in this year's National Health and Medical Research Council (NHMRC) Program Grants.

University scientists were awarded almost \$27 million for five research programs exploring allergic disorders such as asthma; chronic heart failure; male fertility; prostate cancer and pregnancy; malaria; and inflammatory diseases.

The grants were announced by federal Minister for Health Mr Tony Abbott in Perth last month.

Deputy vice-chancellor (research) Professor Edwina Cornish said the grants reflected the university's diverse strengths in medical research.

The grants, for research that will start in 2005, were:

- \$7.73 million to investigate the processes that affect the fertility of men, prostate cancer, and the way mothers nurture and protect their babies during pregnancy, led by Professor

David de Kretser, director of the Monash Institute of Reproduction and Development.

- \$5.2 million to investigate the molecular and cellular events responsible for inflammation in the kidneys, joints and blood vessels that lead to diseases such as arthritis and atherosclerosis, led by Professor Stephen Holdsworth, head of the Department of Medicine at Monash Medical Centre.

- \$4.96 million to develop new approaches to controlling malaria, led by Professor Ross Coppel from the Department of Microbiology.

- \$4.63 million to develop new strategies for preventing and treating chronic heart failure, led by Professor Henry Krum from the Department of Epidemiology and Preventive Medicine.

- \$4.31 million to understand the molecular and cellular mechanisms controlling airway inflammation in allergic disorders such as asthma, led by Professor Robyn O'Hehir from the Department of Immunology.

— Penny Fannin

A world of music at Monash



The Monash World of Music Orchestra was one of the highlights at the opening of the 2004 Symposium of the International Musicological Society (SIMS) at Robert Blackwood Concert Hall, Clayton campus, on Sunday 11 July.

SIMS, jointly sponsored by Monash and the Victorian

College of the Arts, is held every five years in different world cities and was last in Australia in 1988, in Melbourne.

SIMS 2004 convenor Professor Margaret Kartomi said it had turned out to be a "wonderful event", attended by around 500 music scholars and musicians from around the world.

Flights now greener

Monash University has become the first organisation in Australia to agree to offset its greenhouse emissions from air travel through an agreement with Greenfleet Australia.

Under the agreement, Monash will pay Greenfleet \$40,000 a year to plant about 17,000 trees to offset half the emissions from fuel used in official Monash domestic and international air travel.

Greenfleet estimates that to offset emissions resulting from a one-way flight from Melbourne to Sydney would require planting one tree, at a cost of \$2.35.

Monash Environment Institute project manager Ms Belinda Towns said the new agreement demonstrated the university's commitment to sustainability by acknowledging the so-called 'hidden' environmental costs associated with most activities.

"By contributing to Greenfleet, we are offsetting some of the environmental impacts associated

with operating an international organisation," she said.

"Monash staff support for the program has been very positive. I hope Monash's involvement with Greenfleet encourages other Australian organisations to do the same."

The initiative complements Greenfleet's road transport program, to which individual motorists and corporate/government fleets subscribe to offset road travel carbon emissions.

Monash signed up for the Greenfleet road vehicle program over four years ago. Under the program, Greenfleet has planted more than 1.7 million native trees in New South Wales, Victoria, South Australia, Queensland and the ACT.

— Diane Squires

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Briefly

Monash IVF pioneer wins international recognition

Monash in-vitro fertilisation pioneer Professor Alan Trounson has been awarded the 2004 Bertarelli Foundation Award in Reproductive Health for his outstanding contribution to the field of assisted reproductive technologies.

Professor Trounson, director of the Monash Immunology and Stem Cell Laboratories and professor of stem cell science, was presented his award in Germany by the Swiss-based foundation.

The Bertarelli Foundation is an independent not-for-profit organisation that aims to promote understanding of the many dimensions of infertility.

Its award honours individuals or teams who, through their work or personal commitment, have raised awareness about the problem of infertility, promoted greater patient access to treatment, or broken new ground in scientific research or medical treatment.

From robots to antibiotics: Monash research linked

Monash has topped Victorian universities in funding for Round 2 of the Australian Research Council's 2004 Linkage Projects.

Monash's ARC Linkage Projects for the round were worth \$7.25 million, made up of \$3.28 million in ARC funding and \$3.97 million in industry partner contributions.

This was on top of \$12.75 million Monash attracted in the first round of ARC Linkage Projects funding for 2004, making a total of \$20 million for ARC Linkage Projects funding for this year.

Nineteen projects, ranging from how well development agencies assist women after armed conflicts in their countries to developing new antibiotics, received funding.

New head for arts and sciences in Malaysia

Plant biotechnology expert Professor Pua Eng Chong has been appointed inaugural head of the School of Arts and Sciences and chair of biotechnology at the university's Malaysia campus.

The appointment will see Professor Pua play a major role in developing research projects relevant to Malaysia, in association with school staff.

Professor Pua said that because the fields of sciences and arts were so broad, the campus needed to focus on niche areas in which it excelled.

He singled out biotechnology as an area where Monash could make a significant contribution to the development of the industry in Malaysia.

"Malaysia is committed to pursuing biotechnology, and Monash University Malaysia can complement that effort through its engagement in cutting-edge research and by producing high-quality graduates with world-class capabilities," Professor Pua said.

Vale Professor Xiaokai Yang

Professor Xiaokai Yang, who held a personal chair in Monash's Department of Economics, passed away on 7 July, aged 55.

Professor Yang's life and career were extraordinary. Born in China, he was a teenager when the cultural revolution broke out in 1966. While still in high school, he published a political tract challenging Chairman Mao's communist regime. As a result, he was arrested and imprisoned for 10 years.

After his release, he published two influential monographs on economics and studied for his PhD at Princeton University in the US, receiving his PhD in 1988. He subsequently accepted a postdoctorate fellowship at Yale University.

Professor Yang came to Monash as a lecturer in 1988 and was promoted to senior lecturer in 1989 and reader in 1993. He was awarded a personal chair in 2000.

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Keeping foreign doctors in the country

Rural health

Overseas-trained doctors practising in rural Victoria are more likely to remain if they have a supportive environment both within the medical clinic and the rural community, a study by two Monash academics has found.

Dr Gil-Soo Han and Professor John Humphreys, both from the School of Rural Health, found that while overseas-trained doctors were not a long-term solution for the doctor shortage in Victoria, awareness of their needs could lead to a higher retention rate.

They interviewed 57 Victorian-based overseas-trained doctors for the study 'Overseas-trained doctors in Australia: their community integration and intention to stay in the rural community'.

The study found that foreign doctors' length of stay in Australia was positively related to their level of integration into rural Australia.

Dr Han said that although professional satisfaction was generally considered a priority in terms of the doctors remaining in rural areas, social integration had been largely ignored.

He said the majority of overseas-trained doctors in Australia in recent years had been from non-English speaking backgrounds and non-Western backgrounds. Many of those interviewed said it was important for them to maintain their cultural and religious values and their relationships to their respective ethnic communities, whether in the city or the country.

"Those we spoke with felt it was important to be able to continue contact with their ethnic group, as this was how they maintained their cultural beliefs," he said.

The study found that while doctors appreciated housing being provided to them and articles in local papers announcing their arrival, they were more concerned with the attitudes of their neighbours.

Indifferent attitudes, such as neighbours ignoring new doctors and their families, caused a high degree of anxiety and discomfort.

But Dr Han said that while the overseas-trained doctors did not expect excessive support from the community, they appreciated Australia's culture of welcoming and embracing differences.

"Not surprisingly, studies show that newly arrived migrants tend to experience much less loneliness and isolation when offered friendship and guidance by local residents and generally better integrate into the new community in a short span of time," he said.

"Professional satisfaction and reward also have an impact on their stay, but how they and their families integrate into the community is crucial."

— Diane Squires

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Foreign doctors study: Dr Gil-Soo Han.

Cancer study to focus on orchardists

Epidemiology

Monash University researchers will review the files of around 10,000 Australian fruit growers to determine whether long-term use of organophosphate insecticides and other pesticides leads to an increased risk of cancer.

The researchers, from the Department of Epidemiology and Preventive Medicine, will focus on apple and pear growers from Victoria's Goulburn Valley and fruit growing areas in New South Wales.

Led by Associate Professor Malcolm Sim, the two-year study is aimed at comparing rates of cancer in the study group with rates in the general population. Results are expected to be available at the end of 2005.

The study is supported by a \$95,000 grant from the Cancer Council of Victoria.

Dr Sim said health professionals and farmers had been concerned about the prolonged use of insecticides by fruit growers, particularly those using Parathion and Malathion.

"The prime purpose of these chemicals is to kill insects, so we intend to find out if they also have harmful effects on the fruit growers who use them," he said.

With colleagues Dr Geza Benke and PhD student Mr Ewan MacFarlane, Dr Sim will analyse blood test data collected from fruit growers in the 1970s and 1980s by the Victorian Department of Primary Industries and New South Wales Workcover and look at subsequent cancer rates in these growers.

"Cancer has a long lag time between exposure and the onset of disease, so a major strength of our study is that we can access historical pesticide use information for those people who develop cancer later in life," Dr Sim said.

"If there are any differences between the rates of cancer in the study group compared to those of the general public, we will uncover it."

"Obviously, if we find a problem and those insecticides are still being used in the community, we need to have a look at alternative chemicals and what protective measures farmers need to take."

The study involves analysing the collected data from the 1970s and 1980s and matching it against the national cancer registry rather than by direct contact with the individuals concerned.

— Ingrid Sanders

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Fact finding: From left, Dr Malcolm Sim, PhD student Mr Ewan MacFarlane and Dr Geza Benke aim to compare rates of cancer in the study group with rates in the general population. **Photo: Greg Ford**



Child poisoning danger: Household medications a risk factor.

Photo: Greg Ford

Child poisoning cases scrutinised

Accident research

Monash University researchers are investigating why more than 70 per cent of child poisoning cases involve medications – including those that should be in child-resistant packaging.

The Barriers to Child Poisoning Prevention project, which started in July 2004, is also examining why children in regional areas are at higher risk of poisoning than their city contemporaries.

Professor Joan Ozanne-Smith, chair of Injury Prevention at the Monash University Accident Research Centre (MUARC), said poisoning was the second most likely reason, after falls, for children under five years old to be hospitalised for an injury.

The national frequency of medically treated cases of poisoning in the under-fives is estimated to be 18,200 each year, and the rate of hospital admissions is more than 200 per 100,000 children.

Professor Ozanne-Smith said the introduction of child-resistant packaging in the 1970s and 1980s had led to significant improvement in preventing childhood poisoning in Australia and other countries.

"Although deaths are now rare, poisoning still remains a prime cause of hospitalisation in children under

five," Professor Ozanne-Smith said. "Also, the rate of poisoning in this age group is increasing in Victoria, and we need to find out why."

"We are particularly keen to establish why children in rural areas

"Although deaths are now rare, poisoning still remains a prime cause of hospitalisation in children under five."

— Professor Ozanne-Smith

are more at risk of hospitalisation for poisoning – it may be a result of different hospital admission policies, access to a different range of poisoning agents or different storage practices."

Professor Ozanne-Smith said the study, funded by a Public Health Research Grant from the Department of Human Services, was also investigating the effectiveness of child-resistant packaging and the reasons it sometimes failed.

Previous research has shown that liquid paracetamol is over-represented in poisoning cases, Professor Ozanne-

Smith said. Other studies have revealed that children under 30 months are surprisingly adept at opening 'child-resistant closures' using their teeth – 42 per cent of small containers opened within that study displayed evidence of teeth marks.

The MUARC project will investigate 200 cases – half from rural areas – presenting to the Poisons Information Centre and emergency departments throughout Victoria. Parents or caregivers will be interviewed by telephone to determine patterns of access to poisonous agents and possible risk factors. Fifty failed child-resistant containers will also be inspected.

Professor Ozanne-Smith, who is working on the project with MUARC colleague Dr Jennifer Sherrard and the Royal Children's Hospital in Melbourne, said recommendations would be made on the basis of the findings.

"This may lead to improved child-resistant packaging for pharmaceuticals, measures for safe local storage while medications are in use, parental and caregiver education, and possibly improvements in clinical management guidelines," she said.

— Allison Harding

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Sweet music exhibition

An exhibition showcasing the diversity of music collections at Monash University is on show at the Sir Louis Matheson Library at the university's Clayton campus.

The *Music at Monash* exhibition features scores (manuscript and published), sound recordings, images, instruments, books, pamphlets and programs from the university library's Music and Multimedia and Rare Books collections, and from the Monash Music Archives located within the School of Music – Conservatorium. More than 60 items are on display.

Among the highlights is the gamelan Digul instrument crafted by Indonesian musician and political activist Pontjopangrawit during his internment at the notorious Dutch East Indies prison camp at Tanah merah in Upper Digul (in Irian Jaya, West Papua New Guinea) between 1927 and 1932.

Pontjopangrawit made the gamelan Digul and 18 other instruments from materials found in the prison camp such as saucepans, pots, and wooden crates. The instrument was transported to Australia in the 1940s and is now housed in Monash's Sumatran Music Archive.

The earliest piece on display is Jean-Jacques Rousseau's

Dictionnaire de Musique – a reference book of music definitions and explanations of relationships in music, published in Paris in 1768.

Other exhibits include items connected with Melbourne-born composer and pianist Percy Grainger and the E. W. Cole Book Arcade, as well as Indian musical instruments sent to Australia by Indian musician S. M. Tagore for the 1880–81 Colonial Exhibition in Melbourne.

Music and Multimedia librarian Ms Georgina Binns said the exhibition highlighted the multidimensional nature of music.

"*Music at Monash* exposes materials normally housed in closed access storage and archive boxes and provides a medium for alerting people to the richness and depth of our collections," she said.

– Karen Stichtenoth

Show notes

What: *Music at Monash*

When: Until 30 September

Where: Matheson Library, Monash University, Clayton campus

Who: For information, contact Ms Georgina Binns on +61 3 9905 3236. For viewing hours, contact +61 3 9905 5054 or visit www.lib.monash.edu.au/hours.



Hot wheels highlight for students

For more than 40 senior secondary students, the Hot Wheels competition was the highlight of a two-day chemical engineering program offered by Monash's Department of Chemical Engineering in the recent school holidays. The Year 10 to 12 students made electrochemical cells to power model cars. They then divided into teams, building the cars and entering them in a road race to find which could go the furthest.

Photo: Greg Ford

Schools

International application day

Saturday 4 September

10 am to 3 pm

**B building, level 2 (near library)
Caulfield campus**

At this year's international application day, designed to inform international students in Australia about studying at Monash, course experts will be available to discuss undergraduate, postgraduate and research degree opportunities, as well as alternative pathways into Monash, including through Monash College and the Monash University English Language Centre.

Information about visas and Australian Government requirements, fees, university entry requirements, student services and application procedures will also be provided.

Prospective students who bring their academic results will receive immediate assessment and support. For those who apply on the day, there is no application fee.

For more information, telephone +61 3 9903 2831 or visit www.monash.edu/international/applicationday.

Engineering information evening

Wednesday 1 September

7.30 pm to 10.30 pm

**lecture theatre C1, building 63
Clayton campus**

Prospective students are invited to attend an Engineering faculty information evening, covering engineering professions, career opportunities and courses available at Monash. Speakers will include faculty dean Professor Tam Sridhar, a current student and a graduate of the faculty.

Students will be able to talk with departmental advisers about course options, prerequisites, double degrees and employment opportunities. Also included in the program is a tour through key teaching, laboratory and research facilities.

Seats are limited. For further information, visit www.eng.monash.edu.au and follow the 'Information evening for prospective undergraduate students' link under 'Spotlight.'

Science course, career information evening

Wednesday 8 September

7.30 pm

**lecture theatre E7, building J2
Clayton campus**

Now is an exciting time to pursue a future in science. The Faculty of Science at Monash offers a wide choice of degrees, including single, double and diploma programs, to cater for a range of interests, from astronomy to zoology.

During the evening, Associate Professor Michael Page will provide an overview of the science programs on offer at Monash, including the Bachelor of Science, courses for high achievers and the wide range of double-degree programs available at the Clayton and Gippsland campuses.

For more information, telephone +61 3 9905 4604 or email enquiries@sci.monash.edu.au.

Centre studies farm accidents

Accident research

The Monash University Accident Research Centre is investigating serious farm machinery accidents to gather information about their major causes and ultimately improve farm worker safety.

The two-year project, managed by mechanical engineer Mr Wayne Baker, is funded by the Rural Industries Research and Development Corporation and is linked to a similar study conducted in the Canadian grain belt.

Since earlier this year, seriously injured farmers and farm workers seeking treatment in one of 14 Victorian hospitals have been questioned by nursing staff about their accident and alerted to the study. Where farm workers have been willing to be involved, Monash researchers have visited the farm to inspect the machinery.

"Operating farm machinery has historically been one of the most dangerous occupations," Mr Baker said. "Serious accidents don't only affect the farm worker, but also their family and sometimes the viability of the farm. This project is looking at machinery operation and design to determine the most common causes of accidents."

Monash researchers are also contacting farmers not involved in accidents for permission to assess machinery which might be similar to that involved in the accidents. This machinery is being used as an experimental 'control'. Mr Baker hopes to investigate 40 accident cases and 80 control cases during 2004 and 2005.

The research project has the support of former chief executive officer of the Australian Football League Mr Wayne Jackson, who was lucky to survive serious injuries when he fell from a trailer while transporting hay at his South Australian property in 2001.

Mr Jackson, who broke eight of his ribs and suffered a collapsed lung, said it was a frightening experience, and it had reminded him of the potential dangers of farm work. He encouraged other farmers to take part in the study.

"For a moment, I really thought this was it – then I realised my head was clear and I could move my legs," he said. "I spent a couple of days in intensive care and was told that had I been a smoker, I probably wouldn't have survived the trauma."

– Allison Harding

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Two cultures, two laws, no justice

The wounds of a devastated past: Ms Lowitja O'Donoghue, Aboriginal and Torres Strait Islander Commission chair from 1990 to 1996, was one of the first people to publicise endemic violence towards Indigenous women. Photo: Newspix.



Why do Aboriginal women in Australia experience such high levels of violence in their own communities? And why has the Australian legal system failed to punish their attackers? Monash PhD student **Mrs Joan Kimm** argues that laws, policy and practice in Australia place too much emphasis on Indigenous culture and too little on the rights of battered Aboriginal women.

"There have been polarised reactions to my conclusions in the book that Aboriginal family violence is caused by factors within, as well as outside, Aboriginal culture. It is not my intention to denigrate Aborigines. It is about women's rights to be immune from violence, and the conflict between valuing these rights and respecting Indigenous cultural rights."

A conversation with two young Aboriginal women was the starting point for my book that investigates Aboriginal family violence.

Both women told me they would not tolerate violence from an Aboriginal man in an urban setting, but that they would do so if they were living a traditional lifestyle – that this was expected and it would be part of their life under customary law. If they could not agree to be subject to this violence, then they could not live in that community.

These two women were strong, intelligent women, but they did not accept that they could live without violence within an Aboriginal community.

Of course, non-Indigenous women experience violence too, and the law does not always protect them as well as we would like. But why would Aboriginal women – especially educated women – accept violence and abuse as their lot?

I think part of the answer is that traditionally there has been quite a lot of inherent violence towards Aboriginal women within Aboriginal culture. A lot of that violence is now attributed to the impact of European culture on Aboriginal culture. That has been a significant factor, but it is not the only explanation.

Traditional Aboriginal culture is very legalistic, very strict, with very strong laws. If people do the wrong thing within an Aboriginal community, they can be exiled. Women can be beaten for a transgression, or even subjected to what is called "sacred rape" as a punishment.

But Aboriginal women have never had reciprocal rights under this system – the

violence, it seems, is all one way.

Our European judicial system, particularly in the past, has supported this very strict paternalistic Aboriginal culture and its rules.

I think the judiciary today remains very sympathetic to, and respectful of, Aboriginal culture. Some juries have been reluctant to convict Aborigines because they have felt they should not interfere in their ways.

Traditional Aboriginal culture, in which women are still precluded from speaking about sexual matters in mixed company, means they feel extremely uncomfortable giving evidence in court in cases of alleged sexual assault.

You can have male judges, male lawyers and male Aboriginal defendants all lined up against Aboriginal women. The result, in court, can be one patriarchal system talking to another.

As well, in recent times Aboriginal culture has received more recognition in relation to land rights, particularly through the Mabo case in which the High Court, in its 1992 judgment, rejected the legal notion of Terra Nullius and upheld native land title.

This has made society and the courts more conscious of Indigenous land rights and cultural rights. But there is a paradox here, in that the legal system still often puts the rights of traditional Aboriginal culture (with its inherent violence towards Aboriginal women) above the universal human right of those very women to live free from violence.

A fundamental problem is that many Aborigines and non-Aborigines have competing views about which set of human rights should prevail.

I believe the basic human right to live free of violence overrides Indigenous rights.

Ms Lowitja O'Donoghue, Aboriginal and Torres Strait Islander Commission chair from 1990 to 1996, was one of the first people to publicise endemic violence towards Indigenous women. She has commented that Aboriginal men cannot avoid responsibility by claiming they are victims themselves of white rule.

In the Hyllus Maris lecture at La Trobe University in 2001, she said that violence had now become an issue beyond the confines of the Aboriginal community and that whatever the wounds of a devastated past, "simply excusing violence on the grounds that the perpetrator is a victim too is not on".

There is a pyramid structure in our society with white men above white women who are then above black men, but at the bottom of the heap are Aboriginal women and children.

We need refuges for Aboriginal women who have suffered violence so they can break the cycle. This requires financial support from government. Aboriginal women's councils should be given money and be in charge of spending that money, separate from the men. I think heavier penalties for Aboriginal men who are violent toward women will also have an effect.

Aboriginal women are heroines; they carry their communities. They are strong – they have to be. They have an important and separate role in traditional culture, but ultimately it is one that is secondary to men's power. Now they need to be seen as equal.

Mrs Joan Kimm is a PhD student in the Faculty of Law. Her book, *A Fatal Conjunction, Two Laws and Two Cultures*, published by Federation Press, is out now.

INPRINT

HELPING ABUSED
CHILDREN AND
THEIR FAMILIES

Chris Trotter

Helping Abused
Children and their
Families

By Chris Trotter

Published by Allen & Unwin
RRP: \$35

Child protection is one of the most challenging and frustrating fields of practice in human services. In this book, Chris Trotter explains what works and what doesn't in child protection, providing

a useful reference for child protection workers and students as well as general readers interested in child welfare.

Drawing on a major study and current international research, the author shows that rates of re-abuse and client and worker satisfaction can be improved with an evidence-based approach to intervention.

He also explains his research-based practice model, including role clarification, problem-solving, pro-social modelling and client-worker relationship skills and uses case studies to show how the model can be used in a range of situations.

Chris Trotter is an associate professor in the Department of Social Work at Monash University.

Practical Legal Skills
Second EditionBy Ross Hyams, Susan Campbell and
Adrian EvansPublished by Oxford University Press
RRP: \$39.95

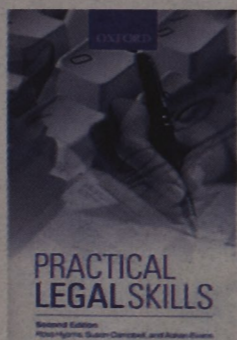
This updated second edition of *Practical Legal Skills* provides a guide to key legal skills such as interviewing, advising, negotiating and mediating, letter writing and drafting and advocacy. The authors have more than 30 years' collective experience teaching such skills.

Aimed at students and practising lawyers, the book contains a series of exercises that teaches practical skills by simulating real legal situations.

It also focuses on the ethics of legal practice, highlights the professional duties of lawyers and discusses the ethical decisions they often have to make.

Information on advocacy and negotiation skills is included, with an emphasis on commercially focused exercises and examples.

Ross Hyams, Susan Campbell and Adrian Evans all lecture in law at Monash University and practise as solicitors.



POSTscript

The Green State
Rethinking Democracy and
Sovereignty

By Robyn Eckersley

Published by Massachusetts Institute of
Technology
RRP: \$44.95

This book explores what might be required to create a green democratic state rather than the classical liberal democratic state. It seeks to connect the

moral and practical concerns of the environmental movement with contemporary theories about the state, democracy and justice.

The author says the book reflects her attempt "to reach beyond the horizons of existing environmental governance, using current institutions of governance as a point of departure".

Going against the grain of much current thinking, she argues that the state is still the pre-eminent political institution for addressing environmental problems.

Eckersley has long been inspired by critical theory and in this book has attempted to provide a green perspective. She discusses what would be needed to create a distinctly green democratic state, including ecological citizenship and more enlightened environmental governance.

Robyn Eckersley is a former lecturer in environmental ethics and politics in Monash's School of Political and Social Inquiry. She lectures in the Department of Political Science at the University of Melbourne.

If you are a member of the Monash community and have a forthcoming book, contact media@adm.monash.edu.au.

Books featured in 'Inprint' are available or can be ordered at Monash's four on-campus bookshops.

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Australia's sporting image on display

With the 2004 Olympic Games in Athens this month, a timely exhibition looking at the process behind designing identities for two of the world's largest sporting events – the Sydney 2000 Olympic Games and the Melbourne 2006 Commonwealth Games – is on display at Monash University's Caulfield campus.

The Design Game exhibition at the Art and Design Faculty Gallery shows the vast scope and scale of these design projects – from the signage in the stadium to the event tickets and programs, uniforms and Barbie collectables.

Exhibition highlights include the Olympic torch designed by Blue Sky Design that was inspired by the Sydney Opera House and the boomerang, and Sydney 2000 Barbie collectables that combine 'Barbie pink' with the Olympics' visual identity and reproduce the emblem, to scale, on Barbie's sporting outfit.

The exhibition also displays sketches and developmental work for the 2000 Olympics, much of which was not pursued but formed the basis of the final logos.

Computer-generated images that show how the Commonwealth Games design team envisages the 'look' of the Games and how this might appear throughout Melbourne in March 2006 are also on show.

Exhibition curator Ms Georgia Cribb said the exhibition, which took three

months to produce, provided an opportunity to delve into the designers' world.

"*The Design Game* explores the challenges of visually communicating an Australian ethos within a global, and multilevel, branded event," Ms Cribb said. "The exhibition reveals how the designers almost need the stamina and determination of athletes when working on these vast projects."

"While putting together the exhibition, I was able to work closely with designers and gain an insight into the creative processes required to design for international sporting events such as these."

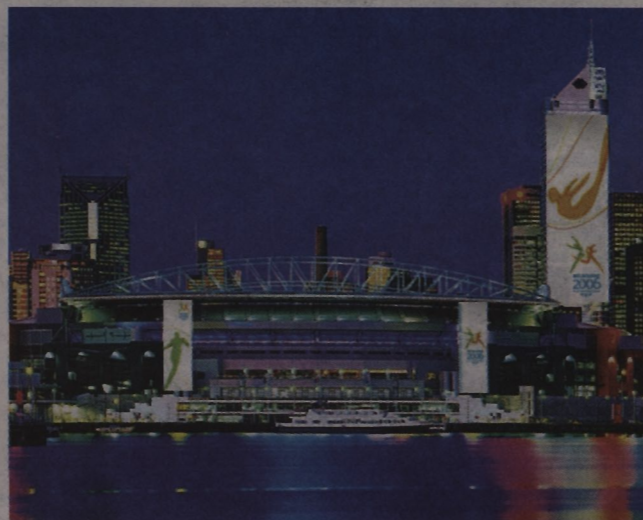
"In the case of the Sydney Olympics, some 800 concepts were considered before two were selected as the most

suitable. The Sydney Olympic design work spanned around 10 years, so to maintain energy with the project and to consistently remain faithful to the visual identity was an amazing feat.

"How designers go about conceiving a single logo that reflects the ambitious aspirations of such events, and has the world as its audience, is probably the ultimate creative challenge."

– Karen Stichtenoth

Show notes

What: *The Design Game*When: Until 12 August, Monday to Friday
9 am – 5 pm, weekends 1–5 pmWhere: Faculty Gallery, Monash
University, Caulfield campusWho: For information, contact Ms
Bianca Durrant on +61 3 9903 2882.

Melbourne 2006 Commonwealth Games computer-generated image showing proposed designs decorating Melbourne landmarks.

Image:
FutureBrand

Reproduced
courtesy of the
Melbourne 2006
Commonwealth
Games
Corporation.

Designs on
Sweden

Two innovative home appliance designs created by Monash University industrial design honours students have been selected for a major exhibition in Stockholm, Sweden.

The designs will be displayed at the Electrolux Design Centre, which features the work of industrial designers from around the world. They were developed in 2003 as part of a major project supported by Electrolux's Australian operation, which saw six student designs produced, including a cook top as well as air-conditioning, outdoor kitchen and refrigeration units.

The project was led by Associate Professor Arthur de Bono, head of design at Monash's Caulfield campus, senior lecturer in design Dr Jon Allen and Electrolux's home products design director Mr Lars Erickson. Designs by students Matt Weichard and Matt Smith will be displayed in Sweden.

The 'Circa' barbeque created by Mr Weichard, to enhance the Australian outdoor cooking and entertaining experience, has already attracted considerable interest in both Australia and Sweden.

The compact stainless-steel cooker has three cook tops – a flat hotplate, wok burner and char grill section – all powered by gas, and an electric fridge in the central segment. The lids over each cook top can be repositioned to form bench tops.

"As students we were given the opportunity to come up with a design and scale model," Mr Weichard said. "This project took the design process a step further than I had ever taken it. It was an eye-opening experience to see how it was all done, and I was rapt that the Circa was selected to go to Sweden."

The second item being exhibited in Sweden is a fruit storage and refrigeration unit conceived by Mr Smith.

Mr Smith said his 'Hua Kotinga' (Maori for fruit harvest) comprising three mounted wall baskets made of American oak and a ladder to enable access, was designed for people living in high-density inner city dwellings.

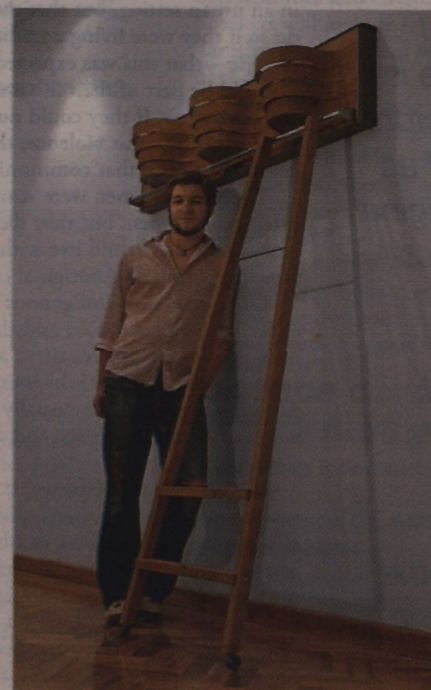
Each basket has a perforated aluminium base that can be easily removed for cleaning. An air conditioning unit mounted below the baskets circulates thermostatically controlled air around the fruit stored within the baskets.

Associate Professor de Bono said the opportunity to collaborate with the world's largest homewares company and the support from Electrolux were a welcome development for Monash, and further collaborations with the company were likely to be explored.

"The homewares industry has emerged as an exciting area for industrial design. Our students had the



Above: Matt Weichard with his barbeque unit 'Circa'.



Left: Matt Smith harvests fruit from his 'Hua Kotinga' design.

Photos: Andrew Barcham

opportunity to explore ideas and concepts that redefined these products into systems," he said. "The capabilities of these students have now been professionally exhibited with the best work on show from the world's leading whitegoods company."

– Karen Stichtenoth

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Don't call me baby

"Australia is at risk of being left behind by other countries in its efforts to deal with sex discrimination at work."

In 1980, a young woman named Deborah Wardley punched a hole in the glass ceiling when she won the right to be trained as a pilot with Ansett Airlines.

Her legal journey had started the year before as the first case to be heard by the newly formed Victorian Equal Opportunity Board, which found that Ansett had discriminated against her because she was a woman. Ansett challenged the board's finding in the Victorian Supreme Court and the High Court but was forced to accept her in the next intake.

Four years later, in 1984, discrimination on the basis of gender was struck another blow when Australia's Sex Discrimination Act was signed into legislation. The Act made it illegal to discriminate against people on the grounds of their gender.

Although women today are accepted as pilots, surgeons and senior managers, some legal commentators believe it would be foolish to claim that 20 years of the Sex Discrimination Act has achieved equality.

Associate Professor Beth Gaze of the Monash Law faculty points out that women still earn only 84 per cent of what men are paid for full-time work. "While Australia's sex discrimination legislation has led to important changes in the workforce, there is still a long way to go," she says.

"The problem of sexual targeting of women continues, whether in the workforce in the form of sexual harassment, or in wider society, and reinforces women's position of disadvantage."

Tales of boorish behaviour – and worse – by footballers have been rife in the Australian media of late, but the locker room mentality is not limited to sport.

A telephone survey last year on behalf of the Human Rights and Equal Opportunity Commission found that 41 per cent of Australian women and 14 per cent of men had experienced sexual harassment, with two-thirds of respondents experiencing sexual harassment at the workplace.

And the problem is not limited to Australia. In London last month, Sydney lawyer

Ms Elizabeth Weston received a \$1.5 million settlement of a sexual harassment claim against her former employer, global investment banking house Merrill Lynch. Ms Weston had been headhunted to a senior position in the organisation, but that did not protect her from harassment by co-workers.

The harassment claim stemmed from a Merrill Lynch Christmas lunch in London at which a male colleague commented on Ms Weston's "great waps" (breasts). After she complained to management, she claimed she was treated with hostility by the company's primarily male workforce.

Merrill Lynch is also facing several international discrimination cases, including a joint action from about 1000 female brokers

in the US who argue that the firm systemically underpays women, and a senior female banker who is suing for \$20 million, claiming she was underpaid and maltreated during her time with Merrill Lynch.

Wall Street brokerage firm Morgan Stanley also this year settled a sex discrimination suit brought by the US Government's Equal Employment Opportunity Commission for \$US54 million (\$A74.88 million).

Dr Gaze notes that in Australia, no settlements similar to the Merrill Lynch and Morgan Stanley cases have been achieved. "Compensation amounts here are much lower than in the UK or US, where these issues are taken very seriously by the courts," she said.

She speculates that Australia's less stringent attitude to sex discrimination and sexist behaviour may be linked to its tradition of mateship and fraternity, which reinforces masculine feelings of solidarity and power by excluding and disadvantaging women.

In June, Dr Gaze was awarded an Australian Research Council grant to conduct joint research with the Equal Opportunity Commission of Victoria into improving the effectiveness of Australia's anti-discrimination laws.

"Australia is at risk of being left behind by other countries in its efforts to deal with sex discrimination at work," she says. "Major problem areas include the significant gap in pay rates for men and women, easing the increasing problem of work and family conflict for both mothers and fathers, and putting in place a universal system of paid maternity leave."

Dr Gaze points out that access to paid maternity leave is still the preserve of women in the public sector or those in the private sector who are highly paid and highly valued. She says government-issued baby bonuses cannot replace a paid maternity leave scheme.

"The baby bonus fails to acknowledge that many women work because their pay is needed, so they can ill afford to take unpaid time off work to care for a baby, and the baby bonus does not fully replace lost pay. Women who are not working do not lose their pay when they have a baby," she says.

"In the absence of government support for resolution of the work-family collision in Australia today, young women face a difficult choice in whether, and when, to have children. It is no coincidence that in European countries that provide the most help to women to balance work and family, fertility rates have remained the strongest."

— Robyn Anns

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Sexual targeting of women continues: Associate Professor Beth Gaze.

Photo: Greg Ford

The email is mightier than the sword

Communications

Email, an indispensable communication tool in the contemporary workplace, is fast becoming an important political weapon in office power struggles, a Monash research study has found.

The study by Dr Susan Yell, head of communications at the Gippsland School of Humanities, Communications and Social Sciences, has identified a number of 'good' and 'bad' uses of email, including its growing role as a means of gaining or maintaining power.

Dr Yell interviewed white collar workers aged 30 to 65 from a range of levels and jobs in three organisations – a manufacturing company, a public service department and a university – asking a series of questions about email use and policies.

She then analysed the relationship

between organisational policy responses to the problems of uncontrolled email practices such as spam and email 'wars', and users' adherence to these policies.

Her research showed employees are more influenced by their own codes of 'good email behaviour' than they are by an organisation's official policies. Most interviewees knew their organisation had an email policy, but were not very clear on what it did and did not allow.

"Email has been in widespread use in Australian workplaces for more than a decade, yet its effects on workplace communication are still being debated," Dr Yell said. "My research sought to explore one of the many apparent paradoxes of email – that it is seen and experienced as a space in which unruly communicative behaviour occurs, but also as a highly regulated space."

"I wanted to focus specifically on users' experiences of email in working life



Email wars: Dr Susan Yell.

and on the ways in which it represented a space where the politics of social relations are played out."

Dr Yell's research revealed a number of unruly or 'bad' practices related to power struggles, including colleagues

in the same room emailing each other to raise concerns or complaints – rather than speaking face to face – resulting in an email war.

Other examples included storing emails that showed the sender in a bad light as future ammunition against them, managers sending group emails blaming subordinates for mishaps without allowing them to present their defence to the whole group, and workers sending group emails to brag about their achievements.

"One instance involved a staff member emailing his work group to say he'd completed a job, which the interviewee interpreted as 'big-noting' himself," Dr Yell said. "Consequently, he replied with a sarcastic email, cc'ed to the group, asking 'what took him so long', in order to 'kick him off his peg'."

"These types of unruly email practices form part of routine power

struggles within organisations and are not unique to email but merely exploit email's characteristics as a medium.

"The temptation to use email in this way for some appears irresistible, even when they have much to lose and little to gain."

Dr Yell said that despite the negatives, most interviewees were highly enthusiastic about the positive aspects of email.

"Even those who admitted they preferred the phone or face-to-face interaction heaped praise on email in regard to aspects such as the potential for speedy response, its cost-effectiveness, the ease of sending documents electronically and the opportunity it provides for working from home."

– Michele Martin

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Recording our true Indigenous history

Indigenous studies

Victoria's Indigenous history will be documented and archived in a manner determined for the first time by the state's Indigenous communities.

The joint project, between Monash University and the Victorian Government, aims to interview 100 Indigenous people about the most appropriate methods for archiving the stories told within their communities.

Early interviews have revealed a strong preference for audiovisual storage of data.

Monash's Centre for Australian Indigenous Studies (CAIS) and School of Information Management Systems (SIMS) are working on the project with the Public Record Office Victoria, the Victorian Koorie Records Taskforce and the Indigenous Issues Special Interest Group of the Australian Society of Archivists.

CAIS director Professor Lynette Russell said the project aimed to add value to existing records by ensuring they were accurate while also creating new ways to document the history of Indigenous communities.

She said the project would focus on discovering what kind of information Indigenous communities would like to share.

"In the past, governments created Indigenous records by viewing Indigenous people and their communities, documenting their findings and sending them off to be archived," Professor Russell said. "In many instances, the subjects didn't even know the records existed."

"Indigenous people need to have the ability to add or modify records held by the government. For instance, I recently discovered records on a family member that were totally incorrect, but currently there are no avenues to alter these. Incorrect historical records are just left as they are."



Documenting Indigenous history: Professor Lynette Russell. Photo: Suellen Entwisle

Professor Russell said she hoped the project, funded by the Australian Research Council, would uncover the hidden history of Indigenous people.

Monash research fellow and cultural liaison officer Ms Diane Singh, a Monash graduate and elder in the Yorta Yorta community, is assisting Dr Graeme Johanson, from SIMS, in the interviewing process. Already, about 30 interviews have been conducted.

During the interviews, Indigenous representatives are asked a range of questions including whether stories fall into specific categories; whether there are differences between stories told by men and women and younger and older

people; how stories are told – spoken or in song; whether more stories are told during events such as funerals; whether family stories have been recorded in the past; and preferred methods of recording information.

Dr Johanson, who is director of the Centre for Community Networking Research within SIMS, said the project focused on the archival needs of Indigenous communities in Victoria but could be used as a model for the rest of Australia and internationally.

He said a final archive solution would be developed by SIMS head Professor Sue McKemmish and colleagues once all interviews were complete and the information had been analysed.

– Diane Squires

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Stellar prediction on Saturn's moon

Astronomy

The Cassini-Huygens spacecraft mission to Saturn has confirmed Monash astronomer Dr Andrew Prentice's prediction for the chemical composition and density of Saturn's outermost moon, Phoebe.

On 11 June this year, NASA's Cassini-Huygens spacecraft paid the first close-up visit of any space probe to Saturn's outermost orbiting satellite, Phoebe, measuring the moon's mass and chemical composition from a distance of 2000 km. Both Saturn and Phoebe are more than one billion kilometres from Earth.

Two weeks later, the Cassini Project, managed by the NASA Jet Propulsion Laboratory in Pasadena, announced the discovery of large-scale deposits of carbon dioxide on Phoebe's surface and a mean density for this ancient, battered moon of 1.6 grams per cubic centimetre.

Prior to these discoveries, Dr Prentice, a reader in the School of Mathematical Sciences, had predicted three different chemical compositions and mean densities for Phoebe based on his controversial Laplacian theory of Solar System origin. This theory proposes that when the Sun first formed, it was a huge swirling cloud of gas and dust (the primitive solar cloud). When this cloud contracted inwards to form the present Sun, it cast off a concentric family of orbiting gas rings. The planets later condensed from these rings.

It was Dr Prentice's third prediction for Phoebe – that it originated beyond the orbit of Neptune as a 'first cousin' of the main Kuiper belt object Quaoar – that proved correct. The Kuiper belt is a large ring of icy, primitive objects.

"Three possible compositional models for Phoebe needed to be considered, as no one knew exactly where this moon originated," Dr Prentice said.

"Unlike Saturn's other main satellites, which all revolve on circular orbits close to the planet and in the same common direction as defined by the planet's own spin, Phoebe is unusual. Its orbit is highly eccentric and the moon also goes around the planet in the opposite direction. This suggests that Phoebe

is a captured body, rather than being a native moon of Saturn."

Dr Prentice's three predictions for Phoebe's origin – that it condensed at Saturn's distance from the sun, that it was a left-over planetary building block from Neptune's orbit, or that Phoebe was a 'first cousin' of Quaoar – all accounted for the moon's unusual orbit.

But the Cassini spacecraft measurements indicated that the moon contained a large quantity of carbon dioxide ice, as well as rock, water ice and graphite. Both the



Phoebe prediction confirmed: Dr Andrew Prentice.

Photo: Greg Ford

Neptunian and Kuiper belt origins proposed for Phoebe account for these measurements. And both models just meet the lower limit on Phoebe's observed density.

But when Dr Prentice proposed the Kuiper Belt origin, he noted that the planetary building blocks that condensed from the primitive solar cloud would also contain 3.4 per cent, by mass, of pure methane ice. He figured the relocation of Phoebe from the frigid world of Quaoar to the warm environment of Saturn would cause the loss of all surface methane ice.

"Since methane ice is a very light substance, the loss of all such ice from Phoebe's chemical inventory would cause the mean density to rise from 1.5 to 1.6 grams per cubic centimetre," Dr Prentice said. "This was the very value found by Cassini."

– Penny Fannin

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