



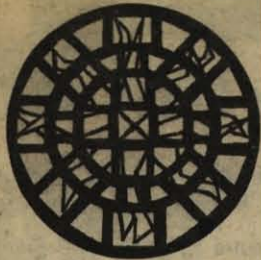
MONASH REPORTER

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Monash Review

What's New in Education, Research and Community Service

SOUND

THE OFFICIAL BROADSHEET OF MONASH UNIVERSITY



Monash Reporter

Special graduates' issue

As has happened previously, this last issue of Reporter for the year is being mailed to all Monash graduates in a bid to keep them informed of University activities. Unlike other items in your mail box, we can't offer you the key to a fortune or even a Bingo game. But in a 'wrap-around' to the news pages we do offer a 1981 'slice of life.' Material used is from Information Office publications.

Monash 1981
The Year in Review

Monash triumph in fertility research

A Monash team indisputably took the world lead this year in in-vitro fertilisation successes.

A total of 13 "test tube" babies have been born in the world, 11 in Melbourne. Ten — including the world's first and only twins — have involved the Monash team.

Heading the team is Professor Carl Wood, professor of Obstetrics and Gynaecology. Also involved have been clinicians from the Queen Victoria Medical Centre and St. Andrew's Hospital.

The 1981 test tube baby boom is the result of research which began 10 years ago as a joint project involving the Queen Victoria Medical Centre and the Royal Women's Hospital. The two teams separated after the birth in June 1980 of Australia's first in-vitro baby, Candice Reed, and they now work independently.

The latest report from Queen Vic. is that nearly 40 more women are pregnant as a result of the method which involves fertilisation of the mother's egg outside the womb. The IVF unit at the Hospital is now recording a 20 per cent success rate in pregnancies which is up eight per cent on earlier this year.

These are the Australian successes:

1980

June 23, Candice Reed (Royal Women's Hospital)

1981

March 10, Victoria (St. Andrew's)

March 28, Carla Polson (Queen Victoria Medical Centre)

May 20, Unnamed girl (QVMC)

June 6, Twins Stephen and Amanda Mays (QVMC)

June 20, Sharna (QVMC)

June 28, Unnamed boy (QVMC)

July 3, David (Royal Women's Hospital)

July 15, Alison Neris Arnastauskas (QVMC)

July 23, Pippin Jaimee Brennan (QVMC)

Hundreds of delegates late last month attended the Eighth Asian and Oceanic Congress of Obstetrics and Gynaecology held in Melbourne with its main attraction being research here in the field of human fertility.

One of the projects being carried out by Monash researchers at QVMC which has aroused international interest is the development of techniques for freezing and preservation of human embryos.

The work, which has been approved by the hospital's ethics committee, is aimed at improving the success rate in the in vitro fertilisation program.

It is being done by Dr Alan Trounson, a lecturer in the Department of Obstetrics and Gynaecology, and Mrs Linda Mohr, a research assistant.

Dr Trounson says the freezing techniques are being developed to give the



● Professor Carl Wood

team "a little more elasticity in its work on in vitro fertilisation".

A number of situations can arise in which it is desirable to delay transfer of the embryo back into the mother's womb until the next cycle, he says.

MEANWHILE, Monash researchers are developing micro-surgical and diagnostic techniques which could lead to improved treatment of some types of infertility in men.

It is estimated that one in 10 couples have an infertility problem. In about 40 per cent of cases the infertility is due to the male. One man in 25 is infertile, and, from research at Monash, it seems that one in 35 or 40 is actually sterile.

● Continued overleaf



● Prince Charles after the graduation with the Chancellor, Sir Richard Eggleston (left) and the Vice-Chancellor, Professor Ray Martin.

A Royal graduate

The Prince of Wales sounded a warning against the twin dangers of ignorance and prejudice when he delivered the occasional address at a Science graduation ceremony in Robert Blackwood Hall in April.

Prince Charles, who was awarded an honorary Doctor of Laws degree, said: "It is a terrible and dangerous arrogance to believe that you alone are right and somehow have a magical eye which sees the truth and that others cannot be right if they disagree."

He said that it was easy to have preconceived ideas, "to be prejudiced in some way through the circumstances of our upbringing or the fashionable views of the group with which we identify."

"Few things have done more harm in the history of mankind than the belief on the part of individuals, or groups, or tribes, or states, or nations, or churches, that he — or she, or they — are in sole possession of the truth, and that those who differ from them are not merely mistaken, but wicked or mad and need restraining or suppressing," he said.

There are many ways of "living, believing and behaving". History, anthropology, literature, art and law had shown that "the differences of culture and characters are as deep as the similarities which make men

human".

"And we're never the poorer for this rich variety," Prince Charles said.

"Knowledge of this opens the windows of the mind and the soul and makes people wiser and more civilised. Absence of it breeds prejudice, ghastly extermination of heretics, of those who are different.

"Unscrupulous people will feed on this lack of knowledge and will prey on others' fears.

"If the two Great Wars, together with Hitler's genocide, haven't taught us that, then we are totally incurable."

Prince Charles said that intuitive certainty "is no substitute for carefully tested empirical knowledge based on observation and experiment and free discussions between men."

The inferior people that totalitarians destroy or silence were "almost by definition men of ideas and free minds".

Referring to the problem of stereotypes as "another source of avoidable conflict", Prince Charles said:

"Tribes hate neighboring tribes by whom they feel threatened. And they rationalise their fears by representing them as wicked or inferior, absurd or despicable in some way."

These stereotypes, he said, were substitutes for real knowledge. They were props to nationalism, "surely one of the strangest and most dangerous forces at large today".

Prince Charles said nationalism was usually the product of "a wound inflicted by one nation on the pride of another".

Prince Charles was reported as saying that his speech at Monash was one of the ones of consequence delivered during his Australian tour.

The media, however, reported barely a word of it preferring to concentrate instead on a so-called demonstration outside the Hall. Media estimates put the crowd — of "jeering, mindless students" — at from 1000 to 2000; experienced Monash riot watchers believed there were no more than 500, about one in 10 of whom were there to demonstrate.

It's been 20 good years

Monash University celebrated its 20th birthday early this year.

It was on Saturday, March 11, 1961 that the then Premier of Victoria, Henry Bolte, officially opened the University in a ceremony before 2000 guests in the courtyard formed by the first buildings — now the central science block, the eastern science lecture theatre, first year chemistry and first year physics.

On the following Monday — March 13 — Monash's first students arrived: 363 in all. The student population is now in excess of 14,000.

The University is planning celebrations for its silver jubilee — in 1986.

In a second anniversary of significance, General Sir John Monash (after whom this

University was named) — died 50 years ago — on October 8, 1931, aged 66.

Monash had had a brilliant career as a scholar, soldier and engineer. During World War I he was Commanding General of the Australian Army in France. At war's end he "fathered" the State Electricity Commission of Victoria and was Vice-Chancellor of Melbourne University.

Reader in History at Monash, Dr Geoffrey Serle, who is writing the first full biography of General Sir John Monash due for publication next year, describes the great man's funeral as "the most impressive and largely-attended Australia had known. If the King had died, he could not have been shown more respect than that given to the boy from Richmond and Jerilderie of Jewish-Prussian parentage."

Strains, uncertainty — but some notable achievements also

If nothing else, 1981 has been an interesting year . . .

It has also been one marked by unprecedented strains, conflicts, confusion and uncertainty. And, as this issue of *Monash Reporter* goes to press, the confusion is worse compounded by manoeuvring in the national Parliament over education funding and, in particular, the Government's plan to reintroduce fees for second and higher degree students. Indeed, it is even unclear whether the necessary legislation will be passed to enable Monash to receive funds for 1982.

Until these conflicts are resolved, universities will find it difficult to go about the task of planning their programs for the reduced circumstances they face in the triennium ahead.

The present situation graphically illustrates the prophetic nature of Monash Council's complaint, as long ago as last May, about the "arbitrary and haphazard way of formulating educational policy" as exemplified in the Razor Gang's activities. activities.

A succession of government actions in the past year have given rise to serious

concern: the continuing reduction in funds for tertiary education, the fees proposal, the decision to phase out engineering education at Deakin (and particularly the manner in which that decision was taken) . . . all have raised the spectre of growing government intrusions into university autonomy.

We may still be too close to the problem to judge clearly the nature of this perceived threat to academic freedom and university autonomy, but we cannot afford to relax our guard.

Nevertheless, I believe Monash has completed a difficult year in pretty good shape — and we have, I think, chalked up a few notable successes.

● Once again, we've scored well in attracting an impressive amount of research funding.

● The in vitro fertilisation team under Professor Carl Wood at the Queen Victoria has achieved an astonishing improvement in its success rate and is a clear world leader in this important new field.

● The Centre of Policy Studies, under Professor Michael Porter's directorship, has quickly established its reputation as a major

centre for economic research and policy analysis.

● In electrical engineering, Associate Professor Ed Cherry's invention of a new feedback system that reduces distortion in amplifiers to a previously unheard-of degree attracted world-wide attention — and a licensing agreement with Japan's Pioneer Corporation that will net the University more than \$400,000 by 1983.

● Mathematician Andrew Prentice found vindication for some of his previously unpopular theories about the origin of the solar system — and particularly of the nature of the rings and moons of Saturn — when Voyager II sent back startling 'new' data after its recent 'flyby' of the planet.

I believe that, with creative achievements of this standard of excellence, Monash can look forward confidently to 1982, and I'd like to take this opportunity to wish you all — staff, students, graduates and friends of the University — the compliments of the season and a happy and rewarding new year.

Ray Martin,
Vice-Chancellor

Eucalypts

Aboriginal man may have been responsible, at least in part, for the proliferation of eucalypt forests which dominate the Australian landscape today.

Analysis of pollen samples from the Atherton Tableland in north Queensland by Dr A. Peter Kershaw, of the Monash Geography department, shows a dramatic change in the Australian landscape over the past 120,000 years.

Much of the change appears to be due to variations in climate, but the dominance of sclerophyll vegetation, indicated by the high values of *Casuarina* and *Eucalyptus* pollen in the pollen record, begins about 38,000 years ago. By then, it is believed, the Aborigines had arrived in Australia.

The emergence of the sclerophylls — particularly the fire-tolerant *Eucalyptus* — as the dominant vegetation coincides with a decrease in rainfall and a massive increase in charcoal particles — an indication of the increased prevalence of fire.

Dr Kershaw believes that the "sharp increase in the charcoal curve", which has been maintained to the present day, indicates that the increase in fires at this time was due largely to the activities of man — the use of fire by Aborigines for hunting and easier travel.

Oz Cockney?

An Australian today and a Cockney from the First Fleet would feel 'at home' with each other's accents if it were possible for the two to meet in conversation.

For, so a Monash linguist theorises, Australian English had its origin in the dialect of London of the late 18th Century.

Professor Goran Hammarstrom says that if a Londoner today should scratch his head over an Australian's pronunciation it is because the London dialect has changed over the past 200 years. On the other hand, Australian English has hardly changed.

Professor Hammarstrom, chairman of the Linguistics department, puts forward his theory in a book *Australian English: Its Origin and Status* published in Hamburg as part of the *Forum Phoneticum* series.

● From cover

Fertility work

The Monash research, which is being done in conjunction with the Infertility Clinic at Prince Henry's Hospital, is concerned mainly with a type of male infertility in which sperm are produced in the testes, but are unable to pass into the vas deferens, the sperm's exit route, because of a blockage in the epididymis.

The epididymis lies behind the testes and consists of a coiled system of 10-15 tiny ducts which lead to a single convoluted duct which, in turn, leads into the vas deferens.

Dr Peter Temple-Smith, of the Monash Anatomy department, and micro-surgeon, Mr Graeme Southwick, using rabbits, have developed a micro-surgical technique which enables them to by-pass the blockage in the epididymis by joining the vas deferens directly to the minute epididymis duct.

Using single duct microsurgery they have achieved a 90 per cent success rate in rabbits. All 90 per cent had healthy young.

In conjunction with Professor David de Kretser, they are now beginning to use this technique in men who have an obstruction within the epididymis and are infertile.

Aid to regime called 'wicked'

The Director of Monash's Centre of Southeast Asian Studies has described as "unproductive" the continued opposition to the Vietnamese-backed Heng Samrin government in Phnom Penh by the US, China and ASEAN nations.

Associate Professor David Chandler says it is "wicked" that those nations should cynically arm and feed the remnants of the Pol Pot regime.

Dr Chandler visited Cambodia recently after organising a conference on what happened in that country in the years 1975-80. The Social Sciences Research Council-sponsored conference held in Thailand brought together a group of nine scholars, diplomats and journalists, all specialists in Cambodian affairs.

He says that Phnom Penh has returned to relative normality under the Heng Samrin government, which is reconstructing a "recognisable society" after the destruction of the Pol Pot years.

For example, restrictions have been lifted on the movement of people and on their dress and eating habits. Markets and banks have been reopened, money reintroduced, a postal service restarted and schools re-established.

Above all, the killing of political opponents and "class enemies" appears to have stopped. During the Pol Pot years it has been estimated there were one million regime-related deaths.

Dr Chandler suggests that Cambodia be allowed to recuperate under what he calls "the light-handed aegis of the Vietnamese."

"Any move to oust the government won't see dead Vietnamese but simply more dead Cambodians," he says.



Bioethics Centre starts its work

A major conference on ethical and legal issues connected with medical science and the preservation of life will be held at Monash on November 12.

Among the participants will be Justice Elizabeth Evatt, Chief Judge of the Family Court, Mr Justice Michael Kirby, Chairman of the Law Reform Commission, and, from Monash, Professor John Swan, Dean of Science, Professor Graeme Schofield, Dean of Medicine, and Professor Peter Singer, of Philosophy.

The conference is being organised by the University's Centre for Human Bioethics set up late last year as the first such body in Australia.

Headed by a steering committee representing scientists, doctors, philosophers, educators and lawyers, the Centre has this year employed two research fellows, Ms Helga Kuhse, who is doing a PhD in philosophy, and Mr Alan Rassaby, a lawyer with a research background on the law in relation to the intellectually handicapped.

The multidisciplinary mix of the Centre's steering committee reflects its basic aim — to bring together diverse professionals, scholars and interested members of the general public to discuss problems which

cut across the boundaries of traditional disciplines.

Studies have been carried out during the year on two issues: the ethical and legal aspects raised by in vitro fertilisation programs (a pertinent topic considering the world prominence in this field of a Monash-Queen Victoria Medical Centre team led by Professor Carl Wood) and the birth of seriously defective infants.

Advisory role

Ms Kuhse explains the basis of the Centre's work: "What we are aiming to do is promote the study of ethical issues raised by new advances in the biomedical sciences. We also hope to become a resources and advisory centre for various groups and we hope to reach some conclusions on selected topics — conclusions that are defensible on ethical and rational grounds.

"While we cannot hope to find all the answers we will at least be able to act as a catalyst in raising lots of questions. After all, how can we hope to find answers if we don't know the questions?"

A stake in future debate

Monash graduates and other members of the public can have a stake in the long-term success of the Centre for Human Bioethics and the opportunity to become involved in its activities.

The Centre's establishment was funded by the University but its continued existence and growth will depend on its ability to attract private funds.

Already its work has attracted support from the Myer Foundation, and donations from organisations and bequests have been welcomed.

But at a grass roots level the Centre is building an Association of Friends —

scholars and citizens both inside and outside the University. There is no fixed subscription for associates but a minimum donation of \$25 has been suggested (\$5 for full-time students).

Associates will receive notification of activities organised by the Centre. Resources such as bibliographies and reports will be made available to them as will the Centre's Newsletter, issue one of which appeared last month.

For further information on associateship and also on the November 12 conference — to be held at Mannix College — contact Ms Helga Kuhse in the Centre, ext. 3206.

The life of a country doctor

The country doctor may lack the glamor of his urban counterpart.

But, in his widespread practice, he may be called upon to exercise skills foreign to the city doctor, who has the sophisticated aids of modern medicine at his command.

The country doctor's car may be the "ambulance" in an emergency. His car boot and black bag will contain all the vital resuscitation equipment available.

Unlike his city colleague, who has specialised hospital facilities and mobile intensive coronary care units at call, he cannot "fob off" an emergency call.

More often than not he is the only doctor in the district, on call 24 hours a day, seven days a week, in many cases, 52 weeks a year.

The work of a country doctor is described in meticulous detail in the recently published monograph "The Anatomy of a Rural Practice," by Dr John Murtagh, senior lecturer in the Monash Department of Community Practice, which was awarded the 1980 Francis Hardey Faulding Memorial Fellowship Prize for research in general practice.

The prize, worth \$2,500, was presented to Dr Murtagh late last year at the annual meeting of the Royal Australian College of General Practitioners in Adelaide.

The research that earned Dr Murtagh the award was undertaken from 1970 to 1979, when he was in joint practice with his wife Jill at Neerim South, 120 km east of Melbourne. Their practice, which included the Mt Baw Baw ski resort, extended over an area of almost 2000 sq.km. of bushland, farmland and mountainous terrain.

Dr Murtagh's nine-year study, which set out to provide "an academic base of knowledge for the future vocational education of rural general practitioners", analyses the country doctor's workload and investigates rural morbidity and mortality patterns. But the main thrust of the study is his analysis of emergency calls, which highlights the need for improved training in this area for future rural doctors.

The 1982 Australian University Graduates Annual Conference will be held at Monash University in February 1982.

The Conference will open on the evening of Friday, February 12, in Robert Blackwood Hall and continue on Saturday and Sunday, February 13-14 at Normanby House. Delegates from the Graduates' Associations of 18 Australian universities are expected to attend.

The agenda for the conference is the responsibility of an executive committee of which the chairman is Mr F. S. Heste, a graduate of the University of Sydney.

Some of the conference discussion is almost certain to centre on the implications of the Tertiary Education Commission's

MGA picnic

Members of the Monash Graduates' Association, their families and friends are cordially invited to attend the Association's annual picnic.

Date: Sunday, December 6.

Arrangements: We meet on the shores of Lake Wendouree, Ballarat, beside the Lake Lodge kiosk which is directly opposite the main entrance to the Botanical Gardens. Look for the MGA banner.

We Provide: Bush music and dancing, and also country-style foot races.

You Bring: A picnic lunch, glasses and something to sit on. If you wish to barbecue your lunch please bring your own barbecue.

Cost: Free, but a donation would be appreciated for the band.

If you require a detailed map of the picnic location please contact Mrs V. Thomson, Information Office, Monash University, ph. 541 0811, ext. 2002.

Further Information: Glenis Davey, 489 7382 (A.H.)

funding policy, and on the likely future employment prospects for graduates from different subject areas.

The Monash Graduates' Association President, Miss Glenis Davey, is being kept informed about the conference planning and is assisting with some of the decision-making. One of the conference speakers will be Mr Lionel Parrott, the Officer-in-Charge of the Monash Careers and Appointments Service. His topic will be: "Should market factors determine the provision of tertiary education?"

This year's conference provides Monash graduates with a special opportunity to

participate: apart from the value, and interest of such a representative gathering, Monash graduates have a responsibility to attend as members of the host association.

There will be no registration fee for the conference. Visiting delegates will be accommodated at Normanby House.

Details of the program, the cost of meals and registration procedures will be available after January 5.

For further information contact Mrs Vicki Thomson in the Monash Information Office (541 0811 ext. 2002).

Rick Belshaw

Association commissions graduation processionals

The Monash Graduates' Association has commissioned from composer Richard Hames a processionals to be played on the Louis Matheson Pipe Organ in Robert Blackwood Hall.

It is hoped that the processionals will be suitable for graduation and other ceremonies in the Hall. The work's premiere is expected to take place during the Australian University Graduates Conference to be held at Monash in February next year.

The Association took the first step

toward commissioning a processionals in 1980 when it applied to the Music Board of the Australia Council for financial assistance. Although the application was only partially successful the Association agreed to provide additional funds to enable the project to proceed.

Following advice from RBH management, the Organ Appeal Committee and organist John O'Donnell, the Association approached Dr Hames, Director of Contemporary Music Studies at the Victorian College of the Arts, to compose the piece. The result is a work of ten minutes duration but, with up to five variations, can be extended to 16 minutes.

Richard Hames is English-born and received his initial music education at the Royal College of Music in London.

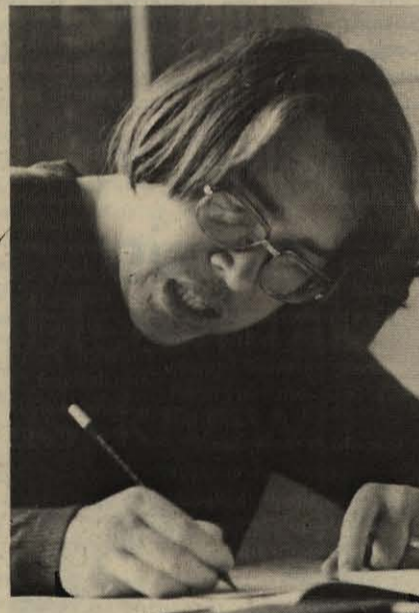
In his early years he worked with Peter Maxwell Davies in London and with Olivier Messiaen and Nadia Boulanger in Paris.

In 1971 he undertook research on the analysis and semiology of new music with Benjamin Boretz at the University of Southampton and the following year worked with Goffredo Petrassi in Rome.

In Melbourne, Dr Hames formed the Victorian Time Machine, one of Australia's foremost contemporary music groups.

His work is increasingly performed and broadcast throughout Australia, Europe and the U.S.A. Among his compositions is a three-act opera, "The Hours of Hieronymus Bosch", eight years in the writing, which is to be premiered in Germany in 1983.

Ron Nethercott



● Composer, Richard Hames

Disabled make needs known

Educational problems of disabled people — at Monash and more generally — came under discussion in a number of forums held at the University as part of International Year of Disabled Persons activities.

The message of what disabled students seek and how they will achieve it was made clear at a symposium organised by the Vice-Chancellor's Advisory Committee for People with Handicaps: "equality and full participation" will come about by disabled people making known their needs and representing themselves when their welfare is being decided.

At Monash such an avenue for participation has existed since 1977 when Professor Ray Martin set up his advisory committee. Many improvements have resulted but it has also been acknowledged that major deficiencies remain in the lack of lifts in the older two level buildings.

Two Monash students have taken the initiative to provide representation at a national level for both secondary and tertiary students who are disabled by establishing an Australian Disabled Students Union. Steven Hurd, an Arts/Law student, is foundation president of the Union and Glen Patmore, an Economic/Law student, vice-president.

While not dismissing the problems of the tertiary educated and professionals who are disabled, a speaker at a mid-year symposium, Elizabeth Hastings, pointed out that this group formed a minority.

Income security was still the greatest need of a majority of disabled people.

"Disabled people are basically poor people," said Ms Hastings, a counsellor at La Trobe University and member of the Victorian IYDP Committee.

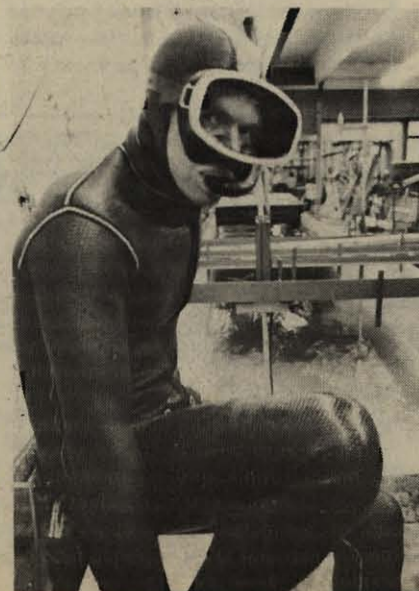
In opening a national conference at Monash on education for disabled young people, the Governor General, Sir Zelman Cowen, said that the most disturbing aspect of the present situation was the many disabled children and adolescents in institutions who have no access to education.

"This group, often the most severely handicapped have the least effective voice," Sir Zelman said.

Dr Simon Haskell, Dean of the Institute of Special Education at Burwood State College, put a figure on the size of the problem. Some 40 per cent of the 328,000 children with learning difficulties were receiving no special consideration in Australian schools and 30 per cent of Australia's mentally retarded children living in the care of the Health Departments received no education at all, he said.



Making waves in Engineering



A tank in which waves of cyclonic intensity can be generated came into operation in the department of Mechanical Engineering this year.

A department workshop had to be modified to take the wave tank which consists of a 50 metre flume or channel, with a wave generator at one end.

The wave tank will be used to:

- Study the interaction of off-shore structures, such as oil rigs, and waves and currents, and improve the structures' design.

- Train students in fluid dynamics and in the design of off-shore structures.

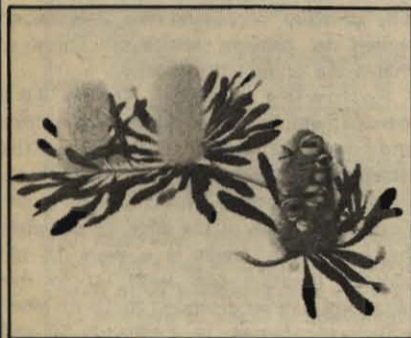
- Study wave motion in continental shelf water, typically 100 metres deep.

The wave tank has been used to test rock protection for Woodside's underwater pipeline at its Rankin gas field on the North-West Shelf of Western Australia.

Book reveals the beauty of Banksias



● Artist Celia Rosser at work in her studio in the Botany department. BELOW: Mrs Rosser's watercolour drawing of the first species of the plant classified, *Banksia serrata*.



The first volume of the three-volume work, "The Banksias" — which features the watercolour drawings of Monash University Artist Celia Rosser — was launched this year.

The hand-bound volume, published by Academic Press, London, in association with Monash University, is limited to 720 numbered copies and is expected to become a world-wide collectors' item.

The book sells for 965 pounds sterling. The text is by Alex George, executive editor of "Flora of Australia", a special project of the Commonwealth Bureau of Flora and Fauna.

The first volume contains drawings and descriptions of 24 Banksia species in chronological order of their being described.

The plates, each 770mm x 550mm, are accurately reproduced from Mrs Rosser's watercolour drawings which are lifesize to the original specimens.

More than 70 species of Banksia, all but one of which are endemic to Australia, have now been described and all will be included in the three volumes. Volume two, it is hoped, will be published in 1984 and the final one in 1988, Australia's bi-centenary year.

It is 200 years since the first species of Banksia were classified by Carl Linnaeus, son of the Swedish botanist of the same name who is regarded as the father of modern botanical nomenclature.

The first samples of Banksia — four "honeysuckles" — were collected by Joseph Banks and the Swede, Daniel Solander, at Botany Bay during Captain Cook's first landing on the east coast of Australia in 1770.

A breakthrough in chemical analysis

Monash chemists have achieved what some scientists had believed impossible.

They have developed a technique called MODR (microwave optical double resonance) which will give chemists, for the first time, a general method of detecting the spectral lines — the "chemical fingerprints" — of electrically charged molecules.

The technique, which opens up new fields of chemical analysis, is a triumph for Professor Ron Brown who conceived the idea six years ago.

He persisted with the task even though some overseas colleagues had given it up as too difficult.

Success came mid-year to the Monash team with the detection of the spectral lines of an electrically charged molecule of carbon monoxide.

Chemists have several established methods of chemical analysis which enable them to determine the composition of substances ranging from simple compounds to stellar objects like the sun.

One of the most sensitive of these analytical methods is emission spectroscopy which measures the characteristic light emitted from a substance when it is vaporised.

Where substances cannot be observed with visible light, as in the case of matter in interstellar space where light is screened out by interstellar dust, microwave spectroscopy is used.

Emission spectroscopy and microwave spectroscopy are both powerful methods of chemical analysis, but microwave spectroscopy only works when the molecules being observed are uncharged. Until the



● Professor Ron Brown

breakthrough by Professor Brown's team, molecules that carry an electric charge had retained their anonymity (with a few special exceptions of some ions generated in plasmas).

Professional Register

Monash's Careers and Appointments Service has established a Professional Register in response to the increasing number of graduates with significant work experience among its clients.

Each year well-qualified people, as well as recent graduates, find job placements through referrals, on-campus interviews or vacancy notifications from Careers and Appointments.

Careers counsellor, Mrs Janice Joesse, says that such graduates contact C & A to

Starting salaries for university graduates rose, on average, more than 12 per cent in the year to the end of April, 1981, and there are indications that the rate of increase has remained steady since.

The increases ranged from a low of 7.1 per cent for graduates in the biological sciences to an impressive 17.7 per cent for chemical engineers.

These figures emerged from a survey completed by the Monash Careers and Appointments Service.

Commenting on the figures, the head of the service, Mr Lionel Parrott, said that, while the salaries for engineering graduates recorded the most spectacular increase, they still did not approach the levels suggested by some of the more extravagant claims made in some quarters.

Figures published in the report show

engineers' starting salaries ranging from \$14,243 (pass degree) and \$14,761 (honours) for mechanical engineers to \$14,822 (pass) and \$15,241 (honours) for chemical engineers.

Mr Parrott notes that there was a significant increase in the number of graduates employed by the respondent organisations (91 in all employing 1445 graduates) and — most notably — that the number of organisations employing 50 or more graduates rose from three to eight.

He adds, cautiously:

"Projections of future demand for graduates are notoriously unreliable as demand can move backwards and forwards from stable to positive to negative situations very quickly.

"However, there appears to be a marginal balance of opinion suggesting increased graduate intakes in 1982."

Account on accountants

Monash accounting graduates filled 15 per cent of positions offered by the 10 major chartered accounting firms in Melbourne last year.

In 1979 the University's graduates filled 28 per cent of such vacancies. There has been a corresponding increase in the recruitment of University of Melbourne students (up from 29 per cent in 1979 to 38 per cent last year) and, to a lesser extent, students of other institutions.

The decrease in the Monash figure can be explained in part by the large drop — 26 per cent — in the number of Monash final year accounting students eligible for employment.

Careers and Appointments Service records show that 147 eligible students were interviewed by chartered accounting firms in their on-campus recruiting program in 1979. Last year 101 eligible students were interviewed. Of the 1979 figure 59 graduates — or 40 per cent — were suc-

cessful in gaining employment. The comparable 1980 figure was 31 per cent.

This information is contained in a report titled *Survey of Accounting Students' Recruitment Interviews with Chartered Accounting Firms* published by C & A.

Data for the report came from two surveys conducted by C & A last year.

These are some of the other findings in the report:

- Despite a belief widely held by both Monash and Melbourne students that chartered accounting firms discriminated unfairly — chiefly on the grounds of race, sex and social class — against certain applicants there was little evidence of such practice.

- Firms seem to have a preference for students completing the double law/economics or law/commerce degree.

- Despite the low number of refusals of job offers from chartered accounting firms, many of the applicants showed interest in employment outside this field.

Surveys on other professions — news pages 4-5.

Doubts on court practices

Research in the Monash Psychology department casts serious doubt on the efficacy of current courtroom practices.

It casts doubt both on the reliability of present identification procedures and on the methods of acquiring and testing evidence.

Monash psychologist, Dr Donald Thomson, who is conducting the research, points out that in a typical courtroom situation two things have to be established

— the nature of the offence, and the identity of the offender (unless, of course, the offender is caught red-handed.)

Both of these things depend almost entirely on the memory of the witness.

Since the experiments in 1885 of Ebbinghaus, one of the early experimental psychologists, it has been known that the accuracy of recall is always highest soon after the event, and it declines, as a function of time, rapidly at first, then gradually. The findings of Ebbinghaus have been confirmed many times over.

In view of this decline in the accuracy of recall with the passage of time, Dr Thomson has argued that the written statement of the witness, taken as soon after the event as possible, should provide the main basis of the charge for judge and jury.

But the courts have tended to reject this approach because they say it does not permit the evidence of the witness to be tested and evaluated under cross-examination.

Recent experiments in Dr Thomson's laboratory at Monash, however, give further support to his view that present legal practices are inadequate.