

MONTAGE

NEWS FROM THE CAMPUSES OF MONASH UNIVERSITY

University of the Year awarded to Monash

Monash is the *Good Universities Guide* University of the Year.

The Minister for Employment, Education and Training, Mr Simon Crean, announced the award when launching the 1995 edition of the guide at Parliament House in Canberra on 26 July.

Authors of the guide, Mr Dean Ashenden and Ms Sandra Milligan, said that the aim of this year's award was to find a university that provided a "genuinely international education". According to Mr Ashenden, Monash was "at the cutting edge" of bringing international students to Australia, taking courses and research offshore, sending Australian students abroad to study or work and in 'mainstreaming' study about the Asia-Pacific region.

"Many know Monash as a magnet for students from Malaysia, Indonesia, Singapore, Hong Kong and elsewhere," Mr Ashenden said. "But fewer people realise that Monash is also leading the way in teaching its undergraduates about Asia.

"We found it exciting to meet Monash engineering students who were studying Japanese and Korean, medical students who



had spent their summer holidays working in rural Thailand, and accountancy students who had met with senior business leaders in Hong Kong, Tokyo and Los Angeles during faculty-sponsored study tours," he said.

Monash pro vice-chancellor Professor Leo West said the announcement was the culmination of a four-month long process in which many Monash administrators, staff and students were involved.

The general manager of Monash International, Mr Tony Pollock, said the

award confirms in people's minds that Monash is the major provider of an international education in Australia.

"People like to feel as though their choice of university is validated," he said. "This award does that, and adds to Monash's already outstanding reputation locally and overseas."

Dr Grant McBurnie of the Office of the Pro Vice-Chancellor, said that internationalisation has been one of the key strategies adopted by vice-chancellor Professor Mal Logan.

"He has continually encouraged the university to increase and improve its international services and connections and the international orientation of the curriculum," Dr McBurnie said.

"The award is pleasing recognition that these policies have been successful."

The *Good Universities Guide* is released annually and is an independent undergraduate consumer guide to education institutions throughout Australia.

The guide, published by Reed Books, is available at newsagents and bookstores throughout Australia for \$12.95. It will also be distributed in Asia.

- Monash International (3) ● Condemnation (4) ● Revolutionary mine detector (4) ● RehabTech gets going (6)
- Looking at Pay TV (7) ● Defining the role of education (8) ● Unearthing ancient Egyptian secrets (12)
- Arts (17) ● Savant: teaching Australianism (20)

Waste not, compost

A team of keen Monash conservationists is embarking on the unenviable task of converting much of the biodegradable waste on Clayton campus into compost.

With the help of about 100,000 donated worms and 25 student volunteers, the Monash Conservation Group will convert food and animal waste from various university outlets into marketable compost.

Coordinator of the project Mr David Hawthorne says that during the 24-week trial period the composting plant will process between 0.5 and 2.5 tonnes of waste per week from Wholefoods, Halls of Residence, Animal Services and Union Catering.

"The majority of this waste usually ends up as landfill," he says.

Twice-weekly the students will collect the waste from around campus, transport it to the composting plant located at the rear of the Blackburn Road carpark, and let the worms do the rest.

Already one local gardening centre, Garden Gear, has expressed interest in buying bags of the compost.

The project also includes a demonstration food garden, which is growing vegetables to be used by Wholefoods.

"We want to show the effectiveness of using compost to grow vegetables," Mr Hawthorne says. "It will be a few months before we get any produce from the first planting though."

The project has been funded by the vice-chancellor as part of the university's environmental policy, drafted by the Environmental Advisory Committee this year.

For further information, contact extn 52943.



Preparing the demonstration food garden: First the students laid paper and carpet, onto which they tossed a covering of straw and compost. The first crop of winter vegetables and herbs were planted into this top covering and will be served up at Wholefoods next year.

NOW & THEN

25 Years Ago

The University has recently purchased Michael Johnson's large abstract painting, "Rough".

Patrick McCaughey writes: "This brings the Monash collection right up to date with the most advanced painting in Australia."

"Johnson, who is currently representing Australia at the large survey of international art at the Sao Paulo Biennale, has been widely acknowledged as one of the four or five most important 'new generation' Australian painters."

15 Years Ago

Planning for Open Day is well underway. The main emphasis will be to introduce secondary school students to the University. The program will include course and careers counselling, as well as departmental and club displays and exhibitions, films and tours of University facilities. Nearly 70 departments and organisations and more than 30 clubs and societies will be taking part in Open Day.

5 Years Ago

When the women's liberation movement spilled over into the established church in the 1960s, congregations around the world began to contemplate the possibility of

female ministers. For an institution which espouses the noblest of freedom, said Professor Ed Lehman, the church has traditionally overlooked women as ministers.

"When the congregations first encounter the prospect of a woman as their pastor, they generate typical 'horror stories' about the consequences – declining church roles, declining budgets, people moving away," said Professor Lehman, professor of sociology at the State University of New York, Brockport. Most church members approve the idea of women's ordination in principle, but oppose its implementation because they are afraid it will hurt the local congregation, he said.

This Month Last Year

Monash's Faculty of Medicine won accolades this month from the Australian Medical Council (AMC). The AMC endorsed a glowing report on the faculty's "many strengths" before accrediting the undergraduate degree into the next century. A team of independent medical experts prepared the landmark report after an extensive on-campus investigation earlier in the year.

Individual departmental successes earmarked by the team included the Department of Community Medicine, which was described as the Australian leader in community and rural medicine.

MONTAGE

NEWS FROM THE CAMPUSES OF MONASH UNIVERSITY

Montage is published by the Monash University Office of University Development. Views expressed by contributors in Montage are not necessarily endorsed by Monash University. No responsibility is accepted by the university or the editor. Articles may be reprinted in whole or in part by permission of the editor.

Staff writers: Georgie Allen, Damien Kingsbury, Juliet Ryan.
Editor: Bridget Montgomery, Public Affairs Office,
phone (03) 905 2085, fax (03) 905 2097.
Imageset by Pre Press Network. Printed by Camten Graphics.
Registered by Australia Post: PP 338685/00010.

While Professor Mal Logan was stepping up to receive the University of the Year

New Monash company to provide international program

award, Monash's international team was settling into its new business structure, which promises to further improve the university's international operations.

The pro vice-chancellor (international programs and development), Professor Leo West, recently announced the establishment of a new company to provide a full range of services associated with the university's international activities.

The move will not only streamline the processes and management of the activities, but will also improve the services provided to faculties and foreign students.

The company, Monash International Pty Ltd, is wholly owned by Monash. It is responsible for collecting and distributing fees, maintaining existing international student support services, facilitating and expanding off-shore programs and providing the university with new business opportunities.

"As the overseas market matures, Monash will need to establish more off-shore activities," said Professor West. "Monash International will facilitate our



Key players in Monash International: (from left) Mr Tony Pollock, Mr Bob Cochrane and Professor Leo West.

capacity to take part in the joint ventures and other overseas operations.

"This is a large scale commercial venture that requires great flexibility to identify and respond to opportunities with more creativity in a highly competitive and fluctuating environment."

The company, established on 1 July, is already working on expanding the university's international operations.

"Monash, the University of New South Wales and the Bangbayang Foundation in Jakarta are working to establish a private education institution in Jakarta," Professor West said. "The organisation would provide a range of education opportunities, including university preparation, undergraduate studies and short courses as well as consultancy expertise."

The most immediate benefit to Monash arising from the establishment of the company will be additional control over the dissemination of information about the university overseas.

"We won't be operating through agencies as much," Professor West said. "We'll be setting up our own offices so students

overseas will be dealing directly with the university." He said the company will in no way alter the amount of funds currently distributed by faculties.

In the longer term Monash will benefit from the reinvestment of the company's profits into international student services and exchange programs.

Professor West said that part of the internationalisation of the university was to have Monash students spending some of their time as undergraduates overseas.

"One of the messages I'd like to carry to Australian students is that they should take advantage of exchange programs," Professor West said. "Anyone who has spent a semester at an overseas university would be almost certain of getting an interview for a job – it would give them a real margin over other applicants."

Professor West has taken on the role of managing director of Monash International while retaining the position of pro vice-chancellor.

Mr Tony Pollock is the company's general manager and Mr Bob Cochrane is deputy general manager and company secretary.

Size does matter

A Monash University microbiology doctoral student has found that when it comes to condoms, size does make a difference.

But Ms Di Tibbitts said it was not length, but breadth, that should be considered when looking for a well-fitting condom.

She believes that a one-size-fits-all condoms could be putting safe sex at risk, because different penis widths were not being accounted for.

Ms Tibbitts said a recent study had found that ill-fitting condoms were more likely to come off or split and encouraged further research into condom design and manufacture.

Under international standards, condoms must be at least 160mm long and 45 to 56mm in diameter.

The lack of research into penis dimensions is one of the major reasons condoms do not come in a larger range of sizes.

Ms Tibbitts said the only study she was aware of compared men of various races and found they differed not in length, but in breadth. She believes it is time more research was done into the penis size of Australian men.

In her research paper on condoms published in the 80th anniversary issue of the *Medical Journal of Australia*, Ms Tibbitts traced the development of condoms and their use in Australia since 1870.

She notes that in the 1920s, condom purchasers were warned to make sure they ordered the correct size from the four that were available.

Early condoms, both rubber and membrane, were tied on with ribbons and were reusable.

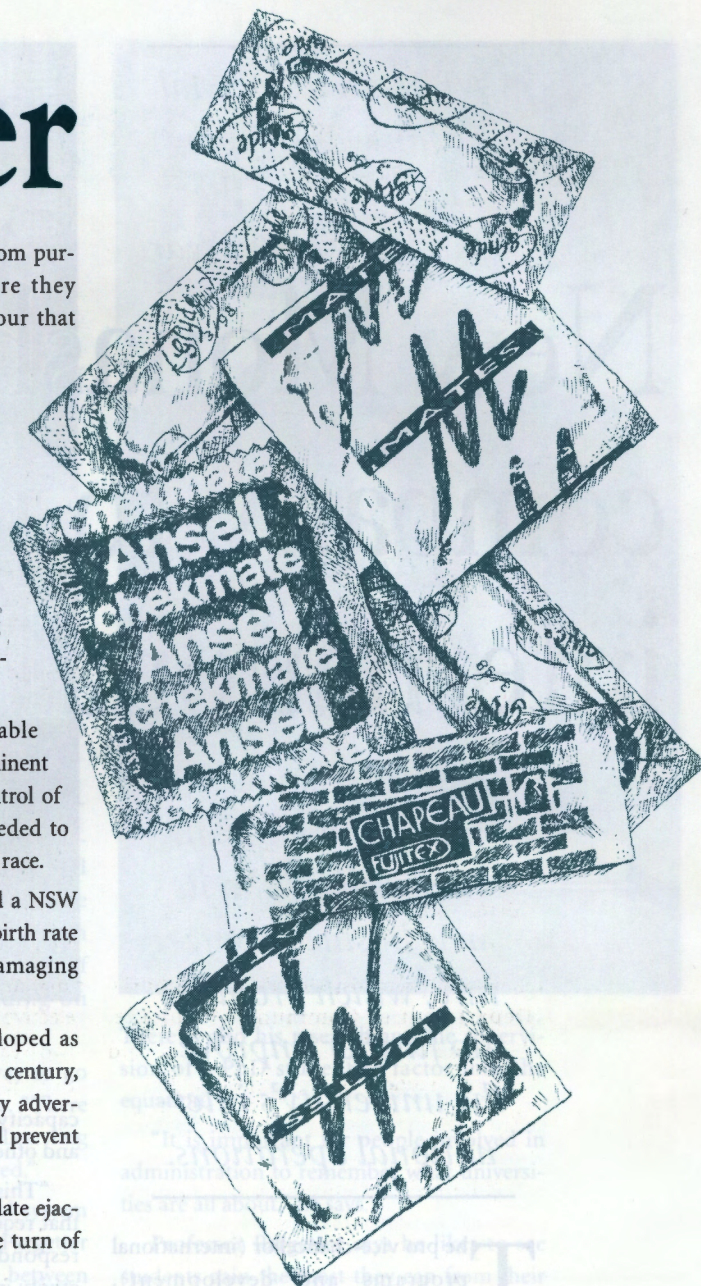
The paper also chronicles the rise of Eric Ansell, an enterprising employee of the Dunlop Pneumatic Tyre Company who, in 1904, bought his employer's condom-making equipment when the company withdrew from the prophylactic market.

At the time there was considerable opposition to condom use, with prominent politicians arguing that stringent control of contraception and abortion was needed to contain the moral deterioration of the race.

In 1903, eminent doctors had told a NSW Royal Commission on the declining birth rate that contraceptive devices had a damaging effect on women's health.

Condom-like devices were developed as disease preventatives in the early 16th century, and by the 18th century were widely advertised in Europe to control disease and prevent pregnancy.

Condoms with teats to accommodate ejaculation have been available since the turn of the century.



Mine detector: a sound idea

A senior Monash academic has developed a revolutionary detector of non-metallic land mines.

The mine detector was developed by Associate Professor Charles Don and a team of researchers from the Department of Physics. Land mines are currently one of the biggest non-natural killers of people

throughout the world and are responsible for permanently disabling tens of thousands of people in countries such as Afghanistan, Cambodia and Mozambique.

Speaking at a meeting of the Acoustical Society of America in June, Dr Don said the acoustic-based detector could detect land mines encased in plastic or timber. Current

technology only allows detection of metal-encased mines.

The new mine detector blasts low frequency sound, at 100 hertz or cycles per second, and then records echoes. The sound pulses last for only two-thousandths of a second, enabling them to be distinguished from the echoes that follow.

According to Dr Don, a novel feature of the system is its ability to distinguish between a sound wave bouncing back from the ground and the much fainter echo caused by the sound wave reflected by an object buried beneath the surface.

Using a complex computer comparison, the detector can reveal not only the depth and location of the object, but also its size and shape.

Continued on Montage 5

Monash medical course administers a world first

Doctors in rural areas have traditionally lacked resources to keep abreast of advances in their profession. Now, a Monash course means such isolation can be overcome by turning on the computer, video or tape recorder.

An international first in medical education occurred at Monash University recently when 26 general practitioners graduated in family medicine by distance education.

The two-year course, the only one of its kind in Australia, aims to increase GPs' knowledge and skills in specific areas. It is offered via print, audio, video and computer media.

The director of graduate studies in the Department of Community Medicine, Associate Professor Leon Piterman, said that most students lived in rural and remote areas, which traditionally lack medical education activities.

"Many general practitioners in active practice recognise the need for upgrading knowledge and skills, and some yearn for

the intellectual stimulation that a structured program provides," Dr Piterman said.

"But as adult learners each has specific educational needs, and certain barriers must be overcome before these needs are met. Lack of time and difficulty in reorganising the practice so that the busy GPs can travel to an institution are such barriers, especially in rural areas."

The diploma program consists of two 'major' compulsory units and three 'minor' elective units, conducted part-time over the two-year period. Students can choose elective subjects covering a broad range of topics such as palliative care, preventive care, women's health, occupational health and safety and child health.

Students are expected to devote approximately 10 hours a week to coursework. One

of the diploma students, Dr Diana Johnson, says "courses like this will generate a new breed of general practitioners". Another distance education student, Dr Alan Wright explains that the course "crystallises the philosophy and concepts of what I do every day".

In addition to the course material to be completed, the students are offered the opportunity to participate in a residential weekend held at the university's Faculty of Education. This allows students to gain valuable 'hands-on' experience in the use of educational aids, and importantly to socialise with other GPs undertaking the course.

Currently 200 students, including 25 who live offshore, are enrolled in the graduate diploma or masters course.

From Montage 4

Both the former Soviet Union and the US produce non-metallic mines, such as the American plastic-cased anti-personnel M-14 mine. Ceramic mines have also recently been developed, which are also non-detectable to metallic mine detectors.

As well as the non-metallic mines produced by the US and Russia and some other militarily advanced countries, hundreds of types of non-metallic mines are produced by developing countries.

In particular, mines placed in wooden boxes are popular with guerilla and other self-sufficient military units because of the ease and low cost of their construction.

Development of the acoustic-based mine detector has so far been applied to detecting flat sided objects underground.

"Land mines are currently one of the biggest non-natural killers of people throughout the world and are responsible for permanently disabling tens of thousands of people."

This applies to most land mines. However, sound waves have difficulty accurately reflecting curved objects under the ground.

For example, Dr Don said that the cylindrical shape of the M-14 mine made it difficult to detect when placed on its side. He said: "I think we can overcome this problem by using more microphones in our array,

but much depends on getting the money we need from the Australian Defence Department."

While an acoustic-based land mine detector is of obvious humanitarian and military benefit in those countries which have suffered conflict, the development of this technology also offers the possibilities of earning foreign income.

The detector also has the potential to be used to find other non-metallic objects, such as pipes, underground cables and archeological relics.

A device using similar technology may also be valuable for medical purposes, in cases where doctors need to find hidden debris, such as glass or plastic, in wounds resulting from accidents such as car crashes.

Launching a mobile future

Monash graduate Ms Mary Henley-Collopy knows what it's like to have artificial arms and legs. But unlike many other people with disabilities resulting from thalidomide, she has chosen not to use the engineered limbs.

Her decision, made when she was six years old, was a personal one based on the way she wished to, and still wishes to, lead her life.

Now, 26 years later, she is a great advocate of the services provided by the new Monash Rehabilitation Technology Research Unit, known as RehabTech, because she understands the importance of choice.

RehabTech, which was launched in June, is a world-class rehabilitation engineering facility created by Monash University, the Alfred Group of Hospitals and the Commonwealth Department of Veterans Affairs.

A vital resource

The facility was established by transferring the administration of the Veterans Affairs' Central Development Unit to Monash's Centre for Biomedical Engineering and moving the unit to Caulfield General Medical Centre.

Speaking at the launch, manager of the unit, Mr Bill Contoyannis, described RehabTech as "a vital resource for the Australasian prosthetic, orthotic and locomotor rehabilitation engineering area".

The unit provides options for veterans and disabled people with specific needs. At the same time it provides Monash students with leading edge laboratory facilities in which to study and conduct research.

Monash University's head of the Department of Electrical and Computer Systems Engineering, Professor Bill Brown, said that "engineering students will be able to attend classes in a clinical context and,

with physiology, anatomy and medical science students, be able to undertake research projects of a multidisciplinary nature".

"An engineering presence of this kind in a hospital environment is unique in Australia and will lead to some exciting outcomes."

Already the unit is working on developing devices to assist disabled people, some with very specific needs.

Rehabilitation engineer at RehabTech, Mr Ross Stewart, said work is currently underway to develop an energy returning shoe – the 'E' shoe.

Conventional shoes designed to reduce stress on feet while walking or running rely on shock absorbing materials, such as foam and rubber. But Mr Stewart says that these materials dissipate most of the energy.

"If a higher proportion of the energy was returned it could make walking longer distances easier," Mr Stewart said.

The prototypes already developed by the unit have displayed significant dynamic effect.

Once fully developed, the 'E' shoe will have applications not only for rehabilitation and geriatrics, but also for regular sporting footwear.

Stumpcam

The unit has also developed a method of observing the dynamic changes in pressure in the artificial sockets of amputees.

By mounting a camera onto a prosthesis so that it films through a transparent socket onto the stump of an amputee, prosthetists



After officially launching RehabTech, the Federal Minister for Veterans Affairs the Honourable Con Sciacca MP spoke with Ms Mary Henley-Collopy.

have been able to see pressure changes on the stump's surface during gait.

This gives the prosthetist data on socket fit during all stages of gait, enabling the modification of a device for more comfort and greater manoeuvrability.

Mr Stewart said: "Stump-cam has the potential to become a vital tool in ensuring a better life for amputees".

This device, along with many others currently being developed, have commercial applications that the unit hopes to capitalise on in order to advance their research and education capacities.

TV or not TV

Figures released by a new Monash University study confirm the prediction that pay TV will be widely accepted by the Australian population.

Dr David Bednall, from the Syme Department of Marketing, found that up to 28 per cent of Australians would get pay TV in its first year of operation, if installation cost less than \$400, and subscription less than \$10 per week. At \$15 per week, acceptance dropped to 23 per cent.

The results are higher than industry figures, which predict that 20 to 30 per cent of households will be connected within three to five years.

Dr Bednall, who has worked in broadcast research intermittently over the past 20 years, conducted the survey of 750 Australians from across the country.

He believes that pay TV will need to offer an extensive range of highly desired programs to win approval from the general public.

"Top movies exclusive to pay television are the key to its acceptance," he said.

"To get the unexpectedly high figures shown by the survey, consumers will need to be fully convinced that they will get continuing value. Without top movies, the appeal of pay TV drops sharply."

One unexpected finding was that the inclusion of R-rated movies decreased the appeal of pay TV for most respondents.

"People don't seem to want uncontrolled access to R-rated movies in their living rooms", he said.

He said offering it as a first-off option could actually inhibit demand.

Dr Bednall will be releasing his results to the media industry for consideration in the lead up to the launch of pay TV.

Some small pay TV channels already exist in Melbourne, such as Tele Italia, which works on a multipoint distribution system.

The two main licenses, tendered by the government last year, will operate on a satellite system requiring the installation of a satellite dish in private homes.

Although the initial influx of people subscribing to pay TV will inject massive funds into the industry, Dr Bednall believes it will only just cover establishment costs, the

government licensing fee, and the cost of providing quality programs.

Dr Bednall said operators of pay TV channels were currently trying to stitch up deals with movie sources to ensure the continuous availability of blockbuster films.

The Minister for Communications, Mr Michael Lee, has recommended pay TV channels not be able to hold exclusive rights over programs such as the AFL grand final, the Melbourne Cup, the Olympics and other shows of national significance.

Dr Bednall believes pay TV will cause a minor decline for free-to-air channels, particularly during peak times when advertising revenue is the highest.

"People don't seem to want uncontrolled access to R-rated movies in their living rooms."

It has been estimated the free-to-air channels will experience a decrease in viewers of less than four per cent.

Although many details have not yet been released, it appears each operator will supply at least four pay TV channels, including a 24-hour sports channel, a channel devoted entirely to news and current affairs, and one showing only top movies. Ideas for other channels have included a cartoon channel, a channel devoted to children's programs, and one solely for ethnic programs.

ABC and SBS will also be providing channels for re-broadcast by pay TV operators.

The response to pay television was more favourable in country areas, where people have limited access to movie theatres and recently released videos.

Dr Bednall's research showed that the most popular channel was the one showing



"top new blockbuster movies not available on ordinary TV".

It scored a popularity rating of 6.3 out of 10, while the 24-hour news service scored 5.6, and a 24-hour sports channel scored 4.8. Non-violent pornography and R-rated movie channels were unpopular with most Australians, and in particular women.

A pay TV news and current affairs channel would probably consist mostly of international coverage from stations such as CNN and the BBC, with a small amount of local content.

Dr Bednall's research showed that advertising would reduce demand for the service. Government legislation prohibits advertising on pay TV until 1997.

He stressed that although the survey revealed much about viewer habits, there were still many unknown factors, such as price, timing and program content. The installation fee could be anything from \$100 to \$600, and the weekly subscription fee from \$5 to \$15.

The research was intended to examine the influence of programming, price and advertising factors on the appeal of pay TV.

It also revealed that the average person watches three hours of television each day. There are no indications that pay TV will be charged on an hour by hour basis.

Most Monash University academics agree that the best way to prepare students for employment is to teach them to think.

They were responding to a recent *Campus Review* editorial which raised the question: "What is the reason for a university education – to learn to think, or to learn a job?"

universities between liberal arts and vocational courses, and encourage more blending of the two?" he asked.

Dr Gay Baldwin, from the university's Policy and Planning Directorate, said: "In their call for graduates who are better equipped to enter the workplace, employers are stressing the need for broader, rather than narrower skills. They want flexible,

university – to teach students to think, or to train them for the workplace.

Deputy dean, Faculty of Business and Economics, Professor Peter Chandler.

"Universities have traditionally been in the business of training young minds to think. What is happening however is that the market for graduates has turned into a buyer's market. More than ever the onus is on graduates to demonstrate to prospective employers that they can contribute in a direct and preferably immediate way. Universities that understand this new imperative will attract the next generation of students who want it all."

Senior lecturer in the Politics department, Dr Susan Blackburn.

"Education, including at tertiary level, has many purposes. In addition to training people vocationally and philosophically, it can also be seen as preparing people to be active and thoughtful citizens of their nation and the world, and be people who can use their time fruitfully because they have access to the world's knowledge and cultures. Most of these aims are mutually reinforcing rather than conflicting."

Dr Gay Baldwin from the university's Policy and Planning Directorate.

"The article in *Campus Review* poses the question: 'What is the reason for a university education – to learn to think, or to learn a job?' The assumption is that the functions are incompatible, that institutions – and society – must make a choice between them. But universities have always been concerned with both, and their activities have always been based on the assumption that the two are related.

"That is not to deny that there have been tensions, at times, between the goals of developing students' general intellectual abilities and preparing them for the workplace.

Professor Jeff Northfield, Faculty of Education.

"This distinction forces a dilemma which does not necessarily exist. Universities are the guardians and developers of the disciplines. To claim one approach is better than another is the destruction of universities.

"To learn to think is to learn what is needed for a job, which will change in demands and nature. Vocational education is the ability to think about and learn from experience."

Education: what's it really for?

Most Monash academics believe it is impossible to separate learning to think from learning a vocation, and said that the art of critical thinking, research and analytical skills were an essential part of any education.

Campus Review argued that the debate was about the fundamental role of tertiary education in a country needing to re-train and re-direct its workforce in order to reduce the high level of unemployment and remain competitive.

A recent report to the Australian Government's Industry Taskforce on Leadership and Management Skills underlined the need for future business leaders to have a capacity for independent thought, a sensitivity to cultural differences and strong communication skills.

Professor Graeme Davison of Monash's History department believes that many other countries achieve this objective better than Australia does.

Some make a liberal arts degree the normal route into advanced degrees such as business and law, while others blend liberal arts and vocational subjects within the undergraduate degree. "Is it time to question the deep division in Australian

adaptable workers, whose skills are readily transferable. Presumably these employers would support strongly the proposition that the best preparation for employment is to learn to think."

Senior lecturer in the Politics department, Dr Susan Blackburn, said that in the Arts, academics were probably least concerned about the conflicts between the vocational and philosophical aspects of education because they had undertaken to produce graduates who could research, analyse and communicate, "skills which are generally useful to a range of employers but are not specifically vocational".

"I am just as concerned about fostering a sense of responsibility in my students about their place in the world, empathy and interest in the cultures and viewpoints of other people, and confidence to act on issues which concern them," she said. "Education, as the hackneyed expression goes, is for life, not just for a job."

Campus comments

Montage asked Monash staff to comment on the debate highlighted by *Campus Review* on the proper role of a

Defining the boundaries on intellectual property

Who owns the product of academic activity? The community? The researchers? The university? Research is underway at Monash to more clearly define the boundaries of intellectual property.

Three Monash law academics are embarking on a research project which could help define the objectives of Australian universities in the 21st century.

Professor Sam Ricketson, Associate Professor Sue McNicol and Ms Ann Monotti have been granted \$30,000 from the Monash Research Fund to investigate the attitudes and approaches of Australian universities to the ownership of ideas or intellectual property.

The law of intellectual property applies to such things as copyright, patents, designs, trademarks, confidential information, circuit layouts for computer chips and even plant varieties.

The question of who owns the products of academic activity, especially research, cuts to the very core of what universities are about, Professor Ricketson says. Some institutions are committed to scholarship and to the community that supports them; others are concerned with the needs of their staff and with ensuring a sound financial base for

future activity. Each will manage their intellectual property accordingly.

"There is a problem of mixed objectives in the pursuit of knowledge. On the one hand, universities are all about free and open inquiry and the sharing of knowledge; on the other, they must maximise the potential of the knowledge they generate," Professor Ricketson said.

The study, which will take three to four years, will document intellectual property trends in Australian universities. The three researchers will also look at how these matters are handled overseas, particularly in the UK, Europe, North America and Asia. Associate Professor McNicol, a legal philosopher, will investigate the legal principles involved.

The project emerged, Professor Ricketson said, because universities kept asking for advice on matters relating to intellectual property. Another stimulus was the work of Ms Monotti, an intellectual property lawyer, on copyright and its impact on academics.

Professor Ricketson has written one of the most widely used textbooks on

intellectual property law and is a member of the copyright and intellectual property committee of the Australian Vice-Chancellors' Committee. He also sits on the Monash University Patents Committee.

He says he became interested in intellectual property during his postgraduate studies at the London School of Economics in the mid-70s. His textbook, *The Law of Intellectual Property*, stemmed from a course he began teaching at the University of Melbourne. (Professor Ricketson now provides specialist graduate courses in the area at Monash.) The book first appeared in 1984, and he is in the throes of completing the second edition.

The problems with technology

Modern technology has raised many contentious issues concerning intellectual property, Professor Ricketson says. For instance, copyright is increasingly under pressure as the technology of communication develops.

"What is a book in the era of digital technology? Text can be disseminated in so many ways. What rights do cable television programmers have over the material their channels carry?" he asks.

And it is now so easy to copy books, recordings and videotapes that lawyers are seeking solutions to the problem of ownership that are independent of the technology used in disseminating the work. One approach has been to put a levy on the materials used in copying. But when such a levy was introduced for blank audio tapes in Australia, the legislation was rejected by the High Court. It was also seen by the US as a barrier to international trade.

"There is no central direction in government with respect to intellectual property", he said. "For instance, patents and trademarks are primarily the responsibility of the Department of Industry, Science and Technology, but the Department of Primary Industries and Energy and the Department of Defence also have interests.

"And the Attorney-General's Department becomes involved in anything of a legal nature. When decisions are made in one department, the others don't necessarily know about them."

Finding solutions to these sorts of issues is made even more difficult by lack of co-ordination between government departments, Professor Ricketson says.

Kola welcomes a new look South Africa



One of the founding members of the African National Congress Support Group in Melbourne, Monash University's Dr Ismail Kola, is ecstatic at the recent political developments in South Africa.

Dr Kola was one of the few black South Africans accepted into a white university during the country's dark days of apartheid.

He found it absurd that while a white university was bestowing academic prizes and awards on him, he was "not good enough" to use the same toilets, or walk on the same side of the street as a white South African.

Dr Kola came to Australia in 1985 to work at Monash University's Centre for Early Human Development, where he could advance his career as a scientist much further than he ever could in his own country.

However, he still calls South Africa "home" and sometimes regrets that he had to put his scientific career above his political and personal aspirations.

Dr Kola was involved in black consciousness movements, such as the South African Student Association started by Steve Biko, and democratic organisations such as the United Democratic Front (UDF), while the ANC was still an illegal organisation.

One of his greatest concerns was that the old regime in South Africa not only suppressed blacks politically and economically, but also psychologically, so that they "started to believe they were inferior to white people".

During apartheid some of the most popular consumer items were skin lighteners and hair straighteners, as blacks tried to become more white.

Dr Kola fought not only for political and economic freedom, but for a return to pride and dignity among black South Africans.

It was for this reason that white people were originally not allowed to join the South African Students Organisation.

"Black consciousness organisations were trying to get rid of psychological and physical oppression, and promote pride and dignity in black people," he said.

Eventually, democratic groups, such as the UDF, opened their doors to whites, recognising that this policy of exclusion could lead to reverse racism if taken too far.

Dr Kola praised the ANC for putting the "good of the greater community" before its own aspirations for power. He said it was incredible that after being denied his civil rights for many years, and spending more than a quarter of a century wrongly imprisoned, Mandela was "delighted to include all parties in the writing of the constitution".

Dr Kola had high praise for the new South African president: "Nothing I can say will do justice to the person he is – his statesmanship, his compassion for his opponents, his political astuteness, and his phenomenal political achievement only four years after he got out of prison."

He called De Klerk a "brave man" for dismantling his own power base for the good of the country, but believed he was influenced more by economic sanctions and international pressure, than aversion to apartheid.

"We never accepted the conditions we were forced to live in, and we were not going to allow it to break our spirit, to dehumanise us as it was designed," he said.

Dr Kola channelled his anger during his student days in South Africa into positive energy, "to make a point".

With every exam he sat or essay he wrote at university, Dr Kola felt he was "carrying the aspirations of all blacks in South Africa".

The biggest challenge facing the ANC now is to meet the expectations of black South Africans.

Dr Kola acknowledged it was going to be difficult for the government to implement its \$45 billion restructure program.

"The party needs to reconstruct 300 years of social and economic injustice, while keeping international markets happy and conducive to investment. It is a big ask," he said.

However he believed the ANC had the spirit, resilience and optimism to meet the challenges ahead.

Dr Kola spent many years on the executive of the ANC support group in Australia, which helped popularise the party's message, raised funds and hosted ANC members visiting Australia.

Dr Kola said oppression of Aboriginal Australians was different from oppression of black South Africans because discrimination had not been legislated here.

But it was a "sad testimony on us that Aboriginal infant mortality is equivalent to that of black South Africa".

He said in a society as affluent and problem-free as Australia, it was tragic that Aborigines were still living in horrific health and social conditions.

All of Dr Kola's family remain in South Africa, except his mother, who died last November, before ever having cast a vote.

BY GEORGIE ALLEN

Early warning device saves lives

Technology developed by Monash's first Master of Engineering graduate, Mr Martin Cole, protects millions of people world-wide and generates some \$15 million in exports for Australia each year.

The technology, an early warning device for fire, is featured in many of the world's best-known structures, including Parliament House in Canberra, the London Underground, the new Channel Tunnel between England and France and several royal residences.

So effective is the equipment in detecting potential fires that there are now 25,000 systems installed around the world," he said.

The device, known as VESDA, uses an air pollution monitor to analyse air samples aspirated by tiny inhalers throughout a structure or building.

The system inhales air continuously from sampling points located every few metres. The air samples are drawn down a pipe, through a dust filter assembly, and into a detection chamber, where they are exposed to a broad-spectrum Xenon light source.

"In the detection chamber, light scattered by smoke particles within the air stream passes through a series of optical components to a solid state light receiver," Mr Cole said. "This converts the light to an electrical signal which is passed to the control panel for processing."

The system is "vastly superior to conventional smoke detecting equipment" because it is designed to sound three separate alarms before smoke becomes apparent.

Mr Cole, who is president of the international IEI group, says this early warning is invaluable because it buys time for response, limiting the possible damage from fire. He says this in turn drastically reduces the cost of business interruption.

A situation that arose recently at one of London's major financial centres illustrated Mr Cole's point.

One of the centre's computers had a minor fault at 2 am, when nobody was in attendance.

The VESDA system alerted the night-watchman to the potential hazard and by 3 am all risk of fire had been averted, saving the multi-million dollar facility.

Mr Cole undertook his Masters program because the detection system that he had previously developed for IEI needed a more efficient aspiration system.

"The challenge was to cut the system's energy needs and to increase its performance". At the end of all the research supervised by Monash, we improved the system's efficiency by a factor of ten."

But this result did not come without an element of risk.

IEI wanted to bypass the time-consuming process of trialling a number of proto-

types before proceeding with costly plastic injection tooling. Instead, they went immediately to designing the mould and producing off-tool samples, hoping it would be close to the final product.

The gamble paid off and saved IEI between six and 12 months in the development process.

One of VESDA's greatest challenges to date has been in providing external air sampling for the protection of moving trains in the new Channel Tunnel.

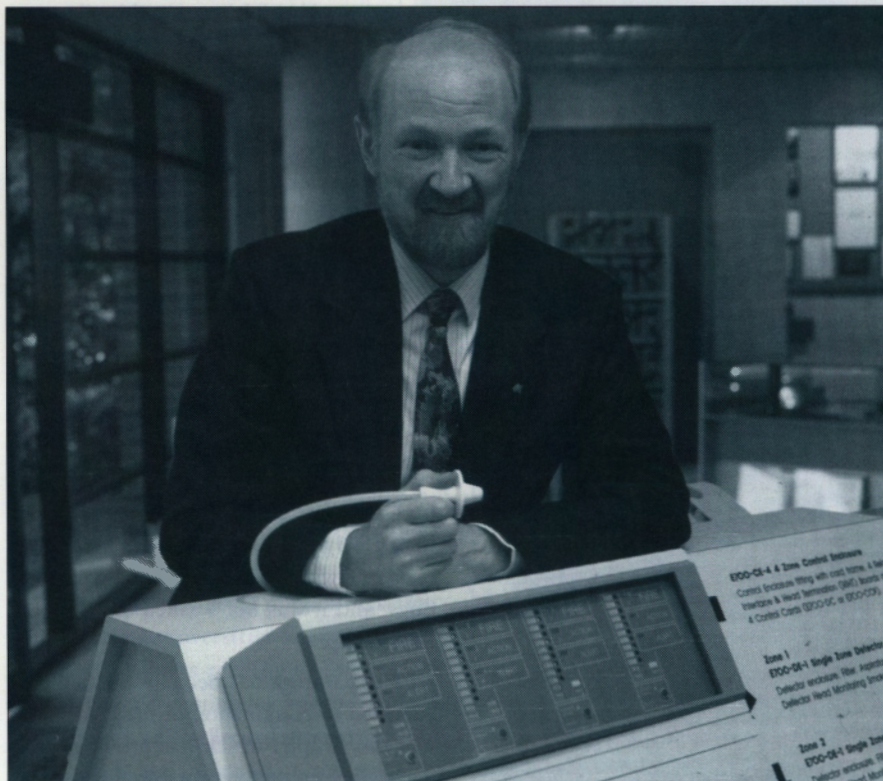
With large transport trucks that have hot engines loading onto trains that move quickly into the 22-mile long tunnel, and with the possibility of a fuel spillage, the potential for fire is omnipresent.

VESDA has been adapted to take samples from the air surrounding the train while it travels through the tunnel and beyond.

And Mr Cole is confident that the thousands of people using the Channel Tunnel will not need to be evacuated due to a false alarm from VESDA.

"Independent surveys have shown that the false alarm rate for the VESDA system is essentially zero," Mr Cole said.

For further information about VESDA, contact IEI on 544 8411.



Mr Cole's early warning device for fire uses tiny inhalers (being held) to aspirate air from throughout buildings. The air samples are then analysed at a central computer for their potentiality for fire.



Isis painting holds clues to ancient Egypt

The first week of January this year was an unusual one in parts of the eastern Sahara. It rained.

In fact, at the oasis of Dakhleh, 800 kilometres south of Cairo and about 350 kilometres west of the Nile, it rained for about 12 hours. The locals had never seen anything like it. They were worried their mud brick houses would collapse.

But something even more remarkable happened about two weeks later. An Australian archaeological team led by Dr Colin Hope, a senior lecturer in the Department of Greek, Roman and Egyptian Studies, found a small painting of the Egyptian goddess Isis dating from the second century AD.

The picture – one of only about a dozen known from the time – was buried in mud five centimetres below the surface at a temple site that had been exposed two years earlier. Painted directly onto wood with no surface preparation and no protective coatings, the work had not only survived more than 1800 years, but had been exposed for two years without being dug up by the local dogs, and it was not washed clean by the freak deluge.

The painting has become the key to a detailed re-examination of material found in the temple, which has provided new insight into temple worship, furnishings and equipment. It will be the subject of a paper Dr Hope has been invited to

deliver this month at an important international conference to be held at the British Museum in London.

“Most of the great Egyptian temples were excavated about 100 years ago,” Dr Hope said. “The furnishings were not recorded in situ. Much of that material has now been lost. Those coming to the conference want to hear about our small temple because it contains valuable evidence which allows us to reconstruct the cult which used it.”

The team which Dr Hope leads has been excavating a well preserved Roman town in the oasis of Dakhleh since 1986 (see *Montage*, September 1993 for a full account of earlier work). The town is one of about 500 archaeological sites which were recorded in a surface survey of Dakhleh conducted between 1978 and 1985. Dr Hope estimates that only between half and two thirds of what is there has been surveyed, with the rest lying under sand dunes.

But then, Dakhleh is hardly a simple well surrounded by a ring of palm trees. It is an artesian basin, about 65 kilometres by 30 kilometres, known to have been continuously occupied from 250,000 BC to the present day. While its culture has always been dominated by Egypt, it always regarded itself as a separate entity from the kingdoms of the Nile Valley.

The Australian group forms part of a large international effort to try and document ancient human occupation of a semi-arid environment and its impact on the

flora and fauna. The project aims to investigate every possible facet of life – industry, religion, the home, administration, the economy. The participants hope to integrate what they find with what is contained in the large numbers of texts already uncovered.

Dr Tony Mills, formerly of the Royal Ontario Museum, began the enterprise in 1975 with Canadian backing. Since then the effort has broadened and has taken on a life of its own. Dr Hope, an expert on Roman ceramics, first became involved in 1979 while he was still living in the UK. Despite emigrating to Australia in 1981, he has returned to Dakhleh each year.

For three years from 1990 to 1993, Dr Hope was a co-recipient of a program grant from the Australian Research Council (ARC). He hopes to get further funding from that quarter next year.

"I am determined to get as many other Australians involved in the site as I can. We need to train students in field work, for instance," he explained.

This year, with no ARC funding, the Australian effort has been reduced. It has depended on money raised through the Egyptology Society of Victoria. The funds it raised were enough to allow 12 researchers to go to Egypt for two weeks of excavation. The group used its limited time to concentrate on the temple. The painting was found on the first day.

Until the painting of Isis was uncovered, it was assumed that the temple was used to worship the Egyptian god Tutu and his family. The temple at Dakhleh is the only one known to be dedicated to Tutu.

Although he is encountered in temples elsewhere, it is as a minor deity.

Revered with Tutu were his wife Tapsais, who is found in Dakhleh and nowhere else, and his mother Neithe, one of the older goddesses of Egypt. Dr Hope says that to the residents of the oasis, they formed a powerful triumvirate against the threat and chaos of the surrounding desert.

But the painting of Isis suggested that those who lived in the oasis did not put all their religious faith in one direction. "We began to examine the other objects we had found in a new light. And we found fragments of plaster sculptures of Isis, from as small as ten centimetres high to a life-size bust," Dr Hope said.

The research team found sculptures of another god too – Serapis, a strange amalgam of Egyptian and Greek heritage. Dr Hope says that when the Macedonian Greeks under Alexander the Great took over Egypt, they devised Serapis as a god who could unite Greek with Egyptian mythology and beliefs. Serapis was never a success in mainstream Egyptian culture, but he has now been found in Dakhleh and in the next nearest oasis to the Nile.

"We found several wall sculptures, fragments of his beard sculpted in stone, and also a fragment of his crown which is larger than life size," Dr Hope said. "There were also sculptures of a male foot with a boot on. Foot offerings were associated with the cult of Serapis."

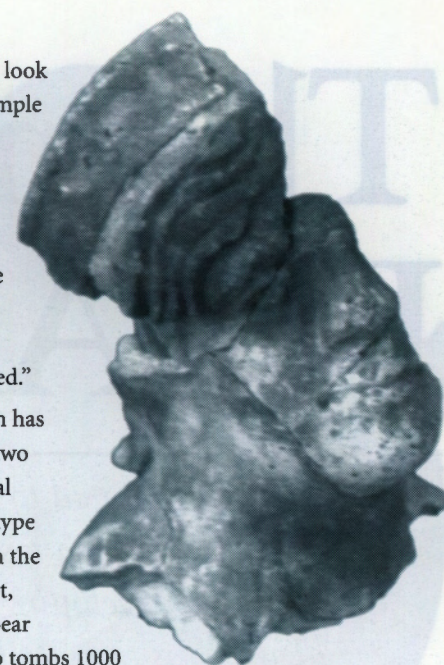
"We will now go through all the other material in a meticulous way, to build up a picture of what went on in the temple.

And we will look for other temple furnishings, altars, shrines and sculptures. Most will be damaged but can be reconstructed."

The team has also found two monumental tombs of a type unknown in the rest of Egypt, but which bear similarity to tombs 1000 kilometres away in Libya. And the site contains one of the few free-standing 4th century Christian churches in Egypt. Until the early 4th century, Christianity was illegal throughout the Roman empire.

So far, the team has focused on excavating a series of 3rd and 4th century houses and a huge administrative building used from the 2nd century until the site was abandoned in 390 AD. After the temple, the group wants to examine an earlier residential quarter, industrial areas where glass and pottery were made, and the church.

"We have gone over only about one twentieth of the site, and have selected our sites very carefully," Dr Hope said. "The work is time consuming and costly. We'll leave the rest for future generations who will have better technology and better knowledge with which to unlock its secrets."



A second century AD painting of Isis (far left) has been dug up at Dakhleh (above). The team also unearthed fragments of plaster sculptures of Isis (top right).

The missing DNA link

Are humans related to birds? Do they have a common ancestor? A Monash researcher is trying to answer such questions by developing evolutionary family trees using algorithms to trace the history of pieces of DNA.

On the surface, the task seems quite simple: compare segments of DNA code from different species and construct an evolutionary family tree of species descended from a common ancestor.

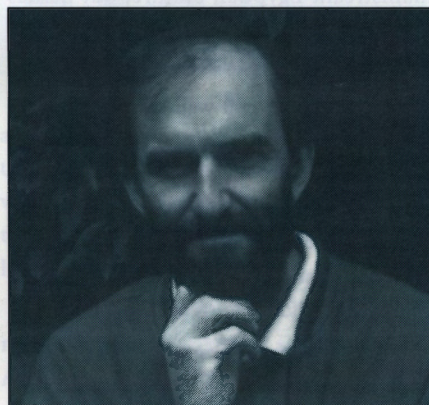
In reality, the task is fiendishly difficult. Dr Lloyd Allison, reader in the Department of Computer Science, describes aligning two DNA sequences to determine their similarities as "a can of worms".

He says this type of problem crops up in many different areas of molecular biology. A biologist may have isolated a gene and want to know whether it is new or related to a known gene, which usually means performing a fast computer scan of an international database. Dr Allison says efficient algorithms are essential because DNA databases are already huge, and expanding very rapidly.

Dr Allison is attempting to develop algorithms for a more leisurely type of comparison, in which the requirement is not for raw speed, but for an ability to compare multiple segments of DNA code whose similarities – or differences – offer some measure of how closely their owners are related.

"We want to be able to focus on the bits of genes that are preserved, and the pieces that mutate more rapidly. The presumption is that the conserved bits are functionally important," Dr Allison says. "Highly conserved DNA is likely to be informative about the relationships between distantly related species, while 'junk' DNA, which is more variable, is more useful in detecting relationships between species that have diverged more recently."

Not all DNA encodes genes. In higher organisms, only 2 per cent of DNA actually does so. The other 98 per cent – the so-called 'junk' DNA – occupies long tracts between or within genes, where it may be involved in regulating gene function.



According to Dr Allison comparisons between the DNA of distantly related organisms – for example, humans, rodents, birds and reptiles – are complicated by the fact that various types of mutations are involved; over millions of years the accumulation of these mutations tends to obscure evolutionary relationships.

So the focus is necessarily on so-called point mutations, which change just one 'letter' of DNA code at a particular position. Although subtle, point mutations are the most common and still pose difficult computational challenges when genes from two or more species are being compared. One problem is that point mutations, depending on where they occur, may change the 'recipe' of the protein, or may have no effect at all.

The myriad proteins found in living organisms are all assembled from a basic 'constructor set' of just 20 amino acids; each amino acid is specified by three letters of DNA code (a so-called triplet codon). The complication is that the relationship between an amino acid and the DNA codon which specifies it can vary – two amino acids have at least six alternative codons, while others have at least two. Theoretically, two genes specifying identical proteins could have marked differences in their DNA code. Alternatively, a point mutation at a critical site can 'flip' a codon to specify a different amino acid. Both types complicate the process of comparing genes to determine the relatedness of species – and any useful algorithm for comparing DNA sequences must take these into account.

Fortunately, says Dr Allison, the problem is constrained because not all mutations are equally likely. "Information theory lets us put a price on changing pieces of DNA code," he says. "Point mutations, for example, cost less than deletions or insertions involving large slabs of DNA code."

Dr Allison says that in computing the evolutionary distance between two or more DNA sequences, biologists can fall into the trap of assuming that the shortest path is the right one. "While the optimal path is more likely than any other, it still turns out to be incredibly unlikely," he said. "The trick is to average over all possible alignments."

"Recently I have been trying to apply these principles to evaluating many sequences at a time, to build evolutionary trees."

"We assume we know the shape of the tree, but not the length of its branches. I have been developing a randomised process which samples segments, guesses at possible alignments, then averages over the many possible alignments. So far it can't do any more than 10 sequences at a time, but it gives good results."

"There is fundamental tension in designing these algorithms – biologists are well aware that not all branches in an evolutionary tree are the same length, but it is difficult to determine what the real lengths are. It makes the computational complexity worse – recovering these trees is a real computational challenge. In trying to make the models biologically relevant, we could easily use all the supercomputer time in the world."

Complementary medicine: a popular adjunct

An overwhelming majority of fourth-year Monash medical students want to study complementary medicine as part of their degree.

According to a survey conducted by Dr Craig Hassed and Dr Steven Sommer from Monash's Community Medicine department, 92 per cent of students want to practise some form of complementary medicine in the future. Four per cent were not sure, and only four per cent were not interested.

The most popular complementary medicines were meditation, nutritional medicine and acupuncture, followed by naturopathy, Chinese herbal medicine, homeopathy, hypnosis and an ancient Indian treatment called ayurvedic.

Students responded positively to the question of whether they wanted more teaching in complementary medicine sub-

jects in the Monash medical course, with an average rating of 4.6 out of five.

Dr Hassed said the result was "extremely high, showing a very positive interest in this area".

He said there was a proposal to offer a 12-week option for third-year students in the most popular complementary medical disciplines in the future. Meditation is currently built into the course as part of a stress management program.

According to Dr Hassed many forms of complementary medicine may be important in preventing disease, and stress management is a significant aspect to keeping health in check.

"The way you think, how you feel and your lifestyle all affect your body," he said.

Dr Hassed said it was ironic that while complementary medicine courses were

becoming more scientific, traditional medicine courses were starting to include natural treatments.

Dr Hassed said many studies had found that treatments involving meditation, nutritional medicine and acupuncture were often as effective as traditional treatments.

"More research will obviously need to be undertaken to clarify certain contentious questions," he added.

It appears complementary medicine is becoming more popular among patients as well as gaining respectability among the mainstream medical community.

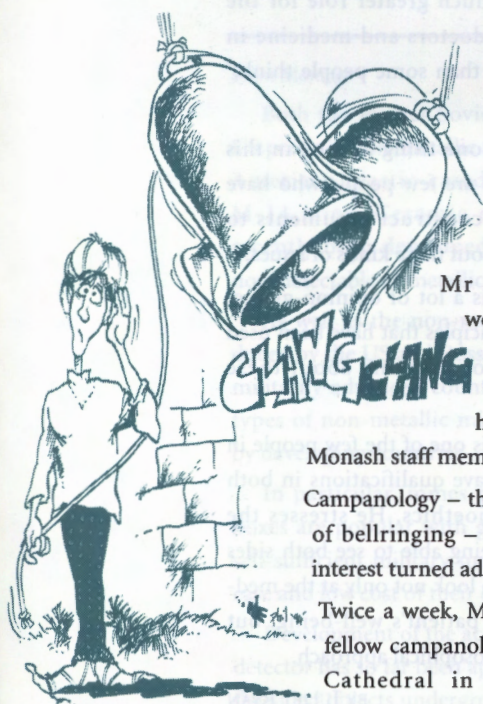
Although there have not been many studies in Australia, a recent survey in Britain showed that 80 per cent of doctors wanted to adopt some form of complementary medicine as part of their practice.

Professor Carle Wood, from the Department of Obstetrics and Gynaecology at the Monash Medical Centre, said Melbourne doctors were applying Chinese treatments, including acupuncture and herbal medicine, in their work.

One reason oriental medicines have been slow to gain credibility in the mainstream community is that they have a different cultural base to Western sciences.

Having been handed down orally through the generations, Chinese treatments have been less formalised and structured than Western medicine.

Showing us the ropes



Lecturer in computing Mr John Boutland would have to win the prize for the most unusual hobby of a

Monash staff member.

Campanology – the art and science of bellringing – is his childhood interest turned adult passion.

Twice a week, Mr Boutland joins fellow campanologists at St Paul's Cathedral in Melbourne or

St James's Church in Gardenvale to practise the ancient art.

This unusual skill, he says, involves mastering patterns of change and number sequences as well as learning how to handle the bells.

"Bellringing of this type has nothing to do with music since 'tunes' are not played," he explained "rather, sequences are rung".

Mr Boutland says that physically controlling the swing of a bell takes the average person a few weeks of practice. "Each bell needs one person to handle it, and because of the high inertia of this relatively large mass, changing its position in the sequence

by more than one position at a time is not practical," he said.

Mr Boutland insists that his interest in ringing bells has nothing to do with the binary code sequences of his chosen profession. Nevertheless, he has written a computer program to produce sequences.

He says that although most sets of bells are to be found in churches, the 'craft' of bellringing is quite independent of religious association.

And what does Mr Boutland think of Quasimodo, literature's most famous bellringer? "He probably wouldn't have made a very good campanologist – he was too bent over."

Good reasons to die

Dr Julian Savulescu has completed the first Monash PhD degree in bioethics.

Dr Savulescu's thesis, *Good Reasons to Die*, investigates the doctor-patient relationship when making ethical decisions about patients' care and ultimately about their lives.

"There is a growing impetus that patients should be more involved in their care, more determinative of what happens to them in hospital, particularly with end of life decisions," explained Dr Savulescu, who is also a fully qualified medical practitioner.

"I wanted to look at that issue in more detail and see what kinds of choices patients should be making and how they should be making them."

Dr Savulescu chose bioethics because it was related directly both to his studies and to his work in medicine.

"The topic is one that I saw as being a very real issue at every level in hospitals. End of life decisions are the starkest examples of people choosing how they want their lives to go. But I also looked at other areas where people often have to make choices, like whether or not they should have an operation," he said.

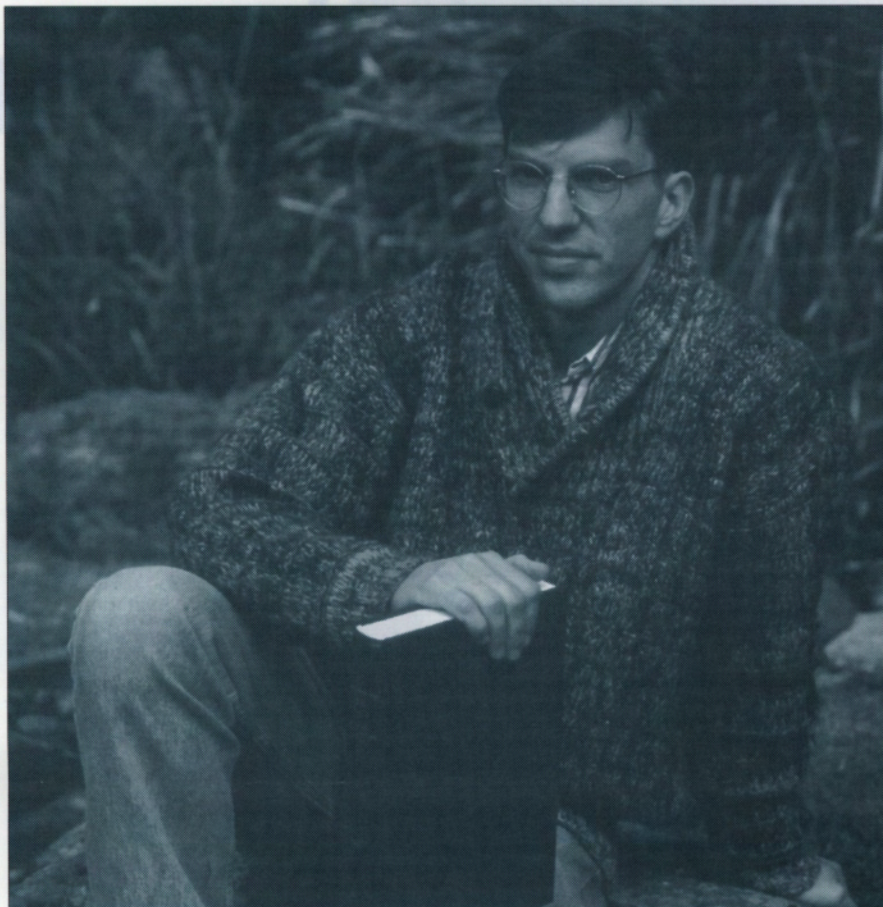
One issue Dr Savulescu examines in his thesis is: "When should a person whose life could be prolonged be allowed to die?"

He says his responses do not cover every ethical dilemma that arises in hospitals.

According to Dr Savulescu there are two circumstances in which most people believe a patient ought to be allowed to die. The first is when the patient autonomously desires to die and the second is when the patient is not competent to express a view, but death appears to be in the patient's best interests.

Dr Savulescu believes that conflict often arises between a patient's autonomy – what they want to happen to them, and what medicine thinks is in their best interests.

"Medicine often thinks that all that is important are the medical facts, it is simply a matter of presenting them and the right decision will be made," Dr Savulescu explained.



"From a medical point of view, my thesis and the kind of work I'd like to continue with, will show that making decisions about these kinds of issues requires not just facts, but also a way of thinking about what is important."

Another question Dr Savulescu's thesis raises is: "When is a patient acting autonomously?"

"There are a number of factors – sleep deprivation, confusion, high carbon dioxide levels in the blood – that affect the way a patient thinks.

"Patients in hospital face a number of serious hurdles when making an autonomous decision. There are criteria that have to be met before it can be said that they are acting autonomously."

Accordingly, doctors need to take into consideration the pressures a patient may be under when attempting to make an autonomous decision.

Dr Savulescu has received a postdoctoral scholarship to study at Oxford. When he returns he hopes to embark on an academic

career, teaching medical ethics to medical students and as an advisor to doctors and patients on ethical dilemmas in hospitals.

"There is a much greater role for the involvement of doctors and medicine in decision-making than some people think," he said.

"I think that one thing lacking in this area is that there are few people who have the training to construct arguments to think critically about these kinds of issues.

"Often there is a lot of opinion-giving, but there are principles that have been used in philosophy for thinking about these kinds of issues."

Dr Savulescu is one of the few people in the country to have qualifications in both medicine and bioethics. He stresses the importance of being able to see both sides of a situation – to look not only at the medical aspects of a patient's well-being, but also to take a philosophical approach.

BY JULIET RYAN

Falling from Grace

The team that brought *Hotel Sorrento* to the big screen is now bringing *Falling from Grace* to Monash University's Alexander Theatre.

Falling from Grace, which opens at the Alex on 8 September, explores the premise that relationships between women can be stronger than those between men and women.

The action focuses on the long-term friendship of three women in contemporary Melbourne who have, between them, high-flying careers, lovers, babies, ex-husbands and teenage children.

Hannie Rayson, who wrote *Hotel Sorrento* and *Falling from Grace*, said she wanted to celebrate women's friendships and explore the situations that could threaten these bonds.

One of the women is a journalist who discovers that a drug offering hope and relief from premenstrual tension to thousands of women also causes a congenital defect in newborn babies.

She is confronted with the ethical dilemma of whether or not to publish the findings, knowing that the release of the information will destroy valuable research and ruin the career of one of the scientists involved.

"One of the characters, who is pregnant, loses her filofax, only to find it several days later in the vegetable crisper. Some of the elements are semi-autobiographical," Ms Rayson said at the launch of the 1994 Playbox season.

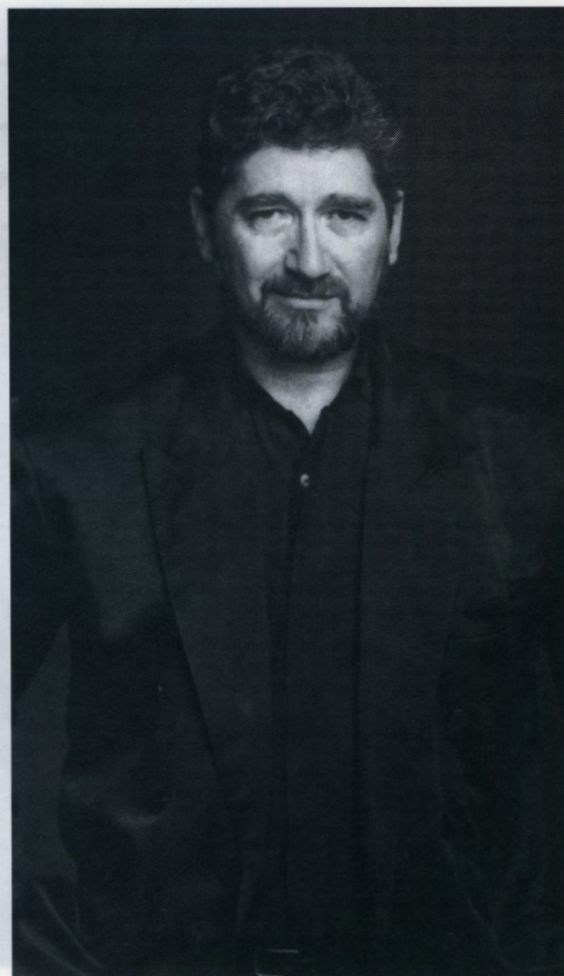
Playbox Theatre Company's artistic director and director of the play, Aubrey Mellor, said that unlike many other contemporary playwrights, Ms Rayson did not portray her female characters as struggling with the demands of family life while striving for career success: "She says, 'it's the 90s, these women are just here.'"

Mr Mellor started work at the Playbox Theatre Company in January this year, after working at the Nimrod Theatre Company in Sydney, and the Queensland Theatre Company before that.

He came to Melbourne because he believed it was the centre of Australian theatre and that Playbox was the only theatre company in Australia that took new playwrights seriously.

He said Hannie Rayson was making a major contribution to the contemporary playwright scene: "Her plays are very 90s and very Melbourne".

Since the success of *Hotel Sorrento*, the artistic world has awaited with great



Director of *Falling from Grace*, Aubrey Mellor.

anticipation the release of Hannie Rayson's new play.

Falling from Grace took Ms Rayson three years to research. It will open in Melbourne before travelling to Sydney and Brisbane.

ARTS GALLERY

■ The Alexander Theatre

A room of one's own

Melbourne Theatre Company performs 'A room of one's own' from 2 August.

Pamela Rabe, acclaimed for her roles in 'Lost in Yonkers' and 'Much Ado About Nothing', brings to life the startling originality and energy of the remarkable Virginia Woolf.

■ The Monash Gallery

Faciality

Faciality is a selection of drawing, painting, photography and three-dimensional work which presents aspects of the face

beyond the genre of the portrait. Inspired by the theories of Deleuze and Guattari, the works enter into and question systems of representation and interpretation in their suggestion of diverse artistic, cultural and political ideas.

The exhibition will run until 27 August.

■ Monash Rare Book Collection

Swift and His Times (1667 - 1745)

The nucleus of the Monash Rare Book Collection is its Swift collection, purchased from Swift scholar Dr David Woolley in 1961. It is a live collection of books, manuscripts, illustrations and engravings.

The exhibition intends to place Swift in the circle of his friends, enemies, influences, and acquaintances, evoking the intellectual and cultural life from which Swift and other writers such as Pope, Gay, and Lady Montagu drew their nourishment.

The exhibition is being held on the first floor of the main library until 21 August.

■ Robert Blackwood Hall

Melbourne Symphony Orchestra - The Monash Series

The third of four concerts in the Monash Series will feature one of Australia's leading violinists, the co-concertmaster of the Sydney Symphony Orchestra, Dene Olding. He joins wife and Australia Ensemble partner Irena Morozov in a performance of Mozart's showpiece for violin and viola, the Sinfonia Concertante.

Under the baton of distinguished British conductor Mark Elder the orchestra will also play one of Rachmaninov's most romantic works, Symphony No. 2.

The concert is being held on 2 September. For tickets, contact BASS on 11500.

The not-so-normal life of a DVC

Professor Robert Pargetter – you know the name and you probably know the face, but what does Monash's deputy vice-chancellor (academic projects) do?

With working days that often begin very early and finish very late, it's fair to say that Professor Robert Pargetter leads an exhausting life.

As a member of the Vice Chancellor's Executive, Academic Board and Committee of Deans, Chair of Monash's Performing and Creative Arts Committee, Chair of the Victorian Tertiary Admissions Centre (VTAC), Chair designate of the VVCC Selection Process Committee and Academic Director of Open Learning Australia – to name just a few – Professor Pargetter is a vital component of the university's decision-making team.

With so many people and committees making demands on his time, there is no such thing as a standard day in Professor Pargetter's life.

"I have a young son who swims most mornings, so I use those early hours to do a couple of hours work – he swims, I write," he says.

"I am out two to three nights a week on average with work commitments, I do a lot of talks at schools at night and there are dinners to attend and various events on campus."

Professor Pargetter joined Monash University in January 1989 as Chair of the Department of Philosophy after teaching at La Trobe University for 20 years.

He was appointed dean of the Faculty of Arts in August 1989 before taking up his current position as deputy vice-chancellor in 1992. It was a rapid rise which ensured a steadily increasing workload, one he says would be impossible to manage without the assistance of his excellent support team.

"My assistant, Jenny Culverwell, keeps me organised and ensures that I am in the right place at the right time. My executive staff, Ivan Gregory, Jill McLachlan and the

staff of the Courses and Careers Centre, carry a lot of the workload and responsibility. If I didn't have good staff we wouldn't achieve nearly as much as we do."

Much of Professor Pargetter's time is spent encouraging communication.

He spends about two days a week working on the Open Learning Australia project. This role often sees him travelling and talking to other universities, spending time at Monash Central and sifting through documents at his desk on the first floor of the Main Administration Building on Clayton campus.

"Open Learning has a long way to go before it is fully developed," he says. "There are many opportunities that Open Learning could offer that are yet to be explored."

With the upheaval in the school system over the past two years, Professor Pargetter believes the necessity for dialogue between the university and schools has never been more crucial.

To facilitate this communication, he spends much of his time involved in projects such as the enhancement scheme, careers teachers' seminars and meetings with principals.

As Chair of VTAC and a member of the VVCC Selection Process Committee, Professor Pargetter is helping to develop the new selection scheme for Victoria's tertiary institutions.

There are also many 'in house' activities requiring Professor Pargetter's attention.

"Right now a lot of time is going into the establishment of the Berwick campus," he said. "The potential for Berwick is enormous."

Teaching adds yet another dimension to Professor Pargetter's frenetic schedule – he teaches one philosophy subject each year.



There is also his research and the supervision of a PhD student to factor into the equation.

"It is important for people involved in administration to remember what universities are all about," he says.

Professor Pargetter says he likes to see students gain the most they can from their university years.

"I would like to see more students having a real involvement in university life. It would also be great to see more spending some time studying overseas," he says.

"I enjoy my job most of the time. There are parts of the job that are incredibly rewarding and I think that what we do makes a real difference to the kinds of opportunities students have and the way in which education is provided in the state.

"One of the reasons I was motivated to pursue this path was the vision of the vice-chancellor, Professor Mal Logan, for Monash University.

"A university needs a picture of what it stands for and where it is going. It must promote a set of academic values and goals. We might disagree about detail, but we must not lose sight of the essence of a modern, excellent university."

Monash students in print



The remains of the Burgoyne home on the bank of the Macalister river.

Maffra Shire's history and heritage is the subject of a major field-work project recently completed by Monash masters students in public history.

The book, *Macalister Landscapes: History and Heritage in Maffra Shire*, is the result of the research conducted by the Clayton campus students.

Ms Meredith Fletcher, director of Monash's Centre for Gippsland Studies, based on Gippsland campus, said that without the enthusiasm of the Maffra Shire locals the students' task would have been much more difficult.

"The locals were anxious to have their heritage studied and had already applied for National Estate funding," she said.

"One of the real strengths of the study was that local historians took students to sites, introduced them to property owners and helped them locate sources and information," she said.

The students made regular trips to Maffra and surrounding areas for the hands on experience they needed to compile the book.

"They were soon climbing around in roof spaces, sliding under electric fences and wading through creeks and rivers to reach the less accessible sites," Ms Fletcher explained.

The students each researched a theme associated with the shire's history and development, such as the dairying and timber industries, the squatting era and the

high country. The themes each form a chapter in the book.

The study, and ultimately the book, promotes not only students' work and inter-campus cooperation, but also demonstrates what a university can provide for the general public.

The project received funding from the Monash Development Fund and a National Estate fund grant.

"The shire also gave financial support to the project and put a lot of resources at our disposal," Ms Fletcher said.

Macalister Landscapes: History and Heritage in Maffra Shire is published by Kapana Press in Bairnsdale. Copies cost \$15 and are available from the Centre for Gippsland Studies.

Teaching our youth to be Australians

From Montage 20

analysis in primary schools but in secondary schools they could be presented with further analysis.

One example would be the struggle for recognition of the Aboriginal presence and of Aboriginal rights. This might be told around three main stories – the story of the 1967 referendum, with its details of a peaceful 'educative campaign' that led up to the referendum and also the processes involved in the referendum itself; the epic story of the Gurindji trek and its effect on dramatising Aboriginal rights; and the Mabo appeal to the High Court. These stories could illustrate three themes: citizen action in relation to

government, the referendum process and the operation of the High Court.

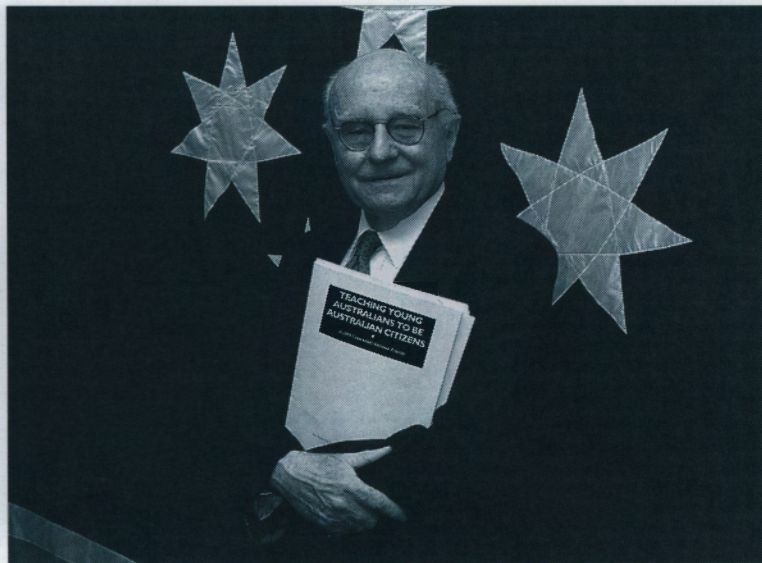
Other good stories that might be told (or are already being told) are:

- The development of democratic movements in the middle of the nineteenth century, originally prompted by the anti-transportation movement but rapidly extended to demands for democratic government, land reform, and so on.
- The long negotiations leading to federation, in which popular participation was crucial.
- The development by intellectuals of arguments against the White Australia Policy and the prompt adoption of change by governments once the time was ripe – and the peaceful acceptance of this change.
- The long story of the struggle for equality by Australian women.

We should understand that our material achievements, our democratic achievements, our social and cultural achievements and our priceless capacity for resilience were Australian achievements. We should also recognise that these have often been linked to ideas and movements in other societies, showing our genius for adapting big ideas to suit our own circumstances.

Professor Donald Horne is Chancellor of the University of Canberra. This is an excerpt from the 'Teaching Young Australians to be Australian Citizens' paper written by Professor Horne as part of the Ideas for Australia program, run by Monash's National Centre for Australian Studies. The paper is intended to provoke discussion and action among the nation's educators, political scientists, sociologists and historians. For copies of the paper, contact Mr Chris Baker on extn 55240.

Teaching our youth to be Australians



Knowledge of a country's political and civil achievements must be an important part of convincing people that their country is one in which it is worth being an active citizen. It shows that things have been done in the past and suggests new things can be done in the future.

Until recently, lessons of Australian achievement have been taught in a narrow way. The achievements have been lists of mountains and rivers and plains that have been crossed, of wars fought, of an environment conquered and subdued, and of a transfer of British political traditions to Australia. (For example, the idea that Australia practises the 'Westminster System' is common in the media. If we practised such a system, there would be no States and no Constitution and the Senate and the High Court would lack their central powers.)

What examples of Australian liberal-democratic achievements can be told? Are there stories of achievement which can be seen from different perspectives, which can have meaning for more than one group in society? Are there ways of telling stories of achievement so that young Australians can see the part citizens played in those stories?

There are several dozen liberal-democratic achievements which should hold as great a place in the national consciousness as tales of heroism in war or heroism in material development: the early adoption of democratic parliamentary practices, the secret ballot, female suffrage; Australia's continual experimentation with voting systems; religious tolerance; the arbitration system and the concept of a basic wage; compulsory voting; the abandonment of the White Australia Policy; the development of multicultural policies; anti-discrimination laws; the many

successful stories of the defence of civil liberties – without resorting to violent change.

Against these, of course, can be set failures. The extreme social, health and other problems still experienced by the majority of the indigenous people represent perhaps the greatest failure and the biggest challenge for an Australian system that, compared with most other places, is relatively successful. But that is all the more reason for celebrating success, when it is there – so long as achievement is not seen as some glorious finishing point at the end of a struggle, but as workable or potentially workable structures and standards which have been wrought by active Australian citizens and which can be changed, and added to, by Australian citizens. And these must be comparative standards. Compared with the highest ideals Australia may fail, as all nations fail, but compared with most attempts to build a liberal-democratic state that is capable of both change and stability, Australia is one of the rare success stories.

A giant committee on which we have a seat?

What Australians might also learn from an awareness of national achievements is that the business of social change in their nation-state is usually conducted in a particular kind of way. The development of many significant pieces of legislation and of many a national policy or blueprint for change has been stamped by the voice of ordinary citizens, rather than being solely the business of rulers. To give just one example, the development of the National Language Policy, which deemed English this country's lingua franca while recognising the significance of all other languages spoken by its citizens, was the result of intense lobbying, of committee work and

conferences, of debate and compromise. By teaching such landmark policies as processes, rather than simply as outcomes, young Australians might get a sense of Australia as a giant committee, on which they have a seat.

And if they see Australia as a giant committee, they will understand why it has been relatively easy for their country to renegotiate such 'givens' as a professed 'national identity'. Australia has been able to reinvent itself very rapidly several times during the past 200 years. And the distinguishing character of this fluid Australian 'identity' has been varied and active groups of people.

So how can Australian achievements be taught to young Australians in a way that has contemporary meaning? In the primary years of schooling it might be done best through stories about people – real named people, not merely collective types. Here is a great opening for historians who have a magic storyteller's touch. In the old school syllabuses there were exemplary tales of remote heroes – such as Grace Darling and the Lighthouse, or Robert Bruce and the Spider, or Wulf, the Saxon Boy who Saved England. We can do better than that. We can have a range of role-setting stories about Australians (with a careful mix of race, region, class, gender, faith and ethnicity) that would have immediate meaning, and some of them should be concerned with heroic achievements in the realm of politics and civil society. Professional historians, both academic and independent, could begin discussing this task in nation-building.

It is also important that some stories should be put together to illustrate the idea of Australia as a 'giant committee on which Australians have a seat'. These might be presented as simple stories with some simple

Continued on Montage 19