

MONASH NEWS

NEWS FROM THE CAMPUSES OF MONASH UNIVERSITY
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MONASH
UNIVERSITY



Have school holidays ever been this fun? Devlin Lawrence and friend Caroline Halley show off their freshly painted faces during a session at Monash's Vacation Care Program in the April school holidays. Devlin and Caroline were two of 30 children to participate in the program that included outdoor fun and games, swimming, art and craft activities and cooking classes. Another program will be held during the July school holidays. For more information, contact Monash's Family Advisory Service on + 61 3 9905 3156. Picture: GREG FORD

Virtual 'time-machine' to map earth's past and future

BY COREY NASSAU

Driving from Melbourne to Indonesia may seem like a crazy idea, but to a group of Monash scientists at the helm of a new virtual time-machine, it is an inevitable reality.

According to earth sciences expert Professor Gordon Lister, Australia and Java are on a collision course that will eventually see the two landmasses 'smack' together due to continental drift.

To create an image of the event, Professor Lister and his team of scientists at Monash University's Australian Crustal Research Centre have utilised Virtual Earth, an ambitious project that will realise the first full 3D reconstruction of the earth at a planetary level.

"The aim of Virtual Earth is to develop virtual reality capability on a planetary scale, so that we can visually analyse the earth, both inside and out, at various stages of its evolution," Professor Lister said.

"The system will enable researchers to reconstruct earth through 4.5 billion years of its history, as well as into the future, to a level of detail never before attempted."

To bring Virtual Earth to life, the team is using the recently launched VPAC computer cluster, regarded as the most powerful general-purpose supercomputer in Australia, in combination with RMIT's Virtual Reality Centre, to bring a new level of visualisation to the research.

"The High Performance Computing system at VPAC has the capacity to handle the large amounts of data and complex calculations needed for the modelling and graphical rendering of Virtual Earth at a range of scales," Professor Lister said.

Members of the team, joined by researchers from CSIRO, are confident they can use Virtual Earth to aid the prediction of earthquakes and climatic changes, for locating untapped deposits of mineral resources, and to help understand the earth's processes in greater detail.

"By using Virtual Earth, we can 'fly' inside the earth, much like a virtual reality time machine, to look at configurations and identify patterns at a level of visual detail never before possible," Professor Lister said.



This map by Monash Virtual Earth scientists illustrates how the south-west Pacific will look 20 to 30 million years in the future. The red dots represent shallow earthquakes, while the green and blue dots show deeper earthquakes. Indonesia is collapsing southwards as Australia moves northwards, and Java has collided with Port Hedland. A new mountain range has formed off the coast of Western Australia. The image is derived from the original by the National Geophysical Data Center.

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Art of many worlds

The energy and activity of many cultures have inspired an exhibition by Monash's newest artist-in-residence.

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Renowned economist to speak at lecture

BY JUNE YU

World-renowned famine researcher and Nobel laureate Professor Amartya Sen will deliver a Federation Festival lecture this month sponsored by Monash University.

The lecture is one of the Alfred Deakin Lectures, which will explore Australia's place in the world as part of the Federation Festival, a major event in Victoria's Centenary of Federation celebrations.

The Indian economist will speak on 'Global Doubts as Global Solutions', taking a multidisciplinary approach to globalisation and drawing attention to issues including inequalities and environment neglect.

A 1998 Nobel Prize winner in economic science for his contributions to welfare economics and social choice, Professor Sen is best known for his work on the causes of famine.

His research has led to the development of practical solutions for

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Researchers are studying links between air pollution and respiratory health. Picture: AAP

Study to probe link between air pollution and children's health

By ANITA QUIGLEY

A Monash researcher is part of a team undertaking a groundbreaking study of how air pollutants affect the respiratory health of Melbourne school children.

Associate Professor Michael Abramson of Monash's Department of Epidemiology and Preventive Medicine will lend his expertise in respiratory diseases and air pollution to the project, led by Dr Elizabeth Waters of Melbourne's Royal Children's Hospital.

The \$237,000 study, funded under the Commonwealth's Air Toxics Program, will also involve the EPA, the CSIRO and the North Yarra Community Health Centre.

More than 700 youngsters from inner-city primary schools will be involved in the 18-month program in a bid to see what role pollution plays in common childhood illnesses such as asthma and night-time coughing.

Dr Abramson said the aim of the project was to investigate the impact of pollutants in heavy traffic areas on children's health.

"In the past, most studies have concentrated on outdoor effects, whereas in reality, people spend about 90 per cent of their time indoors. This study will investigate the relationship between health effects and air quality, both indoors and outdoors," he said.

The study will measure, among other pollutants, the amount of nitrogen dioxide present in outdoor air caused by smog, as well as that produced indoors by unvented gas appliances.

According to Dr Abramson, while Melbourne was far from being one of the worst cities in the world for pollution, airborne particles were a problem.

"There has been a great deal of public concern over the building of CityLink and, in particular, the vent

stack tunnel at Burnley, which does not have a filter," he said.

"The National Environment Protection Commission has set a measure of 50 micrograms per cubic metre, and we know that this limit is breached quite frequently in Melbourne, especially in inner-city areas."

The Federal Minister for the Environment, Senator Robert Hill, said he hoped the study would contribute to the development by governments of a national approach to air pollution.

"We know that air pollution is associated with increased hospitalisation of children for respiratory conditions," he said.

"In Victoria, research shows that 15 to 20 per cent of children experience asthma, and that up to 23 per cent of hospital admissions for asthma may be explained by environmental factors.

"This study will give us a much clearer picture of how we can protect our children's health from both indoor and outdoor pollutants."

Renowned economist to speak at lecture

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preventing or limiting the effects of real or perceived food shortages.

The lecture, supported by Monash's Public Affairs Division and the Faculty of Business and Economics, will be held on Tuesday 15 May at 6 pm at the Melbourne Town Hall.

The deputy director of the Monash Institute of Reproduction and Development and world expert in genome technology, Professor Alan Trounson, will also speak at the Alfred Deakin Lectures.

Professor Trounson will address the controversial issue of stem cell research in medicine on Sunday 13 May at 10 am at the Capitol Theatre, Swanston Street, Melbourne.

The lectures are named after Alfred Deakin, Australia's second Prime Minister and a leading figure in the Federation movement.

Admission to the lectures is free, but bookings are essential and can be made by contacting the CUB Malthouse on + 61 3 9685 5111.

Model helps inform Philippines planning

By DEREK BROWN

A computer model devised at Monash University is being used by the Philippine government to predict the impact of increased competition on that country's economy.

The model, an adaptation of the ORANI model designed by Monash academic Professor Peter Dixon in the early 1980s, uses the inputs and outputs of a nation's industries, such as raw materials and products, to create a picture of the current economy.

By manipulating a set of figures within the model, researchers are able to determine the economic impact a particular policy will have on the country.

Dr Mark Horridge, senior research fellow from the Centre for Policy Studies at Monash, said the Philippine government was under international pressure to reduce tariffs and adopt a free market system but was concerned about the long-term effects.

"The government is concerned about how competition policies such as privatisation may impact upon their nation's industries. As part of a larger, AusAID-funded project, the computer model will help answer some questions," he said.

According to Dr Horridge, although other types of models are available, the model developed at

Monash provides the most useful economic picture.

"The computer model we are using explicitly identifies the interdependence between the various sectors of production and how they react to impacts on the economy. Thus, a change in one leads to a change in another," he said.

Dr Horridge and a team of Australian academics spent two weeks early this year teaching Ms Marilou Mendoza from the Philippine Tariff Commission and Mr U-Primo Rodriguez from the University of the Philippines how to use the model.

While the Philippines has legislation in place to prohibit unfair trade practices such as monopolies, Ms Mendoza believes a more formalised approach to competition within industry is still needed.

"The Philippines still lacks a formal competition framework. The Philippine Tariff Commission is at the forefront of the advocacy campaign for developing a national competition policy, and this current project is a crucial part of our advocacy work," she said.

"In particular, we are interested in the oil industry and petroleum retailing because of high (petrol) pump prices, which is a big issue in the Philippines."

BRIEFS

New Governor-General holds Monash degree

Archbishop Peter Hollingworth, who holds a Monash honorary degree, has been appointed Australia's 23rd Governor-General. The prominent religious leader will be sworn in on 29 June, replacing Sir William Deane.

Archbishop Hollingworth has been Anglican Archbishop of Brisbane since 1990, was executive director of the Brotherhood of St Laurence from 1980 to 1990 and was named Australian of the Year in 1992. He received an honorary Doctor of Laws from Monash University in 1986.

Water scientist wins national award

Monash PhD researcher Ms Rebecca Bartley has been named the Young Water Scientist of the Year.

Ms Bartley, who works in Monash's Cooperative Research Centre (CRC) for Catchment Hydrology, has won a \$2000 prize for her research into the destructive effects of sediment on Australian waterways.

The award, made under the federally funded Cooperative Research Centres Program, highlights the key role CRCs play in training young scientists.

Her findings will help water management organisations find the best and most cost-efficient ways of dealing with stream rehabilitation.

Honorary doctorate for international judge

Judge of the International Court of Justice Dr Christopher Weeramantry was awarded an honorary Doctor of Laws from Monash University recently.

Dr Weeramantry has been a judge of the International Court since 1991 and was vice-president of the court from 1997 to 2000. The court is the United Nations' highest judicial tribunal.

From 1972 to 1991, Dr Weeramantry was the Sir Hayden Starke Professor of Law in Monash's

Law faculty, serving as acting dean several times, and was appointed emeritus professor in 1992. In 1967, he became the youngest Justice of Sri Lanka's Supreme Court.

He has a wide knowledge of international law, common law, comparative law, comparative religion, philosophy and ethics, and has been a champion of human rights law.

Law expert gives Castan Centre lecture

Renowned international law specialist Professor Philip Alston presented the inaugural Castan Centre for Human Rights Law lecture at Monash University recently.

Professor Alston, who is professor of international law at the European University Institute in Florence, spoke on 'Human rights in regulating the global economy'.

He said a new international structure should be established to make world economic regulators accountable for human rights violations.

Powerful world bodies such as the World Trade Organisation, the World Bank, the International Monetary Fund, and other multinational corporations must accept responsibility for human rights issues and should be made to work for the benefit of human rights, he said.

Monash wins world law competition

A team of Monash law students recently won the Willem C. Vis International Arbitration Competition in Vienna.

The 12 Monash students defeated eight teams, including the Harvard University team, to win the title. One hundred universities from 28 countries took part in the competition.

Monash law students Mr Elen McGrady and Ms Tamiela Spencer were also nominated among the best orallists.

The Vis moot is the major international private law moot involving the international sale of goods, arbitration and related areas of law.



American and New Zealand teams throw their weight around during the kabaddi, a traditional Punjab sport similar to rugby but played without a ball, at the international Sikh Games held recently at Monash University's Clayton campus. The American team won the event, which was held over three days at the Monash Sports and Recreation Centre. About 1500 people competed in the Games, which included wrestling, soccer, hockey, netball, volleyball, athletics, tug-of-war, basketball, squash and golf. Picture: MAURICE GRANT-DREW

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Seize the day

Estrogen eases schizophrenia in women: research

By STUART HEATHER

World-first research at Monash University's Dandenong Psychiatry Research Centre has identified the natural hormone estrogen as a potentially powerful treatment for schizophrenia.

A study published in the latest edition of the journal *Schizophrenia Research* showed a significant improvement in patients' psychotic symptoms when administered with estrogen transdermally (by skin patches).

The research subjects were mostly women in their late 20s or early 30s, but the research centre's director, Associate Professor Jayashri Kulkarni, said the implications for estrogen treatment of schizophrenia extended to other age groups – and even to males.

"We recently completed a pilot study of estrogen treatment of men with schizophrenia," she said.

"The results were encouraging, so we have embarked on a three-year trial, recruiting 60 male patients to see if we get similar results to the female study."

The National Health and Medical Research Council funded the female study, and is also supporting the latest research with male subjects.

In the female trial, 36 women suffering schizophrenia-related illnesses were studied over a 28-day period (one menstrual cycle). Each subject received either a skin patch that released 100 micrograms of estradiol (estrogen) every 24 hours, a 50 microgram patch, or a placebo patch (no estrogen).

The women continued their usual anti-psychotic drug treatments during the trial. The researchers found those taking 100 micrograms of estrogen showed a significant improvement in core schizophrenic symptoms such as hallucinations and thought disorder.

"It was surprising and quite dramatic how quickly the subjects showed clear improvement," Dr Kulkarni said.

Reconciliation essential for true nationhood: Ridgeway

By FIONA PERRY

The "uplift" of Indigenous Australians through reconciliation is essential if the nation is to embrace its full potential, according to Australian Democrats deputy leader Senator Aden Ridgeway.

Senator Ridgeway (pictured right) presented Monash University's inaugural biennial William Cooper Memorial Lecture at the Collins Street Baptist Church in Melbourne recently.

Senator Ridgeway said he shared the view of indigenous rights pioneer William Cooper that an improvement in the lot of Indigenous people would benefit all Australians.

"A genuinely reconciled Australia will be a different place – a better place. True reconciliation is not aspirational rhetoric, the tidy resolution of a dispute, or the relieved closing of a chapter," he said.

"It is a larger vision of a new social compact for the entire nation. It means dealing with 'unfinished business' and requires a willingness to share the country's abundant resources and political power."

Senator Ridgeway said under the reconciliation process, the rights of Indigenous people would need to be carefully interwoven with their basic citizenship rights to ensure that



"By the third day we were seeing results, which was great for the patients."

One explanation of the trial results is that estrogen mimics the action of anti-psychotic drugs, having an effect on neurotransmitters. Another is that it acts as a catalyst for anti-psychotic drugs, improving their performance.

To learn more, the researchers will have to study the effects of estrogen on patients while they are not taking any anti-psychotic medication.

For now, Dr Kulkarni suggests there is enough evidence for medical practitioners to see estrogen as a "useful adjunct in a more holistic approach to women at high risk of schizophrenia, treating both mind and body".

"And for men estrogen may be used over short periods to lessen the acute phases of schizophrenia, and the doses will be too small to cause concern about feminisation," she said.

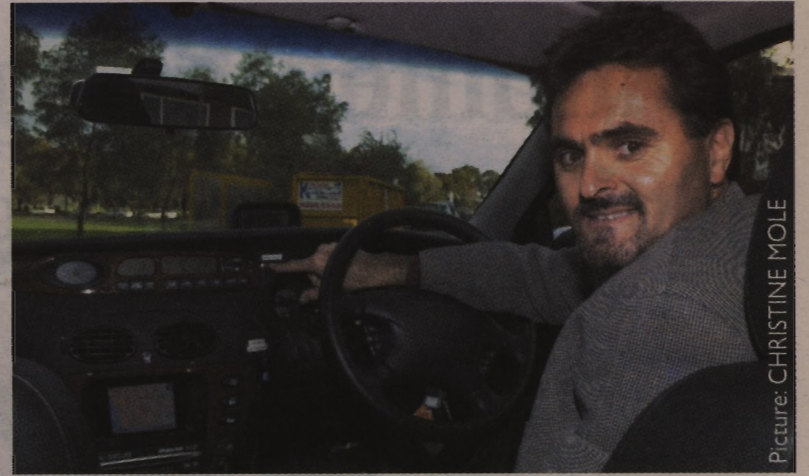


Picture: MAURICE GRANT-DREW

Aborigines' distinctive qualities were not destroyed or marginalised.

"These rights include territorial rights to land, waters and seas, rights to culture and heritage, and a right to self-determination, all of which are fundamental to achieving tolerance and respect," he said.

Senator Ridgeway said the way forward to reconciliation lay in the negotiation of a formal agreement or treaty, which would recognise mutual rights and responsibilities.



Picture: CHRISTINE MOLE

World-first smart cars to help cut national road toll

By ALLISON HARDING

Victoria's road toll could be cut by more than 30 per cent through a world-first project based at the Monash University Accident Research Centre.

In the joint project, which also involves the Transport Accident Commission and Ford Australia, two new Ford Fairmont Ghias have been equipped with a range of technologies that monitor driver behaviour and deter dangerous practices.

The TAC SafeCar project is the brainchild of MUARC project manager Dr Michael Regan (pictured above) and former centre director Professor Claes Tingvall, now director of Traffic Safety at the Swedish National Road Authority.

Dr Regan said the prototype vehicles were fitted with intelligent speed adaptation, collision warning systems, seatbelt reminders, 'may day' systems, and breath alcohol detection devices.

"The technologies in the car have the potential to reduce the road toll in Victoria by at least 30 per cent," he said.

About 400 people die on Victorian roads each year and about 16 times that many are seriously injured.

Dr Regan said the aim of the four-stage project was to stimulate demand for SafeCars among organisations that bought new cars for vehicle fleets.

"Large companies and organisations buy about 70 per cent of new cars from manufacturers – and then sell them off to individual users after a few years," he said.

"If we are going to stimulate demand in society for in-vehicle systems that enhance safety, then an important first step is to stimulate demand for these systems by fleet owners."

Over the next few months, the project team will install the safety features into 17 more vehicles, which will be used in a fleet car trial by several large Melbourne-based organisations.

"What we have here is not a car of the future but a car of the present," Dr Regan said.

The technologies, some of which were developed by the project team while others were already commercially available, include:

- intelligent speed adaptation – warns when the car is travelling over the posted speed limit, which is encoded onto an in-vehicle digital map;
- seat belt reminder system – warns of any unrestrained occupant, with warnings growing more frequent the faster the car is travelling;
- forward collision warning system – warns if the car is too close to the vehicle in front or is in danger of colliding with an object in front of it;
- 'may day' emergency response system – automatically alerts emergency services of the car's location in a crash or medical emergency;
- reverse collision warning – uses bumper sonar to detect if objects, including cars and pedestrians, are too close to the rear of the reversing car;
- route navigation system – a commercially available route navigation system that can potentially limit crash risk through selecting the most direct route from starting point to destination;
- daytime running lamps – operate at 80 per cent of normal low-beam during the day and are activated on ignition;
- breath alcohol detection system – a sensor detects any alcohol vapour and advises the driver to blow into an in-car breathalyser.

Dr Regan said MUARC would assess the effects of the technology on those driving the SafeCars over the 18-month trial period.

He said the underlying design philosophy of the SafeCar was that motorists who were driving properly would be unaware of the presence of the technology.

"The aim is that motorists who are driving safely won't see or hear anything," he said.

Conference Centre

Bayview Conference Centre

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Combined degrees give doctors of the future legal know-how

BY DEREK BROWN

Most people would be content to call themselves either a doctor or a lawyer, but not Mr Vinay Rane, soon to qualify as both.

When Mr Rane, 23, completes his studies at the end of this year, he will be one of the first students in Australia to graduate with a combined medicine and law degree.

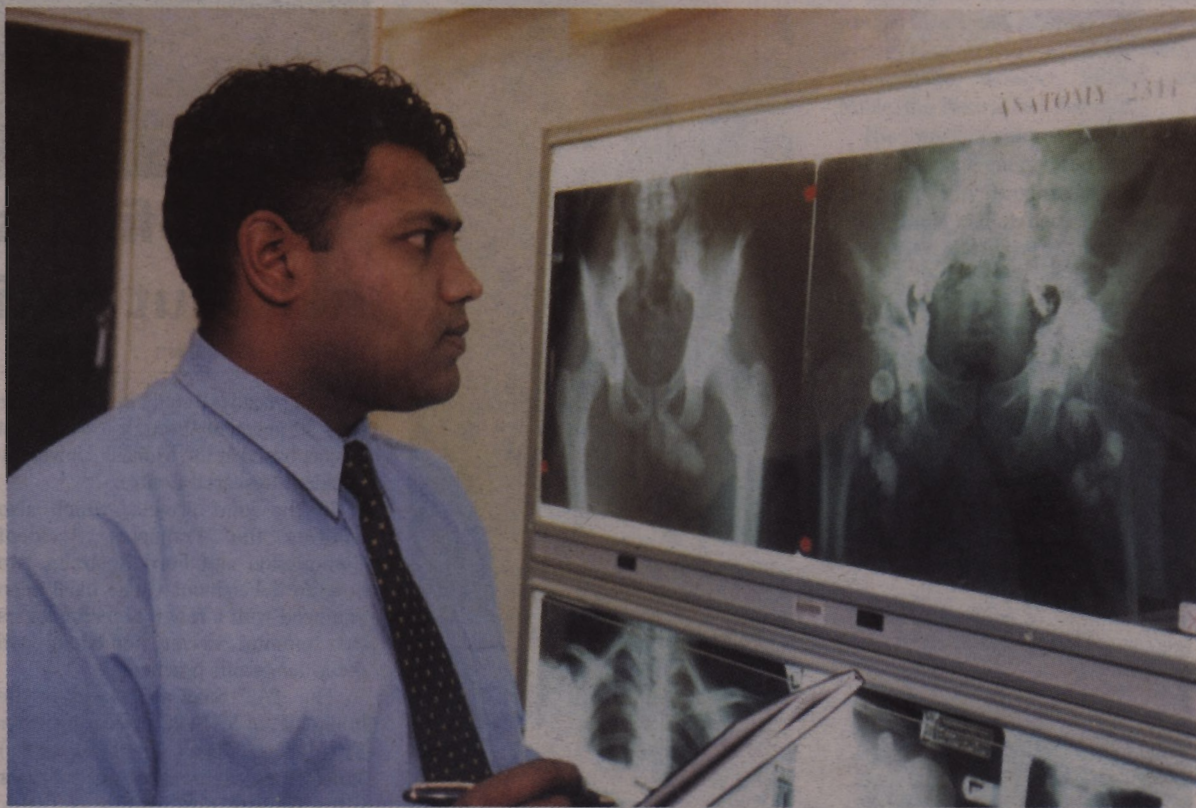
He and two other students will graduate from a program that allows those studying medicine to take on a law degree at the same time. The program is a joint initiative by Monash's faculties of Medicine and Law.

Mr Rane will be completing his sixth year of medicine this year after having already completed an undergraduate and postgraduate law degree and a Bachelor of Medical Science with honours.

Mr Rane, who has postponed the completion of a Masters in Law with a view to taking on a doctoral reading and concentrating on his medical studies, said the workload had not been as heavy as it sounds.

"If you are interested in something, you can do it and do it well. I started medicine and always had an interest in law, so I gave the degree combination a go," he said.

The combined Bachelor of Medicine, Bachelor of Surgery/Bachelor of Laws was originally created by Professor Stephen Cordner, professor of Forensic Medicine at Monash University, and Professor Louis Waller, then from the Faculty of Law.



Doubly qualified: Monash student Mr Vinay Rane will be one of the first students in Australia to graduate with a combined medicine and law degree this year. Picture: RICHARD CROMPTON

According to Professor Cordner, the program was established in response to the growing impact of law on medical practice in areas such as negligence litigation.

"The medical profession needs to better understand the law to be able to fully participate in debates on how

legal issues affect medical practice," he said.

The degree combination has been offered for the past seven years, and between five and seven students take up the offer every year, said Professor Cordner.

"Monash is the only university in Australia to offer students a structured way to study a law degree and a medicine degree concurrently," he said.

"There is no doubt having a law degree is an additional string in the bow of any medical student."

Perl expert finds the world's his oyster

BY JUNE YU

A Perl software expert at Monash University has been awarded a \$150,000 commercial grant to develop and promote the versatile programming language.

Senior lecturer in the School of Computer Science and Software Engineering and Monash graduate Dr Damian Conway will take a year's sabbatical from his position to concentrate on the project.

Perl can run on a vast range of machines and operating systems and is widely used in internet programming for database applications, text and data processing, and rapid prototyping of new applications. It is known as 'Open Source Technology', meaning it is non-proprietary and freely available to all.

Dr Conway said his project mandate involved designing and developing software, organising the next release of the Perl 6.0 language and travelling the world giving talks and training.

But Dr Conway said the most important aspect of his work this year was to show the business world that funding such projects made good financial sense.

"Currently, it is philanthropic individuals who develop most Open Source software by giving their spare time and skills to create software that everyone can use for free," he said.

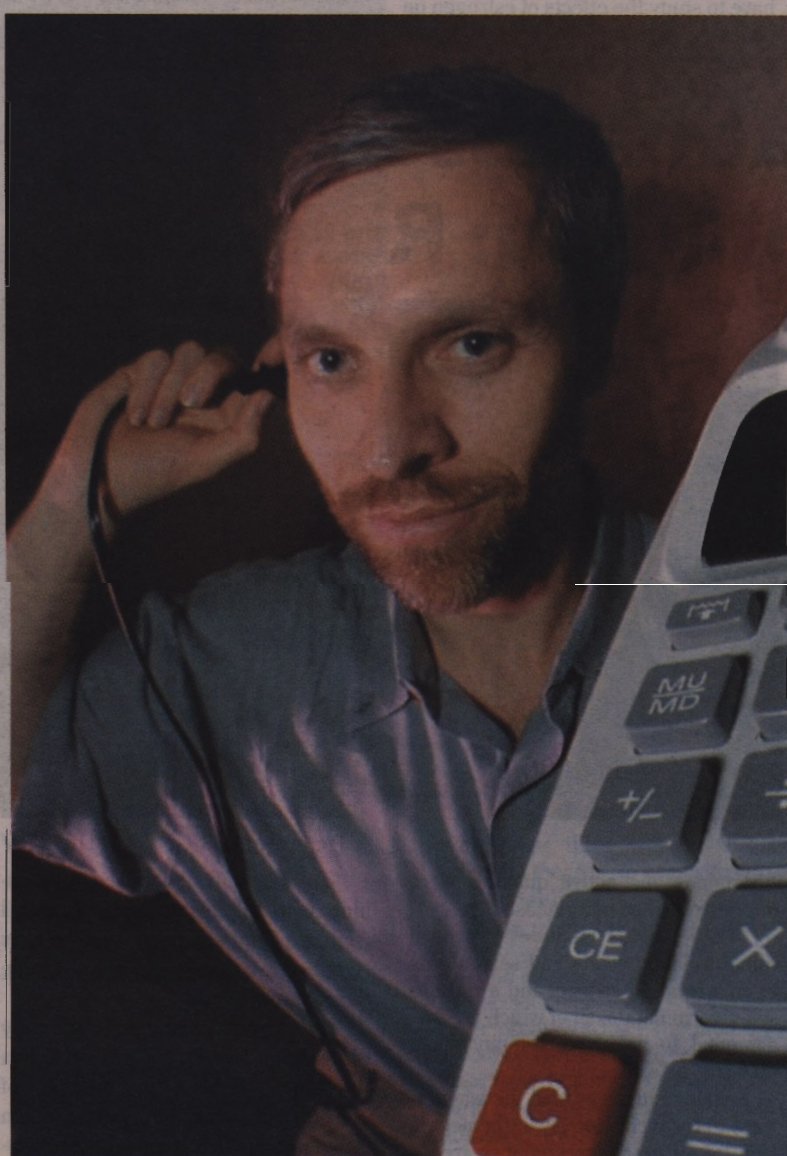
"If businesses gave back to the Open Source community, it would allow creators of free software to work at that task full-time, leading to more and better software that companies can use free of charge."

Dr Conway's sabbatical is funded by Yet Another Society, set up to promote grassroots Open Source-related activities.

YAS president Mr Kevin Lenzo last year began toying with the idea of raising community funding to support the Perl work of Open Source developers by funding individuals with a demonstrated track record in Perl development for a sabbatical from their other commitments.

YAS raised the \$150,000 within two weeks from six commercial sponsors and 130 private individuals. As a highly acclaimed Perl expert, Dr Conway was considered a perfect candidate for the first grant.

For more information visit <http://yetanother.org/damian/>



Perl software expert Dr Damian Conway says funding the development of free software makes good business sense.

Schools



Undergraduate course guide

The *Undergraduate Course Guide 2002* is now available. Copies will be sent to all schools with an order form for additional supplies. If you have not received your copy, contact the Prospective Students Office on + 61 3 9905 1320.

Teachers seminar

The Monash Teachers Seminar is being held on Thursday 14 June at the Clayton campus. All careers teachers and Year 12 coordinators are welcome to attend this university-wide event. Programs and booking forms have been sent to schools.

For more information, contact Ms Val Foster on + 61 3 9905 4164.

New courses

New courses on offer at Monash University in 2002 include:

Bachelor of Midwifery

Three years, Peninsula campus
For more information, contact + 61 3 9904 4260.

Bachelor of Science (Biotechnology)

Three years, Gippsland campus
For more information, contact + 61 3 9902 6431.

Bachelor of Science (Environmental Management)

Three years, Gippsland campus
For more information, contact + 61 3 9902 6431.

Big Bangs and Body Parts

Popular authors, illustrators, cartoonists and young actors will join forces to educate and entertain secondary school students in a lively program at Monash University this month.

Big Bangs and Body Parts, produced by Monash's Performing Arts Precinct in association with the Australian Centre for Youth Literature, will take an educational but light-hearted look at the history and future of science and medicine.

A quirky and amusing performance by Monash Theatre Studies students will be followed by presentations from three pairs of authors and illustrators on 'big bangs' or 'body parts' from their respective books.

Following the presentations, students will have the opportunity to talk about a topic or book about science they have enjoyed and to ask the authors and illustrators questions.

Participating authors include Beverly McDonald, Gael Jennings and Royce Bond, accompanied by illustrators Andrew Weldon, Roland Harvey and Mitch Vane.

Big Bangs and Body Parts, part of the Book Talkers program produced by the Australian Centre for Youth Literature, is suitable for all secondary students, but especially those studying English, English Literature, Science, Human Development, performing arts subjects and Graphic Design.

Big Bangs and Body Parts will be held at the Alexander Theatre at Monash's Clayton campus on Tuesday 22 May from 10 am to 12.30 pm. For bookings, contact + 61 3 9669 9796.

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Eugenics: so what's wrong with improving the quality of the human species?

The brave new world of eugenics promises to produce healthier, more capable children, possibly within a decade. But is the practice morally sound, asks law academic **DR MIRKO BAGARIC**

OPINION

HUMANKIND is on the verge of a scientific revolution that has the potential to eradicate human weaknesses and frailties that over the centuries have been the cause of an unthinkable amount of suffering.

The human genome project, which involves mapping and sequencing the entire range of genetic materials found in human beings, has succeeded in providing at least a partial description of the genetic code of human beings. The potential benefits to humankind from the genome project are almost unlimited.

Eugenics is the science that seeks to improve the human race through the control of hereditary factors, promising to remove much of the luck involved in the birth process.

It aims to go further than simply weeding out or identifying genes that cause or predispose people to certain diseases. It can also be used for enhancement purposes. It raises the prospect of identifying and using 'super genes' in the procreation process.

Offspring produced with the aid of gene technology will in all probability be physically, aesthetically and intellectually superior to the rest of the community. Advances in eugenics may make it possible for each child to have the looks of Liz Hurley, the athletic ability of Marion Jones and the intelligence of Stephen Hawking – all rolled into the one neat package.

But is eugenics wrong? The first line of attack, and potentially the strongest, available to opponents is that eugenics is inherently morally wrong.

Although some genetic screening has been labelled as genocide against the disabled, eugenics does not necessarily involve the infringement of any type of recognisable, let alone important, human right or interest.

Even if eugenics leads to a higher abortion rate, this does not translate into an inherent moral drawback of the practice. The decision to terminate is not a necessary by-product of an adverse genetic finding, merely a common outcome of such a finding.

Where the eugenics process relates not to screening for disease-carrying genes but rather to endowing the progeny with the 'strongest' possible genetic makeup, it would seem that there is no cause for complaint by the child.

In order to establish that the practice is morally repugnant, the only path left is to argue that it will lead to unacceptable side effects.



A common criticism of eugenics is that it will result in social inequality. Permitting parents' input into the genetic makeup of their children, it is feared, will produce a 'super class' with significant advantages over the rest of the community whose parents

logical advantages will merely serve to perpetuate existing unfairness.

OPPONENTS would counter that just because we tolerate existing inequalities of opportunity does not mean we should

then, is not that it may be practised at all, but rather that it will not be practised enough.

The 'slippery slope', or the dangerous precedent, argument is often invoked in relation to acts which in themselves are justified but which

The problem with eugenics, then, is not that it may be practised at all, but rather that it will not be practised enough.

could not or would not utilise gene therapy.

Theoretically, this is unfair. But in a democratic society that already tolerates so much inequality of opportunity, it seems indefensible to argue that the types of inequalities that may arise from eugenics are necessarily morally offensive.

In terms of the net result, biological advantages stemming from eugenic procedures are not different in nature to economic advantages – at worst, bio-

Ideally, all people should have the same opportunity to maximise their potential and pursue their goals.

But a true commitment to levelling the playing field of opportunity requires the elimination of all factors that contribute in a meaningful way to one's level of achievement – including, of course, genetic makeup.

A full commitment to equality drives us towards eugenics – for all people. The problem with eugenics,

have similarities with objectionable practices. It urges that in morally appraising an action we must not only consider its intrinsic features, but also the likelihood of it being used as a basis for condoning similar, yet relevantly different, undesirable practices.

IN ITS logical form, the slippery slope argument is unconvincing in the context of the eugenics debate. The reasons advanced in favour of eugenics, such as the desire to

eradicate disease and produce more capable children, do not logically justify morally undesirable practices.

In the context of the eugenics debate, the strongest support for the empirical version of the slippery slope argument is history. The systematic process of the sterilisation and killing of millions of Jews, Gypsies and Slavs in Nazi Germany occurred against the backdrop of the desire to 'improve' the genetic makeup of the German people and the fundamental belief that other races were inferior.

However, it has been pointed out that the motivations that resulted in the death of millions of innocent people at the hands of the Nazis differ significantly from those moving the present eugenics movement.

But it is at least tenable to argue that eugenics will promote (if not ingrain) a culture which sanctions a strong preference towards certain traits. Such an attitude will engender a bias against individuals lacking the 'proper pedigree', resulting in less moral concern and respect being shown towards them. This may then diminish the sphere of protection accorded to such people.

THUS, the appalling consequences that resulted from one foray into eugenics provides a compelling reason for at least treading very warily before engaging in practices of a like nature lest they once again provide the catalyst for a similar catastrophe.

That said, humankind has made enormous progress since the Second World War. There is still a long way to go before something approaching a universal moral code can be declared, but there are promising signs that some degree of convergence is emerging regarding the scope and content of basic moral prescriptions.

There is now, more than ever, a strong tendency to advance moral claims and arguments in terms of rights. The language of rights is proving to be an effective weapon for protecting individuals against inhumane and unfair regimes.

There is no question that the types of beliefs and values that underscored the practices in Nazi Germany have been largely, at least ostensibly, dispelled by most communities – at least in the West.

While there is solid evidence that eugenic ideals can lead to bad side effects by fuelling an attitude that individuals who lack the 'proper pedigree' are in some sense less worthy of moral concern, this is not a decisive reason for rejecting eugenics.

Ultimately, eugenics is no different to many discoveries, such as the splitting of the atom – it can be used for good or bad. The manner in which eugenics will be used depends on the moral and legal environment in which it is practised.

■ This is an extract of a paper published this month in the Monash Bioethics Review. Dr Mirko Bagaric is a senior lecturer in the Faculty of Law at Monash University.

South African spiritual connection in art

BY JUNE YU

Monash's ties with South Africa are flourishing this year with the opening of its Johannesburg campus and the arrival in Australia of the university's newest artist-in-residence.

South African painter Lallitha Jawahirilal is spending six weeks in the Faculty of Art and Design at Caulfield campus, culminating in an exhibition from 9 May to 2 June at the Faculty Gallery.

The show will be opened by South African High Commissioner His Excellency Mr Zolile T. Magugu on 9 May at 6 pm.

Ms Jawahirilal draws inspiration for her mixed media and conceptual work from the activity and energy within different cultural landscapes, including her own birthplace in Ladysmith, South Africa.

"South Africa is beautiful; people there are inherently spiritual, and the land is vast and mysterious. I spent much of my childhood roaming the hills of Ladysmith," she said.

"The rich Ndebele paintings, South African rock and temple art and the religious beliefs of the diverse South African community have all been sources of inspiration for my work."

Ms Jawahirilal has travelled widely for her art and taken up residencies in Johannesburg, London, Berlin, Casa Manilva (Spain) and the Himalayas. Her works grace the walls of collec-



South African painter and Monash artist-in-residence Lallitha Jawahirilal.

tors' houses and museums in Europe, the US, the UK, Hong Kong and South Africa.

"I've had to live in many different cultures and it's very important for me to bring that to my art, because it's a

form of respect for that country or that culture," she said.

For more information on Ms Jawahirilal's exhibition, contact Faculty Gallery manager Mr Malcom Bywaters on + 61 3 9903 2882.



A scene from Caravaggio's painting, 'The Conversion of St Paul'.

Spacing out with Caravaggio

BY FIONA PERRY

Though Italian painter Caravaggio is renowned for his contributions to the development of naturalism in 17th century art, some critics have claimed his work is typified by distorted figures, cramped spaces and a lack of understanding of planes of perspective.

The 16th century artist's inventive and somewhat controversial use of space is examined in a new exhibition at Monash University's Faculty Gallery this month.

The exhibition, *Understanding Space and its Relationship to Expression: Analysing Caravaggio's Distortions in 3D*, by Monash fine arts lecturer Mr Roger Byrt, attempts to answer critics' claims and demonstrate the genius of Caravaggio's use of space

through an analysis of his painting 'The Conversion of St Paul'.

The exhibition, created in conjunction with architect Robert McGauran, compares the scene presented by Caravaggio with 3D models and computer images of the painting to show what the original work would have looked like if mathematical or 'correct' planes of perspective had been used.

According to Mr Byrt, the exercises undertaken reveal an extraordinary range of spatial techniques used by Caravaggio within the painting, ranging from the proportional manipulation and distortion of individual figures to the reinterpretation of perspectival space.

"The overall effect of Caravaggio's manipulation of space, scale and perspective is to bring the action right out

to the viewer, drawing the viewer closer to the action and heightening the liveliness and dramatic power of the painting," he said.

"Caravaggio's painting is far superior to the models that we created, because, through their expansion of space, they dilute the dynamism and balance of the original work."

What: *Understanding Space and its Relationship to Expression: Analysing Caravaggio's Distortions in 3D*

When: 11 May to 2 June

Where: Monash Faculty Gallery, Caulfield campus

Who: For details, contact gallery manager Mr Malcom Bywaters on + 61 3 9903 2882.

ARTS SCENE

Virtual alchemy

Mr Richard Brown, research fellow at the Royal College of Art in London and currently artist-in-residence at Monash University, will present a public lecture at the Caulfield campus this month.

Mr Brown, who has a hybrid background in art and science, will give a presentation on three of his interactive installations: 'Alembic', 'Biotica', and 'Millie, the Neural Net Starfish'.

His work explores ideas about space, time and energy, and emergence and complexity through the creation of installations and artifacts that amalgamate the real and the virtual.

The lecture will be held on Wednesday 9 May at 7 pm in the Art and Design building at Monash's Caulfield campus.

Composer goes to Cannes

A Monash Master of Arts (Music Composition) student has written the soundtrack for a film that has been selected for the Cannes International Film Festival.

Mr Anthony Pateras, a student in the School of Music - Conservatorium, composed the soundtrack for the film *Martin Four*, directed by Mr Ben Hackworth. Mr Pateras will travel to Cannes to attend the screening of the film this month.

Music and arts study tour

Students, teachers and those interested in music, visual arts, German and European culture and history are invited to join a 26-day music and cultural tour of central Europe in January 2002.

The tour, which is an accredited university elective, will trace the footsteps of famous Europeans including Bach, Einstein, Haydn, Mozart, Beethoven, Goethe, Kafka, Freud and Weill.

Participants will attend concerts and operas, and visit major sites associated with the music and culture of the former Holy Roman and Austro-Hungarian empires, as well as those of 20th-century Germany, Austria, Hungary and the Czech Republic.

The tour will be led by Dr Greg Hurworth of Monash's Faculty of Education. For more information, contact Dr Hurworth on + 61 3 9904 4277 or email greg.hurworth@education.monash.edu.au

Student wins prize in musicology

A Monash Master of Arts student and composer has won the 2000 Musicology Prize awarded by the Musicological Society of Australia.

Mr Robin Fox, a student in the School of Music - Conservatorium, was awarded the prize for a paper titled, 'The Atomic Café to CHCMC: A Trans-Pacific Aesthetic Implant'.

The paper examined whether 1970s American contemporary music had a significant influence on contemporary music in Victoria in the same decade.

Mr Fox's paper will be published in Australia's premier musicological journal, *Musicology Australia*.

Servants of Self

A short play about love and death, and "the elaborate confusions of self" will be performed by two honours students from Monash's Centre for Drama and Theatre Studies this month.

Servants of Self is suitable for secondary students. Shows will be performed on 25 and 26 May at the Monash Drama Theatre at the Clayton campus.

For more information, contact + 61 3 9905 9135, or + 61 3 9482 5367.

Student design wins \$10,000 national award

BY DEREK BROWN

Safe, sleek and eco-friendly - a new vehicle design by Monash industrial design student Mr Dimitrios Scoutas has won the national Dyson Product Award and \$10,000 in prize money.

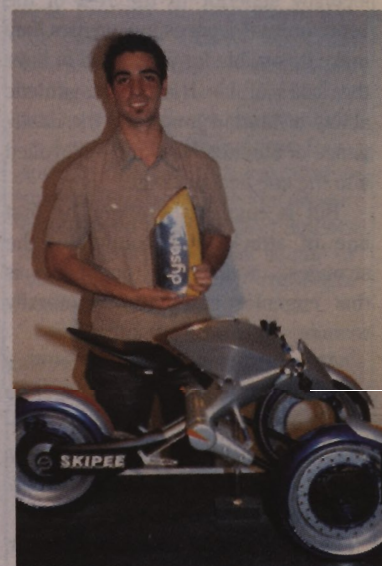
Mr Scoutas, an honours student, received the award during the 'new design 2001' national graduate exhibition recently. The exhibition, sponsored by Dyson Appliances, showcases work by applied art and design students selected from universities across Australia.

Mr Scoutas said his winning design, 'Skipee', was a three-wheeled vehicle designed to appeal to people who would normally not use a motorcycle.

"While my design has some of the characteristics of a motorcycle, it also has quite a few variations. For example, in order to improve stability, the vehicle has three wheels, with two wheels at the front to help with cornering," he said.

"I also looked at research conducted into accidents involving motorcycles and discovered that in most cases, the accidents occurred because the other party didn't see the motorcycle. To counteract this danger, each of the front wheels has a headlight, so at night it looks like a small car to other drivers."

According to Mr Scoutas, the vehicle has been designed as an eco-friendly alternative using mostly



Monash student Mr Dimitrios Scoutas with his winning prototype, 'Skipee'.

recyclable materials and running on an electric engine housed in the rear wheel.

The stylised body of the bike is modelled on Australia's best known icon, the kangaroo, and is geared towards people living in inner-city areas, he said.

Mr Scoutas, who plans to graduate at the end of this year, will use the award money to visit Italy and Germany, world centres for motorcycle design.

Ethnic minority girls face prejudice at school: research

BY DEREK BROWN

Secondary school can be an isolating experience for ethnic minority girls, according to a Monash academic.

Dr Georgina Tsolidis, from Monash's Education faculty, claims attitudes towards gender and ethnicity within the Australian education system and school cultures create divisions that disadvantage ethnic minority girls.

In her new book, *Schooling, Diaspora and Gender*, Dr Tsolidis brings together the results of two studies, the first looking at ethnic minority girls' work and study aspirations, and the second exploring patterns in educational achievement in relation to immigrant groups.

According to Dr Tsolidis, many students who took part in the studies confirmed racism existed in the classroom and said it made school difficult for them.

"The issue of racism is clearly relevant to the way ethnic minority students experience schooling. In one school, Turkish girls who wore long dresses and headscarves felt they were particularly vulnerable. They claimed they received less attention from staff, were given lower marks and fewer chances," she said.

"Teachers would often say ethnic minority girls came from families where education was not highly valued. But the girls and their families would say they felt the education system was pitted against them, that there



Dr Georgina Tsolidis says ethnic minority girls are disadvantaged by a sexist and racially prejudiced education system in Australia. Picture: GREG FORD

was an enormous amount of racism and that the system in Australia didn't allow them to get ahead."

Students believed teachers' attitudes towards them were important factors in fostering or controlling racism within the school, Dr Tsolidis said.

She said students also experienced racism and sexism in school grounds, where divisions between ethnic groups and genders often created four main enclaves – ethnic minority girls and boys and ethnic majority girls and boys.

"While both groups of boys would often come together to play sport,

a deep division existed between the girls, leading to the ethnic minority girls' isolation.

"The division among the girls was the most profound and I think involved a whole range of issues that relate to teenage girls' sexuality and the double standards they encounter," she said.

Dr Tsolidis hopes her book will stimulate debate on current education policies and practice dealing with gender and ethnicity.

"In education we tend to compartmentalise these issues, for example, multicultural policy and gender equity policy. There is a great need to integrate these areas," she said.

Seeing Australian art through German eyes

BY FIONA PERRY

An exhibition of innovative contemporary Australian photographic art originally assembled for German audiences will go on show at the Monash University Gallery this month.

Lightness of Being: Contemporary Photographic Art from Australia comes to the gallery after touring venues in Berlin, Stuttgart, Chemnitz and Velbert.

Curated by Australian Bernice Murphy last year, the show was organised in conjunction with the New Berlin Art Association, a major art centre located in the former East Berlin, situated north-east of the Brandenburg Gate. Since the fall of the Wall in 1989, the area has become a hive of artistic activity and street life.

According to gallery marketing manager Ms Nicola Vance, the exhibition reflects Germans' strong interest in political art.

"For Germans, politics and art are intrinsically related," she said. *Lightness of Being* showcases current works by 15 leading Australian photographic artists that pay particular reference to a range of socio-political, aesthetic and technological viewpoints.

"In the exhibition, photography is used in a number of innovative ways to distort, digitise, document and comment on various concerns in Australian contemporary art relating to feminism, post-colonialism, sexual identity, indigenous culture, technology and spirituality."

The exhibition features the work of artists Pat Brassington, Destiny Deacon, Jane Eisemann, Anne Ferran, Fiona Foley, Bill Henson, Peter Kennedy, Rosemary Laing, Fiona MacDonald, Tracey Moffatt, John Nixon, Susan Norrie, Mike Parr, Patricia Piccinini and Robyn Stacey.

According to Ms Vance, exhibiting artists Patricia Piccinini and Rosemary



'S02 (Social Studies) 2000' by Patricia Piccinini, courtesy of the artist and Tolarno Galleries.

Laing are fascinated by scientific research and its often alienating impact on the human experience.

She says in one work, Piccinini has created a lurid, digital interpretation of a 'mutant' being, which is being doted on by a crowd of onlookers.

Ms Vance says artist Peter Kennedy's wall installation depicting images from World War II is particularly challenging for German audiences.

"His work, 'Seven People Died the Day I was Born - April 18, 1945',

represents the vastly different experiences of Australia and Germany during the war," she says.

What: *Lightness of Being: Contemporary Photographic Art from Australia*

When: 22 May to 7 July
Where: Monash University Gallery, Clayton campus.

Who: For details, contact Ms Nicola Vance on + 61 3 9905 4217.

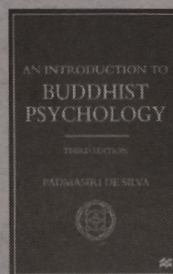
Photographic artist Ms Anne Ferran will speak at a public forum titled 'The Real Fantastic: Issues in Contemporary Australian Photographic Art', to be held at the Monash University Gallery this month.

Also speaking at the forum will be the head of Monash's visual culture department, Ms Anne Marsh, and

public programs coordinator at the Centre for Contemporary Photography Mr Daniel Palmer.

The forum will be held on Wednesday 30 May at 3 pm and will be followed by an exhibition preview and refreshments. Bookings are essential. To book, contact Ms Nicola Vance on + 61 3 9905 4217 or email nicola.vance@adm.monash.edu.au

INPRINT



An Introduction to Buddhist Psychology

Third edition

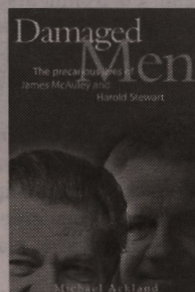
Padmasiri de Silva
Macmillan Press
RRP: \$ 47.30

Twenty-five centuries ago, Gotama the Buddha preached that humans could only be liberated from their fears and anxieties by an inward and intricate study of their mental and spiritual life.

Generations of followers have developed and amplified the original teachings of Buddhism to create a lucid and insightful study of human psychology in *An Introduction to Buddhist Psychology*.

The text analyses many of the basic concepts and issues in the psychology of Buddhism, including concepts of the mind, consciousness, behaviour, emotions and motivation. The third edition includes a new chapter on the mind-body relationship and Buddhist contextualism.

Dr Padmasiri de Silva, currently an honorary research fellow in the Philosophy department at Monash University, was formerly professor and head of philosophy and psychology at the University of Peradeniya, Sri Lanka.



Damaged Men:

The precarious lives of James McAuley and Harold Stewart

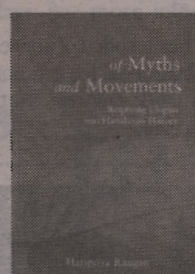
By Michael Ackland
Allen & Unwin
RRP: \$40.50

Many questions surround the lives of 20th century Australian literary figures James McAuley and Harold Stewart. Prolific writers in their own right, McAuley and Stewart were also the instigators of the infamous Ern Malley hoax, in which they wrote and published meaningless poetry under a false name as a criticism of the modern style.

Using private papers belonging to the poets and previously unseen manuscripts, the author probes the lives of the two Australians whose contributions to the nation's political and literary culture have long been neglected.

Damaged Men weaves a tale which uncovers Stewart's life-long search for spiritual meaning and the reasons behind his self-imposed exile to Japan. The text also looks at McAuley's life, focusing on his family, his conversion to Catholicism and his relationship with fellow poet Stewart.

Dr Michael Ackland, from the Department of English at Monash University, has also authored *The Penguin Book of 19th Century Australian Literature* and *Henry Kendall: The Man and the Myths*.



Of Myths and Movements:

Rewriting Chipko into Himalayan History

By Hari Priya Rangan
Verso
RRP: \$43.95

The Chipko movement emerged nearly 25 years ago in the Garhwal region of the Indian Himalayas when local communities protested against the destruction of local forests by hugging trees.

A non-violent movement mobilised by women, it was successful in saving the region's natural resources from economic exploitation and captured the world's imagination.

Of Myths and Movements intelligently challenges the myths surrounding the success of the Chipko resistance held by ecologists, ecofeminists, academics and policy makers to reveal a warm, human analysis of the region's history and the issues involved.

Dr Hari Priya Rangan, a lecturer in Monash's School of Geography and Environmental Science, argues that narratives have transformed this movement into a myth and, through an analysis of the region's biogeography, she attempts to reconnect Chipko to the realities that originally gave rise to the protests.

POSTscript

Monash graduate Dr Timothy Flannery (MSc, 1981) has recently launched his latest book, *The Eternal Frontier*, which explores the story of North America from the age of dinosaurs 65 million years ago to the arrival of Columbus in 1492. The book is published by Text Publishing.

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

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Helping local firms go green



Some of the recycled products on display at the ReBATE launch at Monash University last month.

BY JUNE YU

A new one-stop shop of 'waste-wise' resources has been established to help businesses in south-east Melbourne become more eco-friendly.

The Monash Environment Institute (MEI), together with the South Eastern Regional Waste Management Group, has established the Regional Business and the Environment (ReBATE) network.

MEI aims to develop and promote teaching and research on the environment and sustainability. It also plays a role in promoting good environmental practice within the university and the wider community.

ReBATE now involves about 40 businesses, including Ritchies Supermarkets, The Body Shop, RACV and Phillips Lighting.

Several local councils, EcoRecycle Victoria, the Sustainable Energy Authority and the Department of State and Regional Development are also involved in the network, which is an offshoot of a city-based network called BATE.

MEI strategy and innovation manager Mr Elya Tagar said ReBATE would offer information about recycled products and environmentally responsible technologies and services and would also give advice about conserving resources such as electricity and water.

It also aimed to provide data about available government services and assistance and help set up partnerships between businesses to develop 'green' products, including assistance in market research and development.

"If a business wants to recycle its computers, the network will assist by putting it in touch with the right company," he said.

"We know of one company in the area that is producing chairs from recycled toner cartridges and another that is producing environmentally responsible fabrics. The network could help them form a business arrangement so the chairs can be upholstered using these fabrics."

MEI director Professor Chris Cocklin said ReBATE was an example of Monash's leadership in environmental issues.

"The institute has a policy of actively engaging with business to promote green practices and environmental sustainability," he said.

South Eastern Region Waste Management Group environmental education officer Mr Randall Brouillette said ReBATE offered local solutions for the environmental waste problem.

He said about 64,000 businesses in the south-eastern region generated almost one million of the 1.6 million tonnes of waste that went into landfill each year.

At least half of the waste included recyclable materials such as paper, cardboard, wood and organic waste such as food scraps.

"ReBATE is a regional business network that can help companies find the best ways of dealing with their waste and reducing the annual \$250 million bill to dispose of waste into landfill," he said.

Ritchies environment officer Ms Pam Craven said ReBATE would help local businesses collaborate on waste management issues.

"We've done a fair bit of work at Ritchies in developing and implementing our environment policy and we're very interested in sharing information and ideas with other companies," she said.



In for the long haul: Members of the Monash University Women's Rugby Union Club showed their collective strength when they pulled a 22-tonne tram 50 metres down Sydney Road in Brunswick, Melbourne, in late March. The eight-member team, the only women's team to enter the event, was taking part in the annual Tram Track Challenge, a fundraising event for the Royal Children's Hospital.



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