

MONTAGE

NEWS FROM THE CAMPUSES OF MONASH UNIVERSITY

VOLUME 4 ISSUE 7

OCTOBER 1993

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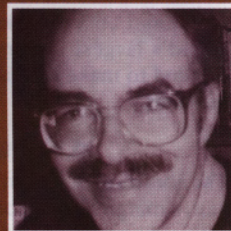
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SAVANT

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Colombian mission complete

A Monash academic has left his mark on South American history, sparking reform to Colombia's strife-torn law enforcement agencies.

Dr Andrew Goldsmith is still reeling from his whirlwind trip to the drug-riddled country – a journey that started with the chance discovery of his “scribblings” in a book found on a bookshop shelf in England.

Colombian Government officials hand-picked Dr Goldsmith as a special adviser after reading his work in *Complaints against the police: The trend to external review* (Oxford, 1991).

Dr Goldsmith's words were translated into Spanish and helped provide the rationale for major law reforms sealed by the Colombian Government in August.

Designed to counter international criticism against Colombian police, the reforms set a precedent in Latin America by introducing an external commissioner to handle civilian complaints.

Dr Goldsmith was the first Australian to be involved in changes to the Colombian police force. He played a key role in the reform, answering queries for the country's top leaders.

Weeks after the extraordinary seven-day mission, Dr Goldsmith told *Montage* he was still dazed by the Colombian experience.

He recalled a sense of danger throughout the visit. Armed police bodyguards followed his every move, from the chauffeur-driven Mercedes to the high-security government offices.

Even the light plane used to ferry Dr Goldsmith and his hosts between cities had a drug background. Police seized the aircraft last year from a cocaine cartel hauling raw materials from Peru.

Returning to the daily ritual of fighting for a car park on Clayton campus was a “humbling experience” for Dr Goldsmith, who works from a fourth-floor office in Clayton's David Derham School of Law.

After six years with Monash, Dr Goldsmith admitted feeling apprehensive when the Colombian Government invited him on the official visit.

He was understandably nervous about visiting a country renowned for its violence and the highest homicide rate in the world.



Dr Andrew Goldsmith (fifth from left) with Colombian police officials.

In one city he visited, Medellin, more than 250 police were assassinated by a powerful cocaine cartel in a four-month period two years ago. About 2.8 million people live in Medellin – a population comparable to Melbourne's – but the city's homicide rate remains 90 times greater than its Australian counterpart.

“As soon as I set foot in the country, I was cocooned by six policemen, four of them armed,” he said. “They walked me outside, and the first thing I see is a limo with two armed motorcycle escorts, an interpreter and an armed driver.

“It was a bit strange at first, but unfortunately it's necessary. There are estimates that 70 per cent of the country's population directly benefits from the cocaine industry. This creates some ruthless and violent people.”

Dr Goldsmith spent most of his Colombian visit providing examples of ways in which other countries handle complaints against police. He stressed the importance of independently investigating complaints as a means of improving community relations.

At the invitation of President Gaviria's Counsellor on Security, Dr Ricardo Santamaria, Dr Goldsmith held talks with government ministers, police generals and city mayors in Medellin, Cali and the capital, Bogota.

“The more you find out about Colombia, the more complicated you realise the country is, with all its different levels and players,” Dr Goldsmith said.

“There's a wide range of parties and groups that regularly threaten the public with violence, intimidation and corruption. These include cocaine cartel barons, vigilante groups, left-wing guerilla groups and right-wing paramilitary groups, often supported by large landowners.

“Because of this, most Colombian leaders live under a real threat of danger. When I met the attorney-general, I had to go through metal scanners and body searches. These people live very threatened lives.

“But the government leaders agree that life is never dull in Colombia. Officials and their families must live on an adrenalin rush most of the time.”

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Kitchen capers and food follies



Vegetarian cook Ms Neela McKeon (left) and pasta chef Jan Matecki prepare gastronomic delights for the thousands of rumbling tummies on Clayton campus.

Question: What eats a few hundred chickens, a truck-load of potato chips, and about 10,000 cans or bottles of drink every week day?

Answer: Students and staff at Monash University's Clayton campus.

Thousands of stomachs depend on the University Union's catering department for sustenance every day.

In a bid to reveal the secrets of the university's gastronomic hub, *Montage* took a peek behind the facade of Union food counters and ventured into the kitchens.

But nothing could prepare your correspondent for the heady maze of kitchens and cool-rooms that keep the university nourished.

The grand tour of the Union's innards was a ducking and weaving exercise recommended only for experienced kitchen workers. Cooking for crowds appeared a huge, precarious business.

Only the Union's resident navigator, Mrs Leigh Beegan, saved this writer from getting lost in the hubbub. The Union's shrewd



catering controller was familiar with every nook and cranny of the sprawling complex.

But she could not save her tourist from the high-speed trolley pushers and tray bearers whisking all sorts of food from kitchen to consumer in a chorus of “excuse me”, “watch your step” and “coming through”.

A procession of food trolleys also rolled through a subterranean tunnel linking a car park near the ring road to the union building's underground storage area.

Meanwhile, as rain started pelting outside, crowds were gathering for the mid-morning rush – a phenomenon that usually continues until lunchtime and well into the afternoon.

Seeing the queues from the other side of the counter provided a new perspective for this Union patron. More than a few customers were less than polite.

But it was the sheer volume of food that amazed most visitors to the Union's backbone.

During warmer months, Union staff add fillings to an estimated 800 sandwiches and 1000 rolls every week day.

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NOW & THEN

25 YEARS AGO

A Dutch institute has given 1200 valuable books to the University Library. Most of the volumes are about Indonesia. Some are more than 100 years old.

The gift was made by the Koninklijk Instituut voor Taal, Land en Volkenkunde of Leiden, which has the world's largest library on Indonesia. The institute decided to make the gift after a visit by a Monash staff member.

15 YEARS AGO

The abolition of fees in tertiary institutions has had, at best, a marginal effect on the accessibility of higher education to socially and economically disadvantaged groups.

This is the major finding of a study by a team of researchers of the composition of students in higher education in Australia and the effect of the abolition of fees in 1974 on it.

5 YEARS AGO

Following are some extracts from a review of the university's Language Guidelines by the History Department's Ian Mabbett.

There is no ducking or draking the fact: if any proponent of old-fashioned standard English tries to ignore the juggernaut of Non-discriminatory Language that is trundling inexorably towards him or her, this pamphlet signals that before he or she can say Jill or Jack Robinson, he or she will find that his or her goose or gander has been well and truly cooked for him or her.

The review continued:

Having established the majestic pervasiveness of Non-discriminatory Language, the authors warn us solemnly that it should be used, not only in all university forms, papers, student readings, reports and so forth, but in speaking as well ... How will the practitioners of old-fashioned standard English cope with that? With a bit of luck, they will soon be reduced to gibbering wrecks. (Quem dea vult perdere, etcetera.)

And then:

But there is more! The authors ram or ewe home their advantage with the injunction that, in all illustrations to the guides, handbooks or other documents, "care should be taken to ensure that men and women are represented and that both shown (*sic*) in positions of authority" (p. 12). That's really socking or pantyhosing it to them, baby! But why stop there?

I suggest that every photograph in a Monash publication should, to be completely non-discriminatory, include 2.74 per cent of an Asian and 0.13 per cent of an Aboriginal. The fractions could be handled by having people lean elegantly into the side of the picture, showing parts of their faces.

Further, I propose that every photograph should include a koala (as representative of an endangered species), and in due course we should make a point of having an obligatory whale in the background. This project could be monitored by a new unit to be set up by the Vice-Chancellor. The university can well afford to fund such meritorious programs, Q.E.D.

THIS MONTH LAST YEAR

A chance meeting has led to a "one in a million" job for a Monash animal keeper establishing an animal rehabilitation centre in the heart of Peru's Amazon rainforest.

By Christmas, the keeper of Monash's wallaby enclosure, Mr Antony Taggart, hopes to be tending animals such as jaguars, toucans and monkeys confiscated from poachers or rejected by zoos ...

In addition to setting up the rehabilitation centre, the society will be sending him to Brazil to work with one of only five species of fresh-water dolphin in the world, the Amazonian pink river dolphin.

Update: In a recent letter, Mr Taggart wrote about the negligence of a "supposed" naturalist who has been purchasing animals in order to re-release them into the wild. He said that this practice can harm wildlife populations because:

"1. By purchasing any animal, a demand is created and therefore enhances the market; and

2. If any animal is purchased from a trader/poacher the buyer has no idea where exactly the animal has originated from or been, which means that it may have a critical disease that could wipe out thousands of healthy animals when re-released. It could also cause social disruption to the animal population into which it is released and disrupt the gene pool if it begins breeding with the established wildlife."

(Since this letter, Mr Taggart has been put in charge of the Iquitos Zoo.)

THE SPIKE



■ Curly scribbles

Many journalists call on Monash for expert comments from our respected pool of academic minds.

But one tabloid scribe stood out in his pursuit for truth. While seeking quotes from a Monash official, he quipped: "It doesn't have to be precise."

■ Rain = Stress?

Is there any link between heavy rainfall and stress?

Montage called on the university's Stress Management and Counselling Clinic for advice as rain pelted down on the Clayton campus on 1 October.

But our resident stress experts were nowhere to be found. They were all at a conference in sunny Queensland.

■ Falling standards

Very much a case of a republican's dream come true when Deputy Prime Minister, Mr Howe, officially opened the Australian Housing and Urban Research Institute early this month.

Just as the vice-chancellor, Professor Logan, introduced the senior parliamentarian, the Australian flag – Union Jack and all – slid gracefully and most regally down a nearby wall.

Colombian mission

from page 1

Colombia's national police force employs 90,000 people, almost triple the size of the Australian army and 10 times the size of Police Victoria.

Dr Goldsmith believed government concerns about the nation's security forces were partly driven by the latest push for foreign investment. The country's deregulated economy and free trade policies had sparked considerable overseas business interest, but development was set back by an international backlash to human rights abuses by Colombia's security forces.

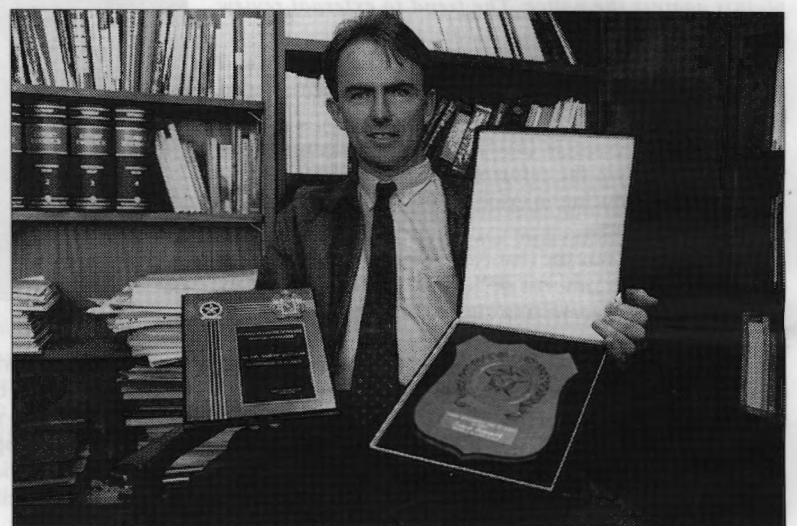
According to Dr Goldsmith, the government realised that foreign investment would not improve without public confidence in the police force. But he was concerned by Colombia's "impunity" problem – the state's constant battle with organisational intimidation and corruption.

While the community saw police as immune from the law, police saw criminals in the same light. Dr Goldsmith said this problem tempted people to take the law into their own hands.

He said Brazil and Venezuela had made several attempts to introduce similar legislation, but each failed after strong opposition from powerful groups such as the army.

"So many new initiatives fail because people are either frightened or paid off," he said.

"There is said to be a paper Colombia and a real Colombia. The paper side is a very democratic country with many more fundamental human rights enshrined in the constitution than many other Western countries, including Australia. But the real Colombia runs on a high level of intimidation."



Plaques of appreciation presented to Mr Goldsmith by the Colombian Police Force.

Dr Goldsmith's overseas mission started when a Colombian Government adviser, who was also an Oxford University don, bought a copy of his book from an Oxford bookshop. The book had been edited and partially written by Dr Goldsmith, with expert contributors from the UK, Canada and the US.

"The adviser took the book back to Colombia for government officials to read," Dr Goldsmith said. "The government wanted to translate the whole book into Spanish, but they only got as far as my chapter. They said everything they needed for the rationale of their law reform was in that chapter."

"I was also told that parts of my chapter were actually used in the president's speech when he proclaimed the law."

Dr Goldsmith was astounded by the publicity his book received throughout Australia since his trip to Colombia.

"But the most remarkable thing was the fact that somehow something I'd written had applied significance," he said.

"Academic articles are typically read by 2.2 people: wives, lovers, mothers, and maybe one other person at promotion time. You don't expect these sorts of scribbles to take on this kind of significance."

"But my work has actually contributed to unprecedented reform. It's the first time the Colombian Government has instituted a civilian

complaints body outside the police force in its 102-year history.

"Who said academics aren't in touch with the real world?"

Dr Goldsmith's book followed several years of specialising in police accountability. His masters and doctoral theses focused on this area, drawing on his academic experience in Australia, England and Canada.

Colombian officials told Dr Goldsmith he was the first Australian to advise the country on police accountability. Previous advisers hailed from France, Spain, Italy, the UK and the US.

"I'm certainly not the exclusive repository of knowledge in this area, but somehow they chose me," Dr Goldsmith said. "It all came down to the fact that the government had an English adviser who purchased his books from Oxford rather than anywhere else."

Since returning from Colombia, Dr Goldsmith has been writing a special report for the Colombian Government. He also plans to submit articles to policing and human rights journals.

He had no immediate plans of returning to Colombia, but wanted to learn Spanish "just in case".

Overall, the trip left Dr Goldsmith feeling exhausted and "absolutely incredulous".

"I was in and out of the country in a week, so the trip was very overwhelming," he said. "In fact, there was so much jammed into that week I barely had time to think."

MONTAGE

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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.

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Montage is entirely produced on Apple Macintosh computers using QuarkXPress, Photoshop, DeltaGraph Pro and Nisus.

Imageset by Pageset,
4 Palmer Court, Mount Waverley.

Printed by Camten Graphics,
15 Neutron Place, Rowville.

Registered by Australia Post:
Publication no. VBG0435.

Teaming up with Myer

Monash clothing will be sold at Myer stores throughout Victoria next year in a joint venture involving the Monash Merchandising Company (MMC), Myer, and three other Melbourne universities.

An autumn collection of varsity clothing from Monash, Melbourne and La Trobe universities and RMIT, featuring T-shirts, track pants and shorts, windcheaters, socks and caps, will be available at Myer in February.

MMC's Ms Alex Mead will help develop a new range of products for the launch.

"The four universities will be working with Myer to develop the range of products available for sale," Ms Mead said. "Myer will actually purchase the stock, so there is no risk involved with the venture, and each university will receive a royalty."

"The spin-off will be a greater awareness of the clothing, but it will take some years before varsity collections in Australia

have the same image and recognition as in America.

"In the US, clothing is centred on sporting teams like basketball and football, so every time a team steps out onto the field, they are marketing their clothes. There isn't this trend or culture in Australia."

The MMC has three equal partners: the university, the Clayton Union, and the Monash University Student Union Inc. The company, which was officially set up at the beginning of the year, now has shops at Clayton, Caulfield and Gippsland, and an outlet at Peninsula campus (Frankston).

According to Ms Mead, each outlet has developed their own trends peculiar to the geographic and demographic features of the area.

"Gippsland has high sales in windcheaters and track pants because of its climate, Caulfield's main market is international students buying for friends and family back home, Peninsula buyers go for the surf designs, and Clayton's sales of a



Ms Mead prepares Monash merchandise for Myer's varsity collection, available in off-campus stores next February.

range of products are higher because of the number of people on campus," she said.

Before MMC was established, the Clayton Union shop stocked a range of products that were distributed to Caulfield and Peninsula on request. In the past two years, sales of logo products were more than \$300,000.

"This year we have been redefining our product mix and making sure their quality is right for the price. Quality is important because we are trying to enhance the name of Monash, not only within the community

but also in the business sector," Ms Mead said.

"We are also introducing a corporate business range aimed at guests of the university and academics going on overseas business trips."

Over the next few years, MMC will focus on off-campus retail sales and merchandise for export. "This year, information was mailed to overseas students graduating in Hong Kong, Singapore and Kuala Lumpur," Ms Mead said. "Next year, we will have displays set up overseas, featuring a sample range of stock."

University institutes a housing and urban coup

Monash is now playing a key role in the development of Australia's housing and urban policies and education.

The university is a member of the new Australian Housing and Urban Research Institute (AHURI), a national organisation whose membership includes the Royal Melbourne Institute of Technology (RMIT), Queensland University of Technology, and the CSIRO. AHURI will receive \$1.5 million in federal and state funding over the next three years.

Associate Professor Chris Maher, of the Department of Geography and Environmental Science, has been seconded to AHURI as its interim associate director of research.

Monash is noted for its expertise in housing studies and urban geography. Dr Maher believes the university's contribution to AHURI will play a vital part in improving the quality of housing and urban life into the next century.

He said the recent National Housing Strategy had shown that one of the greatest barriers to developing effective housing and urban policies was the lack of relevant data and research.

"It will be AHURI's task to develop a comprehensive integrated research program into the social, economic, demographic and environmental factors that are shaping housing policies and urban development," he said.

"We will investigate issues such as the affordability, accessibility and appropriateness of Australian housing, the impact of economic restructuring on housing demand, urban development, and our housing regulations."

To achieve this goal, AHURI will reach out to as many groups involved in the housing and urban industry as possible, including the private sector, state and federal housing authorities and planning agencies, and non-government community services organisations.

Dr Maher said such extensive networking would not only provide data for policy reforms, but also establish a wide-reaching database and communications system that would be available to relevant industry throughout the nation and Asia-Pacific region.

"We want to establish a national and international network exchange where relevant industry can contribute or draw from a central information source," Dr Maher said.

He believed the consortium was successful in winning the tender because of its ability to draw expertise from four institutions, as well as its proposal to network extensively with outside groups.

The institute will also concentrate heavily on education and training in the housing and urban fields.

Dr Maher said that although the current education programs were of a high standard, there was a need to improve the overall knowledge and understanding of all those associated with housing and urban issues.

"AHURI is keen to provide more education in relation to the management of housing in the urban context," he said.

"By 1995 we hope to develop a masters degree in housing and urban policy, as well as graduate diplomas and associate diplomas in the management of housing in the public, community and private sectors.

"The move will offer a lot of opportunities to students, allowing them to broaden their research and improve their job prospects."

The institute is based in Melbourne's CBD and has an office at the Queensland University of Technology in Brisbane.

Dr Maher is one of 10 Monash academics who will contribute to the institute's activities. Other part-time Monash participants are Dr Kevin O'Connor, Professor Gordon Clark, and Dr Kathy Gibson (director of the Women's Studies Centre) of the Department of Geography and Environmental Science; Dr Anne Edwards, Dr Chris Chamberlain, Dr Bill Foddy and Dr Len Eastop of the Department of Anthropology and Sociology; Professor Peter Spearritt of the Australian Studies Centre; and Associate Professor Bill Young of the Department of Civil Engineering.



Ms Janoel Liddy: "The Vision team is working towards greater student participation in MAS."

Students focus on new vision

Clayton campus came to life with the hum of election promises and propaganda during last month's annual student elections.

Vision, an independent group, recorded a landslide victory, filling the majority of positions up for election.

Ms Janoel Liddy has been elected the 1994 chairperson of the Monash Association of Students (MAS), and becomes the fourth female in successive years to hold the position.

"The high voter and campaigner roll-up shows that more and more students are interested in student politics, and hopefully apathy will give way to action," Ms Liddy said. "Students must have a say in student affairs."

"Vision will focus on improving the graduate review program, managing the overcrowded facilities, recycling, and improving security, public transport and intercampus transport."

Ms Liddy is well qualified for her new role. She has been a host and camp leader, host scheme coordinator, open day guide and coordinator, Junior University Program coordinator, tour leader for Course and Careers, and vice-president of the French Club. She also works in the hospitality industry, and is a supervisor for AVS Catering at Flemington. She is completing a bachelor of arts, studying English literature, French, and Italian.

"Emotion gave way to relief when the returning officer announced the results - everyone had put so much effort and energy into the campaign," Ms Liddy said.

"The Vision team is working towards greater student participation in MAS and having effective student representation. MAS exists for the students and we must make sure that it is an effective body."

The largest-ever voter turn-out was recorded this year with 3500 students voting.



The Deputy Prime Minister and Minister for Housing, Local Government and Community Services, Mr Brian Howe, at the launch of AHURI.

A new age of ethics

Is anything worth pursuing, apart from money, love, and caring for one's own family? This is the central question in Professor Peter Singer's new book, *How are we to live?: Ethics in an age of self interest*.

Professor Singer suggests that people in Western society should look beyond their materialistic self-interests and seek a life that offers more meaning and fulfilment. This, he believes, can be achieved by living ethically.

The theme of his new book is considerably broader than his internationally acclaimed *Animal liberation: A new ethics for our treatment of animals*. In his new book, Professor Singer, who is deputy director of Monash University's Centre for Human Bioethics, asks whether ethics and self-interest are in conflict.

He argues that because we construe self-interest in terms of money and material goods, we assume that acting ethically is often contrary to our self-interest.

"Looked at historically and cross-culturally, modern Western society has given the greed element much more prominence and respectability than other societies. It is time to question this and ask whether becoming wealthier really makes us happier," Professor Singer said.

"We also need to consider the effect of the drive for material wealth on the environment, and on the nature of the community in which we live. We end up with affluent people who need to spend much of their wealth protecting their own security from others who have been taught to have the same goals, but can only achieve them through crime.

"And the economic imperative is leading us to create a society that is not ecologically sustainable.

"The classic economic theory of Adam Smith, on which our economy is based, presupposes virtually infinite resources, so that however much the rich consume, the poor are not worse off.

"But now we know that if people in the developing world were to produce greenhouse gases on the scale that developed countries are producing them, the result would be a global climate change, and rising sea levels that would make 40 million people homeless."

Professor Singer also feels there is a greater need to enhance our sense of community as a means to leading a more ethical life.

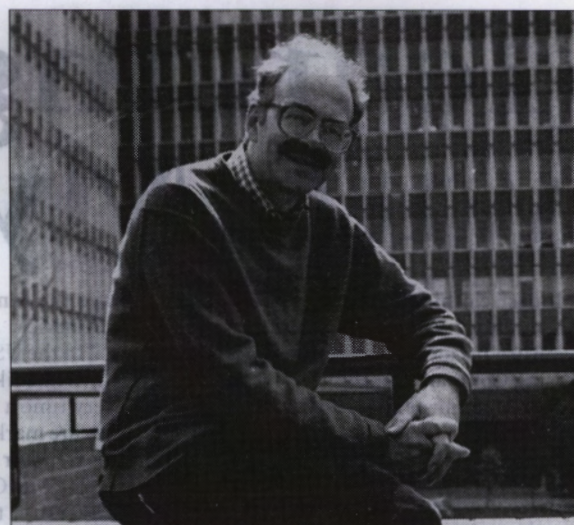
"American society is losing its sense of community because of its preoccupation with economic prosperity. The Los Angeles riots are testimony to what can happen when a community loses sight of all ethical values other than the individual pursuit of happiness," he said.

"On the other hand, there are other smaller, less prosperous places in the world where there is less emphasis on the individual, and as a result a more successful community exists."

Included in the book is a chapter on Japan, which Professor Singer says is both large and prosperous, but at the same time shuns individualism and esteems harmony and concern for the one group.

"Adversely, Japanese attitudes to what is outside the group - including the environment - are no better, and sometimes worse, than those in Western societies," he said.

Professor Singer argues that we need to think more about what we are living for. His book does not offer hard and fast rules about what you should or should not do, but does



Professor Peter Singer: We need to think more about what we are living for.

suggest that finding a purpose in life can help to make one's life more meaningful and satisfying, especially if the purpose is an ethical one.

"An ethical approach to life does not forbid having fun or enjoying food and wine, but it leads us to having different priorities. We must reinstate the idea of living an ethical life as a realistic alternative to the present dominance of materialist self-interest," he said.

The book concludes with examples of people who have worked towards larger goals, achieving greater fulfilment and meaning by doing something they believe to be right.

For more on Professor Singer's beliefs, see 'Savant' on page 12. *How are we to live?: Ethics in an age of self interest* is published by Text Media and is available from the University Bookshop for \$24.95.

More food follies

from page 1

As the weather cools down, pasta becomes popular. The 25 trays made each day can feed more than 1500 people.

But that's not all. Every day, the Union sells:

- ☞ 450 kilograms of chips and 100 kilograms of whole potatoes;
- ☞ about 1000 pies and other pastries;
- ☞ 100 fresh chickens and hundreds more fillets;
- ☞ 60 kilograms of onions;
- ☞ 50 kilograms of rice;
- ☞ 3 kilos of fish;
- ☞ about 100 lettuces;
- ☞ 700 dim sims;
- ☞ 10 dozen spring rolls;
- ☞ 8 dozen samosas;
- ☞ 60 kilograms of cheese;
- ☞ about 1000 cakes;
- ☞ more than 400 hot dogs;
- ☞ 40 kilograms of coleslaw;
- ☞ hundreds of donuts and muffins; and
- ☞ 25 dozen coffee scrolls.

Several specialist chefs work on campus, creating Asian, vegetarian, and pasta dishes, along with cakes, donuts, muffins, pie and a wide variety of pastries.

Mrs Beegan was obviously proud of her friendly band of catering employees, from the red-faced chefs to the smiling workers with the plastic wrap.

Since starting work in the university catering area almost 13 years ago, Mrs Beegan has seen many changes to the Union.

"It was a totally different place back then," she said. "We've made many changes.

"We're trying to offer as much variety as possible so that everyone gets a wide selection. People are a lot more health-conscious these days and we try to satisfy their needs."



Mrs Leigh Beegan

"STEP INTO MY OFFICE ..."

Robyn Kindler

As director of the English Language Teaching Centre, Ms Robyn Kindler plays a crucial role in the lives of many overseas students.

At any one time, the centre caters for up to 200 students learning English in preparation for university entrance.

"Students want to get through the course as quickly as possible to start their university study," Ms Kindler said. "We don't send them to the faculties until they are ready to handle English. If they do go early, they might fail due to language problems, not necessarily academic ability."

Ms Kindler has worked at Monash since 1980. A former lecturer in the TESOL methodology and practice, she established the English Language Teaching Centre in 1987.

"By chance, I found that Daimaru was tendering for English language teachers," she said. "I contacted them and was awarded the contract to teach their Japanese staff. The income provided the seedling grant for the self-funded centre."

Ms Kindler has always been interested in teaching the English language to overseas students. "I graduated as a French and English teacher, but found in my first job that I was required to teach French to those who could not speak English.

"I didn't see any point in operating in this way, so I individualised the program. I taught English to those who needed it and French to those who didn't. This grew into a major interest and I set up an English language program in the school," she said.

The English Language Teaching Centre has about 20 full-time teachers and tutors, depending on the teaching load. In addition to English lessons, the centre provides educational counselling.

The English lessons at the centre emphasise 'Australian' English and individualised teaching. "We do not provide



Director of the English Language Teaching Centre, Ms Robyn Kindler.

a rote-learning English course, even though many Asian students have been taught by this approach exclusively in the past and therefore expect it here," Ms Kindler explained. "Our challenge is to make them understand that rote learning is not as effective as actively working with the target language during acquisition."

"The centre aims to individualise teaching for the student and encompass individual differences. I find the challenge of education is to meet the diversities."

Ms Kindler does not teach any more, although she misses the experience. "I just don't have the time. While I love teaching, I have also been very surprised at the enjoyment I have gained from the administrative challenges involved in managing a large and diverse range of students and personnel.

"There is a lot of pressure on me to write professional papers. I still undertake research and am currently investigating a rating system of language testing in multinationals for personnel moving from one section to another within a company."

Taking the health message to schools

The fitness of primary school students is being assessed in a soon-to-be-released Monash study.

The study, carried out by Dr Chris Browne, a senior lecturer in Physiology, and honours students, Ms Wendy Devine and Ms Dale Pruser, assesses the health and fitness of children during adolescence.

Nearly 200 primary school students from Years 3 to 6 at Presbyterian Ladies College (PLC) have taken part in health and fitness tests during the past five months.

According to Dr Browne, the project combines two forms of assessment. "The tests combine a cross-sectional study that looks at a group of children over a wide range of ages and a longitudinal study that highlights trends over an extended period of time," Dr Browne said.

"We have combined both methods for an accurate chart of a child's fitness over a period of time. Our intention is to follow up at two-yearly intervals as the children age. For instance, we will study the youngest students again at nine, 11, and 13 years of age.

"We will see how the individual children actually change in fitness and activity as they age, rather than infer changes from just a single cross-sectional study."

Ms Pruser and Ms Devine, who have been visiting PLC three times a week for five months, conducted a range of simple tests, including monitoring heart rates and cycle exercises designed to assess the fitness of students.

"We rotate the children out of their regular physical education lessons to complete the tests, so there has been minimal disruption to classes," Ms Pruser said.

According to Dr Browne, PLC was chosen because the school has a high retention rate from primary to secondary school and it forms a relatively narrow socioeconomic group. "We used an all-girls school where students share physical education resources,

which may not be available in a coeducational school," he said.

Mrs Sallie Norsworthy, headmistress of the junior school, said the school was pleased to be involved with the project.

"The girls participated in the project with great enthusiasm and interest," she said. "I am sure their awareness of fitness and diet has been heightened and will be an ongoing benefit to them.

"Parents have also appreciated the health focus of the program. Family discussion about lifestyle, and in some cases even a review of activity and dietary habits, has been prompted by the activities."

A survey published in Australia several years ago showed a decline in fitness in teenage girls, due in part to their relative inactivity. The report found that girls reached peak fitness at 10 or 11 years and declined from there, while boys reached peak fitness at 16 years.

"We were interested in coming up with ways of monitoring fitness of children," Dr Browne said. "Numerous studies in Australia and overseas have failed to agree on appropriate assessment of children's fitness, so we were mindful that the tests needed to be geared to children, not to adults or elite athletes.

"Testing in the school place has encouraged the children to regard the project as an extension of their school activities. By keeping the tests simple, any participating school can maintain its own health and fitness program after we have finished our project."

Dr Browne said the interest and encouragement the project received from the teaching staff at PLC was excellent. "Everyone got behind the project, but without the cooperation of the two physical education specialists, Mrs Michelle Hawkins and Mrs Sarah Jessop, the project would not have been as successful."



Ms Dale Pruser (right) assesses a PLC student's fitness.

In addition to the practical tests, students completed two questionnaires that documented their level of physical activity and nutrition.

The findings were then compared with results of the practical tests to provide an independent estimate of daily activity.

"The project is looking for trends," Ms Pruser said. "Are girls that are active and

involved in sport the ones that have the highest fitness level, or are there other factors?"

Dr Browne said the project will continue and may be extended to include children who have growth and medical problems, as well as those from coeducational schools.

"I believe we shouldn't be in an ivory tower at the university, and we should be doing things that involve the community," he said.

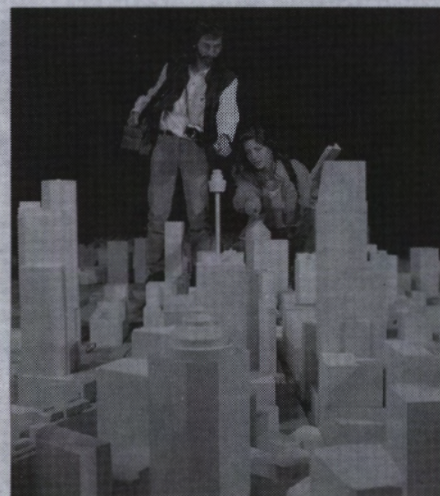
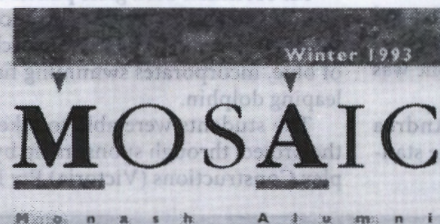
Alumni latest Terry stokes research flames

A collage of current and post-Monash life has been put together in a new publication by Alumni Relations and Fundraising.

The quarterly booklet called *Mosaic*, which has been sent to every Monash graduate, highlights recent news from the university and provides information about various alumni members and groups.

It includes an alumni round-up, a political index of Monash graduates, a run-down of Monash alumni in the news, and a calendar of forthcoming events.

For further information, contact Ms Jennifer Beck on extn 75 5007.



OLD FRIENDS, NEW CONTACTS

LOOKING FOR LEADERS

THE LATEST NEWS AND FORTHCOMING EVENTS

Monash University's quest for a larger slice of the research funding pie was boosted recently with the appointment of a manager to head the newly created Research Services.

Dr Terry Stokes, who is responsible for the Office for Research and PhD and Scholarships branch, will coordinate the university's efforts to raise awareness of research opportunities and attract more funding for research projects.

"The university performs very well in some areas of research funding and poorly in others," Dr Stokes said. "I think the Office for Research has a role to publicise research opportunities, in particular in those areas where we are not performing."

Dr Stokes will be taking an active role in counselling unsuccessful grant applicants and offering induction training to new staff and graduate students about effective strategies for obtaining grants.

"Some projects miss out on funding by the smallest of margins. Counselling will help refocus researchers and adjust their grant applications for next time," he said.

Dr Stokes will also provide advice on research policy to the deputy vice-chancellor (research) and associate deans (research).

"One of my early tasks will be to develop a management information system (MIS) for research managers to provide information about the performance of research activities in their units. They can then compare their units' work with prior performance and identified targets, as well as with other units elsewhere in the country," Dr Stokes said.

"MIS will tell managers how many people are applying for grants, where the grants are coming from, the number of successful grants in the department, other avenues to source grants, and so on.

"The system will be flexible because many people at different levels will need to use the program and will want different information."

With the university's increased emphasis on improving research management, Dr Stokes now fills a unique position in Australian higher education.

"Staff development has focused on teaching, but we also need to raise the profile of staff development in research," he said.

Another area under Dr Stokes' direction is the renamed Ethics and Integrity in Research Office (formerly Animal

Ethics), which has been established to look at the broader issue of ethical conduct in research, including research training.

"I expect Monash will be adopting a code of practice in research, which includes procedures for dealing with misconduct such as fraud and plagiarism," Dr Stokes said.

"We will talk to staff and graduate students to explain university policy on proper conduct of research, the steps you have to go through to use experimental evidence, and how long research evidence needs to be retained."

Dr Stokes was the first counsellor to the National Board of Employment, Education and Training, with responsibility to the Australian Research Council (ARC). His portfolio at the ARC was to develop a program of evaluation for research and performance indicators.

Dr Stokes is no stranger to higher education. He has studied at Macquarie University and the University of Melbourne, tutored at Deakin University, and spent four years with the University of Wollongong.

He has also completed a postdoctoral fellowship on the Walter and Eliza Hall Institute of Medical Research, which culminated in a book, *Life among the scientists*.



Dr Terry Stokes.

The new Monash phone system will have everyone talking

From 1 January 1994, Monash University will have a new phone system across all campuses which will affect all internal and external telephone and fax lines. The following examples illustrate how the internal system will operate in the new year.

Campus	Existing extensions	New extensions
Clayton	(75) XXXX	5 XXXX
Caulfield	(73) 2XXX	32 XXX
Frankston	(74) 4XXX	44 XXX
Churchill	(72) 6XXX	26 XXX
Pharmacy		39 XXX
Monash Central (30 Collins St)		38 XXX

The new external numbers will be (03) 90 and then followed by the five digit extension number.

Other features of the new system

- Both the old and the new external numbers will be operational for an initial period of six months.
- Churchill campus will have a permanent system of two numbers:
Local callers: (051) 22 6XXX
National callers: (03) 902 6XXX
- All extension numbers become five digit numbers from 1/1/94. No numbers will be repeated across campuses.
- The current four digit form of extension numbers finishes on 31/12/93.

The new main numbers:

Clayton (03) 905 4000 • Caulfield (03) 903 2000 • Frankston (03) 904 4000
Churchill (051) 22 6200 (unchanged) • or (03) 902 6200
Pharmacy College (03) 903 9000 • Monash Central (03) 903 8000
• All operator inquiries: dial 9



A NEW COMMUNICATION SYSTEM THAT GROWS WITH MONASH

Female academic numbers up

The proportion of female academic staff at Monash University is higher than the national average of 31.9 per cent, according to a study recently released by the Department of Employment, Education and Training (DEET).

Between 1987 and 1992 the percentage of female academics at Monash increased from 27.3 to 33.3.

But women academics are still concentrated in the lower echelons of academia. On a national scale, women occupy 5 per cent of positions above lecturer level. At Monash, the representation of women at this level is almost twice as high.

Ms Renata Singer, of the university's Equal Opportunity office, says that while the increases are welcome, there is still much room for improvement.

"We're disappointed that there are still no women above the professorial level at Monash. At the moment we are looking at how appointments at this level have been made so that we can perhaps initiate some affirmative action," she said.

Of the 166 professors currently employed at Monash, only 13 are female.

But there is at least one reason why the proportion of women in the higher academic positions could increase in the future. A rising female student population will produce a larger pool from which female academic staff may be drawn.

The Minister for Employment, Education and Training, Mr Kim Beazley, said:

"With the retirement of senior male academics through the next decade, the number of female academics filling these positions will accelerate."

Close correlation

The DEET study also found that women academic staff are concentrated in traditionally female fields such as health, education, arts, humanities and social sciences. At the same time, women are under-represented in engineering, science, architecture and agriculture.

"There is a close correlation between the number of female students and the number of female staff in each of these subjects," Mr Beazley said.

At Monash, women make up 6.9 per cent of teaching and research staff in engineering, 21.1 per cent in science, 37 per cent in arts, and 43.8 per cent in the education faculty. The 1993 figures, supplied by the university's Planning and Analysis Branch, include full-time and fractional full-time teaching and research staff.

Between 1988 and 1992, the proportion of tenured academic positions fell from 66 per cent to 57 per cent. But the proportion of female academics on tenure rose in this period.

The DEET study reviewed developments in tertiary education since 1984, when the then Commonwealth Tertiary Education Commission introduced measures to improve opportunities for female acade-

Artful approach to health

Melbourne's Royal Children's Hospital has received an artistic facelift from a talented group of Monash University students.

Four ceramic design students from the Caulfield campus have created innovative murals to brighten previously dull walls in the hospital's day care centre.

Ms Melody Forrester, Ms Catherine Henderson, Mr David Hoffman and Ms Maddi Seidel revealed their work to hospital staff and sponsors at a special opening last month.

All ceramic design students at Caulfield were invited to come up with mural ideas for several rooms in the centre.

Water was the theme of the art project, as chosen by the day care centre's charge nurse, Ms Kim Lee.

In setting the theme, Ms Lee challenged participants to create a cheerful and comforting atmosphere for the centre. She was delighted by the results.

Ceramic design lecturer Ms Andrea Hylands was also impressed with the standard of the students' work.

She said the project was a challenging and stimulating experience for all participating students.

"They're proud that their work now decorates the hospital and will give pleasure to children who visit the day care centre," she said.

Ms Forrester designed and made low relief tiles in bright colours, depicting an arctic scene of penguins and whales, while Ms Seidel created an exotic framed panel in relief plaster showing a sailing boat at sea, inspired by *The Owl and the Pussycat*.

Ms Henderson's work gives the ward a bright and contemporary atmosphere. Each clay module is "flanged" with a recessed centre containing cut-out images associated with the seaside.

Mr Hoffman used glass panels to create an underwater scene in the entrance area of the day care centre. The scene, in rich shades of blue, incorporates swimming fish and a leaping dolphin.

The students were able to take part in the project through sponsorship by Multiplex Constructions (Victoria) Pty Ltd.

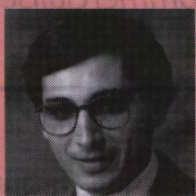


Ceramic design students: (from left) Ms Maddi Seidel, Ms Melody Forrester, Ms Catherine Henderson, and Mr David Hoffman.

RESEARCH

MONASH

Reducing the risk of aircraft disasters



Investigating the hormone regulator



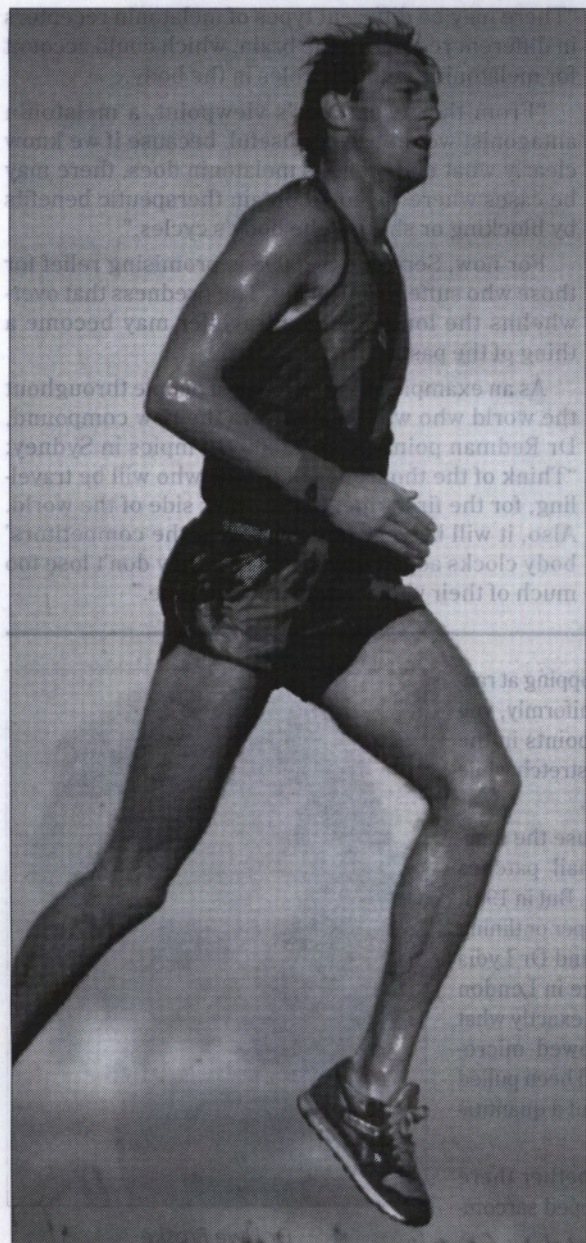
New theory explains muscle mystery

Did Lisa Ondieki's final days of endurance training for the Olympic Games marathon in Barcelona, reportedly a series of repetitions on a rising section of the course, cost her an Olympic medal? Two Monash researchers believe they have the answer to the runner's unexpected failure.

A new model of muscle behaviour developed by two Monash academics neatly explains an enduring mystery of muscle behaviour.

To illustrate the model, Dr David Morgan of the Department of Electrical Engineering and Dr Uwe Proske of the Department of Physiology point to Lisa Ondieki's sensational failure to complete the women's marathon in Barcelona last year, after she had started among the favourites. The pair say that the pain that caused Ondieki to stop may have been due to local injury induced in her leg muscles after inappropriate last-minute training.

The traditional out-and-return marathon course took the field on a mainly descending run in the first half, followed by an ascending leg back to the stadium, Ondieki, who was already in trouble half-way through the supposedly easier first half, later blamed her disappointing performance on somebody spiking her formulated drink.



But a new theory developed by Dr Morgan on how muscles adapt to specific types of exercise possibly offers a more scientific explanation to Ondieki's problems.

They have studied the effect of a particular kind of muscle exercise called eccentric exercise. This is where the contracting muscle is made to stretch rather than shorten. It has been known for decades that muscles adapt to the kinds of exercise to which they are subjected. This explains how athletes can employ specialised training regimes to "tune" their muscles for their chosen sports.

But this means that athletes with the same high level of cardiovascular fitness can respond in very different ways to unaccustomed exercise. Very fit swimmers and cyclists can scale mountains as rapidly as elite runners, without significant muscle soreness the day after. But if the swimmers or cyclists spend several hours climbing downhill, they may be almost incapacitated by leg-muscle soreness the next day.

Dr Morgan has developed a new model of muscle adaptation that may explain this puzzling effect. It focuses on the microstructure of the very long, thin contractile filaments that make up muscles. Each muscle fibre is actually a linear community of thousands of units called sarcomeres, arranged end-to-end like the links of a chain.

For the past half-century, muscle physiologists have regarded muscle fibres as behaving uniformly. When the muscle contracts, a muscle fibre's change in length is the product of thousands of individual contractile units - the sarcomeres - acting in concert.

"It has been assumed that the muscle acts like a scaled-up sarcomere, so that whatever happens to the muscle happens uniformly to every sarcomere," Dr Morgan said. "It has been known since the 1960s that this is not always true, but nobody has appreciated the importance of non-uniform behaviour of sarcomeres."

"With what we now know about individual sarcomeres, we would argue that the model of uniform behaviour doesn't apply when the muscle is stretched while generating force at long length."

Generating force

Dr Morgan says muscles generate force by having two overlapping lots of filaments, which ratchet past each other by forming transient bonds. At long muscle length, the ends of the filaments have actually moved some distance past each other in opposite directions. There is less overlap between them, and fewer bonds to generate tension.

Under these circumstances, if the muscle is now stretched, some of the sarcomeres will be stretched more than others. Those that stretch more become weaker and stretch faster. At that limit, the weakest sarcomeres will "pop", pulling the filaments completely apart and allowing the muscle fibre to lengthen.

Sarcomeres pop at random along the muscle fibres so that the microscopic weaknesses resulting from their failure are not focused at one site and are not immediately visible.

Dr Morgan has developed a simple physical model to simulate this process, consisting of a chain of small magnets held together by mutual attraction and linked by rubber bands. By pulling on the ends of the apparatus, he demonstrates how stress overcomes magnetic attraction, causing the individual magnets to pop apart, so that the chain at that point is secured only by the rubber bands. This random pulling apart of the magnets resembles the process of popping sarcomeres.

The inflammation of the damaged muscle fibres leads to stimulation of pain nerve endings in the muscle, and this may account for the stiffness and pain felt by the athlete.

Meanwhile, the damaged sarcomeres are being broken down and removed, a process that releases large quantities of a protein called creatine kinase into the bloodstream. The kidneys filter out creatine kinase, and it is excreted in the urine. Dr Proske and Dr Morgan believe it may be significant that Lisa Ondieki had unusually high levels of serum creatine kinase after her run in Barcelona, indicating that she had suffered an unusual episode of muscle damage.

Training effect

Overstretching of sarcomeres may eventually lead to damage in whole muscle fibres. The damage also triggers a repair process that protects the muscle against further bouts of such exercise. Dr Morgan hypothesised that this process consists of adding extra sarcomeres to the fibre, avoiding the long sarcomere lengths that led to the instability.

Dr Proske and Dr Morgan believe that by concentrating on running only uphill to enhance her endurance, Ondieki subjected her leg muscles to repeated shortening contractions (concentric exercise) with no downhill training, which involves lengthening contractions (eccentric exercise) to balance this.

Dr Proske says the training effect works very rapidly to remodel muscles - a single episode of exercise can trigger the remodelling within a few hours. After a few days of running uphill, Ondieki may have ended up with shortened muscle fibres in her leg muscles. In the first half of the marathon, which was largely downhill, Ondieki's shortened muscles were subjected to severe stretching, causing thousands of sarcomeres to "pop". By mid-marathon, the cumulative damage had weakened her leg muscles and caused them to become extremely painful.

The new model developed by Dr Morgan neatly explains an enduring mystery of muscle behaviour.

Once the local damage has occurred, the repair process not only rebuilds the previously damaged sarcomeres, but adds new ones to the muscle fibres. It means that the repaired fibres end up with up to 20 per cent more sarcomeres than they had at the outset. This in turn means that when the contracting fibre is stretched again, the stretch is distributed over many more sarcomeres, so fewer of them are likely to pop.

"If you try to explain this phenomenon merely in terms of muscle filaments going in opposite directions, it doesn't work. With our 'popped sarcomere' model, it's quite obvious," Dr Morgan said.

Tests on laboratory rats subjected to eccentric exercise (running downhill) support Dr Morgan's model. As with humans who run downhill, rats experience the same lengthening and subsequent stiffness in muscles. After a week of downhill running, the rats develop leg

continued page 2

Attuning those wayward body rhythms

A synthetic drug being tested by a Monash psychologist looks like taking the world of sleeplessness by storm. Not only does it appear to be highly effective in altering people's circadian rhythms, but once commercialised, the drug may be worth billions of dollars annually.

People suffering sleep disorders because their circadian rhythms are out of phase may benefit from a new drug developed by French scientists, now under trial at Monash University.

There is irony in the fact that the French company, Servier, sought out the Department of Psychology's Dr Jenny Redman to conduct the experiments. It was pioneering work by Dr Redman and her colleagues on another drug – melatonin – that first suggested the feasibility of treating sleep disturbances and other disorders arising from out-of-phase circadian rhythms.

A decade ago Professor Roger Short, of the Department of Physiology, patented the application of melatonin for the treatment of such problems as sleep disorders, jet lag and a form of depression that strikes many people in winter called seasonal affective disorder. However, the Australians were unable to interest any drug company in commercialising these applications, and now their discoveries appear to have been overtaken by the new Servier compound.

Dr Redman says the compound is known, for the time being, as S-20098. Although the structure of S-20098 is very different from melatonin, the chemical that regulates the brain's own body "clock", the synthetic compound mimics the action of melatonin by binding to the same brain receptors.

Servier discovered the drug by showing that it could initiate seasonal reproduction in animals. In many species, seasonal reproduction is keyed to day length – in spring, the increased daylight hours result in more light entering the eyes, which in turn causes a tiny gland in the forebrain, the pineal gland, to manufacture more melatonin.

The effect of melatonin on seasonal behaviour in animals is seen at its most dramatic in tammar wallabies. Virtually all tammar females come into season on only the longest day of the year – the summer solstice on 22 December.

Preclinical tests

Dr Redman says melatonin acts upon a structure called the suprachiasmatic nucleus. This nucleus is now also known to be the site of the central "clock" that coordinates the body's circadian rhythms – although how it does this is still unclear.

Servier asked Dr Redman to conduct preclinical behavioural studies on its new compound.

"They asked me to do the experiments because of the work I published during my PhD when I was working with Dr Stuart Armstrong at La Trobe University," Dr Redman said. "There are very few behavioural tests for melatonin, and Servier found it difficult to show any clear effects from S-20098, except for the effect on seasonal behaviour."

"The results of experiments with melatonin in treating jet lag and sleep disorders are only just starting to be published. We have developed a rat model for human sleep disorders, and my experiments with

S-20098 suggest that it is at least as effective as melatonin in this application, and possibly better."

Dr Redman and Dr Armstrong have published a paper on delayed sleep phase syndrome, a sleep disorder that doctors frequently misdiagnose as insomnia. "It's not insomnia, because there is nothing wrong with the sleep mechanism in these people," she said. "But they do have a problem with the timing of their sleep – the person may not go to sleep until 3 o'clock in the morning, but if they get seven hours of sleep, they wake up feeling fine."

"Unfortunately, if they have a normal job, it's impossible to get seven hours of sleep, so they are chronically sleep-deprived. I suspect a great many shift workers choose shift work because they suffer delayed sleep phase syndrome. If they can't find shift work though, they end up chronically sleep-deprived."

"My experiments with S-20098 on rats shows that it will advance the body clock, reinstating the appropriate sleep-wake cycle. Once this happens, all the other body rhythms that take their cue from the central body clock also realign themselves, so that body temperature changes and activity phases fall into line as well."

Benefits of S-20098

Dr Redman says blind people may be among those to benefit from the new drug if it comes through human clinical trials now under way in France. Most blind people do not sense enough light to entrain their body rhythms to the day-night cycle, so the body clock usually free-runs. By chance alone, it occasionally coincides with external clocks, but blind people often find they cannot sleep at the appropriate times.

"We hope this drug, which is called a chronobiotic, will help these kinds of people," Dr Redman said.

"Like melatonin, it works at very low doses – the effective dose is around 50 micrograms per kilogram of body weight." The only catch is that the drug must be administered at the right time of day, usually in the evening, and the "window of opportunity" is fairly narrow – no more than two hours. If the drug is given outside that timeframe, it may not work and can even send the body clock in the wrong direction.

Another very important group to benefit could be elderly people in the early phases of senile dementia, including people with Alzheimer's disease. "In Alzheimer's patients, the sleep-wake cycle tends to break down as the disease progresses, so they get fragmentation of their sleep across 24 hours rather than at the appropriate time," Dr Redman said. "If somebody in the early stages of dementia is awake at night and wandering around the house, it can be very difficult for carers to cope. If the drug is effective in restoring sleep cycles in dementia patients, it could keep them out of institutions longer."

Dr Redman says Servier, one of the largest pharmaceutical companies in France, has had a long-standing interest in serotonergic drugs – drugs that



Dr Jenny Redman: S-20098 promises to help people with sleep disorders, delayed sleep phase syndrome, Alzheimer's disease and blindness.

cause the brain to synthesise serotonin, a neurotransmitter that has a calming effect. It developed its interest in chronobiotics during the late 1980s, and appears to have beaten other international drug companies to the development of a melatonin-mimic. The global market for an effective chronobiotic could be more than a billion dollars.

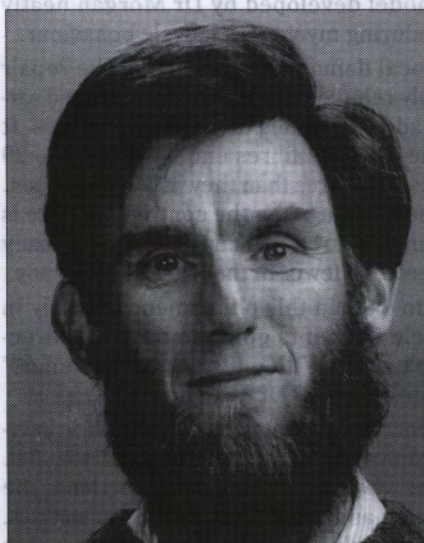
Dr Redman says she and other researchers are awaiting the day when a drug company finds a melatonin antagonist – a drug that actually blocks the action of melatonin. Melatonin receptors are widely distributed in the brain, but the way in which melatonin works is still not clear. A blocking drug would allow neurologists to study how certain parts of the brain react to an absence of melatonin, which could throw light on a range of human disorders.

"It seems likely that melatonin is involved in phenomena as diverse as circadian rhythms, reproduction, the functioning of the immune system – even the development of certain cancers," Dr Redman said. "There may be different types of melatonin receptors in different regions of the brain, which could account for melatonin's multiple roles in the body."

"From the researcher's viewpoint, a melatonin antagonist would be very useful, because if we know clearly what endogenous melatonin does, there may be cases where we could obtain therapeutic benefits by blocking or shifting the body's cycles."

For now, Servier's S-20098 is promising relief for those who suffer from jet lag. The tiredness that overwhelms the long-distance traveller may become a thing of the past.

As an example of the number of people throughout the world who will benefit from the new compound, Dr Redman points to the 2000 Olympics in Sydney: "Think of the thousands of people who will be travelling, for the first time, to the other side of the world. Also, it will be very important that the competitors' body clocks adjust quickly so that they don't lose too much of their vital lead-up training time."



Dr David Morgan

Popping sarcomeres

from Research page 1

muscles with 18 per cent more sarcomeres than the control group that had been running uphill.

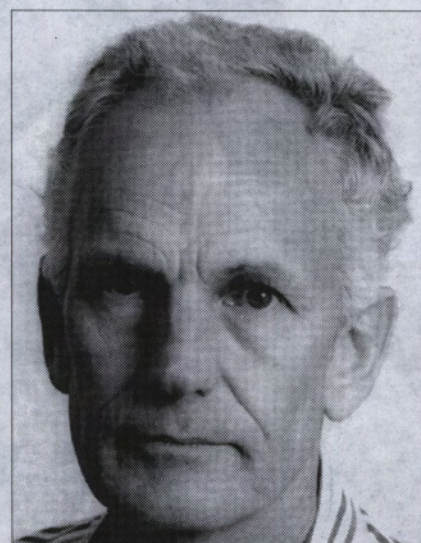
Dr Morgan's original insight came when he was lecturing while on sabbatical leave in Boston in 1981. "One of my students asked me what happens when you stretch a muscle rapidly," he said. "There is very little opportunity for crosslinks to form, and yet the tension in the muscle never falls, no matter how fast the stretching occurs."

"It seemed to me that there must be a limit to the speed at which tension can be maintained, yet we never seemed to reach that limit."

"If the sarcomeres were popping at random, instead of stretching uniformly, you would get a series of yield points in the muscle that would allow it to stretch while maintaining constant tension."

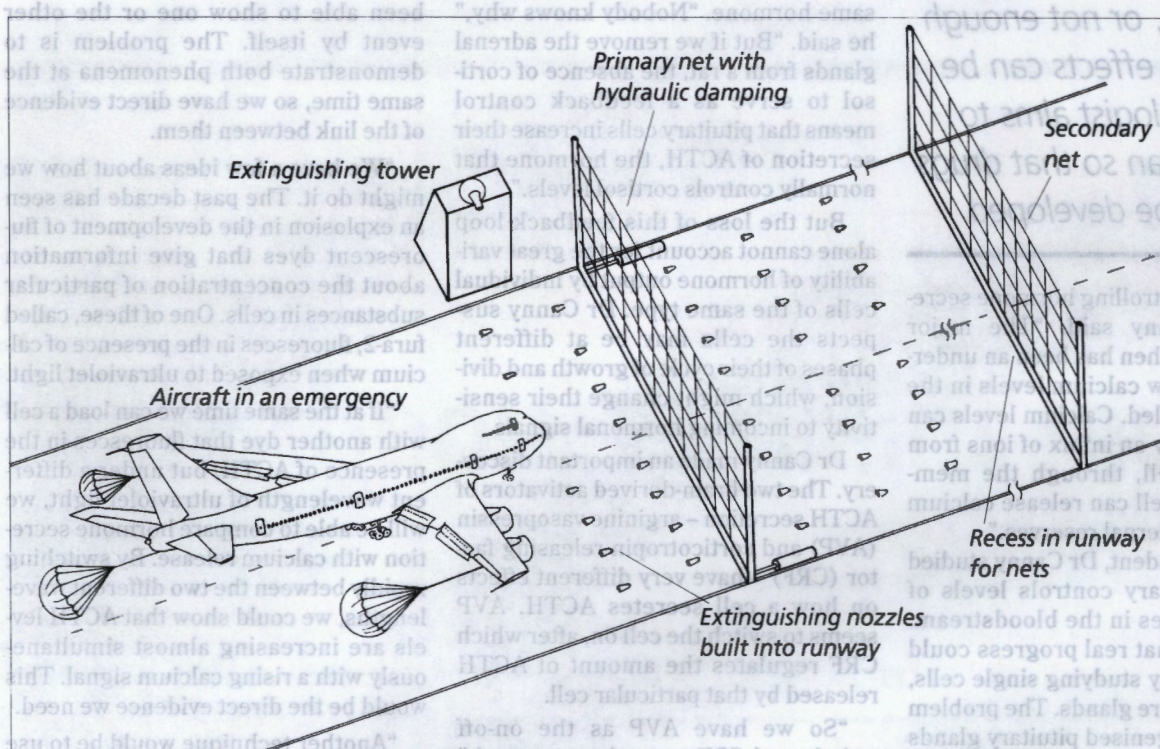
"It is difficult to see because the damage is concentrated in small patches throughout the entire muscle. But in 1991, not long after I published a paper outlining the theory, Dr Lucy Brown and Dr Lydia Hill of the University College in London published a paper describing exactly what I had predicted – they showed micrographs of sarcomeres that had been pulled apart. But they didn't carry out a quantitative analysis."

"It remains to be seen whether there are sufficient numbers of popped sarcomeres to prove my hypothesis."



Dr Uwe Proske

Improving air safety on the ground



A modern jet airliner is among the safest of all forms of transport. But no matter how well the aircraft is designed and maintained, the risk of pilot error cannot be eliminated. A radical risk reduction proposal by Mr Hussein Sadafi is sure to have air passengers on the edge of their seats.

It is only a matter of time before passenger airline cockpit crews are made technically redundant, according to a former Monash academic who is now a research fellow at the University of California, Berkeley.

For safety reasons, Mr Hussein Sadafi supports a much greater level of automation in the airline industry as a whole. He says that "the new generation of fly-by-wire airliners are claimed to be safer than any aircraft in history".

"But from a psychological perspective, would 400 passengers board a Boeing 747 knowing that their 'captain' is a bank of microchips?" Mr Sadafi asks.

The former mechanical engineering lecturer says increased automation would not necessarily reduce pilot workload, but could shift the tasks from being performance-based to involve a lot more monitoring. There is ample evidence from both research and accident statistics to suggest that humans are poor monitors. No matter how automated systems become, there could be no guarantee that the airline industry would eliminate accidents entirely.

Mr Sadafi says Australia's air safety record is without peer. This is due to the high state of personnel training, excellent aircraft maintenance, and the Civil Aviation Authority's compulsory requirement that all incidents be reported to prevent similar events occurring again.

But with escalating congestion at major airports, including those in Australia, aircrews and airport staff are under stress, increasing the risk of accidents. New measures are needed, he says, but are likely to prove costly.

But Mr Sadafi says the cost-benefit yield from new safety measures might still be positive. Citing a 1986 article in *Crewman*, titled 'The market price for air safety', Mr Sadafi says airlines know that accidents or major incidents can affect their business. Even if the direct financial burden of an accident or subsequent litigation is not crippling, any loss of image means an airline may lose customers for months. In other words, safety is a profitable investment.

Mr Sadafi says that with air fleets ageing through delayed replacement and all the world's big airlines feeling the impact of recession and under pressure to minimise costs, aviation safety authorities should consider secondary safety measures that might reduce the loss of life in accidents at airports. He suggests that it may be cost-efficient to design some of these measures into major new airports now on drawing boards.

Mr Sadafi says the main problem area appears to be in rejected takeoffs and landings, where the margin for error is very small.

In Australia, the Civil Aviation Authority (CAA) research suggests that about 80 per cent of aircraft accidents of all types occur through pilot error; 18 per cent are the result of air traffic control misunderstandings; and only 2 per cent are due to structural or mechanical failures.

According to Mr Sadafi, takeoff and landings are the most critical stages of any flight, with most problems encountered during the landing phase.

During takeoff, many systems must be checked, and the V1 speed – when an aircraft accelerates to take off – has to be closely monitored. This speed varies according to the aircraft's load and the runway conditions. Engine monitoring is critical because maximum power settings involve high strains, increasing the risk of malfunction that could lead to a loss of power or even an engine failure.

The failure of one component may increase the risk of other failures. With a non-operative engine for example, the reverse-thrust capability of an aircraft is compromised, resulting in more strain on other engines and brakes, which in turn increased the risk of a tyre burst.

In an emergency, pilots have to think very rapidly. A 1980 British Airways air safety review concluded: "Pilots are the only people in a company who make multimillion dollar decisions in split seconds."

The psychology of takeoff places further pressure on air crews. One pilot described the feeling: "The closer you get to V1 the more you tend to think of the

aeroplane as a 'go' aeroplane, and so you tend not to stop once you're past 100 knots unless you have something very serious ... if you get a warning of a lesser systems failure, it's frequently much safer to proceed, to take this failure into the air, sort it out and then come back."

Mr Sadafi says that even after the critical VR (velocity rotation) point, when the wheels leave the ground, there is a possibility of bird strike, mid-air collision, mid-air engine failure, wind shear, microbursts or other critical system failures.

Once an aircraft had made its way safely to its destination and is preparing to land, new hazards emerge. The greatest hazard is from other aircraft in the vicinity of a busy airport. In poor visibility, aircrews rely heavily on air-traffic control reports and visual observations. Accidents have been known to occur because of false or conflicting information given to the crews of aircraft in close proximity.

Mr Sadafi has thought of several measures that may reduce the potential loss of life during a landing or takeoff incident. Though some might be too costly or impracticable, he hopes they provoke discussion among other engineers and air safety officials.

One of the problems with aborting a takeoff after V1 is that it is unlikely an aircraft can be stopped before the runway finishes and a pilot has no accurate way of assessing the required stopping distance after V1. The obvious solution is to lengthen runways, which may not be feasible because of the cost or availability of extra land, especially at coastal sites.

A new generation of super-sized airliners will ultimately require longer runways. In the interim, Mr Sadafi says that giant safety nets could help slow crippled aircraft during takeoff or landing. Their main purpose would be to dissipate the enormous kinetic energy generated by a heavily loaded aircraft moving at high speed. The nets could be built as permanent fixtures at the end of runways, or hydraulic jacks could make them pop up in an emergency (see diagram).

A succession of nets could be used, with a primary net designed to shear, and a secondary set of nets that might employ hydraulic or pneumatic dampers to absorb the residual energy. Designers would need to take into account the amount of damage that may result from using the nets. For instance, aircraft fuselages may need to be strengthened. The question of how the nets would be activated – by the pilot, air-traffic control or ground-based computers – also needs to be considered.

Mr Sadafi says the new nets would have to be constructed from extremely strong, space-age materials, which may have to be invented for the purpose.

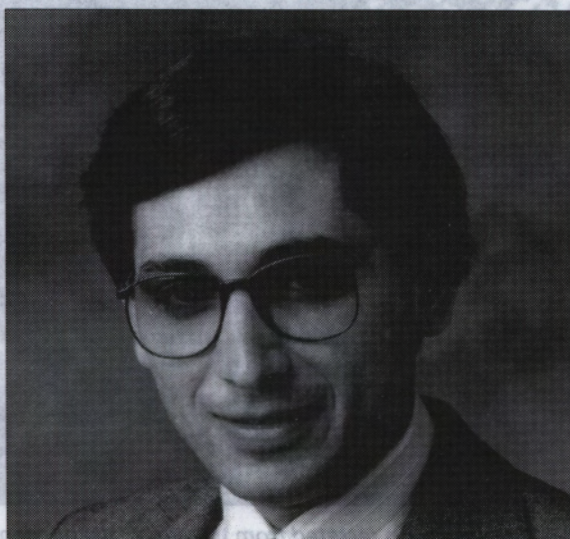
Parachute deployment has been an option on military aircraft for many years. Mr Sadafi said that a parachute, or series of parachutes, could also be used to brake commercial aircraft in conjunction with spoilers, reverse thrust and conventional braking systems. Practical engineering problems would include the method of deployment, materials to be used, the area of the parachute(s) and stresses the chute(s) would impose on an aeroplane's frame, and where the parachute(s) would be housed. He suggests that special pods might be mounted under the wings, or under the rear fuselage towards the tailplane.

Flammable aviation fuel spilling from ruptured tanks is an ever-present hazard in a violent landing or aborted takeoff. Mr Sadafi says the readiness of equipment and fire crews is always critical, and precious seconds can be lost while they race to the scene. It may be possible to place extinguishers along the length of the runway, or even within the runway.

The advent of tiny video cameras means that critical components could be monitored from the cockpit. A fatal accident that occurred at Nairobi airport in 1974 when a Jumbo jet attempted a takeoff without flaps resulted in a fire that killed 55 passengers and four cabin crew.

Such accidents are preventable, Mr Sadafi says. Modern video surveillance systems could be used as a backup to existing warning sensors and alarms. Images from cameras located near flaps or in landing bays could be relayed to the cabin and even analysed by computer-based recognition systems.

Mr Sadafi says it is in the airline industry's best interests to implement as many safety systems as economically and practically feasible.



Mr Hussein Sadafi

Investigating the hormone regulator

If the pituitary gland secretes too much, or not enough of the many hormones it controls, the effects can be severe. Research by a Monash physiologist aims to better understand this "bean-sized" organ so that drugs to correct hormonal imbalance may be developed.

For Dr Ben Canny, the pituitary gland, a masterpiece of miniaturisation buried in the centre of the brain, is a fascinating world unto itself. Just occasionally, he wishes nature had made it a little larger, and labelled its components.

As the body's hormonal hub, and a dominant influence on the nervous system, the pituitary is a focal point for both endocrine and nervous system researchers. But the question Dr Canny is asking is more elemental: at the deepest levels of cell function, how can the ebb and flow of charged atoms of calcium – calcium ions – modulate the behaviour of the pituitary gland, which affects so many other body systems?

A checklist of the hormones produced by the different cell types populating this one tiny gland hints at its versatility: luteinising hormone (LH), which stimulates ovulation and induces sex-hormone production in both sexes; follicle-stimulating hormone (FSH), which promotes ovulation and sperm production; and prolactin, which stimulates milk secretion. It also secretes thyroid-stimulating hormone (TSH), which controls the thyroid gland's release of thyroxine to regulate body metabolism; growth hormone (GH) to control growth rate; and finally, it secretes adreno-corticotrophic hormone (ACTH), which controls the release of the stress hormone cortisol by the adrenal gland atop the kidneys.

Influential hormones

Dr Canny says this list only describes the hormones secreted by cells in the anterior (frontal) pituitary. The posterior pituitary secretes two fast-response hormones that act at diverse sites: oxytocin, the hormone that induces labour and which later controls milk let-down in lactating females, and vasopressin, which regulates blood pressure by causing the arteries to contract and controls the amount of urine the kidneys produce.

The endocrine glands targeted by the pituitary's hormones – the thyroid, testes, ovaries and adrenals – in turn produce hormones that modulate the pituitary's own secretory behaviour, via feedback loops.

When changing hormone levels influence mood, when blood pressure rises with stress, when psychological stress impairs the sex drive or induces infertility, or when athletes bulking up with anabolic steroids develop some of the characteristics of the opposite sex, the explanation is likely to involve mixed or overlapping signals that affect the pituitary's multicultural community of hormone-secreting cells.

Dr Canny wants to know how the signals coming into the pituitary gland are transduced – how a cell "understands" the insistent message of a hormone arriving at its surface receptor molecules and responds by increasing or reducing its own level of hormone secretion. He says that calcium is the key.

"We've known since the 1970s that the transport of calcium ions is

essential in controlling hormone secretion," Dr Canny said. "The major advance since then has been an understanding of how calcium levels in the cell are controlled. Calcium levels can be increased by an influx of ions from outside the cell, through the membrane, or the cell can release calcium from its own internal reserves."

As a PhD student, Dr Canny studied how the pituitary controls levels of stress hormones in the bloodstream. But he knew that real progress could only be made by studying single cells, rather than entire glands. The problem was that homogenised pituitary glands contained a mixed population of cells, with different patterns of hormone secretion. The question was how to distinguish one from the other.

As a postdoctoral researcher at the University of Virginia in Charlottesville in the US, Dr Canny learnt a technique called a haemolytic plaque assay. A mixed population of living pituitary cells are placed on a plate and mixed with a solution containing thousands of red blood cells. The anonymous pituitary cells were then stimulated with brain-derived factors to cause them to release whichever hormone they were programmed to secrete.

An antibody, added by the researcher, trapped the secreted hormone and attached itself to the red blood cells. A biochemical cascade was then generated, eventually resulting in the destruction of the same red blood cells. As a result of the process, a clear halo-like plaque surrounded any individual cell that secreted the hormone of interest. Once unmasked, the cells can be isolated and studied individually.

But Dr Canny was puzzled to find that a supposedly uniform population of cells of one type produced different-sized plaques, indicating that they were producing different amounts of the

same hormone. "Nobody knows why," he said. "But if we remove the adrenal glands from a rat, the absence of cortisol to serve as a feedback control means that pituitary cells increase their secretion of ACTH, the hormone that normally controls cortisol levels."

But the loss of this feedback loop alone cannot account for the great variability of hormone output by individual cells of the same type. Dr Canny suspects the cells may be at different phases of their cycle of growth and division, which might change their sensitivity to incoming hormonal signals.

Dr Canny made an important discovery. The two brain-derived activators of ACTH secretion – arginine vasopressin (AVP) and corticotropin-releasing factor (CRF) – have very different effects on how a cell secretes ACTH. AVP seems to switch the cell on, after which CRF regulates the amount of ACTH released by that particular cell.

"So we have AVP as the on-off switch, and CRF as a volume control," Dr Canny said. "It seems to be true not just for cells that secrete ACTH, but for three or four other cell types in the anterior pituitary. It might be a generalised control system. The next step is to relate these secretion profiles to the calcium signals."

An all-or-nothing response

Dr Canny obtained dramatic false-colour images of a cell that had been stimulated by AVP, releasing its internal reserves of calcium as a prelude to commencing secretion of ACTH. Interestingly, he said, individual cells exhibit an all-or-nothing response. If AVP is below a particular concentration, nothing happens. Above this level, calcium release is triggered. But different cells exhibit different threshold levels. "The number of cells secreting ACTH increases with the concentration of AVP," Dr Canny said. "So in the variable calcium-release threshold, we seem to have found a correlate of the variable secretion response we observe in the plaque assay."

"Ultimately, we would like to demonstrate absolutely that hormone secretion begins at the same time that calcium is released. So far we have only

been able to show one or the other event by itself. The problem is to demonstrate both phenomena at the same time, so we have direct evidence of the link between them.

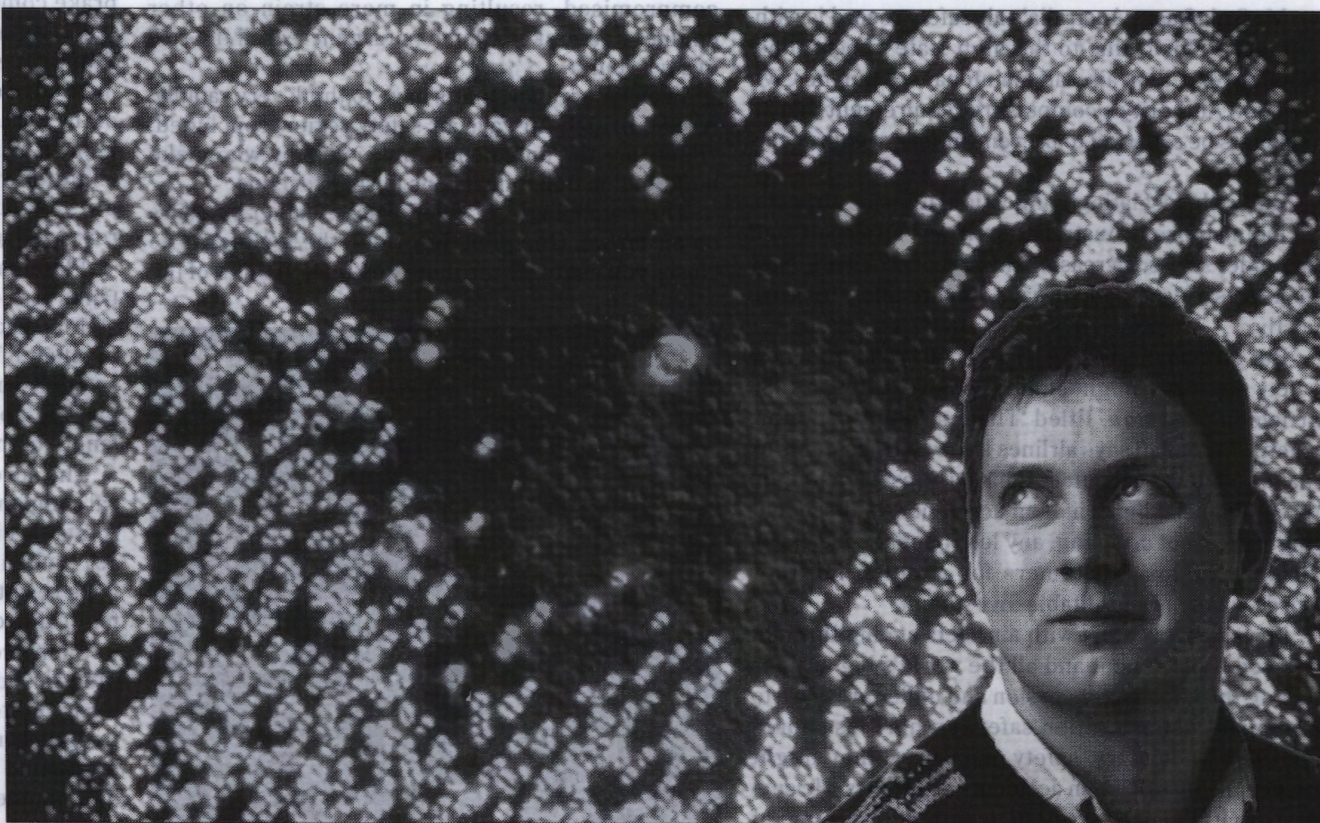
"We have a few ideas about how we might do it. The past decade has seen an explosion in the development of fluorescent dyes that give information about the concentration of particular substances in cells. One of these, called fura-2, fluoresces in the presence of calcium when exposed to ultraviolet light.

"If at the same time we can load a cell with another dye that fluoresces in the presence of ACTH, but under a different wavelength of ultraviolet light, we will be able to compare hormone secretion with calcium release. By switching rapidly between the two different wavelengths, we could show that ACTH levels are increasing almost simultaneously with a rising calcium signal. This would be the direct evidence we need.

"Another technique would be to use a dye that binds to the outer cell membrane. When a cell begins to secrete ACTH through its membrane, it swells, increasing the surface area of its membrane available to take up the dye. So ACTH secretion would correspond with an increase in fluorescence.

"Our ultimate goal is to understand how the control of hormone secretion from the anterior pituitary regulates the quality of life. If something goes wrong with the pituitary, decreasing or increasing the level of secretion of one or another hormone, the effects can be severe. After diabetes, 75 per cent of the practice of endocrinology is concerned with abnormalities related to the pituitary gland. There are a whole range of tumours that affect the various tissue types of the anterior pituitary.

"If we are going to develop drugs to adequately treat conditions that involve under or over expression of particular pituitary hormones, we need a precise understanding of what is going on. Today's therapies are often marred by lack of specificity, resulting in unwanted side effects. By understanding precisely how things are linked, we will be able to make more accurate interventions."



A hormone, ACTH, has been secreted from the large cell and identified in a special assay (see text). Dr Ben Canny hopes that by studying chemical messengers a better understanding of cell secretion will be achieved.

Max Robinson's ever-changing world

Mr Max Robinson is no stranger to computers or, for that matter, to Monash University.

Mr Robinson, Administration and Management Information Systems (AMIS) branch manager, celebrated his silver jubilee at Monash on 6 September this year. A Monash computer science and mathematics graduate, he worked outside the university for a short while before returning to the fold 25 years ago to work in administrative computing.

In his time at Monash, Mr Robinson has seen many changes in computing systems – a world where new developments occur daily. He has managed AMIS since 1984, overseeing the systems development branch, production support, PC-user support group, and the PC system development group. He is also responsible for monitoring the progress of each branch and offering support to his staff so they are able to provide a high-quality service.

Like the fast-moving world of computers, Mr Robinson is always looking ahead. He offers his staff a simple but progressive philosophy: "It is not the step you take now that matters, it is the implication of that step on the one you take tomorrow that is crucial."

"It is a very fast-changing environment and one where the demands for information from our systems is almost exponential", he said.

According to Mr Robinson, the changes in attitude towards computers and their application in the Monash workplace has been quite dramatic over the years, to the point where there is now a good working relationship between departments.

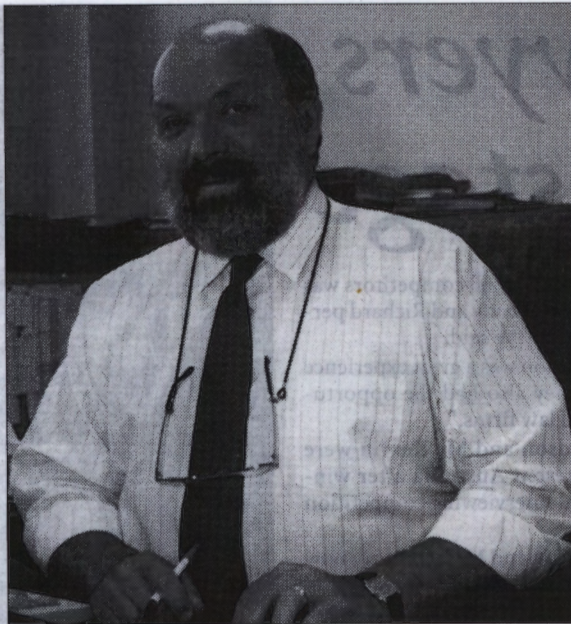
"When I first started here there was an air of mistrust about computers, but now it has moved completely the other way to where people are very positive about making use of the technology available to them," he said.

"As a result, we have become very customer-oriented and enjoy the challenge of making the systems understandable and available to our clients, so they can get their jobs done easily and efficiently.

"However, unless there is a focus on business process re-engineering, the provision of computer-based systems will not necessarily assist the delivery of a quality service.

"AMIS staff are always up to date on the latest technology so they can develop new systems to make the working lives of people easier."

The current involvement of AMIS in the Core Australian Specification for Management and Administrative Computing (CASMAC) project is a glowing example of this philosophy.



AMIS branch manager, Mr Max Robinson.

Through CASMAC, Monash and 30 other universities around Australia will see their administrative and management records standardised under a core-integrated information software system.

Mr Robinson said that at present Monash used several independent systems to service the different departments. It was envisaged that CASMAC would replace all existing information systems within five years.

"The benefits of a system such as this are tremendous. For instance, it will be extremely useful in streamlining the provision of data requested by the Department of Employment, Education and Training," he said.

"It is going to save a lot of time and effort by banding the shared systems together in areas where information and administrative activities are similar."

It is expected that CASMAC will provide at least 80 per cent of the university's requirements.

The first area to be dealt with at Monash will be the replacement of the finance system in early 1995. Human resources systems, research and consultancy, physical resources, and executive information systems will also be installed.

AMIS, the Computer Centre, administrative and faculty groups, and the newly formed Information Systems Centre will work together closely over the next few years to achieve these goals.

The AMIS branch is located in the basement of the main administration building on Clayton campus.

And the winner is...

Senior lecturer in the Faculty of Education Dr Tony Townsend has won a fully catered dinner party for 40 people, courtesy of the Australian Spitroast Professionals.

The function is the prize of a competition run in the September issue of *Montage*, which asked readers to submit the answer to a visual puzzle (solution: 120).

More than 180 Monash staff and students entered the competition.

Dr Townsend, who is based at the Peninsula campus (Frankston), is the director of the South Pacific Centre for School and Community Development in the School of Early Childhood and Primary Education. He says the prize will help celebrate the completion of a home extension that has taken six months.

In the few competitions he has entered, Dr Townsend admits to being fairly lucky.

"I have a tendency to win things every now and again. I won a cricket bat from my cricket club last season and a bicycle the year before."

To organise a Spitroast function, contact 752 2744.



Function winner Dr Tony Townsend (centre) is congratulated by Mr Brian Lawler (right) and Mr Ray Prohasky of the Australian Spitroast Professionals.

Kenyan visitors mean business

A Monash scheme that helps the unemployed establish their own businesses has attracted the Kenyan Government's attention.

The New Enterprise Incentive Scheme (NEIS), which has been run by the Syme Centre for Enterprise Development for the past eight years, drew special interest from two Kenyan business educationalists visiting Melbourne last month.

During their stay Dr Caleb Wangia, from the Jomo Kenyatta University College of Agriculture and Technology, and Mr Samson Osero, from the Kenya Technical Teachers' College, expressed an interest in establishing a similar program in Kenya.

NEIS, which is funded by the Federal Department of Employment, Education and Training, has proven very successful in Australia. The scheme helps people who are unemployed or receiving social security benefits establish their own businesses. Income support and business advice are also offered by the program.

The Syme centre's executive director, Professor Denis Kiellerup, said the NEIS program had enjoyed success because of its commercial viability and its ability to address the unemployment problem.

He said the spin-offs of the scheme were tremendous, with many businesses creating additional employment opportunities.

"It means there is new money being generated in the community and both the new employers and employees are paying taxes rather than claiming a benefit from the government," Professor Kiellerup said.

The change of attitude in the people involved in the program was dramatic. In the space of two months, successful applicants began to think of themselves as self-employed or as the employer.

Dr Wangia and Mr Osero would welcome a similar system in Kenya because of the socioeconomic benefits it would have for the country.

Dr Wangia said their major objective was to focus on strengthening existing small business centres and improving entrepreneurship education in Kenyan training institutions.

Monetary constraints, he believed, would not allow the Kenyan Government to implement an exact prototype of NEIS, but many of the training systems they had observed would be of use to the education system.

"We hope in time to be able to develop a system that is at least similar, given the resources available to us," Dr Wangia said.

He said the Syme centre's methods of teaching were unique because the participants not only received knowledge, but actively participated in and contributed to the entrepreneurial process.



From left: Syme centre executive director Dr Denis Kiellerup, Business Enhancement Centre director, Mr Arthur Hobson, Dr Caleb Wangia and Mr Samson Osero.

"The facilitator is only there to provoke the participants' thoughts, so they can actualise proven business concepts in their own businesses," Mr Osero said.

"What you see developing is an enterprise culture where people are self-motivated and set for work."

"It is our final objective to achieve an enterprise mentality in Kenya, and it is programs such as NEIS that are going to assist us in reaching this goal."

Dr Wangia said their new found knowledge would allow them to introduce a style of teaching that involved the use of case studies and the development of business plans.

He envisaged a situation where the business plans would be sold to potential business people.

"Fortunately, we have the full support of our government, as it is committed to improving entrepreneurial programs and

very eager to implement new and innovative ideas," Dr Wangia said.

The Kenyan businessmen were given an insight into the scope of opportunities available to Australian women when they met four women entrepreneurs on the NEIS program.

They said that the meetings convinced them of the need to address the low employment of women in their country. Dr Wangia said employed women in Kenya tended to work in traditionally female jobs.

As a result of the Kenyan delegates' visit, which was hosted by the Syme centre and Swinburne University of Technology, the centre and the Kenyan Government will seek to establish a joint venture. The Syme Centre for Enterprise Development would provide guidance and assistance to Kenya in the implementation of entrepreneurial programs.

Student lawyers take centre stage

Two Monash law students successfully represented Australia in an international client interviewing competition in Canada recently.

Mrs Trudy Edmondson and Mr Richard Kervin were placed third behind Canada and England in the five-nation tournament held in Calgary, Scotland and the US also took part in the event.

To display their interviewing techniques, Mrs Edmondson and Mr Kervin were given three simulated interviews of increasing levels of difficulty.

The pair were accompanied by Mr Ross Hyams, a lecturer in the Faculty of Law and coordinator of the Monash-Oakleigh Legal Service. According to Mr Hyams, the competition was fierce.

"The standard from all competitors was very high, and both Trudy and Richard performed excellently," he said.

"The competition was a great experience for them, and they also had the opportunity to visit local law firms."

Mrs Edmondson and Mr Kervin were selected to represent Australia after winning the national interviewing competition at Wollongong.

Mrs Edmondson and Mr Kervin are now working as articled clerks. The Law faculty is currently running a series of seminars on interview techniques to help fund the trip.

Monash will be represented by two students next year at the 1994 National Client Interviewing Championship, to be held at Bond University.



Ms Trudy Edmondson (right) and Mr Richard Kervin (left) congratulate each other while Mr Ross Hyams (centre) holds the trophy.

Now for the next 25 years

Mannix College, one of the halls of residence on Clayton campus, has celebrated its silver jubilee with the release of a book detailing its history.

The book, *Omnia omnibus - all things to all collegians*. The first twenty-five years of Mannix College, was launched by Mannix College Council chairman Archbishop Sir Frank Little at a silver jubilee dinner in August.

College dean Dr Gabrielle McMullen compiled the book, which gives a chronological overview of events that have shaped the college's development since its opening in 1969.

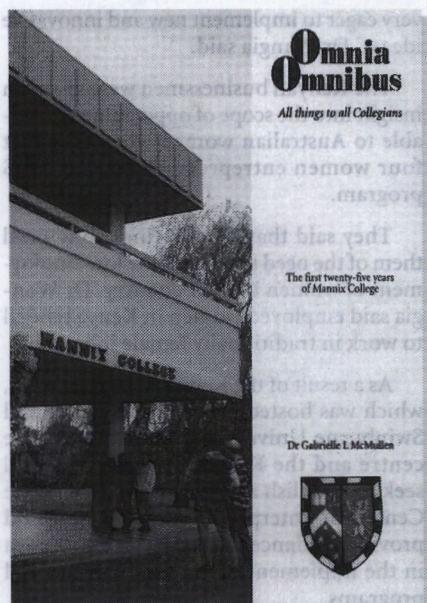
The book pays special tribute to Archbishop Daniel Mannix and Sir Michael Chamberlain for their efforts in establishing the college.

The celebration also marked the sixth annual Mannix Old Collegians' Association dinner, which saw association member and one-time tutor Mr Pat Taylor donate money for a bursary fund. It is expected that the fund will eventually assist financially disadvantaged students who wish to take up residence at the college.

Association president Mr Chris Dale presented a trophy to Mannix Old Collegians' football captain, Mr Justin Alexander, for his team's victory against the current collegians this year.

The college, owned by the Catholic Church, was the first hall of residence to be affiliated with Monash.

Copies of the book are available from the college office for \$12.50. Mail orders are also available within Australia for \$16.20 (includes packaging and postage).



Mooting regional law



Among the principal speakers at a recent meeting of the Law Association for Asia and the Pacific was Monash criminologist Professor Richard Fox.

More than 1000 delegates from the ranks of lawyers, judges, legal practitioners and academics attended the Lawasia conference, held last month in Colombo, Sri Lanka.

At the criminology session, Professor Fox spoke on the need to protect those who expose corruption, malpractice and wastage in the private and public sectors - the 'whistleblowers'.

While in Colombo, Professor Fox also delivered the Medico-Legal Society of Sri Lanka Oration on the subject of 'Psychiatry and the law: Sentencing offenders - the compulsion of voluntary treatment'. The society's inaugural oration was delivered last year by former Monash professor of law, Emeritus Professor Christie Weeramantry.

The President of Sri Lanka, His Excellency Mr D. B. Wijetunga, (left) welcomes Professor Fox to the conference.

Leaving a legacy

One of Australia's best known Aboriginal authors, Oodgeroo Noonuccal (Kath Walker), who was given an honorary Doctor of Letters from Monash, has died of cancer at the age of 72.

Oodgeroo was awarded the honorary degree in 1991 for her work as a poet, writer, painter, teacher, political activist and conservationist.

She was the first Aborigine to break into mainstream Australian publishing without surrendering her Aboriginal identity. Her first book, *We are going*, was published in 1964 and sold out within three days.

In the 1980s, Oodgeroo explored new modes of cultural expression and communication. Her first exhibition of paintings was held in 1981.

She also became involved in films, most notably as an actor and script adviser for Bruce Beresford's *The Fringe Dwellers*.

She was a state secretary of the Federal Council for the Advancement of Aborigines and Torres Strait Islanders, a delegate to the World Council of Churches Consultation on Racism, a Fulbright Scholar, and a delegate to the International Forum for a Nuclear Free World for the Survival of Humanity.

Agreement signed with Vietnam

Monash University and Vietnam's Ministry of Education and National Centre for Technical Progress have signed an agreement to establish a joint office in Hanoi.

The three parties will work together in Vietnam on education and training matters. The university's vice-chancellor, Professor Mal Logan, said the Monash office in Hanoi would support a two-way flow of undergraduates and postgraduates.

Members of the Vietnamese Government who visited Monash recently included Professor Dr Nguyen Mai, Mr Tran Quang Minh, Dr Pham Gia Toan, and Mr Bui Quoc Trung.

During the visit, the delegation observed university teaching and research programs, and met with senior university staff to discuss issues relevant to the restructuring of higher education in Vietnam.



The vice-chancellor, Professor Logan, and Professor John Button with Vietnamese government officials at the signing ceremony.

Exploring Dracula's other side

Just for a change, bats, blood and gore did not feature in the recent Monash performance of *Dracula*.

Instead, the production by first-year Language in Performance students explored the other side of Bram Stoker's famous novel: the unconscious, repression, relationships, sexuality, and hysteria.

Language in Performance, offered by the English department and the Centre for Theatre and Drama Studies, explores the semiotics of performance, connections between text and performance in drama, and the organisational skills involved in mounting a production. Almost 170 students are enrolled in the course.

Lecturer in drama, literary theory and cultural studies and director of *Dracula*, Dr Chris Worth, says the Centre for Theatre and Drama Studies does not profess to being a drama school.

"We mount a performance for every section of the course – from first through to third year – to put our studies into practice. Students are then better able to get a feel for the organisation, production and cooperative effort involved," Dr Worth said.

"Of course, there are those students who are interested in acting as a career. Probably about 30 to 40 aspire to be

actors. Their advantage is that when they eventually do take acting seriously, they will have the base of an arts degree, as well as the intellect and discipline that goes with it. Directors are now looking for intelligent actors."

Dr Worth said that *Dracula* was a good choice because of the number of roles involved and the opportunities for expression they offered the students. More than 100 auditioned for the show, and more than 50 were involved in the production, including dancers, actors, a production crew, set designers, publicists, and teams directing props and lighting.

At present the Centre for Theatre and Drama Studies stages productions in the Guy Manton rooms in the Menzies building on Clayton campus. "When the performing arts building opens, the centre will use facilities such as the drama studios and small theatre," Dr Worth said.

"Many VCE students are studying drama. People are beginning to realise that drama and performance skills help them after they have completed their courses. Students are taught presentation, confidence building, organisation, cooperation and teamwork."

"Hosting the play at the Malthouse demonstrates Monash University's increasingly close relationship with the Playbox Theatre," Dr Worth said.

"I would like to see Monash students trial some more experimental works. There are many new, innovative plays that have never been seen because they would not appeal to the mass audience."

"Students are in the best position to attempt these works, to stretch their own imaginations, use their skills, and bring scripts that otherwise would not see the light of day to the public."



First-year Language in Performance students performing Bram Stoker's *Dracula*.

The Brides

Ms Srebrenka Kunek has a personal history that matches many of the stories told in her new multimedia exhibition *The Brides – The Story of Postwar Immigration of Greek Women to Australia*.

As an immigrant from Croatia who arrived in Australia with her grandmother when she was five, Ms Kunek, the exhibition's director and facilitator, was excited by the prospect of taking photos at Station Pier – the place where she and thousands of other immigrants first walked on Australian soil.

At the pier, she pointed to the remnants of another life – the rusted train tracks reminiscent of the transportation used to take Greek women to their posts at Bonegilla, the multilingual sign above the toilet door, the dilapidated milk bar, and the huge gates that symbolised the entrance into a new life for the immigrants.

The Brides exhibition, which includes tape recordings, letters, photographs, and embroidered texts, presents for the first time a story of immigration that is little known in Australia.

Ms Kunek says that inspiration for the exhibition came in 1987 when she went to Greece, learnt Greek, attended a women's conference on the needs of migrants, and reviewed the Greek Government's archives on immigration.

"To gain acceptance by the Greek community in Melbourne, I was interviewed on Greek radio, met with the patriarch of the Greek Church, and contacted women's groups and church auxiliaries," Ms Kunek said.

"Women began approaching me and wanting to talk about their lives and experiences. I talked to a broad cross-section of women of different ages, class, education, and place of origin in Greece."

"In talking to these women, I realised the feat they had achieved. Many of the women had never left their villages, yet they saved the money, trained for domestic services, signed a two-year contract for accommodation and employment in Australia, and then were brave enough to get on a boat, leave their family behind, and venture to a country halfway around the world."

"Australia was their dream of freedom, escape from the arranged marriage and dowry system, and meant work with their own money and a better future. Little did they know that their dreams would not be initially fulfilled."

"With *The Brides* exhibition, I wanted to acknowledge publicly the horrors that they went through to get here, the promises that were not upheld, and recognition of the lives they created for themselves, overcoming language difficulties, unemployment and the different culture and society in Australia."

"Yet for all the problems they initially had, the Greek women did not regret the decision they made to follow the adventurous and outrageous path to the unknown."

The histories of 30 women are told in Greek on panels of cotton sheeting with printed photographs and embroidered texts. The panels include quotes from official government immigration documents and explore the Greek and Australian perspectives.

"I looked into the archives of the Greek Government and how they encouraged women and men to migrate in order to fix their own unemployment problems," Ms Kunek said.

"In Australia, the government used the immigration scheme to build a nation based on the strength of the family unit. However, the males were originally split from their families to come and work here, and their wives and dependents from southern Europe were not sponsored. Also, when single women arrived they were taken straight to their place of work without even a glimpse of Melbourne along the way."

"The people who immigrated are a great part of Australia's history. There has been little analysis about their plight and their contribution to the current state of Australia now. These immigrants were central to postwar development in Australia, to the major works that were built, and in making Australia multicultural."

Ms Kunek looks forward to making the information available in multimedia form through CD-ROM.

"There is so much information in the exhibition – tapes, letters and photos. These will eventually be housed in the Main Library at Monash," she said.

Ms Kunek is completing her doctoral thesis on European female migration to Australia, with a particular focus on Greek women. She is also interested in the plight of women in wars, and helped assemble aid packages for the women survivors of the Bosnian death and rape camps.

The Brides was on show at the Monash Studios, and next year will travel to Canberra and regional centres. Ms Kunek has also been invited to take *The Brides* to Greece and to New York's Immigration Museum on Ellis Island.



Ms Kunek at Station Pier, where she and the subjects of her exhibition arrived in Australia.

The arts gallery

■ The Alexander Theatre

Waverley Festival

The Waverley Festival of Theatre will run from 15 to 23 October (excluding Sunday 17 October) at the Alexander Theatre.

The festival features a different play by leading theatre groups each night. Following is the program of events, which includes many well-known plays covering comedy, farce, drama and suspense. Performances begin at 8 pm each night.

Friday 15 October	Waverley Theatre Inc <i>Lost in Yonkers</i>
Saturday 16 October	The 1812 Theatre <i>The Exorcism</i>
Monday 18 October	The Powerhouse Players <i>Artful Dodgers</i>
Tuesday 19 October	Mordialloc Theatre Co In <i>Breaker Morant</i>
Wednesday 20 October	Werribee Theatre Co <i>On Golden Pond</i>
Thursday 21 October	The Basin Theatre Group <i>Death of a Salesman</i>
Friday 22 October	Peridot Theatre Inc <i>Noises Off</i>
Saturday 23 October	Malvern Theatre Co <i>Same Time Next Year</i> and Gala Awards Night

Tickets are \$12 (\$8 for Monash staff), and \$22 for the final Gala Awards Night, which includes a champagne supper. To book, telephone 801 3814.

■ Monash University Gallery

Luminaries

The current exhibition at the Monash University Gallery, *Luminaries*, investigates the use of light and light technology as a sculptural, conceptual and perceptual creative device.

The 50 works by 33 Australian and international visual artists explore diverse media, including luminal kinetics, LED, light boxes, holograms, neons, light performance, domestic lights, and light and sound sculpture.

The late 1960s and early 1970s light works will be augmented by international works from the collections of the Museum of Contemporary Art and the Art Gallery of New South Wales.

Luminaries will run until 23 October in the Monash University Gallery, Clayton campus.

■ Arts, Crafts and Tuition Centre

Pottery, Shiatsu massage, Silk painting, Photography, Painting for everyone, Pastels, Drawing on the right side of the brain, Study skills and French polishing are among the courses being offered in the next few months by the centre.

All courses cost less than three dollars per hour for Monash University (Clayton) students.

For further information, contact extn 75 3181.

New direction for staff unions

This month ACUSA joins with two nationwide tertiary education staff unions to form the National Tertiary Education Union (NTEU). Dr Paul Rodan, who is a joint vice-president of the new union, provides insight into the amalgamation and the future.

The establishment of the NTEU on 1 October signals a new beginning for staff at Monash and all other tertiary institutions around Australia.

The NTEU consists of the Australian College and University Staff Association (ACUSA), the Federated Australian University Staff Association (FAUSA) and the Union of Australian College Academics (UACA). It not only promises a more streamlined and effective method of industrial representation, but also will provide a vocal presence on the federal industrial relations scene.

For too long, Dr Rodan believes, college and university staff have been overlooked in the national arena because "there's been too many education unions running around trying to represent the one industry group".

ACUSA members voted on amalgamation two years ago. Of the 50 per cent of members who voted, 97 per cent supported the amalgamation.

Due to federal legislation requirements, UACA and FAUSA voted more recently. Ninety-six per cent of UACA members and 62 per cent of FAUSA members voted "yes".

"Our chief rivals [for general staff membership] are the state public service unions," Dr Rodan said. "At the moment they have enough on their plates with threats to public service numbers in Victoria and Western Australia, and probably South Australia very soon as well."

With this pressing issue on their agendas, Dr Rodan argues that education concerns have become secondary to the public service unions. "I think it is more timely than ever for people working in the education industry to be in a specialist education industry union," he said.

"Increasingly, Australian industrial relations is about fairly big unions and about having a say in the main game. This means making representations to government and having a visibility in the ACTU."

Dr Rodan says higher education has been losing ground in the past few years, partly, he argues, because the Australian Vice-Chancellors' Committee has not been effective as a lobby group.

"If you look at the budget, HECS has gone up, funding's down, and virtually no one gives a damn," he said.

More than 2000 Monash staff are members of the NTEU, making it the largest branch in Australia. The FAUSA and ACUSA offices on Clayton campus have been amalgamated to form one office, and every other campus will have access to NTEU expertise.

"The sooner we can integrate and see issues collectively, the better," Dr Rodan said. "The NTEU will provide a better range of services to staff, more information, discount schemes, and much quicker information dissemination."

Eligibility to join the NTEU differs from state to state. All university and college academic staff in Australia may join.



Joint vice-president of the NTEU, Dr Paul Rodan.

All general staff in Victoria are eligible along with substantial numbers in South Australia and the ACT. Because of agreements that had to be reached in order to bring about the merger, recruiting is limited elsewhere at present.

"It would be silly to deny that our ambitions are to spread membership across Australia. We would like a situation where every general staff member in Australia who wants to join the NTEU can do so," Dr Rodan said. "But it is a very unpredictable scenario that is affected by government and ACTU policy and the behaviour of other unions."

To have a national union for university and college staff is something that Dr Rodan has been striving for since he was elected president of ACUSA in October 1989.

He has provided distinctive insight into the amalgamation because of his experience both as an academic and a member of the general staff.

"I was a member of FAUSA and UACA, and of course also a member of ACUSA," Dr Rodan said. "I think having been on both sides of the fence, I was less patient with those who said the merger couldn't work because general and academic staff have nothing in common."

"Having done both jobs, I can see what we have in common, and I can see the benefit in saying that we are all involved in providing high-quality higher education."

"I guess my background has made me less parochial and more likely to be positive and upbeat about the merger, and that's what I've tried to do over the past few years."

While he is happy that the hard work has paid off, Dr Rodan is sad to see ACUSA come to an end.

"ACUSA has been a unique experiment. Only in Victoria has a specialist union been developed for university, college and TAFE general staff," he said.

"I will look back with a sense of satisfaction and pleasure from being involved with ACUSA. The experiment worked and we now have a very positive record to take to the merged union."

"The NTEU has been talked about for so long that every angle has been explored, and I'm confident that it will produce the goods for staff, not only at Monash but also throughout Victoria and Australia."

BY BRIDGET MONTGOMERY

Wherefore art thou, bachelor?

In this age of political correctness, why not question the etymology of the bachelors degree?

Does a female undergraduate undertake a spinsters degree? Certainly not, but the origins of bachelor are still a mystery to linguists around the globe.

Montage took a closer look at the word "bachelor" after an elderly man sought "an expert" at the university.

"Nobody knows where the word comes from," said the caller, who wished to remain anonymous. "I just can't find out its original meaning."

Calls to several faculties were fruitless, as was the trusty office dictionary which referred to old words *baccalaris* and *baccalarius* but provided no further explanation.

The only alternative was to consult the university library's giant *Oxford dictionary* (second edition, 1989).

Subject librarian Ms Stephanie Foott plucked out one of the many volumes and offered the best explanation.

She found that *baccalarius* was Latin for a tenant or worker on a property, known as a *baccalaris*.

"The word *baccalarius* is very similar to the Latin word for laurel berry, *bacca lauri*," Ms Foott said.

"The dictionary says there was some sort of word play or pun, but there's no clear outline of what the pun is."

"The true origin of 'bachelor' seems to have been lost in the midst of time."

Minutes after providing this information, Ms Foott called this writer to share a "brilliant flash", which she believed would explain the mystery pun.

"If a laurel wreath is a symbol of honour, a laurel berry must be a more junior honour, such as an undergraduate degree," she said.

Further research in the main library's *Barnhart dictionary of etymology* (1988) provided more detail.

This dictionary said the first known reference to "bachelor" as a university graduate was in 1376 in a version of *Piers Plowman*, which was an old poem. It also said that in 1418, a "bachelor" was a junior member of a guild.

But Barnhart's also left its readers in doubt with: "The ultimate origin of 'bachelor' is uncertain."

The next step was calling on the expertise of the head of Linguistics, Acting Professor Keith Allan.

"I'm sorry, but the answer is that nobody really knows what the original meaning is," he said.

"One suggestion is that 'bachelor' comes from the French word *bas chevalier*, which is a young or low-ranking knight. The word was also connected with the land, applying to male and female rustics working for some sort of lord."

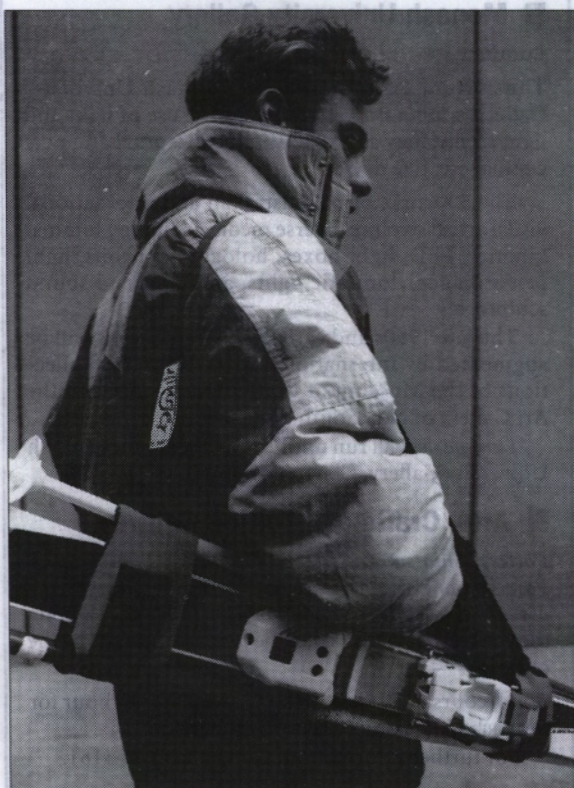
"But it seems that 'bachelor' was originally applied to socially inferior males and females. For some reason, the word shifted to apply only to males, and it stayed that way until women started going to university in the past century."

Finally, the friendly staff at Melbourne's Oxford University Press office agreed to consult their latest giant *Oxford dictionary*.

According to their reference, bachelor was "latinised as *baccalarius*, subsequently altered by a pun or word play to *baccalaureus* as if connected with *bacca lauri*, or laurel berry, which has sometimes been gravely given as the 'etymology'".

But there's more food for thought. If the word "bachelor" is linked to *bacca lauri*, are there any historic university ties with the Japanese word *baka*, which means fool?

Any more ideas? Contact your Montage writer on extension 75 5863.



A mountain of potential

A creative band of Monash University students is bridging the gap between education and business.

Concerned about the bleak graduate employment opportunities, the group of final-year students set up their own company for work experience.

Under the name of Yamony, the group developed a unique ski and stock holder and released it as a "Slinger" for the 1993 ski season.

Within weeks of its launch, the Slinger attracted dozens of customers at Monash University's August Open Day and at a special youth trade fair in Chadstone.

Yamony was set up as part of the Young Achievers' Australia Program, which allowed several Monash student groups to "go into business" this year.

The program operates at both secondary and tertiary levels to give students hands-on experience at running their own company.

Yamony spokesman Mr Binh Tran said the group was attracted to the program because it offered an opportunity to take business risks in a supportive environment, with sponsorship from Melbourne Water.

He said the Slinger was aimed at the specialist ski wear market, constructed with wetsuit material, velcro fasteners and an adjustable strap.

"Slinger wraps tightly around both downhill and cross-country skis and allows people of all ages to safely carry their skis over their shoulder," Mr Tran said.

"Everyone worked very hard on the project and the product seems to be going really well."

Under the Young Achiever guidelines, student participants have seven months to operate the companies.

During this time, students appoint executive directors, raise capital, organise market research, produce and market the product, handle accounting, report to shareholders and, finally, liquidate the company.

Mr Tran said the program provided valuable experience for students about to venture into the business world.

"Job prospects after university are looking pretty bleak, so we're doing something to improve our prospects," Mr Tran said.

"After all, how are we supposed to get work experience when there are no jobs for us in the first place?"

Australia's secular trends change course

The number of Australians who associate themselves with a Christian group has increased by 1.1 million since 1986, discounting the common belief that religion is becoming progressively unpopular.

According to the journal *People and Place*, published by Monash University's Centre for Population and Urban Research, 76.6 per cent of Australians now identify themselves with a Christian group. (Figures are based on the 1991 census.)

This represents an increase of 1.6 per cent above the 1986 figures, and is the first time in many censuses that the figure quantifying people who identify with a religious group has increased.

Religious composition has also undergone massive change, with Catholicism overtaking the Anglican denomination as the largest religious group in Australia.

"There has been more change in the religious composition of Australia in the decade from 1981 to 1991 than in any other decade since the arrival of the first fleet," the report says.

In the five-year period from 1986, more than 540,000 "new" Catholics were added, representing more than half the growth in the numbers identifying themselves as Christians.

Figures show that there are 4.6 million Catholics in Australia, or 27.3 per cent of the total population.

Anglican is the next most common denomination with 4 million, or 23.9 per cent of the population, with the United Church, Presbyterian/Reformed, Orthodox and Lutheran making up the main six religious groups.

Between 1986 and 1991, the growth rate for most religious groups was faster than the nation's population increase of 7.9 per cent.

During this period, all but two of the separately enumerated religious groups increased their numbers. The two which did not were the Churches of Christ and the Salvation Army.

As well as 1.1 million additional Christians, the report says that 120,000 were added to the numbers of those identifying with a non-Christian religious group.

The Jewish faith grew, although at a slower rate than the national population increase.

"Jews have been a stable 0.4 per cent of the population since 1947, but can be expected to decline in proportion if their growth rate continues to fall below the national rate," the report adds.

The number of Buddhists increased by 60,000 from 1986 to 1991 to represent 0.8 per cent of the Australian population, while the number of Muslims jumped from 110,000 in 1986 to 148,000 or 0.9 per cent in 1991.

Much of the increase in the population of non-Christian religious groups is attributable to Australia's high intake of migrants during the late 1980s.

The report emphasises that the findings are based on the census and do not necessarily reflect numbers of people attending churches and other places of worship.

For more information, contact Associate Professor Gary Bouma on extn 75 2982. *People and Place* is published quarterly and costs \$25 per year. Subscriptions may be arranged through Ms Paddy Rapson on extn 75 2946.

Reviving ancient Egyptian studies

Dr Colin Hope's philosophy is self-evident: Success starts with a simple action on a daily basis.

The academic in the Department of Greek, Roman and Egyptian Studies has consistently reaped excellent rewards from what can be one of the most unrewarding and difficult quests of all – fundraising.

Better known for his efforts in discovering archaeological "goldmines" in the deserts of Egypt, Dr Hope has, out of necessity, uncovered his own skills as a fundraiser.

With the assistance and support of other members of the department, particularly Professor Alan Henry and Ms Gill Bowen, Dr Hope has raised \$140,000 in less than four years to help fund teaching and research into the cultures of ancient Egypt.

The money was used to help meet Dr Hope's salary as part-time lecturer at Monash in 1991. It has also been used to purchase books for the Monash University Library, to conserve rare books at the State Library, and to help cover excavation expenses.

The successful money-raising campaign began when the exhibition *Civilisation: Ancient Treasures from the British Museum* was shown at the Museum of Victoria in 1990. Dr Hope, then an associate of the museum, and Ms Bowen organised a private viewing and public symposium in conjunction with the official opening.

A small collection of Mediterranean antiquities was donated and offered for sale, and a book on the history of Egyptology in Australia was launched at the opening. The total raised was \$23,500.

At the same time, Melbourne's leading antiquities dealer, Mr Graham Geddes, and well-known businessman Mr Rino Grollo contributed a further \$40,000.

Fundraising success

Sales of lamingtons, raffle tickets (Shell Australia once donated fuel for the first prize), chocolates, T-shirts, wind-cheaters, as well as lectures and seminars, have also raised funds.

Monash is the only institution in Victoria and one of only two institutions in Australia where Egyptology is taught.

In 1992, the Museum of Victoria joined forces with Monash to create the position of senior lecturer in Egyptology and curator of Mediterranean antiquities as a permanent joint position. The position, funded by the museum and the department, was filled by Dr Hope.

"The archaeology and Egyptology courses attract many students. We have had 80 to 100 students in first year, and more than 100 doing second- and third-year courses. Already there are six fourth-year honours students and one PhD student," Dr Hope said.

"To provide adequate facilities for the students, we need to constantly raise funds. Fortunately, the study of ancient Egypt is of interest to a wide range of people, as shown by the successful *Gold of Pharaohs* exhibition. This means our efforts are well supported.

"Monash has agreed to take over funding my appointment from next year. While we won't need as much money now that my position is fully funded, we will still be fundraising in order to fund a tutor, books and other facilities for the students. Also, because of the success of the course, we may need to appoint another lecturer."

The artist and the creation

Mr Andrew Sibley's belief that art should be socially relevant is reflected in his most recent exhibition *Iconic Fragments*.

While the style of his work is inspired by 13th century medieval alabaster bas reliefs, the collection focuses on 20th century images.

Mr Sibley, a senior lecturer in fine art on Caulfield campus, used a material called sculptor-mould to create the many sculpture-paintings on show last month at the Lyall Burton Gallery in Fitzroy.

"Since the early 1970s I have been interested in the combination of sculpture and painting. Before this time, they were always seen to be two different disciplines," Mr Sibley said.

He first encountered the artform while attending an exhibition in West Berlin. "When I came back to Australia I started experimenting," he said. "There are many

influences in my work: the theatrical images from a puppet theatre I once had, and reflections from my travels in India, Europe and the Americas."

Sibley said that he regretted his works were not in a public place where people could look at them, and said that Swanston Street Walk would be the ideal place for his works to be displayed.

"Artists were traditionally communicators and had tremendous influence on society and culture," Mr Sibley said. "Although the media have now taken on this all-assuming role, the artist still communicates most effectively through visual language.

"Art was also traditionally a legitimate form of complaint for society. Artists were able to be radical, question ideas, and be the voice of the people. This is still a role of the artist."



One of Mr Andrew Sibley's sculpture-paintings: *The Public Investigator Cleansing a Corporate Giant Possessed of Demons*.

Learning to handle disabilities

A Monash University team is breaking down the barriers faced by Australian tertiary students with learning disabilities.

The university's Equal Opportunity Unit has produced a guide for tertiary communities to help this small but growing number of students achieve their educational goals.

The booklet, launched nationally this month, follows an extensive survey of universities across Australia and overseas.

It addresses a major lack of information about learning disabilities in Australia's higher education sector and provides strategies to deal with the complex issues.

According to the booklet, few students with learning disabilities reached tertiary study because of a lack of recognition and appropriate services at secondary school level.

Project coordinator Ms Gillian Bruce released the booklet to Australia's tertiary sector at the National Equity and Access Conference at Newcastle University on 6 October.

Ms Bruce, the Monash disability liaison officer, said the booklet was Australia's first guide to the issues affecting tertiary students with learning disabilities.

She said the booklet outlined strategies for teaching, assessing and supporting students, along with the associated professional development and administrative strategies.

The booklet cites information on American students with learning disabilities who won significant benefits since legislation addressed discrimination in the country's education system in 1975.

According to the booklet, support for Australian students with learning disabilities was "virtually non-existent" after primary school.

But it said provisions in Australia's Federal Disability Discrimination Act (1992) would allow for new developments in the learning disability area.

Monash vice-chancellor, Professor Mal Logan, commended the project in a foreword to the booklet.

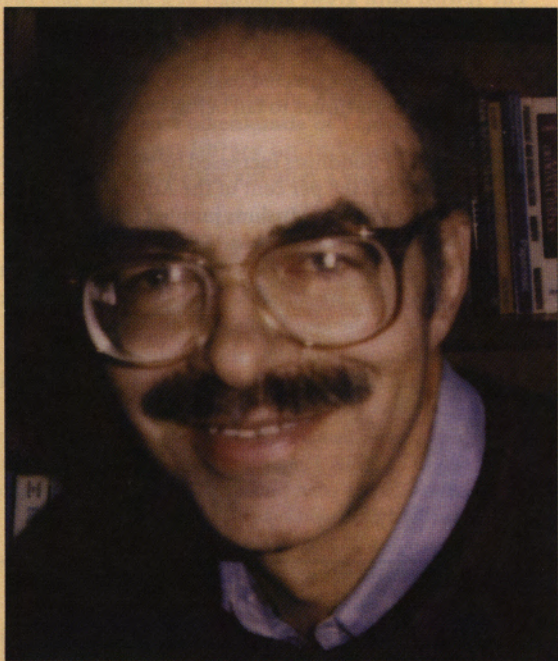
He said the guidelines would be useful for academic, administrative and advisory staff in tertiary institutions across Australia.

Learning disabilities and higher education: Guidelines for working effectively with students with learning disabilities was produced with assistance from a special project committee, convened by the Equal Opportunity Unit's manager, Dr Margaret James.

The project's consultant was Associate Professor Stewart Sykes of the Monash Education faculty.

Funding was provided by Monash University's Higher Education Equity Program grant.

Ethics in an age of self interest



How are we to live? Ethics in an age of self interest is Professor Peter Singer's new book, released last month. Following is an extract taken from the final chapter.

In a society in which the narrow pursuit of material self-interest is the norm, the shift to an ethical stance is more radical than many people realise.

In comparison with the needs of people starving in Somalia, the desire to sample the wines of the leading French vineyards pales into insignificance. Judged against the sufferings of immobilised rabbits having shampoo dripped into their eyes, a better shampoo becomes an unworthy goal. The preservation of old-growth forests should override our desire to use disposable paper towels. An ethical approach to life does not forbid having fun or enjoying food and wine, but it changes our sense of priorities.

The effort and expense put into buying fashionable clothes, the endless search for more and more refined gastronomic pleasures, the astonishing additional expense that marks out the prestige car market from the market in cars for people who just want a reliable means of getting from A to B – all these become disproportionate to people who can shift perspective long enough to take themselves, at least for a time, out of the spotlight. If a higher ethical consciousness spreads, it will utterly change the society in which we live.

We cannot expect that this higher ethical consciousness will become universal. There will always be people who don't care for anyone or anything, not even for themselves. There will be others, more numerous and more calculating, who earn a living by taking advantage of others, especially the poor and the powerless.

There is no time to focus our thoughts on the possibility of a distant utopian future.

We cannot afford to wait for some coming glorious day when everyone will live in loving peace and harmony with each other. Human nature is not like that at present, and there is no sign of it changing sufficiently in the foreseeable future. Since reasoning alone proved incapable of fully resolving the clash between self-interest and ethics, it is unlikely that rational argument will persuade every rational person to act ethically.

Even if reason had been able to take us further, we would still have had to face the reality of a world in which many people are very far from acting on the basis of reasoning of any kind, even crudely self-interested reasoning. So for a long time to come, the world is going to remain a tough place in which to live.

Nevertheless, we are part of this world and there is a desperate need to do something now about the conditions in which people live and die, and to avoid both social and ecological disaster. There is no time to focus our thoughts on the possibility of a distant utopian future.

Too many humans and non-human animals are suffering now, the forests are going too quickly, population growth is still out of control and if we do not bring greenhouse gas emissions down rapidly, the lives and homes of 46 million people are at risk in the Nile and Bengal delta regions alone.

Nor can we wait for governments to bring about the change that is needed. It is not in the interests of politicians to challenge the fundamental assumptions of the society they have been elected to lead. If 10 per cent of the population were to take a consciously ethical outlook on life and act accordingly, the resulting change would be more significant than any change of government. The division between an ethical and a selfish approach to life is far more fundamental than the difference between the policies of the political right and the political left.

We have to take the first step. We must reinstate the idea of living an ethical life as a realistic and viable alternative to the present dominance of materialist self-interest.

If, over the next decade, a critical mass of people with new priorities were to merge, and if these people were seen to do well, in every sense of the term – if their cooperation with each other brings reciprocal benefits, if they find joy and fulfilment in their lives – then the ethical attitude will spread, and the conflict between ethics and self-interest will have been shown to be overcome, not by abstract reasoning alone, but by adopting the ethical life as a practical way of living, and showing that it works, psychologically, socially and ecologically.

Anyone can become part of the critical mass that offers us a chance of improving the world before it is too late. You can rethink your goals, and question what you are doing with your life.

If your present way of living does not stand up against an impartial standard of value, then you can change it. That might mean quitting your job, selling your house and going to work for a voluntary organisation in India.

It is not in the interests of politicians to challenge the fundamental assumptions of the society they have been elected to lead.

More often, the commitment to a more ethical way of living will be the first step of a gradual but far-reaching evolution in your lifestyle and in your thinking about your place in the world. You will take up new causes, and find your goals shifting. If you get involved in your work, money and status will become less important. From your new perspective, the world will look different.

One thing is certain: you will find plenty of worthwhile things to do. You will not be bored, or lack fulfilment in your life. Most important of all, you will know that you have not lived and died for nothing, because you will have become part of the great tradition of those who have responded to the amount of pain and suffering in the universe by trying to make the world a better place.

Professor Peter Singer is deputy director of the Centre for Human Bioethics. He is also co-director of the Institute of Ethics and Public Policy.

DIOGENES



Biding our time in an urban pub recently, we picked up our empty bag of chips to find out just how much uranium and small bits of machinery we'd consumed.

We should not have been surprised (although we were) to read on the obverse side of the pack:

"H... is well known for its range of quality car care products. Now, H... proudly introduces Kettle Cooked Potato Chips."

Did we miss something here? Since when have producers of car care products been allowed to clean out their vats, chuck in a paddock's-worth of finely sliced potatoes, a bucket of oil, turn up the heat, and call

themselves food manufacturers? (We think the capitals were there to emphasise the fact that what we had just eaten was not tyre black.)

Look at it this way. What if some cash-strapped purveyor of fine chocolate decided to throw caution and cocoa to the wind and – for argument's sake – branch out into brake linings?

The problems, to pursue the metaphor, would be manifold.

Mechanic: "What seems to be the trouble?"

Car owner: "Trust me, I'm not applying strain to your pedal extremity, but every time I hit the brakes I smell hot chocolate."

M: "Dark?"

CO: "Dark?"

M: "Dark chocolate."

CO: "Yes, why?"

M: "Figures. Bought some dark chocolate yesterday. Tasted like brake linings."

And so forth.

Diversification is a very fine thing, but we don't particularly want our food chain to be welded to a vehicle component.

☺ ☺ ☺

Sydney's Postcode Games in seven years time has given us pause for thought. It reminds us of last year, when Barcelona provided the Australian advertising industry with a maxim for all reasons.

You will probably remember that athletic incantation "No pain, no Spain" – a cute little couplet that owed more to *My Fair Lady* than a five-ringed circus.

With a little tinkering, we had the makings of an all-purpose slogan that could have revolutionised the marketplace. Instance-wise, take these examples.

Primary students could have learned the basics of food production by chanting "No rain, no grain".

To cover the finer points of neurology, first-year medical students only need have uttered "No brain, no pain" several times.

And "No train, no gain" could have been a suitable aphorism for public transport aficionados who reckoned it was far better to travel than to arrive.

☺ ☺ ☺

No one knows better than us that nostalgia is the last refuge of the dingbat. But we would argue strongly that certain aspects of our cultural inheritance should remain intact and unincorporated.

We speak of tips – a recent visit to our local has set us back on our Grosby's.

We now learn that tips are no longer tips, they are waste transfer and recycling centres (as if a cleansing of the name would somehow sanitise the surrounds).

In the days when trash was rubbish, we used to swap a tipping fee for an illegible and crumpled ticket, then drive to an area

that resembled a remodelled World War I battlefield.

These days, we have to fill out a computer form. In a marvellous illustration of self-important and petty bureaucracy, our latest contained no fewer than 16 spaces for docket number, time, date, transaction, customer code, customer name, vehicle registration number, gross weight, tare, nett, waste code, waste description, rate per tonne, coupons, cash, and total cost.

We would offer local governments some advice but experience shows that when it comes to tips, they refuse.

☺ ☺ ☺

(From the *Nunawading Gazette*, 23 September 1993)

THE state Member for Forest Hill, Mr John Richardson, has announced a contract for repairs to widows at Vermont South Special School. Mr Richardson said the contract for \$18,000 was part of the Government's program to fund essential maintenance projects.

Encouraging to see that at least one member of the Victorian Government is looking after shattered lives.