



## New hope to slow algal bloom

### WATER STUDIES

The risk of algal blooms could be reduced by the addition of a common mineral to water bodies, Monash University research has shown.

Scientists from the university's Water Studies Centre (WSC) have been investigating whether calcite (calcium carbonate) is an effective barrier for slowing the release of nutrients, particularly phosphorus, into the water column. Algal cells thrive in phosphorus-rich waters, using the nutrient to become more abundant – a process that leads to algal blooms.

Professor Barry Hart, Dr Simon Roberts and colleagues from the WSC found that adding some fine, precipitated forms of calcite to the water was effective

### Mineral may keep urban lakes free of blooms, say researchers

in reducing the release of phosphorus from sediments in urban lakes.

They took sediment cores from Lake Carramar, a small urban lake in Melbourne, to determine how much phosphorus was present and then measured the amount of phosphorus that was released from the cores with and without a calcite barrier.

Their research was published in the *Australian Journal of Chemistry* in March.

Algal blooms occur about once a year in Lake Carramar, which is one of three inter-connecting, man-made lakes that

form part of the Patterson Lakes system in the Melbourne suburb of Carrum Downs. In some years, algal blooms have led to the lake being closed.

Algal blooms frequently occur in water bodies where the water is clear, still and receives a lot of sunlight, Dr Roberts said. In water bodies where the sediment is oxygen-rich, the phosphorus present binds to iron oxides. But when oxygen levels are low, phosphorus is released and used by algal cells, often leading to an algal bloom.

Professor Hart said the WSC

research showed that when the water was oxygen-poor, the sediments of Lake Carramar released phosphorus and other nutrients, although there was a delay of between four and 12 days before substantial amounts of phosphorus were released.

The phosphorus in the water body could come from sediment or from nutrient-laden inflows such as urban stormwater or residential run-off, he said.

"Usually, the algal bloom occurs within days to weeks of the phosphorus being released. But our research indicates that a thin layer of precipitated calcite can prevent phosphorus being released from sediments for a year or more."

Dr Roberts said that in water bodies where nutrient inflows from external

sources such as stormwater was small, calcite barrier materials should have a beneficial effect on the water body by reducing the release of sediment-associated nutrients, and thereby reducing the risk that cyanobacterial (blue-green) blooms will occur.

"However, it is also possible that the addition of an active barrier material such as calcite to the sediments could result in adverse ecological effects," he said.

The WSC team has developed a method for assessing the risk that such unwanted ecological effects might occur.

– Penny Fannin

**CONTACT:**  
barry.hart@sci.monash.edu.au  
Ph: +61 3 9905 4070

## INSIDE

www.monash.edu.au/news

### NEWS

#### New dean has a vision for faculty's future

The newly appointed dean of Engineering at Monash, Professor Tam Sridhar, says he would like to see more links established between the teaching and research strengths of engineering, science, medicine and IT across the university.

Page 2

### NEWS

#### Doctors failing to diagnose fatal disease

A common cause of death in older Australians is often not recognised by doctors, Monash researchers have found.

Page 3

### OPINION

#### Trade unions are counting on women

Women's trade union membership, which had appeared pivotal to slowing the decline in union membership in the workforce, has once again dropped.

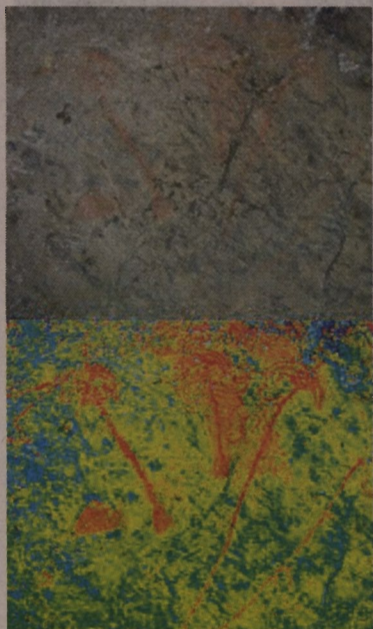
Page 5

### BOOKS

#### The punishment must fit the corporate crime

Judges must be given tougher sentencing powers if corporate prosecutions are to be effective, says a new book co-written by Monash senior lecturer in law Jonathan Clough.

Page 7



**Appearing images:** The image of a man climbing a tree became visible after photos of a rock wall on the Torres Strait island of Mua were digitally enhanced.



**Rock art:** Mualgal elder Father John Manas examines the rock wall where paintings depicting a popular oral tradition remained hidden for years.

## Hidden art adds colour to a well-told story

### ARCHAEOLOGY

A popular oral tradition, passed down through generations of an Indigenous community, has been given new life after Monash University archaeologists discovered hidden rock paintings depicting the story.

Dr Bruno David and Dr Ian McNiven, from the School of Geography and Environmental Science in the Faculty of Arts, were approached by elders of the Mualgal Native Title Group to identify when people first used the area at Turao Kula – a large granite boulder on the island of Mua in the Torres Strait, on the northern tip of Australia.

Turao Kula provides an overhang, capable of sheltering small numbers of people. The rock shelter contains evidence of past occupation at the site in the form of stone tools and

food refuse dating back 1000 years.

Dr David and Dr McNiven, working with Monash PhD students Mr Joe Crouch and Mr Liam Brady and representatives of the Mua Island community, mapped the items and took sediment samples. They also photographed the walls of the rock shelter as part of the excavation work.

"At the time, we were interested in recording the rock paintings as part of a larger program studying the paintings of Torres Strait," Dr David said. "But at Turao Kula, the rock art was very faded, and we couldn't tell what the original paintings looked like."

"We digitally enhanced the photos of the barely visible traces of red ochre on the walls, and there appeared a sharp image of a person climbing a tree, as told in the Goba story."

The team excavated immediately beneath the painted wall and found

a thin layer of ochre powder from the time when the paintings were done. A carbon date from charcoal next to the ochre dates this layer – and therefore most likely the painting – to shortly before the arrival of the missionaries on the island in the 1880s.

This is precisely the time that oral tradition says the events of the Goba story took place.

The oral tradition tells of a man and his young son Goba, who went fishing to Imusulai on the western coast of the island. While fishing, they were watched by members of a warring party from the nearby island of Badu. After filling their basket with fish, Goba and his father began the journey home but stopped at the spring, Uma. The father told Goba that if they were attacked, Goba should climb a tree and hide. Soon after, the father saw movement nearby and told Goba to

run. Goba watched from a nearby tree as the men killed his father.

The story is told regularly in the local community, and Goba's father's grave is a prominent landmark near Uma. However, islanders did not know of the paintings' existence prior to the excavations. On completion of the research last year, the elders and descendants of Goba held a traditional ceremony commemorating both the site and Islander history.

Ms Louise Manas, chairperson of the Mualgal Native Title Group, said the celebration of the Goba story was a symbol of the close relations her community had formed with the archaeologists.

– Diane Squires

**CONTACT:**  
bruno.david@arts.monash.edu.au  
Ph: +61 3 9905 2938  
www.arts.monash.edu.au/ges/arch/



# Women judges boost court, says Cherie Booth

## LAW

The recent election of seven women judges out of a total of 18 to the International Criminal Court was an important milestone for the court's legitimacy and success, according to Ms Cherie Booth QC, wife of the British Prime Minister Mr Tony Blair.

Speaking at the 13th International Law Conference in Melbourne last month, Ms Booth said the number of women ICC judges set a new record among international courts and tribunals, and their presence would be particularly significant in cases involving crimes of sexual violence during a conflict.

Ms Booth's lecture, titled 'The International Criminal Court: instrument for peace or punishment?', was jointly hosted by Monash University's



**Court praise:** (From left) Ms Cherie Booth QC, dean of Law Professor Stephen Parker and director of the Castan Centre Professor David Kinley.

Castan Centre for Human Rights Law and the legal firm of Mallesons Stephen Jaques.

Almost 500 lawyers and academics heard Ms Booth talk about the benefits

the women judges would bring to the ICC when it came to the prosecution of gender-based and sex-based crimes.

"At an international level, it is only in relatively recent times that sexual

violence against women in armed conflict has come to be regarded as an important issue in serious need of redress," she said.

The ICC was formed as a permanent international criminal court following earlier tribunals to prosecute genocide and violations of humanitarian law in the former Yugoslavia and in Rwanda.

Ms Booth has appeared in the European Court of Justice and in Commonwealth jurisdictions and has sat as an international arbitrator. She is also involved in the promotion of human rights through her position as a Fellow of the International Society of Lawyers for Public Service.

— Robyn Anns

**CONTACT:**  
monashnews@adm.monash.edu.au

## IN BRIEF

### Federation Fellow to boost climate research

World-renowned climate change scientist Professor Amanda Lynch has been awarded a highly prestigious Federation Fellowship to undertake scientific research in Monash University's School of Geography and Environmental Science.

Professor Lynch, an Australian who is currently working at the Cooperative Institute for Research in Environmental Sciences at the University of Colorado, will take up the fellowship at Monash next year.

The Federation Fellowships are funded under the Australian Research Council's National Competitive Grants Program. They are already succeeding in attracting leading researchers to Australia to continue their groundbreaking work.

### Four Monash scholars win Fulbrights

Monash University academics and graduates have been awarded a notable share of this year's Fulbright Scholarships to undertake research and further their studies in the US. Of the 24 Australians to receive a Fulbright in 2003, four were from Monash.

Senior Fulbright scholarships went to Professor David Kinley, director of the Castan Centre for Human Rights Law, and Professor Gail Risbridger, director of the Centre for Urological Research based at Monash Medical Centre. Commerce and first class honours law graduate Mr Danny Rosen and geography and environmental science graduate Mr Elya Tagar received postgraduate scholarships.

Since its establishment in 1949, the Australian-American Fulbright program has provided scholarships to more than 2500 Australians.

### Men's health expert honoured

Leading Australian male reproductive health researcher Professor David de Kretser has been honoured with a Distinguished Andrologist Award from the American Society of Andrology.

Professor de Kretser, who is director of the Monash Institute of Reproduction and Development (MIRD), has dedicated more than 30 years of research to improving the understanding of male reproductive health, working in clinical practice, education and research.

In 1999, the Federal Government appointed him to head the Centre for Excellence in Male Reproductive Health, now known as Andrology Australia.

The award is an annual, international honour that acknowledges an exceptional career in andrological research.

### Saving water wins Monash an award

Monash University has won a state-wide award for innovation and achievement in conserving one of Australia's most precious resources — water.

The savewater? award for efficiency was presented to Monash for implementing measures that are set to achieve yearly savings of about 16 per cent in mains water usage at the Clayton campus.

Sponsored by the Victorian Department of Sustainability and Environment and various water authorities and suppliers, the awards recognise the water conservation initiatives of businesses, educational institutions and other government departments and agencies.

# New dean's vision for his faculty

## ENGINEERING

Taking engineering into new interdisciplinary areas while maintaining excellence in teaching and research are the key aims of Monash University's newly appointed dean of Engineering, Professor Tam Sridhar.

Professor Sridhar said he would like to see more links established between the teaching and research strengths of engineering, science, medicine and IT across the university.

"There will always be a need for civil and mechanical engineers, but these may not be areas of growth," he said.

"I would like to see the Faculty of Engineering become even more open to new partnerships. There is a huge body of talented people within the faculty, keen to take advantage of the collaborative opportunities that exist within Monash University and outside.

"The question we have to ask is what role do engineers play today and what will it be in the coming decades? In my view, their skills will be used as they have

always been — to address society's needs. But in the future, this is likely to be in newer areas and perhaps in collaboration with other specialists."

Professor Sridhar points to the recent appointment of the first chair of biotechnology within the Engineering faculty and the establishment of the National Centre for Advanced Cell Engineering. This, he says, is the way forward.

The new dean believes there are also good prospects for growth at the Monash campus in Malaysia, particularly in the fields of biomedical and petrochemical engineering. Any expansion, he said, would depend on the appointment of suitable staff who could produce the quality of teaching that Monash demanded.

Professor Sridhar's association with Monash stretches back to the 1970s when he arrived from India to study for his PhD. After being awarded his doctorate in 1978, he left Australia for the US and, in his words, "never expected to return". He was persuaded

### Looking ahead:

New dean of Engineering Professor Tam Sridhar is looking forward to taking the faculty into new disciplinary areas.

**Photo: Peter Anikijenko**

to rejoin the university in 1982 by the then foundation professor of chemical engineering, Owen Potter. He has been head of the Department of Chemical Engineering for the past 11 years.

He is one of a small number of Monash professors to be a member of two academies. He was elected a fellow of the Australian Academy of Technological Sciences and Engineering in 1995 and last year, he became only the second Monash engineer to be elected to the Australian Academy of Science.

He has an outstanding research

record in the fields of polymers and chemical reactors and intends to continue with that work despite the extra demands of his new role.

"I have the backing of the vice-chancellor to carry on with my research," he said. "I am very excited about taking on my new role and repositioning the Engineering faculty for the future."

— Richard Ewart

**CONTACT:**  
monashnews@adm.monash.edu.au

# Monash a family-friendly winner

## WORKPLACE

Monash University has joined the ranks of Australia's most family-friendly employers after winning ninth spot in a national survey to identify best practice in implementing flexible work strategies.

The benchmarking survey of 205 corporate and government organisations was conducted by the Sydney-based Managing Work/Life Balance consultancy.

Included in the top 25 employers were Australia Post, ANZ Banking

Group, Ford Motor Company, Nissan Motor Company, Australian Broadcasting Corporation, Australian Federal Police and the City of Melbourne.

Monash, which has about 6000 academic and general staff on eight campuses in Australia, Malaysia and South Africa, was the only university to score a top 25 spot.

Work Life and Family coordinator with Monash's Equity and Diversity Centre Ms Michelle Waters said more staff were using flexible work arrangements since the university launched its Work Life and Family Strategy in late 2000.

"There has been a 25 per cent increase in the uptake of a voluntary reduced working year, with the use of home-based work for general staff and job share arrangements also increasing," Ms Waters said. "And it's not just women who are taking advantage of the flexibility — men are making more use of these arrangements too."

"Managers are also reviewing work practices to make them more accessible to staff who want or need flexibility."

"The aim is to help staff balance the competing demands of work, life and family and enhance their effectiveness in the workplace."

She said the potential benefits for staff included control over working hours, flexibility to meet commitments, increased motivation and job satisfaction, opportunities for professional development, reduced stress and better quality of life.

For the university, the benefits range from retention of experienced staff, the ability to attract good staff, greater staff commitment and increased productivity to more budget flexibility, the fostering of a team approach, better workplace relations and increased flexibility in service delivery.

Training and information sessions for managers and staff to encourage a creative approach to managing and accessing flexible work arrangements are conducted throughout the year across the university's various campuses.

Monash also conducts a new parents' support group, which was introduced last year at the Clayton campus to support the increasing numbers of staff returning to work after parental leave.

— Michele Martin

**CONTACT:**  
michelle.waters@adm.monash.edu.au  
Ph: +61 3 9905 4635

Student Accommodation Available

## Bayview Conference Centre

10 minutes walk from Monash Clayton campus

Visit our new website:  
www.bayviewconferencecentre.com

### Bayview facilities include:

- 20 Meeting rooms that seat from 8 to 200 people
- Lecture theatre with 8 breakout rooms
- Bayview employed Chef and Kitchen staff
- Student accommodation available

Bayview Avenue, Clayton  
Tel: 9544 5933 Fax: 9544 1903  
Email: enquire@bviewcc.com.au



# Doctors failing to spot fatal disease

## MEDICINE

Chronic obstructive pulmonary disease (COPD) affects more than 7 per cent of middle-aged and older Australians but is poorly diagnosed by doctors, the first comprehensive study of the prevalence of the condition has found.

People are considered to have COPD when they have symptoms of either chronic bronchitis or emphysema. COPD is the fourth most common cause of death in Australians aged over 45.

Associate Professor Michael Abramson

and colleagues from Monash's Department of Epidemiology and Preventive Medicine (DEPM) are conducting a large-scale study into the disease in Australia.

In the first stage of the study, they interviewed and tested 1232 Victorians aged between 45 and 70 and found that only 23 per cent of people with COPD had been diagnosed by their doctor.

The results were presented at the Thoracic Society of Australia and New Zealand annual meeting in Adelaide last month. The National Health and Medical Research Council has funded the research.

Dr Abramson, deputy head of DEPM, said the study clearly showed that many doctors were failing to identify patients with the disease, making effective treatment of the condition difficult. "By and large COPD is an incurable condition. We can manage it, but the challenge is to prevent it," Dr Abramson said.

The symptoms of COPD include wheezing, coughing up phlegm, chest tightness and shortness of breath. People with the condition are more prone to chest infections and pneumonia, and

complications can lead to death.

Dr Abramson said the prevalence of the condition was such that its diagnosis and treatment should be as commonplace for doctors as identifying and treating people with asthma.

"Clinicians tend to think of asthma as a completely different disease from COPD, which includes chronic bronchitis and emphysema, but there are similarities between the three conditions," he said. "Even though we know quite a lot about the prevalence and risk factors for

asthma, we don't know as much about COPD.

"The major known cause of COPD is cigarette-smoking, which is thought to be responsible for 90 per cent of cases. But we are also investigating whether passive smoking, people's occupations or their diets are linked to the condition."

— Penny Fannin

**CONTACT:**  
michael.abramson@med.monash.edu.au  
Ph: +61 3 9903 0573

# Street cameras spreading – but do they work?

## CRIMINOLOGY

Closed circuit televisions (CCTV) are becoming a common surveillance tool on the streets of Australian towns and cities, but a joint survey by Monash and Melbourne universities has called into question their value as a crime-fighting tool.

Dr Dean Wilson, lecturer in criminology and criminal justice at Monash, and Dr Adam Sutton from Melbourne, evaluated the effectiveness of CCTV surveillance systems in Australian public spaces and found no conclusive evidence that they had reduced crime.

The evaluation, which was funded by the federal government's Canberra-based Criminology Research Council, surveyed local authorities using interviews and site visits. The research looked at technical aspects of the systems and where they were located and why, and intentions about future use.

Dr Wilson said there were currently 33 CCTV open street systems in operation across the country, nearly three times as many as seven years ago, even though there had been no research into their likely effectiveness.

"The average cost of a CCTV system is around \$250,000 plus annual running costs, so councils need to carefully consider what their likely impact will be before they go ahead," he said.

"For instance, one scheme in Sydney which targeted street-level drug dealing

just dispersed the problem elsewhere. Drug users were put at considerably greater personal risk because they were injecting in areas where they were less likely to find help if things went wrong. A scheme in Canberra also targeting drug dealers had a similar impact."

Dr Wilson has been asked by the Victorian government to draft state guidelines for the installation of CCTV systems. He said he would urge local authorities to follow the example of the Alice Springs Town Council, which had recently commissioned the researchers to conduct a full feasibility study before proceeding with the systems.

He wants councils to question the overall outcome of installing a system and not just whether it is technically viable.

In the case of Alice Springs, Dr Wilson found that putting cameras into Todd Mall was unlikely to solve the problem of persistent vandalism. His research suggested most incidents were spontaneous and drug or alcohol-related, and the presence of cameras would make little difference.

He was also concerned about the social impact the system would have on the local population. He argued that installing CCTV could drive away some groups in the community who already felt marginalised and who believed they would be targeted regardless of their behaviour.

The town council has yet to decide whether to accept Dr Wilson's findings.

Dr Wilson is also calling for greater



**Community under watch:** Security cameras are increasingly being used to keep an eye on activity in public places. Photo: Newspix

community consultation. "CCTV makes good headlines for politicians, but I think the public would rather see better street lighting and more police officers on the beat," he said.

In the future, Dr Wilson would like to conduct research inside CCTV control rooms to find out more about how camera operators make their decisions on who to watch.

"Anecdotal evidence would tend to suggest that a person's age, style of dress and ethnic background could decide whether or not cameras are focused on them," he said.

— Richard Ewart

**CONTACT:**  
dean.wilson@arts.monash.edu.au  
Ph: +61 3 9903 1238

# Patch offers new block to chemicals

## PHARMACOLOGY

Atropine, a drug injected into people exposed to chemicals such as insecticides, may now be able to be delivered more effectively through a patch on the skin, Monash researchers have found.

The research has implications for farmers affected by insecticides who find themselves far from medical help, and for armed forces and civilians under threat of chemical warfare.

Atropine currently can be delivered only by injection, and multiple injections are usually required because they are effective for little more than two hours.

But Dr Robert Widdop, from the university's Department of Pharmacology, has been testing technology developed by Melbourne biotechnology company Vital Health Sciences that allows atropine to be administered to the body by patch or cream.

His research indicated that atropine cream, designed to be administered with an adhesive patch, was active for up to six hours after its first application.

"When people are poisoned with insecticides or other nerve agents such as sarin, it leads to a build up in the body of a neurotransmitter called acetylcholine," Dr Widdop said. "Acetylcholine is found naturally in the brain and nervous system and works by binding to receptors within body cells.

"But because insecticides cause a build up of acetylcholine, too much of it binds to the cell receptors and people experience a number of unwanted effects such as secretions in the lungs, dramatic drops in heart rate and convulsions, leading to unconsciousness and respiratory failure. If left untreated, they can die.

"Atropine is an effective treatment because it blocks one of the receptors on which acetylcholine works."

Dr Widdop said his studies indicated that atropine delivered via a patch was binding to the cell receptors to which acetylcholine usually binds. "It would be advantageous if there was a method of delivering atropine so that it was active in the body for several hours," he said.

"Although preliminary, the studies suggest that an atropine patch could be an effective and user-friendly alternative to atropine injections."

— Penny Fannin

**CONTACT:**  
robert.widdop@med.monash.edu.au  
Ph: +61 3 9905 4858

# Tiny sea creatures found in mine rocks

## BIOLOGICAL SCIENCE

Tiny fossils of primitive sea algae about 500 million years old have been discovered by a senior technical officer from Monash's School of Biological Sciences, in an area of Victoria where fossils are extremely rare.

Mr Ian Stewart said his find of microfossils, known as acritarchs, in rock samples from the Stawell Gold Mine, 240 km west of Melbourne, was significant because no fossils had previously been found in rocks in the area.

"The discovery helps confirm fission track-dating for these rocks, which is important for mapping gold-bearing deposits and predicting where gold may be found," Mr Stewart said.

Acritarchs, so small they cannot be seen by the naked eye, are thought to be the remains of microscopic marine algae that lived in warm tropical and sub-tropical seas.

Around the time they were deposited in the rocks at Stawell, the area was part of a volcanic island located near the equator.

"When I first examined thin slices of the Stawell rock under the microscope, I had no

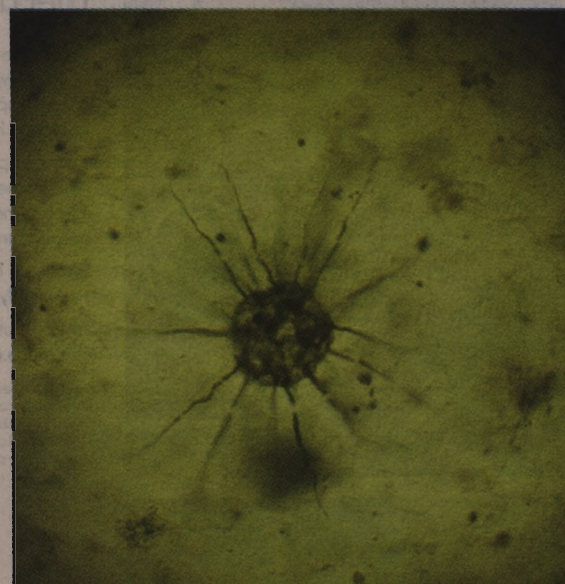
idea what I would find," said Mr Stewart. "It was exciting to see the acritarchs, because fossils like this hadn't been discovered before in the older rocks in this part of western Victoria.

"The species I found have hollow, spherical bodies with prominent radiating spines. Some show a characteristic split, leading to the theory that acritarchs may have been reproductive structures containing spores that would have created a split when released. So far I've identified five species and hope to find even more after examining further rock samples from the mine."

Mr Stewart has been researching microfossils for many years and is often given rock samples to examine because of his known expertise in the area. He was given the Stawell samples by Dr Rick Squire of Melbourne University's Earth Sciences school, who is mapping structural geology at the Stawell Gold Mine.

— Michele Martin

**CONTACT:**  
ian.stewart@sci.monash.edu.au  
Ph: +61 3 9905 5615



**Tracking time:** The discovery of microfossils in rock samples from the Stawell area will help predict where gold may be found.



# Flexible learning for developmental disability program

## PSYCHIATRY

Psychiatrists, general practitioners and health workers around the world will soon be able to undertake study in the area of psychiatry of intellectual disability without leaving their workplace.

The world-first flexible learning program is a collaborative project between Monash University and King's College London.

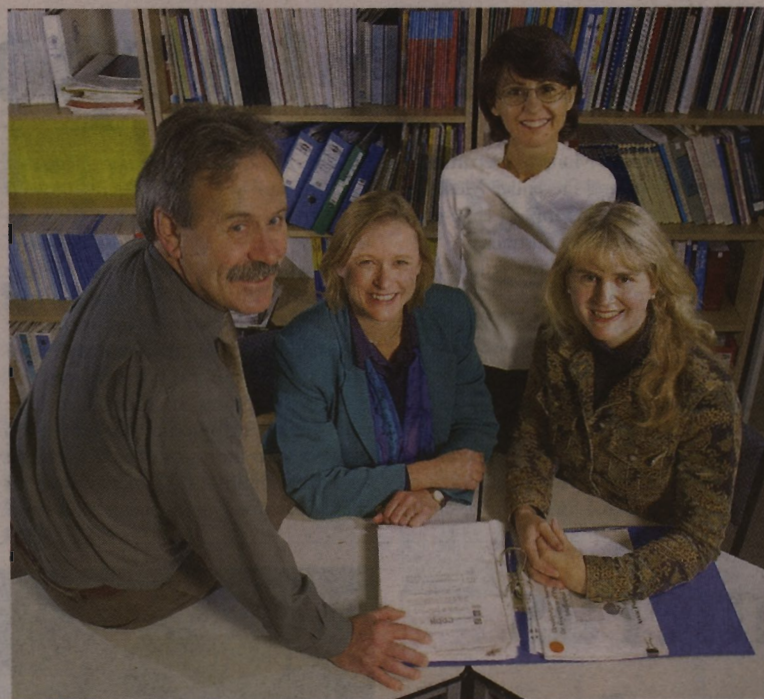
A grant from the Monash University Strategic Innovation Fund to support the project was awarded last year to the Centre for Developmental Disability Health Victoria (CDDHV).

CDDHV is working in collaboration with the School of Psychology, Psychiatry and Psychological Medicine at Monash and St Thomas' Medical School at King's College London to develop the program.

CDDHV senior lecturer and consultant psychiatrist Dr Jenny Torr, who is leading the project, said there was an urgent need to help practitioners worldwide improve the mental health care of people with intellectual disabilities.

"Mental health problems are more prevalent in people with intellectual disability, but often these remain unrecognised and undiagnosed, resulting in increased individual suffering, carer burden and costs to the community," she said. "The new program will help us by providing psychiatrists, other medical practitioners and clinical psychologists with flexible specialist training in intellectual disability psychiatry."

"Participants will also benefit from world-renowned educational expertise as well as professional links to major geographical areas including the UK,



Europe, the Middle East and South East Asia."

The World Psychiatric Association has expressed its interest in being involved in the development of the program, which is expected to be operational by March 2005.

The program is just one of a range of major projects being undertaken

by CDDHV, which is leading the way in education and research into the health care needs of adults with developmental disabilities.

Set up in 1998, CDDHV is a joint initiative of the departments of general practice at Monash and the University of Melbourne, and is funded by the Victorian

**Breaking new ground:** Members of the CDDHV team headed by Associate Professor Robert Davis (left), with education director Dr Jane Tracy, research director Dr Teresa Iacono and senior lecturer and consultant psychiatrist Dr Jenny Torr.

Department of Human Services.

The centre's director, Associate Professor Robert Davis, said that about 2 per cent of Australians had a developmental disability, and the centre's focus was on advancing and improving the quality of health care available for this group of people.

To help facilitate this, undergraduate teaching material developed by the centre has been incorporated into medical courses at both Monash and Melbourne universities.

CDDHV also offers medical practitioners and health care professionals a range of short courses, including an off-campus program for general practitioners focusing on the medical aspects of developmental disability.

— Karen Stichtenoth

**CONTACT:**  
faye.alphonso@med.monash.edu.au  
Ph: +61 3 9564 7511

# Third-year student first winner of Indigenous law scholarship

## LAW

Third-year Monash University law student Ms Jeanette Vaha'akolo is the first recipient of the Arnold Bloch Liebler (ABL) Australian Indigenous Law Student Scholarship.

The ABL scholarship, founded in partnership with Monash University's Castan Centre for Human Rights Law and the Centre for Australian Indigenous Studies (CAIS), assists an Australian Indigenous person to enter or continue studies with Monash's Law faculty by covering the costs of the Higher Education Contribution Scheme.

Ms Vaha'akolo, a 36-year-old mother of two and a member of the Yorta Yorta community, said winning the scholarship was a huge thrill and would enable her to finish her law degree.

"I made the decision to study law at Monash a couple of years ago, partly for my own career development but primarily to assist Aboriginals in relation to equal opportunity. I would like to make a real difference for my people," she said.

Ms Vaha'akolo, who is studying full-time, is on leave from her job as coordinator of Indigenous Programs at Victoria's Equal Opportunity Commission until she completes her degree in mid-2005.

Director of the Castan Centre Professor David Kinley said the ABL scholarship represented an early step in the centre's longer-term goal of

improving the availability of legal education not just to Indigenous Australians but also to other groups in the community who have been under-represented in the practice of law.

"The practice of law in general, and human rights law in particular, can only be strengthened by improving the access to legal training of all groups in Australian society and especially Indigenous Australians," Professor Kinley said.

Professor Lynette Russell, chair of Australian Indigenous studies and director of Monash Aboriginal Programs, described the scholarship as an exciting initiative that combined philanthropic motives and corporate responsibility.

"Arnold Bloch Liebler is to be congratulated on their commitment to social justice and Aboriginal reconciliation. Jeanette Vaha'akolo is someone who epitomises the spirit of the Aboriginal community," she said.

ABL Partner Mr Peter Seidel said the firm was proud to offer the scholarship to Ms Vaha'akolo.

"Ms Vaha'akolo has already made a strong contribution to her people and will undoubtedly make a significant contribution to the practice of law in Australia," he said.

— Karen Stichtenoth

**CONTACT:**  
thomas.davis@law.monash.edu.au  
Ph: +61 3 9905 3386



**Making a difference:** Ms Jeanette Vaha'akolo, first winner of the ABL Australian Indigenous Law Student Scholarship.

## SCHOOLS

### Teachers' seminar

The Monash Teachers' Seminar will be held on Thursday 12 June at the Clayton campus. All careers and Year 12 coordinators are welcome to attend this university-wide event. Programs and booking forms will be sent to schools this month. For more information, contact Ms Val Foster on +61 3 9905 4164.

### At Monash Seminar Series open for registration

The At Monash Seminar Series provides senior secondary students with the opportunity to explore Monash faculties more carefully. Faculty representatives, graduates and current university students will be on hand to provide information at each of the seminars, which are aimed primarily at Year 11 and 12 students.

#### Education and Nursing

Tuesday 13 May, 7.30 pm to 9 pm, George Jenkins Theatre, Peninsula campus.

#### Engineering and Information Technology

Tuesday 20 May, 7.30 pm to 9 pm, Robert Blackwood Concert Hall, Clayton campus.

#### Pharmacy and related sciences

Thursday 22 May, 7.30 pm to 9 pm, Cossar Hall, Parkville campus.

#### Art and Design

Monday 26 May, 7.30 pm to 9 pm, Faculty of Art and Design Lecture Theatre, Caulfield campus.

#### Business and Economics and Law

Tuesday 27 May, 7.30 pm to 9 pm, Robert Blackwood Concert Hall, Clayton campus.

Bookings can be made online at [www.monash.edu.au/pso](http://www.monash.edu.au/pso) or contact the Prospective Students Office on +61 3 9905 4164.



## mecu car loans with a difference

A car loan from mecu offers free loan protection insurance\* because we care about the well-being of your family. We also offer comprehensive motor insurance and a free car search service to help you find the car that's right for you.

You can apply for a mecu car loan from the convenience of your home or office using our on-line loan application and if you're not sure how much you can afford to borrow, our online loan calculator can help you work this out.

Choose a car loan that not only provides value but protects your family as well.

To find out more contact us on 132 8388, or to apply online visit [mecu.com.au](http://mecu.com.au) today.

\*Variable interest rates from 6.99% p.a. effective 1st January 2003 and subject to change. Loans subject to normal lending criteria and approval. Fees and charges apply. Terms and conditions available on application. Interest rates expressed as annual percentage rates. MemberCare Loan Protection insurance is available for all eligible borrowers - your loan balance will be paid in full (up to \$10,000) in the event of your death.

**mecu**  
intelligent banking

## DO YOU WANT TO ADVERTISE?

For details on how to advertise in *Monash News*, call the Media Communications unit on **+61 3 9905 9314**

or email [monashnews@adm.monash.com.au](mailto:monashnews@adm.monash.com.au)



# Rebuilding the trade union – making women count



Photo: Newsplix

After an increase in trade union membership for two consecutive years, numbers again began to decline last year, according to Australian Bureau of Statistics figures. Monash researchers **Professor Carla Lipsig-Mummé, Dr Jennifer Curtin and Dr Ingrid Nielsen** take a closer look at the figures.

The Australian Bureau of Statistics' release of annual figures revealing a declining union membership in 2002 after two years of modest increases suggests there are a number of challenges facing the trade union movement in Australia.

In 1988, union density (trade union members as a proportion of all employees) was 41.6 per cent. The lowest point occurred in 1997–99, when density dropped from 30.3 per cent to 25.7 per cent. From this time on, although density has been slowly in decline, a modest rise in membership numbers was apparent. In 2002, however, recovery seemingly came to a halt – membership shrank by 69,000, and density dropped from 24.5 per cent to 23.1 per cent.

Is Australia unique in this trend? Throughout the developed world, trade union density has been dropping for at least a decade, but Australian decline has been abrupt and radical in comparison with the European Union, Canada and even the US, where the creative hostility to unionism of employers and legislation is notorious.

Behind the Australian statistics is a quieter story – women's trade union membership, which had appeared pivotal to slowing the decline in union membership, has once again dropped. Since 1992, women's trade union membership has declined at a slower rate than their male counterparts. Women's unionisation rates are now only 3 per cent behind those of

men, compared to an 8.6 per cent difference in 1992. And women represent 43 per cent of total union membership. In part-time jobs, which are being created faster than full-time jobs, the unionisation rates of women were on the rise until 2001, with only a modest drop (0.5 per cent) in 2002.

The number of women trade union members is now higher than the number of male union

**More than 405,000 new  
members will need to  
be organised in the next  
five years.**

members in the public sector, where the overall unionisation rate is 46.5 per cent. But the picture is uneven. Seven out of 10 Australian jobs are now in the fast-growing service sector. This sector is Jekyll/Hyde in its make-up, including the best and the worst of jobs where security and wages are concerned. Within this sector, from 1998 to 2001, the number of women trade unionists in the accommodation and restaurant industries rose by 32 per cent, only to fall back this year. In the personal services, the pattern is volatile: 1998–99 saw a 20 per cent increase; 1999–2000, a decline

of 22 per cent; 2000–2001, an increase of 50 per cent; 2001–2002, a 33 per cent decline.

But women remain pivotal to future union strength, for two reasons. First, there has been a feminisation of Australian employment patterns, in sectors and employment tenure. Women are clustered in service industries, and in part-time and casual employment. These are the fastest-growing sectors of the economy, and women are its heartland. Second, women's union membership has proven more resistant to free fall than has men's, partly because of the sector and type of their employment, but perhaps also because of changes in the culture of trade unionism. The union movement's experimentation with new forms of recruitment, the flexibility and creativity that potential members see in the union they encounter, is a far cry from the image and reality of unionism during the Hawke/Keating governments' Accord years and earlier. If this is not a feminisation of the culture of trade unionism, it is certainly more hospitable.

Perhaps more alarming for union strategists should be projections about how many new members will have to be organised to maintain current union density over the next five years. Based upon Australian Bureau of Statistics labour force projections and assuming a 6 per cent unemployment rate, the total number of employed persons is expected to increase to about 9.7 million by 2007. In other words, more than 405,000 new members will need to be organised

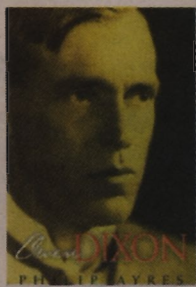
in the next five years to maintain overall union density at 23.1 per cent. This means more than 81,000 per year. For male employees, membership will need to increase by about 54,000 per year over the next five years to maintain the current density rate of 24.5 per cent, while for female employees, membership will need to increase by about 28,000 per year over the next five years to maintain the current density rate of 21.5 per cent.

Of course, these projections do not take account of the need to maintain the existing membership base. Thus, both recruitment and retention remain important for the long-term viability of the trade union movement in Australia, and the challenge is considerable.

*Professor Carla Lipsig-Mummé is research professor in Monash's School of Political and Social Inquiry and director of the university's Centre for Research on Work and Society in the Global Era (WAGE). Dr Jennifer Curtin lectures in Monash's School of Political and Social Inquiry and is a member of WAGE. Dr Ingrid Nielsen is a research fellow at WAGE.*

Monash News welcomes contributions for this column from Monash University academics. Contact the Media Communications unit on +61 3 9905 9314.



## Owen Dixon

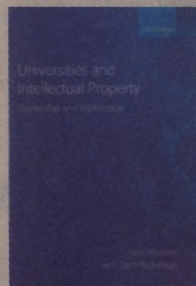
By Philip Ayres  
Published by The Miegunyah Press  
RRP: \$58.50

This is the first biography published of Australia's most eminent judge, Sir Owen Dixon (1886-1972).

Dixon sat on the High Court from 1929 to 1964 and was Chief Justice from 1952 to 1964. He also acted as Minister to Washington (Ambassador) from 1942 to 1944, at which time he was intimate with President Roosevelt, Harry Hopkins, Dean Acheson and other key people in the Roosevelt Administration. In the early 1950s, Dixon mediated on behalf of the UN in the dispute between India and Pakistan over Kashmir.

In this book, Philip Ayres focuses on Dixon's most interesting cases and his activities in wartime Washington. Through the use of Dixon's private papers, the author provides a strong sense of momentum and continuing drama.

Philip Ayres is associate professor of English literature in the School of Literary, Visual and Performance Studies at Monash University.



## Universities and Intellectual Property:

Ownership and Exploitation

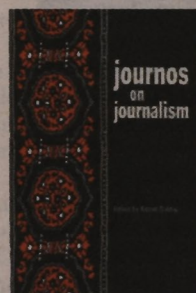
By Ann Monotti and Sam Ricketson  
Published by Oxford University Press

The vital role played by universities in producing creative and innovative products is becoming increasingly recognised both by policy-makers and the universities themselves.

Universities are now looking to tighten up their policies on intellectual property so as to maximise revenue, for instance through spin-off companies.

In *Universities and Intellectual Property*, the authors look at this issue in detail, both from a policy and a practical legal viewpoint, drawing on research covering universities in Australia, the UK and the US.

Ann Monotti is a senior lecturer in the Faculty of Law at Monash University and spent many years as a barrister and solicitor of the Supreme Court of Victoria. Sam Ricketson is professor of law at the University of Melbourne and also practises as a barrister in Melbourne.



## Journo on Journalism

Edited by Kamal Siddiqi  
Published by CeLTS, Monash University  
RRP: \$10

*Journo on Journalism* offers an insight look into the world, work and careers of journalists.

The book, written by academics as well as working journalists from a variety of organisations including SBS, *The New York Times*, the ABC and

*The Guardian*, talks about both the joys and sorrows of the profession.

While the book is aimed at journalism students, it will appeal to anyone with an interest in the media communications industry.

Kamal Siddiqi is a journalism lecturer in the School of Humanities, Communications and Social Sciences at Monash University.

## POSTscript

The work of renowned historian Geoffrey Blainey comes under scrutiny in *The Fuss That Never Ended: The Life and Work of Geoffrey Blainey*. One of the first men to write about Australia's social history before 1788, Blainey has continually challenged the academic history profession. In *The Fuss That Never Ended*, fellow historians assess Blainey's remarkable and often controversial career. The book includes chapters by Professor Graeme Davison, professor and former head of the School of Historical Studies at Monash, and Professor Andrew Markus, director of Jewish Studies in the School of Historical Studies, also at Monash.

If you are a member of the Monash community and have a forthcoming book, contact [monashnews@adm.monash.edu.au](mailto:monashnews@adm.monash.edu.au).

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

• CITSU (Caulfield) +61 3 9571 3277 • Clayton +61 3 9905 3111

• Gippsland +61 3 5122 1771 • Peninsula +61 3 9783 6932

[www.monash.edu.au](http://www.monash.edu.au)

# Making the punishment fit the corporate crime

## REVIEW

### The Prosecution of Corporations

By Jonathan Clough and Carmel Mulhern

Published by Oxford University Press

RRP: \$75

Judges must be given tougher and more varied sentencing powers, if corporate prosecutions are to be effective. This is one of the central conclusions of *The Prosecution of Corporations*, co-written by Mr Jonathan Clough, senior lecturer in law at Monash University, and Ms Carmel Mulhern, general counsel in finance and administration with Telstra.

To illustrate this point, the book cites the case against Esso Australia after the Longford gas explosion in September 1998. The blast killed two workers and cut Victoria's gas supply for nearly two weeks. Three years later, Esso was found criminally liable for the incident by the Victorian Supreme Court and fined \$2 million, a record for a workplace offence in Australia. But the authors point out that the figure pales into insignificance compared with the reported net income of US\$18 billion for the year by Esso's parent company, Exxon Mobil Corp.

In corporate cases, a sentencing judge will often be limited to imposing a fine, the book notes. The authors suggest this situation is unacceptable and that there is an urgent need for sentencing legislation to be directed specifically at corporate offenders.

One sentencing option is corporate probation, where the court imposes conditions on the company. These conditions may require the company to change its internal processes to help ensure it does not reoffend. They can also be used to ensure the company repairs the damage it has caused. For example, where a company has caused environmental damage, such an order could compel it to take full responsibility for the clean up.

Another possible sanction is an adverse publicity order, where a corporation would be compelled to place advertisements publicising the result of the case against it.

"Companies are quick to make publicity work for them. We saw this recently with Caltex taking out a series of ads stating it was 'not guilty' after the ACCC dropped investigations into



**Call for tougher power:** Mr Jonathan Clough argues sentencing legislation needs to be directed specifically at corporate offenders.

alleged breaches of the Trade Practices Act," Mr Clough said. "An adverse publicity order would make sure that the public was made equally aware when a corporation is found guilty of a criminal offence."

*The Prosecution of Corporations* also addresses the reasons for prosecuting corporations in addition to, or instead of, individual officers of the company.

"In many cases, it is very difficult to isolate one person within a company who could be held criminally responsible. There is often a more general problem with the company's internal structures," Mr Clough said. "In those cases, prosecuting an individual may do nothing to change the culture of the corporation. It may, therefore, be appropriate to prosecute the corporation itself."

The book argues that the law governing corporate prosecutions in Australia is often unclear and calls for greater consistency.

"This is the first book to comprehensively examine the law of corporate prosecutions and sentencing in Australia," Mr Clough said. "While it is primarily aimed at legal practitioners and academics, company officers will also find it helpful in understanding the potential criminal liability of their corporations."

— Richard Ewart

**CONTACT:**  
[jonathan.clough@law.monash.edu.au](mailto:jonathan.clough@law.monash.edu.au)  
Ph: +61 3 9905 3391

## Gilbert and Sullivan double bill

Two of Gilbert and Sullivan's most popular works – *HMS Pinafore* and *Trial by Jury* – return to the stage this month in a lavish production presented by the Savoy Opera Company at Monash University.

The Alexander Theatre will host five evening performances beginning on 8 May, with one matinee scheduled for 17 May.

Ms Reaney-Ludowyk and Ms Stee Dixon direct the shows, which are accompanied by a 28-piece orchestra. The musical director is Mr Brian Clough.

Formed in 1943, Savoy Opera is a Melbourne-based company that specialises in the production of the complete repertoire of Gilbert and Sullivan.

It is well known for its 'superb casting, inspired direction, striking costumes, high-quality sets and a dedication to

perfection', according to Savoy Company president Mr Jeremy St John.

"To mark our opening season at the Alexander Theatre, we are presenting a star-filled cast to entertain theatregoers with not one, but two all-time favourites, jam-packed with boisterousness, good fun, colour, romance, jilted lovers, deception, betrayal and happy endings," he said.

The first half of the production features *Trial by Jury*. Set in a courtroom, the hijinks begin as the bride sues her reluctant groom for breach of promise. The 'dramatic cantata', as it was originally billed, consists of only one act and contains no spoken dialogue. "Its brevity, wit, satire on the legal system and its utter silliness ensures its continuing popularity," Mr St John said.

In *HMS Pinafore*, W. S. Gilbert satirises the snobbery and hypocrisy

of the English social system of his day. The story revolves around a lowly able seaman named Ralph, who has fallen in love with Josephine, his captain's daughter. Josephine, however, has been pledged by her father to Sir Joseph Porter, First Lord of the Admiralty.

A highlight for the evening is the finale of *HMS Pinafore* when the entire cast appears on stage to sing a rousing rendition of 'Rule Britannia'.

— Karen Stichtenoth

### Show Notes:

**What:** Gilbert and Sullivan's *HMS Pinafore* and *Trial by Jury*  
**When:** 8, 9, 10, 16 and 17 May, 8 pm; matinee 17 May, 2 pm  
**Where:** Alexander Theatre, Clayton campus  
**Who:** For bookings, contact the Monash Box Office on +61 3 9905 1111





## Award-winning ideas in design

Monash University visual communications students have won two of three design awards presented at the 2003 AGIdeas international design conference, held in Melbourne recently.

The conference, hosted by the Melbourne-based Design Foundation, is one of the world's leading design events, attracting more than 2000 young designers from Australia, New Zealand, Taiwan, Singapore and Argentina.

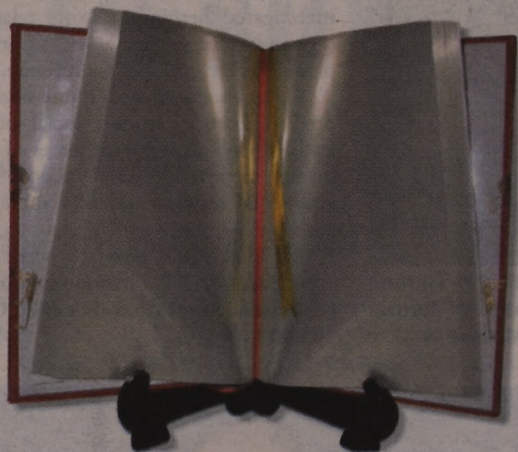
The awards are intended to help student or professional designers undertake residencies or attend conferences overseas.

**Blank page:** Ms Jacinta Sullivan won an internship with Benetton's design company in Italy for her blank acetate book titled *Oscar*.

Third-year student Ms Jacinta Sullivan won the Fabrica Award to take up an internship at Benetton's design company, Fabrica, in the Italian medieval town of Catena di Villorba. Ms Evendrani Sayumya, also a third-year student, won the i-D Magazine Award to undertake a residency at the magazine's London

office with leading graphic designer Terry Jones.

Entrants were judged on their artistic response – in either 2D, 3D or multimedia format – to a quote by US designer Tibor Kalman: "Design is two things: invention and styling. We need a lot more of the former and a lot less of the latter."



**Simple elegance:** Ms Evendrani Sayumya uses pencil shavings to portray ballet dancers in her award winning work.

Ms Sullivan described her winning design as an A5 book with clear acetate pages and an elaborate gold jacket, embossed with a collage of Roman crests and classical images of beauty and excess: "The book plays on the idea of surface and superficiality, with its empty pages, devoid of text except for one wry quote by Oscar Wilde: 'I can resist anything except temptation'."

Ms Sayumya said her design, which won both the 2D and 3D awards, uses "an image of discarded pencil shavings in the form of dancers, to represent simplicity and clarity while giving a nod to the influence of English typographer Alan Fletcher".

– Nicola Vance



**Utopia:** Mr Shaun Wilson uses a diorama of a Swiss village to represent utopia in his *Nextworlds* exhibition.

## Miniature worlds reflect a parallel universe

Tasmanian-based artist, curator and writer Mr Shaun Wilson takes the audience into a miniature parallel universe in his provocative *Nextworlds* exhibition, on show at Monash's Switchback Gallery in Gippsland until 22 May.

In the exhibition, Mr Wilson invites us to glimpse a tiny parallel universe depicting contrasting Western utopian and war-ravaged landscapes.

The main work in the exhibition, 'Hundreds of Miniatures', is a recreation of a civic war zone. It reflects

the current political situation in Iraq and, in particular, makes reference to 'Thunder Road', the phrase used by the US army to describe its advance into Baghdad.

Using a small video camera, viewers are able to interact with the work by producing their own commentary and images of the miniature war, which are projected on to a television monitor.

For his Western utopian scenes, Mr Wilson has constructed a series of wall-based dioramas representing

western notions of peace, harmony and tranquillity.

Through the two parallel worlds, the artist examines the role of social and political commentary and people's perceptions of such commentary.

"The exhibition aims to encourage the viewer to engage with the artwork – it is an exploration of the way in which we perceive events through the media," he said.

"An image can sell a thousand newspapers. It's up to the viewer how they interpret an image and what

propaganda or visual tools they wish to believe."

– Nicola Vance

### Show Notes

**What:** *Nextworlds*  
**When:** Until 22 May  
**Where:** Switchback Gallery, Gippsland Centre for Art and Design, Gippsland campus  
**For more information, contact Ms Julie Adams on +61 3 9902 6261 or email julie.adams@artdes.monash.edu.au.**

### IN BRIEF

#### Postgraduate students' research exhibitions

The Faculty Gallery, in Monash's Faculty of Art and Design at Caulfield campus, is holding three consecutive research exhibitions by postgraduate students during May.

Ms Greer Honeywill, a PhD candidate in fine art, set the ball rolling with her solo exhibition of sculpture, installation and sound work, *Colours of the Kitchen Cabinet*.

A group exhibition of new works by masters students with links to various Australian art and design institutions will be on display until 17 May. Artists include Andrew Hill, Josie Telfer, Jenny Kamp and Cressida Collette.

The final exhibition in the trilogy runs from 19 to 24 May and comprises works by current masters students including Megan Campbell, Shirley Cass, Emily McIntosh, Mark Mistic and one of the faculty's current lecturers in multimedia and digital arts, Matthew Perkins.

Contact the gallery for more details on +61 3 9903 2707.

#### Lunchtime artist talks at Caulfield

Monash University's Faculty of Art and Design continues its tradition of weekly floor talks by local and visiting international artists and designers during May.

This free schedule of informal discussions and visual presentations takes place in the faculty's lecture theatre at Caulfield campus, with lectures commencing at 12.30 pm. Confirmed artists and dates are:

- 14 May – sculptor and public artist Adrian Mauriks
- 21 May – visiting UK jeweller Mah Rana
- 28 May – Jarod Rawlins, Uplands Gallery, and Michael Graeve, WestSpace

For bookings or a calendar of events, contact the Faculty of Art and Design on +61 3 9903 2882.

#### Concerto concert

The Monash Chamber Orchestra will perform selections from the concerto repertoire on 15 and 17 May. The recitals, conducted by Dr David Kram, will feature some of Monash's most talented students from the School of Music – Conservatorium.

Performances will be held in the Music Auditorium, Performing Arts Centre, at Clayton campus at 1.10 pm on Thursday 15 May and at 8 pm on Saturday 17 May.

For information and bookings, contact +61 3 9905 1111.

#### World of art in the spotlight

Award-winning filmmaker Ms Fiona Macdonald will present her satirical take on the art world this month as part of the Lab Series hosted by Monash's School of Literary, Visual and Performance Studies.

Ms Macdonald has been a research fellow in the university's visual culture department for the past three years, during which time she used a computerised film editing suite at Monash to create her work, *Museum Emotions*.

She will present her film at 12 noon on 22 May in room S704, Menzies building, Clayton campus.

*Museum Emotions*, which was funded by the Australia Council, will also be presented in LA, New York and Europe this year.



# Counting the real cost of heroin



**High costs:** Mr Anthony Harris and Ms Elena Gospodarevskaya worked with the Turning Point Alcohol and Drug Centre on a report assessing the economic impact of heroin addiction in Victoria.  
Photo: Melissa Di Clero

## HEALTH

Heroin addiction costs Victoria \$845 million a year, with an estimated 27,000 Victorians dependent on the drug, a report by researchers at Monash's Centre for Health Program Evaluation and the Turning Point Alcohol and Drug Centre has found.

Senior lecturer Mr Anthony Harris and research fellow Ms Elena Gospodarevskaya co-authored the March 2003 report with researchers from the Turning Point Alcohol and Drug Centre.

Commissioned by the Premier's Drug Prevention Council, the report, titled 'What's the Deal? - the Cost of Heroin Use in Victoria', investigated heroin use costs related to health care and social services, social security, crime, the prison system and lost tax revenue.

Costs associated with crime were estimated at \$312 million per annum, social security benefits at \$244 million, with estimates of \$160 million for lost tax revenue, \$105 million for health care and social services and \$24 million for prison costs.

Mr Harris said estimates were based on the experiences of 282 Victorian heroin users. Totals per person ranged from about \$20,000 to around \$46,000 per year.

"Heroin costs Victoria more than any other illegal drug," Mr Harris said. "The report illustrates how high the social price is for the community and provides an incentive to do something to prevent dependence.

"Effective prevention programs are likely to represent value for money, but current investment in drug prevention is less than one per cent of the estimated community costs of heroin use.

"There is a social imperative to do something about dependence on heroin and other drugs, flowing from a concern for others and the opportunity to reduce the waste of resources due to crime and poor health."

The report also included case studies that illustrated the human cost of heroin addiction.

"Our economic analysis didn't measure the value of individual suffering or try to explain the reasons why people become heroin-dependent, but the case studies helped to highlight these aspects," Mr Harris said.

Copies of the report are available via [www.druginfo.adf.org.au](http://www.druginfo.adf.org.au).

- Michele Martin

## CONTACT:

[anthony.harris@buseco.monash.edu.au](mailto:anthony.harris@buseco.monash.edu.au)  
Ph: +61 3 9496 4417

## Debunking the myth about techno music and road rage

### PSYCHOLOGY

A commonly held belief that the type of music someone listens to while driving may influence their behaviour on the roads could prove to be a myth, according to a Monash University academic.

Dr Nikki Rickard, from the Department of Psychology, says her study on driving anger, based on answers from self-reporting questionnaires, initially pointed to fans of techno and rock music having significantly higher levels of driving anger than those who listened to classical music.

But further analysis, which took other factors known to predict driving anger into account, suggested that a link with music type was likely to be spurious, with a driver's tendency towards anger and anxiety as well as stress levels being considerably more powerful predictors.

However, Dr Rickard said it was not possible to be conclusive without further research. "The next step is to monitor people as they drive, using the simulator at the Monash University Accident Research Centre," she said.

"By measuring heart rate and arousal levels against different types of music, the speed of the music and the volume, it should

be possible to establish definitively if music is a causal factor in driver anger.

"If there is a link between music and driver behaviour, people need to know about it because road rage is such a significant social problem these days."

An application to fund a further study is currently being considered by the Australian Transport Safety Bureau. If the grant is approved, Dr Rickard plans to work with a research group of about 200 people - a mix of younger and older drivers, experienced and inexperienced.

The new research would involve asking a sample group of drivers to listen to certain types of music they wouldn't normally listen to while they were on the road.

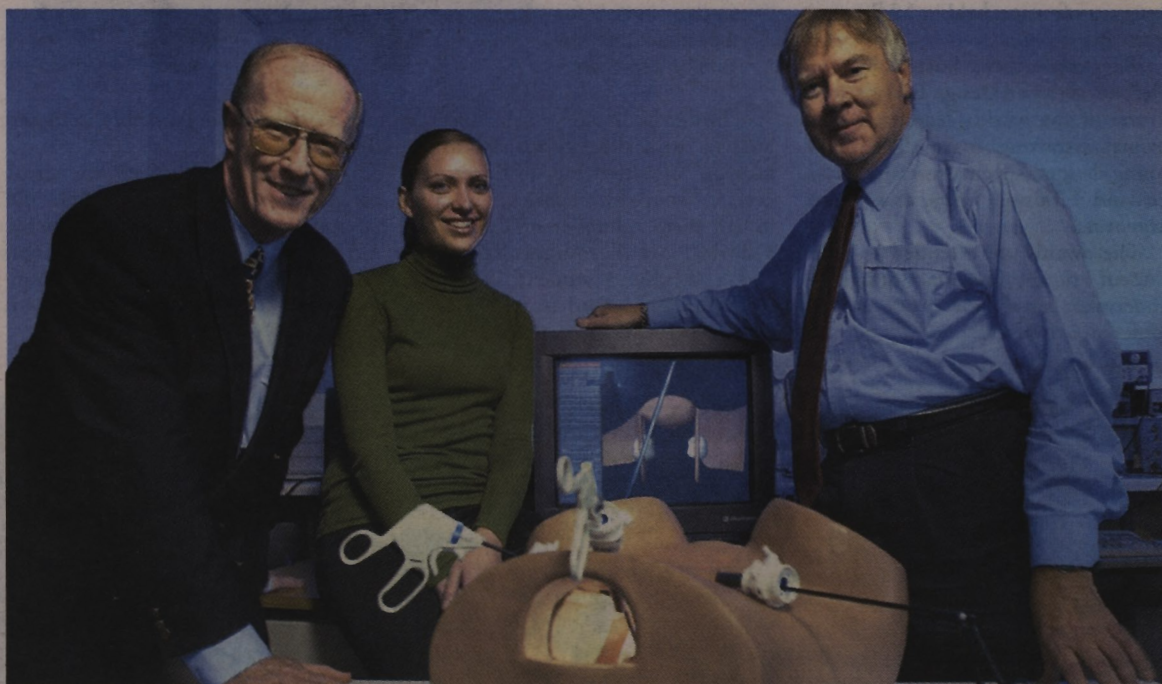
"Far from adding to driver stress, there is some evidence that a person listening to their music of choice, even techno or heavy metal, can experience some degree of stress release, but we need more research to confirm this," Dr Rickard said.

Anyone interested in taking part in Dr Rickard's future research should contact her directly.

- Richard Ewart

## CONTACT:

[nikki.rickard@med.monash.edu.au](mailto:nikki.rickard@med.monash.edu.au)  
Ph: +61 3 9903 2221



**Teaching technique:** Professor David Healy, Ms Zorana Mayooraan and Associate Professor Ian Brown are helping surgeons master keyhole techniques with their virtual reality simulator 'Kylie'.

Photo: Greg Ford

## Surgical simulator to set new standards

### MEDICINE

A virtual reality surgical simulator developed at Monash University could have a dramatic impact on safety standards and skill levels in hospitals around the world.

The simulator will enable surgeons to master keyhole techniques, which are being used for an increasing number of operations such as hysterectomies, tumour removal and the removal of ectopic pregnancies - procedures that previously required major surgical intervention.

Professor David Healy, head of Obstetrics and Gynaecology based at the Monash Medical Centre, Centre for Biomedical Engineering director Associate Professor Ian Brown, PhD student Ms Zorana Mayooraan and masters student Mr Cory Seligman have filed a patent to protect key aspects of the device.

The device, which has been nicknamed 'Kylie' because, says Professor Healy, "it is small, elegant, hi-tech and made in Melbourne", will allow surgeons to 'operate' on a 3D patient and work at a computer screen

in real time. "They will actually be able to feel the weight and texture of tissue and organs as they operate," he said.

Professor Brown said 'Kylie' was a great example of what Monash researchers could do when they worked together. "The simulator would not have been possible without the combined efforts of the engineering and medical faculties," he said.

"Now that we have a demonstration model and intellectual property protection for the simulator, we can press ahead in the search for venture capital."

The simulator's inventors are seeking the financial backing to further develop the device at an estimated cost of \$1 million to \$1.5 million. They believe this could prove to be a tiny figure when matched against the \$60 million currently paid annually in Victoria alone to meet insurance claims against public hospitals.

"Kylie' could help reduce those claims dramatically by producing surgeons who are better prepared and less likely to make mistakes," Professor Healy said. "Up until now, it hasn't been possible to test a specialist surgeon's competency before they go

into the operating theatre, but with the simulator we will be able to credential surgeons throughout their careers."

The current version simulates operations that proceed without complications, but the hope is that future models will test surgeons' skills when things go wrong.

"If you make the comparison with an aircraft simulator, at the moment 'Kylie' allows us to practise landing at Melbourne airport on a calm, sunny day. Eventually we want to be able to practise in a heavy storm," Professor Healy said.

The project has the support of Monash Commercial. Business development manager Dr David Lyster said the group had assisted the team in helping to identify ways to protect the intellectual property embodied in 'Kylie' and to identify potential investors and commercial possibilities.

- Richard Ewart

## CONTACT:

[ian.brown@eng.monash.edu.au](mailto:ian.brown@eng.monash.edu.au)  
Ph: +61 3 9905 1984 or  
[david.healy@med.monash.edu.au](mailto:david.healy@med.monash.edu.au)  
Ph: +61 3 93871000

## MONASH NEWS

Published monthly by the Media Communications Unit of Marketing and Public Affairs, Monash University.

Editorial inquiries:  
+61 3 9905 9314

Fax +61 3 9905 2097 or  
[email.monashnews@adm.monash.edu.au](mailto:email.monashnews@adm.monash.edu.au)

Views expressed by contributors in *Monash News* are not necessarily endorsed by Monash University.

MONASH UNIVERSITY

For the latest in research and opinion from Monash, visit [www.monash.edu.au/news/](http://www.monash.edu.au/news/)