



# MONASH REPORTER

A MAGAZINE FOR THE UNIVERSITY



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## Modern pioneer retraces epic journey

**Painstaking work by a Monash geography student has led to the accurate plotting of the route of one of Australia's most important expeditions of discovery.**

For 13 months, MA student Greg Eccleston sifted through the survey field notes kept by Major Thomas Mitchell during his exploration in 1836 of present-day Victoria.

With the aid of a large magnifying glass to decipher Mitchell's minute handwriting, and a background as a surveyor, Mr Eccleston was able to plot, for the first time, the route of the "Australia Felix" expedition on a set of 1:100,000 topographical maps.

Mr Eccleston's reconstruction of Mitchell's journey has been reproduced in booklet and map form, and has resulted in the establishment of the Major Mitchell Trail, Victoria's first long distance "cultural trail".

As part of his research, Mr Eccleston travelled "about 95 per cent" of the trail, climbing most of the mountains Mitchell had scaled with his theodolite more than 150 years before.

Although the work was arduous and time-consuming, the personal rewards were great.

"It was really quite exciting to read the description of a particular feature in Mitchell's journal, then look up and see it in front of you," he said.

At the completion of the traverse, it was found that Mitchell, then New South Wales Surveyor-General, had "misclosed" by only three kilometres over the 2600-kilometre trek.

"Unlike other explorers of the era, Mitchell was a competent surveyor. He

was fastidious, methodical, and always strove for precision," Mr Eccleston said.

"In most cases his location of ground points was accurate to within 100 to 200 metres.

"Hume and Hovell and Sturt, on the other hand, were sometimes out by as much as 50 kilometres."

Using Mitchell's notes, Mr Eccleston plotted the expedition's route on transparencies of maps of the region then, with the aid of a light box, superimposed the results onto paper.

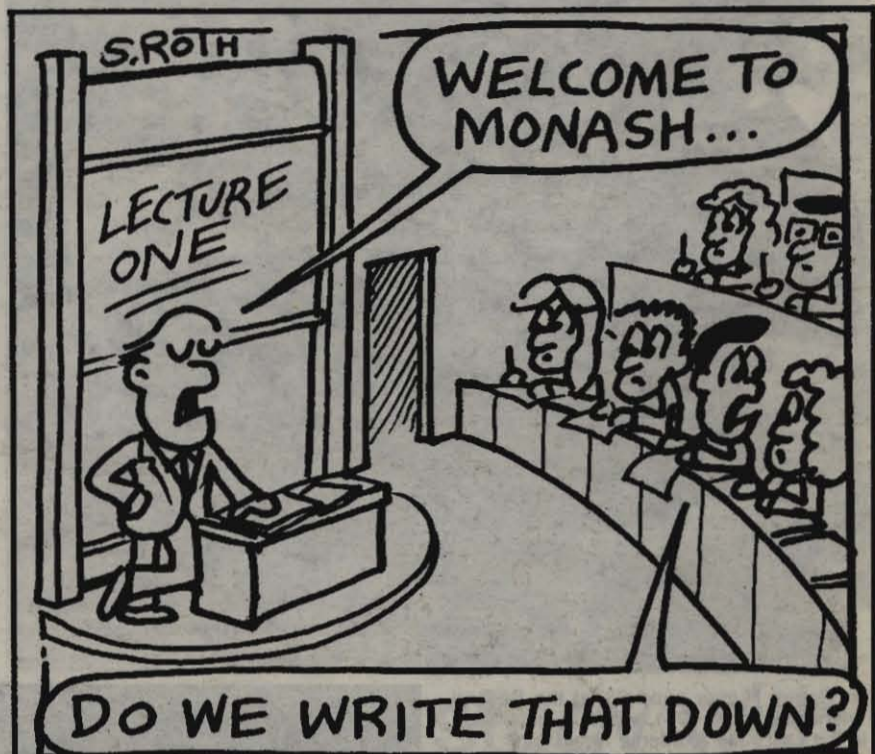
"The 1:100,000 map is the perfect size for the accuracy of Mitchell's survey. The 1:250,000 scale is too small to see how accurate his plottings were, while the inaccuracies begin to show on the 1:25,000 series," he said.

The trail follows Mitchell's route as closely as state forests, private properties and rivers allow, usually within a few kilometres of the original route.

It can be traced on foot, by car, and on horseback, and is marked by a series of information boards and displays. A guide for canoeists has also been produced for the Glenelg River section of the journey.

For Mr Eccleston, there was more excitement with the discovery of the original diaries kept by the expedition's second-in-command, Granville Stapylton, who went on to survey the Sydney-Melbourne Road in 1838.

## ORIENTATION SPECIAL



• This special issue of *Monash Reporter* includes items which may be of interest to new students. Tony Miller's photo sets the geographical scene with a 360-degree view of the campus heartland. You can pick out the Menzies Building, far left, the Union, Religious Centre, University Offices, Robert Blackwood Hall, Main Library (hidden in the trees), and the Menzies again. Detailed information about the population of Monash is shown on the back page.

A hand-written copy of Stapylton's diary in the Mitchell Library was made after he had been killed by Aborigines in 1840 while on a survey of southern Queensland.

Unfortunately the copy was found to be inaccurate, and Mr Eccleston needed Stapylton's original record of the "Australia Felix" expedition to help fill the few missing gaps in Mitchell's account.

Inquiries throughout Australia failed to uncover the elusive diaries.

Finally, with the aid of Debrett's, he located a direct descendant of Stapylton's older brother, one Henry Chetwynd-Stapylton of Chichester,



• Sir Thomas Mitchell

England, who had kept the six diaries in an old trunk in his attic. Mr Eccleston hopes to publish them later this year.

His thesis on the expedition is being supervised by Dr Joe Powell of the Geography Department, assisted by former senior lecturer Dr Stuart Duncan, editor of *Atlas of Victoria*.

"Australia Felix", Mitchell's third major expedition in eastern Australia, was one of the most comprehensively equipped in the country's history.

Apart from Mitchell and Assistant Surveyor Granville Stapylton, it numbered 23 hand-picked convicts, six Aborigines, 11 horses, 52 bullocks, 100 sheep, 22 carts and a boat carriage.

The party set out in March 1836 from Molong, near Orange, with instructions from the Governor to confirm the widely-held belief that the Darling River emptied into the Murray.

The party kept to its brief . . . to a point.

After exploring the lower reaches of the Darling, Mitchell found the country "drought-stricken and God-forsaken". The party retreated downriver.

It crossed the Murray River into Victoria at present-day Boundary Bend and began heading eastward along the river's course.

But before long the party was driven further and further away from the Mur-

• Continued back page

# ROBERT HUNTER PAINTINGS 1966-1988

MONASH UNIVERSITY GALLERY — 2 MARCH TO 8 APRIL



● Robert Hunter aged 23, at the Second Triennale, India, 1971, with his installation in the Lalit Kala Akademi, New Delhi.

A retrospective exhibition of the enigmatic work of Melbourne artist, Robert Hunter, heads the 1989 program of the Monash University Gallery.

The exhibition spans the artist's 22-year career which was launched when he won the Eltham Art Prize (judged by Patrick McCaughey) in 1966.

Hunter was one of the most immediately successful young artists of his generation.

His first solo show of all-white paintings at Tolarno Galleries in 1968 was described as "a dazzling debut" and was quickly followed by his first group show appearance in the now-famous *Field* exhibition in the new National Gallery of Victoria.

Hunter trained at the Preston Institute of Technology, where he studied under Dale Hickey whose retrospective was shown at the Monash University Gallery last year.

## Organic

Since 1970, Hunter has been regularly exhibited at Bruce Pollard's Pinacotheca Gallery, although only two rare works exist from the first two exhibitions there since these were inherently ephemeral wall installations. The National Gallery of Victoria has loaned one of these, bought from the important *Minimal Art* exhibition at the gallery in 1976.

Hunter pursued the idea of the systematic grid structure worked out by organic process in his installation at the second Indian Triennale in New Delhi which, as shown in the photograph, was made out of a stencil of masking tape, based on the divided square. He remarked at the time that he wanted to produce

something "alien to himself", something "neutral".

Other international shows followed, most notably in 1974 when Hunter was selected to be one of eight young artists at the Museum of Modern Art in New York, and a solo show at London's Lisson Gallery.

By this time, Hunter's reputation as a minimalist painter was established although his work during the eighties has increasingly been viewed as moving beyond such a strictly stylistic framework.

The exhibition has been assisted with grants from the Visual Arts Craft Board of the Australia Council. It will tour to Geelong Art Gallery, Ballarat Fine Art Gallery and then interstate to the Drill Hall, Canberra, and the Museum of Contemporary Art in Brisbane.

Jenepher Duncan  
Curator

*Gallery Hours: Tuesday to Friday  
10am to 5pm, Saturday 1-5pm  
Inquiries: 565 4217*

● Founding professor of Visual Arts at Monash, Patrick McCaughey, returned to the university in December to receive an honorary degree of Doctor of Letters. Mr McCaughey, former director of the National Gallery, is now director of the Wadsworth Atheneum in Connecticut, USA. He is pictured, at left, with the Governor of Victoria, Dr Davis McCaughey, the Chancellor, Sir George Lush, and chairman of the Visual Arts Department, Professor Margaret Plant.

## Paper research

The Australian Pulp and Paper Institute at Monash will begin courses next week with 15 students enrolled for the Masters course in Pulp and Paper Technology.

Dr Harry Cullinan, (pictured below) a senior academic from a leading American paper research institute, has been appointed Professor of Paper and Pulp Technology.

He is also director of the new institute, established in the Department of Chemical Engineering with \$500,000 a year support from the Pulp and Paper Manufacturers' Federation of Australia.

The institute's aim is to upgrade the Australian industry's professional workforce and to improve its international competitiveness.



The first students to graduate from one of the university's English Language Intensive Courses for Overseas Students (ELICOS) received their certificates at a ceremony held recently in the Gallery Building. The 10-week course in English for Academic Purposes, conducted by the English Language Teaching Centre, attracted enrolments from as far afield as Somalia and the People's Republic of China. Beginning in April, the centre, which also offers short courses in English for occupational purposes, will provide courses in Australian studies for tourists. Pictured, centre, with the ELICOS graduates are the Vice-Chancellor, Professor Logan, director Ms Robyn Kindler, and the Registrar, Mr Tony Pritchard (partly hidden). Photo— Richard Crompton.



# Melbourne should be Number One

If Melbourne is not the Number One tourist destination in Australia, that's only because the creators of image who live and work in Sydney are parochial, according to three successful women who have enrolled in Monash's new Graduate Diploma in Australian Tourism.

More than 140 graduates applied for places in the course and, of the 40 chosen to begin study this year, one-quarter have industry experience. Their ages range from 20 to 49.

Roberta Luci, a 25-year-old flight attendant with QANTAS, has a BA (Hons) in Japanese from Monash and is fluent in Japanese and Italian. At present she works on the heavy demand Tokyo-Sydney run, and has enrolled as a part-time student.

Kay Gibson, 34, has a BA from Monash, majoring in Spanish and French. For some years she has worked for the Victorian Minister for Planning and the Environment and Minister for Consumer Affairs, Tom Roper, and is now one of his private secretaries. She hopes that the graduate diploma will lead to a position in Planning for Tourism Development in Mr Roper's ministry.

She is convinced of the appeal of Victoria's undiscovered beauty spots, and believes that intelligent planning is vital to ensure that tourist developments are in harmony with the environment.

Sharon Borenstein, 23, graduated in business studies from the Chisholm Institute of Technology. She works for Peat Marwick Hungerfords, accountants. Her interest in Australian tourism developed when she was backpacking around Europe, and she was impressed by the interest Europeans showed in Australia. Sharon expects to find work in management consulting, hotels or planning when she completes the diploma.

All three women believe that, as tourist destinations, the city of Melbourne and the state of Victoria are among Australia's best-kept secrets.

Melbourne has been unfairly treated, they say, because of the excess number of QANTAS flights scheduled into Sydney and "because Paul Hogan is always featured in videos and advertisements for Australia always in front of a Sydney harborside villa, throwing

prawns onto a barbie".

They believe the Hogan cliché does not help Melbourne's image as a nice place for an overnight rest between Sydney and Uluru.

When asked what advice they would offer the Victorian Tourist Commission to improve Melbourne's tourist rating they suggested promoting, among other things, the charm and grace of a city that is not brash and dirty; of a city that is the cultural/intellectual capital of Australia, has an exceptionally good nightlife for all age groups — theatres, restaurants, ballet, and late-night licensed bars such as 'Greasy Joe's' in Acland Street, St Kilda; floods and drought, and hourly changing weather to keep people alive and prevent them from becoming complacent.

Did they expect the tourism 'boom' would cause any problems?

Roberta thought that service industries would have to ensure that they had a reliable supply of well-qualified people to cater for the needs of foreign and domestic visitors, a need that the graduate diploma at Monash will help to satisfy.

The significance of domestic tourism should not be overlooked, said Kay and Sharon, but the very high prices of internal airfares would continue to discourage average Australians from seeing more of their country.

The three believe that a successful bid for the 1996 Olympics would give Melbourne an enormous boost as a tourist destination in Australia.

\* \* \*

*The Graduate Diploma in Australian Tourism is being financed with seed funding from the Victorian Education Foundation and offered through the National Centre for Research and Development at Monash. The course is co-ordinated by Peter Robinson, a former part-time careers counsellor at Monash, who provided the material for this article. Inquiries should be directed to Mr Robinson on ext 2264.*



• From left: Sharon Borenstein, Kay Gibson and Roberta Luci. Photo — Tony Miller.

## Combine study with travel in the US

The opportunity for Monash students to undertake part of their degree studies in the United States has been expanded.

The university recently signed a student exchange agreement with the University of Illinois at Urbana-Champaign, structured along the same lines as the long-established exchange program between Monash and the University of California.

These programs allow students to spend an academic year studying in the United States, while receiving credit towards their Monash degrees.

The Academic Services Officer, Anne Mennell, says the programs offer a wonderful opportunity to combine study with travel and to learn about another country "from the inside".

Professor Isabel Wong, Director of Overseas Projects and Professor of Music at the University of Illinois, came to Melbourne to sign the exchange agreement.

She is pictured at left in our photo with the Assistant University Solicitor, Mr Ron Hicks (standing), the Academic Services Officer, Ms Anne Mennell, and



the Acting Vice-Chancellor, Professor Ian Polmear.

Students interested in studying at the University of Illinois in 1990 are invited to contact Ms Mennell on ext 3011 for details. Information about other exchange programs can also be obtained from Ms Mennell.

## Global exchange

Monash has entered into a comprehensive academic exchange agreement with France Telecom University.

The agreement, which shows the growing recognition of the strength of Monash in the area of telecommunications, was signed by the Vice-Chancellor,

Professor Logan, and the Chairman of France Telecom University, M Francois Schoeller.

It allows for exchanges of staff and students and joint development of courses between the Monash Information and Communications Technology Management Centre and the three constituent colleges of France Telecom University in Brittany, Paris and Evry.

At the signing, M Schoeller said the agreement was important because it was no longer possible to have a strictly national view of telecommunications.

"The telecommunications and information industries are becoming more and more global. So it is important for our students to work with foreigners."

He invited Monash to consider becoming involved in the new Theseus Institute which is teaching a Masters of Business Administration program focusing on applying information and communications technology in corporate planning.



• M Francois Schoeller

### IMPORTANT DATES IN 1989

First semester: 27 February-3 June. Examinations begin 7 June

Second semester: 17 July-28 October. Examinations begin 1 November.

Intrasemester breaks will be: 24 March-2 April.  
16 September-1 October.

# With sharks to stew in formalin...

On some days it seemed to Fraser Hercus that half the animal kingdom needed to be either preserved, fed or weighed.

With sharks to stew in formalin, dogs' heads to boil, and an army of mice requiring food, there was rarely time left to monitor the progress of the giant Gippsland earthworms.

In his 28 years as a laboratory technician in Zoology, Mr Hercus has seen and done it all — every student who ever studied Zoology at Monash would have dissected a specimen or performed an experiment he had prepared.

But last year Mr Hercus reached retiring age and exchanged the rigors of laboratory life for a tour of Australia.

Looking back on his early years at Monash from the vantage point of pending retirement, the start was hardly auspicious.

At a job interview in 1961, the chairman of the new department, the late Professor Jock Marshall, described the position for which Mr Hercus had applied as "low-down and rotten", adding that he was more interested in someone with staying power, rather than talent.

Indeed there were times in that first year when Mr Hercus was glad he had only let the family farm at Yarrawalla, in the Mallee.

"I could have walked out at any time and gone back to the farm. So I was fortunate I had decided to rent it out and not sell," he said.

The following year he began studying for a part-time science degree and conditions improved. Eight years later he graduated, along with two of his sons

who had completed degrees in Information Science.

The remains of four large cocoons on Mr Hercus' desk serve as a reminder of the breadth of his scientific interest.

Looking more like discarded pieces of plastic than the byproducts of a metamorphosis, the cocoons were once home to giant Gippsland earthworms.

Mr Hercus is the first person to have kept alive these huge creatures, which often measure up to four metres in length. But in the beginning they presented a problem for their keeper.

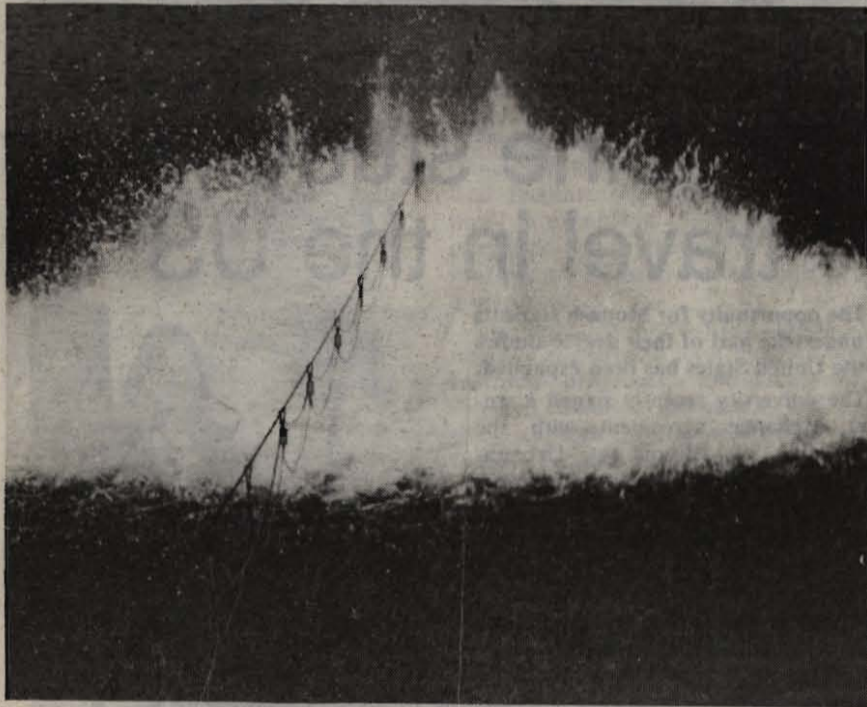
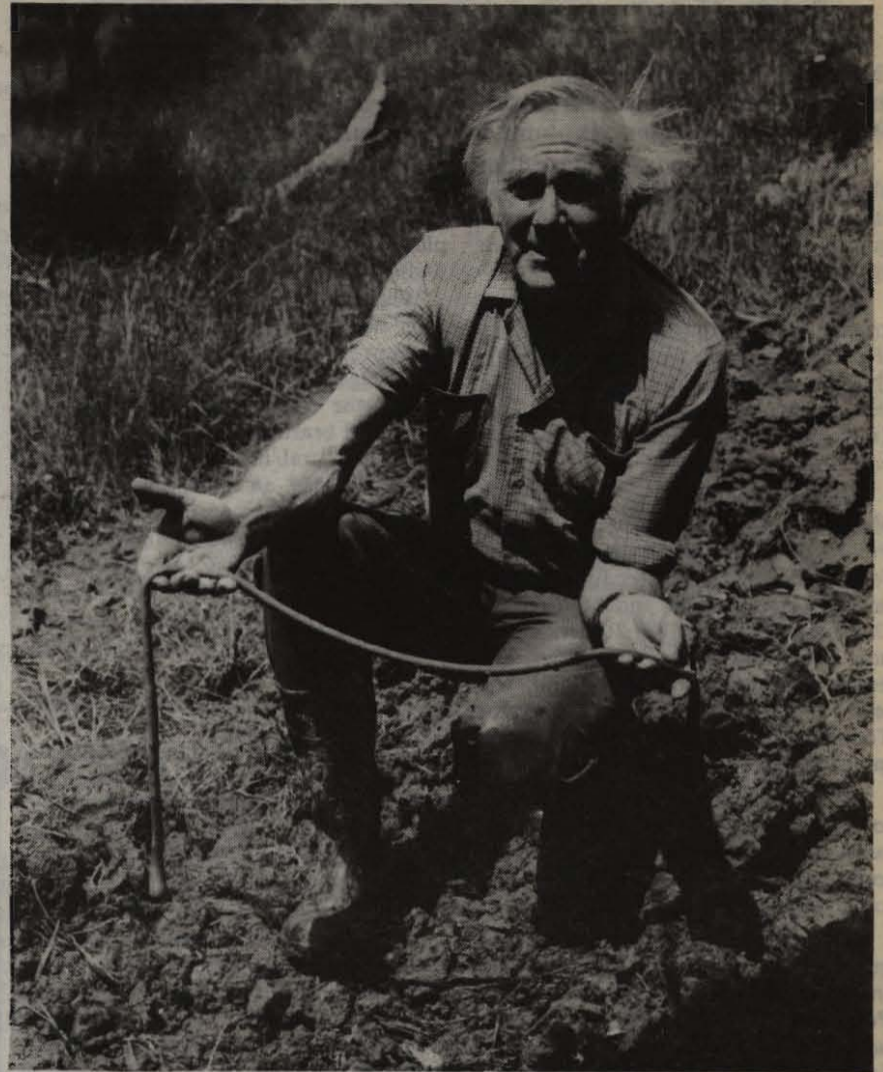
"Temperature control is the main thing. It has to be kept between 17 and 18 degrees Centigrade. At 20 degrees they suffer heat stress and die," he said.

Although there were a few casualties along the way, the experiment attracted interest from scientific organisations overseas.

Closer to home, the Bass River Museum near Phillip Island has used a number of Mr Hercus' photographs in its giant earthworm display. He also provided information on the worms' care and feeding for the museum's curators.

In recent years, as well as tending laboratory animals and setting up experiments for students, Mr Hercus assisted Dr Ramu Nayudu of Zoology in research on the enzyme, alkaline phosphatase.

● Fraser Hercus and one of his favorite creatures, the giant Gippsland earthworm.



## Tuning in to the tremors

This "eruption" in the middle of a disused quarry filled with water in the outer northern suburb of Epping is contributing to an important honors project in Earth Sciences.

It is a gas bubble, the result of one of a weekly series of small explosions at the quarry, which is now the ICI Test Pond.

Using digital seismometers, honors student Graeme Beardsmore is recording seismic waves from the explosives along a line which runs from Epping north past Puckapunyal Army Base, near Seymour.

ICI also uses Puckapunyal as a test facility for larger explosions, so the seismometers can record waves travelling in either direction.

Supervisor of the project, Dr Jim

Cull, said that with the help of signal processing software designed at Monash, Mr Beardsmore should be able to produce information about rocks along the line to a depth of 20 or 30 kilometres.

The information will also help to calibrate another project which Dr Cull is supervising in Bass Strait. Here seismometers and signal processing are being used to glean information from small shipboard air-gun explosions over distances of more than 200 km.

It is hoped that more will be learned of the geological composition of the floor of Bass Strait.

Both projects involve close collaboration with the Bureau of Mineral Resources.



● The former Dean of Medicine, Professor Graeme Schofield, officially opened the university's new electron microscope at the Monash Medical Centre late last year. The \$250,000 microscope, purchased with the aid of a grant from the National Health and Medical Research Council will be used by the department of Obstetrics and Gynaecology, the department of Pediatrics, and the Centre for Early Human Development.

# AIDS on campus? The odds are high

On statistics alone, it is likely there are cases of AIDS on the Monash campus, says Professor Roger Short, head of the Centre for Reproductive Biology and a member of the World Health Organisation's sub-committee on AIDS.

"The number of full-blown cases in Australia has gone over the 1000 mark, and, according to WHO estimates, for every full-blown case there are between 50 and 100 carriers.

"That's around 100,000 cases in Australia and, going on those figures, it's probable that there are cases on campus," he says.

"If you consider that the average time between infection and contracting full-blown AIDS is between eight and 10 years, it becomes obvious that by age alone the university population is at risk," says Professor Short.

He points out that present figures are "history", reflecting at-risk behavior eight to 10 years ago, and that the pattern will be quite different in another 10 years when present behavior will be reflected in the AIDS statistics.

While the figures showed that most cases were in the homosexual and bisexual community, "safe sex" procedures were necessary to avoid the spread of AIDS among heterosexuals as well.

"The big question now is how many homosexuals are actually bisexual, and do their partners know that they are bisexual?" said Professor Short.



## World first

One stand in the "Orientation Market" has achieved a worldwide reputation.

Monash medical students and other concerned groups were last year praised by the World Health Organisation for their initiative in setting up the Safe Sex stand, one of the busiest operations during Orientation Week.

WHO was very interested in the details of the project, believed to be the first attempt by any student group to develop its own AIDS awareness program.

The stand is operating again this year with give-away condoms and condom keyrings, competitions and demonstrations, questionnaires, and plenty of good sound advice.

The organisers say that the emphasis will be on safe sex, rather than AIDS in particular, but that there will be references to the disease including clean needle availability.

"Bisexuality is the escape valve through which AIDS can cross from the homosexual community to the hetero-

| AIDS cases            | November 1988 | January 1989 |
|-----------------------|---------------|--------------|
| Australia             | 1079          | 1168         |
| Victoria              | 220           | 235          |
| New South Wales       | 700           | 754          |
| Age group             |               |              |
| Males 20-29           | 226           | 240          |
| Males 30-39           | 450           | 486          |
| Males 40-49           | 246           | 271          |
| Females               | 20            | 21           |
| Transmission category |               |              |
| Homosexual/bisexual   | 950           | 1032         |
| IV drug users         | 10            | 10           |
| Heterosexual          | 15            | 15           |

(Figures supplied by the NH&MRC Special Unit in AIDS Epidemiology and Clinical Research, Faculty of Medicine, University of NSW.)

sexual community."

Drug users in Australia were another major threat, he said.

"While they make up only a small proportion of cases at present, we must heed the warning from countries like Italy and Spain where IV drug users are

one of the most common groups representing AIDS infection."

Professor Short will spend this year in Geneva, where he has been seconded as a consultant to the WHO Global Program on AIDS.

He will be co-ordinating the organisation's work on condom design, development and distribution.

"Condoms still have a negative image; we need to work out how to improve design, make them more user-friendly," he says.

"If they fail we must try to work out why and then make them better, because, as far as AIDS is concerned, they're all we've got," he says.

"There's no vaccine in sight — no treatment in sight for the next five years.

"There's only prevention — and unless we can make everyone monogamous for life, condoms are the only possibility."

## Merger to boost distance learning

The Councils of Monash University and the Gippsland Institute of Advanced Education have agreed to the Gippsland Institute becoming an affiliated institute of the university.

This is the first step in an ongoing process whereby the Gippsland Institute, as the Gippsland University College, will become a constituent college of Monash University.

An important first result of the new association has been a joint submission to the Federal Government by the two institutions to be recognised as a National Distance Education Centre.

The affiliation document outlines a commitment by Monash and the Gippsland Institute to "vigorous co-operation" in expanding cross accreditation of subjects and courses and the ability of students to transfer between the two institutions.

The two institutions have agreed to improve and expand joint research and teaching programs, particularly in distance education techniques, and actively will seek Government and private funding for such programs.

Monash and Gippsland also plan to develop joint activities at the faculty, departmental and school levels, and in administration.

The agreement also provides for joint staff appointments and joint use of facilities by Monash and Gippsland students.

The Vice-Chancellor, Professor Logan, and the Director of the Gippsland Institute, Dr Tom Kennedy, said that the two institutions had established a timetable whereby the Gippsland Institute would become a constituent college of the university by 1 January, 1990.

Professor Logan said that Monash was committed to extending the range of educational opportunities for people living in isolated communities and for those who, because of work or family obligations, were unable to attend campus-based lectures.

Monash wished to expand its role in higher education internationally, and already had made significant progress in Southeast Asia.

"There is a high demand for Monash courses from fee-paying overseas students. Through external studies, Monash intends to service a wider range of national and international students," he said.

Dr Kennedy said that the Gippsland Institute was delighted to be affiliated with Monash, which he describes as an eminent institution with world class courses in engineering, science, medicine, law, and the latest in technology.

Using Gippsland's expertise in external studies, the affiliated institutions would move very quickly to extend educational opportunities in areas

crucial to the restructuring of the Australian economy, he said.

Both the Victorian and the Federal governments have welcomed the developing association between Monash and Gippsland.

Monash and Gippsland will exchange affiliation documents formally at a public ceremony to be held in Gippsland on Friday, 24 February.



● An aerial view of the Gippsland Institute of Advanced Education at Churchill, near Morwell. Above, Dr Tom Kennedy, director of the institute.

# On Tuesdays, leave your car at home

A recently installed traffic counting system at Monash has confirmed what many staff and students at Monash already know — parking on campus has reached capacity.

It has shown that during September and October the University's capacity of 5979 car spaces was exceeded on three separate occasions.

The system has also revealed that:

- During term the highest parking accumulation is on Tuesdays (average 5773 vehicles) and lowest on Fridays (4967).
- The peak accumulation occurs between 12.30 and 1pm on weekdays, and between 4 and 4.30pm on weekends.
- There was a maximum parking accumulation of 3527 vehicles on Open Day.

After analysing data collected from the electronic system over the past seven months, senior lecturer Dr Bill Young of Civil Engineering delivered a far from sanguine prognosis of parking at the university.

"We're at the crossroads. If we don't do something now, it may be too late," Dr Young said.

"With increasing student numbers we really need the capacity. Unfortunately there are no short-term answers, the

simple fact is we need to cater for more vehicles."

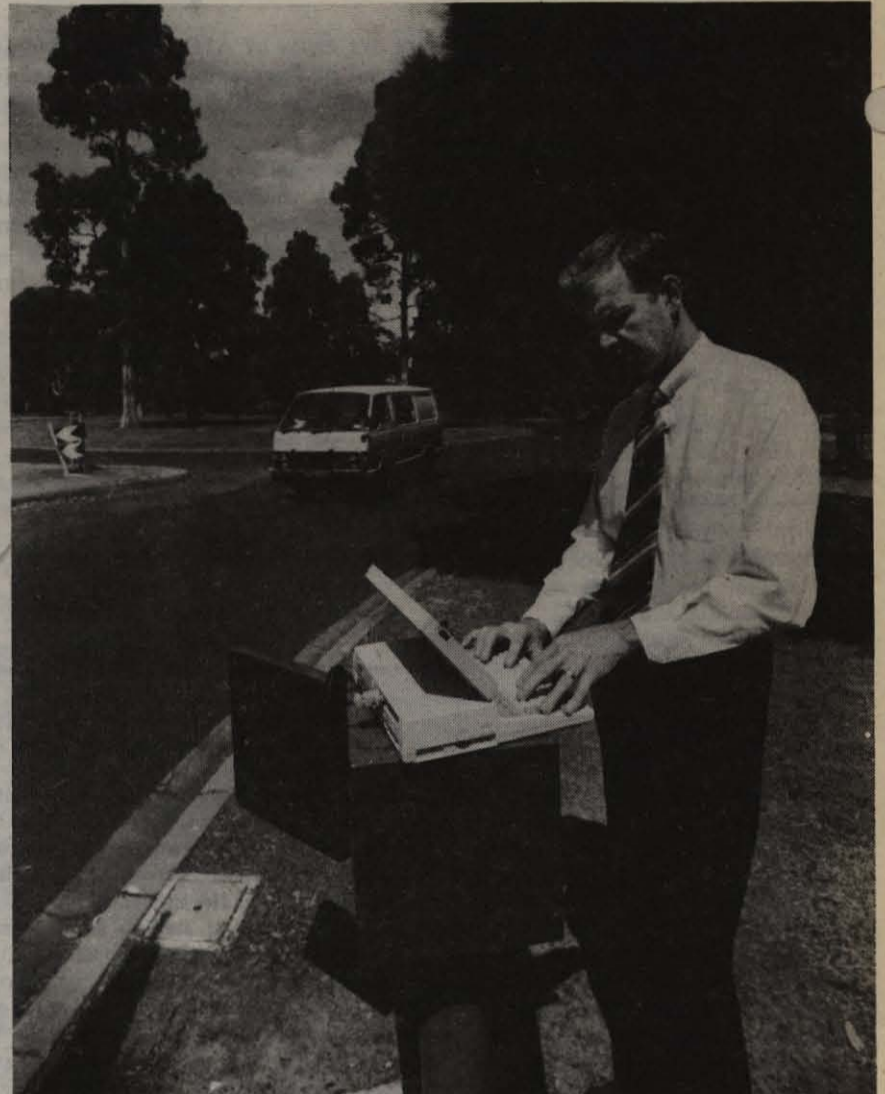
In future, data from the system will be crucial to the success of the Parking Committee's long-term strategy, the Parking Master Plan (see story).

According to Dr Young, the \$22,000 system enables researchers to evaluate the success or failure of any initiatives taken by the committee.

It operates on the principle that whenever a vehicle passes above an induction loop, buried in the road surface at every university entrance and exit, its magnetic field is broken and the count is recorded on an electronic tabulator nearby.

After applying correction factors to allow for such anomalies as cars passing down the middle of the road triggering loops in both lanes, analysts are able to calculate the peak accumulation of vehicles on campus from the number of cars entering and leaving the university.

The system has worked almost faultlessly since August, and has backed up the Parking Committee's claim that the university's parking system has reached breaking point.



● Dr Bill Young collects data from one of five traffic counters set up at points around the campus. Photo — Tony Miller.

## Parking committee 'had little choice'

The only people not complaining about parking on campus are those with designated areas, according to the chairman of the university's Parking Committee, Associate Professor Ken Ogden of Civil Engineering.

But the committee had little choice in recommending to Council that free sealed parking areas be converted to permit-only spaces, says Dr Ogden.

The recommendation is one of a series contained in the Parking Master Plan, a strategy designed to help car parking facilities at Monash keep pace with the university's rapid growth.

Although the new regulation will not provide extra spaces it will distribute cars more evenly around campus.

Having made what it considered an unpopular decision, the committee had hoped to appease motorists by main-

taining the parking permit fee at its 1988 level.

"The committee thought that after abolishing free sealed parking we could leave the fee at \$25 as a sweetener," Dr Ogden said.

"Unfortunately the Finance Committee bumped it up to \$30, saying we would be in debt at the end of the year if it were not increased."

By resolution of Council, maintenance and management of parking at Monash is self-funding. Capital costs of parking are met by the university (about \$10 million has been spent on parking to date).

Dr Ogden says the parking problem at Monash has now reached crisis proportions.

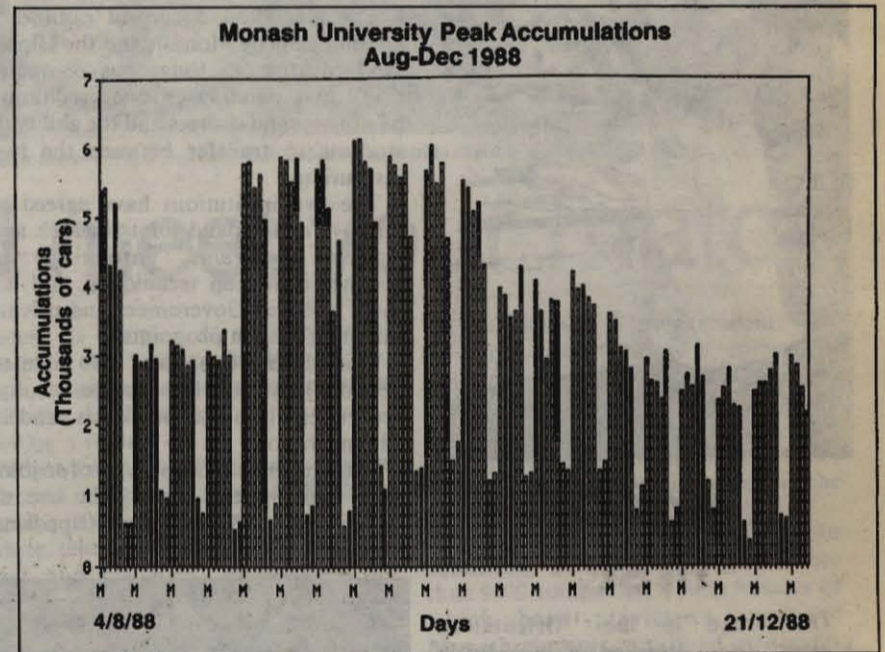
"There has been an explosion of externally-funded positions on campus, with some 1000 positions being created last year in research and in the university's various centres.

"That means 500 cars or so requiring parking space, in addition to spaces needed this year by an extra 257 students."

Other factors have also boosted the demand for parking space.

A study carried out by Dr Ogden in 1987 on changes in student travel showed that the number of female students driving to Monash almost doubled between 1972 and 1987.

The same study also revealed a fall in car occupancy rates at Monash in the



same period.

The result of all these changes means that something has to give, says Dr Ogden.

"We've run out of space horizontally, so we may have to go up.

"We could always pick up 50 or 60 extra spaces here and there, but these are marginal changes. It's time for a quantum jump.

"If we can't have trade-offs, such as surrendering a sporting field for extra parking, a multi-storey car park may be the answer."

Funding a multi-storey car park would be a major undertaking. While \$1 million will pay for 1000 extra spaces on the ground, a multi-storey park catering for the same number of vehicles would cost in excess of \$10 million.

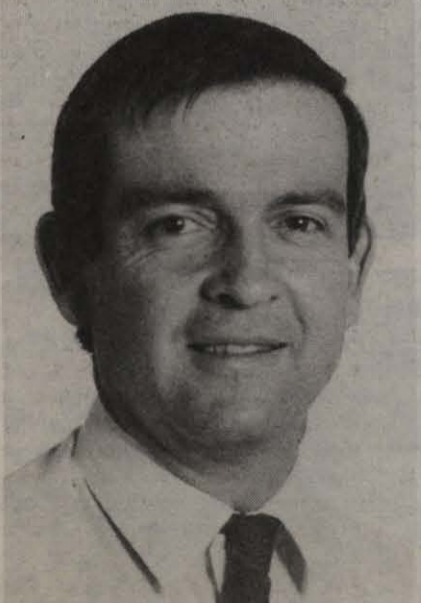
Not surprisingly, the Parking Master

Plan includes a number of recommendations on a more down-to-earth scale, like encouraging car-pooling and the use of bicycles and public transport, and a reduction in the size of parking bays from their present width of 2.5 metres to 2.4 metres.

The Parking Committee already has taken steps to inform motorists of alternative modes of transport. Its recommendation to Council to employ a full-time Transport Information Officer, however, was rejected.

Dr Ogden believes the shortage of available parking space at Monash could affect the future growth of the university.

"If the situation does not improve and word gets around about the difficulty of parking here, students will begin to vote with their wheels," he said.



● Dr Ken Ogden

# No longer an obstacle course

**A student in a wheelchair on campus 12 years ago would have been forgiven for thinking that the university offered only obstacle courses.**

In those days, there were several libraries at Monash which could only be reached by stairs, people in wheelchairs had no means of leaving some buildings unassisted if the lifts were not working, and a central record of those with disabilities did not exist.

Recognising the need for a dramatic improvement in facilities for the disabled, a group of staff and students met in July 1977 to voice their concerns.

Two weeks later the Vice-Chancellor's Advisory Committee for the Handicapped held its first meeting.

In its 12-year history the committee (now known as the Vice-Chancellor's Advisory Committee for People with Disabilities) has been dealing with the myriad problems that confront people with disabilities.

## Ramps

During that time it has undertaken a number of projects that have helped create a more "user-friendly" campus.

In recent years, ramps and kerb cut-outs have been introduced throughout the university, accommodation for people with disabilities has been provided in Farrer Hall, signs have been raised above head level, a lift serving all three floors of the Union has been installed, electric wheelchair charging stations have been built in the Union and the Faculty of Medicine, and cane facilities for reaching lift buttons have been included in lifts in the Biology and Mathematics Buildings.

In the Main Library, reading machines, a reading book service, four-track tape recorder, and a personal computer with printer and Arctic speech synthesiser are available for students' use.

One of the committee's major projects this year will be the construction of a dogleg ramp to provide access for students in wheelchairs to the first floor of the Biomedical Library.

According to university architect and committee member, Rob Horsburgh, who is overseeing construction of the ramp, all major pathways on campus will be suitable for wheelchairs by the end of 1989.

The committee also hopes this year to appoint a part-time liaison officer to tap into the needs of people with disabilities, and to conduct awareness campaigns and deal with correspondence.

## Persuasion

One of those instrumental in establishing the first advisory committee was Assistant to the Warden, Caroline Piesse, who serves as a co-opted member of the committee and as resource person for students with disabilities.

Miss Piesse says the committee often has had to use some gentle persuasion to achieve its goals.

"To some extent 'disability' is a bad word. Builders will often ask why we want to spend money on a project such as a lift that may benefit only 10 people," she said.

"But that is not the point. What it boils down to is a question of equal opportunity."

Miss Piesse says facilities at Monash will have to be upgraded in the near future to cope with an anticipated increase in the enrolment of students with disabilities.

Last year, 92 students indicated on their enrolment forms that they had

some form of physical impairment.

Among them was Pamela Musumeci, a final-year student in Social Work and one of three students with disabilities serving on the advisory committee.

Ms Musumeci, who has completed an Arts degree, has juvenile rheumatoid arthritis and is partially sighted. All her lectures are recorded on tape.

Until last year she was restricted to using a wheelchair around campus, but an improvement in her condition has meant that now she is able to get around on foot.

Being able to experience the university from two different angles has helped her appreciate the facilities here.

"Compared with other universities, Monash is quite good, particularly for

the visually-impaired," Ms Musumeci said.

"But there is still a lot to be done, such as installing more lifts, toilets for the disabled and ramps. Unfortunately it's an expensive business, and the committee is restricted by funding."

Most students with disabilities have coped well with the physical structure of the university, and have been helped by the attitudes of staff and fellow students, she says.

"People have learned to be flexible; for instance lecturers have learned that essays might take a little longer to hand in."

The appointment of a liaison officer would further improve the situation, says Ms Musumeci.

"There is an urgent need for co-ordination because of the growing

number of students with disabilities on campus.

"It's very important that people become aware of what it's like to be a student with disabilities."

The Vice-Chancellor's Advisory Committee for People with Disabilities consists of staff and students who have an interest in the welfare of such people on campus.

Its Chairman is Dr Tony Moore, a member of Council. Other members are Robin Coventry (senior university counsellor), Dr Pierre Gorman (former lecturer), Caroline Piesse, Robert Horsburgh, Dr Margaret James (Equal Opportunity Co-ordinator), Jackie Osborne (Periodicals Librarian), Sally Betts (Student Welfare Officer), Alan Wilson (Safety Officer), and three students: Linda Smith, Andrew Dickinson and Pamela Musumeci.



• The "team" from Student Employment. From left, Melva Marinis, Peps Demirel, Nick Deligiannis, Katrina Baird and Irmgard Good.

## Come and meet your match

**The university's Student Employment Office is a matchmaking agency with a difference.**

It brings together students seeking extra funds and employers needing part-time workers.

Since 1975, it has been helping Monash undergraduates and postgraduates to obtain casual work in areas like tutoring, laboring, clerical duties, baby-sitting, as well as in course-related fields such as accounting and engineering.

Last year, the office filled almost 18,000 vacancies, a substantial increase on the 2327 placements it made during its first year of operation in 1975.

Student Employment Officer Irmgard Good believes the success of the service lies in its ability to "sell" students to employers.

"We are trying to market all the skills we have on campus. People would be absolutely amazed at what there is," Ms Good said.

A glance through the office's register of tutors shows a diversity of talent. Popular with both students as a source of income and parents of children requiring extra coaching, the register contains the names of about 2000 tutors and covers almost every subject taught at Monash.

The process of matching client and

student is simple. A student's vital academic statistics are fed into a computer which matches his or her skills with the requirements of the person needing a tutor.

When an inquiry is made a random selection of available tutors is displayed on the computer screen, and their names, telephone numbers, subjects and level, and availability of transport are provided.

According to Ms Good, about 5000 successful inquiries were made last year.

"A large percentage of our students consider tutoring an excellent means of income.

"It can be very handy for those without cars as it matches up people in the same, or neighboring, suburbs."

The office advertises its tutoring service throughout Melbourne and the Mornington Peninsula.

The clients, mostly parents of primary and secondary schools students, are charged according to the level of tuition provided. Rates begin at \$12 an hour for year 12 students, down to the minimum charge of \$9 an hour for year 9 students.

There is no shortage of language tutors either — the office can offer instruction in more than 40 languages.

Students can also register for summer vacation work which is matched by demand and supply.

The office also provides students with the names and addresses of companies which may be able to offer either course-related or labor-intensive work during the summer in their particular areas of interest such as accounting, law, finance, the media, engineering and the public service.

It advises students on how to go about contacting potential employers. More than 9000 companies, a large number of which have previously employed Monash students, are listed on the office's database.

It is not uncommon, says Ms Good, for graduates to gain employment with companies which had hired them over the summer holidays.

Part-time work available throughout the academic year is advertised on the notice-board near the office, on the first floor of the Union Building.

Prospective employers must state their rates of pay when they advertise for workers through the office, and students are told if payment is going to be under the recommended award rates.

The office also has a special skills register which lists those students, usually mature age, who have expertise in a specific area.

The register includes teachers, carpenters, florists, musicians, magicians and journalists.



# One small step towards world peace...

**The Fifth Assembly of the World Conference on Religion and Peace was held at Monash from January 22-28.**

Nearly 600 people gathered from many of the world's religious traditions and from some 60 countries. A women's meeting and a youth meeting preceded the main conference.

The Prime Minister, Mr Hawke (pictured below right), opened the Assembly and emphasised the positive role that religious people can play in peace-making. Having spoken passionately against apartheid, Mr Hawke later conversed with Archbishop Trevor Huddleston and South African Islamic leader Faried Esack.

The assembly operated through commissions which focused on different aspects of the overall theme *Building Peace Through Trust: The Role of Religion*.

The theme was made concrete through specific attention to issues of disarmament, development, human rights and the fostering of a more peaceable culture.

In gentle summer weather, delegates broke into smaller groups to discuss these issues.

The local Host Committee sponsored over 100 delegates who came from poorer circumstances.

A special feature was the way overseas delegates were welcomed into Australian homes and given generous hospitality.

For many delegates, the assembly was a welcome respite from conditions of economic and political adversity. Women from the Middle East and South America reminded us of our relative comfort and security.

Delegates from places of multi-cultural discord reminded us of the fragility of our relative harmony.

Koorie women, led by Ms Eve Fesl, director of Monash's Aboriginal Research Centre\*, attended the assembly and held special meetings with native religionists from other continents. Archbishop Paul Reeves, the Governor-General of New Zealand, gave a keynote address which focused on the spirituality of Maori people.

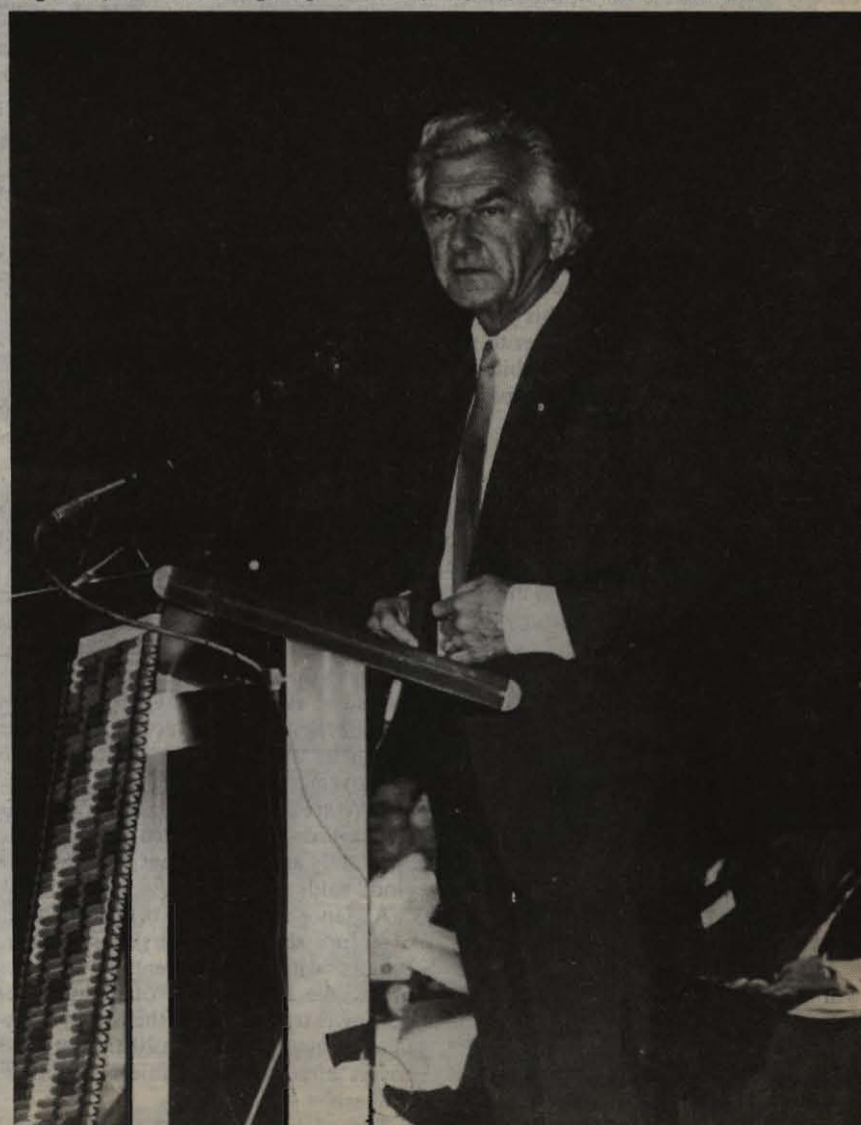
The assembly was a microcosm of the human family, in all its diversity. Friendships flowered across the so-called barriers of culture and religion.

On the last day, having spent a week examining the hard issues facing humankind, delegates journeyed to Mother's Beach at Mornington. Gathered silently on the sand together, this diverse group watched,

and were renewed by the miracle of creation — a new day dawning.

**Philip Huggins (Rev.)  
Ecumenical Chaplain at Monash  
(until January 1989)**

*\*During the conference, Ms Fesl, a representative of Koorie spirituality, was one of four Australians appointed to the World Peace Council.*



● Australia Post released a pre-stamped envelope on 18 January to commemorate the staging of the World Conference on Religion and Peace, held at Monash. The envelope displays the WCRP logo as its "stamp" while, on the left, the logo has been brought to life by Melbourne artist, David Nelson.



# Never too late . . .



• Blanche Gale never attended secondary school, but she worked her way through eight years of part-time study for her BA, awarded in December.

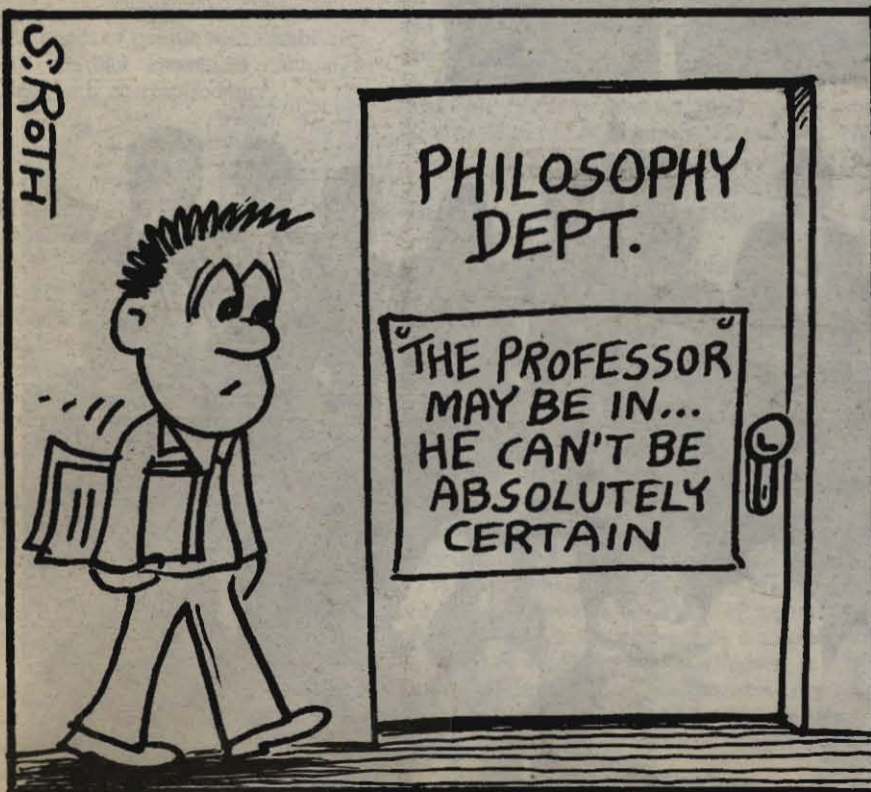


## Key to Japanese

• The Japanese Department was presented recently with one of 13 word processors donated by Fujitsu Australia to tertiary institutions throughout Australia. The donation of the word processors, which feature Japanese keyboards, is part of Fujitsu's commitment to fostering Japanese language skills and cross-cultural exchange. The chairman of the Japanese Department, Helen Marriott, is pictured with Fujitsu Australia's Systems Engineering Manager (Southern Region), Gary Caesar.



• David Polmear, who graduated in December with honors in medicine, pictured with his father, Professor Ian Polmear, Deputy Vice-Chancellor (Research).



• Transport supervisor Jim McDonald points to one of the consequences of working in a university. Photo — Tony Miller.

Monash University has played a vital role in the development and practice of IVF (in vitro fertilisation). Two new books on the subject, written from different viewpoints by people with Monash connections, have been welcomed by the director of the Centre for Human Bioethics, Professor Peter Singer, as "a sign of increasingly lively debate about new reproductive technologies". They have been reviewed for Monash Reporter.

# IVF: The people behind the schemes and dreams

## IN REVIEW

**Conception in the Test Tube  
The IVF Story: How Australia Leads the World**

by Harry Kannegiesser  
Macmillan Australia. RRP \$39.95

Harry Kannegiesser is a senior lecturer in historical and philosophical studies at Swinburne Institute of Technology. He graduated M.Ed from Monash in 1973, and spent six months at the Monash Centre for Human Bioethics researching the first part of this book.

This is an informative book for the lay reader who wants to learn what IVF is all about and how it first started in Australia.

Our own and future generations will be grateful that Harry Kannegiesser undertook this painstaking research on IVF whilst its principal protagonists were, and continue to be, actively engaged in treating couples for infertility.

He begins with some helpful reflections on the history and philosophy of science showing how scientific progress depends on people's responses to problems and challenges.

Casual events during the education of scientists frequently open up avenues of professional interest whilst chance, and even mistakes, play their part in suggesting valuable insights and solutions to get over hurdles of a theoretical or practical nature.

### IVF and the People Involved

No scientific biological knowledge is presupposed on the part of the reader. The human reproductive process is clearly presented from an explanation of the female and male reproductive systems to the beginning of the zygote at the completion of a 20-22 hour process of fertilisation, embryonic and fetal development and growth, the formation of the brain, right through to birth.

Particular attention is given to the high proportion of spontaneous losses of embryos before and after implantation.

Kannegiesser believes human life should be respected from conception onwards, although he does not accord an absolute right to life at any stage.

An accurate account is given of the IVF procedure and treatment cycle. It is not like any other routine medical treatment as far as the patient is concerned. The experience of infertility coupled with the desire for a child drives couples to seek IVF treatment even though they know this path to parenthood is not all rosy. Counselling and support are essential before and after treatments.

The incidence of infertility in the general community is quite high, affecting up to 15 per cent of couples. There are many possible causes of male and female infertility, which explains why preliminary tests take so long to determine the course of treatment.

Harry Kannegiesser was able to interview six couples who had been on IVF programs. They were of different religions, educational standards and socio-economic backgrounds.

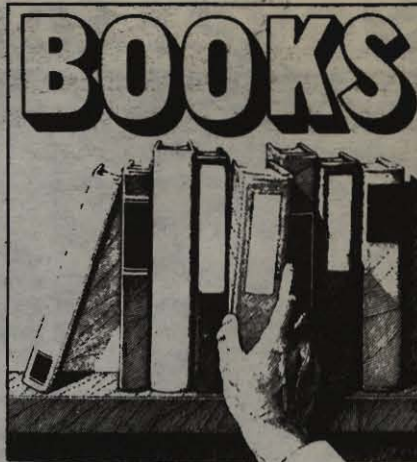
Reading his accounts of these interviews one cannot but feel compassion for couples who were unable to conceive a child in the normal way. It was not an easy decision for any of the couples to undergo IVF treatment, especially for the female partner.

Moral dilemmas did not prevent any of those interviewed from participating in IVF programs. It is the waiting, the anxiety, the fears, the failures and the dashed hopes that deter many couples from undergoing the additional IVF attempts to achieve a pregnancy and live birth of their own child.

A detailed, but nevertheless interesting, account is given of the history of IVF by telling the story of how each of the leading medical and scientific protagonists came to be involved in treating infertility in general and IVF in particular.

The simultaneous presence in one city of doctors and scientists with the requisite expertise in medicine, biochemistry and particularly in human reproductive biology, coupled with their willingness to collaborate together under the leadership of Professor Carl Wood, made it possible for Melbourne to become the IVF capital of the world within a couple of years of the birth of the first IVF baby, Louise Brown, in July 1978.

The Melbourne IVF team was able to gain much from Dr Alan Trounson's knowledge of animal reproductive physiology and IVF techniques gained from his earlier experience of animal research. Among other things, one benefit was to allow human eggs to



mature for 5-7 hours in the culture medium before attempting fertilisation in a test tube.

It was not always plain sailing for the IVF doctors and scientists. Personality clashes and differences of opinion over procedures and scientific methodology at times weakened team efficiency. Human error occasionally complicated progress in an important task that was difficult enough already.

Once, the lights were left on for 24 hours in the mouse house, thereby depriving the mice of sleep and distressing them so much that their reproductive systems were upset for three weeks. This meant that no mouse embryos were available when they were needed for experiments to test for the optimal stage for freezing before proceeding with the freezing of human embryos.

• Continued Page 12

## Boyd book 'a major work of art'



• Professor Dame Leonie Kramer, right, at the Brighton Cultural Centre, Billlila, with author Brenda Niall, senior lecturer in the department of English at Monash. Professor Kramer came to Melbourne to launch Dr Niall's latest book, *Martin Boyd: A Life*, which she described as not only a biography of a great artist, but a major work of art in its own right. Four generations of Boyds attended the book launch and they are pictured below with Dr Niall, centre left. Martin Boyd's sister, Helen Read, is seated at right in the middle row. In the front row are the grandchildren of Martin Boyd's nephews, Guy and Arthur Boyd. Photos — Tony Miller.



# Timely view of personhood

## IN REVIEW

### When Did I Begin?

by Norman M. Ford  
Cambridge University Press. RRP \$29.95

Father Norman Ford is Master of Catholic Theological College, Melbourne, and a regular guest lecturer in the department of Physiology at Monash. He also reviewed Conception in a Test Tube (see opposite).

This book is timely in a variety of ways.

It explores in considerable depth both the historical antecedents and the various scientific, philosophical and theological aspects of the contemporary theories which address the question of the status to be accorded to the human embryo from the time fertilisation begins until the formation of the primitive streak.

These considerations are central to the controversy presently raging, especially in Australia and the United Kingdom, over the legitimacy of destructive experimentation on human embryos in the first 14 days of their existence.

Father Norman Ford in no way countenances such experimentation. But he does point out that this is not necessarily because a human person must be discerned in the developing embryo from the time fertilisation is effected. He takes seriously the question: "How could a living human creature not be also a human person?", and undertakes to demonstrate that the human embryo

in the first two weeks or so of its existence could be a "living human creature" without being a "human person".

He draws on a wide range of experimental research and learned scientific papers, and discusses in a lively and even-handed way the philosophical implications of these experiments.

His thesis is that the human embryo in its initial stages of development is an aggregate of cells loosely held together, rather than an organic unity. It is only when the embryo's ontological identity as an organic individual is irreversibly established with the formation of the primitive streak that the necessary conditions for the ascription of personhood are realised.

Prior to this time the cells which develop out of the original zygote are "totipotent". Some of them will develop into extraembryonal tissue, others will develop into the inner cell mass of the embryo, and sometimes only a hydatidiform mole will result.

Sometimes, too, this aggregate of cells divides in a definitive manner during these early stages, and twin (or triplet or quadruplet, etc), rather than singleton, embryos result.

Equally, at other times, this apparent

definitive division will be superseded during these early days of the embryo's existence by a reunifying potentiality so that singletons, rather than twins or triplets, are conceived.

It is from facts like these — and the author advances a wealth of scientific detail — that Father Ford concludes that the early embryonic cells inside the zona pellucida lack the requisite unity to constitute the single ontological entity that is the prerequisite for the ascription of personhood.

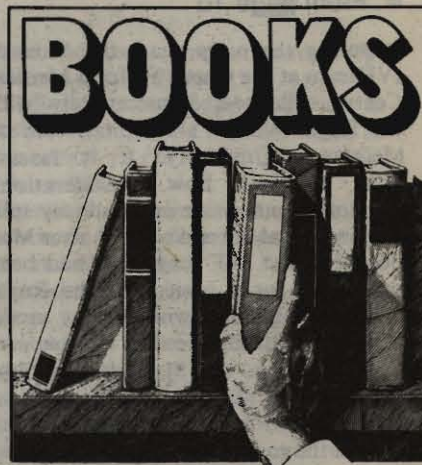
He recognises, of course, that determining what are necessary and sufficient conditions for ascribing personhood is a philosophical rather than a scientific issue. But he believes that the scientific data must be closely considered.

If these data suggest that the early embryonic cells arising from the original zygote demonstrate such independence, unpredictability and difference of development that we should consider them as an aggregate of cells acting and interacting within the zonal membrane rather than an individual unity organically developing, then it is difficult to see why, from a philosophical point of view, we should consider them as a unity rather than a multiplicity.

It is only when these multiplying cells form themselves into a single multicellular human body that the ontological individuality which is the prerequisite for the ascription of personhood is established.

This, he suggests, does not occur until individuality is definitively and irreversibly guaranteed with the formation of the primitive streak.

Father Ford recognises that in delaying the onset of personhood until the formation of the primitive streak he is at odds with much presently received theological opinion. I doubt, however, whether he would be willing to accept with equal equanimity the contention of these theologians and moralists that he



is also flying in the face of received scientific opinion.

Father Ford's thesis is modestly and clearly proposed, and its sources are closely documented. He proposes it in an irenic and genuinely ecumenical spirit. He wishes to promote discussion (rather than debate and controversy) among scientists, philosophers and theologians and indeed among all those who share his reflective concern for greater insight into these very difficult matters.

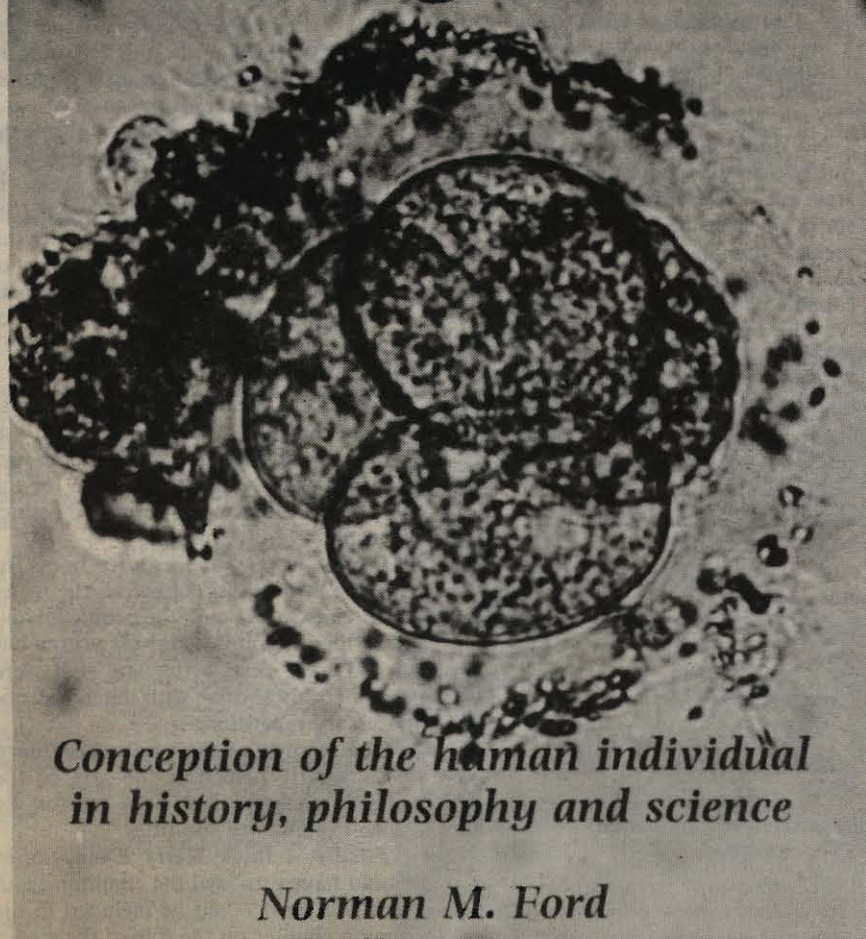
He freely acknowledges the very considerable assistance and encouragement he has received from a variety of sources both secular and ecclesiastical, and especially from the members of the Monash Centre for Human Bioethics and the Monash Centre for Early Human Development.

His philosophical and theological theses may differ significantly from many of those which are held by members of these centres, but he has made every effort to assimilate the scientific data which he shares with them. Any future philosophical or theological commentators have had their agenda set for them by Father Ford's synthesis.

Bill Uren

Father Bill Uren is Rector of Newman College, Parkville.

## When did I begin?



Conception of the human individual  
in history, philosophy and science

Norman M. Ford

• The jacket illustration of *When Did I Begin?* shows a four-cell human embryo, courtesy of Dr Alan Trounson, director of Monash's Centre for Early Human Development.

## Kirner visits faculty

• The Victorian Minister for Education, Mrs Joan Kirner, made her first visit to a tertiary institution since becoming Minister when she toured the Faculty of Education in December. Mrs Kirner's visit included an inspection of both the Krongold Centre and a display of the faculty's use of technology in education. Several teaching staff also spoke about their particular areas of study. According to the Dean of the Faculty of Education, Professor Peter Fensham, the Minister "responded brilliantly, commenting on each of the presentations and relating them constructively and critically to the needs and directions of the faculty". Pictured at a reception for the Minister are, from left, Dr Alan Gregory, Dr John Hunt, Dr Martin Sullivan, Mrs Kirner, Dr Gilah Leder, Dr John Baird, Dr Jeff Northfield, and Professor Fensham.



# IVF: The schemes and dreams

• From page 10

During the early years the Monash IVF team at the Queen Victoria Medical Centre collaborated successfully with the Royal Women's Hospital team of Melbourne University. It is fascinating to read how considerations of professional pride and jealousy split these teams at the end of 1979 after Melbourne's first IVF pregnancy had been confirmed for a patient of the Royal Women's Hospital without any credit being given to the Monash IVF team.

Before long, the Monash team improved their IVF procedures to such an extent that Professor Wood, for the sake of the couples involved, felt obliged to pass on secretly to the Melbourne University team details of how to improve their IVF procedures.

## IVF and its Ethical Problems

Kannegiesser certainly highlights the predicament of a government advisory committee in a pluralistic society when it comes to advising the relevant minister on the appropriate regulatory policies to adopt in relation to the numerous ethical, social and legal issues arising out of IVF technological intervention into human reproduction.

However I do not think Kannegiesser has succeeded in showing that there are no absolute right moral answers. I find myself in sympathy with him when he asserts:

"Certainly, churches, governments, special interest groups and the like may exhort us to behave in ways of which they approve, but, in the ultimate extremity, it is the individual's responsibility to make the final decision, whether for good or ill." (p. 394)

## Harm

This does not solve the problem for the government when legislating to ban individuals from participating in forms of behavior that are deemed to be intolerable or unacceptable to society as a whole because they harm the basic good of, say, one or more members of the community. Slavery and apartheid are absolutely immoral even if some individuals find these practices acceptable.

Kannegiesser raises all the moral dilemmas that confront not only the IVF doctors but also parents, families, the community, the government and the parliament. Community groups and churches take different stands on so many ethical issues arising from IVF. This cannot be avoided when they all believe what they say is true.

As an individual person should not go against his or her conscience, neither should community groups nor churches act in a manner contrary to their moral convictions. The same applies to the government when framing laws to regulate IVF.

Many approve of IVF but the Catholic Church has found it morally unacceptable because the IVF baby, whilst being the child of the husband and wife, is not born in the marriage union or bond. Approval of IVF would undermine the institutional definition of marriage in as much as this would involve approving the procreation of children independently of the marriage union.

Kannegiesser fails to appreciate that the Catholic Church disapproves of IVF to protect the basic good of marriage, understood personally and institutionally, for the expression of love and communication of life with human dignity. Catholic couples on IVF programs are not harassed by the church and their children are welcome as

members of the church.

The church's moral objections are greater in the case of donor gametes or surrogacy.

It is one thing to adopt a child whose natural parents are no longer able to discharge their parental responsibilities; it is quite another thing to engineer such situations in advance.

## Unnatural

Many children born of adulterous relationships, or even as a result of AID with the consent of an infertile husband, may have been happily raised, but this could hardly justify surrogacy or donor gametes.

Should children be misled about their genetic origins, with trust between children and parents based on a lie? It is not good to blur somebody's sense of personal identity or to undermine the stability and genetic foundation of family relationships based on marriage.

Kannegiesser engages in an interesting discussion of what is natural and what is unnatural. He is obviously right when he points out that the practice of medicine seeks to eliminate whatever is naturally defective or pathological. What is artificial might not be natural. That does not matter so long as what is artificial is not at the same time contrary to the true good of one or more persons.

From this perspective it could be argued that the artificial assistance given to conception through GIFT (gametes intra fallopian transfer) is not immoral whenever the procedure enables life to be conceived as a result of the spouses' conjugal act and consequently of the marriage union.

While I disagree with Kannegiesser's position that a human being does not have the same moral value at all stages of existence, I do believe a human being

does not have an absolute right to life in the sense that every effort, irrespective of expense, should be made to preserve life.

It is quite a different thing to support an absolute moral and legal ban on the direct or deliberate destruction of human beings at any stage of their existence or on the denial of whatever care and treatment may be reasonably required to preserve human life.

Kannegiesser argues that a human being could not begin before the blastocyst stage when the embryo is a collection of relatively independent cells rather than a unique entity. I am even prepared to argue with him that the human being does not begin before the completion of implantation about 14 days after fertilisation.

## Humanity

In support of this conclusion he relies heavily on some studies that put natural losses up to 65 per cent but fails to mention others in the scientific literature that give a much lower percentage. Personally I do not think even a 65 per cent natural pregnancy wastage goes far to prove that preimplanted embryos could not be human beings. It suffices to consider that for most of human history the infant mortality rate was as high as 50 per cent.

Kannegiesser believes the brain is the fundamental measure of humanity and moral worth. His own words speak for themselves:

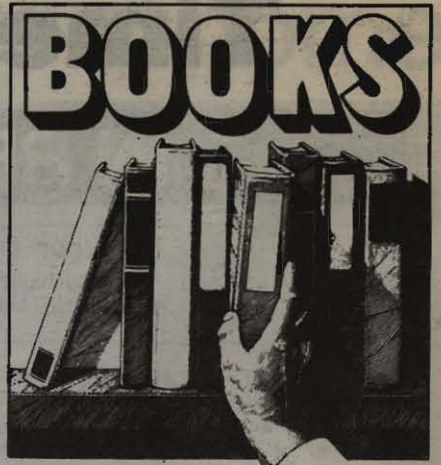
The development of cortical or perhaps neo-cortical activity in the foetal brain heralds a decisive new stage in the history of human life. Depending upon future developments in our knowledge of neurology, it is likely we will decide that somewhere between 10 and 14 weeks after fertilisation... the foetus acquires the formal trappings of humanity and becomes deserving of protection, to be aborted or experimented upon only under extreme circumstances. (pp. 409-10)

He is even more explicit in the following passage:

... the beginning of brain activity heralds the beginning of moral value while the cessation of brain activity (brain death) signals the end of the individual as a morally relevant entity. (p. 413)

No doubt a functioning brain is required for the exercise of rational and free acts. These cannot occur during states of sleep or coma. This does not mean a human being could not be present before the formation of a brain capable of sustaining some brain activity. The human being is the subject of conscious states, not the brain itself.

In my view it would suffice to have a living individual being with a human nature to constitute a human being. I believe there is sufficient embryological evidence to support the view that a human individual could not be formed before definitive individuation occurs with the appearance of the primitive streak.



Once an embryonic human individual is formed, this living being develops and grows until birth and beyond without loss of identity as the same individual human being. At the end of life true brain death signals the end of a human being as a living individual with the same identity.

Kannegiesser believes the early human embryo ought to be respected and nurtured carefully on account of its capacity to develop and produce a live birth. For sufficient reasons he believes experiments may morally be performed on live human embryos. This is where I would differ with him.

Although I do not think the early embryo is a human being, I do not think a genetically human embryo should be prevented from developing normally in its natural environment. I do not believe anybody should disregard the Creator's plan for the responsible transmission of the gift of human life by deliberately destroying human embryos. It makes no difference whether this occurs in a woman's womb or the laboratory.

Once conceived, human life should be respected and protected. Kannegiesser and others who believe in a utilitarian ethical theory will differ sharply with me on the morality of experimenting on human embryos to prevent major genetic diseases.

## Shorter

Many moral and ethical issues are raised that I will not be able to comment on in this review. Kannegiesser discusses the feminist objections to IVF and answers them quite well. He places the costs of IVF to the community in their proper context of health costs in general. What has been highlighted by the Government and the media since this book was written is that the total cost of an IVF child to the community needs to include the costs of the failures and not simply the costs of the successful IVF pregnancies.

The book concludes with a good case for establishing a national biomedical ethics commission and makes some suggestions that would be valuable for the recently established National Bioethics Consultative Committee.

This is a valuable resource book for gaining information about all the issues that relate to IVF and the people involved in the programs. It is well written but would have been better still if it were considerably shorter with much less unnecessary repetition.

The reading of the book would have been greatly helped if the text of the lengthy chapters had been broken by some explanatory sub-titles.

Finally, I think Harry Kannegiesser would have provided the community an excellent service had he included in his book a chapter on the role of the media in the IVF story.

Norman Ford  
FEBRUARY 1989



## All-in-one handbook a 'mistake'

Having now been through some weeks of student advising and re-enrolment, I am strongly of the opinion that the new 'all in one' handbook (the *Monash University Calendar Volume One, 1989*) is a mistake and that we should return to individual Faculty Handbooks in 1990.

The one convenience of being able to check on interfaculty subjects is far outweighed by the major disadvantages of:

- Size — it is just too big. Even with relevant sections tagged, it takes too long to find information;
- Floppiness — it falls off everywhere and falls over in a brief case;
- Quality — both pages and cover are already creased and tearing;
- Cost — \$6 instead of \$3.

I suggest a survey of users should be done before a final decision is made for 1990, and I ask concerned staff and students to put their opinions in writing.

Nicola Williams  
Faculty of Science

## Monash Reporter

The next issue will be published on Wednesday, 22 March, 1989.

Copy deadline is Wednesday 10 March and early copy is much appreciated.

Contributions (letters, photos) and suggestions should be addressed to the editor, Lisa Kelly, Information Office, Gallery Building, or ring ext. 2085.

# DON'T WORRY BE YUPPIE!

## Monash Players does it again!

Yet another spectacular comedy extravaganza bursts from the astonishing minds of studentdom's most explosive comedians.

*Don't Worry Be Yuppie* collides with 10 Melbourne campuses (starting 22 February at the Alex) with all the satire, parody and social comment you've come to expect

from the manic crew who brought you *Laugh Before You Fail*, *Children Of A Lesser University* and *Weather Is Nice, Wish You Were Dead*.

This year's inaugural Tertiary Tour virtually froths at the mouth in its eagerness to bring forth a startling message for the new generation of weekend skiers, mineral water

sippers, nightclub goers — and their would-be imitators: *Don't Worry Be Yuppie*.

Don't forget — only \$3 entry during O'week and that includes *free membership of Monash Players*.

Steven Gardiner

*Don't Worry Be Yuppie: Alexander Theatre, February 22, 23, 24, March 1, 2, 3 at lunchtime. February 25, March 1, 2, 3, 4 at 8pm.*

## Research help needed — ASAP

Dr Alan Holder of Chemical Engineering has received a grant of \$51,660 over two years from the Department of Primary Industries and Energy to study fundamental aspects of the oxygen treatment of Latrobe Valley sewer wastewater.

The Latrobe Valley Sewerage Authority will spend \$400,000 in 1990 on oxygenating the wastewater. Research funded by the grant is expected to result in substantial cost savings and improved odor control in the region.

One of the conditions of the award is the appointment of a postgraduate student to conduct the on-site research. The grant provides for a handsome living and travel allowance. Dr Holder says the award may be extended to permit the completion of a Ph.D. Interested students should contact Dr Holder on ext 3421 for further information.



## IMPORTANT DATES

The Registrar advises the following important dates for students in March:

- 6 Publication of examination results, Law Summer Term.
- 10 End change of course.
- Last date for discontinuance of all studies by candidates enrolled for diplomas, bachelors' degrees, masters' degrees by coursework, and for not-for-degree and masters' preliminary candidates to qualify for 100% refund of Student Amenities Fee relevant to Semester 1.
- 12 Orientation program for overseas students, 9.30am Rotunda Theatre R.1
- 13 Orientation afternoon for part-time and mature age students.
- 17 Graduation Ceremony (Science), 2.30pm Robert Blackwood Hall.
- 19 Orientation day for parents for first year students.
- 23 Mid Semester 1 break begins. Term 1 DipEd ends.
- 284 Good Friday.
- 27 Easter Monday.
- 28 Easter Tuesday.
- 30 Last date for discontinuance of all studies by candidates enrolled for diplomas, bachelors' degrees, masters' degrees by coursework, and for not-for-degree and masters' preliminary candidates to qualify for 50% refund of Student Amenities Fee relevant to Semester 1.
- Last date to discontinue a year-long subject or a first semester subject to avoid liability under the Higher Education Contribution Scheme.
- 31 Closing date for applications from undergraduate and graduate students wishing to undertake academic work in 1990 in the University of California and the University of Illinois while enrolled for a Monash University degree.
- Census date for Higher Education Contribution Scheme (HECS).
- Census date for HECS — Any student enrolled on this date will be reported for liability under the Higher Education Contribution Scheme.

## BOOKS RECEIVED

*Sydney Delivered* (1845)

by David Burn

edited by Patricia Clancy

Edinburgh-born David Burn went to Tasmania in 1826 as a free settler and became a pastoralist, playwright and journalist. He was the author of the first volume of plays published in Australia (*Plays and Fugitive Pieces*, Hobart Town, 1842).

Dr Clancy, from Melbourne University, introduces this edited version of Burn's farce, *Sydney Delivered* or the Princely Buccaneer, published as No 3 in the Monash Australiana Series.

The yearly subscription for the series is \$5 post-free, and inquiries should be directed to the general editor, Dr Dennis Davison, through the English department's office at Monash.

**SYDNEY DELIVERED [1845]**

by  
DAVID BURN



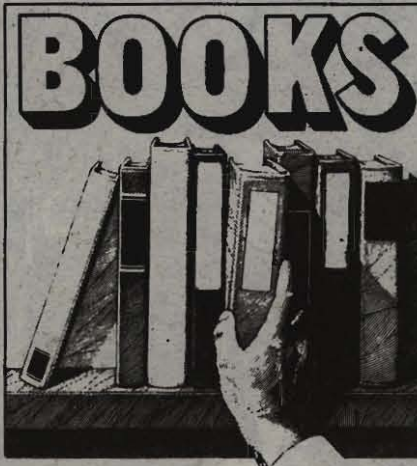
Edited, with an Introduction, by  
PATRICIA CLANCY

*STA Travel's Guide to work and Study Overseas*

by Bryan Havenhand

Published by STA Travel RRP \$5.50

This book came out of the author's experience in establishing the Australian Student Work Abroad Program (SWAP). Its chapters cover such topics as finding a job, obtaining visas, voluntary work, helpful organisations, and a section on work opportunities by country. Available from STA offices.



### At The Boomgates

Strung along the railway fence  
I saw my neighbor's three grandchildren  
the oldest, the girl and the younger boy,  
down for the week from the Mallee country  
where grain in slow and dusty trains  
floats across flat and dreary plains.  
'This one's orange,' the youngest cried,  
stretching to wave, to laugh and shout,  
while not far away the video games  
of a pulsing city beckoned in vain;  
their attractions less alluring than  
those of bright suburban trains.

Michael Dugan

From *Poetry Monash No 25*, edited by Lynette Wilson, whose prize-winning poem, *Women and Weaving*, is also featured in this issue.

*Poetry Monash*, published three times a year by the English department, welcomes contributions from students, staff, alumni and others. It is available from the departmental office for a yearly subscription of \$5 post-free. (Cheques should be made out to Monash University and sent to the business manager, Dr Dennis Davison, c/- Department of English.)

## Courses in computing

This year the Computer Centre is offering staff and students interested in learning about personal computers a choice of two courses.

*Introduction to Personal Computers (for typists)*, an eight-hour course conducted over two or three days, concentrates on the fundamentals of the personal computer.

An ability to touch type is necessary, and the cost is \$50 for Monash students.

*PCs and Typing for All*, which runs for 20 hours over three days, five days, or two weekends, looks at typing, word-processing and calculations using spreadsheets.

The cost is \$65 for Monash students. Further information can be obtained from the Computer Centre (Mathematics Building), ext 4765.



# Recruiting for the future

More than 350 pupils from 150 Victorian schools were given a taste of university life in December during Monash's annual Junior University Program, organised by Careers and Appointments.

Through a series of lectures and non-academic activities, the three-day program is designed to provide year 11 students with a glimpse of a day in the life of a university student.

As well as a variety of lectures on subjects as diverse as Australian politics and the musical instruments of Indonesia, last year's program included events such as *Theatresports* and concerts.

At the program's closing session, the Vice-Chancellor, Professor Logan, underlined the importance of a university student's participation in non-academic activities.

Many employers demand more than pure knowledge, he said.

"They ask for many more skills — skills related to communication, the ability to articulate your own views, to interact with people.



"Many of these skills are not automatically provided by university courses. Therefore, activities outside those courses are important.

"Clubs, for example, provide opportunities to develop those skills, to write reports and so on."

Professor Logan (pictured above) said that the University of Queensland was the only other university in Australia which offered secondary students such a program.

For some future Monash undergraduates, the Junior University Program helped to fill in much of the detail missing from their image of a tertiary institution.

Julian Di Stefano, of Preshil in Kew, said: "The program was very good. A few students said they didn't learn much, but that wasn't the point.

"It was meant to give us some experience of what lectures, and the

university itself, are like.

"I didn't have any idea about how to take notes, but now I do."

Jacqui Fischer, a student from Wangaratta, agreed the program was worthwhile.

"Before this I was unsure whether I wanted to go to university. But the program has helped me to decide that I definitely want to go on to tertiary study."

## Law prize

The Supreme Court Prize for the best final-year student in Bachelor of Laws in 1988 has been won by Kristine Hanscombe.

Ms Hanscombe was awarded the LL.B with First Class Honors, and was placed first in the order of merit prepared by the faculty's Honors Committee.

A recommendation for the award of the Supreme Court Prize for the best final-year student in Bachelor of Jurisprudence will be made to the Chief Justice of Victoria, The Hon Sir John Young, in March, after the B.Juris graduands are known.

## Ansell award

The 1989 Ansell Mechal Scholarship has been awarded to Miss Anne Altmann, a fourth-year medical student at Monash.

The \$1200 award enables Miss Altmann, who has a special interest in family planning and in the medicine of developing countries, to spend an elective period of study this year at the Population and Community Development Association Centre in Bangkok.

Miss Altmann is the third recipient of the annual award, which is sponsored by Ansell International.

## Sex and science

This year's annual public lecture presented by the Centre for Reproductive Biology will look at how science can contribute to the sexual health of people of all ages.

The lecture, called *Sex, science and society*, will be held in the Alexander Theatre at 7.30pm on Wednesday 22 March. The guest speaker will be Ms Delys Sargeant, founding director of the Social Biology Resources Centre.

Her recent work has focused on sexual health in middle years and old age, as well as in patients with cancer and back pain.

Admission to the lecture is free. All inquiries should be directed to Patricia Rogers at the Centre for Reproductive Biology, ext. 2765.

# Women's theatrical push for peace



## Annual church service

Bishop George Pell will speak on "God and the Universities" at the Annual University Service, to be held on Thursday 2 March to mark the beginning of the academic year.

Associate Professor Bruce Steele will

be organist, and the singing will be led by MonUCS (Monash University Choral Society).

The service, which begins at 1.10pm in the Religious Centre, will be followed by refreshments.

• This introductory "happening" at a women's meeting organised in conjunction with the World Conference on Religion and Peace was accompanied by a mime in which participants slowly removed their masks to the gaze of the audience — an exhortation from the actors to replace concealment with spontaneity. More than 600 delegates of different faiths attended the conference. See story page 8.

# What is a degree worth?

Well you might ask, at this fledgling stage of your university career — especially when you've already signed up to hand over the first part of your eventual earnings to HECS.

The Joint Orientation Committee has assembled a number of high-fliers who might have some answers you need about both the obvious and the hidden benefits of a tertiary education.

Bob Ansett, managing director of Budget Transport Industries; Irene Bolger, secretary of the Royal Australian Nursing Federation, Victorian branch; Carolyn Hirsh, Member of State Parliament; and David Rhys-Jones, VFL footballer and part owner/manager of a small business, Simply Socks, will all take part in the Orientation Lecture titled *What's a*

*Degree Worth?* which will be presented on Thursday 23 February from 11.30am in the Alexander Theatre.

The lecture, organised by the Joint Orientation Committee, is designed to help students make the most of their university education. They will learn about some of the components of a successful career, and how to develop those components during their time at university.

The lecture is free, and there will be time for questions afterwards. Inquiries should be directed to Dr Greg Yelland, ext. 3962, or Sue Ackerly, ext. 4070.

## Koala to the rescue



Accounting and Finance students at Monash have received some valuable assistance in their preparation for the business world.

Thanks to the donation by chartered accountants Coopers and Lybrand of a specialised computer teaching program, they can now gain practical experience in learning how to check company accounts for compliance with new financial reporting disclosure requirements.

The Australian-designed Koala software package automatically selects the relevant questions a student has to answer to confirm that a company's accounts comply. Coopers and Lybrand have presented packages to more than 40 Australian universities and colleges.

In the picture above, Mr Geoffrey Manger, a partner of Coopers and Lybrand, left, presents a software package to the chairman of the Department of Accounting and Finance, Pro-

fessor Graham Peirson. Also pictured are, second from right, Associate Professor Greg Pound, and senior lecturer Dr Alan Farley.

## Orientation day for students from overseas

Overseas students on campus for the first time are invited to attend a special orientation day on Sunday 12 March.

Beginning at 10am in R 1, a series of speakers will talk on the facilities the university has to offer.

Afterwards, there will be tours of the campus and local suburbs, followed by lunch.

Further information can be obtained from Monash Association of Students (MAS), ext 3138.

## Free barbecue for all the family

Mature age and part-time students will celebrate their own orientation day with a free family barbecue at the Sports and Recreation Centre between 12 and 2pm on Monday 13 March.

On hand to welcome new students will be the Mature and Part-time Students organisation (MAPS), teaching staff and current students.

Children's entertainment will be provided by Student Theatre in the form of

jugglers, fire-eaters and acrobats.

According to MAPS co-ordinator Jenny Green, who is organising the barbecue, there are about 3000 mature age and/or part-time undergraduates on campus.

Throughout the year, in conjunction with Student Counselling and Careers and Appointments, the organisation runs workshops and seminars on issues such as employment.



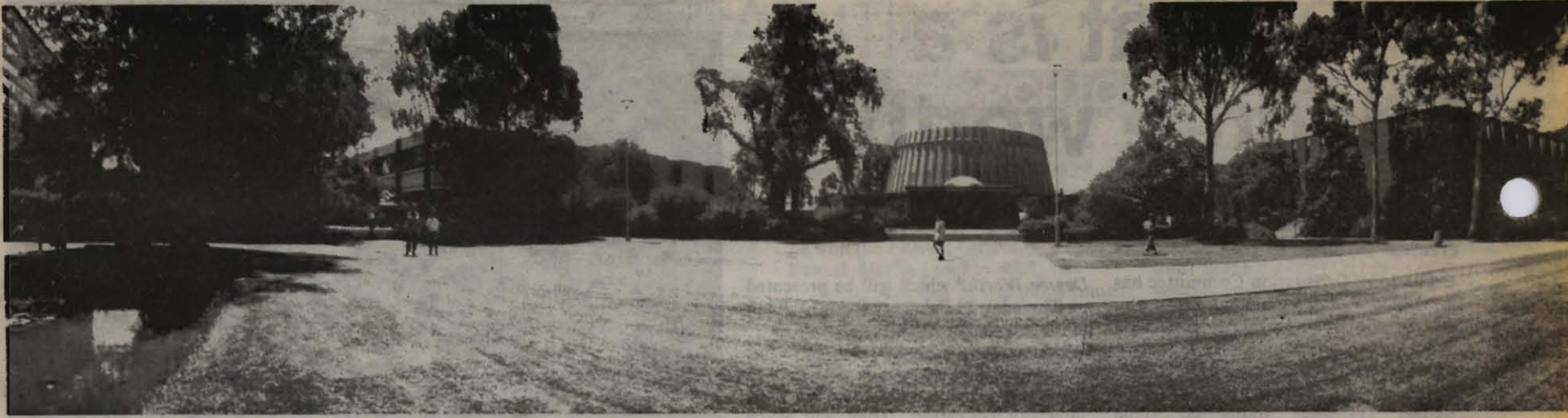
## Portrait on loan

This full-size portrait of Sir John Monash, by Ballarat-born artist Isaac Cohen, has been presented to the Monash University Collection on long-term loan from the National Gallery of Victoria.

Curator Jenepher Duncan says the distinguished painting is a welcome addition to the Collection, which contains only a smaller bust-portrait of the university's namesake.

The portrait, painted in 1919, has been hung in the foyer of Government House for the past 50 years, alongside a portrait of Lord Melbourne. It was made available to the university at the suggestion of Government House, and is hanging in Robert Blackwood Hall.

Isaac Cohen (born Ballarat 1884) studied at the National Gallery of Victoria school and after some success in Melbourne, eventually made his way to London. There he became a member of the Royal Societies of Oil Painters and Portrait Painters. He received the silver medal Paris Salon 1924, and the gold medal in 1932. He died in London in 1951.



● From front page

ray by its anabranches, the small branches of the river that had left the main stream.

Far from signalling an end to the expedition, this inability to trace the river's actual course was to prove fortuitous for the colony of New South Wales and its Southern, or Port Phillip, District.

In the 1830s, graziers in the settled regions of New South Wales were plagued by the twin tyrannies of drought and diseased herds. The need to establish "clean" herds in well-watered regions far removed from infected areas became paramount.

On reaching Mount Hope, near Pyramid Hill, Mitchell spotted green pasture land to the south suitable for grazing, and abandoned all plans of tracing the Murray upstream.

"In effect, Mitchell headed for the hills. Almost immediately the weather changed and the land became lush. Winter was coming on, and the pastures became greener and greener."

The expedition headed south-west, its cumbersome boat carriage leaving wheel ruts in the soft, wet soil. (Settlers who followed in the party's footsteps years later came to know the well-delineated trail as The Major's Line.)

At Portland, the party met up with the Henty brothers who serviced the whaling industry that harvested the seas of the region.

Within days of Mitchell's departure the brothers swept inland, spurred on by the major's glowing reports of the country to the north.

A prophecy Mitchell had recorded in his diary at Pyramid Hill had proved correct:

"As I stood, the first European intruder on the sublime solitude of these verdant plains, as yet untouched by flocks and herds; I felt conscious of being the harbinger of mighty changes; and that our steps would soon be followed by the men and the animals for which it seemed to have been prepared."

As the Hentys' rush for grazing land began, Mitchell's party turned for home.

In its haste to reach Sydney, now swept by rumors of the major's death, the expedition followed an almost straight line northeast, through present-day Dunkeld, Castlemaine, Violet Town, Wangaratta and Howlong (NSW).

Mitchell, assisted by Stapylton and other skilled members of the team, had "chained" the entire length of the 2600-kilometre trek.

An age-old method of surveying, the practice involved laying on the ground from journey's beginning to end a 66-foot long surveyor's chain consisting of 100 links, and recording the bearing at each bend in the traverse.

The party checked its relative position by triangulation from hill and mountain tops.

Not only was the major an accurate surveyor, he was also a student of "almost every conceivable aspect of science", Mr Eccleston said.

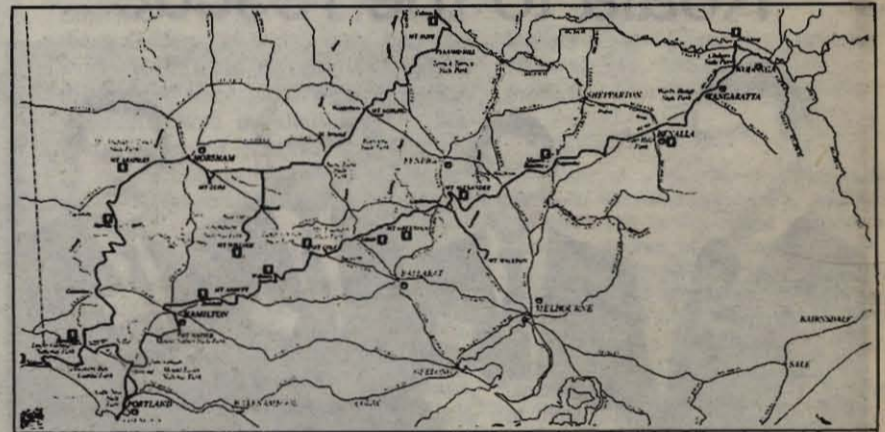
Throughout the expedition Mitchell kept copious notes on the geology, landforms, weather, animals and vegetation.

He was also keenly interested in the customs and languages of the Aboriginal groups encountered along the route, and often sought their names

for the mountains and rivers he charted.

The original mapping of the Major Mitchell Trail was commissioned by the Department of Conservation, Forests and Lands, and completed with the assistance of Commonwealth Bicentennial Commemorative Program.

Copies of the booklet, *Major Mitchell Trail*, and the map can be obtained from offices of the Department of Conservation, Forests and Lands.



● Detail from the Major Mitchell Trail

## Nothing but the facts . . .

Monash University is an autonomous institution funded by the Federal Government. Its supreme governing body is the Council which is widely representative of groups outside and within, including students, staff and graduates, professional, commercial and industrial interests, and Members of Parliament.

It now has a population of 14,768 students (or some 12,774 'Equivalent Full-Time Students') and 2824 full-time staff. That makes it Australia's fifth largest university.

By study areas, the 1988 enrolment figures were: Arts 4100, Arts/Law 501, Economics and Politics 2238, ECOPS/Engineering 65, ECOPS/Law 434, Education 1305, Engineering 1210, Engineering/Law 12, Science/Engineering 312, Law 522, Medicine 1048, Science 2782, Science/Law 131, Environmental Science 108. Total 14,768.

Characteristics of the student population were: male 7463, female 7305, full-time male 5655, full-time female 5202. Higher degree 2698, other degrees/diplomas 12,070, overseas students 1372.

Academic staff 1988 (including full-time and fractional appointments): deans 7, professors 85, associate professors/readers 133, senior lecturers 340, lecturers 152, others 148. Academic staff (research only) 289. Total 1154.

Non-academic staff 1988 (full-time): central administration 206, departmental administration 302, technical 398, buildings and ground 265, library 174, academic services 92, students' services 37 (including health, counselling, employment) independent operations (including halls of residence, student union, bookshop, theatre) 181, public

services (continuing education) 15. Total 1670.

Located in the suburb of Clayton, 20km south-east of the City of Melbourne, Monash is close to the demographic heart of the metropolitan area. There are more than 60 buildings occupying the 100ha campus site.

The university's chief executive officer is the Vice-Chancellor, Professor Mal Logan. The Deputy Vice-Chancellor (Research) is Professor Ian Polmear, the Deputy Vice-Chancellor (Academic) is Professor John Hay, and the Pro-Vice-Chancellor (Special Projects) is Professor Lance Endersbee. The Chancellor is Sir George Lush, formerly a Supreme Court judge.

Monash is one of Melbourne's major centres for conferences organised by groups both within and outside the university. The major public venues such as Robert Blackwood Hall and the Alexander Theatre are available for general hire as are campus lecture theatres, although there may be limited availability of these during term.

Monash also has a self-contained, year-round conference venue in Normanby House, a former residential college on Normanby Road. It offers flexible meeting facilities with all necessary equipment, catering by arrangement, and ample free parking. Accommodation can be provided for 100 visitors.



● Greg Eccleston . . . travelled 95 per cent of the route.