

ON THE SPOT FOR THE "BIG BLOW"

MONASH geology student Jim Granath scored a rare and unexpected grandstand seat at a volcanic eruption during the summer vacation.

Jim, a Ph.D. student in Earth Sciences, was visiting New Zealand in February with a party of geologists from Monash and Adelaide universities.

Their aim was to study volcanic rock, but Jim found himself at the foot of the volcano, Ngauruhoe, just when it erupted — for the first time in 21 years.

The volcano began spitting out dust and debris shortly after 1 p.m. and its activity continued for another seven hours before settling down. In that time he took the photographs on this page.

Jim says he found it difficult to believe his luck in having a balcony view of the eruption.

He says he felt "utter glee" at the spectacle — and no concern at all for his personal safety.

He and a companion, John Parker, from Adelaide University, settled down to watch and take notes of the proceedings.

Jim says the rumblings and eruptions of dust and partial flows from the interior of the volcano were interspersed with occasional loud explosions, the first of which, being unexpected, almost knocked him off his feet. The force of the bangs was enough to open unlocked doors at a motel five miles from the volcano.

Other geologists alerted by seismograph readings, showed up at the site after a few hours. By the next day there were enough geologists at the volcano to fill the MCG, Jim quipped.

"A volcanic eruption near populated centres is fairly rare and usually attracts hordes of geologists," Jim said.

Stewart Parker, a geology honors student at Monash, and Jim spent several days collecting rock samples following the eruption. Stewart reached the edge of the rim of the cone where the rocks were still hot enough to melt the soles of his boots.

He took a number of pictures that were subsequently used by the New Zealand Herald.

The Monash geologists were in New Zealand to participate in a field trip for geology students from Monash and Adelaide universities. The trip's objective was to examine geological features not available in Australia.

The Geological Society organised the field trip and Clubs and Societies contributed a part of the cash needed to fund it.

The terrain studied included the young glacial features of the South Island, the internationally known metamorphic rocks near Otago and the Alpine fault system which dominates New Zealand's geology.

Right: Seconds after the eruption: rocks are landing on the slope and sending up puffs of dust and cinders; an avalanche has started on the left slope.

Left: Cloud from the volcano rising about four thousand metres above the crater.



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THE NEW BUILDINGS — pages 6, 7

Genetics: risks and rewards

There is an urgent need for education of both scientists and lay people in the implications of experiments in genetic engineering, says Professor Bruce Holloway.

The head of the Monash Department of Genetics believes this would:

- Make scientists fully aware of the risks involved in certain types of experiments and inform them of necessary procedures to eliminate such risks.

- Make the public aware (a) that scientists are concerned with eliminating all these risks — and (b) that many benefits will come from such experiments.

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Genetics: risks and rewards

from previous page

Professor Holloway was one of three Australian scientists who attended an international conference in California from February 24-27 at which 135 genetics experts discussed the bio-hazards of their work.

The conference was called after world-wide expressions of concern by scientists about the dangers of genetic manipulation — or, as they term it, "recombinant DNA molecules". In July last year a group of American scientists called for a moratorium on this type of experiment.

The basic decision of the conference was that experimentation should proceed, but only when certain well-defined safeguards and containment procedures are observed.

The research which has worried scientists involves the biological com-

ination of genetic material from separate organisms that would normally not exchange such material naturally.

DNA from bacterial plasmids has been commonly used in this work, plasmids being self-replicating DNA molecules which occur in bacteria and which frequently carry genetic determinants for drug resistance.

The conference defined three types of recombinant DNA molecules experiments having either low, moderate or high risk, depending on the biological material involved, with specific containment procedures appropriate to each level of risk.

Many bacterial plasmid experiments appear to fall into the low risk category, while moderate risk ones would include some studies with cancer-producing viruses.

An example of high risk experimentation would be the construction of a

plasmid containing genetic information for the disease botulism and its introduction into E.Coli, a bacterium found in the human gut.

The recommendations

Experimental safeguards and containment procedures recommended by the conference are both physical and biological.

For low risk experiments the physical procedures include the wearing of laboratory coats, safe pipetting procedures, no eating or drinking in the laboratory, sterilisation of all cultures and contaminated glass ware after use, and the use of safety cabinets for procedures which generate fine mists of bacteria which can easily spread from the laboratory.

Suggested procedures for moderate risk experiments include biological

safety cabinets, gloves for all workers, and limited access laboratories with air pressure below that outside so that dangerous micro-organisms cannot waft out.

For high risk experiments, the precautions recommended include laboratories isolated by air locks, provision made for clothing changes for all workers and the treatment of all exhaust air, liquid and solid wastes.

Biological containment procedures mainly involve the development of special mutant host cells (vectors) for use in experiments. These specially developed bacteria, bacterial viruses and plasmids would be unable to survive outside a laboratory environment and would "self-destruct" in the rare event that they escaped.

Professor Holloway, a specialist on plasmids, said he found the eagerness to quickly develop such vectors the most exciting part of the conference.

"About 50 of the plasmid people got together around blackboards and we started work immediately on the design of these organisms," he said.

"It is thus very likely that special international seminars will be held in the near future to help get the work completed," he added. Suitably mutated vectors should be available to genetic experimenters all over the world in a matter of weeks or months rather than years.

Summing up the feeling of the conference, Professor Holloway said two points should be made: "first, all workers in the field would agree there is a risk in such experiments with recombinant DNA molecules.

"But it might as well have been said in 1910 that the internal combustion engine was a potential danger to society and development of it should be stopped.

"The important thing is that geneticists have recognised the risks of this work and discussed them before the world's Press. Having assessed the risks, they have worked out ways to overcome them.

"The second point is that there are many potential benefits in continuing the experiments. For example, production of insulin could be achieved by fermentation techniques now used for production of antibiotics rather than by depending on the world's slaughterhouses. (Insulin at present is extracted from the pancreas of animals).

Cancer link?

"Genetic engineering could give us a greater understanding of the problems of cancer and some optimists already predict it leading to the control of the disease."

Professor Holloway said he and three other scientists at the U.S. conference who are also on the organising committee of the Third International Symposium on Antibiotic Resistance, to be held in June next year in Czechoslovakia, had decided to devote one session of that conference to the subject of genetic engineering.

"As part of the need I see for maximum scientific and lay discussion on the subject, I think it would be a good thing for it to be discussed by Australian professional societies. There is certainly enough expertise in this country to make such discussions meaningful," he said.

The Australian Academy of Sciences has already established a special committee to study the implications of recombinant DNA experiments. It will consider a special report on the U.S. conference submitted by its two representatives who attended, Dr. W. J. Peacock, of the CSIRO in Canberra and Professor A. J. Pittard, of the Department of Microbiology, University of Melbourne.

"No doubt the Academy will issue a statement with recommendations for the conduct of experiments of this kind in Australia," said Professor Holloway.

● During two weeks in the U.S. prior to the conference, Professor Holloway gave seminars at the General Electric Co. research laboratories, the New York University Medical School, and at the Universities of Chicago and Michigan.

OUR NEW PORTRAIT



The University has bought the portrait at left of the late Chancellor, Sir Douglas Menzies. It was painted more than ten years ago by expressionist painter Kevin Connor.

Council approved the purchase last month on the understanding that the painting was to be regarded as a work of art rather than an official University portrait.

In a letter to the Vice-Chancellor recommending that the portrait be purchased, the Professor of Visual Arts, Professor Patrick McCaughey, described the painting as one of high quality.

"It is an expressionist portrait in which the painter abbreviates the qualities of likeness in favour of his own responses to his sitter," Professor McCaughey said.

"Sir Douglas Menzies emerges from Connor's brush as a strong, slightly forbidding, yet quizzical character."

He said that the portrait broke the mould in which Chancellors were conventionally fixed, "reminding us of a dynamic presence rather than a fading memory".

"I take very seriously the fact that Sir Douglas himself cherished this portrait and had it hanging in his own flat," Professor McCaughey said.

Council at its last meeting viewed five photographs of Sir Douglas Menzies and agreed that arrangements be made to have one of them enlarged as a possible alternative to the commissioning of a posthumous portrait.

● Sir Douglas, who was a Justice of the High Court, is pictured below with his cousin, Sir Robert Menzies, the former Prime Minister.



The Academic Hierarchy

For this postscript to our Plain Man's Guide to University Government last month, we are indebted to The Times Higher Education Supplement:

A VICE-CHANCELLOR

Leaps tall buildings in a single bound, is more powerful than a locomotive, is faster than a speeding bullet, walks on water, gives policy to God.

A HEAD OF DEPARTMENT

Leaps short buildings in a single bound, is more powerful than a shunting engine, is faster than a speeding bullet, walks on water if sea is calm, talks with God.

A PROFESSOR

Leaps short buildings with a running start and favourable winds, is almost as powerful as a shunting engine, is just as fast as a speeding bullet, walks on water in an indoor swimming pool, talks with God if special request is approved.

A READER OR SENIOR LECTURER

Barely clears a prefabricated hut, loses a tug of war with locomotive, can fire a speeding bullet, swims well, is occasionally addressed by God.

A LECTURER

Makes high marks on the wall when trying to clear tall buildings, is run over by locomotive, can sometimes handle a gun without injuring himself, dog paddles, talks to animals.

A GRADUATE STUDENT

Runs into buildings, recognises locomotives two times out of three, is not issued ammunition, can stay afloat with a life jacket, talks to walls.

AN UNDERGRADUATE

Falls over doorstep when trying to enter buildings, says look at the choo-choo, wets himself with a water pistol, plays in mud puddles, mumbles to himself.

A DEPARTMENTAL SECRETARY

Lifts buildings and walks under them, kicks locomotives off the tracks, catches speeding bullets in teeth and ears, freezes water with a single glance, she is God.

NEWSREELS PLANNED BY FILM MAKERS

Marion Hill at Orientation Week

Photograph: Herve Alleaume



Monash Film Makers is planning to produce a regular campus newsreel.

After two or three quiet years the club this year has the membership, the enthusiasm and the ideas.

All it needs is to co-ordinate the plans into a feasible script and to get a grant from Clubs and Societies for the film and the processing costs.

The Monash Film Group has offered to screen the newsreels that are produced.

The Film Makers secretary, Marion Hill, research assistant in zoology, said that after only six members last year the club now had 20 members.

She said that the main film the club had made over the years was "Yesterday I Said Tomorrow", a 45-minute film produced about five years ago on Monash student issues. Since then there had been shorter films on such things as surfing techniques for the Monash surf club.

"With the newsreels we are planning to cover events of interest on the campus, for example, meetings or concerts," Marion said. "We will be looking for people with ideas who can write a script or direct a film."

"This year's group appears to be very enthusiastic — any other people who would like to join the club are most welcome."

She said that two former members of the club had become involved in making films professionally — one with Crawford Productions and the other with the ABC.



O. WEEK CHANGES PROPOSED

A report to the Professorial Board on this year's Orientation Week is expected to recommend a number of changes to the running of Orientation Week in the future.

Recommendations from a sub-committee will be discussed today (April 7) by the Joint Orientation Committee. A report will then be prepared for the April 30 Professorial Board meeting.

Proposed changes recommended include a shorter Orientation Week with a reduced emphasis on 'sideshows' and entertainment.

Criticisms have been made of the wide dispersal of activities during Orientation Week. Student members of the committee want to see a greater importance placed on the fostering of relationships between new students, older students and staff.

Student Welfare Officer, Rob McNamara, says interest seemed to wane as the week progressed. "There appeared to be less people about over the last two days but it was difficult to judge as activities were scattered around the campus," he said.

"We were disappointed that the Host Scheme didn't work as well as last year.

"Only about 850 first year students put their names down to be contacted but we had a large number of second and later year students willing to act as hosts.

"I think one of the problems was the way in which the invitation to join the Host Scheme was put out. It was given out with all the other forms at enrolment and many students obviously just didn't read it or didn't understand.

"It is crucial to the success of Orientation Week that the Host Scheme work. We have to re-think the way Orientation Week is organised.

"Maybe there should be only two days, one of which could be devoted to the showing and displaying of extra-curricular activities, and the other day to some understanding of the processes of the university and how it functions. The older students could explain to freshers how things work.

"We don't really have any standards by which we judge Orientation Week. Ultimately I think you can say Orientation Week has been successful if it gives students information about the University and makes them feel more comfortable about the place."

Liz Cotter, the Student Orientation Director, was disappointed at the failure of more clubs and societies to actively participate in the week's activities.

"It was left to too few people to do too much for too many. I think it's a problem of convincing people that Orientation Week is their week."

She said that some groups, for example part-time students, the overseas students and the medical students all had their best ever Orientation Week.

Ms. Cotter wants the Orientation Week Committee to be restructured to encourage greater participation by students in Orientation.

"The present committee does a reasonable job, but it's basically a co-ordinating committee. We should be looking for ways of encouraging direct participation by students in the committee and the organisation of Orientation Week."

The Assistant to the Warden, Caroline Plesse, was responsible for the co-ordinating of the week's activity. Miss Plesse says there were problems with getting information out to the new students.

"The enthusiasm of some of the students was terrific. One bunch spent four hours helping us collate the duplicated sheets for the program.

"Some clubs seemed less than enthusiastic about participation although others really got into the spirit of the affair. The numbers attending the last days dropped off, but that might have been because there were a large number of students attending the academic lectures and informal meetings being held."

Professor John Crossley, the chairman of the Joint Orientation Committee, had hoped that more students would use the opportunity to participate and meet other students and staff.

"Certainly the staff — and in particular the junior academics — were selfless about the amount of time they gave to Orientation Week and to the part-timers' Orientation Day," he said.

"The Joint Committee's report will probably recommend that Orientation Week be made more compact, that the dispersal of activities and tents be limited and that enrolment procedures be re-examined to be made less traumatic for students."

More girls take up medicine

Female entrants to first year medicine at Monash last year comprised 47 per cent of the total enrolment of 163.

This compares with only 27 per cent in 1973, and a 1974 average of 27 per cent in all Australian medical schools. The proportion is rising in all medical schools.

The Dean of Medicine, Professor R. R. Andrew, points out in his annual report that the admission policy changed for 1974 in that only one mathematical subject could be counted in the aggregate of four best subjects, including English. He says that this might have biased the intake towards more females.

Of all registered doctors in Australia last year, 15 per cent were females (11 per cent in 1966). The Karmel Report on "Expansion of Medical Education", 1973, forecasts that by 1991, 35 per cent of all medical graduates will be women.

OW photos pages 10, 11



LETTERS

The Editor welcomes letters on topics of interest to the University. The name and faculty or department of the writer should be supplied. The letters should be sent c/o Information Office.

A sudden rush to learn

Sir,
If this year's students are as keen to work at Monash as they are to get to Monash, we can look forward to a bumper crop of honors in November.

The keenness I note is that shown by the drivers of cars jostling and revving their ways through the busy

local roads to Monash in the rush hour periods. It is one thing to be late for a 9 o'clock lecture, but an entirely different one to risk your life and somebody else's to make it on time (if that is the reason for the spectacular and often rude driving).

Speaking personally, I would much rather have students arrive at five past nine than not at all. So how about cooling it, all you aspiring Brookies?

A. Williams,
Associate Professor,
Department of Mechanical
Engineering.

Students help Asian children

Sir,
The Refugee Children's Sponsorship Club at Monash is a group of students sponsoring children in various Asian countries. Sponsorship money goes towards providing such things as clothes, health care, and schooling, according to the need of the particular child.

We are currently sponsoring 10 children in Indonesia, Philippines, Hong Kong, Laos, Vietnam and India, by providing \$11 a month for each child. A group of 11 students pays \$1 a month towards the sponsorship of "their" child. We sponsor the children through

World Vision of Australia. This is an international Christian humanitarian organisation which started in Korea in 1950 and now works in 25 countries.

At Monash last year the club collected a total of \$2373.02. This included \$1236 in monthly contributions for the sponsorship of "our" 10 children, and \$1080 raised by club members holding a 48-hour starvation to aid the Cambodian medical team.

We would like other university people to join our sponsorship scheme. The club has a table in the Union foyer at lunchtime during the first two weeks of every month. Mrs Wheaton in the Clubs and Societies office on the first floor also accepts contributions.

Lauren Dale,
Monash Refugee Children's
Sponsorship Club.

Families wanted to "host" new students

Sir,
The Monash University Parents' Group is sponsoring a scheme through which Melbourne families who are genuinely interested in the welfare of students are invited to act as Host Families to Monash students who are living away from their homes during their time at the University.

Host Families are not expected to provide accommodation.

The students for whom we are seeking Host Families will be mainly from South-East Asian countries, who must be away from their own families for long periods, but there will also be students from country areas and interstate who have no social contacts in Melbourne.

In either case, the fact that there is a family who is interested in them and to whom they can turn, will help a lot to alleviate homesickness, loneliness and boredom.

The idea of the scheme is that the Host Family include a student, who will be selected for the family, in some of the normal family activities — an occasional meal, an outing, listening to music, or just sitting by the fire and talking; in fact, just a home that he, or she, can visit and be assured of a welcome.

With the knowledge of previous years, we feel sure that the growth of mutual understanding and friendship will prove a rewarding experience for Host Families and students alike.

Anyone interested in participating in this scheme should fill in an application form which is available from the Union Reception Desk or from Mrs Nankivell on 56 4232 or Mrs McComas on 82 4884.

Mrs Meredith McComas
Convener
Host Family Scheme
Monash Parents' Group

Pre-school plan for Waverley

Sir,
A group of parents from Waverley and surrounding areas wishes to establish a Montessori Pre-School Centre in the Waverley district.

To further this end a public meeting will be held at 8 p.m. on Wednesday, April 9, at the hall in Glen Waverley Heights Primary School, High Street Road, Glen Waverley.

Dr Don Cave, of Melbourne University, will address the meeting. Montessori teachers will be available to answer questions and some equipment will be on display.

A warm welcome is extended to all Monash people who are interested. For inquiries please ring 277 3060 or 231 3086.

Mrs Harriet Epstein,
Monash Drive,
Mulgrave.

Early leavers do well in Arts

STUDENTS admitted to the Faculty of Arts under the Early Leavers' Scheme have done well in their first year at university.

The scheme, which is aimed at allowing into Monash people without the Higher School Certificate, was introduced last year.

In his report to Council the Dean of Arts, Professor Guy Manton, said that the performance of the early leavers was above the average for full-time first year students.

Professor Manton told The Reporter that 19 students were admitted under the scheme but three withdrew during the year.

"Thirteen of the remaining sixteen passed in all the units for which they entered," he said.

"There were only three failed units in the total of 36 units taken by the sixteen students who completed the year.

"One supplementary examination and two division 11 passes were granted. In the remaining 30 units (83% of those taken) there were clear first division passes.

"Of these, 15 were credit passes and five were passes with distinction — high distinctions are not awarded by the faculty.

"Our impression is that the proportion of early leavers obtaining credits and distinctions is far above the average," Professor Manton said.

Engineering courses more "difficult and specialist"

University engineering courses have become more difficult and specialised, Mr L. P. Coombes said in his Occasional Address at last month's engineering graduation ceremony.

Mr Coombes, former chief superintendent of the Aeronautical Research Laboratories, Department of Supply, said that the fact that engineering graduates learnt more about narrower fields of knowledge was not without its dangers.

"Flexibility of outlook and a willingness to take up new kinds of work may well be more important than specialised knowledge," he said.

To illustrate the point Mr Coombes told of the recent efforts of Sir Lawrence Wackett, who at the age of 75 was left quadriplegic after an accident.

In order not to be dependent on others, Sir Lawrence thought out and had constructed many devices: improvements to wheel chairs, lifting gear to transfer him from bed to wheel chair and from wheel chair to car, and tools and eating implements which his partially disabled hands could use.

"He made astonishing progress in engineering devices to aid the disabled and he is still inventing," Mr Coombes said. "Doctors from many parts of Australia went to see him and to learn from him.

"We may all need something of his flexibility of mind and indomitable will to meet the changes which may well be ahead in our accustomed way of life."

At the, March 19 ceremony, Mr Coombes received an honorary degree of Doctor of Engineering.

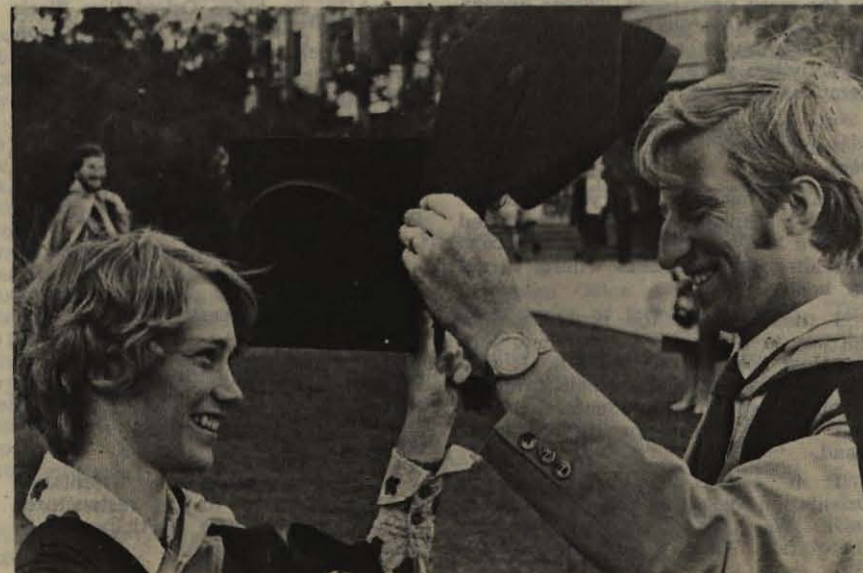
There were 149 graduates in engineering. They included the first woman to graduate in mechanical engineering at Monash in 10 years.

She is Mrs Merren Cliff, a trainee systems analyst with International Computers Ltd. Her husband, Andrew Cliff, also graduated at the ceremony.

Mrs Cliff was the 190th honors graduate in mechanical engineering at Monash. The first graduate in mechanical engineering was the playwright David Williamson, who was awarded his degree in 1965.

The first woman to graduate from materials engineering also received her degree. She is Bronwyn Wood, who is working on tyre research for Dunlop Australia Ltd. The materials engineering course, which has produced 28 graduates since it started in 1971, now has five women enrolled in various years.

Right: Mr. L. P. Coombes after the ceremony. Below: Merren Cliff and her husband Andrew congratulate each other on their engineering degrees. Photo:— The Sun.



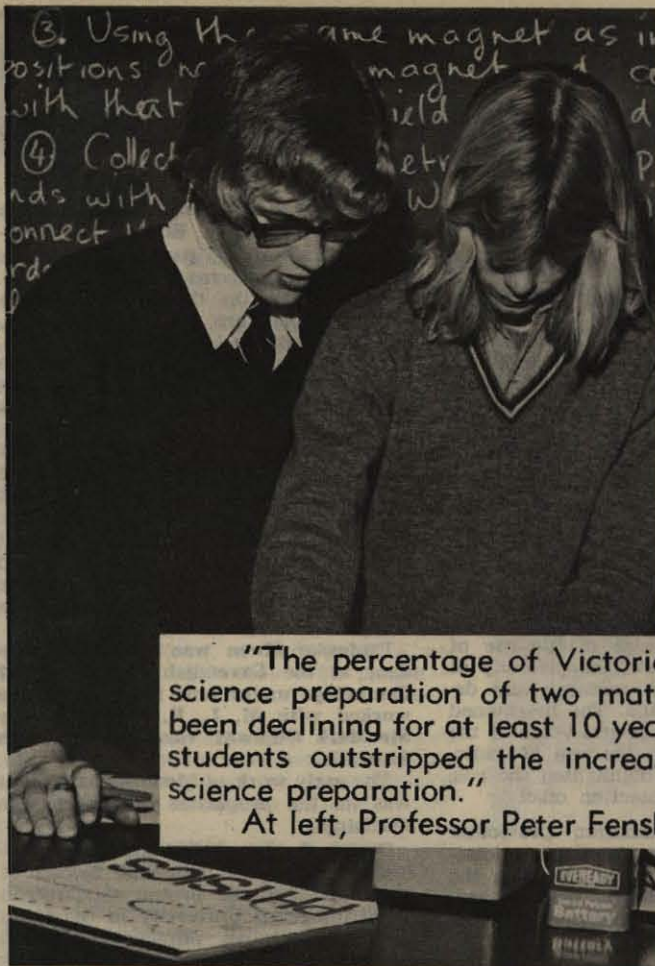
Art exhibition extended

The first exhibition in the University's new art gallery is being extended by six weeks because of the high demand.

"There are students in the gallery all the time", said Grazi Gunn, curator of the Monash art collection. "Students are queuing up outside before we open in the morning."

The gallery is on the seventh floor of Menzies Building South. The exhibition is 36 works from the Monash collection, mainly contemporary Australian art. It is open from 9 a.m. to 5 p.m. and will now run until May 9.

"UNIVERSITIES FACE FALLING SCIENCE ENROLMENTS"



"The percentage of Victorian students in HSC taking the science preparation of two maths, physics and chemistry has been declining for at least 10 years. That is, the growth of HSC students outstripped the increase in the numbers taking the science preparation."
At left, Professor Peter Fensham, author of the report.

A shortage of science students is developing at Australian universities and colleges of advanced education, says Professor Peter Fensham, professor of science education at Monash.

The shortage will not be corrected without a major reappraisal of the relationship between tertiary and secondary education, he says.

Professor Fensham's views appear in the January-February 1975 issue of "Search," the journal of the Australian and New Zealand Association for the Advancement of Science. The article was based on a report Professor Fensham submitted to the Australian Vice-Chancellors' Committee.

Professor Fensham said that on enrolment last year there was a shortage of students in some physical science departments in universities and CAEs. In some, places remained unfilled after all sources of applicants had been exhausted; in others, the trouble was a dearth of candidates of a desirable quality. The problem was more acute in 1974 than in either of the two preceding years.

"There are enough pointers to suggest that this shortfall is not simply a crisis of the moment," he said. "Indeed, it may be symptomatic of a major developmental stage in Australian tertiary education."

Professor Fensham said that basic changes in the nature of the secondary system, especially in the first four years, meant that students were not being prepared for the tertiary sector as they once were.

Continual problems

Problems had arisen one after the other in those subject areas where extended preparation and a pre-selection process were assumed by tertiary institutions to have occurred in schooling.

Languages (other than English), science and mathematics were the major problem areas. In Victoria, for example, students were expected to acquire in the last two years of schooling a descriptive and theoretical content of chemistry that most teachers in other countries regarded as impossible in less than four or five years.

The languages had begun to respond to the situation — classics departments no longer required school

Latin for entry to the department and they have introduced new subjects like classical civilisation. The modern languages, especially French and German, have started to make similar moves. In all cases the cost will be fewer students, but more than otherwise might have been.

Other subject areas — for example, English and history — were less affected. Some tertiary subjects — politics, economics, philosophy, psychology, sociology and certain biological sciences — had actually benefited because they demanded no specific background except a general scholastic ability.

Professor Fensham said that one implication for Australia of the science shortfall involved university and CAE funding — being based on numbers of students, it was affected when student subject interest varied.

For example, the steadily increasing popularity since about 1970 of the biological sciences, relative to the physical sciences, creates intra-faculty problems of space and staffing.

Also funds, hence development, will be affected when student interest swings between universities and CAEs — with the emergence of degree-level courses in science and engineering in CAEs, real competition has resulted for the same limited pool of students from school.

Professor Fensham said that the problem of insufficient numbers entering engineering and science in tertiary institutions had been noticed in Britain about seven years ago; indications were that despite various attempts at change the situation was still critical.

● Ph.D students—"another pair of hands"? see page 8.

"Science has limited pool of ability"

THE shortfall in science and engineering students outlined on this page by Professor Peter Fensham was reflected in a talk given at Monash last month by a visiting British careers expert.

In his talk, Bernard Holloway said that those involved in education must realise that there is a limited pool of ability in science.

Mr Holloway is regarded as the doyen of career advisers in the UK. He heads a 10-member careers advice team at the University of Manchester.

"By more efficient combing through secondary schools you don't get more science and technology people," he told the Monash seminar. "The deeper you dredge the more arts and social science students you get".

And the pool may apply very strictly, Mr Holloway said. The percentage capable of taking degree level studies in science and technology may be as low as four per cent of 18-year-olds.

Fourth university

His words would appear to have relevance for Australian education decision makers, especially those planning Victoria's fourth university.

Mr Holloway said that planners must realise the rates of change taking place — 75 per cent of all scientists and technologists who have ever lived are alive and working today. "If the growth of science research is kept up, then, by the year 2115, not just every human being, but every cat and dog as well, will be a research scientist", Mr Holloway remarked.

He said that in the UK the link between subjects studied and first occupation was becoming more and more tenuous.

(By way of illustration he commented that he was at university with Margaret Thatcher, a leading classical guitar player, and the personal secretary to Harold Macmillan — the only common factor between the four of them was that they were all students of chemistry!)

Graduates must be remarkably adaptable. A graduate will need to be an educated person who happens to have done certain subjects; an all round education will be the first priority.

Mr Holloway said that there would be no relief to the employment situation from introducing specific vocational courses. By the time the graduate had come out of the educational pipeline these specific vocations would no longer be in vogue.

"Career planning is balderdash," Mr Holloway said. "The only concept of a career is a career in retrospect."

In Holloway terms, the role of the career adviser was to "maximise the serendipity" — to help make the right sort of employment accident happen.

Mr Holloway told the seminar that in Australia only 15% of graduates entered industry; in the UK the figure was 22%. "Universities are hardly producing cannon fodder for industry as some people would have us believe — even capitalists should be more efficient than that in their plots", he said.

Jesus and the Gospels

The Chaplains' Office at Monash has organised a series of lectures in April and May on Jesus and the Gospels.

"In arranging the series we are attempting to present contemporary scholarship as it wrestles with the problem of Jesus, his background and his impact on the earliest disciples," said Dr John R. Gaden, the Anglican/Protestant Chaplain.

"This is a subject of interest to all who recognise the important influence of this man on human history."

The lectures will be held on Wednesday at 1.10 p.m. in R7 beginning on April 2. The program is as follows:

April 2: Before the written Gospels, Dr J. D. McCaughey; April 9: Judaism at the time of Jesus, Mr Henry Shaw; April 16: Mark, Fr Chris Hope; April 23: Matthew, Prof Nigel Watson; April 30: Luke, Dr Leon Morris; May 7: John, Fr W. Dalton.

One name was left off last month's list of commissioners for taking declarations and affidavits. He is Mr David Pitman, operations manager at the Halls of Residence.

RADIATION MEN MEET TO FORM NATIONAL BODY

A meeting will be held at Melbourne University next month to form an association of radiation protection officers from tertiary institutions, hospitals and research laboratories.

Foundation helps fund travel

Monash academics may not be aware of the Commonwealth Foundation which helps professional people attend conferences within the Commonwealth, the University's finance development officer, Mr. John Browne, says in a letter to *The Reporter*.

Mr Browne said that the foundation was established in 1966 by the decision of the heads of 21 Commonwealth Governments. Its first chairman was Sir Macfarlane Burnet.

Broad purposes

He said that the broad purposes of the foundation were:—

1. To encourage and support fuller representation at conferences of professional bodies within the Commonwealth;
2. To assist professional bodies within the Commonwealth to hold more conferences between themselves;
3. To facilitate the exchange of visits among professional people, especially the younger element;
4. To stimulate and increase the flow of professional information exchanged between the organisations concerned;
5. On request to assist with the setting up of national institutions or associations in countries where these do not at present exist;
6. To promote the growth of Commonwealth-wide associations or regional Commonwealth associations in order to reduce the present centralisation in Britain;
7. To consider exceptional requests for help from associations and individuals whose activities lie outside the strictly professional field but fall within the general ambit of the foundation's operations as outlined above.

More information can be obtained from Mr. Browne on ext. 2049.

Monash visitors

The following academics will visit Monash during the first term this year.

ARTS

Anthropology & Sociology: Dr. R. Martin, Official Fellow in Politics and Sociology, Trinity College, Oxford. As visiting senior lecturer. To June 30.

ECONOMICS & POLITICS

Administrative Studies: Associate Professor D. L. Rados, Associate Professor in Marketing, Columbia University, USA. April 1974-October, 1975.

Economics: Professor J. C. Nelson, Professor of Economics and Transport, Washington State University, USA. As visiting professor, February - June.

Professor Joan Robinson, Professor of Economics, Cambridge University. As visiting professor. Late February, for about two months.

EDUCATION

Professor E. A. Holdaway, Professor of Educational Administration, University of Alberta, Canada. To June.

Dr. D. F. Hooper, Department of Mental Health, University of Bristol, England. As senior lecturer. March, for nine months.

Dr. E. Jungwirth, Head of Department of Agricultural Education, Hebrew University, Israel. As temporary senior lecturer. October, 1974 - September, 1975.

Dr. R. E. Ripple, Division of Educational Psychology, Cornell University, USA. As visiting professor, January - June.

Dr. L. A. Trinklein, Professor of Science Education, Shippensburg State College, Pennsylvania, USA. February - early June.

ENGINEERING

Chemical Engineering: Dr. J. F. Davidson, Department of Chemical Engineering, Cambridge University. First half of 1975.

It will be on May 12-13 and will be attended by about 60 people from throughout Australia.

The program secretary for the conference is Mr Teng Tan, radiation protection officer at Monash and one of four full time officers at Australian Universities. Anybody interested in attending the conference should contact Mr Tan on Ext. 3593.

Mr Tan said that the need for a national association had grown with the continuing increase in the use of ionizing radiations and the diversity of their applications in research and development in Australia. The heightened public awareness in recent years of the potential hazards in the use of radioactive material has highlighted the role of the radiation protection officer.

"The scope of radiation protection includes not only the familiar radioisotope and X-ray machine but also the more exotic accelerators, neutron generators and research reactors," Mr Tan said.

Keeping abreast

"The problem of keeping abreast of development in such a broad multidisciplinary field is a real one and one which the few existing professional associations with peripheral interest in radiation protection do not meet."

Mr Tan said that the main areas to be covered at the conference would be radioactive waste disposal, design of radioisotope laboratories, training of people new to the use of radioisotopes, and the social responsibility of radiation protection officers.

Workshop on water engineering

A six-day workshop on water engineering will be held at Monash next month. Its aim is to give professional water engineers and engineering hydrologists the opportunity to develop skills necessary to understand and to apply the various procedures available in reservoir capacity.

Materials Engineering: Dr. J. P. Chilton, Senior Lecturer, Department of Metallurgy and Materials Science, Cambridge University. As visiting fellow, January - August.

Mechanical Engineering: Professor Dawson, Department of Mechanical Engineering, University of Leeds, England. Early 1975.

LAW

Professor N. F. Penney, Dean, Law School, Cornell University, USA. As visiting professor. February - July.

Professor J. Stone, University of New South Wales. March - May.

MEDICINE

Physiology: Professor E. E. Daniel, Department of Pharmacology, University of Alberta, Canada. Visiting professor. January for one year.

SCIENCE

Genetics: Dr. J. R. W. Govan, Lecturer in Bacteriology, University of Edinburgh, Scotland. As visiting MRC research fellow. September, 1974 for twelve months.

Mathematics: Dr. J. A. Johnson, Lecturer, Department of Mathematics and Physics, University of East Anglia, England. As visiting lecturer. January - June.

Physics: Professor J. Woolley, Professor of Physics, University of Ottawa, Canada. September, 1974 - July 31, 1975.

(*Dr. Hooper will also be visiting the Department of Social and Preventive Medicine). The following academics are projected second term and third term visitors to Monash:—

LAW

Dr. Olive Stone, London School of Economics, England. 2nd half of 1975.

SCIENCE

Zoology: Dr. Lillywhite, Assistant Professor Department of Physiology and Cell Biology, University of Kansas, USA. Temporary lectureship. June - December.

Dr. Pinnock, Associate Professor Department of Entomological Science, University of California, USA. Temporary lectureship. July - December.

Rutherford talk on April 8

Professor P. B. Moon, from the University of Birmingham, will give the 1975 Royal Society Rutherford Memorial Lecture at 5.15 p.m. in the Alexander Theatre tomorrow (April 8).

This will be the third time that the Rutherford Lecture, established in 1952, has been delivered in Australia.

The title of Professor Moon's lecture is "Yarns and Spinners: Recollections of Rutherford and applications of swift rotation."

The lecture commemorates Lord Rutherford, the eminent New Zealand physicist, whose work in atomic and nuclear physics set the foundation for much of modern physics in general and nuclear energy in particular. Lord Rutherford, a New Zealander, was Cavendish Professor of Physics at Cambridge. He died in 1937.

Professor Moon was a research student at the Cavendish Laboratory at Cambridge under Lord Rutherford. He worked with M. L. E. Oliphant, now Sir Mark Oliphant, Governor of South Australia.

The early work of Moon and Oliphant was on the properties of ions in gas discharges.

During the late 1940's and 1950's Professors Moon and Oliphant helped to build and run the proton synchrotron at Birmingham University in the U.K.; several Australian physicists received their training in accelerator physics and nuclear physics there.

Recently Professor Moon has done experiments on the design of high-speed rotators.

Ben Petersen dies

The funeral of Bent (Ben) Petersen, glass blower in the Faculty of Medicine, will be held today (April 7).

Mr Petersen, who had been on the staff for more than 10 years, died suddenly at home last Monday. He is survived by his wife and two children. He was aged 49.

Scholarships

The Academic Registrar's department has been advised of the following scholarships. The Reporter presents a précis of the details. More information can be obtained from the Graduate Scholarship Office, ground floor, University Offices, ext. 3055.

CSIRO Postdoctoral Studentships. CSIRO offers 15 awards for postdoctoral research overseas in fields of specific interest to CSIRO. Value: Variable according to place of tenure. Applications close April 9.

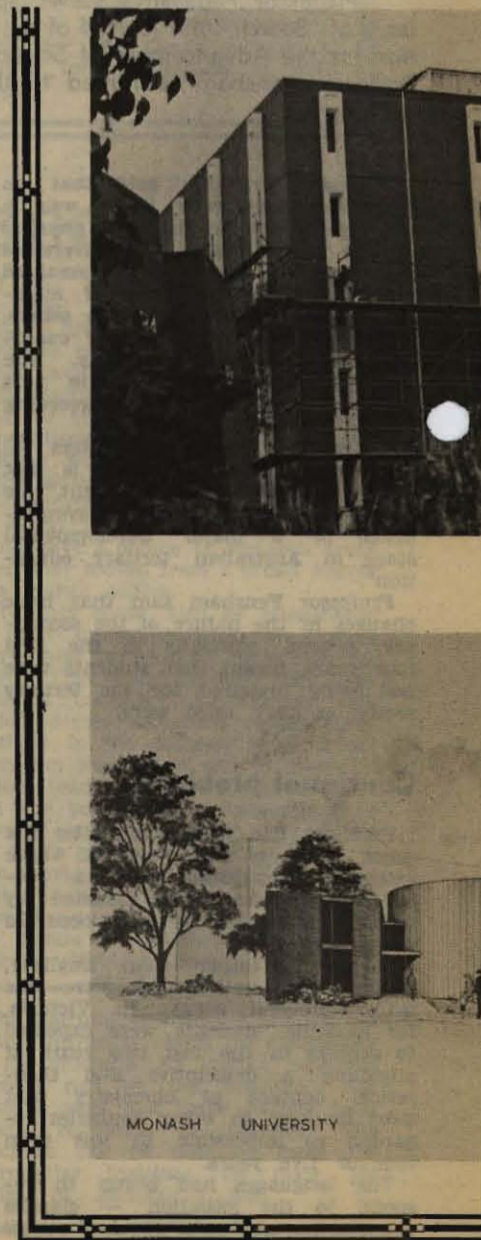
Canadian Osteopathic Scholarship. The Canadian Osteopathic Educational Trust offers one scholarship to a student entering first or second year of an approved college of osteopathy. Value: \$4000. Applications close April 15.

Commonwealth Scholarship and Fellowship Plan Awards, New Zealand 1976.

Available to men and women in other Commonwealth countries for higher degree study in New Zealand. Benefits include a living allowance, travel allowance plus grants for books, equipment and internal travel. Applications close at the Graduate Scholarships Office on May 15.

AFUW - Freda Bage Bursary. Available to female graduates for post-graduate study in Australia. Value \$500. Applications close April 30.

AFUW - Georgina Sweet Fellowship. Available to female graduates for post-graduate study in Australia or PNG. Value: \$2000. Applications close June 30.



MONASH UNIVERSITY

Building — it's just like the sixties

THE bulldozer, crane and scaffolding — all familiar sights in the sixties — have reappeared on the campus in recent months.

A dozen building projects, ranging in size from a gazebo in the Jock Marshall Reserve to a nine-storey wing for the Menzies Building, are either being undertaken or have just been completed.

This month *The Reporter* presents a run-down on the work and plans for the 100-hectare campus.

On the front page and below are recent photographs of MENZIES BUILDING SOUTH. The extension houses the following departments — floors 1 + 2: geography; 3: language services; 4: linguistics and the School of Librarianship; 5: Centre of South-east Asian Studies and Indonesian and Malay; 6: classical studies; 7: visual arts; 8: music.

Some of the main features include an art gallery and artist's studio (7th floor), a music auditorium and recording facilities (8th floor), a multi-purpose assembly area — which can seat about 100 people — on the ground floor, and a museum and research library (6th floor).

The Dean of Arts, Professor Guy Manton, said that the building had been designed to provide flexibility of movement throughout the whole building — all but the first floor has open access to the existing building.

The School of Librarianship will at some stage move to the TEACHING AUXILIARIES BUILDING which is planned between the Rotunda and the Law School. The building will also house the Centre for Continuing Education and the Higher Education and Advisory Research Unit.

THE RECREATION HALL for indoor sport and recreation opened last week. It is pictured bottom right on this page.

The 35m square hall can be divided into a number of areas so several activities and games can be held simultaneously. The sports planned are basketball, volleyball, table tennis, badminton, and indoor hockey, soccer and cricket.

The deputy warden of the Union, Doug Ellis, said that the aim was to provide an area for casual recreation activities rather than for competitive sport. It is available for outside hire — the Badminton Association will hold an invitation tournament from April 24 to 26.

A three-storey extension to the MAIN LIBRARY will increase the book stock capacity by about 300,000 volumes. The photos at right and in the centre of page 6 were taken outside the library.

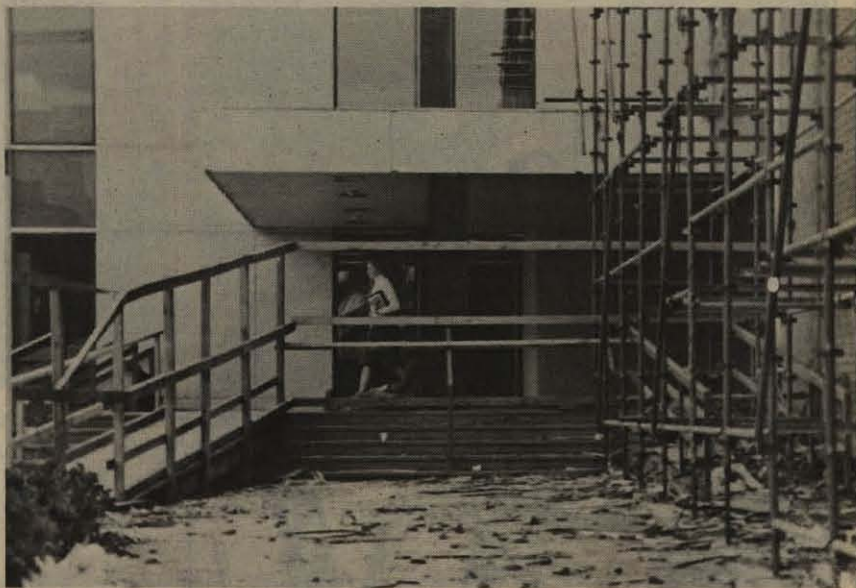
"We've got books running out of our ears," the Deputy Librarian, Doug May, said. "The extra space will be used just for books — there will be very little extra seating because that's not the problem."

He said the research collection would be moved into the new area — it should be ready for use by June, but all the books will not be moved until the end of the year.

Two major works are in progress in EDUCATION — the Dinah and Henry Krongold Child Training Centre (sketch on page 6) and a one floor extension to the main building, plus a four-storey extension on its eastern side.

The Child Training Centre will cost more than \$700,000, of which Mr Henry Krongold, a Melbourne businessman, has donated \$151,000 in gifts and interest. The remainder will come from the Department of Social Security under the Handicapped Persons Assistance Act.

The centre, designed by Monash architect, Alan Scott, should be finished by the end of the year for use next year. Its features include a motor rehabilitation pool which will help handicapped people to move their limbs under water.



The landscaping work to the FORUM should be finished by the end of the month. The area is being divided into four main sections cut by new pedestrian paths.

Each section is being raised, with occasional mounds to break up the contours. Native plants and trees will be planted.

The western end near the Biomedical Library will be retained as an open area for student meetings, concerts and theatre. Spectators will be able to sit or stand on mounds around the perimeter.

The south side of the UNION is being extended. Its use is still under discussion — the possibilities include more foyer area on both the ground floor and the first floor, additional shops, or more space for meetings and activities.

A new building to the north of the UNIVERSITY OFFICES will house the administration's finance branch. It should be finished by September.

A GAZEBO will permit people to view animal and bird life in the Jock Marshall Zoology Reserve. The gazebo will be built to the south of the reserve. It will overlook the lake. A sketch and more details will be published in next month's Reporter.

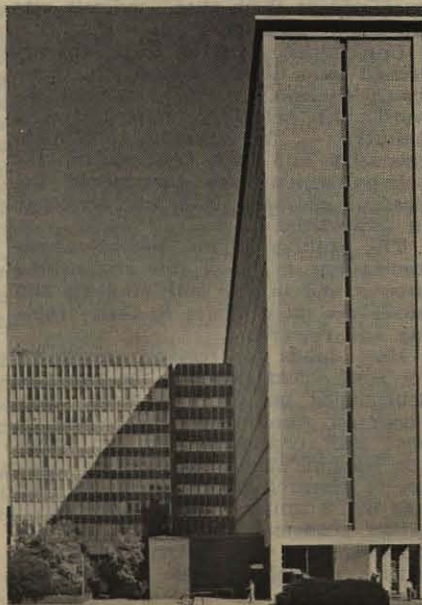
A SYSTEM GARDEN is being built in a courtyard enclosed by science, science south and medicine. The garden has a twofold purpose — teaching and a public place for University members and visitors.

The garden will hold the Department of Botany's collection of teaching and research plants. The department is currently obtaining a variety of species from botanical gardens in Australia and overseas.

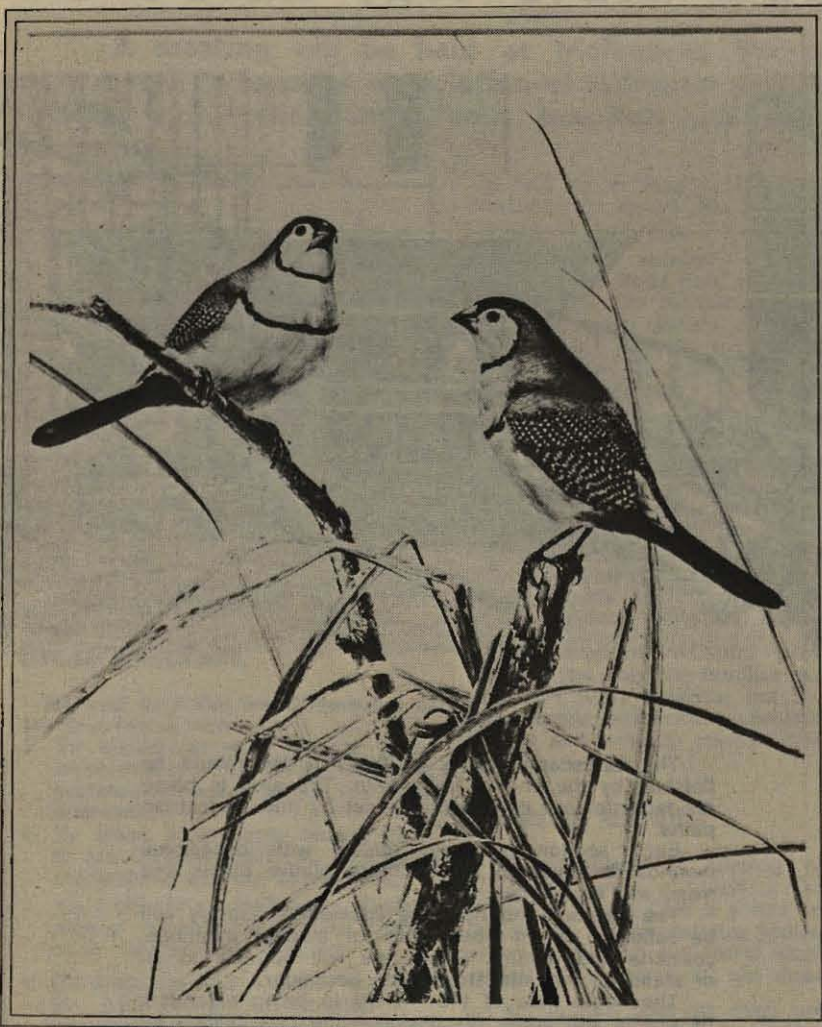
The site was cleared last January and drainage work will begin this month. It is hoped that part of the garden will be opened next year.

The first stage of the NON-COLLEGIATE housing project should be finished by September.

The flats are being built on the south-east corner of the campus at the intersection of Wellington and Blackburn Roads. They will be available to students with a limited number of places for staff. Accommodation details are being finalised at the moment and they will be published as soon as possible in *The Reporter*.



Gems from The Monash Collection—



PETER W. TRUSLER
Doublebar Finch (*Poephila bichenovii*) 1972
Watercolor, 28 x 22.5 cm.
Signed I. r. Trusler.

by
Grazia Gunn

This month, *The Reporter* begins a new series featuring works of art from the Monash University Collection.

To introduce it, Grazia Gunn, Curator of the Collection, has chosen **Doublebar Finch** — the first example of student art bought by the Art Purchasing Committee for permanent display in the University.

The artist is Peter Trusler, 21, who last year completed a science degree, majoring in zoology.

("Doublebar Finch" is on display this month in the corridor leading to the Exhibition Gallery, 7th floor, southern extension, Menzies Building.)

Trusler started painting at the age of 10. Born in Yallourn, Victoria, in June, 1954, he spent his childhood in Ballarat where the family had moved in 1959.

His interest in painting led to seven years of private tuition under one of Max Meldrum's pupils, Jessie Merritt. Like many other Meldrumites, she became an exponent of his theories and transmitted the legendary Meldrum spell to her young student.

This is particularly evident in Trusler's early work, where the sole preoccupation is that of tonal relationships. Truth of tone, according to Meldrum, was the only valid element in painting. As a teacher he emphatically opposed composition, balance, rhythm and totally rejected the study of anatomy and color *per se*.

Fortunately Trusler is not fully committed to this theory. His love of painting is equalled by his love for animals, birds in particular, and his subjects are meticulously dissected and anatomically accurate.

Trusler uses his scientific knowledge as background information for his bird illustrations, to which he devotes his entire time. His aim as a natural history illustrator is to reproduce living birds, recording plumage pattern in young birds and indicating behavioral attitudes in the mature birds. He rarely uses stuffed specimens for these studies; the

necessity for accurate detail in ornithological studies often renders the drawing lifeless and the subject a mere record of a mummified bird.

In his endless attempts to avoid this stiffness, Trusler is now working in oils and applying Meldrum's tonal theories to his bird paintings. Whether he succeeds or not, his skill in reproducing birds with accuracy remains his most striking quality.

The watercolor of the doublebar finches, purchased by the University in 1974, is a good example of his accurate detail. Being a species kept in his aviary, the birds were drawn from life. As indicated, the species is predominantly black and white. The watercolor typifies Trusler's almost photographic accuracy and in one sense it is a record of the bird's stance characteristics and plumage pattern. The type of reed at the lower edge of the watercolor indicates the low scrubby habitat; the movement in the birds evokes their very active character.

Trusler arrived in Melbourne in 1971. He exhibited in 1974 with the Society of Wildlife Artists of Australasia, a recently formed association to parallel the existing Society in England. He plans to exhibit with the Society again later this year, and is currently working on charts for the Gould League of Victoria for distribution to state schools.

Ph.D. students: "Another pair of hands"?

A detailed survey into science Ph.D training in Australia has shown that the Ph.D student could be regarded as an apprentice, often being just "another pair of hands" for the supervisor.

Training of the students was very much secondary to the use of these students to aid the supervisors' careers, the survey suggests.

The survey was based on answers to questionnaires sent to a total of 1152 students, supervisors and scientists in universities and laboratories throughout Australia.

It has been written up as a 212-page report and published earlier this year by the Australian Academy of Science. The data was collected in 1971-72.

The authors of the report, "Ph.D Education in Australia-The Making of Professional Scientists", are Professor Peter Fensham, professor of science education at Monash, Professor S. C. Hill, from the University of Wollongong, and Mr. I. B. Howden, from the University of New South Wales.

"That we see the student/supervisor relation as an apprenticeship is reinforced by the kind of institutional structure within which it is set," the authors say in their conclusion.

"Supervisors in university science departments gain a great deal of career advantage from supervising students. As long as academic careers are measured largely in terms of frequency of research publication, academic staff will be looking for ways of conducting research and publishing it".

About 90% of students surveyed had published their work jointly with the supervisor. Also students tended to work on projects selected for them by their supervisors.

"Although there is no way of us telling how pervasive the practice is, a number of students and also staff members reported cases where students really were regarded as 'another pair of hands'."

The authors concluded that since the Ph.D was tied to the supervisors' careers, new directions which might be proposed for alternative training schemes were likely to meet with little success unless this significant link was fully recognised and dealt with.

"Channel", not choice

The survey also showed that students who entered Ph.D training arrived there more by "channelling" than by a "conscious choice related to their subsequent employability." The journey towards a particular highly specialised competence started well back in school — students who did well in a subject continued in it.

Undergraduate training at university tended to make the student's capability more and more specialised. Students who performed well in particular specialties at an honors level

were awarded scholarships to continue in that speciality to a Ph.D degree. The specialities available depended on the research interests of the local academic staff.

Most students only became aware of the problems of employability after they had committed themselves to Ph.D studies for about a year.

In the survey, students indicated that they gained little from contact with colleagues in the laboratory and their contact with outside professional scientists was minimal.

Under this institutional structure, the students developed values which suggested to them that academia was the ideal employment.

Universities appeared to be characterised by a strong inertia which resisted changes in Ph.D training towards the needs of employers and industry — for example, analytical chemistry and high temperature reactions, which have pronounced industrial relevance, had not developed in universities.

The authors offered several recommendations to break this channelling process and to give both students and academics more choice in their training and research.

More funds for research assistants for staff would decrease the need for dependence on Ph.D students, they suggested. Another possibility was to base staff promotion more on effective teaching than simply on the number of research publications; but this was not a simple matter as the Australian academic scene could not be isolated from the international one where research prowess is very important.

If the link between student development and supervisor careers could be broken, then a less specialised doctorate could be introduced which would have more appeal to employers. Multi-disciplinary research teams could be encouraged.

Interdisciplinary undergraduate training would help break the speciality system and open up new areas of employment for science students. It would also mean that students would have a choice of research areas when they moved from a broad degree to a higher degree.

Students could also be encouraged to leave university after an honors degree and before they undertook research. This would broaden their professional outlook. An entirely new higher degree structure outside universities in the colleges of advanced education would also add to diversity. School teaching, if adequate salaries and the possibility of research were offered, could be another work outlet for Ph.D graduates.

In short, the authors strongly argued that the time had come when quite basic decisions should be taken about the future of higher education in science within Australia.

The Cairnmillar Institute has written to the University about the availability of its brochure on human relations courses run by the institute. The Institute says that these courses have special relevance to teachers. The brochure can be obtained from the Cairnmillar Institute, 1st floor, 100 Collins St., Melbourne, 3000.



CLANCY BROTHERS IN BLACKWOOD HALL

MUSIC



IRISH folk group, the Clancy Brothers, will appear in Robert Blackwood Hall on Wednesday, April 16.

It will be a lunchtime concert from 1.15 p.m. Admission will be \$1.50.

That's the Clancy's at left — Tom, Pat and Liam, with bearded Lou Killen on the banjo.

The group first came to Melbourne almost ten years ago — June, 1965. Tommy Makem was then the fourth member of the group.

Two other light entertainment concerts will be held in the hall this month — Warren ("Alf Garnett") Mitchell on April 11 and Del Shannon, pictured below, on April 24.

Both concerts will be at 1.15 p.m. and both will cost \$1.50.

Mitchell was an outstanding performer at Monash last year.



TV stars in Alexander Theatre play



THEATRE



"The Rainmaker", a play by American playwright N. Richard Nash, opened in the Alexander Theatre last Friday.

The production by the Alexander Theatre Company will run until April 19.

It stars two well known Melbourne television personalities — Frank Wilson and Gerda Nicholson.

They are pictured above during rehearsals with John Preston on the left and James Wright on the right.

The play, a romantic comedy, is

directed by Don Mackay and designed by Francisus Henry.

Forthcoming plays for the company are "Hamlet" from June 24 and "Rosencrantz and Guildenstern Are Dead" from July 15.

A subscription ticket for the three plays is available at \$10. The price for each play is \$4 for adults and \$2.50 for students.

JAPANESE CONCERT

The Keio University mandolin orchestra from Japan will give a lunchtime concert in Robert Blackwood Hall at 1.15 p.m. on Thursday, April 10.

The orchestra comprises 40 students from various faculties of the Tokyo-based university.

It consists mainly of fretted instruments — first and second mandolins, mandolas and double basses — but also has several wind and percussion instruments.

The orchestra was founded in 1910. Professor Tadashi Hattori, pictured at right, has been its conductor since 1930.

Admission to the concert is free.



Visit by leading poet

The English department's Visiting Writers Program, which got under way last year, will continue in 1975. The first visitor will be A. D. Hope, widely regarded as Australia's foremost poet. He will spend a week at Monash from Monday, April 7.

Hope's first collection of poems, *The Wandering Islands*, was published in 1955. His *Collected Poems* first appeared in 1966; it has been reprinted several times, most recently with additional poems in 1972. *Native Companions*, a collection of essays, appeared last year, and before that, two other books of prose: *The Cave and the Spring* and *A Midsummer Eve's Dream*.

His works have been published in America, where he is regarded highly, and recently the BBC recorded a selection of his poems, read by the Australian actress Ruth Cracknell.

During his time at Monash, Professor Hope will read and discuss his work with English students. On April 7 he will speak in R7, from 4.15 p.m. to 5.15 p.m. On Thursday, April 10, he will give a public reading at 8 p.m. in R3. (Those who cannot attend the public reading are welcome to attend the Monday session.)

For more information phone exts. 2140 or 2141.

Reunion dinner at Halls

The Monash Halls of Residence Association will hold a reunion dinner at the halls on Saturday, May 31.

All people associated with the halls—past and present — are invited. For tickets write to the association's secretary, Russ Monson, 12 Charles St., Drouin, 3818, or phone the treasurer, Alan Sage, on 543 2451.

The association was formed late last year to promote continued contact between the halls and ex-residents.



ORIENTATION WEEK '75 photographed by Herve Alleaume . . .

PAGE 10 —

Above: Ayer's Rock in Tent City. The outside activities were co-ordinated by the Student Orientation Director, Liz Cotter, and Paul Brick and Lewis Phillips.

Left: A demonstration by members of the Monash Modern Dance Club — Paul Taranto, Vickie Laurie (background) and Barbara Calton.

Below left: Virginia Hunter, science III, gave an exhibition of weaving.

Below right: Manning — should that be womanning? — the Women's Liberation Movement table is Mania Bibrowska, a postgraduate student in biochemistry. The movement recently opened a permanent home in the resource library, first floor, Union.

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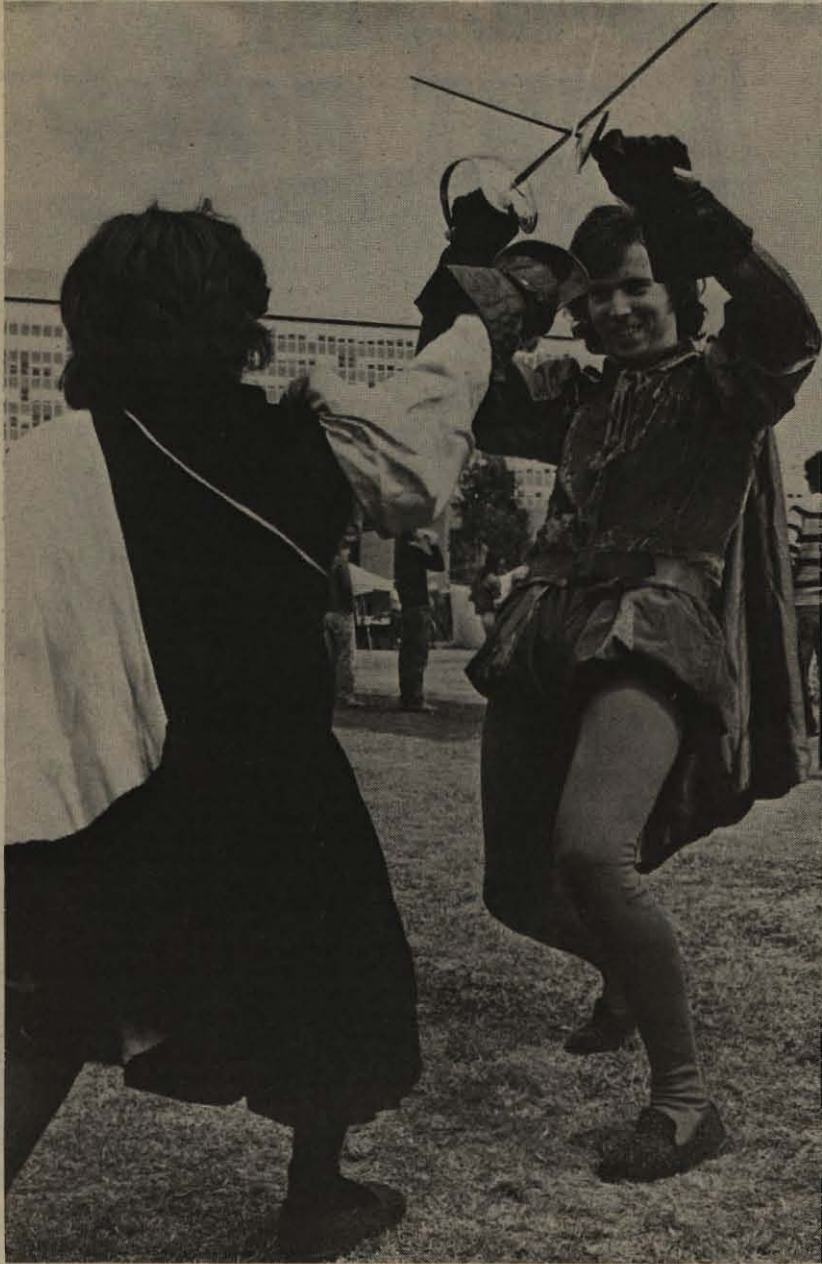
Top: Suitably garbed, fencers Mike Platzbecker and Kim Silverman do "battle". The Monash Fencing Club meets every Tuesday from 7.30 p.m. in the Games Hall.

Centre: Laurel Caff, economics III, emerges from the 4m diameter geodesic dome which is used for camping trips by the Monash Pushbike Club. The dome, which sleeps eight, was made by the club treasurer, Michael Crooke. It has a tubular steel frame to which are bolted triangles of corrugated cardboard covered with foil.

Bottom: Members of the Malaysian Students' Union enjoy an Asian lunch.



Special Orientation Day for part-time students



Moves are being made to encourage part-time students to participate more closely in the life of the University.

This follows a Part-Timers' Orientation Day held on Saturday, March 22. More than 200 academics, Union staff, and part-time students and their families attended.

● Above, Pro-Vice-Chancellor Professor John Swan talks to the students and their families in the Union.

The Assistant to the Warden, Caroline Piesse, said the academic staff had responded enthusiastically to the call to meet the part-timers.

"More than forty academic staff turned up and helped out by taking part-timers on tours of inspection, explaining the functions of the university and the various facilities, and by talking to them on the courses they were doing," she said.

"The part-time students just don't feel as though they belong. This feeling is compounded by the fact that many of them have made sacrifices to attend the university and so have their families.

"The Orientation Day helped the spouses of the students to see how everything functioned, to see what the staff were like, and to gain some idea of the difficulties faced by part-timers."

Miss Piesse said many of the part-timers present had expressed interest in the formation of an association of part-time students.

"We don't know yet exactly what form this will take but the part-time students who expressed interest are being contacted," she said.

Monash has more than 3000 part-time students, about a quarter of the undergraduate enrolment.



Monash medicos score well in U.S. exams

Monash medical students last year achieved a remarkable pass rate in the world-wide examination conducted by the United States Educational Council for Foreign Medical Graduates.

Radio survey results

A recent survey has indicated that the University should not concentrate on the narrow field of educational broadcasting in any radio services in which Monash is involved.

Rather the University should be concerned with a broad-spectrum program, linking the university and the community.

These findings are based on answers to a questionnaire circulated throughout the University late last year. Twenty-two academic, administrative and service areas replied to the questionnaire.

The results have been analysed by Dr. J. A. McDonnell, director of the Centre for Continuing Education.

Dr. McDonnell said that, overall, the general public was the most commonly identified target audience; however, many special audiences, such as secondary schools, tertiary students, the whole university community, and special community groups (for example migrants) were also mentioned.

The types of program that should be broadcast fell into two main categories: news/information/publicity and comment/discussion.

Dr. McDonnell said that a recommendation for the adoption of an overall university policy on radio broadcasting would be put before the April 7 meeting of the Professorial Board's standing committee for the Centre for Continuing Education.

The examination aims to establish the credentials of medical graduates who may seek registration as interns and residents in the United States.

Only those medical schools that fielded 25 or more candidates are included in the analysis below. (In all there were about 37,000 candidates, with a pass rate of 33.2 per cent.)

The results for the schools analysed were:

Candidates: 18,632.
Average score: 264.
Score range: 230-735.
Pass: 7230 (38.7 per cent).

Of 152 sixth year students in the Monash Medical School, 123 sat for the examination. They returned the following results:—

Candidates: 123.
Average score: 477.
Score range: 280-735.
Pass: 122 (99.2 per cent).

Highest mark

One Monash student attained a score of 735, thus sharing with an unknown number of candidates the highest mark.

In his annual report to Council, the Dean of Medicine, Professor R. R. Andrew, says that the incomplete data provided showed that the average score by Monash candidates was in the top six schools and probably in the top three or four of those tested.

Monash's restored bus needs a name

Wanted urgently: a name for a large yellow and red bus about to be unleashed on an unsuspecting populace around Monash.

Until the end of last year, the bus, a 32-seater, 1956 Bedford could be seen trundling up and down Waverley Road.

It seemed destined to continue doing that for the next 20 years, until Vicki Molloy and Mandy Smith in the Clubs and Societies Office saw its potential.

Both Vicki and Mandy had felt the need for something to further the relationship between the University and the surrounding community.

The bus will be used to present plays, revues and pantomimes to school children in the Monash area. Social Involvement, the Jazz Club and Modern Dance have all indicated that they want to participate in some form of community involvement and entertainment.

"The idea is to use and draw upon the skills and experiences of students and make them available to the general public," Vicki said. "There will be light shows with synchronised lights and music, puppet shows and student theatre performances."

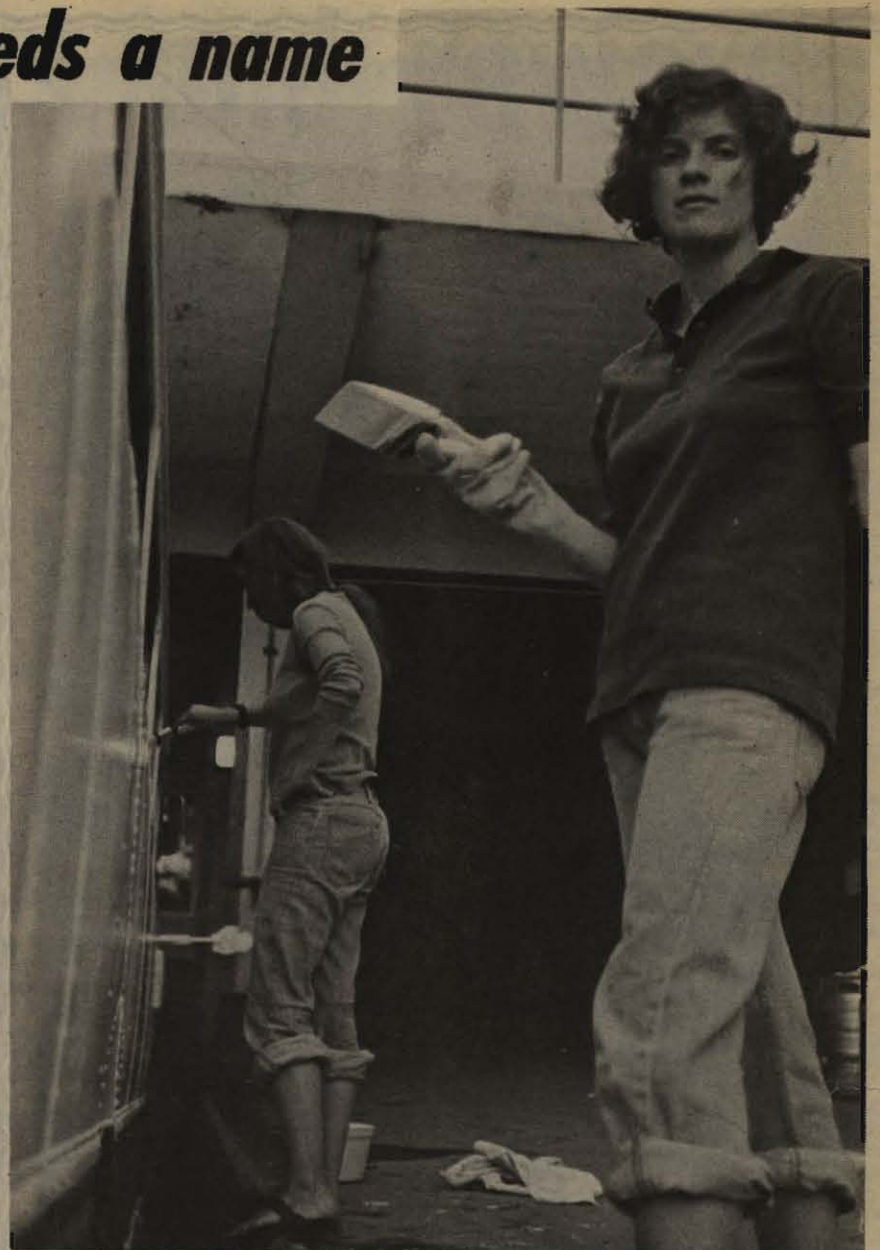
The Summer Group, co-ordinators of Monash summer activities, decided to buy the bus with the help of a contribution from the Student Welfare Action Board.

As Mandy Smith's photographs show, over the last few weeks the bus has been undergoing restoration. While the Bedford people would certainly not have agreed, the bright color scheme seemed appropriate for the purpose for which it was to be used.

The interior will be carpeted and seating re-designed to allow maximum space for young audiences. One of the early uses of the bus will be for children's theatre.

The bus should be on the road within the next three weeks. An appeal for drivers has generated an immediate response including an offer of help from a student who owns a small bus company in Ballarat.

All that's needed now is a name to identify the bus — Mandy and Vicki on exts. 3180 and 3144 would welcome any suggestions.



Left: The Union's recently purchased bus undergoes restoration on campus. Greg Segal is at the door and John Green on the roof.

Above: Activities Officer, Vicki Molloy (left) and Sharon Ryan help paint the bus.

Diary of events

APRIL

4-19: Romantic comedy — "The Rainmaker", by N. Richard Nash, pres. by The Alexander Theatre Company, 8 p.m. nightly, Alexander Theatre. Admission: Adults \$4, students \$2.50. (Subscription for series of three plays — "Rainmaker", "Hamlet", "Rosencrantz & Guildenstern Are Dead" — \$10.)

7: Lunchtime concert — Jochen Schubert (guitar) pres. works by Hasenoechl, Sitsky, Martin, Turina. 1.15 p.m., Robert Blackwood Hall. Admission free.

Attention all bread freaks

For those tired of the homogenous, mass-produced bread served up to us, the "Pantry Committee" of the Union's Health Food Shop has arranged a series of lectures and demonstrations on how to bake your own bread.

The demonstrations will include points on the use of yeast and various flours, the preparation of dough, kneading, and how to make bread rolls for the family.

Sour dough bread and other types of baking and bread will be discussed at the first demonstration night, Monday, April 14, 7 p.m., in the Grill Room.

The demonstrator will be Miss Irmgard Banks, a former honorary cookery demonstrator for the Vegetarian Catering Association of Great Britain.

Samples of buttered slices, toasted slices and bread will be ready to try when the demonstration starts.

Those in the know say that baking bread is simplicity itself once the basic rules have been understood.

So why not come along and learn the art?

8: Lecture — "Yarns and Spinners: Recollections of Rutherford and applications of swift rotation", by Professor P. B. Moon (University of Birmingham). 1975 Rutherford Memorial Lecture, arr. by Monash Department of Physics, with the Royal Society of London. 5.15 p.m., Alexander Theatre. Admission free. Inquiries: ext. 3631.

9: Seminar — "Perspectives on the measurement of traveller response to changes in transportation system supply", by Dr D. A. Hensher (Bureau of Roads). 2.30 p.m., E2. Admission free. Inquiries: ext. 3473.

9: Lecture — "Judaism at the Time of Jesus", by Mr Henry Shaw. Arr. by Monash Chaplains. 1.10 p.m., R7. Admission free. Inquiries: ext. 3160.

10: Seminar — "Can non-human organisms tell lies?", by Dr Angus Martin (University of Melbourne). Arr. by Monash Dept. of Zoology. 1 p.m., S8. Admission free. Inquiries: ext. 2666.

10: Lunchtime concert — Japanese Mandolin Orchestra from Keio University. Tokyo. 1.15 p.m., RBH. Admission free.

10: Poetry reading — Professor A. D. Hope. Arr. by Monash Dept. of English. 8 p.m., R3. Admission free. Inquiries: ext. 2140, 2141.

11: Light entertainment concert — Warren (Alf Garnett) Mitchell. 1.15 p.m., RBH. Admission \$1.50.

12: Choral concert — "Alexander's Feast", by Melbourne Choral Continuing Choir. 8.15 p.m., RBH. Admission: \$3.50, \$2.50.

13: Sunday afternoon concert — Paul McDermott String Quartet pres. works by Haydn, Mozart, Schubert, Beethoven. 2.30 p.m., RBH. Admission free.

14: Lunchtime concert — The Pied Pipers. 1.15 p.m., RBH. Admission free.

14: Lecture — "Peace is Individual", pres. by Christian Science. 8.15 p.m., RBH. Admission free.

15: Monash Women's Society coffee morning — speaker Dr. J. McDonell, Centre for Continuing Education. 10 a.m., Vice-Chancellor's house. Contact Daphne Laursen, 98 4237.

16: Parents Group — Morning coffee, tour of University. 9.30 a.m. Admission: \$1. Ticket secretary Mrs H. A. Hickford. 88 4527.

16: Lecture — "Mark", by Fr. Chris Hope. Arr. by Monash Chaplains. 1.10 p.m., R7. Admission free. Inquiries: ext. 3160.

16: Light entertainment — Clancy Brothers. 1.15 p.m., RBH. Admission \$1.50.

16: Film — "The Long, Swift Sword of Siegfried" (R). Commercial screening by Monash Film Group. 1.30 p.m., Alexander Theatre. Admission: Members 50c, non-members 99 cents.

18: Film — "Der arme Mann Luther" (G), pres. by Monash Dept. of German. 8 p.m., H1. Admission free. Inquiries: ext. 2241.

18: Concert — "Jazz Australiana", by Carlton Music College. 8.15 p.m., RBH. Admission: Adults \$3.20; students, pensioners and children \$1.60.

19: Seminar — "Corporations and Securities Industries Bill: Speakers — Senator Ivor Greenwood, Professor R. Baxt, Mr J. Valder, Mr G. Samuel. First of four seminars. 9.45 a.m. - 4.45 p.m., R1. Registration (per day) \$27.50 (incl. meals). Registration — phone 67 9009.

19: Concert — Dorian le Gallienne Memorial Concert, with Melbourne Symphony Orchestra by arrangement with ABC. 8 p.m., RBH. Admission free (seat tickets from ABC, Queen St., Melbourne).

21: Lunchtime concert — Christopher Martin (viola), Elizabeth Hunt (violin), Annette Martin (cello); works by Purcell, Martinu, Beethoven. 1.15 p.m., RBH. Admission free.

23: Lecture — "Matthew", by Prof. Nigel Watson. Arr. by Monash Chaplains. 1.10 p.m., R7. Admission free. Inquiries: ext. 3160.

23: Seminar — "Factors affecting the use of mode for inter-city freight", by Dr. P. Gilmour (Monash). 2.30 p.m., E2. Admission free. Inquiries: ext. 2666.

23: Union Nite — inc. film "Shaft", pres. by Monash Film Group. 7.30 p.m., Union Theatre.

24: Light entertainment concert — Del Shannon. 1.15 p.m., RBH. Admission \$1.50.

24: Seminar — "Behaviour and ecology of Honeyeaters in SA", by Dr. Hugh Ford (University of Adelaide). 1 p.m., S8. Admission free. Inquiries: ext. 2666.

25: Film — "Tatowierung" (NRC). Pres. by Monash Dept. of German. 8 p.m., H1. Admission free. Inquiries: ext. 2241.

28: Lunchtime concert — Margaret Schofield (piano), Vernon Hill (flute); works by Beethoven, Ravel, Poulenc. 1.15 p.m., RBH. Admission free.

30: Lecture — "Luke", by Dr Leon Morris. Arr. by Monash Chaplains. 1.10 p.m., R7. Admission free. Inquiries: ext. 3160.

Displays in the Union

The Clubs and Societies Office hopes to hold about 20 exhibitions in the display case on the first floor of the Union this year.

Caroline Nancarrow has been appointed to organise and co-ordinate the exhibitions. She is looking for ideas for displays. Ms. Nancarrow can be contacted through Clubs and Societies, ext. 3144, 3180, or after hours at 52-3436.

Vacancies likely in the Halls

STUDENTS who would like to live in the Halls of Residence in second term should contact the Halls Admissions Office on ext. 2900.

The administrative assistant of the halls, Mrs. Sue Taylor, said that although the halls were full in first term, some vacancies were expected in second term which begins on June 2.

"Each year some students decide the halls do not offer the type of accommodation that suits them and they move out if they can find somewhere else to go," she said.

The halls anticipated that there would be about 100 vacancies, Mrs. Taylor said. The total accommodation is about 860.

Mrs. Taylor said students interested in entering the halls should fill out a form to be placed on the waiting list. There were three types of accommodation at the halls; it was most likely that vacancies would occur amongst those who had full board, except weekday lunches, at \$34.50 per week.

She said most of the exhibitions would be based on arts and crafts but other topics were welcome, for example philately or photographs. The display case was donated by the Monash Parents' Group.

Copy deadline for the next issue of Monash Reporter is Monday, April 21. Letters and contributions from staff and students should be forwarded to the editor, Ian Anderson, in the Information Office, first floor, University Offices (phone 3087).