At an inhospitable site on the edge of Victoria's Big Desert, biologists have been piecing together the jigsaw of life in a typical mallee area. They have gained insight on a seeming paradox: the key to the long-term survival of mallee is fire. Without fire there would be no "recruitment" of the vegetation. As it is, recruitment is widely spaced in time giving a steady-state appearance to mallee populations.

The research, which is based in Monash's Botany department, has also pinpointed the significant role of ants in the population dynamics of the mallee. And it has allowed observation of rare botanical events — the triggering by fire into flower of plants (whose beauty is downgraded by the term "fireweeds"), the seeds of which can lie in the ground for decades before germination.

Members of the team, which has been working at the site near Lake Albacutya since 1979, include Dr Terry O'Brien, Reader in Botany; Dr Bruce Wellington, who completed his Ph.D. thesis on the population dynamics of the mallee species, Eucalyptus incrassata, at ANU in 1981; Dr Alan Yen, now at the Museum of Victoria; and Mr Alan Andersen, formerly at Monash and now at Melbourne University's Botany School.

Dr O'Brien says that the work "got off the ground" with an $80,000 untied grant from the Westpac Bank (then EBA).

The site the team chose, in the western extension of Wyperfeld National Park, offered ideal research conditions. On one side of a bulldozer-width corridor was an area burnt by wildfire in 1977; on the other side an area unburnt in 80 or so years. A massive wildfire burnt the whole area in 1981 allowing the researchers to study a newly-burnt area and another "re-burnt" in a very short period.

The area is characterised by steep sand dunes, some up to 30m high, divided by wide swales. Its predominant vegetation is mallee, the multi-stemmed, stunted form of Eucalypt found across southern Australia. Typical of the 200-500mm rainfall region, it forms a transition between the more common Eucalypt forests of wetter areas and the Acacia shrublands of the truly arid centre.

There are three mallee Eucalypt species in the study area: Eucalyptus incrassata, E. dumosa and E. foecunda. Mallee has adapted clearly to the hot, dry environment in which it lives. Above ground, the plant is a series of poles or branches, two to 10m high, each capped with a crown of leaves and carrying a mass of woody fruits from previous flowering seasons.

Below ground is the plant's huge regenerative organ, the lignotuber — or mallee root as it is commonly called. The lignotuber is partially fire-resistant. Although fire kills the above-ground poles of the mallee, it stimulates the production of an abundance of young buds and shoots — coppice — from this underground storage organ. Carbon dating has shown lignotubers to be 250 to 400 years old.

The most significant feature of the unburnt mallee area is that there is little growth of new mallee plants — despite a light intermittent seed rain from fruits in the canopies of adult trees.

Most of the newly-fallen seeds, the team observed, fall victim to predatory ants — and very rapidly.

Predators at work: In unburnt conditions, ants remove most of the seeds dropped in an intermittent light rain from the canopy of mature mallies.

After fire, there is a massive seed rain — too much for the ants to transport. This allows seed banks to establish and new plants to grow (above).

The process is aided by reduced competition from adult plants, themselves knocked by fire and in the process of regrowth (right).
A Monash Reader in Music has won a German Record Critics Prize for a disc she has made of the music of the Mandailing people of North Sumatra. The disc (plus accompanying musical and historical notes, transcriptions and biographical notes) was made by the West German company Musicaephon, the records form part of an anthology of Southeast Asian music published by the Institute of Musicology of the University of Basle.

Dr Kartomi says that the discs were made from hundreds of hours of field work in the Sumatran traditional music. Released by the German company, the record shows four different music traditions within the island. Among the many ethnic groups in the interior, traditional ensembles of drums, gongs, woodwind and brass are played together under the name of Angkola - especially on ceremonial occasions such as weddings and funerals. Associated with these ceremonies is the traditional music which is usually performed by orchestras in an open-sided pavilion in which dancers perform before a descendant of a raja, seated on a raised platform. Dr Kartomi says that there are three types of ensemble in Mandailing music and two in Angkola, distinguished by their drum component.

The largest of the ensembles, common to both, consists of nine drums, graded in size. In traditional practice, this ensemble was reserved for ceremonies given by the raja or, more recently, his descendants - and only after at least one buffalo had been sacrificed. A five-drum ensemble exists in only a few Mandailing areas. Used in the past by the shaman at ceremonies held in front of his house, its music assisted him to enter a trance of trance in which he could contact the spirits. The third ensemble has a two-drum component and is associated with ceremonies of the "commoners", or non-raja families.

Despite its low social status, says Dr Kartomi, it produces the most elegant balance of ensemble sound. All three ensembles have bronze gongs and a wind instrument - but pieces can also be played on bamboo percussion or xylophone.

Dr Kartomi says that research into Sumatran music has been a neglected subject despite its rich diversity. Twelve years ago, she was the first musicologist to carry out extensive fieldwork in the area. Now two Monash postgraduate students and others are working on the music of single ethnic groups and a Monash student wrote a Ph.D. thesis on the music of one area in 1979. Dr Kartomi has helped the University of North Sumatra in Medan establish a department of ethnomusicology - the only one in an Indonesian university.

Dr Margaret Kartomi in a Mandailing village — pictured here is the rare five-drum ensemble, the gedung lima.

The next will be published in March 1984.
Contributions and suggestions should be addressed to the editor (ext.: 203) c/- the Information Office, ground floor, University Offices.
Hospital moves one stage closer

IT TOOK 30 months — but finally Professor Rokuro Hidaka made it to Australia.

Banned by the former government for alleged dealings with the Japanese Red Army, Professor Hidaka was cleared for admission by the Hawke government earlier this year and eventually arrived for a crowded three-week lecture/seminar visit in late September. A relieved Professor Hidaka was entertained at an end-of-tour party in the Monash department of Japanese.

Here, Professor Hidaka (second from left) is seen with Professor Jiri Neustupny, chairman of Japanese, the Japanese Consul-General in Melbourne, Mr Kazuo Kaneko, and the Vice-Chancellor, Professor Ray Martin.

Hail and farewell

TWO-FIVE years on, and a dream begins to take shape — though not, perhaps, in the precise location that Monash’s founding fathers originally envisaged.

Last week the Victorian Premier, Mr John Cain, unveiled the foundation plaque for the new South Eastern Medical Centre — officially, the Queen Victoria Medical Centre Relocation Project — in Clayton Road, a short distance from the University.

When the master plan for Monash was drawn up, back in 1958, it was proposed that a teaching hospital should occupy the south-western corner of the campus. Many plans and schemes were considered — and discarded — as political battles raged over the proposal.

Finally the decision was made: Queen Victoria Medical Centre would be transferred to the site of McCulloch House convalescent home in Clayton.

Now the five-storey, 350-bed hospital, incorporating the Monash teaching departments of paediatrics and obstetrics and gynaecology, is appearing above ground. The $91 million project is due for completion in November 1986.

Speaking at the unveiling ceremony last week, the Vice-Chancellor, Professor Ray Martin, said that the University, along with the City of Oakleigh and surrounding communities, welcomed the government’s determination to press ahead with the new hospital.

Professor Martin said that it was with “a sense of great relief and enormous satisfaction” of the University’s interim council determined to locate the University in Clayton had — at last — been vindicated.

Summer jobs:
Prospects are a lot brighter

There are hopeful signs on the summer vacation job front for students. This is according to Monash’s Student Employment Officer, Irmgard Good, who says that a revival appears to be underway in manufacturing industries.

“A august was the turning point,” says Irmgard. “Firms I hadn’t heard from for two or more years started contacting me and indicated they would have casual employment this summer.

The Student Employment Office, which offers a free service to employers and students, is gearing up for its busiest time of the year.

It has mailed thousands of brochures to potential employers in the metropolitana area — chiefly the eastern and southern suburbs, including the Peninsula. It will also place a series of advertisements in Melbourne papers and, in a bid to foster jobs for country students, the “Weekly Times”.

The targets are labour-intensive industries, such as food, beverage, paint and plastics manufacturers, retail stores, petrol stations, hotels, construction companies, hospitals and municipal councils.

The brochure lists a wide range of areas that Monash students could work in.

These include: clerical, labouring, gardening, table or bar service, data processing, storework, engineering, accounting, driving, sales, childminding, tutoring, fruit picking, and interpreting and translating in a large number of foreign languages.

EMPLOYERS with jobs should contact Irmgard or her assistants Robyn Boyd and Kerryn Hare on 541 0811 ext. 3097 or 3297. An after-hours answering service — 541 3097 — will ensure that no job opportunity is lost.

FOR STUDENTS — Irmgard suggests they register with her Office as soon as they finish exams. Vacancies will be placed on the notice board in the Monash Careers and Appointments, on the first floor of the Union, as they come to hand. There are nearby rooms in which students can wait.

These are her other tips:
• Use your initiative. Tell friends, relatives and local businesses that you are looking for work. Register with the CES and study newspaper — both daily and suburban — advertisements.
• Start job hunting early in the day and try armed with a street directory and coins for phones.
• Look for work as soon as exams finish rather than after a holiday. Many businesses step up production before Christmas and shut down in January. Also, shops, hotels, restaurants and entertainment venues are at their busiest in December.
• Don’t wait for the perfect job. Anything is better than nothing and a short-term job well performed can often lead to a longer one.

ANOTHER addition to the University scene is the new home of the Japanese Studies Centre, left. Designed by University arch. Alan Scott, and incorporating many Japanese architectural features, the building is now ready for the official opening, due to take place soon. Construction of the centre was made possible by substantial donations from the Japanese car firm, Toyota, the Commemorative Association for the Japan World Exposition, the Australia-Japan Foundation and other local bodies.

NOVEMBER

MONASH REPORTER
Reformer argues case on plain English law

The language of the law is falling to meet the needs of Australians and reform has been delayed too long, according to a Monash senior lecturer in Law.

Such reform must be more than a cosmetic job of dropping the "hereto­fore and "wherein", says Dr Gay Powles.

It must tackle the issue of plain legal English at a conceptual level, bearing in mind the audience for which the communication is intended.

It must be based on proper linguistic research.

And it must involve all those groups which initiate use of legal English — the legal profession (including judges and law draftsmen), parliamentarians, government departments and commer­cial enterprises.

For too long, says Dr Powles, one or other of these groups has turned aside proposals for reform by saying it can't or won't be done.

The areas requiring attention, in both written and spoken English, include:

- Legislation of Federal, State and local governments; and documents, notices and forms used by govern­mental and court.

- Commercial documents — particularly conditions of sale, hire­purchase agreements, loan contracts, insurance policies, notices and con­veyancing documents.

- The legal language used in and around courts and tribunals.

- Communication between officials and citizens, lawyers and clients.

Earlier this year Dr Powles urged the establishment of a national task force on legal English reform in a submission to the Senate Inquiry into a National Language Policy — an inquiry now in its final stages.

In it he made the point that native English speakers have relatively few problems understanding legal English, whereas those learning law as a second language may find it difficult. "We say that much of the public has been disadvantaged by incomprehensible legal documents as non-English speakers will understand.

Speaking to Reporter, Dr Powles said that there is a dangerously widening gap between public perceptions of what is needed and what is possible in legal language reform, and the attitude of lawyers "who continue to deny they have lost control over their words".

Some hoary justifications — precision and permanency of meaning — are ad­vanced to support no change.

"Yet the amount of legal language which is actually required in order to convey precise meaning is relatively small and legal "terms of art" are needed far less frequently than is commonly supposed," he says. "Plain English can achieve precision in the great majority of situations with which the public is concerned."

Threat to monopoly

Dr Powles believes that the underlying reason for a lack of enthusiasm for reform could be economic: "It could be argued that lawyers en­courage and connive in the preservation of a 'special purpose' English as a way of preserving their monopoly over com­merce in dealing with the law," he says.

That monopoly has been challenged in recent years by development of the "legal English" approach in areas such as divorce and conveyancing, and by a growing community awareness of the law, fostered by legal studies courses in schools and community legal education programs.

"Some sections of the legal profession are on the defensive and wish to hold the boundaries," Dr Powles suggests that in some in­stances legal English is used to obscure and even to deceive.

Despite the "vested interest", a few efforts have been made in Australia towards reform but they have been piecemeal.

Moves for change

Dr Powles says that the most consis­tent and compelling voice (among the few) to be heard in legal and government circles over the past five years has been that of the Australian Law Reform Commissioner, Justice Michael Kirby. The Commission has no specific reference to deal with the subject, however.

Several insurance companies have produced "plain English" motor vehicle policies. The RACV was the pioneer in Victoria and others have followed, mak­ing their endeavours a selling point.

There have also been good intentions . . . with little result.

For example, in 1977 the Victorian Attorney-General set up a committee to advise on "the ways in which the preparation, formulation, expression, printing and distribution of the law can be improved" in order to promote "greater simplicity, brevity and understanding in the written law". Six years later the committee has not reported.

In 1980, the then Federal Attorney­General proposed that, in the case of selected Bills, explanations of the general purpose of the legislation should be written as simply as possible in a memorandum approved by Parliament.

No example has yet appeared.

The Victorian Credit Act 1981, says Dr Powles, contains a major step in the regulation of the terminology and layout of credit contracts — but it has not yet been proclaimed.

When (or if) it comes into force, the Act will create an offence for a "credit provider" to use a document which fails to meet the statutory definition of "readily legible" or which the proposed Credit Tribunal has examined and declared to be "expressed in language that is not readily comprehensible".

This Act is only part way along the legislative path on the use of language in insurance policies and other commercial contracts pioneered in the US.

One or both of two approaches have been used in several States there. One is to impose a "readability" stand­ard which tests the relationship be­tween a family of comprehension tests and method of presentation. The most wide­ly used standard is based on the Flesch Reading Ease Index which awards a score derived from measuring the length of words and sentences. Usually, the relevant statutes also set requirements on layout, including print and paragraph sizes.

The second approach imposes a "comprehensibility" test aimed at "coherence" and the use of words with "common and everyday meanings". Such tests are obviously vague and hard to apply.

Dr Powles says that such legislation has had a stormy history — and a large number of the Bills has not been pro­ceeded with.

The "fresh initiatives" he believes are needed in Australia would begin with a clear appreciation of the general and specific purposes of legal communication.

One of the problems has been that the language is strained to fulfill two func­tions — the first to enable specialists to converse with each other efficiently and, secondly, to provide communication with the lay person.

"The interests of the people at both ends of legal communication need to be better understood and, where possi­ble, reconciled.

"Assuming there is to be a category of communications written or spoken sole­ly by and for people with the same specialised level of comprehension, as in legal argument in court, the difficulty is to determine what types of communica­tion should fall within this privileged category.

"Where communication will be be­tween groups of people possessing dif­ferent "ends' of legal communication need to be better understood and, where possible, reconciled.

The key to its persistence lies in the all-powerful position the courts attained in the British system over centuries. The significance of precedent in the common law system means also that lawyers are constantly referring to texts, and the language, of the past.

"While society changed around the courts, they held on to their special pur­pose language as a symbol of the status of lawyers and the law," he says.

"Will public opinion at last oblige lawyers — government and private — to take a fresh approach to legal language? I am sure that bureaucracy and com­merce would now support a substantial revision of what is possible — and what is needed — in the long-term benefits of a legal language policy."

An active year for Monash Law Alumni

The Monash University Law Alumni, which now has more than 400 members, had a successful year in 1983.

One of its major projects has been preparation of a directory of Monash law graduates. The directory gives the names, addresses, occupation, professional and cultural interests of members who wished to be included.

Christmas cocktails

The Alumni's next function is a Christmas cocktail party to be held on Thursday, December 8 at 5.30 p.m. Those wishing to attend — or to join the Alumni — should contact Mrs Irene Thavarajan on 541 3307.

Earlier in the year, the Alumni held its first annual dinner. Professor J. Fleming, author of The Law of Torts, was guest speaker at the function on April 21.

The first Monash University Law Alumni Undergraduate Award was presented — to Mary Amerena, who completed her course in 1982.

At the annual general meeting, which preceded the dinner, the following office­bearers and committee members were elected:

President, Jack Hammond; Vice­President, Marilyn Pittard; Secretary, Tom May; Treasurer, Malcolm McComas; Committee: Peter Garrison, Christopher Jessup, Joan Miller, Stephen Newman, David Phillips, Barry Ratcliffe, Harry Reicher and Roger Rothfield.
The letters of the law
open doors on humanity

Perry Mason always got his man — but, strictly speaking legally, he should not have.

It is one instance in which telling a good story took priority over getting it right on matters such as rules of evidence.

The homegrown "Cargos Law", which ranks among the adviser Don Dunstan QC, fares much better in the courtroom authenticity stakes. And, of course, it would be a brave person to cross-examine John Mortimer on points of law in "Rumpole of the Bailey".

Such programs are part of a long and close relationship between the law and literature and the performing arts. Indeed the first trial scene in literature is generally accredited to the Greek playwright Aeschylus in "The Eumenides". Many playwrights and novelists since have drawn on the theatre of the trial — with its rich opportunities for surprise, rhetoric and catharsis (without need for scene change).

For every Perry Mason "judge", there is a Dostoevsky who in novels such as "The Brothers Karamazov", "Crime and Punishment" and "The Idiot" is spot on in raising pertinent issues in law, says Neville Turner, senior lecturer in Law.

And there is a Shakespeare who in plays such as "Measure for Measure" and "The Merchant of Venice" gives a textbook study on the distinction between law and equity.

Mr Turner has just published in the US a paper on Dostoevsky and the judicial process, looking particularly at "The Brothers Karamazov". His interest in the study was fostered by another Dostoevsky student, Dr Bobba Vladi, senior tutor in Slavic Languages.

The novel concerns a man's wrongful conviction on a charge of murdering his father. The prosecutor's case is based entirely on circumstantial evidence.

It was written in 1878 but set a decade earlier — just three years after the great Judicial Reforms in Russia which saw introduction of trial by jury.

Mr Turner says that Dostoevsky was able to pinpoint with great perspicacity the factors that can lead to an error of justice in the course of a trial — factors which make a trial more of a lottery than a search for truth.

"Dostoevsky's acute criticisms have a timeless quality. The doubts raised on the trial process are ignored by the conservative and narcissistic legal profession even today, although there are signs of disquiet," he says.

Ultimately, Dostoevsky's criticisms, he adds, lead to questions which lawyers might prefer not to face about the judging of human affairs: Is it ever possible to know the truth? Can a human court ever be justified in coming to a conclusion?

Mr Turner analyses Dostoevsky's criticisms of the trial process, relating points raised to the views of other creative writers, and to modern legal studies such as that of Sir Richard Eggleston in "Evidence, Proof and Probabilty" (the second edition of which is reviewed elsewhere in this Reporter).

He examines, for example, the effect on justice of the lack of legal representation, unequal legal representation, the role of the judge, and the admisibility of evidence, including the failure to produce admissible evidence.

He looks too at the role of the jury as a potential source of injustice.

"The rationale of using juries is that they constitute the ordinary conscience of society, as opposed to lawyer/judges, who may be technically-minded, remote and untrustworthy characters. That is the theory," Mr Turner says.

"In practice, the jury may be confronted with a case which is beyond their intellectual capacity."

This is becoming particularly evident in cases of white-collar crime, he says.

Related to this issue is the problem of the evidence of experts. In "The Brothers Karamazov", Dostoevsky points to problems of evidence by psychiatrists and psychologists.

There is a further complication in common law countries where the adversarial system of court procedure compels the expert to be a partisan for the side that calls him as a witness. It is a defect shown up sharply in the Chamberlain case.

Mr Turner says that another possible source of error in justice, strongly hinted at in "The Brothers Karamazov", is the artificiality of the trial setting itself. The intimidating and unnatural environment can make people behave in an abnormal way — or at least not give of their best.

Says Mr Turner: "The result may be that truthful witnesses appear to be untrustworthy, or, conversely, that liars appear to be convincing."

"Sir Richard Eggleston, a judge of many years' experience, makes the startling point more than once in his book that 'Most witnesses will lie if the motive is strong enough and many will lie merely to save lengthy explanations about matters that they think have nothing to do with the case'"

A more informal setting would help, he says. So too would more patient, less arrogant lawyers.

In quite a different area, Mr Turner has recently co-authored a book in German on English family law (Englisches Familierecht). It is intended primarily for German lawyers advising clients who have married across nationality.

- Neville Turner

Visit by Chinese delegation

A top-level Chinese law delegation, led by the Vice-President of the Supreme People's Court, visited Monash last month.

The visit follows one by a team of experts on Australian criminal law and procedure to China last year. That group included two Monash lawyers, Professor Louis Walker (currently Law Reform Commissioner of Victoria) and Mr Richard Fox, and was headed by Mr Justice McGarrav of the Supreme Court of Victoria.

The Chinese delegation consisted of Mr Wang Zhanping, the leader; Mr Zheng Xiwen, Vice Minister of Justice; Mr Wang Qi, Chief Judge of the Economic Division of the Supreme People's Court; Mr Wu Yulan, Chief of the Economic Law Research Department of the Legislative Committee, National People's Congress Standing Committee; Mr Lu Jian, Deputy Director of the Office, Ministry of Justice; Mr Huang He, Deputy Director of the Research Department, Ministry of Justice; Mr Xu Jingfeng, Deputy Director of the Foreign Affairs, Ministry of Justice; Ms Feng Xiumei, interpreter.

Their visit, organised by the Australian Government, included Melbourne, Canberra and Sydney.

Mr Turner's visit to Melbourne followed a delegation meeting with the Chief Justice of Victoria - and other judges and members of the legal profession, observed criminal trials, attended various correctional agencies and attended seminars at Monash and Melbourne universities.

The seminars at Monash included one on domestic violence, led by Mr Justice Fogarty, also participated.
A self-help approach to Third World health

A Monash medical graduate has helped pioneer a new approach to health care for refugees in several Third World countries.

Dr Michael Toole, who graduated in 1971, says that primary health care departs from the "fire-fighting" mentality in which aid organisations have traditionally approached refugee medicine.

After dealing with emergency problems, it emphasises preventive rather than curative medicine and seeks community involvement in programs by training refugees themselves as health workers. It is designed to lessen dependency.

Dr Toole has worked in camps in Thailand, along the border with Laos, and most recently in Somalia.

The Horn of Africa, he says, is possibly the area of greatest need in the world. Yet there are fears that the Australian Government may turn its back on it and other such areas by moving from needs-based foreign aid to exclusively region-based.

This year Dr Toole has been working with Community Aid Abroad as primary health adviser, involved mainly in a Somali project to which the Government has committed $2.5m over five years.

He first went to Somalia in 1981 as senior medical adviser in its Refugee Health Unit. The country had just inherited the world's most serious refugee emergency at the time, following the loss of much of its population by civil war.

It was fought over the Ogaden, an area given to Ethiopia by the British but peopleled by ethnic Somali - long a disputed claim.

Somalia had attracted Soviet Union support after its revolution in 1969 but mid-war found its ally cross sides as US influence in Ethiopia waned.

The result was disastrous; one million people fled to Somalia.

Idealistic Somali doctors and nurses spearheaded the new approach to health care of these refugees, says Dr Toole. They were determined that international agencies should work to their ideas.

The first task was to tackle urgent medical matters. Malnutrition was attacked by selective supplementary feeding for children at risk, with mothers encouraged to prepare the food. An immunisation program was implemented in the first year to combat diseases such as measles, whooping cough and TB.

At the same time, the medical teams started training health workers selected from among the refugees. Natural candidates for this task included traditional midwives and bone-setters.

These people were taught literacy and the basics of preventive medicine - the significance of sanitation, for instance, and clean water and immunisation.

They were also trained in the diagnosis and treatment of common diseases. The group of drugs used was limited and standardised.

This procedure, says Dr Toole, meant that the health workers were taking primary responsibility for their communities, referring only difficult cases to medical staff. In turn, the doctors and nurses had time to train more primary workers and conduct health education more widely.

He says that by 1982 some 90 per cent of work was being performed by health workers.

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Such was the success of the program that the Somali Government decided to apply the model to the country as a whole: In the camps infant mortality before the age of one was one in 25; in Somalia generally it was one in five.

Community Aid Abroad, which had responsibility for one of the 35 refugee camps, agreed to conduct a feasibility study of extending primary health care to the remote, nomadic region of Sanaag.

It is this program on which Dr Toole has been chiefly working.

On his most recent visit to Africa he also entered, via the Sudan, Eritrea - another area of conflict in Ethiopia.

Post-war, the United Nations "inherited" Ethiopia and Eritrea. In reality the latter was swallowed up by the former. An Eritrean People's Liberation Front fights for independence.

There are severe famine conditions in the whole area, says Dr Toole. Ethiopia claims that it is distributing international aid to all its provinces including Eritrea.

"This is simply not true," says Dr Toole. "I have travelled throughout the area and to one of the camps.

"No aid is coming from Ethiopia, and Eritrea is getting no assistance from any other source because it is not recognised as a political entity."

Farewell to a Monash 'institution'

Thirteen years in the job, Cathy-balding-the-Union Desk has become, for want of a better word, a Monash "institution".

A sudden day outside, late in the afternoon - her cheerfulness seems indefatigable.

Next year Cathy is to leave the University to go to what she calls the "mount of her career" - motherhood. The Toscanos' first child is due in April.

When Cathy Celona (as she then was) came to Monash in February 1971 she was fresh out of Sacred Heart Girls' College, Oakleigh. The nuns warned her of the dangers of working in a hotbed of revolution.

She wasn't paralysed by fear.

If anything, she recalls, in a whole span of years, the 1970s were more carefree.

"Students seemed to have more fun then. There wasn't the job pressure, for example," she says.

The Union Desk has always had a special relationship with members of the University, Cathy believes.

"I think we've been as part of the bureaucracy. It's sort of place people can ask an ordinary question, even a dumb one, and not feel an idiot."

"There's great satisfaction in doing your job and answering that most asked question - to let nothing win you."

Without doubt the most asked question is: Is this the inquiry desk? Not all queries are answered so easily.

Just recently a phone inquirer asked Cathy how long the journey would take from Monash to Bethlehem.

Caught unaware she asked if the caller would be travelling by donkey or camel.

It was, in fact, a serious request. As we talk about Monash (the University) he was assuming ready recognition of Bethlehem (the hospital).

Another recent caller was tracking down her 18th century ancestor - at Monash.

"Now even I know from growing up in the area that Monash wasn't built then," says Cathy. She expressed appreciation to the office of the Registrar of Births, Deaths and Marriages who had "referred" the call.

Cathy says that she'll miss her "family" at Monash - "even the whackers" - but knows that the Union Desk tradition will carry on.

Cricket club reunion

The Monash University Cricket Club comes of age this season.

It is 21 and to celebrate the occasion a dinner has been arranged for Saturday, February 25 in Deakin Hall.

The club is anxious to attract as many past players, their wives and friends as possible to the function.

Guests will include the Vice-Chancellor, Professor Ray Martin, and Mrs Martin, together with the President of the Victorian Cricket Association, Mr Ray Steele, and Mrs Steele.

It is expected that the all-inclusive cost of the dinner will be $20 a head. For further information contact the Club President, Ken Ward, at the Halls of Residence on ext. 2900.

Volunteers sought

Volunteers are being sought for a research project in the German department.

The study is on bilingual children. Researcher Susanne Dupke is seeking children aged from two to four years who have no older brothers or sisters.

One parent should speak German to the child and the other English.

Interested families should contact Susanne on ext. 2239 or 543 6094 (home).
Graduate: ‘hero to a nation’

"Investigations into the performance of a 12 metre yacht sail".
That is the title of a fourth year Mechanical Engineering thesis submitted in 1969 by a young man whom Professor Bill Melbourne, project supervisor, remembers as being unassuming but quietly confident and determined.

The description "a person who knew where he was going" crops up without exception among those at Monash who remember our most public graduate of recent months: John Bertrand, captain, helmsman and sail designer of Australia II, the America’s Cup winner.

Not only was John’s technological interest in yachting fostered in Mechanical Engineering’s wind tunnel. Practising his skills on the University’s behalf, he represented Monash in intervarsity sailing events in 1967 and 1968, skippering a Sharpie class boat.

And the Sports and Recreation Association recognised a great sportsman in the making by awarding John a Full Blue in its 1968 sporting awards. It is the first and only time the Association has made this award for yachting.

In the same year he was president of the Monash Sailing Club.

John Bertrand’s years at Monash were 1966 to 1969. The year after, he travelled to the United States where he began a Master’s degree in ocean engineering at Massachusetts Institute of Technology — and joined the crew of Gretel II in his first America’s Cup challenge. He sailed with Southern Cross in 1974 and Australia in 1980 also.

By the time he enrolled at Monash he was already an Australian sailing champ — at age 14.

There was common ground with Professor Melbourne who had been part of Warwick Hood’s design team for Dame Pettie, the 1967 challenger.

Professor Melbourne says that the two often used to joke that an Australian yacht wouldn’t win an America’s Cup “until it had an Englishman at the helm.”

“And that is precisely John’s strength,” he says. “He combines two talents — a natural talent as a yachtsman with that of a top-rate engineer who understands the mechanics involved in a yacht’s performance. He’s a point on which America has had the edge over its competitors for years. ‘First and foremost, though, John is a great yachtie.’”

Professor Melbourne says that it was quite clear John “would be the one to get there”.

“Everything he has done has been quite deliberate — part of a grand plan perhaps. Yet he was always a pleasant and unassuming person and, you can tell when you see him on television, he’s no different now.”

The VICTORS — John Bertrand (left), skipper of the America’s Cup winner, Australia II, and syndicate head, Alan Bond. Photo: The Sun.

Also part of the Australia II crew was another Monash graduate — Bill Ballieu, who graduated in Economics in 1976. In 1972 Will was awarded a Full Blue by Monash for rowing. He was stroke on the University team which won the Oxford-Cambridge intervarsity boat race held on the Manning River, Taree, NSW, in that same year. He also represented Australia in rowing at the ’72 Olympics.

A third member of the crew, Brian Richardson, rowed for Monash in local events in the early 1970s although he was not a student at the University.
Signs of job market slump

A survey conducted by Monash's Career and Employment Services points towards a marked deterioration in the employment of graduates in the private sector over the last year.

The annual survey is conducted primarily to provide information on graduate starting salaries. But this year it has yielded these indicators of the state of the job market:

- In 1982, some 88 private employers participated in the survey and recruited a total of 1371 graduates. In 1983, some 85 employers accounted for 716 graduates.

- Last year six of the companies recruited 50 or more graduates. This year there was only one employer in this category.

- A total of 34 of this year's survey group recruited no graduates at all. In 1982 the figure was 17.

On starting salaries as at April 30 this year, the survey shows up little movement over 12 months—demonstrating the effectiveness of the wage freeze.

The top earners are chemical engineers whose starting salary on average is $17,700. Materials engineers are next with $17,650, with other engineering graduates' salaries in the low $17,000s, with_articled graduates' salaries in the mid-$16,000s.

Economics graduates majoring in accounting profession generally is position­ed below on $16,500, with other engineering graduates' salaries in the mid-$16,000s.

The report notes that the success of a course can be inferred both from what graduates say about its value to them, and from what has happened to them since graduation.

To gauge changes in this second area, the questionnaire sought information on such aspects as nature of work, seniority and responsibility.

The report notes significant job advancement in the years following graduation for those who were surveyed.

The survey found among respondents:

- A substantial move from factory occupations (engineering, accountancy and the like) into management.
- Marked advances in seniority level — 45% increased their level while 52% remained constant.
- Considerable increases in responsibility — both direct (as expressed by the number of people for whom the graduate is directly responsible) and ultimate (a qualitatively judged category).

It also reveals little evidence of unemployed graduates.

A report on a survey conducted among 151 people who completed the Doctor of Philosophy at Monash in 1981 by the Careers and Appointments Service. The survey sought information on unemployment among the diplomates.

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Another survey, conducted among 50 students who completed the Diploma of Education at Monash in 1981 by the Careers and Appointments Service, also reveals little evidence of unemployment among the diplomates.

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Science graduates start work in the private sector at around $16,000 on average. Computer science graduates have been in demand but there are signs that employment growth in this area is starting to slow.

The "poor cousins" in private industry are Arts and accounting graduates whose salaries are in the mid-$15,000s.

Economics graduates majoring in economics fare better at about $16,800.

And how does the private sector compare with the public?

In the Australian Public Service, graduates with three-year degrees have a starting salary of $14,650; four-year degrees $15,120; second class honours $15,600; and first class honours $16,080.

In the Victorian secondary teaching service, the salary for a recruit with a three­year degree and a Dip.Ed. is $15,760.

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Mercury pollution legacy of gold mining technique

Nearly 2500 tonnes of gold were produced in Victoria from 1867 to 1973. About 950 tonnes of it came from quartz reef mining, which traditionally involved the use of mercury in the gold recovery process. Ninety per cent of the quartz reef gold was mined in the heady days of the gold rush - from 1867 to 1893 - and only 500 tonnes had come from Bendigo. Using historical research which show that about one ounce of mercury was "lost" for every one ounce of gold recovered, Monash senior lecturer in Chemistry, Dr Bruce Coller and Master of Science student Rodney Hall estimate that, as a result, Victoria's soil, rivers and streams have received about 950 tonnes of mercury.

"This makes gold mining by far the major source of mercury pollution in inland Victoria, if not in Port Phillip Bay," Dr Coller says.

Dr Glen Deacon, Reader in Chemistry, and Dr Coller are working on the extent of mercury pollution in Victoria from gold mining.

With Dr Tim Eagle and students from the Graduate School of Environmental Science, they have also completed a study funded by the EPA of two small goldfields in the Upper Goulburn catchment which were operated and rehabilitated by Associated Prospecting Limited at Raspberry Creek and the Morning Star mine at Woods Point.

With Dr Sam Lake and Mr David Coleman of the Monash Zoology department, and Mr B. M. Bycroft, now with Carlton and United Breweries, they have also completed a study of mercury levels in water, sediments and fish from the Loddon-Darling River for the Ministry of Conservation.

Science and technology Centre could save $2b. a year on corrosion bill

A feasibility study released by the department of Materials Engineering recommends the establishment of a national centre to fight the ravages of corrosion.

The study, funded by the Federal Government and conducted by Associate Professor Brian Chick and Dr Brian Skurray, with the assistance of a panel of corrosion engineers and other experts, estimates that such a centre could save the community as much as $2000 million a year.

The corrosion problem is not just a question of rust on motor cars and galvanised iron, the report points out. The direct and indirect costs of corrosion to industry are enormous and the results, both socially and economically, can be alarming. Corrosion can cause pipelines to rupture, industrial plant to fail, buildings to deteriorate and aircraft to crash.

The feasibility report says the proposed National Centre for Corrosion Prevention and Control should be funded, at least partially, by the Federal Government. It should have consultative, research and educational facilities, but it should not "supplant nor displace" pre-existing corrosion mitigation facilities.

It would act as a first point of reference for corrosion inquiries from both the general public and industry. It would provide independent and unbiased advice to the public when the facilities were not available elsewhere. A charge would be made for such services.

The report stresses that the National Corrosion Centre should be free of either internal or commercial influences. It should have no links with any commercial organisation and should not be seen as an "extension of any academic institution or government laboratory".

However, because of its long-term research role and its need for access to the highly sophisticated equipment needed in this type of research, the panel believes the Centre should be located close to a high technology institution with an interest in corrosion. Only in that way, it is said, could the benefits be optimised.

The report does not make a firm recommendation on the question of location. Locations close to the University of NSW and to Monash are suggested as suitable sites; on balance, the report favours Monash because of its activity in the area of corrosion. The final decision, if the Centre is established, will be made at the ministerial level.

A job for yabbies

MEANWHILE, in Zoology, researchers have found that the humble yabby -- a part of Australian folklore if less celebrated than the koala, kangaroo or Billy Tea -- shows promise as a biological monitor of water quality.

A study by Dr Sam Lake and Anthony Sokoloff, graduate researcher, indicates that the common yabby, Cherax destructor, might be particularly useful in the detection of mercury contamination. It shows less promise as an indicator of lead contamination. This is because the yabby takes up bioclonomites -- mercury in its muscles, particularly its abdominal muscle. But lead was found to accumulate in the exoskeleton which the yabby sheds when it molts.

A search promoted by bodies such as the Australian Water Resources Council has identified animals useful in water quality management. It shows less promise as a result of microbiological activity.

New approach on machine maintenance

Research by a Monash Mechanical Engineering team on monitoring the condition of industrial machines is aimed at reducing the cost of their maintenance and improving productivity through less "downtime" -- the time equipment is out of action.

The team -- which includes senior lecturers Robin Alfredson, Jack Steckl and Bruce Kulikna -- has produced an inventory of techniques which can be used to identify a maintenance need.

Application of the techniques to date has been on equipment used in mineral processing. Equipment maintenance is a major cost; the percentage of operating costs has risen sharply in the mining industry in recent years.

Dr Alfredson says that there are two approaches that have been taken traditionally to equipment maintenance. Both have drawbacks.

One has been to maintain machines on a regular basis. But this can lead to under-catering and faults can be introduced as well as eliminated in any maintenance procedure.

The second approach is to allow equipment to run until it breaks down and then repair it. Unexpected breakdowns can cause great loss in production.

The new approach is to maintain equipment when it can be seen that maintenance is required.

The Monash team has developed three techniques for determining this:

- Examining wear debris in lubricating oil samples taken from the machines.
- Monitoring changes in the machine's vibration levels.
- Measuring the temperature of bearings.

From the initial area of problem detection, the researchers have moved on to improved methods of diagnosis and prognosis.

Experilearn

 Been to the newly re-organised Museum of Victoria of late? It has a major new "interactive" science display which is arousing the curiosity and interest of adults as much as children.

The $100,000 project Experilearn is a joint venture of the Museum and Monash's Education faculty and Physics department.

The display marks a significant departure for the Museum in exhibition content and style of presentation.

It provides an entertaining introduction to basic scientific principles by inviting visitors to interact with displays -- there are nearly 30 of them -- which demonstrate those principles in tangible and visual form.

The do-it-yourself, bare-facts style of exposition contrasts with the historical approach the Museum has generally taken towards subjects in the past.

The display is modelled on ventures overseas such as the Exploratorium in San Francisco.

The humble yabby . . . an important scientific role?
The banks are now being restructured along regional lines, with key branches of the dual labour market being the main cause of job shedding.

No clear-cut remedies to problems of Untouchables

Experts on development in third world countries have argued cause and effect between an increase in the level of education of women, along with improved standards of living, and a reduction in population growth rates. But how much education is needed to achieve this effect?

In the past, the questions of Untouchable economic historian, Dr Marika Vicziany, and species of the Census of Population economists, is a project with clear policy implications.

Professor Kemp was a senior adviser on Mr Fraser’s staff in his first two years as Prime Minister and was director of his PM’s office in 1981.

In the time since, Kemp has been researching the elevation of the PM’s and other Ministers’ offices to ones with a capital “O” and developing a concept of their role in the system. Such a development has also occurred in Britain, Canada and other countries whose government is based on the Westminster system.

Dr Hill says that what has emerged in the past five years is a consensus of the dual labour market - that of workers in different skill levels and ages.

A study by Monash geographer Dr Gary Bouma, one of the driving factors in the change of residence is made within the city in which the person is living at the time of the move.

But when the percentage attending was compared with the national level, there was a significant deviation. For example, in 1976, the percentage attending was higher in the capital cities than in the rest of the country.

The figure varied from a low of 37 per cent in Newcastle to a high of 57 per cent in Canberra.

The changing labour market in the banking industry is the subject of an inquiry conducted by two Monash academics - Dr John Hill, senior lecturer in Sociology, and Dr Bob Birrell, senior lecturer in Sociology.

Dr Hill says that what has emerged in the banking industry is a “dual labour market”.

The top end is a small sector, the members of which work long hours, but have a high purchasing power. The bottom end is a large public employers.

This has led to the merger of the two sectors, and to the elimination of career paths for the majority of bank employees.

Traditionally, banking has provided a well-defined and secure career path for employees, males in particular.

The last few years have seen profound changes in banking, a chief effect of which is the elimination of career paths for the majority of bank employees.

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Monash microbiologists, in collaboration with the Commonwealth Serum Laboratories, are conducting a pilot trial of a promising new vaccine to protect dairy farmers and abattoir workers against the serious occupational disease, leptospirosis.

Leptospirosis is caused by a spirochaete, a spiral-shaped bacterium, which, in southern Australia, is usually transmitted to humans through the urine of infected cattle and pigs. It is almost exclusively a disease of dairy farmers and abattoir workers. It varies in severity from a mild influenza-like illness to a severe infection involving liver and reversible kidney damage. There is no reliable information on the prevalence of the disease in Australia, but it is believed to be comparable to that in New Zealand, where about three per cent of dairy farmers are infected in any one year.

As there are two common and two less common strains of the disease in Australia, and natural immunity lasts only five to 10 years, a farmer can contract the disease several times in his working life.

Dr Ben Adler, a lecturer in the Monash Microbiology department, who is working on the vaccine with Professor Solly Solly and MSc student Wayne Christopher, says the Monash trial, if successful, may be followed by a large-scale field trial in Northern, New Zealand, involving about 3000 dairy farmers.

Dr Adler says that, at present, there are no human leptospirosis vaccines licensed in Australia.

Vaccines have been prepared in the past from pathogenic cultures in a growth medium containing animal protein or serum, he says, but they have been unsuitable for human use because of their toxic side-effects. The foreign protein in the growth medium may trigger a severe allergic reaction in the person immunised.

"The big advantage of our vaccine," Dr Adler says, "is that, for the first time, we have been able to grow the organisms in a protein-free medium. And we have also been able to grow them in suitable numbers to make a commercial vaccine feasible."

New lead in muscular dystrophy research

Monash biochemists have identified what they believe could be the primary metabolic defect involved in the devastating wasting disease, Duchenne muscular dystrophy.

The disease, which is inevitably fatal, affects only boys and is inherited as a sex-linked recessive trait. The incidence is about one in 3500 to 4000 births.

The Monash team, Dr Lawrie Austin, Dr Peter Jeffrey, Dr Helen Arthur and professional officer Michael de Niese have "strong circumstantial evidence" that the primary defect is a defective plasma lipoprotein component.

The protein, known as Apoprotein B, normally takes up Vitamin E and transports it to the tissues.

If the transport system is defective, as appears to be the case in Duchenne muscular dystrophy, the muscle membranes are deprived of Vitamin E, which is essential for their proper functioning.

"The membranes are not functioning properly," Dr Austin says, "there may be many consequences, including a leakage of calcium, and this in turn can lead either to excessive muscle breakdown, or to an inefficient repair mechanism."

Although the Monash findings have no immediate therapeutic application, Dr Austin says, they could lead to improved methods of screening for carriers of the disease and, more importantly, to some way of controlling the disease by supplying the affected tissues with Vitamin E.

Attempts were made some years ago, he says, to treat Duchenne muscular dystrophy patients with massive doses of Vitamin E, but the trials were unsuccessful.

"If we are correct, the reason for the failure of Vitamin E treatment is obvious," he says. "The Vitamin E could not be delivered to the muscle membranes because of the defective transport system."

The Monash finding was made during a study of the way in which lipoproteins are affected with Vitamin E in the tissues of Duchenne muscular dystrophy patients.

At the Hospital for Sick Children in Canada, where he spent more than three years at the Hospital for Sick Children in Toronto and the Toronto General Hospital, Dr Bowes says research on both animals and human patients has shown that the pattern of breathing changes dramatically during sleep, particularly during REM (rapid eye-movement) sleep, a sleep stage usually associated with dreaming.

"In REM sleep breathing becomes more regular," he says. "Indeed, we have periods of 10 or 15 seconds when we actually stop breathing. The amount of oxygen or carbon dioxide in the blood can vary quite widely during the various stages of sleep, at times outside the normal range."

"The variation in oxygen levels doesn't matter in people with normal lungs. The changes are relatively minor. But for people with severe respiratory conditions, such as emphysema, chronic bronchitis and cystic fibrosis, the changes can be serious. Oxygen levels can become dangerously low."

"We now recognise that we have to treat such patients during sleep with oxygen and other therapies to counter the drastic falls in oxygen levels that occur in the blood at night."

Educationist spells out schools reform need

A Monash professor of Education has argued for the reorganisation of schools in ways by which lead to recent research on successful strategies for learning with understanding.

As it is, says Professor Richard White, schools organisation is based on a 19th century plan of how the mind is a bucket which can be filled by dropping facts into it.

He says that research at Monash and elsewhere shows that teaching is not a simple matter of pegging one fact after another into heads. People have to learn how to learn. It has also identified suitable strategies for learning with understanding.

The capacity to sit through a course of instruction and pass examinations of the expected sort, he points out, is no guarantee of having acquired such "useful understanding."

Professor White says that the new research is related to constructivist theories of learning.
A non-judicial administrative appeals body may make a startling impact on the development of Federal Government policy, according to a Monash law lecturer, Mrs Jennifer Sharpe.

Mrs Sharpe has spent the past three years studying the workings of the Administrative Appeals Tribunal, set up in 1975.

"The tribunal has the power in some areas to overturn Ministerial and Cabinet policy," she says. "This turns the whole idea of ministerial responsibility upside down."

In the policy review area the tribunal has more power than the High Court. Where a department exercises discretionary powers, the court can say a decision is legally wrongful, it cannot decide on the merits of a particular policy. "The tribunal can," Mrs Sharpe says.

The major fields covered at the moment are social security — for example, benefits have been refused — and the deportation of aliens and immigrants convicted of serious criminal offences. The tribunal has recently been given the power to review departmental decisions to withhold information under the Commonwealth Freedom of Information Act.

**Share for Aborigines in ocean mining profits?**

A new tribunal can overturn Cabinet policy — law lecturer

Australian Aborigines may have a stake in the profits of deep seabed mining under the new United Nations Convention on the Law of the Sea according to a Monash expert in international law.

Mr Henry Reicher, senior lecturer in law, has urged Aborigines to carefully monitor establishment of the International Seabed Authority and to seek recognition before it as a group which may benefit from activities in the deep oceans.

"The fruit of a decade’s work, the Convention on the Law of the Sea is a massive document which deals with every aspect of the earth's oceans and their uses. Aborigines are already one of the few groups which raises 'interesting possibilities' for them under Part XI which deals with the recovery of mineral resources from depths which have come only recently within the reach of technology. The resource causing great interest is manganese nodules — oddly-shaped clusters of various minerals which exist in large quantities and, remarkably, are self-generating."

Under Part XI, the International Seabed Authority is to be set up as trustee of the area. All activities (meaning, in particular, mining) are to be carried out "for the benefit of mankind as a whole".

Mr Reicher says that the Convention contemplates two arms of mining on the deep seabed — one on the one hand, involving states and companies of the area itself (and private companies will be able to mine, with approval from the Authority) and, on the other, the Authority will have its own mining operation, to be called "the Enterprise".

"The potential revenues to be earned by the Authority in this fashion are huge," he says.

How they are to be distributed is laid down in Article 1400 of the Convention which stipulates "particularly a consideration of the interests and needs of developing states and of peoples who have not attained full independence or other self-governing status recognised by the United Nations in accordance with General Assembly resolutions 1514 (XV) and other relevant General Assembly resolutions."

**Revenue distribution**

Notions such as "self-determination" raise vexed questions in international law, says Mr Reicher. The upshot is that decisions will have to be made on the basis of strictly "legal" considerations.

"The point is that self-determination has two dimensions: the legal and the practical or moral," he says.

"By appreciating how the system will operate and who will make the relevant decisions, it may be possible for Aborigines to sidestep the legal complications of self-determination and address themselves directly to the political and moral dimensions."

Mrs Sharpe says the tribunal has proceeded "cautiously, but well, since its establishment."

One of its most controversial activities has been the review of Federal Government policy on deportation.

"In the past, government policy on deportation has not made any clear distinction between marijuana users and serious drug offenders; the AAT in its decisions has made a big distinction between different types of drug offences, and its views have been largely accepted by the Labor Government and incorporated into its new deportation policy," she says.

"The AAT has indicated that it will hear about the individual situation and has been willing to help the police in their investigations, the tribunal will be less willing to deport him. The Ministerial council did not make any distinction between offenders who assisted the police and offenders who refused to cooperate."

"The tribunal has also been much more influenced by the interests of other people in the deportee's family — than the government has."

The tribunal has the power to overturn Ministerial and Cabinet policy, she says. "The High Court can say a decision is legally wrongful, it cannot decide on the merits of a particular policy."

The major fields covered at the moment are social security — for example, benefits have been refused — and the deportation of aliens and immigrants convicted of serious criminal offences. The tribunal has recently been given the power to review departmental decisions to withhold information under the Commonwealth Freedom of Information Act.

New tribunal can overturn Cabinet policy — law lecturer

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ARGS grants: New projects

Monash researchers will receive a total of $4.2m next year from the two major funding sources, the Australian Research Grants Scheme (ARGS) and the National Health and Medical Research Council (NH & MRC).

The ARGS grants total $1.8m of which $527,511 goes towards funding 41 new projects:

These are the new projects.

ARTS

English
Miss B. M. Niall
Biography of Martin Boyd
6,000
French
Prof. J. R. Garagnon
17th and 18th Century French utopias
1,000
Geography
Dr J. A. Peterson
Quaternary history of Macquarie Island — phase II
9,016
History
Dr M. Aveling
Australians in 1838
13,300
Dr A. Atkinson
Florence in the time of Lorenzo D’ Medici
5,000
Slavic Languages
Prof G. J. Marvan
Theoretical framework of Slavic inflection
9,000
EDUCATION
Prof. P. J. Fensham
Students’ conceptual frameworks for learning about their environment
8,288
ENGINEERING
Electrical Engineering
Dr L. H. Brin
Fibre optic interferometric techniques for remote sensing of fluid flow
3,000
Dr D. L. Morgan
Comparative studies of fast tension transitions in single vertebrate muscle fibres
21,774
Materials Engineering
A/Prof. B. W. Cherry
The initiation of stress corrosion cracking by low frequency cyclic straining
9,000
Dr B. A. Parker
The production, structure and properties of strip cast aluminium alloys
18,000
LAW
Prof. E. M. Campbell
The law and governance of Australian universities
21,000
MEDICINE
Anatomy
Dr P. D. Temple-Smith
Mr G. J. Southwick
Effects of obstruction and vaso-epidymal anatomy on the function of the testsis and epididymis
9,000
Biochemistry
Dr W. H. Murphy
A/Prof. B. N. Preston
Measurement of interaction co-efficients in ternary solutions of polysaccharide-oligosaccharide
10,583
Microbiology
Dr. R. C. Bayly
Dr R. A. Skurray
Regulation of the microbial degradation of xenobiotics and creosols
18,500
Pathology & Immunology
Dr H. A. Ward
Differentiation of chicken lymphocytes and reticular epithelial cells studied by monoclonal antibodies to cell membrane antigens
13,000
Pharmacology
Dr L. J. Rogers
Dr D. Ehlich
Development of structural and functional asymmetry in the brain; the influence of experience, amino acid neurotransmitters and gonadal hormones
13,000
Physiology
Dr W. P. Gibson
Role of ovarian nerves in mediating ovolatory compensation after unilateral ovariectomy
10,200
Botany
Dr D. J. O’Dowd
The evolutionary significance of extrafloral nectar production by Acacia pycnantha
12,552
Chemistry
Dr R. F. C. Brown
Synthesis of oxygen heterocycles
6,300
Dr R. F. Brown
Dr F. W. Eastwood
Dr G. B. Deacon
Syntheses of organometallics and organoorganic compounds by decarboxylation reactions
12,400
A/Prof. R. S. Dickson
Bimetallic metal complexes — versatile centres for organic synthesis
13,500
Dr A. D. E. Pullin
Dr. J. K. Yandell
Dr. D. G. Horell
Syntheses and redox properties of metalloprotein models
9,839
Computer Science
Prof. C. S. Wallace
Dr D. Abramson
Dr. B. Nicholas
Capability-based multiprocessor
22,000
Earth Sciences
Dr R. A. F. Cas
Dr D. R. Gray
Dr P. E. Hobbs
Dr R. A. F. Cas
The tectonic style and significance of the Ordovician-Silurian rocks of Victoria — implications for tectonic development
18,150
Dr D. R. Gray
Stable isotope studies of Archean hydrothermal systems, Pilbara block, Western Australia
21,050
Dr I. A. Nicholls
Partitioning of rare earth elements between clino-pyroxenes and basaltic liquids as a function of pyroxene composition
3,400
Genetics
Dr D. R. Smyth
Dispersed repeated sequences in the genomes of Llilum and Medici
8,900
Mathematics
Dr T. E. Hall
Automata, languages, machines and inverse semi-groups
7,500
Dr R. K. Smith
Morning glory wind squalls
16,428
Physics
Dr R. J. Fleming
Prof. B. E. Hobbs
Dr A. C. McLaren
Transmission electron microscope study of the structure and properties of grain-boundaries in rocks
11,600
Psychology
Dr R. H. Day
Perceptual processes involved in visual illusions
19,532
Dr K. I. Forster
Mr B. J. O’Loughlin
Visual processing of sentences: interaction between excitation and suppression in the auditory periphery
21,360
Dr L. J. Roberts
The nature of PTTH synthesis and release in flesh flies
5,005
Zoology
Dr G. E. Evershank
Age pigment accumulation as an ecological tool — baseline studies on Daphnia carinata (crustacea)
14,000
Dr B. Roberts
The nature of PTTH synthesis
10,000

A group of Monash Economics students is organising a management development seminar at the Hilton Hotel on December 8.

The students belong to the Monash branch of the International Association of Economics and Commerce Students (AIESEC).

Several leading figures in the personnel field will speak at the seminar which is entitled "Management Development Where to from here?".

They include:
- Mr John Elliott, managing director of Elders IXL.
- Dr Roy Gilbert, director of the Victorian Ministry of Housing.
- Dr Ian Macgregor and Mr David Hume, management consultants.
- Mr Peter Wale, sales training manager, Honeywell Information Systems.

Chairing the sessions will be Dr Sharon Dickman of Footscray Institute of Technology.

Among topics to be discussed are the need for change in the attitudes of Australian business toward management development techniques, the inadequacies of present management courses, and trends overseas.

For further information contact the AIESEC office at Monash on ext. 3084.
Second edition extends the use of probability theory

**In Review**


Statistics show decline in Christianity

SIR: Dr Gary Bouma, senior lecturer in the sociology of religion at Monash, states (Reporter 8-83) that there has been no grievous decline in Christianity in Australia.

He waves aside the increasing number of people indicating on census forms in Australia that they have no religion as largely due to an increase in honesty. He points out to Monash Reporter as a surprise to Dr Bouma that there are other statistics which clearly show a decline in Christianity.

The participation in the religious rites of marriage, baptism and funerals are all declining by over 90 per cent of marriages took place in a church, now it is just over 50 per cent and declining rapidly. Our members who are civil marriage celebrants are struggling to keep up with the demand and we estimate within 10 years civil marriages will be in the majority.

The Uniting Church is honest enough to release reliable statistics on baptisms and confirmations. Their 1980 figures showed 1,314 confirmations and 3,382 baptisms. We can expect a steady decline from previous years.

While detailed statistics on the number of people becoming ministers, nuns and priests are not available, all the major churches report a massive decline in this area. Young people taking up Anglican orders are more likely to be joining Eastern religions than Christian Churches.

Hundreds of nuns and priests and ministers have left the Christian religion. Many convents have been sold and converted into restaurants, private dwellings, art galleries, discotheques and coffee shops.

The churches have reported a decline in religious teachers. This month the Catholic Education Office in Queensland released figures showing that 50 years ago there were no lay teachers in their schools in Queensland. Ten years ago there were about 40 per cent, numbering around 3,600 out of 4,200 full-time and 500 part-time. Five per cent of Queensland’s 283 Catholic schools have no brothers or sisters on the teaching staff.

Sunday schools are becoming a thing of the past. Many churches have ceased Sunday schools, attendances are declining and churches are finding difficulty obtaining Sunday school teachers. There has also been a measurable decrease in the adherence to religious teachings. Many are nominal Catholic practise responsible parenthood through birth control. In the past most people followed church rulings on divorce, staying in unhappy marriages. Divorce statistics clearly show people are not following church teachings on divorce.

I challenge Dr Bouma to debate this topic at Monash any lunch hour at a convenient date.

Mark Plummer
National President
Australian Humanists
(Monash student 1973-76)

**Scholarships**

The Registrar’s department has been advised of the following scholarship. The Reporter presents a precis of the details. More information can be obtained from the Graduate Scholarships Office, ground floor, University Offices, extension 3055.

AINSE Postgraduate Research Scholarship

For research into nuclear science and engineering. The scholar is required to spend part of his time at Lucas Heights. The stipend is $9,163 p.a. Applications close at Monash on November 4.

**Holidays accommodation**

Seeking holiday accommodation interstate over summer?

The Women's College, University of Sydney, and St George's College, University of Western Australia, could have the answer.

The Women's College is offering flats, single and twin student bedrooms “at very reasonable rates” from November 26 to February 20. For further information contact the manager on (02) 51 1195 or 51 3761.

St George’s is offering twin and single accommodation at “budget prices” — $10.50 a head, bed and breakfast — from December 25 to February 14. For further information contact the College’s house manager on (09) 386 1425.

A new videotape editing suite has been installed in the Educational Technology Section, providing a professional quality editing facility not previously available on campus.

The suite is based around the Sony BVU three-quarter inch U-matic format. The equipment was purchased with funds from the University’s equipment grant and from ETS’s outside earnings.

Mr Alan Wilson, of the Medical Faculty mechanical workshop, constructed the framework supporting the suite, a complicated and intricate welding operation.

Says senior lecturer in charge of ETS, Mr Ian Thomas: “We are hoping to add some refinements to the system in 1984 which will make the facility at the same time more available to users across the campus and to present a more polished final product.”

“ETS is pleased to offer editing services for existing videotape material or for the production of new TV programs for teaching and research purposes.”

For further information contact ext. 3880.

MONASH REPORTER

November 14
THIS BOOK, by a member of the Monash Politics department and his wife, is not really an attempt to anatomise the world, but, as the subtitle says, to discuss the impact of the atom on Australia and the World.

And the authors do this. The book does not contain any new or startling revelations, nor insights into the human condition or the meaning of the meaning of life which we had not encountered. Nor does it seem likely that the writers intended such things.

What they have done is to provide a longish interpretation of post-1945 world history in the context of the arms race, the nuclear competition, the Soviet-American rivalry which has spread or tried to spread into every corner of the world and every aspect of political, social and economic life; and the psychological damage which this 40 year old Bomb Culture has inflicted upon us all.

The second section of their book - 'The World Comes to Australia' - is about Australia and the Bomb, Australian foreign policy since World War II, and 'our present predicament'. The third and final section of their volume discusses how we won the war and lost the peace (viz. we have allowed ourselves to drift into a situation more dangerous and more insecure than in the late 1930s).

Coming out of this and what went before, the Redners analyse the peace movements which have waxed and waned in the West since Hiroshima, including those in Australia. Finally, after discussing possible future tactics for checking the rush to war, the writers call for a new language to discuss power, international relations and, even, the symbology upon which groups rely to make their world, and the actions of their groups, intelligible and acceptable.

The book is readable, the writing is clear and the authors do this. The Redners do not hesitate to put the military-industrial-scientific complex at the centre of things - for they do not believe that the USA and USSR have spread global things one had forgotten, things one didn't know at the time, some interesting ways of talking about the mass of material; and some fresh ideas on how to bell the cat. It's all here.

Max Teichmann
Department of Politics

Charity group aids medical research

Support from a Moorabbin fundraising group, the Pacemaker Set, has enabled the Monash Department of Pathology and Immunology at the Alfred Hospital to buy important equipment.

More than $20000 has been provided by the Pacemakers towards purchase of gel electrophoresis equipment which could not have been bought from normal funds. More than $20000 has been provided by the Pacemakers towards purchase of gel electrophoresis equipment which could not have been bought from normal funds.

The photo shows Dr John Pedersen explaining the use of the equipment to Pacemaker's President, Mrs Jenny Murray and Secretary Mrs Norma van der Shays while research student Christine Brown prepares samples.

From its name, the charitable group means as if it is concerned exclusively with heart pacemaker implants. In fact the name refers to the ladies' aim to "set the pace" for other charitable organisations.

This year the group has given more than $8500 - raised in social activities - to some 14 organisations including the City Mission, Kidney Foundation, Deaf, Blind and Rubella Children's Association, and Monash University.

The Pacemaker Set prefers to provide "concrete" items such as goods or equipment rather than simply cash.

Academics win Peace prize

Two Monash academics have been awarded a United Nations Media Peace Prize.

Foreign Affairs Minister Bill Hayden last month presented the award to Kevin Fewster, senior tutor in History, and Belinda Probert, lecturer in Sociology.

In February this year Dr Fewster and Dr Probert organised a "Stop the Drop" rock concert at the Myer Music Bowl. The concert was recorded and together with interviews with band members and actors such as Bruce Spence was "simulcast" on ATV10 and 3EON-FM.

Andrew McVitty and Tony Leach, who made the video, also shared the prize.

Library workers take their Ambulance certificates

Sixteen Library staff members were recently awarded St John Ambulance Certificates to mark successful completion of first aid training courses. Five of them finished advanced courses.

In the photo above, instructor Mandy Gips watches youngest 'graduate' Tony Sammut go through resuscitation procedures with a Chief Librarian obviously in need of resuscitating!
When William Wilkinson Wardell stepped off the boat in Melbourne in 1858 Australia could boast its first Fellow of the Royal Institute of British Architects. Over the next 41 years until his death in 1903, Wardell gave the colony some of its finest buildings in the Gothic and Renaissance Revival styles.

Among his projects in Melbourne were St Patrick's Cathedral, the ANZ Bank (formerly ES&A) on the corner of Collins and Queen Streets, the Treasury building and Government House. In Sydney his projects included St Mary's Cathedral and St John's College, Sydney University.

The first major exhibition of Wardell's work is on show in the Monash Exhibition Gallery until November 11. Early in the new year it moves to Sydney.

The exhibition has been assembled by Ursula de Jong, who is writing a Ph.D. thesis in the department of Visual Arts on Wardell.

De Jong says that Wardell was a figure of controversy, particularly during his time in Victoria. He was eventually dismissed from his post as head of the Victorian Public Works Department, a position he held for 20 years. Born in London in 1823, he was a convert to Catholicism at age 20. In his formative years, architecturally, he was influenced by the ideas of Pugin who held that "there should be no features about a building which are not necessary for convenience, construction or propriety; and that all ornament should consist of enrichment of the essential construction of the building".

Wardell had constructed more than 30 Gothic Revival churches in Britain, mainly London, before departing for Australia. When he arrived, he was argued vehemently as to his merits and his 'right' to take up a public position. "His approach was neither solely scholarly nor fanatically religious. He was able to combine practicality with aesthetic intuitiveness."

The gallery is on the seventh floor of the Menzies building and is open 10 a.m. to 5 p.m. weekdays and to 6 p.m. on Wednesdays.

10: CHRISTMAS CONCERT - soloists by St. Gregorian Dutch Choir. 8pm. RBH. Inquiries: 762 1336.

SUMMER DIARY

22: ENVIRONMENTAL SCIENCE CONFERENCE. - "Conservation Strategies and the Role of Demand Management", co-sponsored by the Ministry of Environment and Planning and Graduate School of Environmental Science. 9.30am-1pm. Lecture Theatre 1: Admission free. Inquiries: Dr Peter Cook, ext. 3837.
25: CONFERENCE - "Distributive Justice and the Australian Medical Care System", pres. by Centre of Policy Studies and Centre for Human Bioethics. 9.20am-6pm. Inquiries: ext. 2427.

MONASH REPORTER

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