

GRADUATES' SPECIAL

Spectacular bid to uncover past climates

Researchers from the Geography department recently turned on a spectacular display for the media at a volcanic salt lake just outside Colac.

The star of the show was a six-metre long "Mackereth sampler" which collects cores of sediment from the bottom of lakes.

Then it explodes to the surface with enough force to become airborne "like a Polaris missile" (and the potential for similarly fatal consequences, as its inventor, F.J.H. Mackereth, found out too well. Thrown into the cold winter waters of an English lake when his boat was hit by a rising sampler, he later died of pneumonia).

The experiment, using a sampler built

by chief technical officer in Geography, Jack Missen (now retired), was enough to attract the attention of *The Age*, *The Sun News-Pictorial*, ABC-TV and Promotion Australia (formerly the Australian Information Service).

The research team, led by Dr Patrick de Deckker, is studying core samples from a pair of volcanic salt lakes to try to reconstruct the climate for the area (180 km south-west of Melbourne) over the past 10,000 years.

Dr de Deckker has developed a technique to determine past lake salinity by

analysing the shells of shrimp-like fossils. Lake salinity is directly dependent on water level and hence on climate.

"We want to see if we can find any cyclic pattern to help predict future climate.

"And we also would like to determine how fast the rates of climatic changes are, whether they occur very quickly or more gradually," he said.

For instance, there is evidence from Europe that there have been changes from temperate forest to tundra within 50 years.

"That sort of change would have a dramatic effect on agriculture."

Dr de Deckker has already detected in lake cores from the Western District banded patterns that appear to parallel the annual growth rings on trees.

He also hopes to unravel the mystery of whether the drop in the levels of the lakes over the past century is man-induced.

Two cores from each lake will be opened and halved lengthways using a thread as a cutter. The main feature of each core — sediment types, sediment structures, color changes — will be described, compared and recorded.

Then samples will be taken every 10 centimetres for mineral and trace element analysis. This information can be used to infer much about the

temperature and chemical composition of the water.

The bands of laminations are of great interest and they will be studied intensely to try to determine how they were formed.

If they were laid down annually by organisms as the team suspects, they could provide the key to a detailed annual record of climate.

The age of sediments in the core will be dated using radio-carbon techniques.

Dr de Deckker's research is part of a much wider Geography research program, under the direction of Professor Martin Williams, on the course of climatic change over the past five million years.

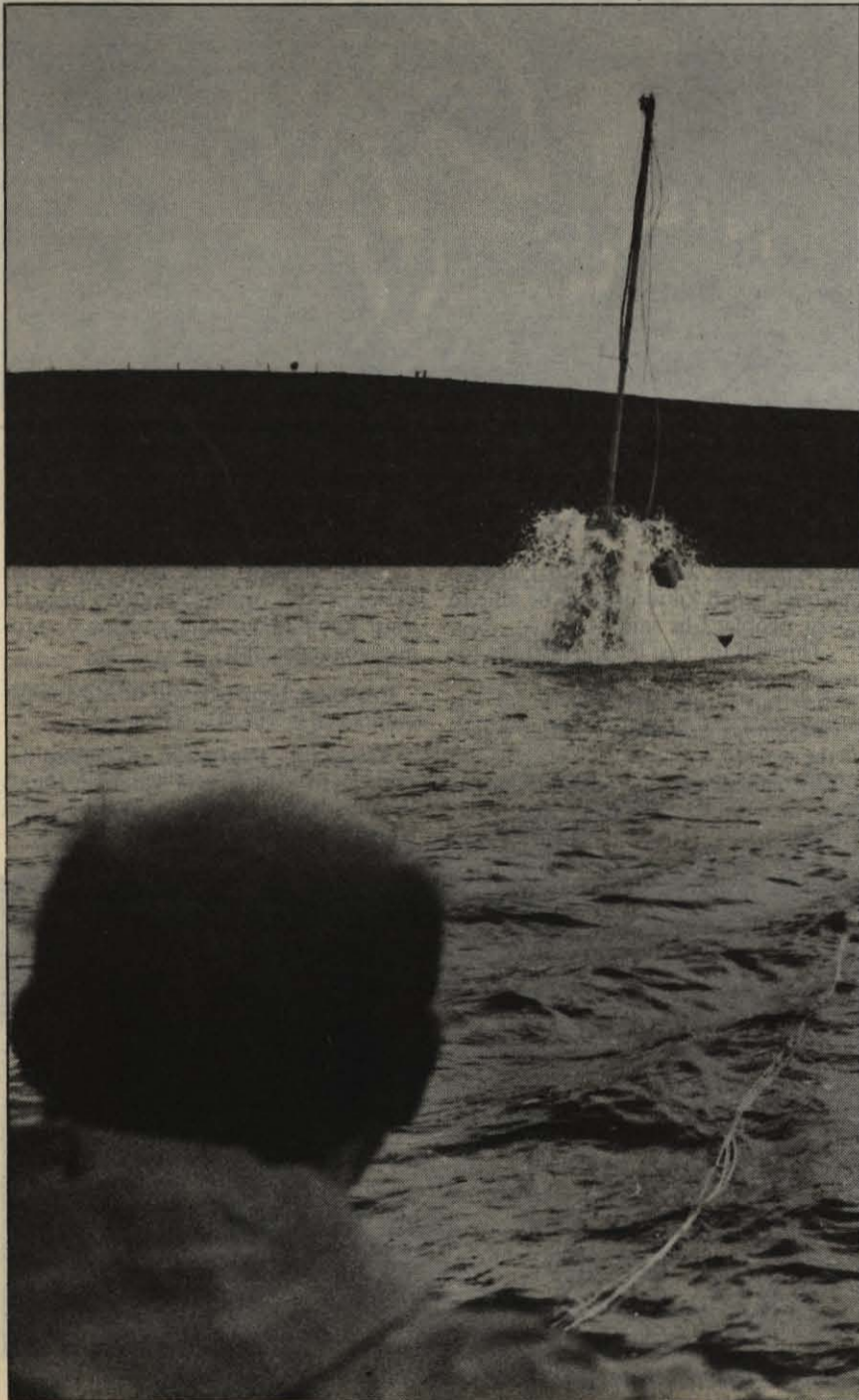
This has been financed for more than \$300,000 under the Australian Research Grants Scheme.

• **Left.** The six-metre long Mackereth sampler explodes to the surface of West Basin, a lake near Colac. **Below.** Dr Patrick de Deckker right, and team members prepare the sampler for its trip to the bottom of the lake. Photos — Tony Miller.

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Software will make switchboard unique

The new electronic telephone system at Monash will be one of the most advanced in Australia.

It will provide improved facilities for voice communication and new facilities for data communications.

It will have taken 20 months of planning and preparation work by the PABX Project Committee and contractors to complete the \$1.5 million project.

Staff from Central Services, Buildings, Maintenance and the Computer Centre have collaborated in the project.

The digital PABX will soon be installed for testing and the system is expected to be operational by January 5.

With a new accounting system, which will come into effect in April, each staff member will have a PIN number which must be entered when a long distance call is made. (Local calls will not be affected.)

Until then, it will still be possible to make ISD and STD calls from most extensions with the assistance of the telephone operators.

Calls will be charged to an account number, deducted from the caller's pay or dealt with by invoice.

The new telephone system will service about 2400 extensions. The university will have a new number — 565 4000 — but most individual extension numbers will remain the same.

The new indial prefix will be 565, and an internal directory will be distributed before the switchover.

Two types of handsets will be used under the new system. Most locations have the Envoy pushbutton handsets, which were recently installed.

The Envoy handset will have access to the new features of the system, including local recall of up to 10 commonly used numbers, and "last number re-dial".

The second type is the Plessey ISDT digital handset.

This makes use of digital rather than the more familiar analogue dialling, and will generally be installed at "secretarial location". The term in use will be "secretarial handset".

A secretarial handset, with its liquid-crystal display, will enable a secretary to handle calls in and out in greater numbers with greater ease, and to provide a more flexible service in transferring calls as her work requires.

Before the new system begins operating, there will be training classes for staff with these ISDT handsets. Users of Envoy handsets will be able to attend a lecture, and will get notes covering the use of the system.

As well as providing for the switching of telephone voice traffic, the ISDX system can switch digital data.

The locally developed MONET local area data network will be connected to the PABX, allowing access to the University computing facilities, initially via MONET.

For this purpose, the ISDT handsets include provision for connection of a computer terminal, and thus a MONET connection without additional cabling.

In the first instance, about 150 of the ISDTs will be installed. Unlike the Envoy handsets, which are replacing previous Telecom rental handsets at present, the ISDTs cannot be functional until after the new system is operational.

Some installations and prior testing during running of the PABX will occur late this year.

In many cases where Envoy handsets are replacing non-simple Telecom handsets (extensions of manual switchboards etc) the Envoy installation will also be

delayed until the time of cut-over to the new system.

This delay, although complicating the cut-over procedure, will prevent even temporary loss of telephone function for the people involved.

Monash's new digital PABX — which is based on a special-purpose computer — provides for a diverse range of functions.

Features which staff will not previously have had access to (except in isolated groups with Commander systems) include:

- Pre-programmed diversion of calls when the called number is busy or not

answered.

- Temporary diversion invoked by the user.

- Hold and transfer facilities.

- Conference calls.

- Call back. (On getting an "engaged" response, the caller can hang up, and get a call back from the engaged extension when it ceases to be busy.)

- Abbreviated dialling.

- Pick up calls on another extension.

- Call parking, to place a call on hold at another extension.

- Executive/secretary facilities.

These features will be available on all telephones.

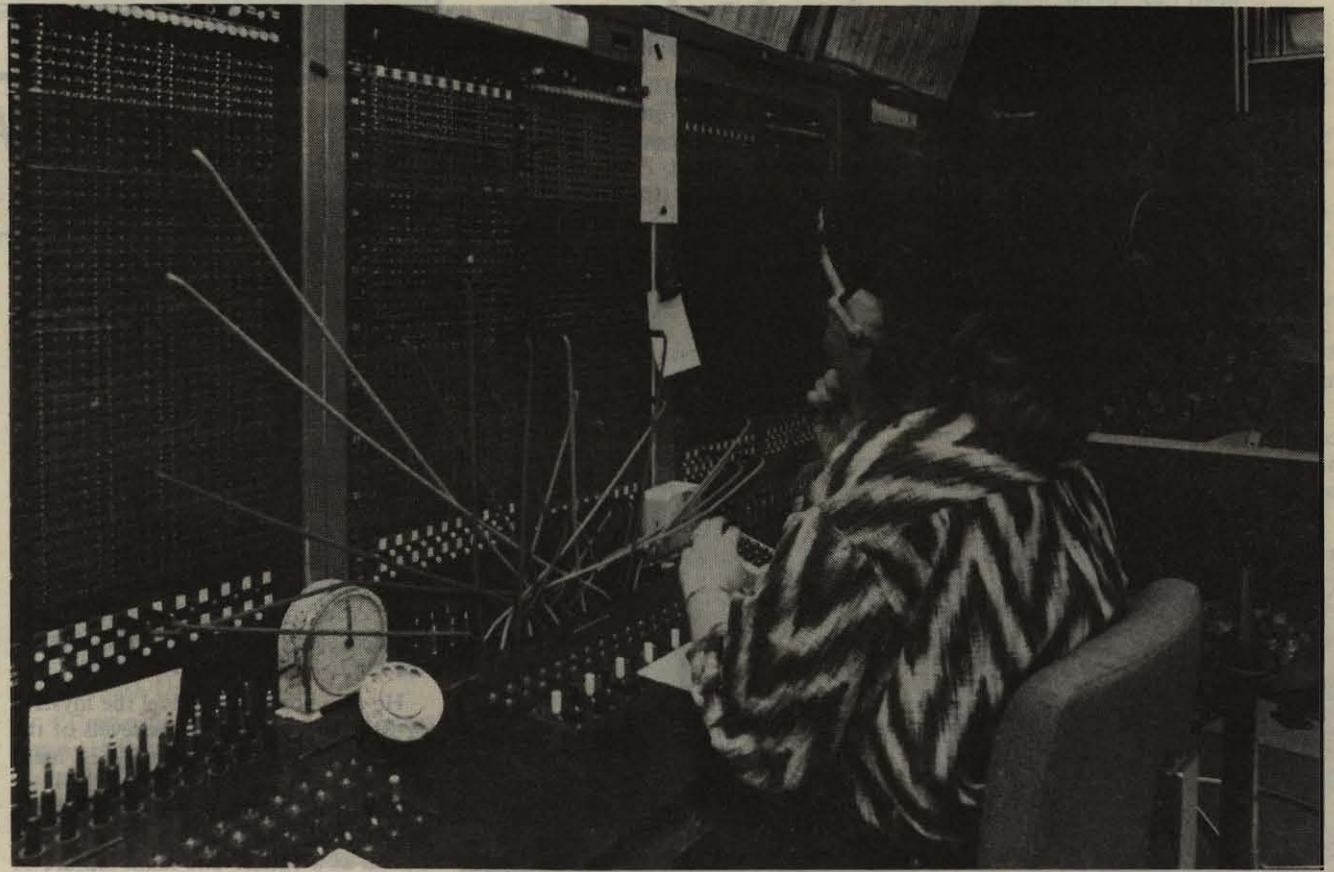
In addition, groups of extensions may

be defined to field calls to a single extension number.

These are known as "hunt" or "distribution" groups. They may also be used to allow simplified pick-up of a call within a group (pick-up groups).

Users of the Commander system will be encouraged to have their Commanders replaced by a mix of ISDTs and Envoys, as they will not otherwise have access to many of the new features.

- Operators at work on the present switchboard equipment, which will be completely replaced by January. Large sections of the new switchboard were delivered to the university last week. Photo — Tony Miller.



Monash teaches genetics to expert

The director of a large microbiology laboratory at a Canadian university has come to Monash to learn genetic engineering techniques.

Professor Bob Hancock, an Australian from the University of British Columbia, is an expert in the functioning of the outer membranes of bacteria.

He has come to work with Associate Professor, Viji Krishnapillai of Genetics on a project aimed at using genetic engineering techniques to locate and study the parts responsible for replication in a promiscuous plasmid.

(Plasmids are small pieces of genetic material present in almost all bacteria. They are separate from, and operate independently of, the bacteria's own genetic material. Promiscuous plasmids are capable of transferring between bacteria of different species, and are therefore most important in spreading genetic characteristics.)

Professor Hancock's laboratory is interested in the outer surfaces of the medically important bacterium, *Pseudomonas originosa*.

The Monash project does not fall within his area of expertise, "but a major area in my lab uses genetic engineer-

ing techniques, and I decided I needed personal bench knowledge to be able to advise people," he said.

"This was the best lab in Australia for my purpose.

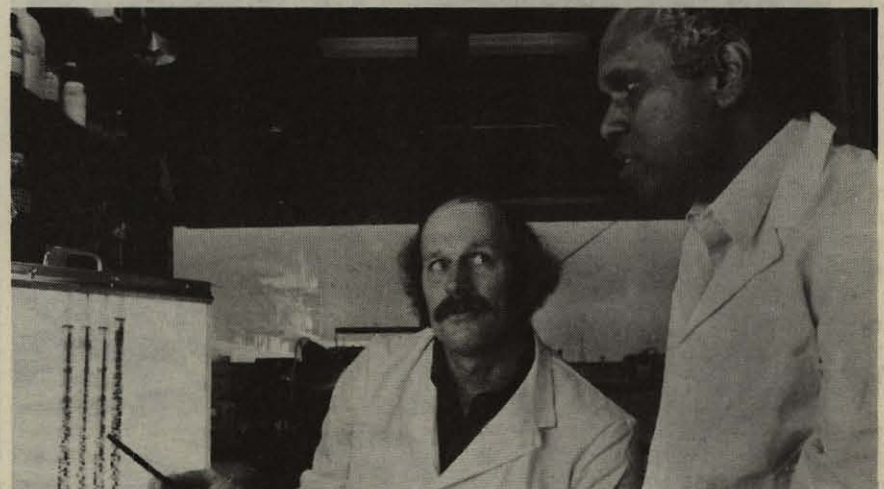
"In fact, this department is the *Pseudomonas originosa* genetics centre of the world.

"All others get their *Pseudomonas* bacteria with specific mutations from here.

"And anyone who does molecular biology with gram negative bacteria must know about wide-ranging or promiscuous plasmids."

Professor Hancock will be at Monash until April.

Associate Professor Krishnapillai said: "His visit is very valuable for us because he has extensive experience in North America and Europe."



• Professor Bob Hancock, left, and Associate Professor Viji Krishnapillai.

Dropout rate 'no cause for concern'

The student dropout rate at Australian universities and colleges is no cause for concern according to a survey by the Higher Education Advisory and Research Unit.

The survey also dispels any doubts about the worth of "taking a year off" between secondary and tertiary education, say researchers Leo West, Terry Hore, Christopher Bennie, Patricia Browne and Beverley Kermond.

It found that of 35 to 40 per cent of full-time students who failed to graduate from particular institutions, only 20 per cent were truly lost to the higher education.

The others eventually completed their degrees, having either deferred or transferred.

Students who had deferred were en-

thusiastic about their decision, and regretted that they had not been told deferment was an option at the conclusion of their secondary schooling.

"It would seem that much of the 'burn out' problem, or lack of motivation, could be avoided by explaining fully in the qualifying year what deferment means to the student (and their parents)," says the report.

The survey was conducted in seven institutions in five states.

They were Queensland, Monash and Wollongong universities, the South Australian Institute of Technology and

the Melbourne, Canberra and Ballarat colleges of advanced education.

(A separate report will be issued in 1987 on the Technical and Further Education sector.)

Results showed a substantial number of students withdrew before April 30 in their first year but the majority of withdrawals occurred by the end of that year.

The main reasons for withdrawal by April 30 were a later offer of a preferred course, or problems caused by being a long distance from home.

Seventy per cent of these early withdrawers returned to study within two years.

Those who withdrew at the end of first year were also generally dissatisfied

with a course or institution, although jobs and finance were becoming increasingly important to this group.

The figures were similar for universities and colleges of advanced education.

Information from institutions and government bodies was used to estimate how many students had withdrawn, and questionnaires were sent to the withdrawers to find out whether they had returned to full-time study or had taken jobs.

At the end of the questionnaire, respondents were asked to "tell their full story".

Many expressed disenchantment, especially where they had entered a course which was not their first choice, or if they later found they had chosen a course which did not suit them.

Some had decided opportunities at the end of a course were limited, or they had developed doubts about their motivation.

In a lot of cases, students found they were simply unable to cope with the standard expected of them.

Despite generally stringent entrance requirements, they felt they should not have been accepted in the first place.

Others suffered "burn out" after their exhausting year qualifying for tertiary entrance, while many mentioned health problems including glandular fever and depression.

A lack of money often contributed to the decision to withdraw and these financial concerns increase as the students progress past first year.

'Old' report on environment stirs up Inverloch residents

A report that the Graduate School of Environmental Science made to the Victorian Government eight years ago is suddenly causing angry controversy in South Gippsland.

The report, prepared for the old Lands Department, was written up in 1978 from a survey done by three students as part of the requirement for the degree, Master of Environmental Science.

They were supervised by five Monash academics, including the school's director, Dr Tim Ealey, and an outside consultant.

The survey provided a draft management plan for coastal Crown Land at Inverloch and Venus Bay.

Its 120 pages of text, photographs and maps gave an in-depth analysis of the history and nature of the area, the existing facilities and problems of management, control, land purchases and other matters.

So far, so good. But the report, as was required, then made major recommendations for improvements under a continuing development strategy.

This included closing a road, phasing out a camping area and moving local bowling, angling and yacht clubs to sites further from the foreshore.

The report was obviously satisfactory from an academic viewpoint. The three students got their degrees and the government swallowed up the document. Nothing had occurred to cause public concern.

• The Inverloch Bowling Club and seawall.

With government re-organisation later, which created an overall Department of Conservation, Forests and Lands, that seemed to be that.

Dr Ealey had more or less forgotten the report — at least until the Inverloch-Venus Bay development concept exploded into the news pages of the *South Gippsland Sentinel Times*.

"Inverloch residents are furious over a furtive report that recommends sweeping changes to its foreshore areas," wrote journalist Richard Schmeiszl.

"The detailed document was prepared by Monash University.

"Conservation and Lands Department claims that the report will not be implemented without public input have not stilled local uproar."

The report's suggestions are described as "crazy" by the secretary of the bowling club, "absolutely ridiculous" by the president of the angling club and "stupid", "insane" by a former commodore of the yacht club.

So what has happened to suddenly make the report so distasteful?

Inquiries show that, far from being inactive, the State Government has been proceeding quietly with some of the Monash ideas.

The central camping area has been phased out, toilet facilities moved to

more sensible areas and some upgrading proposals carried through.

There has been no intention, for the time being, to implement the idea of moving club facilities. But word of the report recently got to the ears of some shire councillors, who attacked it as secretive and dangerous, and the *South Gippsland Sentinel Times* naturally took an interest.

The more positive news is that the Shire of Woorayl has been discussing the issue with State representatives.

While it concedes the State has total control of the Crown Land area, it believes local knowledge and interest should be taken into consideration.

Footnote:

Dr Ealey says it was always understood (and stated in the preface) that the report would be ultimately open to public comment. The researchers had interviewed many locals in person and through the mail, and had held a public meeting. The brief for the study required Monash to produce an "ideal" plan, but the economic and practical feasibility of some ideas was to have been "thrashed out" at a later date.



• Leo West

Students seek casual work to pay \$250 fee

With the introduction of the Government's \$250 tertiary student fee, Mrs Irmgard Good, the Student Employment Officer, predicts an increase in the numbers of students seeking employment over the summer vacation.

"When a student walks onto campus early next year to enrol, he or she will need to have more than \$500 in hand to cover the Student Amenities Fee and the Government's new fee," she says.

"Many university students don't have that much money, and working over the summer vacation is the only means they have to acquire the money."

Students find full-time and casual summer employment in clerical, laboring, sales, hospitality, driving or gardening positions, to mention just a few.

There are always students seeking work in engineering because they must complete 12 weeks job-related employment as part of their degree.

Mrs Good says there has been an increase in companies seeking students for

professional or technical work.

"The students want to work hard because they see summer jobs as possible stepping stones to permanent ones, and the companies realise this."

The Student Employment Office advertises in 17 suburban newspapers, and posts 7000 brochures to companies listed in its register.

This year, for the first time, it is advertising in the *Weekly Times* for work for country students.

The office is situated on the first floor of the Union Building, at the western end, and it has a job notice-board outside the nearby Careers and Appointments Service.

Students seeking work should regularly check this notice-board; employers with jobs to offer should contact the office on 541 0811, ext 3097 or 3297.

(Students can also register for work as tutors, typists, entertainers or babysitters. Those proficient in languages can be placed on the list as interpreters.)



'Australia is in for a nasty time'

Australia is in for a "pretty nasty" time economically unless people at all levels realise that the days of living off overseas capital, ideas and abilities are over.



• Professor Richard Bird

That is the warning of Professor Richard Bird, Professor of Economics at the University of Toronto, Canada, who has just spent three months at Monash as a distinguished visitor.

As a tax expert of international rank he was a speaker at the Australian Tax Forum's Fourth Intensive Workshop conducted by the faculties of Economics and Politics and Law on 26 and 27 October.

Professor Bird described as "nonsense" fears here that the budget and balance of payments deficits in the United States could bring on "another 1929".

"The public sector in the United States is twice as large as it was in 1929," he said. "We also understand far better the forces involved."

"But a US slow-down is most likely, and that must have harsh effects here."

Australia, with its own deficit problems, was in a far worse position than Canada which had such a strong payments position with the US and could ride out any US fall-back, Professor Bird said.

Australia had long relied for its growth and development on overseas capital. She had had it easy at all stages, and the costs of coming to face realities at last would be inescapably painful.

Inefficiency in Australia today was due to employers and industry, as much as it was to the union. The result was high costs and government-protected inefficiencies.

"I am not against unions," Professor Bird said.

"I was raised in a company town in Canada where conditions were oppressive, and I know of their problems."

"But in Australia the unions today are interested in benefiting only those who belong to them."

"One example of their wrong ap-

proach is the way they stifle employment of young people at less than award wages."

Australian industries had to become more flexible, like those of Sweden, Norway and Switzerland, three other small countries. They had to make efficient use of resources, and take full advantage of their closeness to Asia.

"But above all, Australians have to learn marketing," Professor Bird said.

"No one here seems to know how to sell."

Australians must abandon their belief that traditional industries must not be allowed to go under. The textile industry at the moment was a case in point.

If it could not provide jobs without the sort of protection that make it internationally uncompetitive, then the right attitude was that it should go.

For new jobs Australia should turn to new initiatives and soundly-based developments rather than clinging to the past.

Spyker to launch report

The Victorian Minister for Ethnic Affairs, Mr Peter Spyker, will launch a report by post-graduate student Radmila Borkovic on the problems of older members of Melbourne's Yugoslav community.

Ms Borkovic is hoping the report, commissioned by Ethnic Affairs in 1984, will lead the government to establish more Yugoslav social groups and clubs, improve home services (like meals-on-wheels) and increase the amount of help available to the aged from social workers and health visitors.

Having completed her BA with a double major in psychology and Slavic languages, Yugoslav-born Ms Borkovic broke off her MA studies to work with

the Australia-Yugoslav Welfare Society in Fitzroy as a base for her study of the elderly.

A milestone in her year of investigations was to help start, at Preston, the first social club for Yugoslavs of both sexes. Other groups have so far kept men and women separate.

Now back at Monash as a full-time MA candidate in Slavic Languages, she has two special interests — curriculum development for language teaching, and the problems in Yugoslav families where "role reversal" means English-speaking children bear the burdens of acting as interpreters for their elders and managing family affairs.



• Ms Radmila Borkovic

CUB project may mean better beer

Scientific liaison between Monash University and the Carlton and United Breweries Ltd promises even better beer through the creation of new strains of brewing yeast.

Dr Kerry Gutowski of CUB's molecular biology research group has just completed two years of research at Monash's Centre for Molecular Biology and Medicine, by arrangement with the centre's director, Professor Tony Linnane.

Dr Gutowski (nee Oakley) is a geneticist who did her B.Sc at La Trobe, and went on to gain her Ph.D at ANU.

She was tutoring at La Trobe when CUB invited her to join its molecular research unit in 1984.

Dr Gutowski says that when classical techniques were used to introduce new characteristics into brewing yeast, they resulted in altered "beer performance".

With today's techniques, new characteristics could be introduced without altering the yeast's integrity.

Dr Gutowski is continuing her research mainly at Bouverie Street, but will keep close contact with Monash centre.



• Dr Kerry Gutowski

Students put theory into practice

University and college courses are often slammed for being long on theory and short on practice.

So senior lecturer in Civil Engineering, Mr Alan Holgate, deliberately

set out to give some second and third year students a taste of life in the workforce.

He arranged them into groups of six, with each student acting out a role as an

architect, community delegate, structural engineer, representative of a regulatory body, cost estimator or project developer, and asked each group to produce a building plan.

"Communication is vital on a building project," he said.

"The exercise was intended to demonstrate just how important it is to relate to other professional groups, regardless of whether there are personality clashes.

"It also showed how financial and political considerations, and the architect's role in planning and aesthetics, affects the structural engineer."

Some very interesting designs were proposed, with everything from a multi-storey hospital to a ski lodge.

"It is inevitable that disputes arise between professionals due to the different points of view each holds," Mr Holgate said.

"I believed this would carry over into the exercise, so I began searching for a way to keep the lid on proceedings."

He invited members of the Civil Engineering alumni association to act as referees.

The graduates: Roger Payne (1970 honors), Warren Doubleday (1970), Howard McTier (1967), John Wilsdon (1972), Andrew Thom (1971 honors), Angelo Simonetto (1984), Tim Ellis (1985), Jane Bevege (1982), and Jeremy Stone (1985 honors) offered advice to the students based on their own experiences.



• Senior lecturer in Civil Engineering, Mr Alan Holgate, and graduate Mr Tim Ellis.

Animal housing 'not sub-standard'

The university has been able to demonstrate that animals used in experiments are not being kept in sub-standard conditions, says Dr Anne Jackson, executive officer of the Standing Committee on Ethics in Animal Experimentation.

She was commenting on the visit of a party from the Senate Select Committee on Animal Welfare last month to holding areas at the Central Animal House and in the departments of Physiology and Zoology.

The visit was part of an ongoing inquiry which will involve visits to all other institutions in Australia where animal experiments are carried out.

The Senate party was satisfied that the animals were adequately housed, despite allegations to the contrary.

Dr Jackson accompanied the party on a tour of the university, and was one of the eight-member Monash delegation to the Senate's public hearing in the Commonwealth Parliament Offices.

"The senators mostly directed their questions towards getting information about allegations against the university.

"The press had picked up these allegations during the previous two days of the hearing, but the Monash delegation was able to refute them all."

Dr Jackson said the Acting Vice-Chancellor, Professor Mal Logan, had told the hearing that the university welcomed the opportunity to show the Senators around the animal houses, and to demonstrate its policies.

The Senators had shown great interest in the university's Standing Committee, which was set up in 1979.

Its membership includes a veterinary surgeon, a lawyer, a philosopher and a number of lay people, and it reviews all proposed experiments in detail.

Dr Jackson said the university had been publicly accused of doing cruel tests on baby wallabies in a bid to find a cure for jet lag.

"The experiments were performed as part of a basic study to investigate the onset of circadian rhythms by looking at receptors in the brain.

"They had nothing to do with jet lag.

"The animals are anaesthetised at the beginning of the experiments and later humanely killed," she said.

Another series of allegations which kept re-surfacing was that possums were

being used unnecessarily for experiments on hearing.

"A project by Dr Lindsay Aitken was completed several years ago and a total of about 60 possums were used.

"The research was vital in aiding our understanding of the basic brain processes involved in normal hearing and deafness."

Dr Jackson said another continuing project examined the hormones being produced by the various glands of possums.

"This research provides us with information about marsupial evolution and their adaptations to the environment, as well as furthering our knowledge about the functions of hormones."

Members of the Senate Party which came to Monash were Senator George Georges, Senator David Brownhill, Senator Norman Sanders, Mr Paul Barsdell, secretary to the committee and Ms Glenys Roper, research officer.

They were shown around the Central Animal House which is the basic supply centre for all animals used in experiments at Monash.

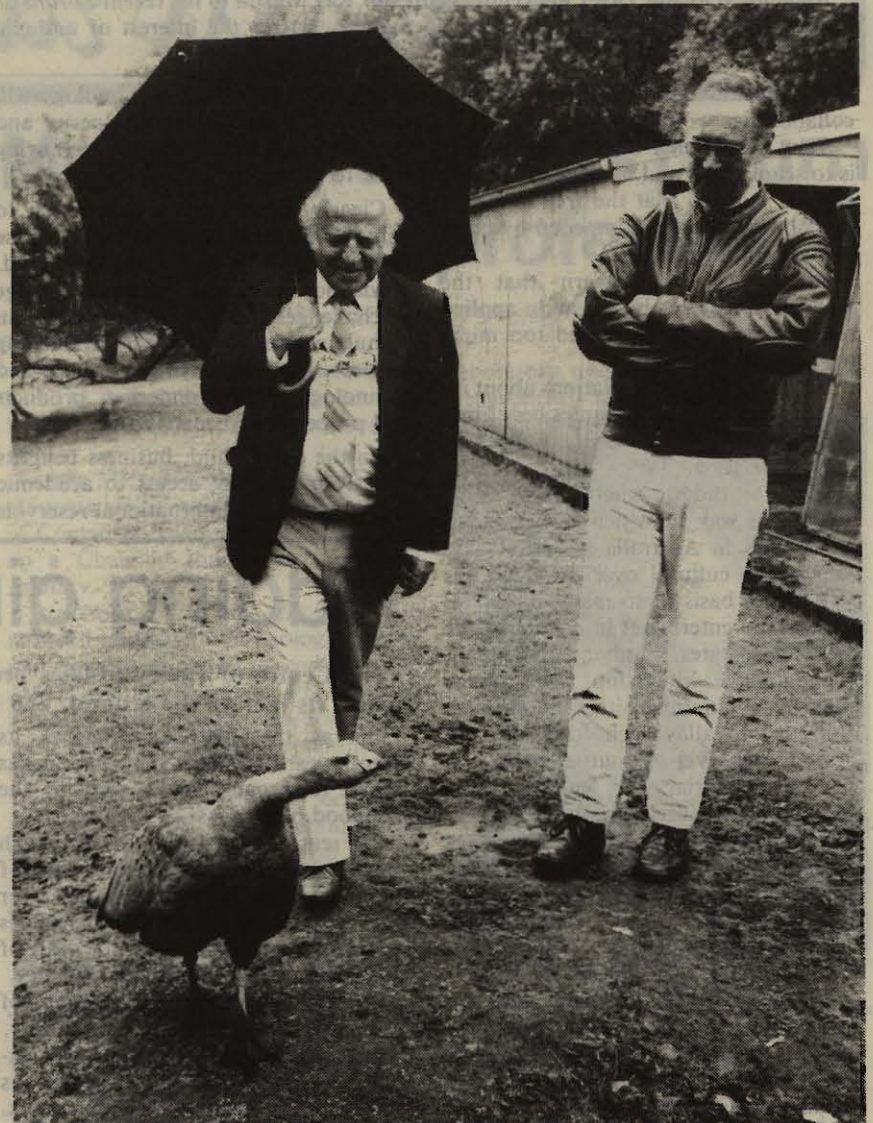
The director of Animal Services, Dr Jim Adams, gave the party a guided tour of sheepyards and the breeding units for guinea pigs, mice, rats, rabbits and cats.

"The Senators showed a great interest in the wallaby breeding colony," said Dr Jackson.

"Their next visit was to the Physiology Animal House, where they were shown possums in specially-designed enclosures.

"They also saw laboratory animals, and sheep under experimentation," said Dr Jackson.

The party was also conducted around the Jock Marshall reserve.



● Above. Senator George Georges keeps step with a Cape Barren goose in the Jock Marshall reserve. The bemused bystander is Senator Norm Sanders. Photo courtesy of *The Age*.

● Below. The Senate party and members of the Monash delegation met for lunch at the University Club. Pictured from left are Professor Dennis Lowther, Senator Sanders, Senator Georges, Professor Ray Martin, Dr Anne Jackson and Senator David Brownhill. Photo — Richard Crompton.



Some of my best friends are . . .

The phrase, "I am not prejudiced but . . .", probably begins more outbursts of prejudice than any other.

In any consideration of problems of racism in Australia, it has such a significant role that it is to be the title of one of 13 addresses to be given at a three-day conference at Monash this month.

The conference, *Prejudice in the Public Arena: Racism*, organised by the Monash Centre for Migrant and Intercultural Studies, will be held at the Law School and Normanby House from Friday 14 November to Sunday 16 November.

Mr Don Chipp will give the keynote address. Conference topics will include language and racism; concepts of racism in popular discourse; the construction of race in Australian feature films, 1955-84; and images of Italians in the media.

The basic registration fee for the conference is \$20.

For further information contact Dr Andrew Markus, ext. 2198 or Dr Colin Rubenstein, ext. 2413.

MONASH REPORTER

Summer school in Japanese studies

The Japanese Studies Centre is inviting applications from students at every level of ability in Japanese who are interested in attending a major Summer School in Japanese Studies early next year.

The school will be held at Monash, La Trobe University and the Swinburne Institute of Technology from 19-30 January and 2-13 February.

The teachers will be from the staff of these three institutions, and from the

Japan Foundation, the Australian National University, the University of Melbourne and the University of Adelaide.

Communication courses will cover beginners, intermediate and special advanced Japanese, and reading Japanese literature.

Studies courses will deal with such subjects as "Japanese society — myth and reality" and "Doing business with Japan" as well as Japanese literature and the methodology of Japanese language teaching. A Japan Foundation

seminar will be conducted by lecturers from Japan.

The fees will be \$90 for 15 hour courses (\$60 for full-time students) and \$120 for 20 hour courses (\$80 for full-time students).

For further information and application forms, contact the director, Japanese Studies Centre Inc, Wellington Rd, Clayton, 3168 or telephone 541 2260 between 9 am and noon. Applications close on 19 December.

Academics afraid to collaborate: Martin

An address by the Vice-Chancellor, Professor Ray Martin to the recent *Forum on Business and University Co-operation* in Sydney, caught the interest of national newspapers. This is an abridged version.

Some academics have fears about collaborative work with industry.

They believe that their principal duty is to scholarship and intellectual inquiry and are worried that the free exchange of knowledge will be impeded by commercial confidentiality.

Others express concern that the balance between basic and applied research will become biased too much towards the latter.

Some staff have reservations about individual industrial companies benefiting commercially from research which is publicly-funded.

Such attitudes, where they exist, reflect the way in which business and universities in Australia have failed to achieve the cultural overlap which has formed the basis of so many successful commercial enterprises in countries like the United States, Germany and Japan.

Imaginative leadership from senior management in universities and business is needed to allay such fears and encourage the level of mutual trust that will be essential for enduring co-operation of universities with business.

It is necessary for common objectives to be identified, for each sector to bring something to the table, so that any collaborative venture will have mutual benefits for both parties.

Furthermore, it requires sufficient intimacy, continuity of communication and contact to ensure that the participants gain an enlightened understanding of the motivation and working circumstances of their partners.

A clear agreement on mutual goals, schedules, milestones for progress, publication and patent policy and project budgets will help to minimise the controversies that often undermine joint programs.

If our universities are the major source of research and experimental development, then business must be the partner through which this is transformed into new products and services.

Improved transfer of technology will contribute to economic prosperity and thereby increase the resources flowing back to science and technology.

Clearly, both sectors have much to gain by forging stronger links. These links are synergistic. On the one hand, academics are exposed to a wider range of challenges and experiences which can stimulate research and enrich teaching by providing access to that science and technology which underlies products and processes of benefit to society.

On the other hand, business benefits directly by gaining access to academic expertise and the international reservoir

of knowledge on which the development and exploitation of research results is based.

It is worth noting that investment by the business community in universities also yields substantial benefits of an indirect kind which are, nevertheless, very real for the community and business generally.

Such investment, in addition to the taxation incentive for the corporate donor, enables a research group to purchase the most up-to-date equipment and hire the best staff available.

Investment by business thereby strengthens university research and ensures that not only are graduates employed by business trained in a world-class environment, but also that they emerge with an attitude towards excel-

lence which is so vital for future success.

In recent years there has been a significant shift in western economies away from raw materials and heavy industry towards businesses based on the application of new scientific knowledge and technical skills.

Spectacular advances in genetic engineering, ceramic technology, microelectronics, lasers and computers form the bases of the emerging industries of the future.

Graduates who have been educated and then trained in research to internationally competitive standards are needed to evaluate and apply this new knowledge.

They will be the ones best placed to ensure that traditional industries are upgraded and new industries created.

Adding ginger to public debate

The Centre of Policy Studies proudly claims to have its "head in the clouds, its feet on the ground, and its ear to the winds of possibility".

But as the centre approaches its seventh year, it is clear that this ear has needed to become more alert to the likelihood of political controversy.

The reason is that the centre, which operates within the Faculty of Economics and Politics, has been for some years doing research on issues which are more and more at the heart of Australian political and social debate.

This research has anticipated many of the central concerns of the community.

Taxation and social security, for example, are among its major interests, as well as the economics of labor markets. And few subjects in Australian life are currently arousing more heat and argument.

The centre is happy that this should be so.

"Where prevailing views have not seemed firmly based, the centre has continued to see a useful role in gingering the debate on key policy issues by providing new perspectives with the benefit of research in Australia and overseas,"

says its annual report to the Tertiary Education Commission.

A danger of putting ginger into public debates is that those who find their views contested will see the centre as being on the other side of the political fence.

One line of attack has been that the centre should be better behaved because it is heavily funded by the taxpayer. There have been statements that it gets \$500,000 of public money a year, as if this were for an unlimited time.

But the centre, which was set up in 1979 "to offer fresh approaches to policy research in Australia" is basically self-funding, deriving its income from business and governments for commissioned projects, and from conferences and publications (on roughly a 50:50 basis).

It gets no regular funding from the university or the governments.

However, in open competition, in 1982, it was awarded one of 10 special research grants provided by the Federal

Government under its Research Centres of Excellence Scheme. The current grant of about \$500,000 a year continues until 1987 and is subject to review for the year 1988 and beyond.

"While the centre was able to flourish independently of public funding in its earlier years "there is no doubt that the special research grant which began in 1982 has enabled research to be focused on areas of broader significance than would otherwise have been feasible," says the report.

"For example, the ongoing work on taxation has involved over six man-years of research to date, and the centre has not been able to attract adequate, independent sums for such research."

A principal value of the special research grant has been to enable the centre to attract key researchers who might otherwise have turned elsewhere.

This additional high quality work, and links with research groups and groups and agencies, have enabled the centre, in its own words:

"... to move the policy debate in an economically desirable direction on topics as diverse as electricity and gas pricing; the management funding and operation of state enterprises; financial regulation; foreign exchange; education; airlines and regulation policies in general.

"The evidence world-wide is that small, tightly-controlled and efficient groups with appropriate incentive structures are more responsive to changing research needs and deliver better value than is available through a large budgetary unit free of real budgetary discipline.

"We would like to think the Centre of Excellence Grant... is a good example of this desirable relationship between size, incentives and performance being identified and rewarded."

One aim of the centre is to integrate a graduate course program into its activities as soon as possible. To have students working towards degrees based on their work with the centre would bring clear benefits "to the community and to scholarship," it believes.

Director of the centre, with its staff of around half a dozen, is Professor Michael Porter.

Professor Porter has worked with the research department of the International Monetary Fund, the Reserve Bank of Australia, and the Priorities Review Staff in the Department of the Prime Minister and Cabinet.

Misplaced fossils will be reinstated

An American palaeontologist visiting the department of Earth Sciences has volunteered to help restore the Museum of Victoria's vertebrate fossil collection.

Dr Reid Macdonald, who retired recently from the South Dakota School of Mines, will devote three months in each of the next two years to sorting through the collection and identifying misplaced fossils.

Since the collection was moved from another section of the museum more than 10 years ago, many items have been filed or shelved incorrectly, says curator Dr Tom Rich.

The collection has only two paid staff attending to it, and must rely on untrained volunteer support.

The reorganisation will benefit Monash Earth Science students who use the material for practical courses.

Dr Macdonald, a placental mammal palaeontologist, has held a curatorial position at the Los Angeles Museum in California. He worked extensively in one of the world's richest fossil areas known as the White River Badlands, South Dakota.

"He has no experience in Australian fauna identification, but it makes no difference because the principles are the same the world over," Dr Rich said.



● Dr Reid Macdonald and his wife, Marylee, pictured at the Monash department of Earth Sciences. Photo — Tony Miller.

1986: THE YEAR IN REVIEW

PROFESSORIAL SCOREBOARD

There have been many more changes this year at the professorial level . . .

IN:

Dr Stephen Cordner, lecturer at Guy's Hospital Medical School, London, to the Foundation Chair of Forensic Medicine, from May, 1987.

Dr Leslie Goldschlager, senior lecturer at the University of Sydney, to a Chair in Computer Science, from January, 1987. Dr Goldschlager graduated from Monash with B.Sc in 1973 and M.Sc in 1974. (See separate story.)

Professor John Hay, head of the department of English at the University of Western Australia, to Deanship of the Faculty of Arts, from January, 1987.

Dr Milton Hearn, a senior research associate in the department of Medicine, University of Melbourne, and principal research fellow at St Vincent's Institute of Medical Research, to a Chair in Biochemistry, in January.

Dr Maxwell King, reader in Econometrics, to a Chair in that department, in June.

Dr John McNeil, an epidemiologist in the Clinical Pharmacology and Therapeutics Unit of Austin Hospital, to a Chair in Social and Preventive Medicine, in March.

Dr Yew-Kwang Ng, reader in Economics, to a Personal Chair in that department, in December, 1985 (not included in last year's list).

Dr Paul O'Brien, associate professor at Flinders Medical Centre, South Aus-

tralia, to a Chair in Surgery, in May. Dr O'Brien graduated from Monash with M.B., B.S in 1967 and M.D in 1979. (See separate story.)

Dr Millicent Poole, associate professor of Education at Macquarie University, to a Chair in Education, from January, 1987.

Dr Edwin Westaway, reader in Microbiology, to a Personal Chair in that department, in May.

OUT:

Professor Peter Boss, professor of Social Work, retiring.

Professor Martin Canny, foundation professor of Botany, moved to Canada.

Professor Elisha Ellinger, Sir John Barry Chair of Law, to a Chair in Law, National University of Singapore.

Professor Colin Johnston, professor of Medicine at Prince Henry's Hospital, to a Chair in Medicine at Austin Hospital, University of Melbourne.

Professor John Legge, Dean of the Faculty of Arts, retiring.

Professor Frank Jackson, professor of Philosophy, to a Chair in the Research School of Social Sciences, Australian National University.

Dr George Rozvany, reader in Civil Engineering, to a foundation Chair in Structural Design/Timber Engineering/Automated Construction, University of Essen.

Professor Kevin Westfold, Deputy Vice-Chancellor, retiring.

Monash graduates return to become professors

Two Monash graduates were this year appointed to Chairs at the university.

Paul Edmond O'Brien, 43, who graduated M.B., B.S in 1967 and obtained his M.D in 1979, took up a Chair in Surgery in May.

Leslie Michael Goldschlager, 35, who graduated B.Sc with First Class Honors in Computer Science in 1973, will take up a Chair in that department next January.

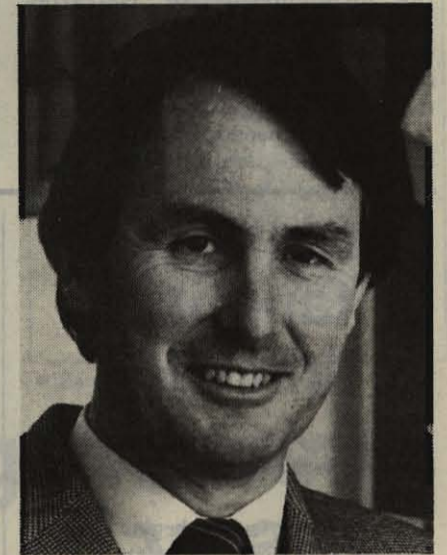
Professor O'Brien specialises in research into gastric physiology and the pathogenesis of gastric mucosal disease.

He was an Associate Professor at Flinders Medical Centre in South Australia from 1977 until his appointment at Monash.

Dr Goldschlager, a senior lecturer at the University of Sydney, obtained his M.Sc at Monash in 1974 and did his Ph.D at the University of Toronto on the topic, *Synchronous parallel computation*.

In addition to his lecturing duties at Sydney, he administers the robotics

laboratory and the Computer Science department's main computer.



• Professor Paul O'Brien

Polmear to become Deputy Vice-Chancellor

Professor Ian Polmear, foundation chairman of the department of Materials Engineering, has been appointed Deputy Vice-Chancellor to succeed Professor Kevin Westfold who retires this year.

Professor Polmear, 58, came to Monash in 1970 after a career as a metallurgist in Australian and British industry.

He holds the degrees of Bachelor of Metallurgical Engineering, Master of Science and Doctor of Engineering from the University of Melbourne.

His research interests lie in the fields of aluminium alloys, improved high

strength alloys for aircraft, weldable light alloys and aspects of metal fatigue.



• Professor Ian Polmear

Literary don to head Arts

Professor John Anthony Hay has been appointed Dean of the Faculty of Arts to succeed Professor John Legge who retires this year (see separate story).

Professor Hay, head of the department of English at the University of Western Australia, will take up his appointment on 26 January.

An honors graduate of the University of Western Australia, he gained his M.A. at Cambridge in 1969 and his Ph.D. at the University of Western Australia in 1976.

He has played a significant role in the planning of secondary and tertiary education in Western Australia, and is a member of the state's Secondary Education Authority.

Professor Hay's research interests lie in the areas of Australian literature (especially the writings of Katharine Susannah Prichard) and 18th century literature. He is currently working on a critical study of Swift's major satires.

The 'no flies' department

The university is proud of its record in tracking down graduates.

There are 37,659 now on file — 19,748 males with a valid address, 2930 without; 12,858 females with a valid address, 2123 without.

Last year's November mailing of *Monash Reporter* to 29,625 graduates brought 1097 returns "unknown at address", but new addresses were found for 734 (67 per cent) of these.

This year's November issue will go to 32,039 graduates — 29,440 with an Australian address and 2599 overseas.



• Mr Bill Matchan fills the newly-created Klein bottle, held by Reverend Philip Huggins. The Deputy Vice-Chancellor, Professor Kevin Westfold is holding the bottle's much older mate.

Resurrecting history in the shape of a bottle

A small part of the university's history has been resurrected in the shape of the extraordinary Klein bottle.

Two such bottles, made from single sheets of glass extending from exterior to interior in the fashion of a "mobius figure", were made for the university's Chaplaincy 20 years ago by Bill Matchan, a technician in the Chemistry department.

These blown glass vessels are each in the shape of a cross, with a vertical member to hold fluids. They were used in religious services to distribute water

and wine.

Sadly, a crack was discovered in one of the bottles. But Mr Matchan has come to the rescue with the creation of a replacement, which was donated to the Religious Centre at a special ceremony in May.

Mr Matchan was one of the staff members who received a medallion this year to mark 25 years of service to the university.

Arts profits from the sale of science

The French department is thrilled about the acquisition of 350 French booksellers' catalogues and prospectuses covering the period from 1672 to 1820.

Associate Professor Wallace Kir-sop says such documents greatly help anyone studying the history of the book trade, which in turn is very important in the dissemination of ideas and information.

"I recently examined a Ph.D thesis on the dissemination of Descartes' *Discourse on Method*," Professor Kir-sop said. "And the argument was based on one previously unknown catalogue of the 1640s."

The French department is pioneering research on this sort of material, and its

collection is now of world class.

The 350 catalogues and prospectuses were obtained from an antiquarian bookseller in New York. Professor Kir-sop heard about them by accident while in Viterbo, Italy, to deliver a paper.

The \$17,000 needed to purchase the documents came from funds obtained by the university from the sale to Japan of an invention by Associate Professor Ed Cherry of Electrical Engineering. The equipment is used to reduce sound distortion in electronic amplifiers.



• French booksellers' catalogues from the 18th and 19th centuries.

Ethnic law taught in first year

Australia's first multicultural law course is being taught to first year law students.

The new curriculum begins by investigating Aboriginal customary law and then examines the impact the introduction of the British legal system had upon it. It also uses Turkish, Greek and Vietnamese case histories.

"Our society is now composed of people from an astonishingly diverse range of cultural and political backgrounds. The legal system, and the lawyers who work within it must be flexible enough to adapt to take account of this diversity," said Mrs Greta Bird, the course co-ordinator.

She said that if the multicultural material were presented separately rather than integrated into a compulsory law course, there would be a tendency for students to think it was different and not a part of 'real law'.

In 1984, the faculty sought and was granted \$35,000 by the Victorian Law Foundation to develop such a course.

A study of student attitudes to the course suggests that it promotes a greater understanding of the position of Aboriginal and non-English speaking people.



Timely signs

If you have ever complained about getting lost around campus, you should know that considerable energy has been invested into telling you where to go.

Signs now placed at 27 points around the pedestrian network point to faculties and the most-used facilities.

It seems fitting that, in the university's jubilee year, the size and complexity of the present campus should have been recognised in this way.

Slavic languages on line

The Faculty of Arts has developed one of the world's most flexible multilingual word processing packages for microcomputers.

The user will be able to switch between English and 12 different Slavic languages at the flick of a key, and the system can be adapted for use in Classics, Philosophy, Linguistics, Mathematics and other language departments.

It combines commercially-available programs with specially written software.

The system was developed for the department of Slavic Languages by third year student, Tim Pilbrow — who designed the characters — and programmer, Pan Thongvilu of the Computer Centre — who wrote the programs to convert the designs into microcomputer and printer characters.



• Tim Pilbrow

Studying the students: surveys bring surprises

Mature age studies are good for you, higher degrees in education do not improve teachers' classroom expertise, and engineers are still tops in starting salaries.

These diverse findings have been made this year in surveys done respectively by the Higher Education Advisory and Research Unit, the Faculty of Education and the Careers and Appointments Service.

In the HEARU report, *The impact of higher education on mature age students*, authors Terry Hore, Leo West, Elena Eaton and Beverley Kermont found that studies later in life had markedly improved job status, prospects and satisfaction.

The survey, sponsored by the Commonwealth Tertiary Education Commission under its evaluation and investigation program, concluded that the progress of mature age students (those who begin an undergraduate course after age 25) was "exemplary", particularly as most were part-timers.

Of those who started a course in 1978, over 54 per cent had already graduated and another 20 per cent were expected to graduate soon. Of the graduates, 43 per cent had begun further courses.

Meanwhile, a senior adviser in the Victorian Department of Education has claimed that Masters and Ph.D degrees in education are not equipping teachers with the kind of expertise they need.

Mr Bernard Rechter, manager of the portfolio policy co-ordination division of the ministry, was speaking at a seminar held at Monash to discuss the findings of the first volume of a survey

on *Higher Degree Studies in Two Faculties of Education 1950-85*, a joint project by Monash and Sydney universities.

During the survey, many Monash Masters and Ph.D graduates criticised the government department for its failure to give special recognition to higher degree holders joining its staff.

They said that a higher degree often amounted to no more than a badge of respectability.

Mr Rechter said that the State system, with its 53,000 government school teachers, 800,000 pupils and an annual budget around \$2600 million, called for more and more highly expert people for its leadership and administration.

He pointed to a move in parts of Australia and overseas towards the granting of specific Doctor of Education degrees in place of Ph.Ds, and predicted that "we shall see more of this".

Engineering graduates are finding a better response in the workforce, where they start their careers with the biggest pay packets, according to the *Survey of Graduate Starting Salaries* compiled by careers counsellor, Jenny Baldwin.

On figures to 30 May 1986 (compiled from employers' responses), aeronautical, metallurgical, mining and industrial engineers are doing best in the pass degree category, with a median starting salary of \$21,500. In the honors degree list, the leaders are electrical engineers with a median of \$21,800.

Hidaka's book a winner

Professor Rokuro Hidaka's book *The Price of Affluence* (released in Australia by Penguin Books) has been awarded the 'International Publishing Cultural Prize' for an outstanding publication about Japan.

The book was translated by members of the Japanese Studies Centre and other Australian academics as a part of their campaign to change the 1981 decision of the Fraser government not to grant an entry visa to the distinguished Japanese sociologist. Professor Hidaka came to Australia in 1983 and lectured at Monash.

The Japanese original of the book, which became a bestseller, was awarded the prestigious Mainichi Prize in 1981.



• Rokuro Hidaka

1986: THE YEAR IN REVIEW

Unique botanical work discovered

A unique interleaved and handworked version of the nation's first botanical guide, *Flora Australiensis*, has been discovered in the Monash Library.

It is believed the 19-volume set, containing handwritten notes and original drawings, was being prepared by the then Government Botanist of Melbourne, Baron Ferdinand von Mueller, as a mock-up for a second edition.

Mueller, who was also the first director of the Melbourne Botanical Gardens, had collaborated with British botanist, George Bentham (1800-1884) in the writing of the seven-volume *Flora Australiensis: A description of the plants of the Australian territory*.

But his 15 years' involvement in the collection, identification, description and despatch of specimens was given scant recognition.

Rare Books librarian, Mrs Susan Rad-

vansky, who discovered the unique set, said it would not be surprising if Mueller had been contemplating a second edition given George Bentham's prominence as author in the first (the title page merely states "assisted by Ferdinand Mueller") and their differences over terminology.

The first volume of *Flora Australiensis* appeared in 1863 and the seventh in 1878. It contained 7000 species and was the most extensive Flora ever completed.

"No other known copy has illustrations and all comprise seven volumes," Mrs Radvansky said.

"This variant set contains the same text bound in 19 volumes and it was interleaved with hundreds of blank

pages, many of which now contain complete or unfinished illustrations.

Flora Australiensis is one of more than 700 items of early Australiana acquired during Monash's first 25 years.

The origins of many are obscure because they arrived in boxloads and while the names of the donors were noted, there were no records kept of the contents of the boxes.

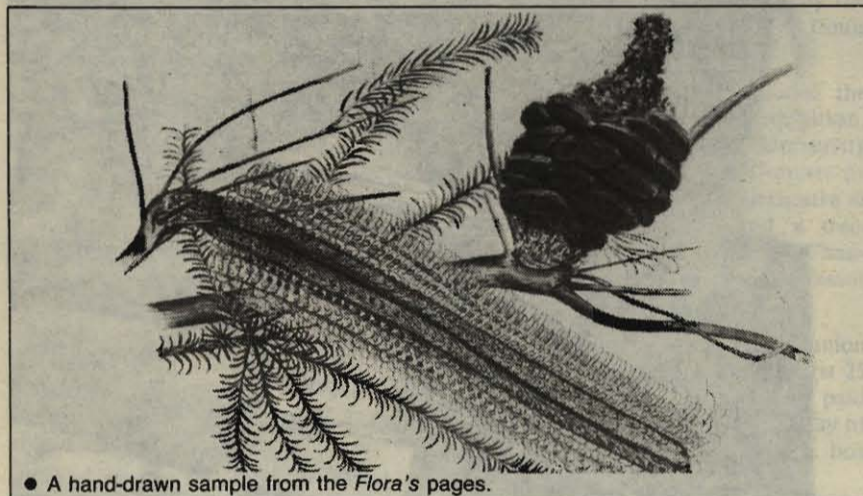
It was not until research began in the late 1970s on a bibliography of Australian holdings that the value of some items was recognised.

The variant *Flora Australiensis* has been kept a close secret since then, while efforts have been made unsuccessfully to trace its origins.

Research into bibliographical, botanical and historical aspects is still under way.



• Baron Ferdinand von Mueller



• A hand-drawn sample from the *Flora's* pages.

Repairing the wear and tear of years

For the past 25 years, the Monash Art Collection has led a precarious existence.

It has been given a lot of exposure, with works hung in buildings like the Main Library and Robert Blackwood Hall for the benefit of passing traffic.

But this practice has taken its toll, and there has been substantial damage — accidental or otherwise.

Fortunately, the curators will be able to breathe a little easier when the collection finally moves into a permanent home early next year.

Together with the Visual Arts department, it will occupy ground floor premises in the new multi-disciplinary building situated between the Law School and the Alexander Theatre.

In preparation for this, the Art Advisory Committee has been supervising a restoration and conservation program in the knowledge that the works will have a good chance of remaining in pristine

condition.

Exhibitions at the gallery this year have included *Making Monash, New Classicism?*, and *The Lens and Eye: Photographs from the City of Waverley Art Collection*.



• Conservator Robyn Sloggert, working on Percy Leason's *The Artist's Studio*.

Generator sold worldwide

Technicians in the university's Chemistry department have developed a high performance square wave generator which is being sought by laboratories worldwide.

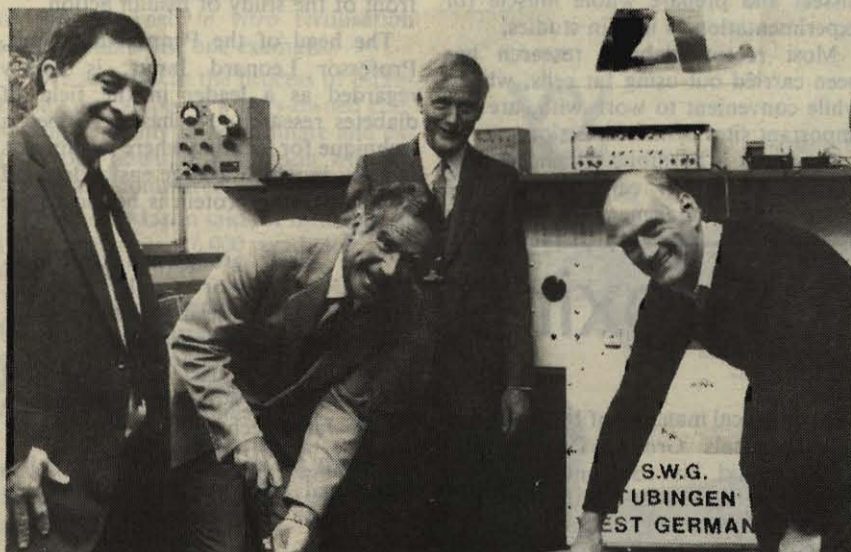
Already the department has sold generators to research laboratories in West Germany, Italy and Canada, and it seems likely to get an order from Spain.

A product of pure research, the

generator has become wholly an export item.

Designed for use in microwave spectroscopy, its performance far exceeds what is now available on the market and it enables whole new groups of molecules to be analysed.

The generators cost about \$A7000 each and are customised to users' needs. They can also be made compatible with existing equipment.



• The first export model is made ready for Bologna. Pictured from left, the Comptroller, Mr Peter Wade, the Vice-Chancellor, Professor Ray Martin, Chemistry's Professor Ron Brown and head of the electronics laboratory, Mr Ron Beach. Photo — Steve Morton.

The history of literature since Homer's *Iliad*

Four valuable manuscripts were the centrepiece of an important exhibition prepared for the Silver Jubilee Open Day by Dr Alba Romano of the Classical Studies Department.

The display traced 28 centuries of European literature and culture from Homer's *Iliad* to the present.

Although there have been other such exhibitions of manuscripts in Australia in the past, this is thought to have been the first to show how ancient literature has been handed down.

The most spectacular and valuable of the manuscripts was a 15th century Florentine book commissioned by a distinguished member of the Medici family at the height of the Italian Renaissance. It was borrowed from the Victorian State Library.



• Alba Romano, left, Gavin Betts and Alan Henry examine texts from the 13th and 15th centuries loaned to Monash for the Classical Studies exhibition.

'Exciting' plans for Monash Medical Centre

Several significant moves have been made this year which involve the Monash Faculty of Medicine.

The Vice-Chancellor, Professor Martin, greeted the State Government's recently-announced plans to upgrade hospital services in the western and south-eastern suburbs as an exciting and imaginative development.

The plans include the amalgamation of the boards of three hospitals — Prince Henry's, the Queen Victoria Medical Centre and Moorabbin Hospital — to create the Monash Medical Centre at Clayton.

The centre will be expanded from 436 beds to a maximum of 600 beds, and the main group of adult specialist services at Prince Henry's Hospital will be relocated to Clayton.

The State Government is also involved in the establishment of the Foundation Chair of Forensic Medicine at Monash.

The Attorney-General, Mr Jim Kennan, announced that Dr Stephen Moile Cordner, 33, had been appointed to the

Chair which is funded by the government under an agreement requiring the appointee also to assume directorship of a proposed Victorian Institute of Forensic Pathology.

Dr Cordner graduated M.B., B.S. from the University of Melbourne in 1977, having also obtained a Bachelor of Medical Science degree and a Diploma in Criminology.

He will take up his appointment in May, 1987.

Meanwhile, the University Council has approved proposals to establish two new treatment and research organisations.

The department of Community Medicine is developing the Monash University Geriatric Research Unit at the Kingston Centre, a geriatric hospital in Cheltenham.

Neurologist Dr Rob Helme from the department of Medicine at Prince Henry's Hospital is head of the unit,

which has a consultative pain clinic staffed by a geriatrician, a neurologist, a physiotherapist, a psychologist and a visiting nurse.

A large number of university departments will be involved in a proposed Centre of Developmental Psychiatry, to be established at the Monash Medical Centre, Clayton.

They include Paediatrics, Obstetrics &

Gynaecology, Social and Preventive Medicine, Psychological Medicine, Community Medicine and Forensic Medicine, together with departments and sections in the faculties of Law, Arts (Sociology) and Science (Psychology, Mathematical Statistics).

The centre will be aimed at promoting the development of child and adolescent psychiatry in the south-eastern metropolitan area.

Computer could be dog's best friend

The modern high-speed computer could make the use of animals obsolete in some areas of theoretical biomedical research, a Monash physiologist says.

Dr Brian Chapman says that the more efficient use of laboratory animals is just a happy side-effect of computer simulation which was developed to handle the design and interpretation of complex biomedical experiments.

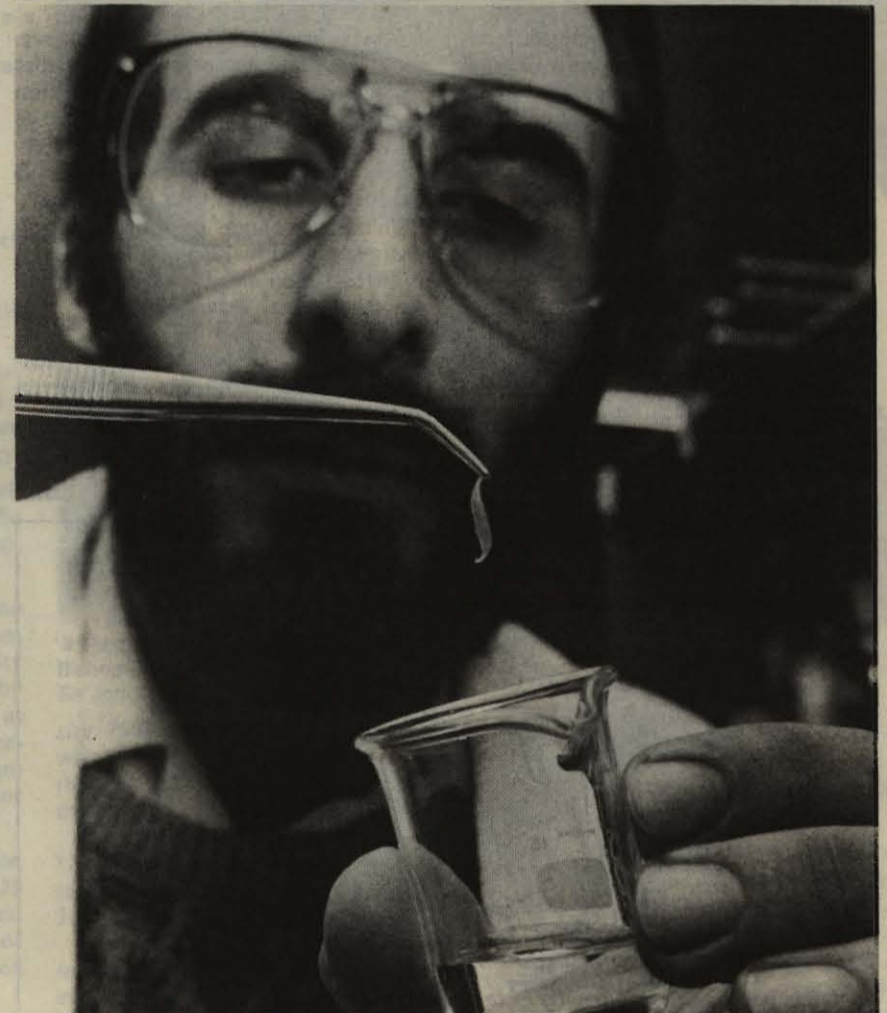
To model an experiment using a computer, Dr Chapman says you need two things: a good base of experimental measurements and some way of explain-

ing those results in the form of a mathematical equation.

Dr Chapman has been visiting Duke University in North Carolina, where a biomedical computer simulation facility has been established with the help of a \$2.4 million grant from the US National Institutes of Health.

Scientists can plug into this system by telephone and use one of a library of simulation programs which are available. At present, Chapman is negotiating the necessary computer and software so that Monash can take advantage of the Duke facility.

• Dr Chapman at work



Diabetes team shows its muscle

The development by a Monash diabetes research group of techniques of using intact muscles in their studies has led to co-operation with researchers at the University of Pennsylvania.

Earlier this year Fernando Cortizo, a member of the team led by Associate Professor Mick Gould, visited Pennsylvania to show the Americans how to dissect and prepare whole muscle for experimentation in insulin studies.

Most recent diabetes research has been carried out using fat cells, which, while convenient to work with, are not important sites of insulin action.

Insulin is a hormone which controls the breakdown of carbohydrates for energy. The impairment of its action

leads to the set of disorders known as diabetes.

The Monash group, after 20 years of research on intact muscles, is at the forefront of the study of insulin action.

The head of the Pennsylvania unit, Professor Leonard Jarett, is widely regarded as a leader in the field of diabetes research. He has developed a technique for locating where insulin acts in cells, in which a large easily-detected iron-containing protein is bound to the insulin.

"The Jarett group had this technology," Professor Gould explains, "and wanted to use it to have a go at muscle but had no experience."

"We had the muscle technology and were thinking, 'Wouldn't it be nice to use the Jarett technique'."

Already the co-operative research has determined that the Jarett technique works in the whole muscle preparations.

• Above: Postgraduate student Fernando Cortizo transfers an intact rat Soleus muscle into a beaker of buffer solution in preparation for an experiment.

Using bacteria to destroy toxins

Monash has signed a \$100,000 agreement with ICI Australia Limited to engineer a bacterium to break down a group of intractable, hazardous wastes.

The two-year contract will pay for research in the department of Genetics, to produce a *Pseudomonas* bacterium which will degrade chlorinated hydrocarbons arising from the manufacture of solvents for drycleaning and degreasing, and of polyvinylchloride (PVC), a com-

mon plastic.

"To my knowledge, this is the first time this sort of work has been undertaken in Australia in any structured way," said Professor Bruce Holloway.

"The collaboration allows us to open up a whole new area of research for the

department."

The technical manager of ICI's Industrial Chemicals Group, Dr Andrew Swanson, said his company had approached the Genetics department because of Professor Holloway's known skill and expertise in manipulating *Pseudomonas*, a group renowned for its ability to utilise and degrade unusual compounds.

CELEBRATIONS MARK THE FIRST 25 YEARS



The age of discretion: a time to take stock

Monash University this year reached the "age of discretion" amid much fanfare and ceremony.

Prince Philip, the Duke of Edinburgh, launched the Silver Jubilee celebrations on 19 May at a graduation ceremony where he also became one of six notables to receive an honorary degree.

He then presented more than 40 staff members with medallions, each commemorating 25 years' service to the university.

Prince Philip said Monash's 25th anniversary was an occasion which could be used to "take stock; to compare purpose with performance".

These words were echoed by the Vice-Chancellor, Professor Ray Martin, who said while 25 years was not necessarily a notable span of time, the completion of the first 25 years was a useful landmark.

"It enables us to encompass fairly comfortably the whole of our history; we can tap the memories of even our longest-serving members with reasonable confidence.

"And we can take time to reflect on the experiences and lessons, the triumphs and near-misses."

At 25, Monash was still young enough to retain much of its early zest and innovativeness. But it was mature enough to plan for the future with some clarity of vision and a healthy degree of imagination, Professor Martin said.

"There is little expectation in the immediate future of further physical growth, but there will be significant growth in research activity.

"Already we occupy a prominent position on the national and international stage through the achievements of the renowned *in vitro* fertilisation team, to take just one example.

"We are now in the process of establishing on campus a wholly-owned consulting company to co-ordinate and expand our research interaction with industry and commerce."

Professor Martin said the influence of the university's 37,000 graduates was crucial to its future.

"They are beginning to exert an influence in important decision-making centres of the country which is out of all proportion to their numbers and comparative youthfulness.

"In the years ahead, one of the university's major priorities will be to strengthen and maintain links with those graduates.

"Their importance in establishing a high public profile for the university through the knowledge and expertise they bring to their occupations cannot

be over-estimated," Professor Martin said.

During Jubilee week, many members and friends of the university attended a reception at Government House, hosted by the Governor, Dr Davis McCaughey.

Later in the week, the Oscar Mendelsohn Jubilee Lecture was given by the foundation Vice-Chancellor, Sir Louis Matheson.

Other special activities included the opening of the photographic exhibition, *Making Monash*, at the University Gallery; a Commemorative Concert by the Elizabethan Melbourne Orchestra at Robert Blackwood Hall and a tree-planting ceremony involving the Chancellor, Sir George Lush, and Professor Martin.

The Main Library had a staff reunion and a pictorial exhibition of the first 25 years, while the Hargrave Library paid tribute to its namesake with a display of manuscripts, photographs and box kites.

Jubilee Open Day on 25 May saw most faculties and departments making an extra effort to provide events of interest to the public.

The jubilee spawned a number of publications, including *Monash University 1961-1986: The first 25 years*, in which Professor John Legge discusses the past and Professor Martin looks to the future.



● Pictured after the Silver Jubilee Graduation ceremony are Honorary graduates, from left, Bishop Peter Hollingworth; Mr H. M. (Mitch) McKenzie; Prince Philip, Duke of Edinburgh; Sir John Young; Emeritus Professor Sir Edward Hughes and Sir James McNeill.

The booklet is available free from the University Offices, as is a booklet containing all the speeches given during Jubilee week.

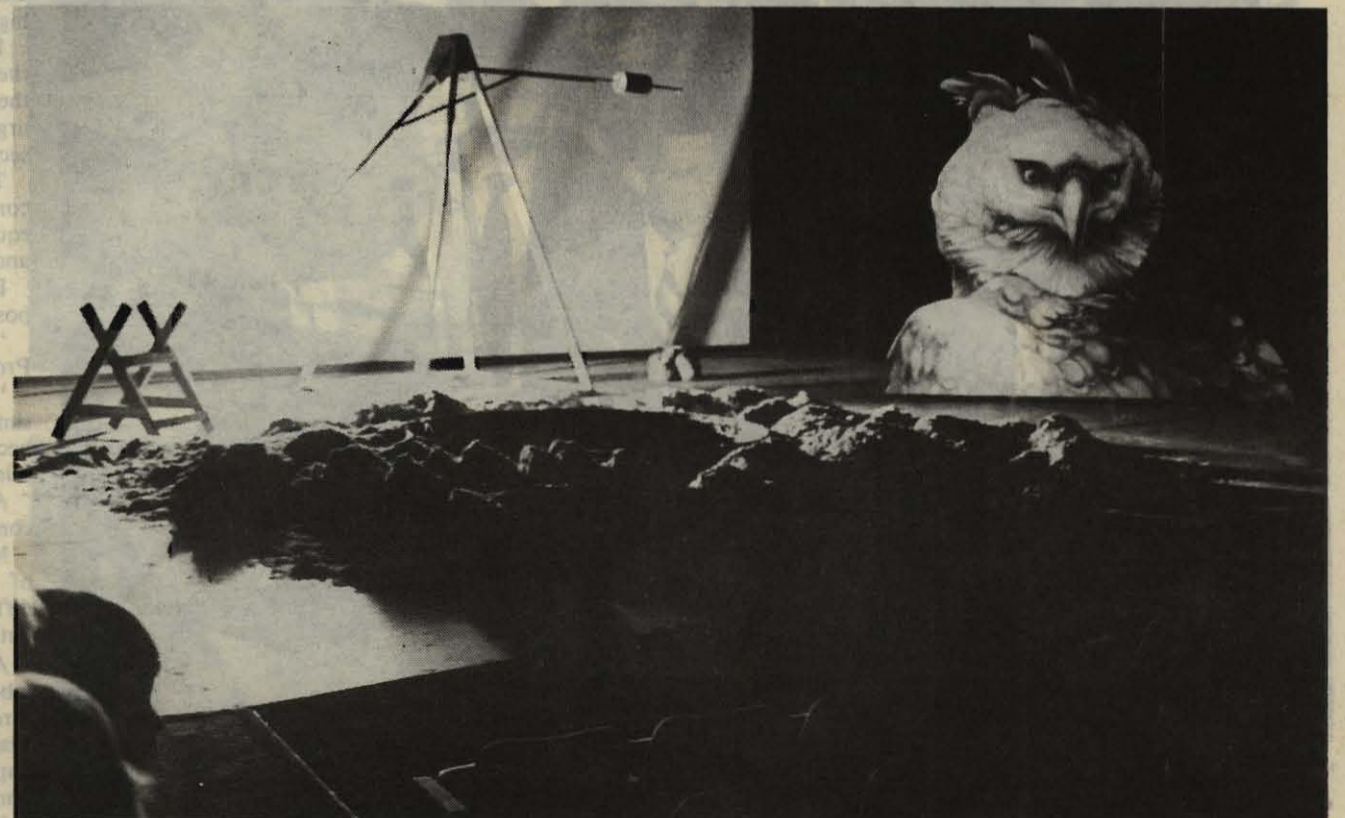
A more substantial publication, *Making Monash: A twenty-five year history*, evolved out of the photographic exhibition. Edited by Bill Kent and David Cuthbert, and designed by Elaine Merkus, it is available from the University Bookshop at \$10 a copy.

A full list of Chemistry graduates and staff, past and present, is included in *Twenty-five years of chemistry at Monash*, which is available from the department.

Over the year, many more activities have been held to mark the jubilee.

They include the Sports and Recreation Association's 25-athon, the Parents Group's art exhibition and sale, a Choral Society concert, the Careers and Appointments Service's Junior University Program and the Student Theatre's production of Louis Nowra's *Inside the Island*.

Graduates, former staff members and other interested people should make contact direct with departments or sections to find out more about jubilee activities.



● *Kinetic Sunrise*, a Silver Jubilee Open Day Event by sculptor Kevin Mortensen, took tonnes of sand and water to create a synthetic sunrise complete with bird sounds. Commissioned by the University Gallery, *Kinetic Sunrise* was performed in the Alexander Theatre.



● 1985. Professor Martin with members of a Soviet high-level science delegation, from left, Mrs Anna Santalova, Mr Vladimir Volgin, Professor John Legge and Mr Aleksandr Serdyuk. Photo — Julie Fraser.



● 1981. The much-heralded visit of the British Prime Minister, Mrs Thatcher, passed virtually without incident — apart from the greatest concentration of police the university has seen.



● After the Silver Jubilee graduation ceremony with Prince Philip and the Chancellor, Sir George Lush.



● 1981. Prince Charles was "not in the slightest put out by the so-called demonstration" at Monash, according to his private secretary. The Prince was awarded an honorary Doctor of Laws degree.

RAY MARTIN

Ten years of achievement

The outgoing Vice-Chancellor, Professor Ray Martin, was a man for his time.

His 10-year "reign" at Monash has been a period of unruffled consolidation in comparison with the university's enthusiastic turbulent early years.

"Ray Martin is a quiet diplomat, a consensus vice-chancellor who didn't see himself as leading from the front," said friend and senior colleague, Professor Ron Brown of Chemistry.

"The point about quiet diplomacy is that you don't tend to notice it, because if it's effective nothing comes to the surface.

"Whatever has happened during Ray Martin's time will not obviously be associated with the Vice-Chancellor, so his true worth is unlikely to be recognised immediately.

"Nevertheless he has played a very important role, particularly in his emphasis on the pre-eminence of scholarly work: his belief that what distinguishes a university from other institutions is scholarly achievement."

Professor Martin steps down from the vice-chancellorship on 31 January, 1987, to be replaced by the present Deputy Vice-Chancellor, Professor Mal Logan.

Monash was a completely new challenge for Ray Martin. When he came to the university at the age of 45, he was one of Australia's foremost research chemists.

He has been the foundation professor of inorganic chemistry at Melbourne University and the Australian National University, and has served as Dean of Science in both places.

During that period he has published more than 100 scientific papers in 10 years and his work was of such high calibre that in 1978 the Royal Australian Chemical Institute presented him with its inorganic award.

When he took over at Monash, he almost immediately came up against the problem that was to loom over his whole Vice-Chancellorship: how to maintain a large and lively university in the face of financial cutbacks and restraint.

It came in many guises. Back in 1977, as the Fraser Government dithered about how it was going to face higher education, the watchword was "steady-state".

In 1981, it was the terrors of the "Razor Gang" and the introduction of fees for higher degrees. And under the Hawke Government there has been devaluation and urgings to go and find financial support in the private sector.

The results have been: Cutbacks and delays in construction; almost stagnant student numbers; equipment and buildings badly in need of modernising and a library in financial trouble.

Professor Martin met the restrictions in the only way possible — evenhandedly.

"He is a person of total integrity and fairness," said Professor Brown.

"He has the ability to see another's point of view and simply wouldn't favor one part of the university; just because he was a scientist he didn't throw money at science."

Another side to the problem was the ageing academic community at Monash.

Most academics had been hired during the first flush of youth and expansion, and this presented two difficulties: Senior staff not only cost more to maintain, but they are harder to please.

As a scientist who had been in sophisticated laboratories for much of his working life, and had spent three years as a research manager at ICI Australia, Ray Martin had an instinctive feel for where it was important to spend money — on computing, on the library and on useful and useable equipment.

Despite the hard times, the campus gained new

MARTIN

Years of quiet movement

physiology and microbiology buildings and an authentic looking Japanese Studies Centre.

The Monash Medical Centre is in the final stages of construction one kilometre away on Clayton Road.

It must also be gratifying for the man committed to scholarship and with a reputation for interdisciplinary work to see the new Multidisciplinary Centre which will house the Graduate School of Environmental Science, the Aboriginal Research Centre, the Visual Arts department and a new Art Gallery — rising between the Law School and the Alexander Theatre.

But it is in the area of research funding that Professor Martin's decade of tireless support seems finally to have had most effect.

Under his guidance, the Monash Special Research Fund has grown into a \$1 million a year source of finance and the university has started getting serious about selling its wares to Australian industry.

Even the Federal Government has moved to increase investment in research — both directly and by encouraging the private sector with tax breaks.

A new company, Montech Pty Ltd, is being established as a bridge between the university and the business community.

But already in the past two years, industry has bought into five significant Monash innovations — in vitro fertilisation technology; the jet lag pill; the fertility hormone, inhibin; bowel cancer testing kits; and the computer network technology, MONET.

There were four interdisciplinary research centres when Professor Martin arrived, and the university now boasts 15.

Some of the newer ones — such as the Centre for Human Bioethics, the Centre for Early Human Development and the Centre for Molecular Biology and Medicine — already are regarded as world leaders in their respective fields.

While scholarship might have been Ray Martin's most important interest, it is far from his only one.

"Although his achievements were overwhelmingly in science, he is a well-rounded man," says Professor Brown.

The development of tennis courts at Monash must have delighted this Cambridge tennis blue.

And it was typical of Monash under Ray Martin that, with extensive additions to the Sports and Recreation Association's complex, the opportunity was not lost to make the development of the heated swimming pool an important research project into solar heating.

As the university has matured, so the Alexander Theatre and Robert Blackwood Hall have become integral parts of the cultural life of Melbourne, always with the encouragement of Ray and Rena Martin.

Perhaps a sign of the university's coming of age has been the number of distinguished visitors it has attracted in the past decade.

Despite the media's willingness to perpetuate the oafish-radical image set at the time of the Vietnam War, there was little disruption when honorary degrees were awarded at different times to Prince Charles and Prince Philip.

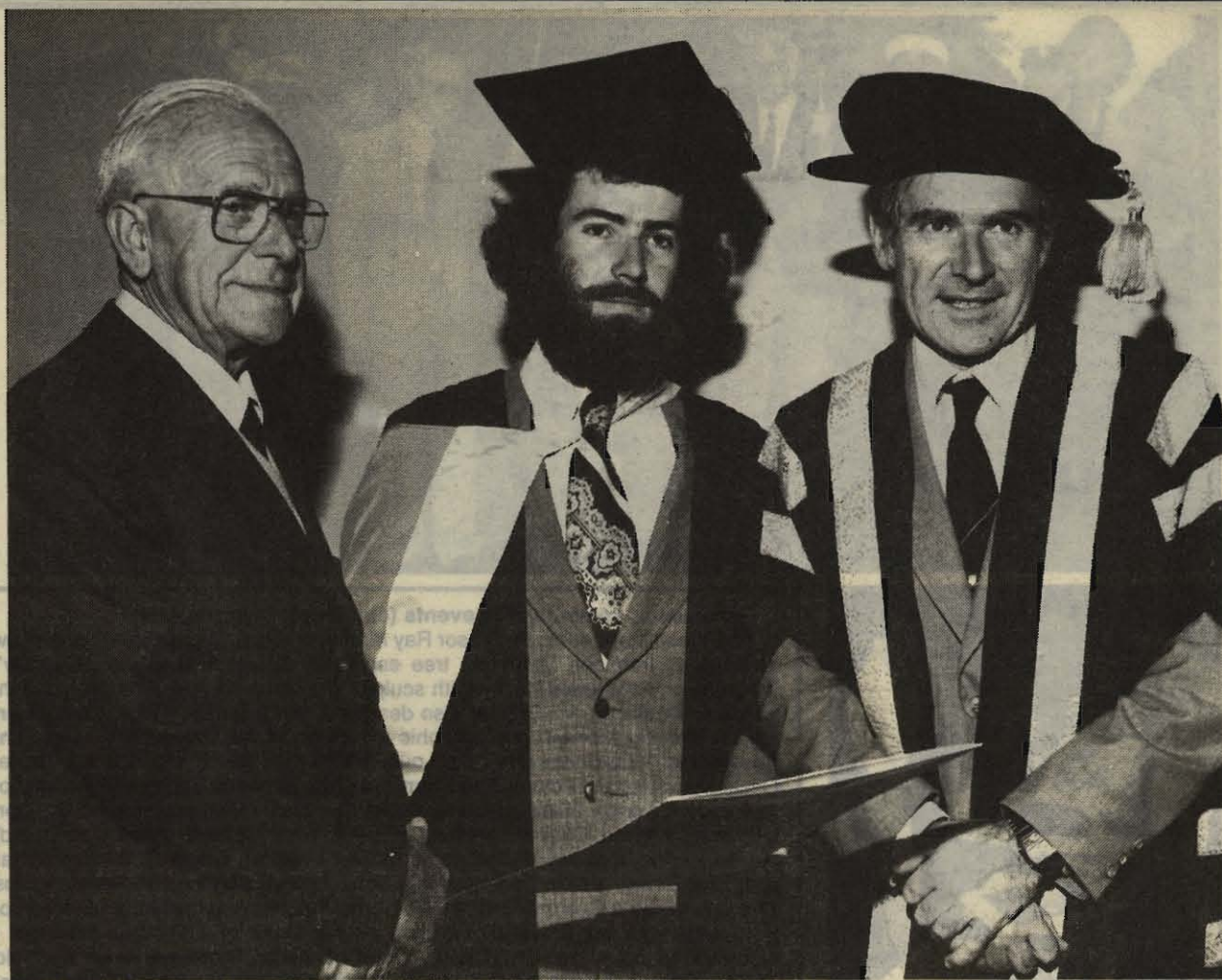
Mrs Margaret Thatcher and Mr Robert Mugabe delivered their messages without interruption and Dalai Lama brought a sense of peace.

Through it all, Ray Martin seems to have glided with quiet grace and ease — apart from occasional flutters such as an almost non-stop car journey from Brisbane to beat an air strike and get back to Monash in time to greet Prince Charles.

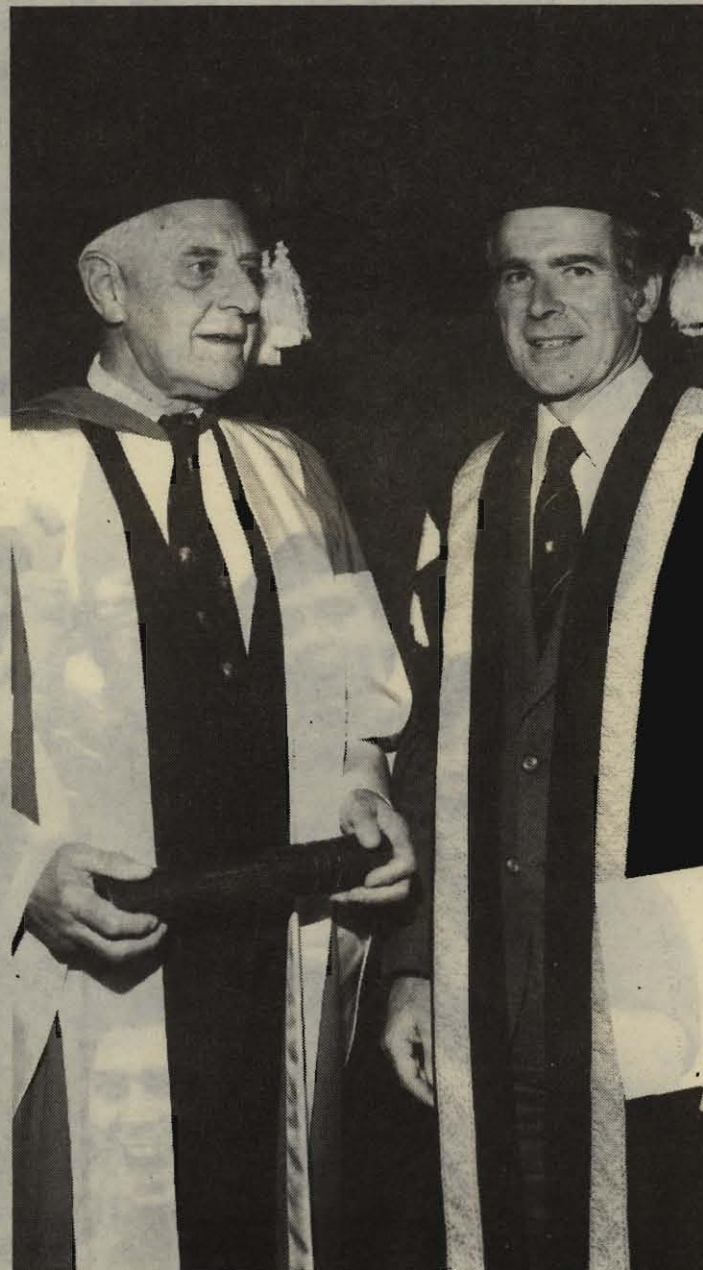
Says Professor Brown: "I have a feeling Ray's presence contributed to the relative calm of the period.

"He's one of the nicest guys you could ever meet; people find it hard to be aggressive with him.

"I'm going to enjoy his company when he moves in a few doors down from me."



● Above: 1979. Three generations of the Martin family were in attendance when the Vice-Chancellor's eldest son, Leon was awarded the degree of Bachelor of Science. Leon's grandfather, the late Sir Leslie Martin (left) was a professor of Physics at the University of Melbourne. Below right: 1980. Professor Martin with the then Governor of Victoria, Sir Henry Winneke, who was awarded an honorary Doctor of Laws degree. Below left: 1985. Mrs Rena Martin, wife of the Vice-Chancellor, sorting books for the Monash Book Fair. Mrs Martin has been actively involved in many university fund-raising groups, especially the Monash Advisory Committee.





Glimpses of some Jubilee events (clockwise from top):
The Vice-Chancellor, Professor Ray Martin, plants a "jubilee tree", one of two propagated from the Matheson tree especially for planting in the university's jubilee year. Professor Martin with sculptor Matcham Skipper who designed the 25-year medallions. Mr Skipper also designed the University Mace. Visitors enjoy the *Making Monash* photographic exhibition in the University Gallery. The foundation Vice-Chancellor, Sir Louis Matheson, giving the special Jubilee Oscar Mendelsohn Lecture. The Phantoms team won the Sports and Recreation Association's crazy 25-athon jubilee event. The team members pictured are, from left, rear, Andrea Ollqvist, Michael Bourke, Nick Connell (almost obscured), Louise Partos, Gus MacMillan (team morale booster), Diane Gibbs (team marshal), Pip Binns; centre: Denise Wong; front: Andrew Blight, John Adamopoulos. The university's Customs Officer, Mr Norm Watt, leaving the Robert Blackwood Hall stage with his 25-year medallion as the Duke of Edinburgh presents a medallion to the next in line, Deputy Vice-Chancellor, Professor Kevin Westfold. The presentations were made to about 40 staff members during the Silver Jubilee Graduation Ceremony. Selecting photographs for the *Making Monash* exhibition were, from left, John Rickard, Jenepher Duncan, Bill Kent, Elaine Merkus and David Cuthbert.



1986: THE YEAR IN REVIEW

Software for scanning in the market-place

Automatic checkouts using electronic scanning are only the first step in the computer age for supermarkets, says Dr Robin Shaw of Administrative Studies.

He says the immediate savings in time, labor and increased accuracy of automatic over manual checkouts are nothing compared to the potential value of the marketing data that electronic scanning systems record.

"The computer remembers every single product sold. That means there is a huge untapped resource of information on item by item movement, and very little has been done to make use of it."

To help develop the necessary computer programs to sort through that data, Shaw and a private company, Data Sciences Pty Ltd, have put up one

of the first teaching company scheme proposals to be accepted by the Victorian Government.

Under the scheme the costs of research projects are shared equally by Government and a company at which the research is being done.

At the moment, marketing statistics are collected by hand, simply counting up how much of each product is still on the shelves after a prescribed period.

But with the right software, accurate sales information could be available instantaneously from the scanning computers for whatever time period is specified, Shaw said.



● Dr Robin Shaw talks with chief cashier Sandra Botham at a scanning register at Schulz Licensed Supermarket, Syndal. Picture: RICHARD CROMPTON

Getting rid of the bugs

Researchers in the Computer Science department have made significant progress towards creating a computer that minimises programming bugs.

Their prototype, the MONADS-PC computer, not only cuts down computer errors but also localises them so they are easier to find and eliminate.

The system is particularly effective in dealing with the problems caused by the interaction of independent programs which use the same data.

When an important program is changed in a large computer system, such as in a bank, the whole system can become unreliable until all the other programs

which deal with the same information also are changed.

Under the MONADS concept, modular programs are created that will react with each other only in a tightly controlled way.

All the data in the MONADS system is bound to programs within modules. If one program wants to use data produced by another, it can only gain access by using a highly controlled procedure.

How's the weather up there?

Staff and postgraduate students from the Applied Mathematics department are playing a significant role in the Bureau of Meteorology's Australian Monsoon Experiment.

This study, the most extensive ever

done into tropical weather, is in two phases: the first running for 15 days in October-November at the end of the dry season, and the second for 30 days in the wet season months of January and February next year.

'Dinosaurs of darkness' found

Fossils found by a Monash-Museum of Victoria team along the coast of Cape Otway in southwestern Victoria could help change ideas about how dinosaurs became extinct.

The team, led by Dr Pat Rich of Earth Sciences and her husband Dr Tom Rich, curator of vertebrate fossils at the museum, has been excavating rock for three years at what has become known as Dinosaur Cove.

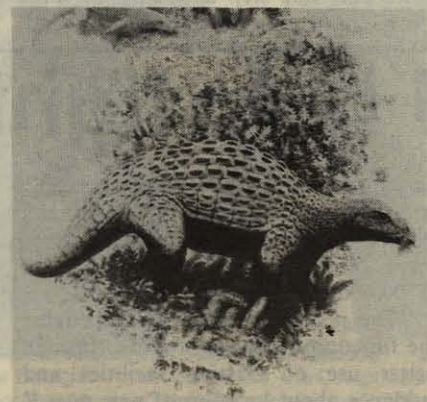
It has found at least two new species of dinosaur along with bones of flying reptiles (pterosaurs), turtles, lizards, lungfish and bony fishes.

The dinosaurs almost certainly lived inside the Antarctic Circle in a region which experiences at least three months of complete darkness a year.

One theory of dinosaur extinction has rested on the belief that they could not survive the blacking-out of the sun by dust-clouds, which would occur if the

earth collided with a sizeable comet or asteroid.

The discovery of the new dinosaurs indicates there is a possibility that "dinosaurs of darkness" survived these sorts of conditions.



● Megalania — the giant goanna

● Roger Martin and friend

Ensuring koala's future

Two Monash zoologists have been the main beneficiaries of research money generated by publicity predicting doom for the koala.



Koalas are afflicted by a serious infection which can cause blindness and leave females infertile.

Their plight became front-page news and caught the eye of American Express, which began a campaign to collect money to save them.

The result was \$200,000 to be spent over the next two years on increasing our knowledge of koalas: half to be used for basic survey work and half for research projects.

The lion's share of the first year's research money — \$40,000 — has come to Monash to further the work of Mr Roger Martin and Ms Kath Handasyde, who have been quietly researching the problem for eight years.

Neither believe the koala is in danger of becoming extinct. They say lack of research into the animal's behavior and breeding patterns has led to misconceptions about its chances of survival.

Prentice delivers moons

Monash mathematician Dr Andrew Prentice confounded his critics when he successfully predicted what the Voyager spacecraft would find in its flypast of Uranus earlier this year.

The space probe discovered two previously unknown moons lying where Prentice had predicted, and the measured densities of the Uranian moons and hence their composition also concurred with what Prentice had said.

When Voyager I swept past Saturn six

years ago, the data it sent back to earth stunned everyone except Prentice.

His theory of the formation of the universe — based on the 190-year-old model of the great French astronomer, Pierre de Laplace, long since discarded by the scientific mainstream — was the only one which stood the test.

Confirmation of his predictions about Uranus has reinforced his ideas and given them greater credibility amongst his sceptical colleagues.

Testing the ebb and flow

A team of mathematical researchers, led by Professor Bruce Morton, has challenged the traditional model for the effects of water flow in scouring beds around bridge piers.

Engineers have for many years believed that water flowing past piers created horseshoe-patterned swirls which eroded the bed and could threaten foundations.

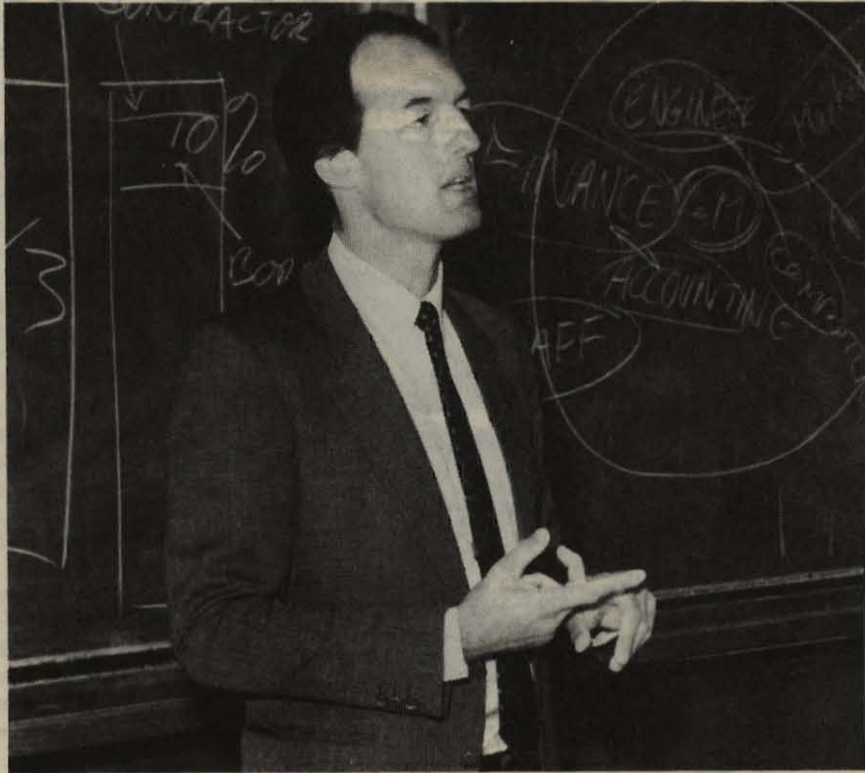
In the past, this theory has been tested in water channels using obstacles either

fixed to the floor or through a bed of sand.

But a new 10-metre tank being built in the Geophysical Fluid Dynamics Laboratory will approach the problem from the opposite direction — an obstacle will be pulled through still water.

Professor Morton is particularly interested in the origin and structure of the whirls, eddies and patterns of water flow.

Engineers likely to end up in management



People who have held an engineering degree for more than 10 years are just as likely to be employed in management as in engineering, according to John North, a Monash graduate now involved in the stockbroking industry.

"Nearly 15 years ago, there were only 25,000 engineers in Australia, but today there are almost 70,000, and this makes me ask how they are all being absorbed into the workforce because there has not been an equivalent level of growth in the building and manufacturing industries," Mr North said.

He believes many engineers must have opted for jobs in areas other than "pure" engineering — in particular, in the area of management.

Mr North, an investment adviser with J.B. Were and Son, was speaking to civil engineering and combined engineering/economics students on career alternatives for graduates.

"Before the 1950s Australia was still a pioneering nation which had not developed essential services and public facilities to keep pace with its growth," he said.

From then on, many engineers found employment with government

• John North (left)

works departments, but this was likely to change.

"Australia has gone through a huge building phase and we are now entering a mature stage where maintenance of the facilities already built is more important than beginning new projects," Mr North said.

"It's a matter of economics, because it is generally much cheaper to maintain something than to rebuild it."

Government departments were increasingly seeking the services of engineering consultants rather than employing engineers themselves, and this was following the American trend.

"The private building and manufacturing industries are on a downward turn and the situation will not improve for another five years," Mr North said.

"Engineers are a very useful human resource because they have an understanding of so many different areas and are capable of applying themselves to both economic and technical tasks."

Ill wind may have done some good

Research inspired by the West Gate Bridge collapse in 1970 could lead to safer cars, trains and aeroplanes.

Professor Noel Murray of Civil Engineering, who analysed the crumpled remains of the bridge, has used the results of his investigations to develop theories of how thin steel plates and box girders react under pressure.

At present he is extending these theories to explain how structures behave in crashes. This should help engi-

neers to design safer, more crashworthy vehicles and buildings.

One aim is to find out how vehicles, when they crash, might be brought to rest in a controlled way so the people in them are protected and the brunt of the damage is borne by replaceable parts.

"The knee-jerk reaction is to encase people in steel centimetres thick. But if

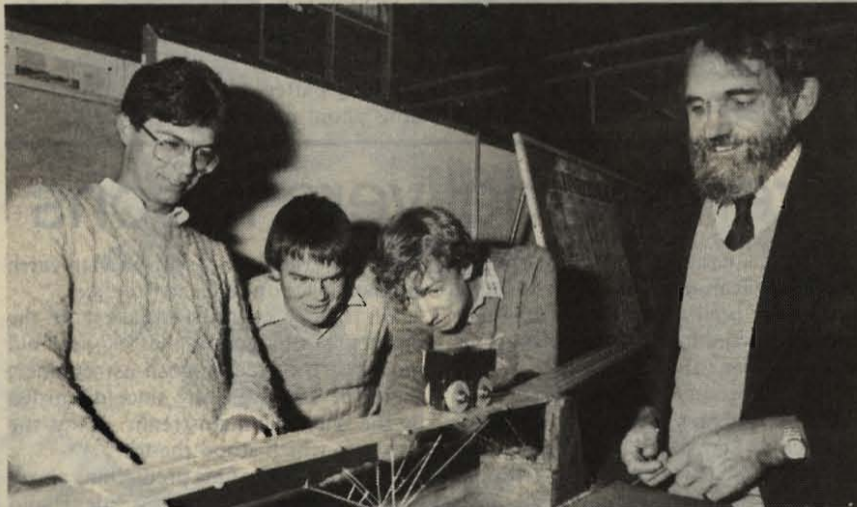
you make cars too rigid, people just bounce around inside them and seat belts have to be made tougher and stronger," Professor Murray said.

The work is already attracting attention from the automotive industry, and Professor Murray has received \$30,000 under the Australian Research Grants Scheme.

• Right: This beam was crumpled by an end-on load. Photo — Don McCarthy.



Professor Murray's bridges catch the public's fancy



• Winners of the Primitive Primordial Pristine Cupreous Bridge Competition of 1986, from left, Phillip Black, Marcus Leonard and Richard Green, with Professor Noel Murray.

Professor Noel Murray has really caught the public's fancy with his spaghetti bridges.

Since the Great Spaghetti Bridge Competition of 1985, when first-year students in Civil Engineering suffered torments as their pasta creations were put to the test, secondary schools and television variety shows have been capitalising on Professor Murray's initiative.

The competition also took a feminist turn when Professor Murray helped 40 students from Firkbank Anglican Girls' School, and another group from Sacre Coeur, to put their bridges through the paces in the Monash Civil Engineering laboratories.

Keeping one step ahead of his fans, Professor Murray developed a new chal-

lenge for his own students this year — the Primitive Primordial Pristine Cupreous Bridge Competition. (For the uninitiated, the medium was copper wire.)

Giant wind tunnel will help fight pollution

One of the largest wind tunnels outside North America will be built at Monash for research into getting rid of air pollutants from power stations.

The tunnel will be part of a new Environmental Fluid Mechanics laboratory which will adjoin the existing wave tank area of the department of Mechanical Engineering.

MONASH REPORTER

It will measure 50m by 10m with a height of five metres, and contain two fans each five metres in diameter.

Professor Bill Melbourne says it will be used for research into the development of power station configurations and the determination of the height of chimney stacks.

The tunnel is being paid for with the

aid of grants from the Electricity Supply Association of Australia (\$600,000) and the National Energy Research, Development and Demonstration Council (\$700,000).

"The project is aimed at improving the function of power stations through better use of existing facilities and guidance about location of new ones," Professor Melbourne said.

"We will be able to study the dispersion of atmospheric discharges in complex terrain and stability conditions such as thermal air movement."

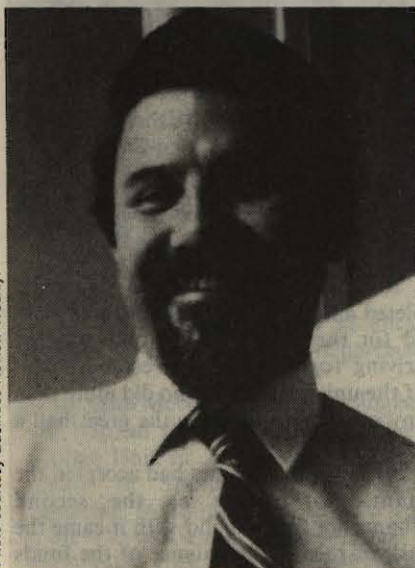
The new buildings should be completed early next year, and the wind tunnel by the end of that year.

It is expected to have commercial application to the Australasian area.

Politicians, brokers and a billiards 'pro'



● Carolyn Hirsh



● Mike Smith

All sorts of people doing all kinds of things kept Monash graduates in the newspapers again this year. Here are some who attracted press attention:

● **Senator Robert Ray**, who worked for seven years as a taxi driver after doing Arts Honors at Monash, then made a career of Labor politics, was said to have consolidated his position as a "strong-man of the Labor Unity faction" and the "numbers man" in Victoria for the Prime Minister, Mr Hawke.

● **Lorraine Elliott**, "the Liberals' rising star" as the dailies call her, did her Bachelor of Education at Monash as a mature age student. She has been elected female metropolitan vice-president of the Victorian branch of the Liberal Party — the political organisation Sir Robert Menzies called "the jewel in the Liberal crown".

● **Paul Steinfort**, honors graduate in engineering, continuing his years of postgraduate success as project manager and consultant, has been associated with Melbourne's most dramatic project for many years, the Rialto skyscraper.

● **Mike Smith**, another engineering graduate, has expanded his Vipac company, specialising in vibration analysis, into a national concern with earnings around \$4 million a year, and is starting operations in Southeast Asia.

● **Christine Earle**, who did economics and politics and has a Dip. Ed., has been making her career in acting. After training at St Martin's Theatre, and doing children's theatre with the Education Department, she caught the public eye in television's long-running *Prisoner* series.

● **Lesley Hewitt**, Bachelor of Social Work, has found drama at a real-life level. The inaugural co-ordinator of the Queen Victoria Medical Centre Sexual Assault Clinic, she was seconded to the Premier's Department to investigate sexual assault on children.

● **Andrew Kroger**, at 30, has been described by a leading business magazine as "one of Australia's most successful brokers and a director of what many regard as Australia's best stockbroking house, McIntosh Hamson Hoare Govett". Andrew, who has degrees in economics and law, joined the firm in 1981 after a couple of years practising law, and was made a director last year.

● **Carolyn Hirsh**, Labor MLA for Wantirna, cites her own difficulties in learning statistics from conventional text books at Monash to support her claim that teaching methods for science and technology subjects favor the "male brain". Mrs Hirsh, a member of the Victorian Curriculum and Assessment Board, wants changes to the style and content of text books and examination papers to overcome discrimination against female students. She graduated with B.Sc (Honors), having gained a high distinction in statistics through working "from a differently designed textbook".

● **Wendy Lucas** was sent to Germany by her employers, Hoechst, to catch up on new developments in the paint industry. Wendy (nee Braden), who graduated with a degree in Chemistry in 1979, joined Hoechst earlier this year as its pigments technical adviser. She has been working with a research team for the past seven years on the production of novel paint systems.

● **Paul Williams**, Dip. Ed, caught the public's attention when he and two friends swam to the aid of a boy who had been swept out to sea. His efforts were recognised in the Queen's Birthday Honors (see story page 22). Paul had

been leading a quiet life up till then, teaching at Ferntree Gully Technical School where he has developed a joint art and biology course.

As we just said, all sorts of people doing all kinds of things . . .

● **Robby Foldvari**, whose first job after graduating in economics was as a systems development officer with BHP, decided instead to quit Melbourne and follow his true love — billiards. After winning the world professional title in London he became the pro at a club in Northampton where billiards is such a draw that people queue to get at the 17 tables.



● Paul Steinfort



● Wendy Lucas

Photo courtesy Business Review Weekly.



Linguistics degree a national first

The director of the Aboriginal Research Centre, Ms Eve Fesl, this year became the first Aboriginal to obtain a Master's degree in linguistics, and the first to obtain a Master's degree at Monash.

Ms Fesl believes Aboriginal languages in Victoria were "deliberately and methodically destroyed", and she hopes to make amends for this with her thesis into one of four extinct indigenous languages from Gippsland.

She is planning to do her doctorate on

policies and treatment of Aboriginal and Islander languages.

● Ms Eve Fesl celebrates with her supervisor, Dr Barry Blake, right, and the chairman of the department of Linguistics, Professor Goran Hammarstrom. Photo — Richard Crompton.

Cloud Ears in Hoi Sin Sauce

The Botany department is creating a sensation with its Blood Pancakes, Cloud Ears in Hoi Sin Sauce and other wondrous recipes contained in the *Silver Jubilee Herb and Spice Book*.

According to the editor, Dr Neil Hallam, almost all of the 200 or so recipes have been tried and tested in the department's practical classes on culinary herbs and spices.

They include immensely appetising and practical — though often bizarre — recipes from Ancient Greece and Rome through to the Middle Ages, the Renaissance and the modern world.

"The book is an aggregation of the efforts of staff and students at these classes over the past 12 years," Dr Hallam says.

The modern section includes dishes from Asia, India, the Mediterranean and the Middle East, and the book concludes with culinary oddities — elephants, guinea pig, hedgehog and so on — followed by a listing of some grape varieties used for wine making in Victoria.

But that's not all — there is an extraordinarily good reference section in the beginning about herbs and spices, and entertaining items throughout provide an atmospheric setting for many dishes.

● The *Silver Jubilee Herb and Spice Book* can be bought for \$7.50 a copy from Botany laboratory manager, Anabel Pennell, ext. 3180 (Room 109, Biology building).

Learning from the bumblebee

This article was written by staff members in the Finance Development Office.

'According to the calculations of aeronautical engineers, the combination of mass, wing area, aerodynamic shape, and rate of wing beat render the bumblebee theoretically unable to fly.'

But the bumblebee is unaware of this and lives a fulfilling life on the wing. Sir Robert Blackwood, chairman of the interim council, charged with the responsibility of creating a university, was like a bumblebee; he did not know that he was theoretically unable to fly, so he flew.

The Martin Committee which recommended the establishment of a new university had estimated that it would take six years from the proclamation of the Monash University Act to the commencement of teaching. In the event it took only three years — 1958-1961.

A university is the creation of a community; to build a new one requires vast amounts of money and the influence of people in high places.

The consent of legions of decision-makers is necessary to make things happen, and the goodwill of people at all levels of society is vital.

The University Council was conducting graduation ceremonies by 1963 and creating a new tradition of pomp and ceremony.

They knew that every university of significance had a great hall for such ceremonial occasions and were determined that Monash was going to take its

place among the great universities of the world in every way.

Great halls are generally large and imposing and cost a lot of money, and the Council wondered if an institution as young as Monash had engendered enough goodwill to produce a donor or donors who would provide the \$700,000 required.

In 1965 a team of financial leaders, business men, parents of students and graduates and friends of the university was recruited and trained in fundraising.

Brilliantly led by the Chancellor, Sir Robert Blackwood, who personally solicited most of the major gifts, the appeal raised \$472,000 in cash and five-year pledges.

The major Christian churches and the Jewish community in Melbourne felt that a growing university such as Monash should have a focus for the spiritual development of the campus population.

A committee representative of these disparate groups was formed under the chairmanship of Mr John Parker, a leading Catholic layman.

An architect was briefed and plans for the Monash Religious Centre drawn and costed.

National Fund Raising Council of Australia Pty Ltd were briefed, and another fundraising organisation was established which was representative of all the interested groups.

Within months the money was raised. Building work started in November 1967 and the centre was completed and opened by June 1968.

Mr Parker retained his interest in the financial affairs of the centre and was active in the raising of further funds for the purchase of the splendid pipe organ in the main chapel in 1975.

The total amount raised to build the centre and install the organ was \$247,725.

In 1969, with construction of Robert Blackwood Hall well advanced, the suitability of the building for the presentation of symphony concerts was brought into question.

The acoustic consultants' report indicated that to provide the necessary reverberation time for symphonies, the roof would have to be raised by two metres, increasing the shortfall of funds available to pay for the building to \$149,000.

After much consultation, the university community and Council decided that Monash required a full-time appointee to get a University Advancement Program on to a professional basis.

The idea was to recruit a Finance Development Officer and establish a Development Committee consisting of Council members and business men to assist him.

After advertising and interviewing a number of applicants with top level business experience but no knowledge of institutional advancement, advice was sought from Mr John Browne, the Public Relations and Fundraising Officer of an affiliated hospital who had had many years of experience in both business and institutional advancement.

He was also one of the founders of The Australasian Institute of Fundraising.

He offered to assist by writing a detailed job description of the tasks and responsibilities of an institutional advancement executive, the first of which in this particular case was to raise the funds to complete the great hall.

Institutional advancement is not about money — although that is certainly one of its most important outcomes — it is about ideas and the ability to market them, and about complex projects and how to present a case for them.

It is also about people and encouraging them to see the vision of what they know they are capable of achieving, or what they believe must be done to add to help each person to achieve his or her potential.

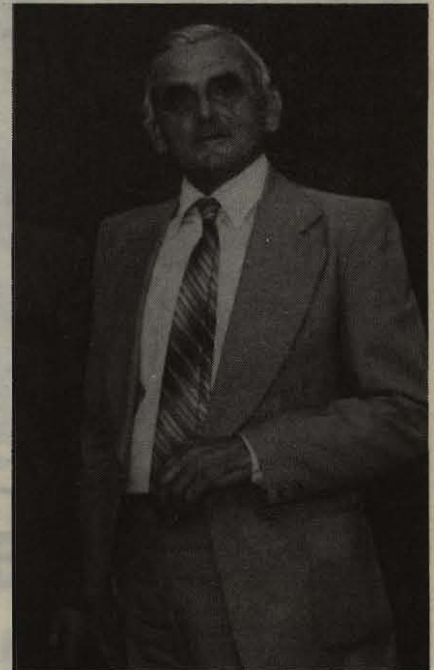
It is about meeting the needs of both institutions and givers. There are very few people in Australia with the necessary qualifications and experience.

At this time (mid-1970) the university was under siege by Albert Langer and his fellow revolutionaries. The Council and the Vice-Chancellor in particular were under great stress.

Whatever they did would earn them no plaudits from any faction.

The Melbourne people whose goodwill was necessary if the great hall was ever to be completed were receiving very negative images of the university every day.

The university "headhunted" Mr Browne and charged him with establishing a Finance Development Office within the Vice-Chancellor's depart-



• John Browne

ment, responsible to the University Council through the Vice-Chancellor.

They took the job description that he had written and said, in effect: "This is the vision, let us see you make it a reality."

Robert Blackwood Hall was completed and paid for in 1971. It was named for the man who not only was the driving force behind the establishment of the university, but who did more than any other man to make the great hall a reality.

Sir Douglas Menzies had accepted the mantle of office as the second Chancellor in 1966 and with it came the task of raising the balance of the funds required to build the hall.

This he did by seeking the support of his friend, Sir Lindesay Clark, who underwrote the cost of the Lindesay Clark window, a work of art created by Leonard French.

Now that the Vice-Chancellor had an Institutional Advancement professional to help him, the Professorial Board suggested that a continuous appeal for funds to purchase books for the Library should be instituted.

This appeal began in a modest way in 1970, using personalised direct mail to parents of students and to graduates through the ingenious medium of two superannuated automatic typewriters activated by punched tape.

More sophisticated methods are now in use and the appeal to 24 October 1986 has grossed \$592,696.

Institutional advancement in the 21st Century.

The Australian economy has changed forever, and once we have come to this realisation, the tremendous growth potential for tertiary education will become apparent.

We must match our great natural resources with the development of our intellectual resources.

Existing universities must expand to meet the unmet demand for tertiary education, and private universities will be developed.

Private universities will be entrepreneurial by their very nature and they will make massive investment in institutional advancement if they are to survive.

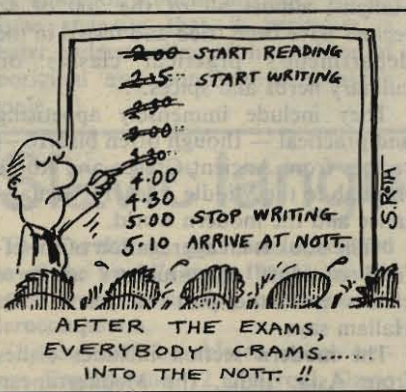
"Monash is preparing to evaluate its achievements in this area and to prepare a plan for the future."

• See graphs opposite.

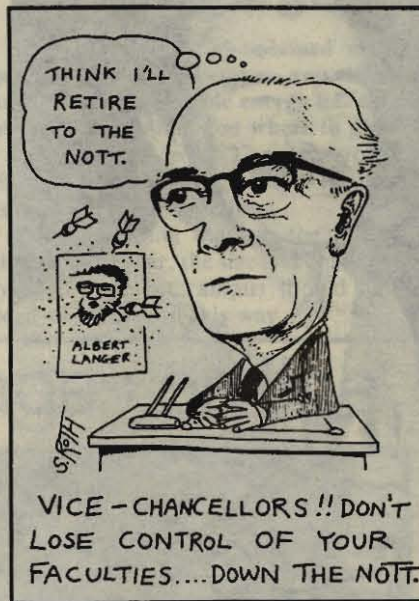
Lots of Nott's ads from Lot's

One of the first-read and most-enjoyed items in *Lot's Wife* over the years has been the Notting Hill advertisement, with its cartoons by Stuart Roth or (up to 1974) Mark Matcott. Topical events and well-known faces have tied the advertisements recognisably into the life of Monash. And not only students have appeared. Even the former Vice-Chancellor, Sir Louis Matheson, has been shown in contemplation. Stuart Roth, at 52 Essex Road, Surrey Hills 3127, still has copies of the collected cartoons up to 1981 in a book called, naturally, *Down the Nott* — a decade of Nott ads, with text by Keith Tucker. Copies are \$7 each, including postage.

DOWN THE NOTT.



AFTER THE EXAMS, EVERYBODY CRAMS... INTO THE NOTT!!



Wartime letters to mum

Monash graduate, Dr Lurline Stuart, could hardly have a more direct and poignant interest in wartime letters.

Six of her seven brothers were in the AIF or the RAAF and the two eldest were killed in action within 10 days of each other in 1942.

The brothers' letters to their mother became, after the old lady's death, the nucleus of a collection of many hundreds of letters gathered by Dr Stuart and her youngest brother from families who

responded to newspaper advertisements.

The letters were compiled into a book, published by William Collins, and in the latest issue of *Margin* Dr Stuart tells how this was done.

Her paper, *Letters Home 1939-1945*, was given at the Australian War Memorial History Conference 1986.

Margin, edited by Dennis Davison, is published twice-yearly by the English department and it can be obtained for \$3 a year, post free.

ALUMNI ROUND-UP

Medicine incorporates

The Association of Monash Medical Graduates has voted formally to become a corporation.

This means that while the association will go on as before, with no change in eligibility for membership, it will now be protected from any danger of legal action.

The association's president, Dr Stewart Bowman, pointed urgently to this danger in his report to the annual meeting, held at the Southern Cross Hotel in May.

As a result, the principle of incorporation was adopted at an extraordinary general meeting in the Faculty of Medicine boardroom in August.

With the final approval of documents by the Corporate Affairs Office, the association's 957 members will not be liable personally for any damages and costs that a litigant may obtain.

The urgent stimulus towards incorporation for the AMMG came from a letter to Dr Bowman from the Nursing Mothers' Association of Australia.

Appealing for help, the association said that it had been successfully sued for \$57,000 damages and some \$33,000 costs by a woman who had injured her hand while using an ice-crushing machine on hire from an NMAA group in Queensland.

The NMAA's insurance company had denied liability, and the NMAA would incur further heavy costs in action against it.

As well as placing the ability to sue (and be sued) on the association as such, rather than its individual members, the new AMMG move clears up doubts about the association's right to hold property and enter into contracts.

"I can't imagine who would ever want to sue us, or whom we would want to sue," Dr Bowman says.

"But in general terms it is not impossible, perhaps, that someone should fall and be injured, say, or find some other cause . . ."

The AMMG is growing steadily. Membership has increased by nearly 25 per cent in a year.

Dr Bowman also reports that there have been "meaningful negotiations" with both the Faculty of Medicine and the university on the establishment of a postgraduate centre on the campus.

Business interaction

The Monash University Administration Graduates' Association aims to "promote the continuing education of its members, and their interaction with the business community and the public sector".

President Nancy Hogan, assistant manager at Caulfield Hospital, says the association holds monthly functions at the Australian Institute of Management offices in St Kilda.

Speakers this year included Mr Geoff Lord from Elders IXL Ltd, Mr Terry McCrann, associate editor of *The Age*, and Mr Hans Eisen, director general of the Department of Industry, Technology and Resources.

Planning for the 1987 program has started, and speakers already taking part are Mr Ron Paice, general manager of the Australian Wheat Board and Mr Greg Sword of the Federated Storeman and Packers Union.

The association has more than 100 members and seven corporate sponsors. It is strongly supported by Professor

Alan Fels and Professor Peter Fitzroy of the department of Administrative Studies.

Inquires should be directed to the department, or by telephone to 615 3863.

Chemistry reunion

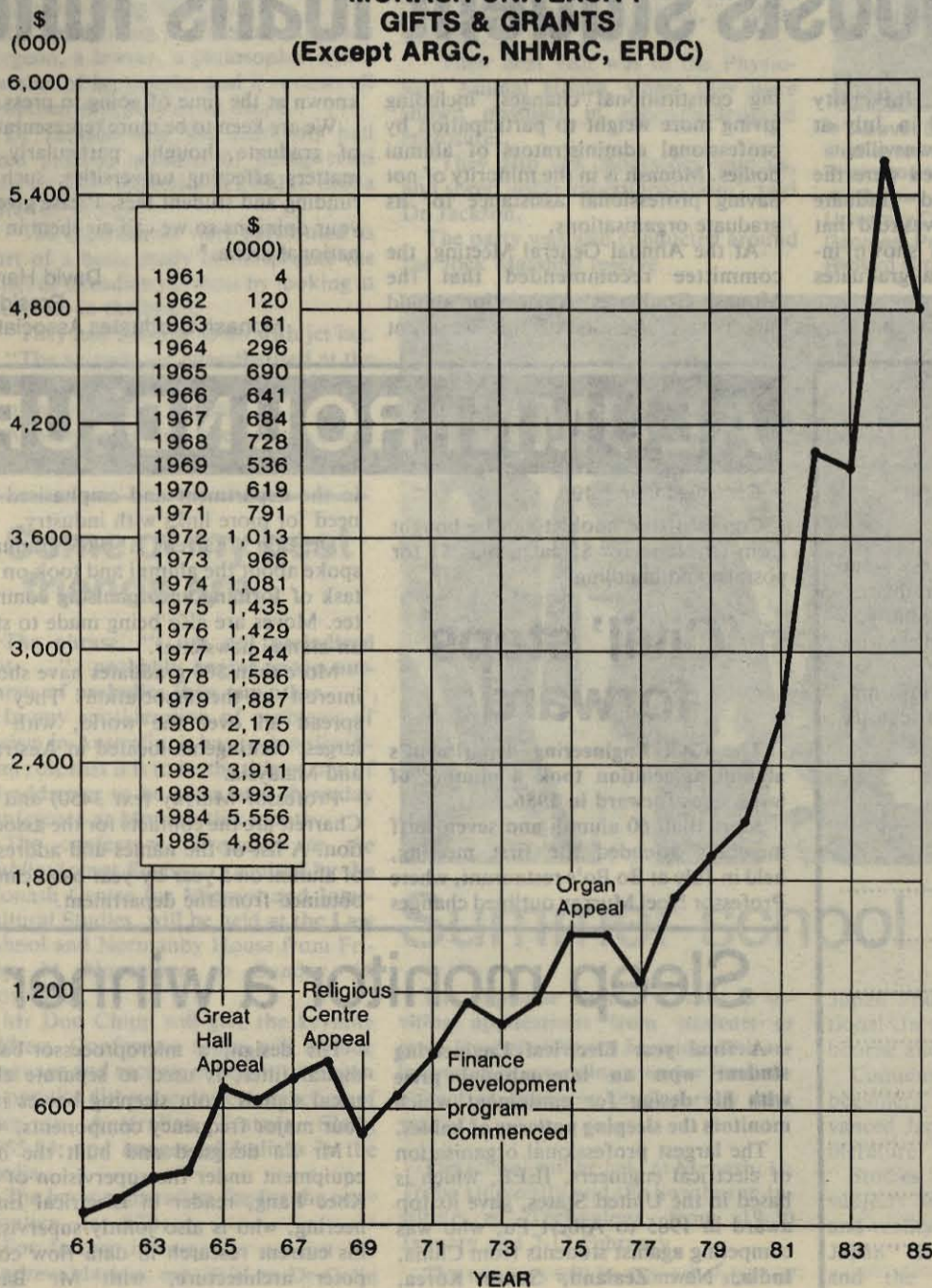
More than 300 people attended the Chemistry department's 25th anniversary reunion dinner and "open house" on 3 May. They included graduates and former staff members and their families, who came from interstate and overseas.

Senior lecturer, Dr Ernie Nunn, said a lot of interest was shown in the formation of an alumni association, and plans are now underway "to contact those graduates for whom we have current addresses".

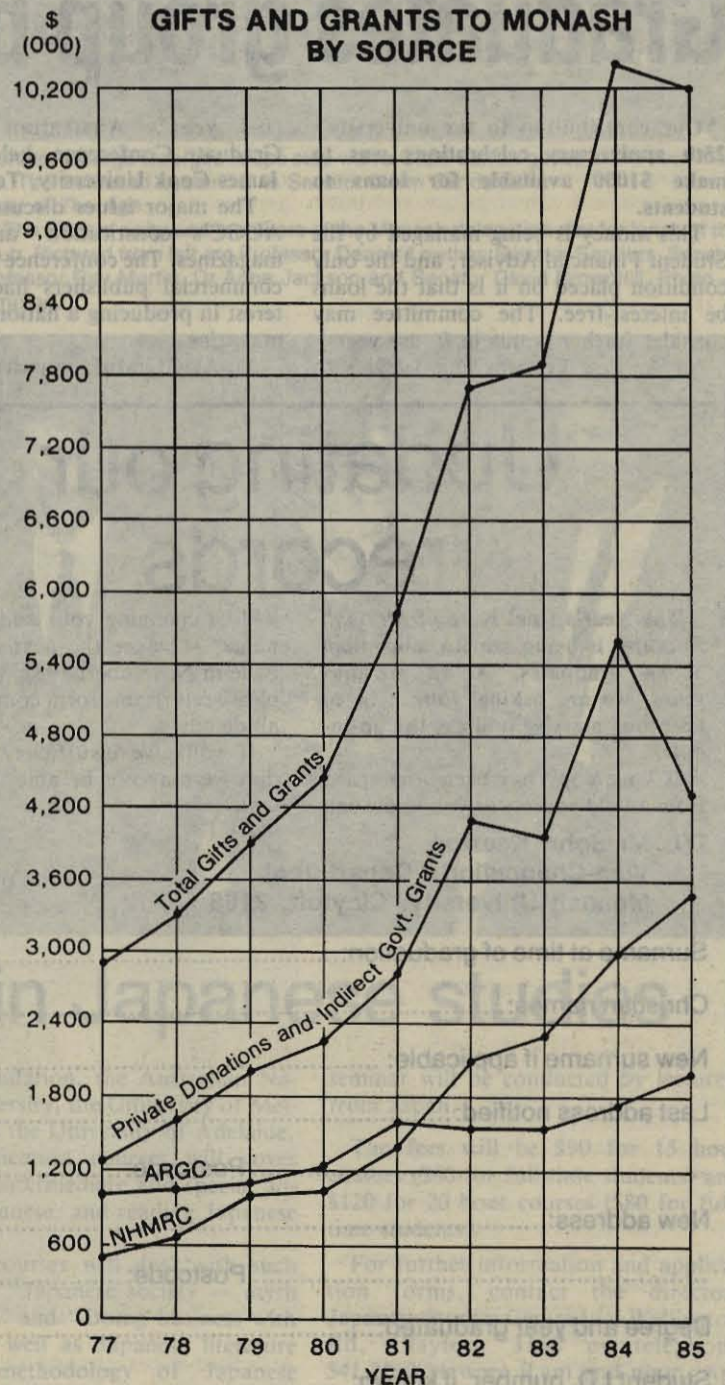
The department has published an anniversary booklet, *Twenty-five years of chemistry at Monash*, which contains photos and articles by staff members about the founding years. Also included are the names of past honors graduates and higher degree graduates.

• Continued p.20

MONASH UNIVERSITY GIFTS & GRANTS (Except ARGC, NHMRC, ERDC)



GIFTS AND GRANTS TO MONASH BY SOURCE



'Thirty-eight grim stones'

This poem by second-year Arts student, Miss Isobel Robin, has won the 1986 Monash University Prize for Poetry. The judging panel also commended entries by Miss Christine Wilksch and Mr Gillen Wood.

STONE CIRCLE

She woke here once, for ice hands
in the end grew tired.
Warmed among long summer's hills
the first ones knew her,
crept from caves into her power.
Here they ringed her for their own good
in thirty-eight grim stones.

Now black-faced sheep bleat rituals,
droppings are sacrifice for want of blood,
but she, being prudent, uses all she gets.
Her stones know one slow thing: to wait
(though some, wearied out of shape,
have dropped to lie against her).

From the rim of summer millennia long
time is drawing in.
With hunger on its stealthy tongue
ice anticipates the taste of air.
Where snow the shaman conjures altars in whispers
and the wind may bend against unanswered liturgies,
she will sleep again
sustained by old and frozen prayer,
ringed around by thirty-eight pale priests.

Isobel Robin



• Professor Legge, left, with the book's co-editor, Professor Merle Ricklefs.

'Secret' tribute to Legge

Grateful staff members in the Faculty of Arts put together a book in tribute to the retiring Dean, Professor John Legge.

Preparation of the book, *Nineteenth and Twentieth Century Indonesia, in honor of Professor J.D. Legge*, was kept a secret by co-editors Professor Merle Ricklefs and Associate Professor David Chandler.

Professor Legge was the founding

father of the Centre of Southeast Asian Studies, and the first chairman of the department of History.

The book contains articles by Monash staff and essays on Professor Legge's career. Copies are available from the centre or the University Bookshop.

Graduates group boosts student loans fund

'Our contribution to the university's 25th anniversary celebrations was to make \$1000 available for loans to students.

This money is being managed by the Student Financial Adviser, and the only condition placed on it is that the loans be interest-free. The committee may consider further grants in future years.

Mr Andrew Fry was our delegate to

this year's Australian University Graduate Conference, held in July at James Cook University, Townsville.

The major issues discussed were the AUGC's constitution and graduate magazines. The conference was told that commercial publishers had shown interest in producing a national graduates magazine.

An AUGC working party is consider-

ing constitutional changes, including giving more weight to participation by professional administrators of alumni bodies. Monash is in the minority of not having professional assistance for its graduate organisations.

At the Annual General Meeting, the committee recommended that the Monash Graduates' Association should incorporate. Results of this were not

known at the time of going to press.

We are keen to be more representative of graduate thought, particularly on matters affecting universities, such as funding and student fees. Please give us your opinions so we can air them in the national arena.'

David Harris,
President

Monash Graduates Association

Updating our records

This year's final issue of *Monash Reporter* is being sent to more than 32,000 graduates. As in previous years, we are asking your help to keep our massive address list up-to-date.

If your copy has been forwarded from an old address or you know you

will be changing your address — or name — before the next graduates' issue in November, 1987, would you please return this form complete with all details.

If you give insufficient information we may not be able to identify you.

TO: Mr John Kearton
Vice-Chancellor's Department
Monash University, Clayton, 3168

Surname at time of graduation:.....

Christian names:.....

New surname if applicable:

Last address notified:

Postcode:.....

New address:.....

Postcode:.....

Degree and year graduated:.....

Student I.D. number, if known:

ALUMNI ROUND-UP

• Continued from p.19

Copies of the booklet can be bought from Dr Nunn for \$5 each, plus \$1 for postage and handling.

'Civil' steps forward

The Civil Engineering department's alumni association took a number of large steps forward in 1986.

More than 60 alumni and seven staff members attended the first meeting, held in July at Bo Bo's restaurant, where Professor Noel Murray outlined changes

in the department and emphasised the need for more links with industry.

Dr Don Charrett, a 1966 graduate, spoke about the alumni and took on the task of forming an organising committee. Moves are also being made to start an alumni newsletter.

More than 500 graduates have shown interest in the association. They are spread all over the world, with the largest contingents located in Australia and Malaysia.

Professor Murray (ext 3450) and Dr Charrett are the contacts for the association. A list of the names and addresses of alumni on a year-by-year basis can be obtained from the department.

Sleep monitor a winner

A final year Electrical Engineering student won an international prize with his design for equipment which monitors the sleeping patterns of babies.

The largest professional organisation of electrical engineers, IEEE, which is based in the United States, gave its top award in 1985 to Albert Fu, who was competing against students from China, India, New Zealand, South Korea, Hong Kong and Southeast Asia.

His design, a microprocessor-based 'digital filter', is used to separate electrical signals from sleeping babies into four major frequency components.

Mr Fu designed and built the new equipment under the supervision of Dr Khee Pang, reader in Electrical Engineering, who is also jointly supervising his current research in data flow computer architecture, with Mr Barry Treloar of the Computer Centre.

Engineering as a creative art form

The art in structural design: An introduction and sourcebook

by Alan Holgate
Oxford University Press

The conventional view that engineering is merely a rational, calculable skill, has been given a battering in a new book by senior lecturer in Civil Engineering, Alan Holgate.

The art of structural engineering carries the discipline into the worlds of creative art, philosophy, intuition and even unconscious forces.

Although directed mainly at students and graduates in their early years of the profession, the book has a much wider scope with many examples from all round the world.

"The practising graduate soon becomes aware that the knowledge and techniques available are quite limited compared with the complexity of the problems encountered," Mr Holgate says.

"There are many areas where science can give little guidance, or where quantitative techniques are not applicable. Rules are necessarily generalised, and hence rarely apply exactly to any particular situation.

"Thus even in the technological sphere the engineer must face problems to which the only answers are subjective ..."

He speaks of the search for the "true aims of industrial design", and says "it is futile to consider the load-bearing function alone in discussing the merits of natural form. Questions of primary function, economics, aesthetics and even politics must be taken into account".

Mr Holgate explains issues of planning and design and financial analysis, the work and problems of architects, and the often difficult — even stormy — relationship that continues everywhere between architects and engineers.

He looks at obstacles in the way of recognising and defining problems, and of coming to decisions. He says it is necessary to understand the "blocks" that occur in mental processes for psychological, cultural and other reasons.

He also finds space for some "jokes" of architecture, such as the twisted columns of a 12th century Spanish building and the "modern-mannerist" insurance building in Illinois.

Monash University makes two appearances in the book.



"Quite prosaic functional requirements may govern the spacing of columns," Mr Holgate says.

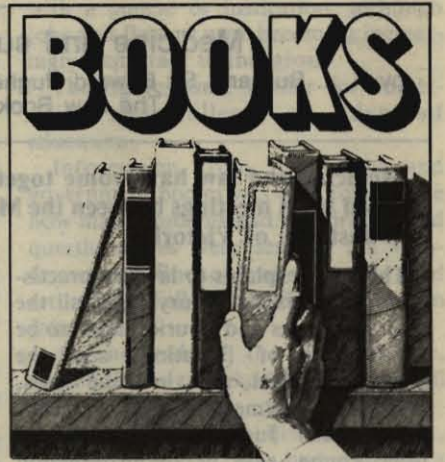
"In the Menzies Building the rooms on the north side were planned for senior staff and were therefore larger than the rooms on the opposite side which were planned for tutors.

"The first-storey columns are spaced 20 feet apart, so in the facade above, the architects inserted four windows on the north side, giving a spacing for the intermediate columns of five feet, while on the south side they inserted five windows giving a column spacing of four feet.

"Internal cross-walls must, of course, be located on column lines so that room widths are in multiples of five feet on the north side and four on the south."

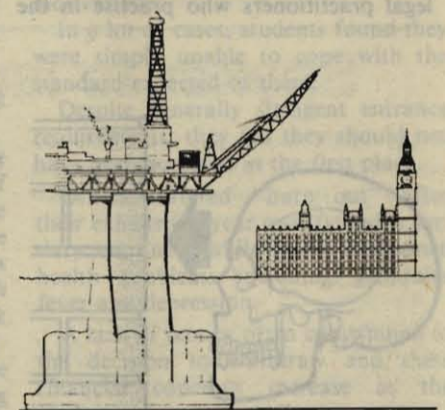
The Alexander Theatre is given as an example of an interesting design of the "flytower" — the large space above the stage where scenery and other effects can be hoisted out of view and dropped into place as required.

The tower is integrated into the body

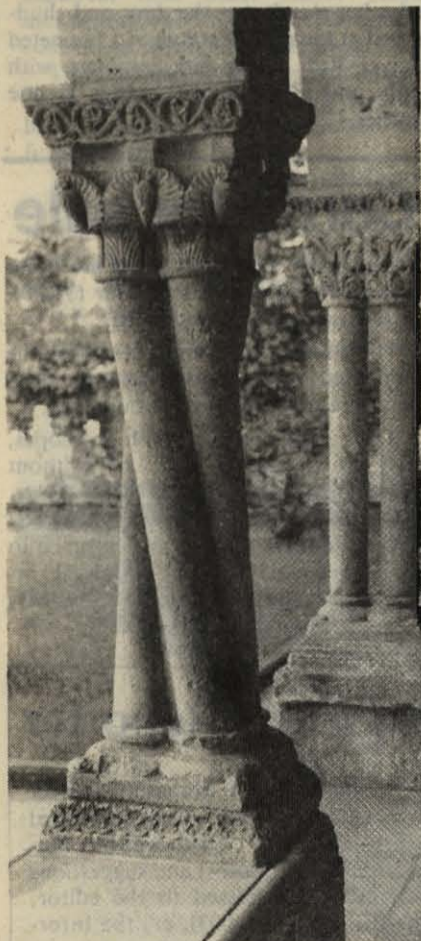


of the building, avoiding the need for a separate structure as is found in some other theatres.

Below The current form of a North Sea oil platform in reinforced concrete.



Left. This project for the reconstruction of the Bibliotheque Royale (later Nationale) of Paris could not have been realised with contemporary materials. Below. The neo-classical Altes Museum in Berlin, designed by Schinkel in 1830.



An architectural joke of the 12th century. Twisted columns in the cloister of San Pedro de la Rúa, Estella, Spain.

Leisure is a serious business

Leisure is not a matter to be taken lightly, warns Dr Terry Seedsman, senior lecturer in the department of Leisure Studies at the Footscray Institute of Technology.

He told a seminar at Monash on *Challenging the Leisure Ethic* that the Australian way of seeing leisure as "non-work" failed to recognise the great problems and challenges leisure presented to modern society.

"We need to correct some traditional misconceptions about leisure and work," he said.

"These misconceptions are based upon historical fantasy rather than solid empirical support, and consequently have no relevance to present day reality."

The mistake was in seeing leisure as a "residual dimension" — something left over from the time committed to work.

This inheritance from an earlier industrial society should be replaced with a view of leisure as an integral part of

life in its own right.

As the sociologist Eric Fromm had pointed out, it was possible for people to have the "illusion" of being free from the demands of the technological revolution, only to be merely on parole from the "time prison" of work.

Dr Seedsman condemned the view of leisure as a tranquilliser or a form of refuge.

The idea was being promoted that, even if modern industry failed to provide work and life satisfaction — or in the case of the unemployed, failed to provide any work at all — leisure activities could be developed as a compensation.

It would be "virtually impossible", however, for leisure to "embrace and nurture the whole of life" in this way.

Dr Seedsman expressed real fears that leisure would be increasingly engineered and controlled by governments and the big corporations in their own interests.

"In other words, our expanded opportunities for leisure have been largely co-opted to keep the economic system functioning. Leisure has become as much an economic factor as work."

Dr Seedsman said he approved the concept that "freedom is not static but dynamic, not a vested interest, but a prize continually to be won".

Challenging the Leisure Ethic was a one day seminar organised by the Centre for Continuing Education, with speakers including Ms Rhonda Galbally, executive director of the Commission For The Future, Ms Diana Paterson, director of the Department of Sport and Recreation and Mr Alan Morgan, chief executive officer of the Recreation Council of Victoria.

Taking the insult out of the injury

Medicine and surgery for lawyers

by A. J. Buzzard, Sir Edward Hughes, G. L. Hughes and J. D. B. Wells
The Law Book Company Ltd.

Medicine and law have come together as never before in a book which resulted from meetings between the Monash Department of Surgery and the Law Institute of Victoria.

The book explains to lawyers practising in the personal injury field, all the main sicknesses and injuries liable to be the subject of litigation, and the medical, surgical, and, in some cases, psychiatric treatment of them.

The Chief Justice of Victoria, Sir John Young, says in an introduction that it "should help lawyers explain to the courts whether composed of juries or judges sitting alone, the condition of the sick or injured before them . . . I believe the book will become an indispensable work of reference for all legal practitioners who practise in the

field of personal injuries".

The two medical editors are Tony Buzzard, lecturer in surgery, Monash Department of Surgery at the Alfred Hospital, and Sir Edward Hughes, Emeritus Professor of Surgery.

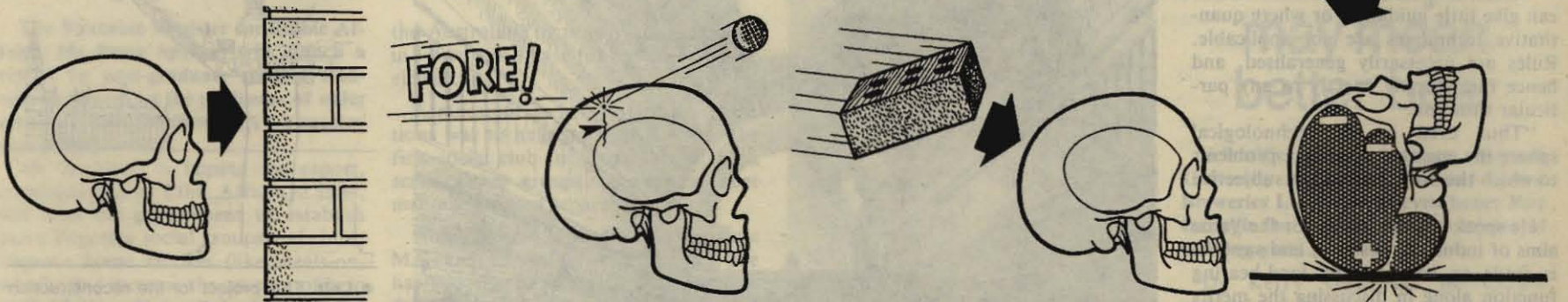
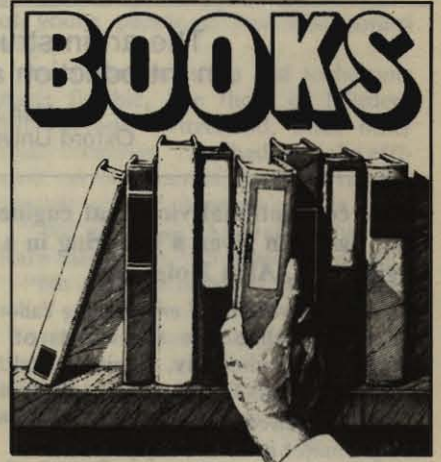
The two legal editors are the barristers and solicitors Gordon Hughes, a partner at Lander and Rogers, Melbourne, and David Wells, a partner at Mallesons, Melbourne.

The more than 40 medical and legal contributors are acknowledged experts in their field.

Even though a 19-page dictionary of medical names and terms is included, the text is kept as clear as possible for the lay reader.

The subject headings include heart and lungs; arteries and veins; the head; the abdomen; urology, obstetrics and gynaecology; bones and joints; shoulders and elbows, wrists and hands; hips and knees; ankles and feet; the spine; trauma and psycho-physiological response; aesthetics and surgical repair; medical and surgical techniques; body tissue and fluid analysis; disease and its agents; and medico-legal assessment (on the conduct of medical interviews, and the use of expert witnesses).

Each of these general themes is broken down into sub-sections: for example, the subject of "the head" deals in turn with head injury, eye injury, hearing loss, stroke, neuropsychological assessment, neuroses and psychoses and functional overlay.



Souveniring crested paper match holders

The Dean of Education, Professor Peter Fensham, was among a number of people with Monash affiliations who were included in the 1986 Queen's Birthday Honors list. The following is his account of the ceremony at Government House on 26 September, when he was invested as a Member in the General Division of the Order of Australia.

'Waved past the military types at the gate, we drove into the car park, along the edges of which were four very large vans marked 'MEN' and 'WOMEN' — a sometimes incongruous element against the grandeur of Government House itself, but an earthy essential now that we do have a governor pair who have invited Victoria's people to share what, after all, we pay for.

Inside, a formal event was handled with an ease and informality we have not quite yet achieved at Monash. While our friends were entertained by a string quartet, we (I was in chair 19) were sat around the astonishingly long table in

the dining room. (It was said to have offended Victoria when she heard its length was longer than any in Buckingham Palace.) We were pinned with a medal holder described as on loan — we could keep the medals!! One of the many practised and charming aides had it back (the holder) from me within about 15 seconds of the last trumpet note.

As the tension mounted, or the time ticked by, someone thought of souveniring a crested paper match holder, and in a flash all 40 or so disappeared from the table — mere mortals all. Like in a graduation but in a group of five, not long lines, we moved from aide to aide till we were grasped firmly by the last one who at the appropriate moment propelled each of us in the right direction with a gloved shove.

A few words of exchange and the medal slipped onto its holder and on towards the reserved seats, rather blinded by the TV lights which waited for Paul MacNamee and the young men who got the bravery awards. At least they added youth to an otherwise over-aged array. I was struck by how long the contributors "to Athletics" had had to wait. The faculty had one of the five or six heroes. Paul Williams, a bane and a character of note in Stream 3 a few years ago (now Ferntree Gully Tech) was one of three swimmers who risked all to save a boy swept out to sea. He told us he has

developed a joint Art/Biology unit for Year 11.

As our representatives reported from the Jubilee occasion, liquid refreshments were quickly on the scene; the food was later, more elusive but good when found. A jolly company with much relaxed laughter and easy ex-

Sir James McNeill, a long-time member of the Monash Council and chairman of its finance committee, was made a Companion of the Order of Australia (AC) in the Queen's Birthday Honors list.

Emeritus Professor Robert Hanbury Brown, an honorary graduate of the university, also became a Companion of the Order.

Among others with Monash connections who received honors were Dr Geoffrey Serle, former reader in History, and Professor Fred Gruen, former professor of Economics, who were made Officers of the Order of Australia (AO), and Professor Peter Fensham, Dean of Education, and Doctor Harry Garlick, former professor of Medicine, who were made Members of the Order of Australia (AM).



• Sir James McNeill

changes that must have gone on till after 1 pm.

The rooms we saw are well worth a visit with their variety of features. I loved a hat stand near the door and shuddered at the marble statue of a bonneted and frilled young girl complete with posy and umbrella that stands in one corner.'

Cards for sale

University Christmas cards are being offered for sale in sets of four (\$2.80), or separately at 80 cents each.

There are four different designs in the laminated cards, which feature color photographs of university buildings.

They come complete with envelopes, and are available with or without printed greetings.

The cards can be seen and purchased at the inquiries desk at the entrance to the University Offices. Telephone inquiries should be directed to Mrs Georgia Tsioukis on ext 2002.

Monash Reporter

This is the last Monash Reporter for 1986. The next will be published in March, 1987. Contributions (letters, articles, photos) and suggestions should be addressed to the editor, Lisa Kelly (ext. 2003), c/- the Information Office, ground floor, University Offices.



• Peter Fensham

'Media increases drug abuse'

The media attention given to drug and alcohol abuse may be counter-productive, says Professor Colin Pritchard of the University of Southampton.

Professor Pritchard, who is a visitor to the Monash department of Social Work until mid-November, said the media inadvertently promoted drug abuse by glamorising it.

He said that although all children were likely to experiment, there were four factors which increased the chances of continued drug use.

They were truancy from school, having more than three siblings, living in a household which had an unemployed head or having one parent absent.

"I won't deny that people who take hard drugs are fools, but they are also victims because they have little control over the factors pushing them towards drug dependency," he said.

"Young abusers believe that by taking

drugs they will relieve some of the pressures and problems facing them, but



• Colin Pritchard

all it does is compound the problems and the child becomes a double victim."

Professor Pritchard includes alcohol and cigarettes on his list of deadly drugs, but he excludes marijuana.

"Although marijuana damages your health, and I disagree with it because it is illegal, it kills very few people," he said.

"In fact, in Britain 170 people die yearly from illegal drug related deaths, compared to the 1000 deaths a week related to cigarettes.

"It's not that I refute that there is a hard drug problem, but in the light of these figures, it would seem to be exaggerated," he said.

Professor Pritchard, who also runs a small psychiatric social work clinic in Britain, became involved in researching drug abuse after some colleagues asked him to do a study to gauge the widespread use of drugs among school children.

Join the co-operative

Still growing with increasing vigor, the Tertiary Credit Union Co-operative continues to seek new members.

Since the co-operative merged with the Monash Credit Union in 1984, membership has grown to 6400, with 1800 associate members also using its facilities. With more than \$15 million in assets, the Tertiary Credit Union is now in the top 15 credit unions in Victoria.

"The credit union co-operative is now big business," says the Deputy Registrar, Mr Jim Leicester, who is a credit union director.

Savings, investments, loans, travel, insurance, ADFS and retirement plans are only some of the services which the credit union offers to its members.

The credit union's office at Monash is situated on the ground floor of the Union Building, near the Post Office. It is the largest branch office in Victoria.

IMPORTANT DATES

The Registrar advises the following important dates for students.

NOVEMBER

- 7 Applications close for Dip.Ed.Psych., B.Ed.St., B.Sp.Ed. and M.Ed.St.
- 8 Third Term ends for M.Eng.Sc. by coursework.
- 10 Last date for discontinuance of a subject or unit taught and assessed in Medicine V for it to be classified as discontinued. If a subject or unit is not discontinued by 10 November and the examination is not attempted or assignment work is not completed, it will be classified as **FAILED**. In exceptional circumstances the Dean may approve the classification of a subject or unit as discontinued between the appropriate date above and the end of the appropriate teaching period.
- 13 Publication of results, Medicine VI.
- 15 Third Term ends for Medicine IV.
- 18 Examinations commence for Medicine IV.

24 Summer Term commences — Faculty of Law.

DECEMBER

- 1 Publication of results, Science IV.
- 3 Graduation Ceremony — all faculties. Publication of results, Medicine IV.
- 4 Publication of results, Economics and Politics IV.
- 5 Publication of results, Education. Applications close for LL.M. by coursework and Diplomas in the Faculty of Law commencing in the first half-year 1987. Re-enrolment of students continuing Dip.Ed.
- 6 Second half-year ends for Medicine V. Third term ends for Medicine III.
- 8 Re-enrolment of students continuing Dip.Ed.Psych. and M.Ed.St. begins.
- 9 Publication of results, Medicine I, II and III, M.Admin. and Dip.Ops.Res. Last date for re-enrolment of students continuing Dip.Ed.Psych.
- 10 Publication of results, Law, Science I-III, Science/Engineering I-IV, Sci-

ence/Law I-IV, Science/Economics I-IV and Medicine V.

Re-enrolment of students continuing B.Ed.St. begins.

- 11 Publication of results, Economics & Politics I-III, Eco/Law I-IV, Eco/Eng I-IV and Engineering. Undergraduate re-enrolments begin.
- 12 Publication of results, Arts I-IV and Arts/Law I-IV. Last date for re-enrolment of students continuing B.Ed.St.
- 16 Last date for re-enrolment of students continuing M.Ed.St.
- 17 Last date to take up a new subject taught in the Law summer term. Last date for re-enrolment for Law Summer Term, LL.B., LL.M. and diplomas in the Faculty of Law. Re-enrolment of students continuing B.Sp.Ed. begins.
- 18 Publication of results, M.Env.Sc. Re-enrolment of students continuing B.Sp.Ed. ends.
- 24 University closes.

Blues awarded

University Blues for 1976 have been awarded to Matthew Sweeney, Marc Howard and Michael Bourke (Athletics); Elizabeth Addicoat and Sarah Galletly (Netball); Gary Schroeder (Squash) and Scott Henson (Volleyball).

Half Blues have been awarded to Jean Gray (Athletics); Bai Seng Hii (Badminton); Cameron Groppi (Men's Basketball); Siew Mei Lin (Judo); Vanessa McMahon (Netball); Fergus Scott (Squash); Ross Murdoch (Tai Kwon Do); Jackie Jarvis and Rebecca Smale (Volleyball); Kenneth Knight and Simon Zadow (Windsurfing).

Sports Awards have been made to John Markham (Badminton) and Rosanne Pittard (Women's Cricket).

END OF YEAR DIARY

The events listed below are open to the public. Inquiries about activities at RBH (Robert Blackwood Hall) should be made to the ticket office, 544 5448.

NOVEMBER

- 7: EXHIBITION — "Belorussia and its Books", jointly organized by the Department of Slavic Languages and the Library. Books, periodicals, maps, pictures and traditional craft. Admission free. 1st Floor, Main Library. Hours: Mon.-Thurs. 9 am-10 pm, Fri. 9 am-6 pm, Sat.-Sun. 10 am-5 pm.
- 10: ARTS & CRAFTS — Summer school program for 1987 now available. All courses open to the general public. Inquiries: 541 0811 ext. 3096/3180.
- 13: SOUTHEAST ASIAN STUDIES SEMINARS — Indonesian Education: "What Australia Can Do to Help", by Dr Ruth Daroesman, International Development Program, Canberra. NOVEMBER 20: "The Problems of Isolation in the Interior of Sabah", by Glen Chandler, Geography. NOVEMBER 27: "The History of Banjarmasin", pre-fieldwork seminar by Helius Sjamsuddin, History. DECEMBER 4: "Approaches to the Writing of a Biography: Soe Hok-gie 1942-1969", by

John Maxwell, Dept. of Political & Social Change, ANU. DECEMBER 11: "Writing a History of Cambodia since 1945", by Dr David Chandler, CSEAS. Admission free. Room 515, Menzies Building. 11.15 am. Inquiries: ext. 2197.

14-16: MIGRANT AND INTER-CULTURAL STUDIES CONFERENCE — "Prejudice in the Public Arena: Racism". Basic fee \$20. Inquiries: A. Markus ext. 2198, A. Rice ext. 2413.

25: SPACE ASSOCIATION LECTURES — "Military and Civilian Satellite Applications", by Geoffrey Perry, head of the Kettering Satellite Tracking Group. Donation \$1 (min.). Lecture Theatre H2. 8 pm. Inquiries: 772 5804.

28: EVENING CONCERT — Hawthorn City Band Annual Concert with special guest artists the "Maroondah Singers", compere — Stewart Faichney. RBH. 8 pm. Admission: adults \$8, conc. \$5.

29: EVENING CONCERT — Melbourne CAE Wind Symphony presents a Pre-Christmas Sound Spectacular including the CAE Brass Choir, playing an arrangement which is featured in the Disneyland Christmas Festival, the CAE Choir featuring a special selection of Christmas Choral works and Anne-Marie Wilkinson in a selection of songs from ballad to rock. Admis-

sion: adults \$9.50, conc. \$5. RBH. 8 pm.

30: AFTERNOON CONCERT — Kilvington Girls' Grammar School presents a Carol Service with Prep. to Year 8 girls participating. For further information contact Mrs Roberts on 578 6231. RBH. 3 pm.

DECEMBER

6: AFTERNOON CONCERT — Dawn Lois Dancing School Variety concert, featuring classical ballet, tap dancing, jazz ballet and aerobic dancing. Tickets available at the door. For further information contact Mrs D. Vernon on 547 2027. RBH. 2 pm.

7: AFTERNOON & EVENING CONCERT — Melbourne Youth Music Council, featuring Junior Strings, John Antill Youth Band, Margaret Sutherland Strings, Junior Percussion, Melbourne Youth Symphonic Band, Melbourne Youth Orchestra, Melbourne Youth Choir and the Percy Grainger Youth Orchestra. There will be an informal dinner break between

performances. Admission: adults \$6, conc. \$3. Tickets available at the door. RBH. 4 pm & 7.30 pm.

8: EVENING CONCERT — Australian Girls' Choir Gala Concert, special guest artists June Bronhill and the Percy Grainger Youth Orchestra. Inquiries: Sandy Young, 726 0662. RBH. 8 pm.

13: EVENING CONCERT — St. Gregorius Dutch Male Choir Concert with special guests The Kew Citizens' Band, Australian Children's Choir, John Atwell (organ), compere Peter Thomas. RBH. 7.45 pm. Admission: adults \$9, conc. \$5. Inquiries: 762 1326.

16: RELIGIOUS CENTRE — Luncheon Carol Singing, Education Faculty Choir, dir. Dr Alan Gregory. Admission free. Large Chapel, Religious Centre, 1.10 pm.

19: EVENING CONCERT — Monash University Choral Society Christmas Concert, presents Christmas Carols, Brahms Motets and "Santa Maria Mass", by Hassler. RBH. 7 pm. Admission free.

20: EVENING CONCERT — National Boys' Choir Christmas Concert. A program of beautiful Christmas Choral items offering a wide range of Christmas Music. RBH. 8.15 pm. Admission: adults \$10, conc. \$6. Ticket secretary Keith Sandford 435 7245 AH.

Belorussia remains a world of its own

It is a popular misconception that Belorussia, a sovereign republic in the west of the USSR, shares a culture and language with the rest of Russia, says Professor Jiri Marvan of the department of Slavic Languages.

A Belorussian literature and cultural exhibition launched in the Main Library last month aims to dispel these ideas.

The exhibition covers all aspects of Belorussia from the 10th century to the early 1920s.

"The Belorussian culture is a mixture of influences from neighboring coun-

tries which have, at some stage, ruled over the area," says Professor Marvan.

"The exhibition is designed to reflect the differences and to emphasise that the Belorussian language is separate; it was the dominant language in western Europe during the reign of the Grand Duchy of Poland.

"It is only since the early 18th century, when Belorussia became incorporated into the USSR that the culture has been submerged."

The language was outlawed just prior to the Bolshevik revolution, but is now spoken by more than eight million people.

"Belorussian nationalists demonstrated their displeasure in 1918 and the Bolsheviks changed their national policy," Professor Marvan said.

The exhibition has examples of the language written in three scripts — Arabic, Cyrillic and Latin.

There are photographs depicting life in Belorussia, national costumes and more than 50 books donated by the Australian Belorussian community.

These, together with works owned by the library, make up the bulk of the display.

Original works by Francysk Sharyna, the man credited with taking printing to Russia, are exhibited with a copy of the first Belorussian Bible, translated by him during the 16th century.

Professor Marvan is joint organiser of the exhibition with Mrs Susan Radvansky, Special Projects Librarian.

Independent	Final	Medial	Initial	Equivalent	Transliteration
б	б	б	б	b	b
в	в	в	в	c, c'	c
г	г	г	г	ch	ch
д	д	д	д	ch	ch
е	е	е	е	c	c
з	з	з	з	d	d
ж	ж	ж	ж	dz'	dz'
и	и	и	и	dz	dz
к	к	к	к	f	f
л	л	л	л	g	g
м	м	м	м	h	h
н	н	н	н	i	i
				j	j
				k	k
				l	l
				m	m
				n, n'	n

• These Arabic, Cyrillic and Latin consonants were all used at some stage by the Belorussian Tartars.



• Samples of book art by Francysk Skaryna (1490-1551). Photos — Richard Crompton



• The Menzies Building is having its face washed for the first time in four years because this specially licensed contract cleaner with his 'bosun's cradle' can venture where university staff have been forbidden to go. Staff once cleaned the windows by sitting on the sills, but the Department of Labor and Industry stepped in. The building's overhanging roof meant cradles could not be used, and the job remained undone until these contractors were discovered. Photo — Richard Crompton.

'Ealey' now means glacier, too

Dr Tim Ealey's pivotal role in the Australian Antarctic expedition of 1949 has now been acknowledged. He has had a glacier named after him.

"I was always in the leading trace because I was the smallest and the easiest to pull out of crevasses," he says. "I recall crossing one glacier in a terrible blizzard which lifted us off our feet at times."

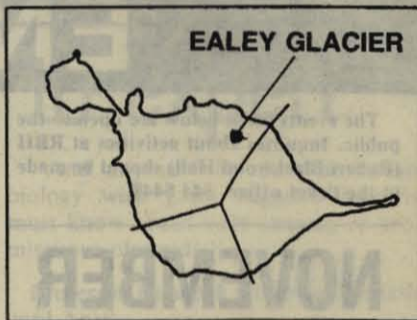
Now this very glacier on Heard Island has been named after "E. H. M. Ealey, biologist with the 1949 ANARE expedition who crossed the glacier en route to Spit Point during a biological survey".

says the Antarctic Names and Polar Medal Committee. Ealey Glacier flows "from Big Ben to the sea between Melbourne Bluff and the North Barrier". (See sketch map, right.)

Dr Ealey, who will soon retire, has also been honored closer to home for his efforts in establishing the Graduate School of Environmental Science at Monash. The Minister for Conservation, Forests and Lands, Mrs Joan Kirner, will present him later this month with the 1986 Victorian Environmental Education Award.

Despite Dr Ealey's retirement from academic life, he will continue to be a consultant in Asia for the United Nations Environmental Program. He will

also pursue his other great interest, landscape painting.



• Above. Ealey Glacier, Heard Island. Below. Tim Ealey, left, and John Paddick man-hauling a sledge across the glacier in 1949.



Vintage wines for Christmas

A commemorative vintage port from Thomas Hardy and Sons is now available at the University Club.

The port has a Jubilee label featuring the university's coat of arms, pictured left, and is regarded as a collector's item. It is available to all members of the university for the special price of \$7.50 a bottle or \$85 a dozen.

The club will hold a tasting of vintage wines from Glenhuntly Cellars on Wednesday, 19 November, from 11.30 am.

It will also be the venue for a Christmas party on Thursday, 4 December, from 5 pm, for all members and their guests. Festivities will begin with the Mace Music Show, followed by a Happy Hour from 6-7 pm. Tickets at \$3 each are available from the club's office and from committee members.

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Commemorative
PORT