A Monash zoology department team has succeeded in capturing alive ten rare dwarf kangaroos.

The tiny nocturnal animals, which stand only about 30 cm (12 in) tall and weigh between 1.4 and 2 kg, are called "narbaleks".

According to one member of the team, Mr Gordon Sanson, live specimens have never been taken before. Last year, the Monash team was unsuccessful in attempts to catch the animals, using nets and traps.

The animals were captured during a trip early last month to the Northern Territory's Mt Borradaile area, which is about 520 km east of Darwin, near the East Alligator River.

The rock formations of the Mt Borradaile complex also contain a sacred Aboriginal site of rock paintings and burial caves.

The Monash team, which comprised Mr Sanson, Dr John Nelson, Roger Martin, Peter Fell and Peter Pridmore, used a net about 100 metres long to trap the narbaleks.

The net was strung out between a rocky outcrop and the Mt Borradaile complex proper, near where it adjoins flood plains on which narbaleks feed during the night.

According to team members, there are several hundred narbaleks at Mt Borradaile and on the adjacent flood plains. There are similar colonies at other sites in the NT and the Kimberley area of Western Australia.

Until last year, however, sightings of narbaleks (scientific name, Peradorcus concinna) were rare. At present, the "mini-ROOs" are settling in well into their new homes at the Jack Marshall Reserve and Healesville Sanctuary, which helped organise the trip.

When attempts to capture the narbaleks last year proved futile, two males were shot — with the permission of the NT National Parks and Wildlife Service — for laboratory examination. They were the first complete specimens available for scientific scrutiny.

After last year's trip, Mr Sanson said that the examination of dead specimens would have been necessary, even if some narbaleks had been captured alive.

The Monash team hopes to establish a small breeding colony with the captured specimens. They plan to study the narbaleks' metabolic and reproductive systems, and to establish whether or not the animals are true ruminants.

The team will also investigate another strange feature of narbaleks, which is arousing intense scientific interest — the animals' unusual ability to grow set after set of teeth as each succeeding set wears out.

Mr Sanson said one of the "migrating molars" would be marked with x-ray opaque material so that its progress along the jaw could be observed at intervals.

Other kangaroos have four molars in each jaw. Narbaleks can have up to eight, plus continual replacements. These migrate forward from back of the jaw to the front before they eventually wear out and are ejected.

"In normal" kangaroos, this means old animals eventually become toothless and die soon afterwards through inability to graze.

The only other animals which have the ability to grow new teeth are species of sea cows, or manatees, and elephants.

The Monash team spent two weeks at the Mt Borradaile site, which is close to proposed uranium mining areas in the NT.

During their stay there, they also captured a pair of short-eared rock wallabies, which feed and live in the same area as the narbaleks.

Dr Nelson said it was rare for two species of rock wallaby to occur in the same area.

Mr Sanson said that during that part of the trip, the Monash team had received full co-operation from the NT National Parks and Wildlife Service.

"In fact, next year will be a rather difficult one," he said. "We are now regarded as a mature university — one of the 'big five' — and in terms of recurrent funds we won't be doing as well as some of the younger, developing institutions.

"Nevertheless, things could be a lot worse. We were extremely fortunate to have done most of our growing in the palmy days of tertiary education over the decade and a half beginning in the early '60s.

"In that time, Monash established itself as a world-ranking university and built an enviable reputation for scholarship and, particularly, research.

"Now I don't think anyone could reasonably have expected that great momentum could continue. There had to come a time of slowing down."
Rare books go on show in Library exhibition

An exhibition in the Monash Main Library this month will preview two significant anniversaries in the history of printing and literature coming up in 1978.

Next year will be the quincentenary (500 years) of the introduction of printing in Geneva and the bicentenary of the deaths of the philosophers Voltaire and Rousseau. There is a common link — Voltaire lived for a time in Geneva and Rousseau was born there.

The exhibition is being mounted by Associate Professor W. Kirsop, of the French department, for the Friends of the Monash University Library. It will run from November 14 for about a month in the first-floor exhibition space of the Library.

On show will be mainly 17th and 18th century books from the Library's rare books collection as well as a few others from private collections. The library volumes are chiefly by researchers in the French department, which has a tradition of 18th century research, and are seldom on public display.

The exhibition's earliest example of Genevan printing dates from the 16th century.

Geneva was a comparatively late-starter in the history of printing but it made an important contribution because of the city's role as a haven for religious refugees from the mid-16th to late 18th century. Presses were used to publish text banned elsewhere.

Among the largest French-speaking cities outside the French kingdom, Geneva attracted many talented people including leading printers. Members of what is considered France's most important printing family, at the time, the Estiennes, moved to Geneva in the 16th century.

Books of special interest in the exhibition will include a copy of Voltaire's speech when he was received into the French Academy, a first edition of Rousseau's music dictionary, and volumes of the Kehl collected editions of Voltaire published in the 1780s after Voltaire's death and using Baskerville's types.

The Library celebrates the Library's 10th anniversary this year. The Friends' contribution is seen as being all the more valuable in helping the Library build its collection.

The major form of assistance has been the purchase of library materials from annual membership gifts. In the past few years items have been bought to fill gaps in several of the library's special collections such as the Panfrolico Press collection and the Swift collection, both of which are manuscript collections.

The library is open to any person who has received in this way an 18th century book, most notably.
Three ways to spend a summer...

1. Earning cash in a vacation job

Students have a reasonably good chance of finding part-time employment during the summer vacation according to student employment officer, Mr Ian Mason. But there are several qualifications.

They must be persistent, well-prepared, not too choosy about the type of work they take, and be willing to do a number of jobs over the holiday period.

"If students hold out for the one job to do them over the entire period they will be killed in the crush," says Mr Mason.

He advises job seekers not to spend too much time attempting to find semi-professional, course-related work as there is very little available.

"Any work experience, and particularly experience working with other people, will be useful later on no matter what the career," he says.

Mr Mason reports that there has been a record number of inquiries from people seeking summer jobs this year.

He says the paradox of general unemployment is that employers in some areas are having trouble getting students to do specific tasks done.

But there is the legion of "full-time unemployed" with experience competing with students for these jobs.

November is traditionally the period when students begin to think about the Monash student employment office of vacancies. Last year, 1096 vacancies were posted on the student employment board in the Union in this month. This compares with 989 in October, 532 in December, 347 in January and 341 in February.

The student employment board is the major contact point on campus between students and employers. Mr Mason says that during the vacation it is impossible to register students for employment as is done during the academic year.

"However, for those students who are in exceptional need and having great difficulty in finding employment, the office may be able to provide some help," he says.

Jobs are posted on the board at 10 a.m., 12 noon, 2.30 p.m. and 4 p.m. daily.

Mr Mason's advice for students seeking employment is to check the board daily and be equipped with pen and paper, coins for the phone, a street directory, and general transport or knowledge of public transport.

He warns that many positions will be for less than a week and students that should be prepared to take about four or five different jobs during the vacation.

He says: "Casual jobs in gardening, painting and housework can provide a good income if you are prepared to specialise in them."

"Fruit picking is another source of summer employment and for those who enjoy hot days and hard physical work it will provide a good income."

However, many students and growers are mutually disappointed with each other, he warns.

"People expect to be paid more than the growers expect the students to perform professional picks.

Mr Mason suggests that the local Commonwealth Employment Service office will also be able to help with job finding.

2. Learning new arts and skills

Monash University's summer school is celebrating its 10th birthday this year and the number of classes for the first time has hit the magic figure, 100.

The summer school program is the largest in Australia, in terms of the number of people enrolled and courses offered, according to activities officer, Mr Neil Wentworth.

Last year nearly 2000 people enrolled in 77 courses (conducted in 90 classes) and Mr Wentworth anticipates more in the 1977-78 school.

A total of 83 courses will still be offered but they won't be the same as last year's. Fourteen courses have been dropped and will be replaced with courses in piano, colonial dancing, puppetry, lapidary, accounting for small business, building a decorative flute and tin whistle, Spanish, silk screen printing, watercolor painting, home maintenance, traditional embroidery, creative embroidery and landscape painting.

3. 'Playing' on the Murray River

Fancy spending the summer holidays as a member of a ladies underwater ballet team, reliving experiences of the first day back at school, attending a royal garden party and helping to liberate the Murray River from New South Wales?

While your average naked vicar might consider one such activity a lout, four sounds like getting just a little too much.

But 20 Monash students will do all these — and more — during the summer theatre tour which this year will cover through Victoria.

During February the troupe will wend its way along the Murray, spending a week each in the Albury/Wodonga, Yarrawonga, Cobden/Tocumwal, and Echuca areas.

The troupe will take with them three or four small scripted plays to perform in schools and other set venues, but the emphasis will be on the less formal, the impromptu and the participatory.

The students plan a "musical parade" with the company with which they are dependent. They should dress as they imagine they would in the job.

They should dress as they imagine they would in the job.

While no one would suggest that finding a job is easy these days, the competitive field can be as stifling as the hopeful employee imagines, according to a lecturer in journalism at RMIT, Mr F. Moloney.

"A great many of your competitors won't think of that," he says. Mr Moloney, who addresses a Careers and Appointments seminar on journalism earlier this year, gives some hints on distinguishing features between the sheep and the goats in job applications, in a recent edition of Careers Weekly.

He says that a simply-worded, straightforward, cleanly-typed, grammatical application will stand out like a beacon among the many which contain "laundry errors."

A sheaf of testimonials of the "to whom it may concern" variety do not help an application, Mr Moloney says. It is far better, he adds, to offer names, addresses and telephone numbers of two or three referees.

He advises applicants to be familiar with the company with which they are seeking a position and to know the name and the name of their interviewer.

They should dress as they imagine they would in the job.

"Listen attentively to questions, answer as directly as possible and, when making a point effectively, don't chatter on."

November, 1977
CONSORT PRESENTS
GOETHE PRIZES

The Consul General for the Federal Republic of Germany, Dr F. J. Kroneck (left), last month presented the Goethe Prize for German Studies in 1976 to Karin Goers (right). Standing next to Dr Kroneck is Swiss writer, Mr Peter Sihkel, who was visiting the Monash department of German, and Nicholas Carter, who was the best second year German language student. Photo: Harvey Allouise.

Nobel winner to lecture at Monash

Two public lectures of more than ordinary interest will be given at Monash in the next few weeks.

- On Thursday, November 17, Nobel Laureate, Professor Sir John Cornforth, will speak in the Alexander Theatre on "The Hidden Asymmetry of Life".
- And on Monday, December 12, Professor G. L. Ador will speak on the highly controversial topic of recombinant DNA research - "genetic engineering".

Australian-born chemist Sir John Cornforth, presently Royal Society Research Professor at Sussex University, is visiting Australia at the invitation of the Australian Academy of Science.

He is here primarily to deliver the Erm Ritchie Memorial Lecture at the University of Sydney. (This lecture will be repeated at Clunies Ross House, Melbourne, on November 16 — the day before his Monash appearance.)

Sir John has provided the following synopsis of his Monash lecture:

"Many, perhaps most, living things are symmetrical to outward appearance: that is to say, they look very much the same when viewed as a reflection in a mirror as they do when viewed directly. This illusion of symmetry disappears as soon as one probes beneath the surface. No animal, plant or microbe is identical with its realized mirror-image, and no two organisms are mirror-images of each other. The asymmetry persists right down to the molecular level. Nearly all of the many molecules associated with the structures and functions of life are asymmetric, and very few of them occur naturally in both mirror-image forms.

The lecture attempts to show why this hidden asymmetry is fundamental to life and how it is manifested, sometimes in extremely subtle ways, in the processes of life and their experimental study.

The lecture will be given in the Alexander Theatre at 4:15 p.m.

Professor Ador, of the department of microbiology at the Australian National University, will speak in R4 at 12:15 p.m. on Monday, December 12.

The title of his lecture is: "Recombinant DNA Research: do the advantages outweigh the potential perils, and who decides?"

The lecture is sponsored jointly by the faculties of Science and Medicine, in collaboration with the Vice-Chancellor.

Transport engineering gets a tailored course

The department of civil engineering next year will introduce a new postgraduate course — a coursework Master of Engineering Science in transport engineering.

It will be a course specially tailored to the needs of the people for whom it is primarily intended — engineers working in bodies such as the Country Roads Board, the Road Safety Traffic Authority, the railways and local government.

The course's applicability is assured because these bodies and others in the field of transport engineering were in what is believed to be a first in the method of course design at Monash, a workshop was organised earlier this year by civil engineering and the Higher Education Advisory and Research Unit to define the goals of the master's degree. Participants included key people working in transport engineering.

The course will be available by coursework and minor thesis and may be taken part-time over two or three years.

Senior lecturer in civil engineering, Dr Ken Ogden said recently the course would be of value to two groups of engineers.

The first would be engineers who had graduated a few years ago, taken employment in a specialised area such as transport planning, traffic engineering or public transport, and felt the need for a more specific formal education in this area.

The second would be engineers who had completed university studies quite a number of years ago and needed to update skills in line with changes in knowledge.

Financial support

Experts from within and outside the university will conduct the course.

It will be supported financially by RoSTA, with the possibility of funding from other interested bodies.

Dr Ogden said one of the spinoffs of the course would be the opportunity it would provide for people working in different branches of transport engineering to have contact with each other. There seemed to be little such contact at present, he said.

Discussing the original stage of course design, HEARU Director, Dr T. Hore, said it seemed vital that the "community of interests" be consulted in defining the new degree's goals.

The obvious advantage in doing this was that the course would be in line with student need and that the interest groups would be likely to have a continuing interest in it. This could be useful in terms of student project, employment and the like.

Dr Hore said that goals for the transport engineering course had been formulated and discussed at a workshop in May. This had started with a "brainstorming" session in which participants had been asked to give un criticised responses to the unfinished sentence "A Master of Engineering Science course in Transport Engineering should ..."

These responses were then refined, debated and ranked in order of importance during group discussions.

He described the process as a way of getting "a great deal more information from a lot of sources" and said that by calling in interest groups academics were in no way "looking over their professional responsibility.

Outside groups will maintain a continuing interest in the course through an advisory committee on transport education which has been set up to keep abreast of current needs and opportunities in transport education.

Prof. Nairn given US cancer consultancy

Professor R. C. Nairn, chairman of the department of pathology and immunology, has been appointed an Honorary Consultant to the M.D. Anderson Cancer Hospital and University of Texas Cancer Centre in Houston, Texas.

The institution is one of the largest cancer hospitals and research centres in the world. It is responsible for treating cancer patients from all over the U.S. and overseas.

Professor Nairn spent four months as visiting professor in residence at the hospital and centre earlier this year.

He said that owing to an unexpected train of events, instead of spending his time in one section of the centre on a limited program of investigation, he had been asked to act informally as honorary consultant in cancer research to the director.

"This role gave me complete freedom to examine and explore any aspect of the Centre's activity and to gain an insight into the workings of a gigantic health care undertaking that only Texas could promote," he said.

Professor Nairn said that soon after his return to Monash, he had been invited to accept the formal appointment of honorary consultant in cancer research to the Centre.

The appointment will maintain important research contacts between Texas and Monash.

Two collaborative research projects are already under way and the status of the Monash department of pathology and immunology in U.S. anti-cancer activities was assured, Professor Nairn said.

He said the Texas Centre was the headquarters in the U.S. of a massive investigation of cancer of the large bowel, which, after skin cancer, was the commonest and most serious of human cancers.

Investigation and treatment of large bowel cancer is one of the principal areas of interest and research in the Monash department of pathology and immunology, Professor Nairn said.

MONASH REPORTER
**How does Monash fare in funding next year?**

It's no secret that times are tough financially throughout the community — and universities provide no exception. How will Monash fare in funding next year?

The University will remain a "steady state" institution in 1978 in the light of recommendations put to the government by the Tertiary Education Commission. The Commission's report, follows the guidelines for the 1978-80 rolling triennium established by the government earlier this year which allowed for a 2 per cent increase in funds for operating expenditure in 1977 (from $600.1 million to $612.1 million), but cut capital funds by more than one-third.

As an established university, however, Monash will not receive the full 2 per cent increase; the Commission sees the needs of the newer universities as being greater.

**Recurrent grants**

For 1978, Monash will receive recurrent grants totaling $48,654,000, compared with $48,419,000 in 1977.

There has been a heavy cut-back in site-works funds available to Monash — from $390,000 (for minor building works, site works and site services) in 1977 to $230,000 in 1978. Again, there will be no money for major building starts.

Commenting on the proposals, the Vice-Chancellor, Professor R. L. Martin, said the prospect was not so depressing as it might appear at first glance.

"Certainly, the 'increase' in recurrent funds is, in fact, a reduction when we take into account that any supplementation we receive will cover only salaries and wages. We will, therefore, have to absorb a substantial part of the cost of incremental increases in salaries, promotions and any changes in industrial conditions, superannuation and long service leave problems.

"However, I am confident that with good housekeeping we shall be able to meet these demands without serious endangering our vital teaching and research commitments."

Monash will be funded for a total student load in 1978 of 12,960 EFTS (equivalent full-time students), the same as in 1977 (from $600.1 million to $612.1 million), but cut capital funds by more than one-third.

**Chemical attack on cancer**

Two Monash medical researchers have discovered that a chemical called 5,6-DHT attacks and rapidly destroys bowel cancer cells in laboratory rats.

Their experiments show that it acts within an hour of being injected beneath the peritoneum, the membrane lining the abdominal wall. After 48 hours, a single dose causes varying amounts of damage to tumours, killing anything from 20 per cent to more than 90 per cent of malignant cells.

And unlike radiation therapy and anti-cancer drugs now used to treat human cancer, 5,6-DHT does not harm surrounding healthy tissue or the body's natural immune system.

The chemical is a toxic, synthetic substance but is a close relative to a naturally-occurring hormone called serotonin which is found in various parts of the body including the brain, gut, and blood cells. Its cancer-killing abilities were discovered by Dr. Peter Tutton and Dr. David Barklis, of the University's anatomy department. Dr. Tutton is a specialist in the study of cell proliferation and Dr. Barklis is an expert in the study of cells by electron microscopy.

While being cautious about the possible ramifications of their research, the researchers feel the results achieved in rats with 5,6-DHT are impressive compared with those of anti-cancer drugs now being used therapeutically.

The researchers warn, however, that much more research and experimentation is needed before 5,6-DHT could be considered for use in humans.
Monash has gained a whisk 'a maturity

It's not quite a case of "the old grey mare ain't what she used to be" — but changes have occurred at Monash in recent years which have had significant impact on the composition of the student body.

The most important change at Monash — in line with all other Australian universities and colleges — has been the growing intake of mature age students (defined as those people 25 and over enrolling for bachelor's degrees).

The extraordinary growth in numbers of mature age students entering the universities contrasts with the standstill in demand for tertiary education from the traditional source, young students who move immediately on to higher study after matriculation.

In 1970, 5.5 per cent of new students at Monash could be categorised as mature age. In 1976 this had risen to 13.5 per cent.

In some faculties the growth is more spectacular. In Arts and Law, for example, the mature age figures were 9.6 per cent and 4.2 per cent respectively in 1970, and 22.7 per cent and 29.2 per cent in 1976.

The Higher Education Advisory and Research Unit at Monash has begun a study of mature age students in Australia.

It is regarded as important for future planning to discover whether this mature generation interest in tertiary education is a one-off phenomenon or whether universities will come to begin to rely on these people as a steady pool of potential entrants.

Metcon is managing those on the road...

Metcon is a success — but it should be extended to every intersection in the operating area, a report on Monash University Human Factors Group has concluded.

Under the Metcon traffic control system, which has been operating for two years, the "give way to the right" rule was phased out and replaced with a system of priority roads. Side roads are now controlled by "give way" or "stop" signs and road markings.

The Human Factors Group, a unit of the psychology department, has found that Metcon is working effectively as a safety measure in reducing driver uncertainty about what other drivers will do at an intersection.

The trouble is, drivers are applying Metcon rules to inappropriate situations such as unsimplified intersections and those still governed by "give way to the right" signs.

The Group calls for consistency and urges that Metcon be extended to all intersections in the operating area "as fast as resources permit".

... but some stay off

The frustration caused by spending long hours travelling to and from work in the city is one of the main reasons why people decide to shift house from an outer suburb to an inner, a study by a Monash researcher suggests.

But while the frustration might be shared by all commuters it is only a well defined type of person who is likely to shift.

A profile of the type is drawn up in a study of transport influences on residential location choice conducted by a senior tutor in civil engineering at Monash, Mr William Young.

The person who decides to shift is likely to be young, a white collar worker, single or married with no children, and originally from an outer eastern suburb.

The study found that such people are aware of the problems associated with inner suburban living — air pollution, traffic noise and congestion — and, in fact, are likely to find the outer eastern suburbs generally more attractive in appearance.

They value easy, quick access to work, entertainment and public transport more highly, however.

The study set out to consider the individual as the basic unit analysis and build his preferences into models which could analyse the influence transport facilities have on the location choice.

And now to weigh the universe

A team of Monash galacto-chemists has confirmed the existence of "massive amounts" of deuterium — a form of heavy hydrogen — in outer space. The discovery at once adds weight to the popular "Big Bang" theory of the birth of the universe, and greatly strengthens the belief that the universe is still expanding, and will continue to expand forever.

Professor Ron Brown, leader of the research group, believes there is now no evidence to support the theory that some day the universe will stop expanding and begin to collapse.

The group was given access to the world's most sensitive radio telescope at Kitt Peak, Arizona. Observations made there were subjected to exhaustive analysis in the laboratory at Monash.

Prof Brown says that deuterium was found in an area of interstellar space known as the Cone Nebula, about 3000 light years from earth.

"The amount of deuterium, in the form of deuterium ice, in this region surprised us," he says. "We had expected to find — as others have previously — modest amounts of the deuterium atom. Instead we found it in concentrations roughly 10,000 times greater than exists in the solar system."

And while this gives encouraging support to current theories about the nature of the universe — its beginnings and its probable future — it poses further problems for scientists.

"For instance, does deuterium exist in such significant quantities in other parts of the universe?" If further observations show this to be so, and we can understand how it comes to be present as DNC, we are well along the road to the point where we can actually measure the total amount of matter that makes up our universe."

It is correspondingly important for the new breed of mature students, if they continue to be an important sub-group in tertiary education, that the institutions understand the special problems, if any, they encounter.

Another HEARU study, conducted in the Arts faculty, revealed that between 18 and 25 per cent of Arts students could be described as "successful drop outs".

"A successful drop out" is defined as a student who has successfully completed a year of study but who does not enrol in the subsequent year or discontinues all studies early in the subsequent year after completing enrolment, or discontinues all studies late in the subsequent year.

The investigation concluded that the reasons for "successful dropping out" were usually complex and personal, giving the lie to the common oversimplification that students dropped out because they were not good performers, they lacked motivation or were too poor.

And the 1976 Examinations Statistics, released recently, revealed that the percentage of full-time Monash students who passed their first year fell last year below 1973 levels in all faculties with an undergraduate intake except two — Engineering and Medicine.
In its community involvement role, the Association keeps a register of graduates who are willing to voluntarily give of their special skills and services for community work.

The administration of this program has not been without its difficulties though. Those wishing their names to be added to the register have been invited to contact the Association and readers have also been asked to suggest which voluntary agencies might require assistance.

Members of the Monash Graduates' Association also play a role in the decision-making process of Monash. It is represented on various University committees such as the Standing Committee for the Centre for Continuing Education and the Careers and Appointments Committee. The two graduate members on the Monash University Council are also Association committee members.

Mr Cliff Picket, of Monash Social Work, and prospective foster grandparent, Miss Marjorie Hinds, of East Hawthorn, make friends with a youngster for 12 months.

Mr Picket was asked to form the study group by the Victorian Council on the Ageing, of which he is a member. Both Federal and Victorian State welfare departments have promised support, except in the vital area of finance. However, grants totalling $10,000 have been made by the Sidney Myer Trust and the Myer Foundation, enabling the project to begin soon.

The Victorian State Government has guaranteed to provide the "raw material" through its welfare departments dealing with children and aged people.

"As there are more than 375,000 retired people in Victoria — and 700,000 Australia-wide — from which to draw our supply of foster grandparents, there is obviously plenty of scope for the scheme," says Mr Picket.

Efficient use key to water shortages

Using our existing water resources more efficiently is a strikingly simple way of augmenting supplies compared with developing costly and remote new sources, according to a report by a Monash researcher suggests.

"The report is the result of research work conducted during the last three years by Mr David Heeps, until recently a research fellow in the civil engineering faculty of the University."

Mr Heeps urges routine surveillance of the water distribution system to minimise the loss in revenue caused by meters which have ceased to register, and the loss of water from leaky mains.

Among the other water-saving recommendations he makes are:

- A total ban on fixed sprinkler systems for watering the garden.
- Water authority control on water use applying to encourage the design of types which use water excessively.
- The development of water recycling systems.

Some appliance design features his report recommends include the tap aerator and spray tap on showers which reduce the flow rate while giving an illusion of a solid stream of water; the "save-saver" device on washing machines which diverts used water to a neighbour's tub and reuses it in the next wash; and the two-flush toilet with a larger flush for solids and a smaller one for liquids.

"Mr Heeps says the flush capacity of toilet basins appears to be a promising area for further investigation."

The Association participates in the wider graduate movement by sending delegates to the Australian University Graduate Conference and to seminars, symposia and other social and professional organisations such as the Graduate Careers Council of Australia.

This year AUGC submitted a report to the Commonwealth Commission on Inquiry into Education and Training. Of particular interest were the sections on the further education of graduates, course duplication and career progression in the educational development of the community.

For further information about the Association contact the president, Gladys Davey, C/- Monash University, Clayton, 3168.

Inquiries at the University may be directed to Mrs V. Thompson at the inquiries counter of the University Offices (541 0811 ext. 2009).

"An important role after graduation"

The Council is the main governing body of the University and has overall responsibility for University affairs.

Until this year, all Monash graduates could expect to be circularised every two years with ballot papers for the election of a graduate to a four year term as one of two representatives on Council. Following changes to regulations (for economic reasons) however, only those who have graduated within the past four years or who have voted at the previous election will automatically receive election papers.

If candidates can be nominated to fill the second sectional role by application to the University offices.

What is the role of Council?

It is seeking 108 members, drawn from a wide cross-section of both University and outside community groups.

It usually meets 10 times a year. Council's main business is to receive and consider reports from either its own sub-committees or other University bodies such as Professorial Board and, more recently, the Union Board. Professorial Board makes recommendations on academic matters and also advises Council on other University affairs as it seems fit or as requested by Council.

The various sub-committees deal with matters such as finance, buildings, staff, halls of residence and safety. Special ad-hoc committees may also be appointed to consider specific issues.

Budget recommendations

A joint meeting of Council and Professorial Board committees provides information and recommendations on long-term planning for Council. Council then adopts or modifies schemes on Council and forwards them to the Tertiary Education Commission.

The main philosophy behind such a committee structure and the wide-ranging representation of groups on Council seems to be that of bringing to the University not only the University. This interest and involvement helps the University not only to be responsive to the needs of its members on campus, but also to the attitudes of the community outside (which, after all, pays the bill) and also helps insulate the University from direct outside interference.

Monash graduates are in a peculiarly important position with regard to the University. They form the only University group which has spent much time and effort at Monash, with its own sub-committees and works and interacts with other than the University community. It is this dual experience which enables them to have a continuous input to and active input into the University through their representatives.

The graduates' Council representatives are, of course, members of the Monash Graduates' Association, and in this way they are able to involve and interact with a wider section of graduates than they might otherwise.

Your representatives are always willing and keen to hear from you and to discuss any issues concerning the University.

Ron Nethercott (graduate representative).
Do females have extra brain language centres?

Researchers at Monash have uncovered evidence which suggests that females have a special auxiliary language centre in their brains which may be "called in" to help process difficult or unfamiliar verbal material. According to the leader of the research team, Dr John Bradshaw, the presence of the auxiliary centre may account for the long-documented verbal superiority of females over males.

Dr Bradshaw, a senior lecturer in psychology, says the auxiliary centre is located in the right hemisphere (the right half) of the female brain. Traditionally, for both males and females, the left half of the brain has been thought of as dealing with language tasks, while the right is concerned with visuospatial processing — handling such matters as the recognition of faces and other "non-language" skills like finding our way around. In some people, more particularly the lefthanded, the functions of the brain hemispheres may occasionally be reversed.

Dr Bradshaw says the location of the auxiliary language centre in the right half of the brain probably accounts for the fact that females tend, overall, to be slightly inferior to males in visuospatial processing tasks.

This is as if the auxiliary centre has partially "invaded" right hemisphere brain space in males which is otherwise reserved for processing visuospatial tasks.

Dr Bradshaw has been investigating brain function, with the aid of grants from the Australian Research Grants Committee, for the last eight years.

Brain fed information

By means of special techniques, the team fed in verbal and visual, to one or other of the cerebral hemispheres (left or right sides of the brain). The stimuli included verbal material, geometric patterns, drawings of faces or other non-verbal objects, and auditory patterns as well as specially composed musical sequences.

Their subjects' performances were measured in a number of ways, including speed, accuracy, choice behaviour and motor performance.

It was found experimentally that the auxiliary centre was "called in" when, females found verbal material too difficult or unfamiliar language tasks which involved understanding meaning rather than merely naming or calling the material out aloud.

The researchers found that female language or verbal superiority was displayed more in visuo-spatial processing - handling such matters as dealing with the left hemisphere half of the brain has been thought to be slightly inferior to males in such matters as dealing with the left hemisphere while the right is concerned with language tasks, while the right hemisphere brain function rather than that of the left hemisphere was thought to be critical for spatial information, both visual and auditory, to one or other hemisphere may occasionally be reversed.

Right hemisphere brain function rather than that of the left hemisphere was thought to be critical for spatial information, both visual and auditory, to one or other hemisphere.

"But, while I'm very confident of this, I wouldn't want anyone to assume that there are no areas of real concern. For instance, I don't think that anyone connected with education today can feel easy about the present educational system's triennial. In practice, this simply means annual funding — and this is an entirely unsatisfactory and inaccurate system. It is simply not possible to plan and develop educational programs on a stop-start basis. I feel there's a danger of long-lasting damage to the entire education system unless we get back quickly to a genuine system of triennial funding.

"Professor Martin said that Monash's fine reputation in the field of research had been handmade largely by the recognition in the recent announcement of ARGC awards for 1978 (see page 10).

"Of the total research budget of a little over $1 million, Monash's share would be $1,039,000. This was a sizable increase over the 1977 figure. Even so, there is a worrying aspect here. Over the past five years, there has been a steady reduction in the number of Commonwealth Postgraduate Research Awards. The total available for all Australian universities has declined from 700 in 1973 to 555 for next year. Since there are now more universities competing for these awards, the number available to individual institutions has decreased even more alarmingly. Monash's share has dropped from 74 in 1973 to an expected 46 in 1978. This does not speak well for Australia's commitment to the principle of home-grown research and we are looking closely at ways in which we might plug the gap from within our own resources — and, where possible, attract research funds from other than government sources.

Arthritis treatment among Monash research projects

A Monash pharmacologist has foreshadowed new directions in the search for an effective treatment of the inflammatory disease, rheumatoid arthritis.

Professor A.L.A. Boura told the recent ANZAAS Congress in Melbourne that one possibility centred on a number of anti-inflammatory factors which have so far not been contacted. Professor Boura said that isolation and identification of these substances could lead to the production of new anti-inflammatory agents which act in the same way. All, however, tended to cause gastrointestinal damage.

In another paper delivered to the Congress, Dr B. Southby, of the department of social and preventive medicine, said that spending more money on medical care would not improve health unless Australians changed their current life styles.

More medical care could not be equated with more health. "Unless medical knowledge is increased significantly or administrative procedures are developed which prevent and lower the costs of illness, the present system will remain expensive and inefficient.

"The marginal value of spending additional dollars on medical care in order to improve health would be very close to zero."

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Feeling nostalgic?

If reading about Monash has made you feel nostalgic, the message is clear — the next generation of Australian students, boys and girls, needs the opportunity for a self-indulgence is coming up on Sunday, November 27.

It's the Monash Graduates' Association annual picnic which gets underway at Lake Wendouree, Bellard (adjacent to the kiosk opposite the Botanical Gardens) at 12.30 p.m. A bush band will entertain during the afternoon and there will be a program of country races (of the egg and spoon, and sack variety).

For further information and copies of a map showing the picnic's exact location contact Glena Davey on 489 7382 (a.h.).
Agricultural education and its political clout

Agricultural education, State teacher training and the early financial health of Melbourne University. Don't feel shy if you can't spot an obvious connection.

There is one, though. The latter two rode on the coat tails of the political clout of the first in Victoria early this century, according to a Monash academic.

The story of the odd bedfellows — how the State's first director of education, Frank Tate, used the political value of agricultural education to further his own wish for a junior training college for teachers, and how Australia's first agriculture faculty was established at Melbourne University — is told by a senior lecturer in education, Mr M. A. Clements, in Melbourne Studies in Education 1977.

This is the 19th issue of "Melbourne Studies", which is regarded as the major Australian publication in the education field. It is edited by Stephen Murray-Smith and published by Melbourne University Press.

Mr Clements's "Tate and Agricultural Education in Australia," looks in part at the establishment of the Melbourne Continuation School in 1905. When this school opened it had a dual role — providing post-secondary education to State scholars in preparation for advanced courses in agriculture and mining, and as a junior training college for teachers.

The supply and training of would-be teachers, Mr Clements states at the root of the efficiency of the Education Department.

He had been extremely frustrated with government inactivity on the matter and Mr Clements says there can be no doubt that he was pleased to be able to use the political value of the agricultural education movement to further his cause.

When the Bant government gave Tate the choice between two projects which he supported — the establishment of State high schools in country districts or a junior training college in Melbourne — he moved on the latter proposal.

Mr Clements says Tate then had to satisfy Bant that due attention would be given to the development of facilities for agricultural education and provision was made for the continuing education of students on their way to agricultural and mining courses at Melbourne University.

Mr Clements stresses the political importance of agricultural education in Victoria at the turn of the century. All parties in the Legislative Assembly felt that the country was developing too slowly. The Assembly had moved to stimulate the agricultural use of pastoral land by buying up large estates, subdividing them and providing houses for farm laborers.

Given this emphasis on closer settlement it was only to be expected that there would be a corresponding emphasis in parliamentary circles on the need for the provision of opportunities for agricultural education of a high quality in order that farming would become more profitable and, as a result, the desire to move from the country to the city would be diminished," he says.

Mr Clements says Tate also played a major role in the establishment of a faculty of agriculture at Melbourne University.

He says that the political support for Tate's scheme on the Continuation School would have been lost if the movement to establish an advanced agricultural course at the University had been unsuccessful, but also says that Tate had a genuine desire to help farmers as much as he could.

The course was successfully established in 1904 as a "string" attached to a Bant government promise to the University and has since become a precarious financial situation.

(1911, however, it had been judged a failure with only 28 students enrolled despite many special inducements in the way of scholarships. The University Council had established the course "for the benefit of agricultural students" and "the agents of advanced agricultural education in Victoria suffered during the period 1906 to 1911," Mr Clements says.)

Mungo's Canberra: it lives on but it's not funny anymore

Whether it's meant to be easy aside, do you ever get the feeling that life is no longer dotted around the backbenches: William Charles Wentworth, Billy McLean, Robert James, and all of them getting more and more scarce, and more and more aged.

"Where are the Curly Swartzes, the John Grey Gortons, the Fred Dalys of yesteryear? Gone, all gone. In their place we have an opposition of deadly earnestness, and a government of ruthless cynicism. There are not a lot of laughs to be had around Parliament House these days, and those there are tend to be a trifle sick.

"About the funniest thing that happens is when somebody gets stuck in a lift, and then it's usually the wrong person."

For those nostalgic for the good old days — when parliament was a circus and "Nation Review" a principal clown, "Mungo's Canberra" should provide good reading.

It is spiced with illustrations by Michael Leunig, including a map of Canberra "(Condemned by the International Cartographer's Council)" pin-pointing locations of such features as "The Circle, Concentric Circle: The city's token rape pack, and the nonmembers' bar and Parliament House (in that order)."

The word "special" is used in connection with the young people for whom the Krongold Centre at Monash was established, but in effect what the Centre attempts to encourage in these people is a sense of ordinariness.

Professor Marie Neale says that "special" is used in the sense of "individual" and what the Krongold Centre aims to do is to help people realise their individual talents and use it in participating fully in ordinary community life.

The Centre was set up in 1976 to help not only young people handicapped by some physical disability or psychological malfunction, but also the exceptionally gifted, who often suffer through the sense of being "different" in order to comprehend their special needs.

Reviewing the Centre's first year of operation, Marie Neale says one of the Centre's functions is to act as a meeting place, involving university students and staff with the young people. Students from the social involvement group have participated in such an activity this year.

Another need is for a supply of tasks from departments.

She says that such jobs are required particularly for people referred to the Centre who can't be easily categorised. "They're not handicapped, they're not ill and they're not stupid, but they are people who have lost confidence in themselves and a sense of purpose," she says.

Bad experience

"They may, for example, have had a bad experience in a job and been scarred by it to the extent that they will not attempt to find another for fear of it happening again."

"What we need, then, is a supply of straightforward, uncomplicated tasks which they can do as part of the process of regaining a belief in their abilities."

Departments are being asked for ideas on non-painful tasks such as traffic sorting, collecting, light clerical duties or grounds work, which do not cut across the clearly delineated duties of particular University employees.

Research assistant Jocelyn Cumming is responsible for planning the every day step-by-step activities which will help these people who have not yet found their "get started" people.

All suggestions would be welcomed.

In the first instance contact Judy Mathews on ext. 2941.

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November, 1977

Helping those special people
Efficiency and positiveness the US lessons

While there is little to be learned from North American universities which could improve the quality of the Australian university system, when one looks at a US graduate, there must be much to be learned about cost effectiveness. And in a time when there are real pressures on Australian universities to achieve the same result for less cost, the American example is worth a “very hard look”.

Two chemical engineering academics at Monash, Dr D. V. Boger and Associate Professor F. Lawton, have made this observation upon return from study leave in the US. Both spent time teaching in tertiary institutions there.

Writing for “Reporter,” they say: “The only real problem we see with the American example is worth a “very hard look”.

-American engineering academics seem to be more positive, enthusiastic and outward looking than many Australian academics, which often seem to look inward with distinct cynicism.

-Such attitudes cannot help but influence students and may be related to the structure and financing of Australian universities.

-“Compared with the majority of American universities which are run almost as an old style autocratic business, academia Campbell was correct when he observed that the committee structure of Australian university is still present; it may be accompanied by masses of paper and days full of talk which would horify a person with training and experience in the commercial or industrial world.

-Very few counterproductive activities are tolerated in an American university because of their cost. There is a clearly defined hierarchy where decisions are made.

-This contrasts with our own costly committee-dominated structure where decisions are apt not to be made and where considerable time and effort will be wasted thereby resulting in frustration.

-Dr Boger and Lawton say their experience of teaching American undergraduates indicates that these students are not necessarily any better than Monash engineering students but they are far more positive in attitude and more motivated to perform well. They are less well informed on general world matters, however.

The academics say American students are concerned with high achieve- ment rather than “just passing” as they know that better grades will get them better jobs with better pay.

-They continue: “Our graduates are certainly as well trained technically, if not better, than their American counterparts. Though we spent considerably more time teaching” undergraduates and the facilities available to the student, particularly our laboratories, are better by far than any we have seen in North America.

-“Good Monash engineering graduates are highly sought after as potential research students in both Canada and the US. In general this is true for all Australian engineering graduates. We have good reason to be proud of our product.”

-Surveying engineering enrolment trends in North America, Drs Boger and Lawton say there has been a substantial growth in new students in the last two years and indications are that this will continue for some time.

-“It appears that the shift back to technology is related to the belief that solutions to many of the problems confronting the United States and Canada, whether they be in food production, the environment or energy, will come by application of technology,” they say.

-They add that the swing back to engineering and the physical sciences has also occurred as traditional areas of graduate employment, such as teaching, dry up.

Reports urge to meet study leave criticism

Detailed reporting of study leave activities and achievements was the most effective answer to recent criticism of study leave entitlements for university staff, a Monash professor of psychology believes.

According to Professor R. H. Day, the reporting requirement should be rigorously enforced as a pressure against press and political criticism.

-In his study leave report to Council, Professor Day said his study leave was based on the most profitable period of leave he had taken from any university.

-“Feel not only that my research but also my teaching will benefit considerably from such a period of study and reflection,” Professor Day said.

-He said: “Many of my views about some basic issues in my special area of interest have changed markedly as a result of the opportunity to think, talk about and reflect on them at length. During his study leave from January 1 to August 31 this year, Professor Day was a visiting scholar at the Laboratory of Experimental Psychology at Cambridge, and attended seminars and informal gatherings at several universities in the UK and Ireland.

-He also attended symposiums and gave research papers at universities in the United States before undertaking the remainder of his leave at La Trobe University.

-“Reading, writing and planning research colleagues,” Professor Day said.

Monash Software methods for complex systems

File storage system design and evaluation 15,417

A. Y. Montgomery

11,467

Elaslic and plastic bucking of thin-walled steel structure 7,150

Murray

Second phase particles in alloys and their effect on 600

Mechanisms of stress corrosion cracking in Al-Sn-Mg alloys 18,505

Dr D. A. Parker and 8,000

Dr R. B. Griffiths

Dr P. F. Thomson

The Fund was set up earlier this year to support the establishment of an Aboriginal resource centre at Monash. Aboriginal Affairs Minister, Mr R. Viner, has pledged “encouragement and support” for continuation of the valuable contribution made to Aboriginal affairs by Dr Eggleston.

A classic place for sustenance

In the time of the ancient Greek Olympic Games, athletes would go to the Altis Grove at the foot of Mt Olympus to offer prayers for success and of thanksgiving (if the first were answered). Users of the Monash sports centre might treat their activities with a little less reverence but they now have their own Altis Grove to go to — for physical sustenance if not spiritual.

Altis Grove is the name of Monash’s newest eating place, which forms part of the recently completed extensions to the sports centre.

Proprietors are Maria and John Salpig, (pictured), both with backgrounds in catering, who plan to keep the cafe open according to demand.

At the moment the basic opening hours are about 11am to 10.30pm seven days a week but arrangements are being made with the Alexander Theatre and Robert Blackwood Hall to be open for late night refreshments on evenings when there are performances.

As well as sandwiches, pancakes and the like, the Altis Grove will serve steaks, chicken, souvlakia and other full meals at lunchtime and throughout the evening.

The Altis Grove seats 60 people at tables and a further 10 at benches.

$5000 GIFT

The Department of Aboriginal Affairs has donated $5000 to the Dr Eggleston Memorial Fund.

Reports urged to meet study leave criticism
The Monash artist in residence this year has been Melbourne abstract painter, Lesley Dumbrell. An exhibition of her works was held last month in the visual arts exhibition gallery on campus. Arts honours student Paul Taylor reviews that exhibition and discusses Lesley Dumbrell's art.

Dumbrell's art has 'a growing appeal'.

The exhibition comprises 16 paintings and 22 studies, made over the last 10 years. The paintings divide themselves into two groups both concerned with the nature and variety of illusion. Works made between 1967 and 1971 are primarily interested in the exploration of colorful three-dimensional forms. For example, "Red Painting" (1967) and "Defraction" I and II (both 1968) present a systematic undulation of form. Box-like images appear to dip in and out of the surface of these paintings and arouse a fluctuation of attention between the real and the representational. The paintings made after 1971 show a dramatically different emphasis. As a result of what is described as "accidental discovery" and what is a feeling that the earlier experiment had been exhausted, this illusionist tendency has evolved into a new illusionism -- one which operates in a purely two-dimensional sphere. Such works as "Lithical" (1971) and "Carilion" (1971) demonstrate the beginnings of the new style while others, for example "Spangle" (1973) and "Spangle" (1976), show its triumph. These works are brilliantly colored fields, patterns of the intriguing rhythm. Deceptively quiet, the inner tension is suggestive of both realistic discursive and elusive fantasy, resembling the work of contemporary New York "op artists" -- Gloria Klein and Dee Shapiro.

Vibrant color

As with the abstract-expressionist paintings by Peter Booth (Monash University Gallery, May-June, 1976) a concern for the homogeneity and uniformity of the field, and the acutely vibrant personality of color is evident. Yet in Booth's work, the canvas impresses the viewer with the sense of gesture and turbulent movement, whereas Lesley Dumbrell's canvas is a refuge of precision and order, an agent of order, with optical illusion. In these days of conceptual art, the works are particularly physical -- capturing the surfaces of shade, the varied quality of visual perception and the skillful manipulation of the painted image. They do not offer a frozen experience, their presence is enduringly provocative.

As Lesley herself has said, the works possess a growing appeal, and in fact resemble a book insofar as the experience of the work increases in understanding within the passing of time.

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Leslie Dumbrell presents three poems for consideration, between which the adjudicators said they had difficulty in distinguishing in merit. One of them, "Poem for Mandeshantam" is printed below.

A total of 56 entries from 23 different entries was received in the competition. Almost every one contained passages of "real interest", the adjudicators said.

Stephen Rade and Mathew Peckham received special commendations for their entries.

POEM FOR MANDELSHTAM

Each night the moths have clamoured at our naked window with portents - dervish with the wings of paupers - and we have both turned away.
Oap, it never snores here. The street-lamps smile over their spits of acid blue frost. The empty night glister.
Was it ever like this, in those precious months?
Strolling past a lovely vegetable merchant's heaps of cabbage and measag radish), did you gasp at the thought that this wet lane might haunt, one day, my own doors?

Sitting in the faded sunstruck carriage, amidst gum soldiers.
did you turn, just so, to see me wave?

My wife reading in the kitchen -
the dim wet orchard bending like a tune to the cat dreaming in a dapple of shade -
I am standing where the first sun splits into an armada of flames -
the cat dreaming in a dapple of shade -

Beyond the fence. I can see where, once, you sat, cross-legged. and my fond smile quells the thought that you have gone. and Indifference."

As Lesley herself has said, the works possess a growing appeal, and in fact resemble a book insofar as the experience of the work increases in understanding within the passing of time.