

# ANU Reporter



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## RSA cheque to help co-op creche

The Research Students Association last week presented a cheque for \$150 to the Cooperative Child Care Centre operated by University student families at Childers Street.

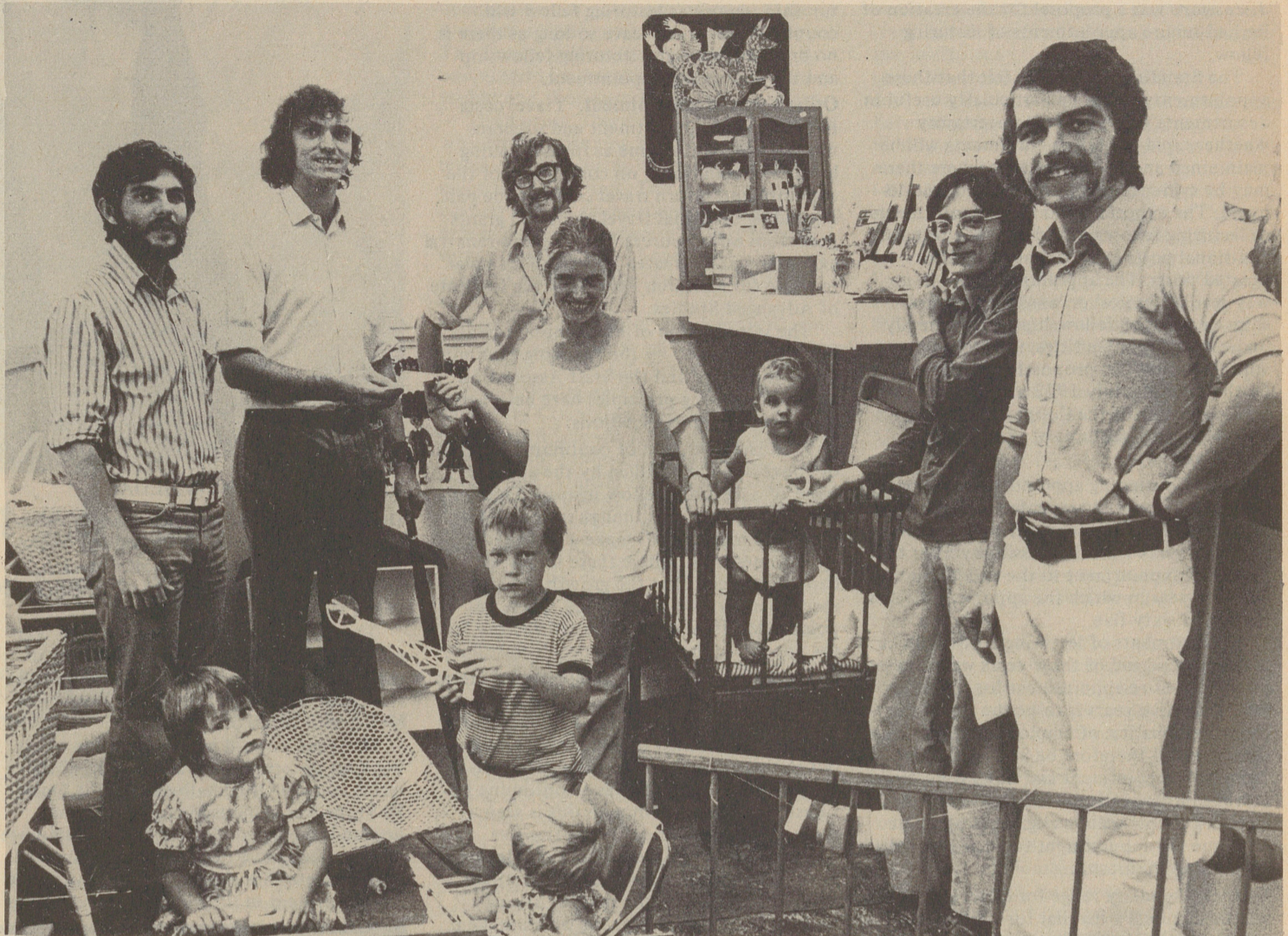
The money will go toward purchase of capital equipment, including the most immediate needs — a playground fence, better washing and toilet facilities, outdoor play equipment and educational play aids. Treasurer of the cooperative, Mr Richard Whitwell, said this equipment was urgently needed to maintain a reasonable standard of service and to cater for increasing demands.

At present 40 children are registered at the centre by 35 student families. The Centre already operates at capacity on Tuesday, Wednesday, Thursday and Friday mornings and membership is still growing by about three families per week. Because present facilities are limited a waiting list will be introduced soon.

To cover the cost of improvements, play equipment and ongoing expenses families pay an annual membership fee of \$5 and \$2 per week to employ a nursing sister.

Parents spend one half-day a week at the centre, which entitles the family to up to four half-days of childminding.

Further information is available from Mr Whitwell (54 2459) or from Sister Libby Smith at the centre between 9am-1pm any weekday and until 3pm on Mondays and Thursdays.



Everyone at the creche was pleased when RSA treasurer Rupert Thorne presented the cheque to Cooperative president Mrs Helen Whitwell (centre)

## Plans for early construction of Arts Centre: appeal for funds begins

The University wants to proceed quickly with construction of an Arts Centre on campus and hopes to call tenders for the first stage later this year. The site for the Arts Centre has been chosen, architect appointed and an appeal for funds is now being mounted so that work can begin.

The Arts Centre is intended to foster involvement in the arts and to enrich cultural life on campus. It is to provide a place to stimulate and allow participation and activity in artistic enterprise and creative experiment.

Thinking and planning within the University for an Arts Centre have developed over the past five years. Work towards the presently-conceived Arts Centre has been founded throughout on the idea of an environment with all possible flexibility and with emphasis on participation.

'Traditional theatrical and musical activities have been provided for but those involved in planning have attempted to look forward and cater for enterprises in the arts which will depart from the norm,' Mr Ross Hohnen, University Secretary, said this week. 'Indeed such experimentation is seen as integral to the meaning of the centre'.

The site chosen for the Arts Centre is between the Chifley Building of the Library and Sullivans Creek, close to the concessions building, the Union and Sports Union, and within the precincts of the Faculties of Economics and Science. It is on the site taken by students walking from halls to colleges to lectures, Library and the Union.

A working brief and sketch plans have been drawn up and part of the capital (\$450,000) has been secured. The University has chosen Mr Tom O'Mahony, of O'Mahony, Neville and Morgan of Sydney, as architect

and working drawings are expected to be available by August-September. On this timetable the first stage of the Arts Centre could be completed by mid-1974.

Of the \$450,000 which the University already has towards the cost of the project, students themselves have contributed \$50,000. The Australian businessman Mr Frank Duval of Tokyo has given \$100,000 and the Commonwealth Government through the Australian Universities Commission has allocated \$250,000.

Another \$200,000 is needed so that stage one can be completed and a further \$500,000-\$600,000 for stage two to begin as soon as possible. The University is at present seeking a person to direct a campaign to raise funds for the project.

Stage one has been planned to incorporate essential elements of the centre, namely the main activity area of 4830 square feet (70 feet by 70 feet); a secondary activity/workshop area (2600 square feet); and a multi-purpose foyer/entrance area. The University is anxious to commit this stage to avoid depreciation of the real value of funds in hand through rising prices.

In addition, stage one will include dressing rooms, a wardrobe and a number of service spaces such as toilets, plant and an area adjacent to the main area for media equipment and activity (films, sound recording, television, etc.).

'In essence, stage one will be constructed on the basis of establishing the shell of the building with interior divisions and finishings sufficient to enable the centre to begin operations,' said Mr Hohnen. 'The addition of further space for pottery, storage and administrative purposes will form part of stage two. Further expansion of a longer-

term nature has been allowed for in the siting arrangements'.

The hub of the Arts Centre will be the main activity area conceived as a space able to encompass a wide variety of theatrical and musical events limited only by considerations of space. Audiences of up to 400 will be possible depending on the stage layout required. Movable bleacher seating and manageable stage modules will allow for the greatest possible flexibility in stage and audience settings. Removable floor modules revealing a pit will provide an added dimension to possibilities as will a catwalk and a grid system in the ceiling.

There will be no fly tower. Every effort will be made to provide for flexibility in acoustic properties. It is planned to hang around the perimeter thick absorbent curtains which can be moved according to demands of use.

The Arts Centre is intended to become a natural home for student activities in the arts, particularly the performing arts, which have been a prominent feature of student life for some years.

'It has been very difficult in the past to initiate and sustain activities in the plastic arts', Mr Hohnen said, 'mainly because of the lack of facilities. Those associated with the centre are anticipating that the provision of an art studio and, later, pottery facilities, will attract students and members of the University to those pursuits. The planning committee was very conscious of the ease with which theatrical and musical activities might come to dominate the life of the centre and there has been much thought given to encouraging the individual who has a fancy to paint, sculpt, or just "do things".'

The University's successful program of

Creative Arts Fellowships is expected to tie in closely with the life of the Arts Centre. Painters, sculptors, composers and writers who have held Creative Arts Fellowships have had close contact with students. The Centre is to provide a permanent location for future Creative Arts Fellows.

Mr Hohnen said the University had accepted that the centre would require sound administering if it was to fulfil the hopes held for it. Detailed proposals had been made allowing for staffing arrangements and a system of control involving an Arts Centre board and a management committee. 'While not wishing to stultify activities with an overweight administrative machine, recognition is given to the fact that the arts do require good management although hopefully in an unobtrusive way'.

It has been envisaged that eventually the centre will require a staff of three — an administrator, a technical officer and someone who could be likened to an artistic director but who will not operate as a normal director. 'This person can best be described as someone who will work with students and others to achieve the artistic objectives of the centre and who will by his expertise and personal qualities encourage, stimulate and guide centre users in their activities. He has been seen as someone who will breathe life into the shell'.

Mr Hohnen said that after 'all the dreaming, planning and building is over it remains for "people" to make the Arts Centre work and in this there are no guarantees'. However, it was the firm belief of all those who had worked long on the project that the Arts Centre would enrich the University, the wider community to which the University belonged, and the arts.

Artist's impression of the new arts centre, p7.

## Lecturing fellowship appointment terms outlined in joint statement

Following discussions between the Board of the School of General Studies and the ANU Staff Association to clarify aspects of short-term lecturing fellowship appointments, the Board has asked for publication of the following statement outlining the reasons for and intentions of the new posts.

During 1972, the Standing Committee of the Board of the School discussed ways of retaining flexibility in staffing and courses of study now that the University is approaching its optimum size. Arising out of these discussions was a proposal for the creation of limited-tenure appointments of lecturing fellow.

The Standing Committee felt that these appointments would be particularly useful in departments where there is uncertainty whether rapid growth in enrolments will be maintained and in departments where there may be evidence of a decline in student demand. The expectation is that appointments of lecturing fellows would be made to both additional posts in departments and to vacated posts. The appointments are in no way seen as 'junior' or 'assistant' lectureships or teaching fellowships as is normally understood by these titles, i.e. probationary appointments. The proposal was approved by the Board in July 1972 and by the Standing Committee of the Council in August 1972. Essential features of these appointments are:

**Tenure.** Continuing appointments at the level of lecturer and senior lecturer are made, in the first instance, for a period not exceeding three years with the possibility after this period of appointment to the end of the calendar year in which the appointee reaches the age of sixty-five.

Appointments of lecturing fellow will be made for a period of three years with the possibility of re-appointment for a further two years; five years is to be the maximum term. Termination of employment after this period would therefore be part of the conditions of appointment and not a reflection on the ability of the person concerned. A lecturing fellow will be eligible to apply at any time for appointment to an advertised continuing lectureship.

**Salary.** The salary range for lecturing fellows will be identical with that for continuing lecturers. As with lecturers, commencing salary will be determined within this range in accordance with qualifications and experience. Annual increments within the range are payable in the same way as for continuing lectureships. Promotion to a salary level equivalent to that of a senior lecturer will be possible for a person appointed near the top of the lecturing fellow range. Appointments

will not be made directly at the level of senior lecturer.

**Study leave.** A lecturing fellow is not eligible for study leave during the term of his appointment. If he is appointed to a continuing lectureship, service as lecturing fellow will count towards study leave so long as there is no break between the lecturing fellowship and the continuing appointment.

**Other terms of appointment.** Travel costs to take up the appointment and superannuation will be the same as for continuing lecturers. In addition, on completion of the appointment, return travel costs will be paid depending on actual travel plans and grants paid from other sources. Housing and removal expenses will be treated in a manner similar to those for Research Fellows in the Institute of Advanced Studies.

The introduction of these appointments has been discussed by the Standing Committee of the Board and the Staff Association and the following principles have been agreed to as the normal expectations:

- An advertised post of continuing lecturer or above will not be filled by the appointment of a lecturing fellow instead. This is the normal expectation although in some cases it may be necessary to make a short-term appointment, e.g. where there is new evidence to suggest that the growth in enrolments may not be a stable one. These appointments are seen as more satisfactory for the appointee than a temporary lectureship.

- On the completion of an appointee's term of service as a lecturing fellow, the vacancy so created will not normally be filled by a further appointment of a lecturing fellow but the post in question will be either disestablished or advertised as a continuing lectureship or above. Although this is seen as the normal expectation, even after five years it may not be clear whether a department's expansion or decline will continue. There may also be other matters arising since the initial appointment which make it desirable to retain this type of appointment.

- At any given time the total number of lecturing fellowships will normally not exceed five per cent of the number of established academic posts at lecturer level or above in the School of General Studies.

Since establishment of this type of appointment five lecturing fellows have been appointed.

demonstrators were seeking information on the reasons for the policies current up to that time. Those tutors present had no brief to discuss or argue for any particular changes as the tutors and demonstrators as a whole had not then formulated their own views in a definite way.

In other contexts there were two brief contacts with individual members of the tutors/demonstrators' committee each well before the representations made on 20 September and neither aptly termed a 'discussion'. I have written to the Registrar concerning these matters and his other comments. It is sufficient to say here that I see no reason for altering any of the views I expressed in my letter

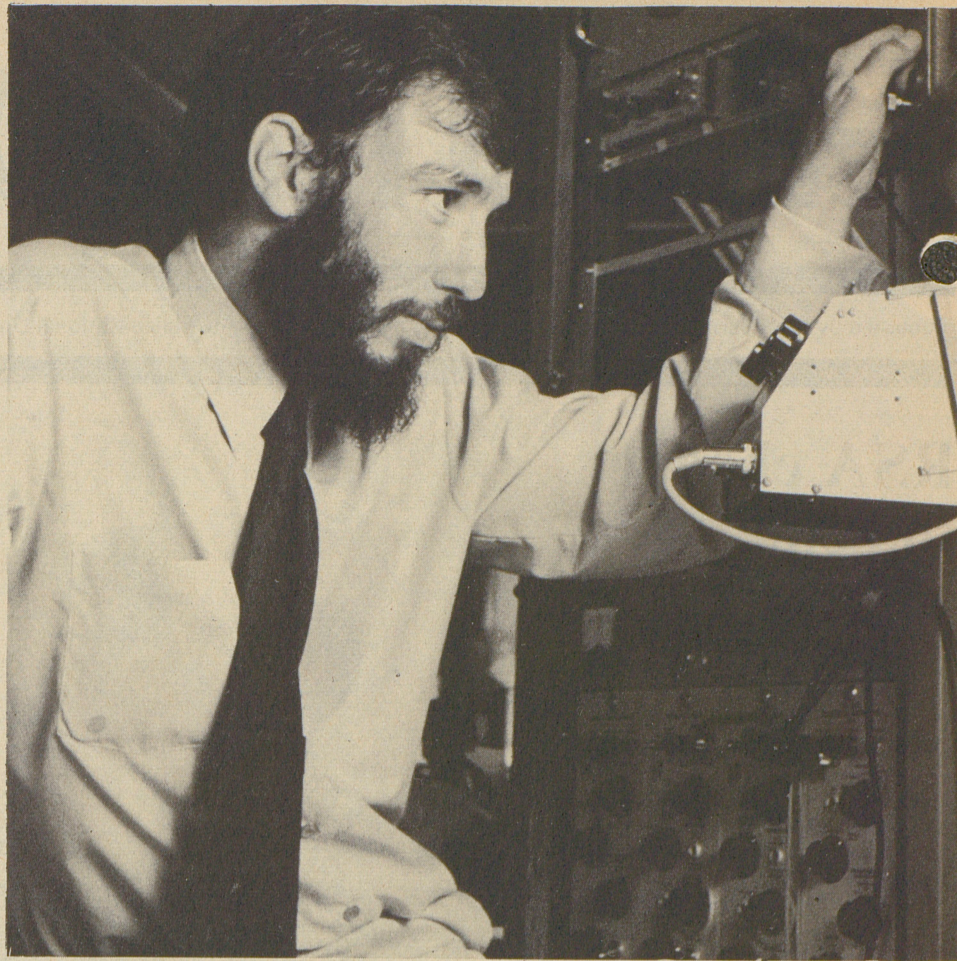
K.H.J. Bryant

### HUMAN RESOURCES SEMINAR ENDS

The fourth annual intensive residential seminar on 'Development of human resources' was held in the University from 3-13 April. The seminar was arranged by the Centre for Continuing Education.

Planned for managers in industrial and commercial concerns, public and armed services, trade unions, hospitals, educational and social work institutions where effective use of human resources is vital to success, the seminar mixes experiential learning, case-studies, role-playing, lectures and application sessions.

Its aim is to increase understanding of and skill in managing people by drawing on training techniques devised by behavioural scientists in the United States and Europe and developed over twenty years.



### ANU SCIENTIST WINS MEDAL

Dr Jonathan Stone, a young scientist working in the Department of Physiology in the John Curtin School of Medical Research, has been named joint winner of the Edgeworth David Medal for 1972.

The award to Dr Stone and Dr D.H. Napier, Department of Physical Chemistry at the University of Sydney, was announced at the annual meeting of the Royal Society of New South Wales on 4 April.

Dr Stone's award is in recognition of his work on the structure and function of the retina and the visual pathways in the brain. Dr Stone was responsible for the entirely new and important discovery of the presence of a naso-temporal overlap in the retina and more recently has shown that this overlap is a basic element in the binocular mechanisms

which are now believed to be responsible for stereoscopic vision.

Dr Stone began his work in 1962 as an undergraduate in the Faculty of Medicine at Sydney University. On obtaining his Bachelor of Science (Medical) he decided to embark immediately on a research career and submitted his thesis for a PhD when he was only 23. Dr Stone's work is very well known abroad and he has already earned himself a high international reputation.

The Edgeworth David Medal is awarded annually for distinguished contributions by young scientists, under the age of 35, for work done mainly in Australia or its territories or contributing to the advancement of Australian science.

Picture. Dr Jonathan Stone — at work in the Department of Physiology.

### MARCH MEETING OF COUNCIL

Matters dealt with by the University Council at its March meeting and held over from the last Reporter were:

**Survey Research Centre.** Council received the report of a meeting on 23 February of persons interested in the establishment of a Survey Research Centre in the University, which was approved by the AUC for the 1973-75 triennium.

The centre, for which \$102,000 has been allocated (\$120,000 was sought), is to be a small-scale service centre operating similarly to the Computer Centre. It will provide all parts of the University with advice about survey taking and analysis methodology and will manage surveys on request. The centre will cooperate with other survey organisations, government and private, to ensure rational and effective use of information. Secondary analysis and use of data will be important to the centre.

The meeting suggested that an advisory committee should be set up representing prospective users of the centre. The academic boards have endorsed this recommendation and the Vice-Chancellor has appointed the following as members of the advisory committee: Professor W.D. Borrie (chairman), Mr E.K. Fisk, Professor C.R. Heathcote, Dr R.L. Kirk, Dr A. Klovdahl, Dr P. Loveday, Dr M. Middleton, Professor R.G. Ward, Mr P. Troy and Dr C. Young. The committee will submit to the academic boards proposals for the continuing operations of the advisory committee, the management of the centre and for initial appointments to the centre including the senior academic post.

**Grants and gifts.** The Ford Foundation has given a supplementary grant of \$US10,175 under the Ford and Rockefeller program to support social science and legal research on population policy. Professor J.C. Caldwell is in charge of the project.

The Rural Credits Development Fund of the Reserve Bank of Australia has made a

grant of \$23,280 for a project entitled 'occupational change in three generations' to be undertaken by Professor L. Broom and Professor F.L. Jones in the Department of Sociology (SGS).

**Visiting Lectureship scheme.** The Drapers' Visiting Lectureship Scheme, originally confined to a limited number of English universities, now includes all UK universities, and Australian universities are rostered to receive a lecturer under the scheme. ANU's turn is in 1976 with the Universities of Newcastle and New South Wales and Macquarie University. The Drapers Company pays return fares for the lecturer and his wife and the receiving university pays a salary equivalent to an Australian lecturer. Provision has been made for a visitor under the scheme in 1976.

**Building approvals.** Council approved working drawings for the Life Sciences building, the Arts V building and for minor extensions to facilities serving the Departments of Forestry, Biochemistry (SGS), Psychology and Zoology. The works were approved by the AUC for the 1973-75 triennium. The Life Sciences drawings provide for either a five or six-storey building and Council hopes the building will be six storeys but this will depend on tenders and the availability of funds.

**Earth Sciences committee report.** Council noted the report of the advisory committee on the Research School of Earth Sciences containing recommendations for the development of the new research school. (See report of Professor Hales' appointment as Director of the Research School of Earth Sciences, page 4).

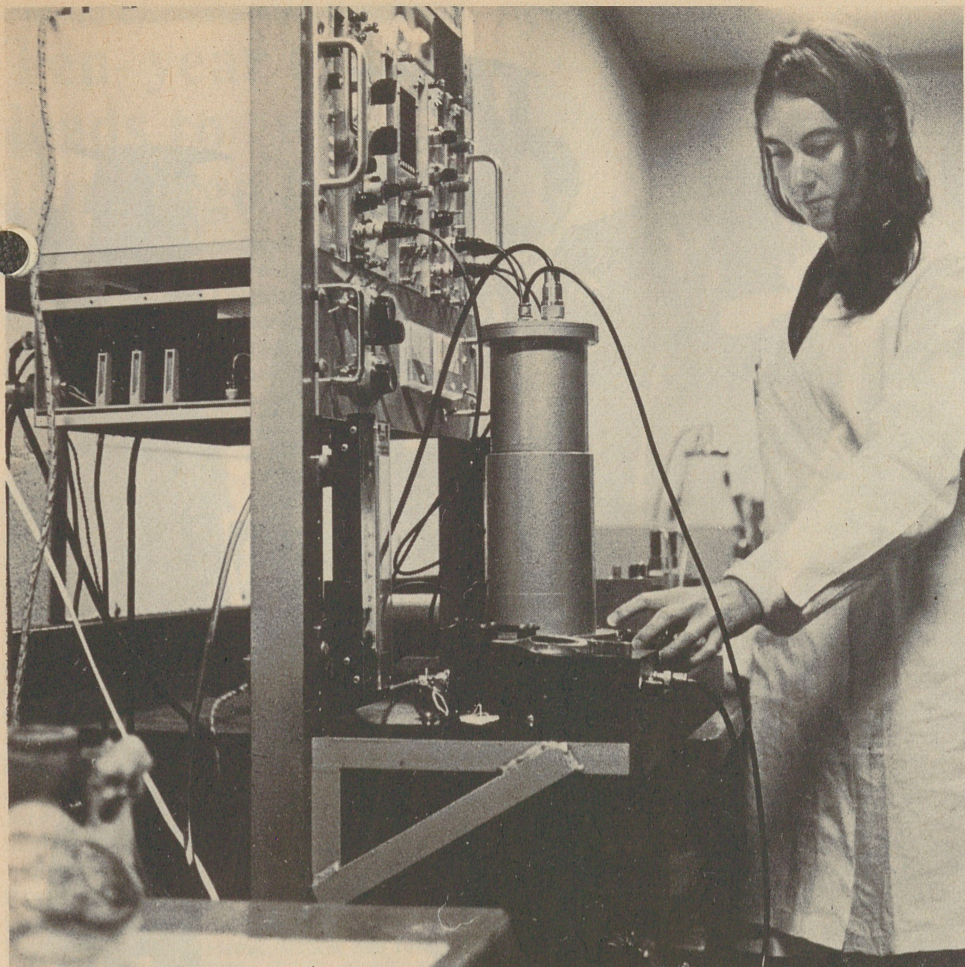
**Lecturing Fellowships discussions.** Council noted that the Board of the School and the ANU Staff Association had had discussions to clarify aspects of short-term lecturing fellowship appointments and that the Board had asked for publication of a statement outlining reasons for the creation of the new posts (see this page).

## Letter to Editor

### REGISTRAR'S COMMENTS QUERIED

Sir—It is unfortunate that the Registrar is mistaken on a factual matter in his comment on my letter (*Reporter* 23 March). My letter quoted your earlier report that the 'Vice-Chancellor reported on discussions he had had on representations by tutors and demonstrators...' (My emphasis). The Registrar comments that 'There were discussions by the Vice-Chancellor both with representatives of tutors and demonstrators and with the Staff Association'. The Standing Committee's decisions on 9 December 1972 were in response to a letter dated 20 September 1972 signed by the five members of the tutors/demonstrators' committee. I know that the Vice-Chancellor had no discussions between those dates with any of the signatories. Neither your account of the Standing Committee's decisions, nor my letter (at least in that context) mentioned the Staff Association or discussions with it.

The only meeting the former Vice-Chancellor had with members of the tutors/demonstrators' committee (with three of the five members at that time) was on 16 December 1971 — a year before the Standing Committee meeting referred to and nine months before the letter making the relevant representations was sent. This meeting did not constitute a discussion on representations as none had been made at that time. Tutors and



## Museums and art galleries show interest in new dating technique

Thermoluminescent dating equipment set up in the Department of Physics last year is now being used to determine the ages of objects from an increasing number of sources. Departments within the University and State museums and art galleries are the main suppliers of material being dated in the thermoluminescent dating laboratory, which is soon to be put on a commercial basis for non-ANU users.

Setting up the laboratory has been the research interest of Dr A.J. Mortlock, Reader in Physics. The laboratory is believed to be the only one operating in Australia and one of only few in the world.

Thermoluminescence is the light given off by a substance when heated due to dissipation of stored internal energy. With archaeological pottery this energy has been stored progressively since manufacture because of the presence of very small amounts of radioactive substances in the material.

Dating by thermoluminescence is mainly limited to objects whose original manufacture has involved firing to high temperature. The original firing dissipates all the energy that the material had stored up previously, thus setting its 'thermoluminescence clock' to zero. By measuring the new stored up energy, the scientists can estimate how long it has taken the object to acquire it.

The stored energy is released by controlled heating of a small powdered sample of the object to about 400 degrees Centigrade in an apparatus called a glow oven. The energy is released in the form of a special light called thermoluminescence which is measured by a highly sensitive light detector.

As a process for determining the ages of archaeological relics it is relatively new, being developed over the past ten years. It has become reasonably reliable only in the last two or three.

Thermoluminescence supplements and can be used to cross-check the better-known radiocarbon and archaeomagnetism dating methods. Its advantages are that it has a very long dating span — objects as young as twenty-years old and as old as 100,000 years have been dated by it — and it can be used on objects unable to be dated by radiocarbon dating. As well, samples do not need to be found in the original positions as they do with magnetic dating.

In the Pacific region materials such as pottery or fired baked clay are found more commonly than material suitable for radiocarbon dating. Even in Australia, where pottery is absent, samples of baked earth from ancient Aboriginal fires are suitable for thermoluminescence dating.

The Physics laboratory has recently used its equipment to date potsherds from the Papua New Guinea island of New Ireland and work is progressing with baked hearth

mud from old Aboriginal fireplaces in the Mungo Lakes area of New South Wales.

One of the main centres for research and development of the thermoluminescent dating process is the Research Laboratory for Archaeology and History of Arts at Oxford University, which Dr Mortlock visited late last year. Art dealers, galleries and museums all over Europe send the Oxford group material and pay to have it date authenticated by thermoluminescence.

Dr Mortlock told the *Reporter* that the amount of material now being sent to the Physics laboratory from outside the University for dating meant that the operation would soon be put on a commercial footing. Non-University suppliers of objects for dating would be charged from \$30-\$50 for each object and a laboratory assistant would be employed part-time to do the work.

Up to now Dr Mortlock has been assisted by Senior Technical Assistant, Mr David Price, and honours students who use the equipment for research projects. A PhD student is expected to arrive shortly from Scotland to begin a scholarship in the laboratory.

Dr Mortlock said that while some outside requests for dating involved academic or research interests in objects, most concerned age authentication. The Oxford group had found that 50 per cent of all objects submitted for test turned out to be fakes.

'One unusual case concerns a distinctive group of pottery objects from Honan in China labelled Hui Hsien which first appeared on the antiquities market in the early 1940s and which subsequently attracted high prices,' said Dr Mortlock. 'They were thought to be more than 2000 years old. Twenty-two of these from different collections have now been tested by the Oxford group and all have been shown to be of modern origin. This illustrates the stir the technique is having in the world of antique art objects.'

*Picture. Fourth year honours student, Gayle Adams, uses the thermoluminescent dating equipment to authenticate samples from Thai art objects (foreground) worth up to \$500 each and said to be from the thirteenth to fifteenth centuries. They were submitted for testing by the Art Gallery of South Australia. Powdered samples from the objects are control heated in the cylindrical glow oven and the thermoluminescence given off recorded on an X-Y recorder.*

## What are marks of a national university? Forum asks in study

The steering committee of the University Forum — a body established last year to consider ANU development in the long-term — is carrying out as its first task a study of the characteristics of a national university. The committee has prepared a set of questions on the topic and is inviting comment from all sections of the University.

Last September the University Council endorsed a proposal to establish the University Forum as a planning body, responsible to Council, which would confine its deliberations to questions of general and long-range significance to the University. The Forum differs from other University committees in that it is divorced from day-to-day and shorter-term planning matters.

The Forum, therefore, will not compete with regular planning and deliberative bodies of the University but will complement their activities. The range of its discussion will be unrestricted in time and can extend to consideration of the type of university that might be expected, or encouraged, to develop over the next ten to twenty years.

The Vice-Chancellor has appointed the following as members of the Forum steering committee: Mr M.J.R. MacKellar, Liberal House of Representatives member of the University Council (chairman); Mr C.G. Plowman, Academic Registrar; Professor P.O. Bishop, Professor of Physiology; Professor C.I.E. Donaldson, Professor of English; Dr D.M. Griffin, Master of Burgmann College; Mr P.J. Grimshaw, Business Manager, Research Schools of Social Sciences and Pacific Studies; Mr R.P. Monckton, research student representative on Council; and Mr R. Refshauge, President, ANU Students Association.

The steering committee has agreed that as its first task it should undertake a study of the characteristics of a national university and accepts that this study will involve a study of the relationship of those characteristics to those of ANU.

The steering committee has also agreed that in the initial stages of its consideration it will invite opinions from all members of the University. For this purpose it has prepared a set of questions which it hopes will serve as a basis for consideration of the major areas of the study.

All constituted bodies within the University as well as interested individuals are invited to comment. The steering committee particularly welcomes comments from graduates and former staff of the University. Remarks may refer to all or part of the questions raised for discussion. Following is the list of questions.

### Background

(a) To what extent should future development be bound by the 1946 Act of Parliament which created ANU? To what extent should the University develop along lines contrary to those of the Act?

(b) to what extent should future development lie bound by the intentions of the University founders?

(c) to what extent should the University be an elitist institution? Should it concentrate on excellence in a few areas or should the effort be more widely spread?

(d) to what extent should a national university engage in activities which are unusual or unique?

### Geography

(a) is the ideal location in the national capital?

(b) should the Australian National University have offshoots other than field stations? Should it function as a multi-campus institution?

(e.g. University of California, CSIRO)

(c) what relationship should the University have to its immediate geographic region? Should it act as a regional university as well as a national university?

(d) Should the University attempt to spread its geographical coverage?

(e.g. correspondence courses, radio, television).

(e) what relationship, if any, should the University have with other institutions, particularly those in the immediate vicinity?

What relationship should exist between the Australian National University and other national bodies?

(e.g. CSIRO statutory institutions).

### Academic organisation

(a) What range of academic area should be covered and what criteria should be used in choosing areas?

(b) Should emphasis be placed on range of studies or depth of studies?

(c) what interrelationship would exist between undergraduate and postgraduate education? What is the desirable balance in type and size?

(d) are professional schools compatible with the concept of a national university?

(e) should a national university be subject to the same controls (particularly financial controls) as other tertiary educational institutions?

(f) what is the most appropriate body to decide and implement policy at a national university? (e.g. Government commission, university council).

(g) what relationship should there be between the various categories of students? (e.g. full-time/part-time; master/PhD/post-doctoral; degree/non-degree/continuing Education; overseas/interstate/local).

(h) are there any desirable characteristics of staffing size? (e.g. tenured/non-tenured; visiting; fulltime/part-time).

(i) should the Australian National University be a leader in activities? Should all national research centres be in the Australian National University or should they be spread?

(j) what is a desirable optimum size for a national university?

In framing the questions there has been no attempt to state what the characteristics of a national university could or should be. Rather an attempt has been made to examine factors which might determine these characteristics.

The steering committee is aware that answers to several questions may be based on considerations of objectives and characteristics that have developed naturally within the University and asks that questions be answered without constraint. Responses should be sent to the secretary, University Forum steering committee, Chancery.

### SCHOLARSHIP GUIDE PUBLISHED

The first edition of a handbook listing scholarships and awards available to Commonwealth postgraduate students is now available.

The 250-page handbook contains 850 entries describing scholarships, grants and assistantships open to graduates of Commonwealth universities who want to undertake postgraduate (including postdoctoral) study or research at a Commonwealth university outside their own country.

The *Scholarships Guide for Commonwealth Postgraduate Students* is the second stage of the replacement of the Association of Commonwealth Universities' former publication, *United Kingdom Postgraduate Awards*, by two Commonwealth-wide companion volumes intended respectively for university staff and for postgraduate students. *Awards for Commonwealth University Staff* was first published in December 1971.

Revised editions of both volumes will be published in alternate years.

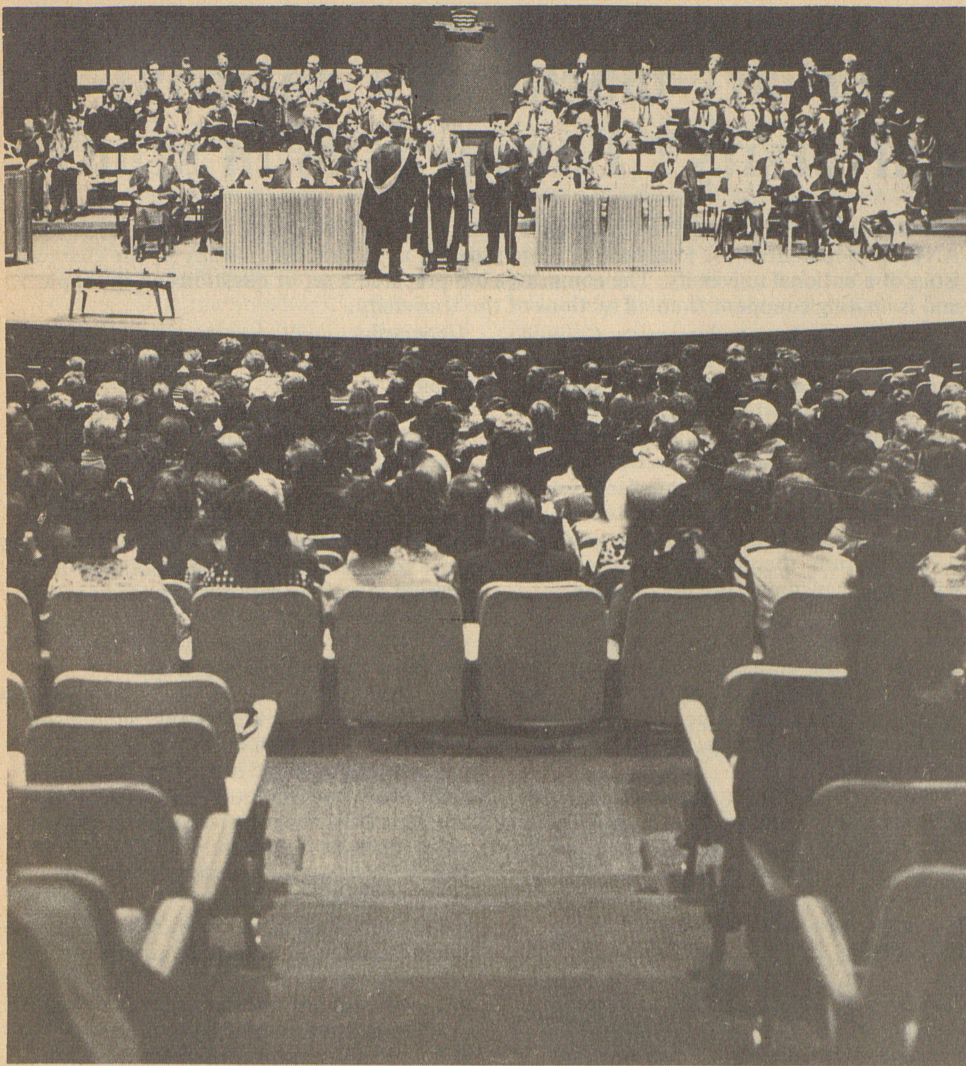
One copy of the handbook will be placed in the ANU Library. Copies can be ordered from the Association of Commonwealth Universities, 36 Gordon Square, London, England, WC1H 0PF at \$US3, post free.

### PROFESSOR DAVIDSON MEMORIAL

A memorial meeting for the late Professor J.W. Davidson has been arranged for next week. The memorial, in the Coombs Lecture Theatre on Wednesday 18 April at 3pm, is open to anyone who would like to attend.

Professor Davidson, 57, Professor of Pacific History since 1950, died of a heart attack in Port Moresby on Sunday 8 April. His body was flown back to Canberra and cremated privately.

(An obituary will appear next issue).



#### APRIL CONFERRING OF DEGREES

'I am unimpressed by the suggestion that we are over-producing graduates in non-vocational fields', the Vice-Chancellor, Dr R.M. Williams, told the congregation at the conferring of degrees ceremony at the Canberra Theatre on Thursday 5 April.

'The discipline of dissent — not the noise of protest and denunciation but the hard, laborious business of collecting data, reassessing evidence, deducing consequences of alternative theories so that by rational argument established theories may be modified and replaced — is the basis of research and

scholarship. It is also the process by which existing professional practices can be subject to constructive criticism and so improvement and it is by producing graduates imbued with this spirit, whether in the arts, sciences or professions that the universities make their most important contribution', Dr Williams suggested.

The Vice-Chancellor conferred degrees on 235 Bachelor, Master and PhD graduands in the Faculties of Economics, Law and Science, the John Curtin School of Medical Research and the Research Schools of Physical Sciences, Chemistry and Biological Sciences at the Thursday ceremony.

On Friday 6 April, the Minister for Education, Mr K.E. Beazley addressed the congregation and the Pro-Chancellor, Sir Anthony Mason, conferred degrees on 244 graduands in the Faculties of Arts and Asian Studies and the Research Schools of Social Sciences and Pacific Studies.

Both ceremonies were followed by afternoon tea for the graduates and their families in the Arts-Economics quadrangle at the University.

Those graduands unable to attend will receive their degrees 'in absentia' at the April meeting of the Standing Committee of University Council.

*Top left. The scene in the Canberra Theatre at the Thursday 5 April conferring of degrees ceremony. The Vice-Chancellor, Dr R.M. Williams (centre), conferred the degrees attended by the Academic Registrar, Mr C.G. Plowman.*

*Top right. Richard Charles Hauser graduated Bachelor of Arts (Asian Studies) at the Friday ceremony.*

*Bottom. The Münster Student Madrigal Choir sang at the Friday conferring. The choir was the guest of the University while in Canberra and gave two other performances.*

## Distinguished geophysicist appointed first Director of Earth Sciences

**A South African with a long and distinguished career as a geophysicist has been appointed first Director of the Research School of Earth Sciences. Professor Anton L. Hales, at present Director of the Institute for Geological Sciences, University of Texas at Dallas, will come to ANU about the middle of this year to take up the new post.**

Announcing the appointment, the Vice-Chancellor, Dr R.M. Williams, said Professor Hales was a scholar of experience, vision and profound interest in solid and fluid earth sciences. These were qualities needed to establish the new Research School of Earth Sciences firmly and to lead its early development.

The decision in principle to set up the Research School of Earth Sciences was taken by the ANU Council late in 1971 and reaffirmed last year. In reaching its decision the University Council recognised the need for further research in Australia in many key fields of the earth sciences and

the particular relevance of earth sciences to Australia in the national context.

The research school will incorporate the existing Department of Geophysics and Geochemistry (at present part of the Research School of Physical Sciences) which has achieved international recognition in several of its specialisations.

The scope of the research interests of the school has been the subject of a study by an advisory committee, chaired by former CSIRO Chairman, Sir Frederick White, and including leading Australian and overseas earth scientists. This committee has proposed a broadly-based research school. In addition to the present activities of the Department of Geophysics and Geochemistry an early entry might well be made into fields such as geophysical fluid dynamics, environmental geochemistry, petrophysics and economic geology. Post-graduate training would be given in these subjects.

For flexibility in planning new develop-

ments, the research school is expected to adopt initially a non-departmental structure. It will have a number of closely interacting research groups, leaving open the option of eventually evolving into a departmental structure should that seem desirable.

The advisory committee proposals have been accepted by the University. Their implementation will be a matter for further discussion with Professor Hales when he takes up the Directorship. The University believes that under the leadership of Professor Hales the Research School of Earth Sciences will make a major contribution not only to Australian but also to international science.

Professor Hales, sixty-two, has specialised in seismology but has wide interests in other areas of geophysics including geophysical fluid dynamics, meteorology, gravity and geothermal studies, palaeomagnetism and geomagnetism. He has made important scientific contributions in these areas and is the author of about 100

scientific articles and papers on them.

Born in South Africa, Professor Hales is a graduate of Capetown and Cambridge Universities. Most of his scientific career has been in South Africa where he was Director of the Bernard Price Institute of Geophysical Research at the University of Witwatersrand from 1954-62.

In 1962 Professor Hales moved to the United States to set up what is now the Institute for Geological Sciences, University of Texas at Dallas. Under his directorship, the Institute has become one of the leading earth science research centres in the United States. Professor Hales expects that the close ties between the earth sciences programs at the two universities will continue. He will return, upon occasion, to the University of Texas at Dallas as a visiting professor.

Professor Hales' appointment is for five years. He will be accompanied to Canberra by his wife, Mrs Denise Hales, and children.

## Ten-year study leads to language text

For the Dyrbal language of North Queensland — a new book by Professor R.M.W. Dixon, Professor of Linguistics (SGS), is the first comprehensive grammar to be published of any Australian language. It is the product of nearly ten years of part-time study and research, including eighteen months of field work in northern Australia.

Ten years ago Professor Dixon was brought to Australia by the newly-formed Institute of Aboriginal Studies to investigate the languages spoken in the Cairns rain forest region. It had been suggested by anthropologists that Aborigines who lived in the rain forest were quite different from those who inhabited the rest of the continent. The rain forest people were said to be of small stature, to have distinctive pigmentation and hair type, and to speak a language unlike other Australian tongues. It was suggested that they might be a relic of the earliest settlers on the Australian continent, and that they might be related to the extinct Tasmanians.

Professor Dixon found that the rain forest languages were of regular Australian type and has done intensive work over the last ten years on Dyrbal, which has remarkable similarities with languages spoken in the Western Desert.

While the book is essentially a technical contribution to linguistics, first stating the basic facts of the grammar in as straightforward a form as possible, and then explaining them in terms of the most recent advances in linguistic theory, it is also a record of the life, thought and culture of an Australian tribe and its disintegration in the face of European invasion.

Professor Dixon mentions that some of the myths he has collected may include accurate histories of events in the distant past of the people. 'There is, for instance,' he said, 'a myth explaining the region of the volcanic craters, Lake Eacham and Barrine; this includes a plausible description of a volcanic eruption.'

When Professor Dixon collected the tale in 1964, the story-tellers remarked that when this happened the country around the lakes was 'not jungle — just open scrub'. In 1968, Peter Kershaw, then a research student in the Department of Biogeography and Geomorphology, by means of a dated pollen diagram from the organic sediments of one of the lakes, showed rather surprisingly that the rain forest in the area was only about 7,600 years old.

'There are also stories which say that in bygone days it was possible to walk to each hand in the Coral Sea, and that the sea stopped at the present Barrier Reef. In fact, geographers believe that this was the case at the end of the last Ice Age, about eight to ten thousand years ago.'

In his foreword, Professor Dixon dedicates the study to the surviving speakers of the Dyrbal, Giramay and Mamu dialects: 'For more than ten thousand years they lived in harmony with each other and with their environment. One hundred years ago many of them were shot and poisoned by European invaders. Those allowed to survive have been barely tolerated tenants on their own lands, and have had their beliefs, habits and language held up to ridicule and scorn. In the last decade they have seen their remaining forests taken and cleared by an American company, with the destruction of sites whose remembered antiquity is many thousands of years older than the furthest event in the shallow history of their desecrators.'

'The survivors of the three tribes have stood up to these adversities with dignity and humour, fortified by their amusement at the blindness of the invader to the richness of the environment, and of the life of the people he believes himself to be supplanting.'

'They continue to look forward to the day when they may again be allowed to live in peaceful possession of some of their own lands, and may be accorded a respect which they have been denied, but which they have been forcibly made to accord to others.'



## Chinese writing is key to Chinese art

**A full-year course in Chinese calligraphy, offered for the first time at ANU this year, is aimed at teaching an appreciation of Chinese pictorial art through knowledge of its special techniques. The course, which is being taken by thirty students, is being taught by Professor Chiang Yee, contemporary artist-writer and Visiting Professor in the Department of Chinese. Professor Chiang is well known as author and artist of the 'silent traveller' series of travel books.**

Professor Chiang says few people realise that calligraphy is the purest art form. Chinese painting is based on it, its emphasis being on simplicity and beauty of line.

'For a long time Western artists commented only on its lack of perspective — the lack of light and shadow in Chinese painting', Professor Chiang said. 'Western art is closely related to sculpture with its full, round shapes and employs a quite different technique. It utilises canvas, wood and oil pigments while the Chinese mediums are paper, silk and ink. The brushes too are quite different — the Chinese brush always being pointed'.

Professor Chiang is teaching students Chinese technique. 'Like tennis', he explained, 'until you learn the right grip and attempt some of the strokes you don't really begin to enjoy it. With painting you can appreciate a work better if you know how it is done'. Professor Chiang says he has learned greater appreciation of Western painting through studying it and attempting to paint in the Western way.

'Because Chinese painting is closely related to calligraphy (both arts being the chief

flowers of Chinese civilisation), they should be studied in the interest of Asian civilisation', Professor Chiang said. However students in Professor Chiang's calligraphy course don't need any knowledge of Chinese and enrolment is not limited to the Faculty of Asian Studies. Members are drawn from a number of faculties.

Interest in Chinese art has developed in the West with the growing interest in Asia. The modern art movement in the West has also been somewhat influenced by achievements in Oriental pictorial art', Professor Chiang suggests.

In recent years Chinese calligraphy has been considered an interesting item for American collectors. Two years ago there was a big exhibition of Chinese calligraphy held at the Philadelphia Museum, followed by similar exhibitions at Kansas City, and the Metropolitan Museum in New York. Professor Chiang, as one who knows the subject well, was invited to give a public lecture on calligraphy at the Philadelphia calligraphy exhibition.

Illustrating the time it has taken for Chinese art to become popular in the west, Professor Chiang related how he wrote the book, *Chinese Calligraphy*, the first book of its kind, in 1938. His publisher in Britain predicted that it would not sell one copy, the subject being too specialised.

Since World War II however, there has been a great surge of interest in things Chinese and the book has been through eight printings. A revised edition will be published by Harvard University press this year.

Professor Chiang plans to return to New York in August but arrangements will be

made for instruction of his course at ANU to continue. It is also hoped that the course will be offered again next year.

It is the only course being offered in Australia because interest here is just beginning. Only one gallery has any Chinese items, the National Art Gallery in Victoria, where Professor Chiang will lecture on the principles and technique of Chinese painting on 27 April.

*Picture. Professor Chiang Yee directs his students in the special technique of Chinese painting: using silk, paper and ink. 'Until you learn the technique you don't really begin to enjoy it. You can appreciate a work (of art) better if you know how it is done'.*

### NEW ABCD BULLETIN THIS MONTH

ABCD is the Association of Commonwealth Universities (ACU) *Bulletin of Current Documentation*, published in London five times a year in October, December, February, April and June.

It provides the member universities of the Association, particularly those concerned with more general aspects of policy-making, with factual information about some of the more important books, reports and other documents that have been issued on matters affecting universities and that are of more than local interest. Emphasis is on publications issued in Commonwealth countries but some international and foreign documentation is also described.

Annual subscription rate is £1.70 (\$US5). The publication is available from the ACU, 36 Gordon Square, London, England WC1H 0PF.

## DIARY OF EVENTS

## Sunday 15 April

*ANU Film Group. Seven Samurai and The Night They Raided Minsky's.* Coombs Lecture Theatre, 1.30pm.

## Monday 16 April

*History of Ideas seminar.* Dr H. Caton, 'Thomas Hobbes' new politics'. Seminar room D, Coombs Building, 11am.

*RSBS seminar.* Dr E. Craddock, 'The evolutionary strategies of stock insects'. Common Room, RSBS, 12.30pm.

*Contemporary China Centre seminar.* Miss A. Donnithorne, 'Economic factors and central power in China'. Seminar room B, Coombs Building, 2pm.

## Tuesday 17 April

*Germanic Languages seminar.* Mrs E. Langman, 'Discussion of recent German poetry'. Room 213, John Dedman Building, 10am.

*Philosophy (IAS) seminar.* Professor Q.B. Gibson, 'Scientific relativism'. Seminar room F, Coombs Building, 11am.

*Physical and Theoretical Chemistry seminar.* Dr Tova Feldmann, 'Some aspects of representation theory'. Room 57, RSC, 11am.

*Biochemistry (IAS) seminar.* Dr B. Wallace, 'Effects of streptomycin at various stages of the ribosome cycle in *Escherichia coli*'. JCSMR seminar room, 1pm.

*Geophysics and Geochemistry seminar.* Professor A.E. Ringwood, 'Chemical evolution of the solar system'. Seminar room, Geophysics Building, 4pm.

*CSIRO Division of Environmental Mechanics seminar.* Professor J.W. Miles (University of California), 'Laplace-tidal equations, a paradigm in applied mathematics'. Pye Laboratory seminar room, CSIRO Division of Environmental mechanics, Black Mountain, 4pm.

*Asian Civilisations Film. Everyday life in India.* Law Lecture Theatre, Law Building, 7.30pm.

## Wednesday 18 April

*Medical Chemistry Group seminar.* Dr W.L.F. Armarego, 'Biological alkylation in sterols'. Florey Theatre, JCSMR, 10.45am.

*Inorganic Chemistry seminar.* Dr A.G. Wedd (La Trobe University), 'Synthesis and reac-

tions of Molybdenum and Niobium Dinitrogen compounds'. Room 134, RSC, 11am.

*CSIRO Division of Environmental Mechanics seminar.* Professor J.W. Miles (University of California), 'Resonant response of harbours and lakes'. Seminar room 105, Mathematical Sciences Building, 3.45pm.

*ANU Skindiving Club meeting.* New Union, 7.30pm.

*Institute of Marine Engineers meeting.*

Captain W.J. Rourke and Commander B.R. Bambrick (RAN), 'Project management and the DDL'. Forestry Lecture Theatre, 8pm. All interested welcome.

## Thursday 19 April

*Organic Chemistry seminar.* Mr K. Keogh, 'Prostaglandin syntheses'. Room 134, RSC, 11am.

*Psychology seminar.* Dr David Beswick, 'Some current research in the Education Research Unit'. Room 210, Physics Building, 12.30pm.

*Centre for Continuing Education seminar.* Mr Ken Noad (Director, National Methodist Centre), 'Leisure as education'. University Staff Centre, Liversidge Street, 12.30pm.

*Forestry seminar.* Mr K.A. Lyall, 'Australian imports of forest products: past trends and future supplies'. Room 103, Forestry Building, 1pm.

*Far Eastern History seminar.* Mr Clayton Bredt (University of Queensland), 'Money and diplomacy on the Sino-Russian border in the seventies and eighties'. Seminar room D, Coombs Building, 2pm.

*Geophysics and Geochemistry seminar.* Ms Leonie Jones, 'High temperature elastic behaviour of oxides and silicates and their fluoride analogies'. Seminar room, Geophysics Building, 4pm.

*Zoology seminar.* Dr R. Menzel, 'Physiology of the learning system in honey bees'. Seminar room, Zoology Building, 4.30pm.

## Friday 20 April

*ANU Skindiving Club trip.* Green Cape (as arranged at meeting on 18 April).

## Sunday 22 April

*University House Film Group. The Virgin*

islands themselves or elsewhere in Australia. The department has enlisted specialists from the University of New England and James Cook University to assist in some segments of the survey.

Three PhD students have taken up scholarships in the department since the beginning of the year. Mr H.W. Dick will work on inter-island shipping and trade between Java and eastern Indonesia. Mr N.E. Philp will study indigenous participation in small-scale business enterprises in Papua New Guinea. Mr S.A. Grenville, a former Australian diplomat with experience in Jakarta, will undertake research on monetary developments in Indonesia. A fourth, Mrs Michelle Turnovsky, has joined the department as a fee-paying student and has begun research into the use of non-monetary indicators to correct conventional GNP in international comparisons of living standards.

Dr R.T. Shand has left for New Delhi where he will spend two years, mainly to conduct the second phase of a joint research project on the high-yielding varieties program in which ANU has been co-operating with the Program Evaluation Organisation of the Indian Planning Commission. Dr Shand's period in India will be partly on field work and partly on study leave.

On his retirement as Vice-Chancellor of the University, Professor Sir John Crawford joined the department as an Honorary Fellow.

Dr Elizabeth Whitcombe expects to arrive from London on 24 April to take up appointment as Senior Research Fellow. She has already visited the department several times, the last in 1972 when she was a Visiting Fellow from April to June.

## VISITORS IN THE UNIVERSITY

**Professor T.G. Kurtz**, University of Wisconsin, Visiting Fellow in Statistics (IAS) until 30 June; main interest - probability theory and stochastic processes, Ext.4403.

**Dr J. Nelson**, Northwestern University, Illinois, Honorary Fellow in Physiology until December 1974; main interest - binocular vision; room 4061, JCSMR, Ext.2758.

*Soldiers.* Common Room, University House, 8pm.

## Monday 23 April

*RSBS seminar.* Dr G.E. Likens, 'Nutrient cycling in disturbed and undisturbed ecosystems'. Common room, RSBS, 12.30pm.

## Tuesday 24 April

*Asian Civilisations Film. Art of China.* Law Lecture Theatre, Law Building, 7.30pm.

## Thursday 26 April

*Organic Chemistry seminar.* Dr W.D. Crow, 'Biological control mechanism'. Room 134, RSC, 11am.

*Psychology seminar.* Dr A.H. Winefield (Adelaide University), 'Successive reversal learning'. Room 210, Physics Building, 12.30pm.

*Forestry seminar.* Mr J. Doran, 'Variation of wood density in *Eucalyptus regnans*'. Room 103, Forestry Building, 1pm.

*ANU/CSIRO joint computing seminar.* Mr G. Foster, 'CODASYL - a data base management system'. Florey Theatre, JCSMR, 2pm.

*Geophysics and Geochemistry seminar.* Mr M. Worthington, 'Earth model from Monte Carlo and linear programming techniques'. Seminar room, Geophysics Building, 4pm.

*Theoretical Physics seminar.* Dr J. Mahanty, 'Dispersion contribution to surface energy'. Room 105, Mathematical Sciences Building, 4pm.

*ANU Film Group. Throne of blood and Khartoum.* Coombs Lecture Theatre, 7.30pm.

*Staff/Post-Graduate English seminar.* Mr F.H. Langman, 'Conceptions of comedy, with references to Twelfth Night'. Room 209, Haydon-Allen Building, 8pm.

## Friday 27 April

*Germanic Languages playing of recorded music and speech.* Swedish Ballads. Room 113, John Dedman Building, 1.15pm.

*Economics (RSSS) seminar.* Professor A. Powell (Monash University), 'The analysis of synoptic cross section data on consumer budgets'. Seminar room E, Coombs Building, 2pm.

## Sunday 29 April

*ANU Film Group. A hard day's night and Yellow submarine.* Coombs Lecture Theatre, 1.30pm.

**Professor J.L. Stollery**, Imperial College of Science and Technology, London, visiting appointment in Physics until the end of April; main interest - hypersonic aerodynamics; room 150, Physics Building, Ext.4102.

**Dr J.A. Thomson**, University of Melbourne, Honorary Fellow in Biochemistry (SGS) until December; main interest - isolation of messenger RNA for insect protein; room 15, Biochemistry Building, Ext.3463.

**Professor E.M. Uhlenbeck**, University of Leiden, Visiting Fellow in Linguistics (IAS) until 30 June; main interests - general linguistics; Indonesian linguistics, particularly the languages of Java; room 7216, Coombs Building, Ext.2243.

**Professor B. Westerfield**, Yale University, Visiting Fellow in International Relations until December; main interest - Australian foreign policy making; room 5102, Coombs Building, Ext.2178.

**Professor B.G. Zimmer**, Brown University, Rhode Island, Visiting Fellow in Demography until 13 July; main interest - fertility studies; room 2233, Coombs Building, Ext.2129.

## MURDOCH APPOINTMENTS

Dr A.J. Parker, Professorial Fellow in the Research School of Chemistry has been appointed foundation Professor of Chemistry in the School of Physical Sciences at Murdoch University in Perth. Dr Parker gained his PhD from the University of Western Australia and subsequently studied in the United States, London and Norway. He has been at ANU since 1969.

Dr Parker's recent work at ANU on the extraction of minerals from ores by chemical processes has created great interest and attracted support from the mining industry. This work could be of great importance in Western Australia and Dr Parker will become Director of a Research Unit in Mineral Chemistry at Murdoch to continue his research.

Dr J.D. Frodsham has resigned his Readership in Chinese to accept appointment to the foundation chair of literature in Murdoch University.

## STUDENT AID AGE LIMITS REMOVED

Legislation has been approved by Commonwealth Parliament to remove the age limit of 16 years on full-time student dependants of unemployment and sickness beneficiaries. The legislation also removes the age limit of 21 years on full-time student dependants, invalid and widow pensioners.

These changes remove the situation which a student could be forced to interrupt, or in some cases discontinue, his education because the pensioner or beneficiary could no longer support him.

Pensioners, beneficiaries and their dependants wanting to know about their entitlements and those who feel that the removal of the age limits may make them eligible for additional benefit should contact the nearest office of the Department of Social Services.

## J.G. CRAWFORD PRIZE FUND

The University hopes soon to consider arrangements for awarding the prize from the fund now being established in recognition of the outstanding contribution made by Sir John Crawford as Vice-Chancellor and before that as Director of the Research School of Pacific Studies. Before it can do this it needs to know approximately how large will be the fund at its disposal.

Members of the University who would still like to contribute are asked to do so as soon as possible. Amounts of \$2 and above are tax deductible; contributions should be sent to the Accountant and cheques made payable to the Australian National University.

Conditions under which the prize will be awarded will be determined in consultation with Sir John.

## PACIFIC HISTORY COLLOQUIUM

A weekend colloquium on 'The Nature of the State in Island Southeast Asia' arranged by the Department of Pacific History, will be held in the University on 13, 14, 15 April.

Guest speakers at the three-day meeting will include specialists from the departments of Pacific History, History, Asian Civilisations and Anthropology, at ANU and representatives of Monash University and the Universities of Sydney, Malaya and Singapore.

## TRACE METAL ANALYSIS

Mr T. Donnelly, a staff member of the Baas Beeking Laboratory, Bureau of Mineral Resources, Canberra, is presently working in the JCSMR Microanalytical Section (room 2046) on a new facility for trace metal analysis which offers simultaneous background correction in non-flame atomic absorption spectroscopy technique.

The equipment is expected to be available for demonstration during the next few weeks. Inquiries are welcome from ANU research workers interested in the possibility of using the method to shorten present procedures for trace metal analyses. Further details from Dr Joyce Fildes or Mr Donnelly (ext. 2322 or 2380)

## PAPER AND DISCUSSION ON THE DDL

Members of the University in several areas of study may be interested in a paper to be presented at ANU on the DDL light destroyer next week. Entitled 'Project management and the DDL', the paper will be given by Captain W.J. Rourke and Commander B.R. Bambrick, of the Royal Australian Navy, under the auspices of the Institute of Marine Engineers.

The paper will review the need for project management in major defence projects in the light of British, North American and Australian experience, and will describe organisation and control systems established for management of the DDL project. The authors will outline the general approach to control of design, procurement, production, and logistic support of the new destroyers and will discuss some of the particular problems anticipated and possible solutions.

The meeting will be in the Forestry Lecture Theatre on Wednesday 18 April at 8.30pm. There will be a discussion of the paper afterwards.

## EXTRA EASTER-ANZAC HOLIDAY

Members of the University are reminded that Tuesday 24 April is a public holiday in addition to the Easter (20-23 April) and Anzac Day (25 April) holidays. University offices will be closed on those days and lectures and other classes will not be held.

## NOTES FROM DEPARTMENTS

**History of Ideas Unit.** Professors Macpherson and Pocock will visit universities in Sydney, Melbourne and Adelaide to lecture in history, politics, economics and philosophy during their terms as Visiting Fellows in the Unit.

Dr Kamenka has accepted an invitation to give a course on 'Marxism and the Theory of Law' as Visiting Professor of Jurisprudence in the Sydney University Law School during first term.

Dr Kamenka has accepted an invitation to speak on 'Philosophy and Socialism' at the tenth International Summer School to be held in Korcula, Yugoslavia, in August. It is organised by the Faculty of Philosophy of the University of Zagreb. Dr Kamenka, together with Dr Tay (Law, SGS), will also read a joint paper on 'The Crisis of Legal Ideology' to the World Congress on the Philosophy of Law and Social Philosophy being held in Madrid in September.

Dr Robert Banks' *Jesus and the Law in the Synoptic Tradition*, based on his Cambridge PhD thesis, has been accepted for publication by Cambridge University Press.

Mrs Sylvia Thomm, who has been working in Louisiana State University on functionalist and dialectical theories in sociology, has arrived in the Unit as a PhD scholar.

**RSC Professor A.J. Birch** (Organic Chemistry) left Canberra on 7 April for a five-week trip abroad. While away he will receive the Davy Medal of the Royal Society in London and he will be lecturing at the American Chemical Society Meeting in Dallas.

Professor Craig (Physical and Theoretical Chemistry) will leave for England on 25 April to give the Firth Lectures in the University of Strathclyde, and to spend four weeks as Visiting Professor at University College, London.

**Economics (RSPacS).** At the request of the Commonwealth and Queensland Governments, the department is engaged in a survey of the Torres Strait Islands and the factors affecting the livelihood of the islander population, whether resident on the

# Students work on Snowy problem

Presentation of an undergraduate scholarship at the University last week marked one of the final episodes in the solution of a geological problem in the Lake Eucumbene area of the Snowy Mountains. The scholarship, worth \$1200 and made available annually by Ampol Petroleum Ltd, this year has been won by final honours-year student in Geology, Mr Ian Williams.

For several years the Geology Department has been carrying out research on a huge granite mass, known as the Berridale Batholith, which covers about 600 square miles around the Lake Eucumbene dam. The long-term project was started by Dr Allan White, formerly Reader in Geology at ANU, who now holds the foundation chair in Geology at La Trobe University and who continues to take an active interest in the Snowy Mountains work.

Early geological assessment of the Berridale Batholith assumed that it was one single huge homogeneous piece of granite that had somehow intruded into the earth's crust. However, geochemical analysis by the Geology Department, in which Mr Williams will be engaged, points to the conclusion that the granite mass is actually made up of numerous small units, which have appeared in the earth's mantle at different stages over a period of about 400 million years.

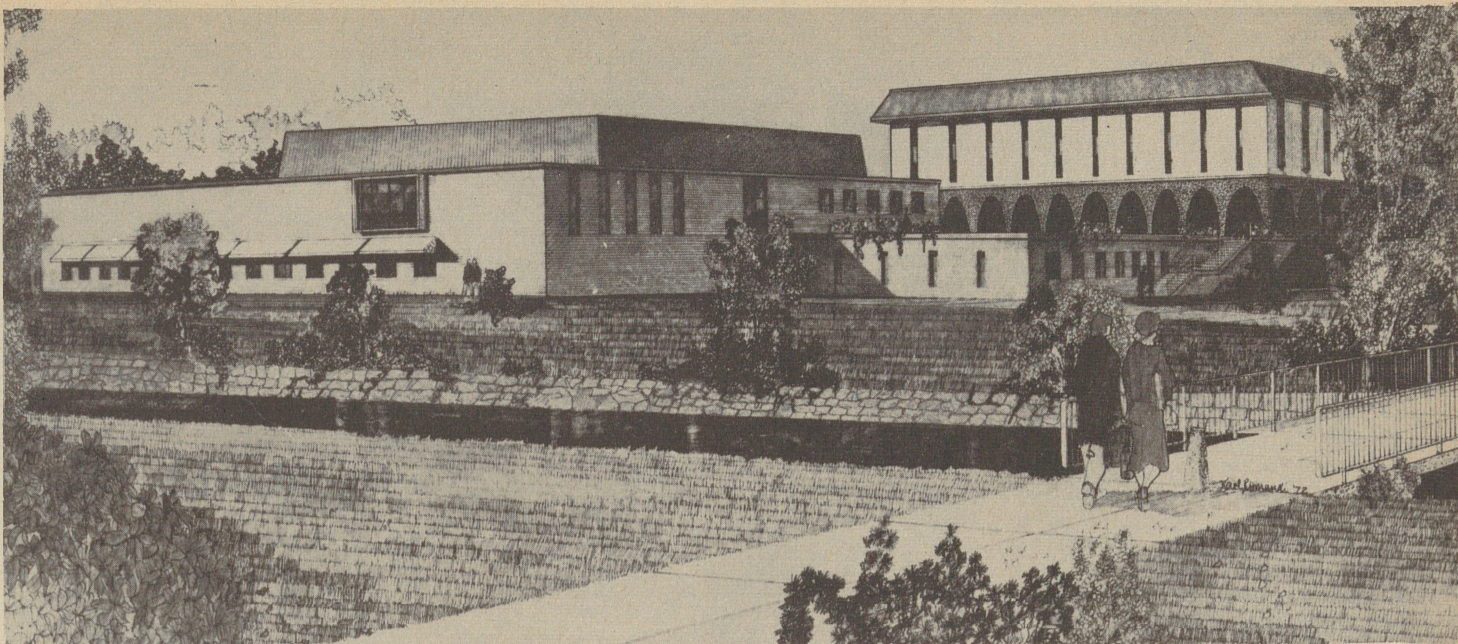
This finding — of heterogeneity instead of homogeneity — is consistent with the pattern of similar geological discoveries being made all over the world. In the case of Lake Eucumbene it has been determined by taking samples for geochemical analysis from all over the area. There are still some gaps in the ANU research and these are gradually being filled by students on scholarships.

'These are the last stitches in the mosaic of information we are building up on the area but it would have taken a lot of the time of one person to have completed it,' Professor D.A. Brown, Professor of Geology, said. 'The ten-month thesis and coursework program of students in their final honours-year provides an opportunity for them to become involved in and help complete an interesting research project.'

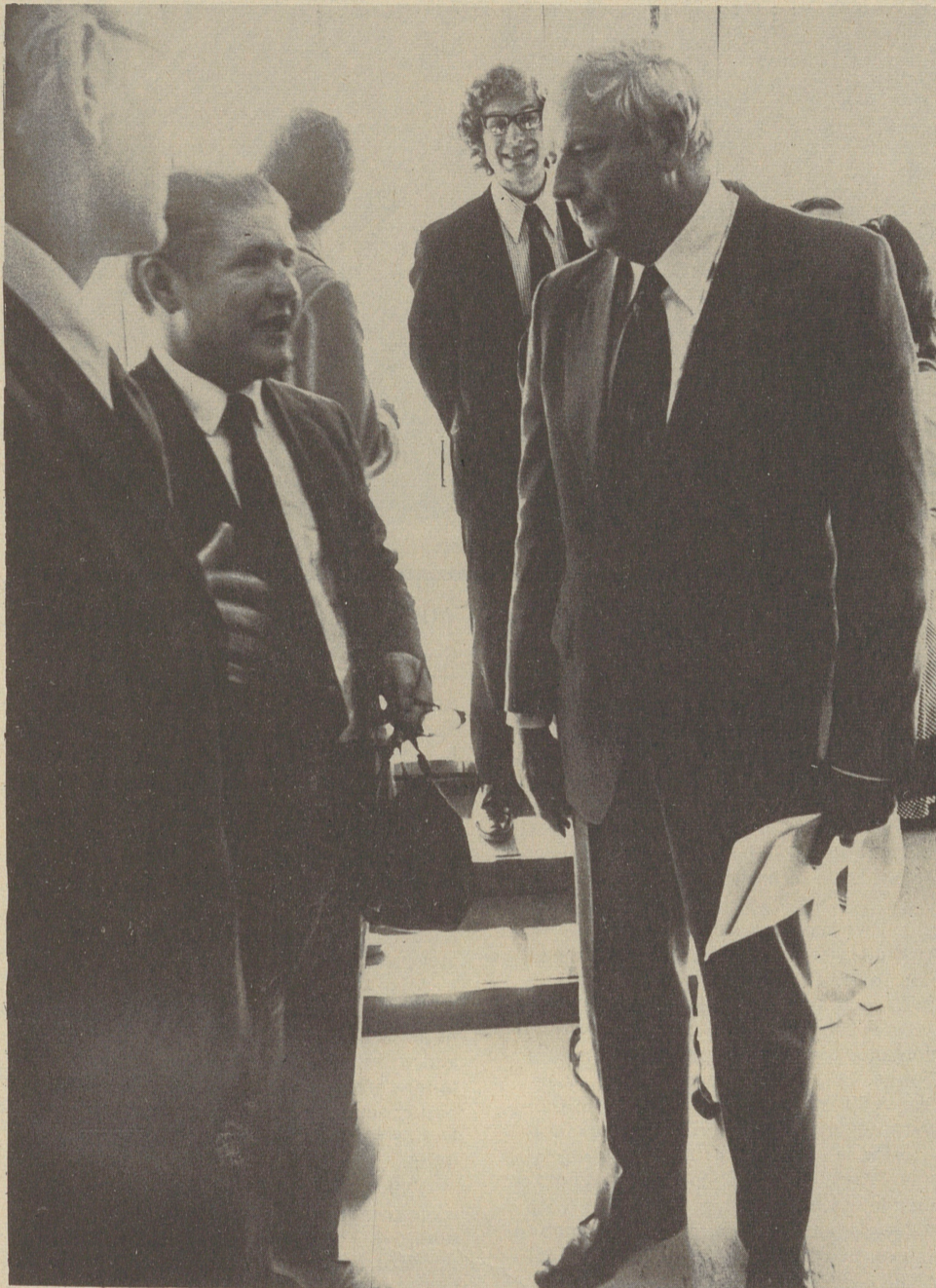
Mr R.C.H. Mason, chief general manager of Ampol Petroleum Ltd, presented the Ampol scholarship to Mr Williams in the common room of the Department of Geology on Thursday 5 April. Mr Williams also qualified for an ANU honours-year scholarship but chose the Ampol scholarship because its benefits are slightly greater.

## SINGAPORE ELECTION BOOK

The Registrar has received advice of a recent publication entitled *Singapore General Elections 1972* which may be of interest to Singaporean students and others in the University. The book is available from Hodder and Stoughton (Aust.) Pty Ltd, Corner Bridge Road and Jersey Street, Hornsby, NSW, 2077, at \$10.60.



An artist's impression of how the Arts Centre might appear from the western aspect (see page one)



## MINISTER OPENS NEW UNION FACILITIES

The Minister for Education, Mr K.E. Beazley, officially opened the new University Union and Sports Union/Health/Counselling buildings on Saturday 31 March.

The University Union building in University Avenue has facilities that include a large refectory, private dining room and grill room, shop and milk bar, concourse for alfresco functions, a bar-lounge, dance floor/multi-purpose hall, games rooms, Students Representative Council and *Woroni* offices, club room and Union administrative areas. There is also a reading room, chaplains' room, music and TV rooms, photographic dark room, extensive kitchens, storage and serveries.

The Union and Sports Union buildings are linked by a glass-walled common room which bridges Sullivans Creek.

The Sports Union building has a Sports Recreation Centre with six squash courts, changing and shower facilities. The facilities are located close to the athletics track and hockey field at the rear of the building. The Sports Union offices are on the first floor.

The Health and Counselling Services are also located in the Sports Union building. The Health Centre facilities on the ground floor include rest rooms, treatment and laboratory space and areas where students can consult the University doctors, sister or physiotherapist. Offices for counselling, careers and appointments and student employment services staff are on the first floor of the Sports Union building.

The complex, costing nearly \$1.5 million was designed by Yuncken Freeman and built by Leighton Contractors Pty Ltd. It is constructed from reinforced concrete frame with external walls of Bowral bricks. The windows throughout are grey, glare-reducing glass.

Left. After the official opening the Minister for Education, Mr Beazley (right), spoke to the Union Secretary, Mr E.C. de Toth (centre left).

The Radio ANU outside broadcast unit (foreground) was in operation for the official opening of the campus radio station by the Vice-Chancellor, Dr R.M. Williams, in the new Union recently. The opening was broadcast live to the six halls and colleges, which at present are the only points on campus equipped to receive the landline broadcasts of Radio ANU. It is hoped to have the new Union and University House on the air soon. Dr Williams told students that in areas of opinion and debate the success of Radio ANU as a medium of communication would lie 'not in the stridency of its voice but in the cogency of its argument'.

Radio ANU at present broadcasts from 6pm-midnight on weekdays and longer at weekends. The station presents a variety of good music, campus news and announcements, and plans to introduce other programs.

The Radio ANU studio at Kingsley Street Hall (ext.4512) is not staffed regularly during the day but members of the University wanting to place announcements can send them through the internal mail or bring them to the studio after 5pm.



## Anyone for squash?

Six squash courts with changing and shower facilities are the main feature of the Sports Recreation Centre in the new Sports Union building opened by the Minister for Education, Mr K.E. Beazley, on 31 March.

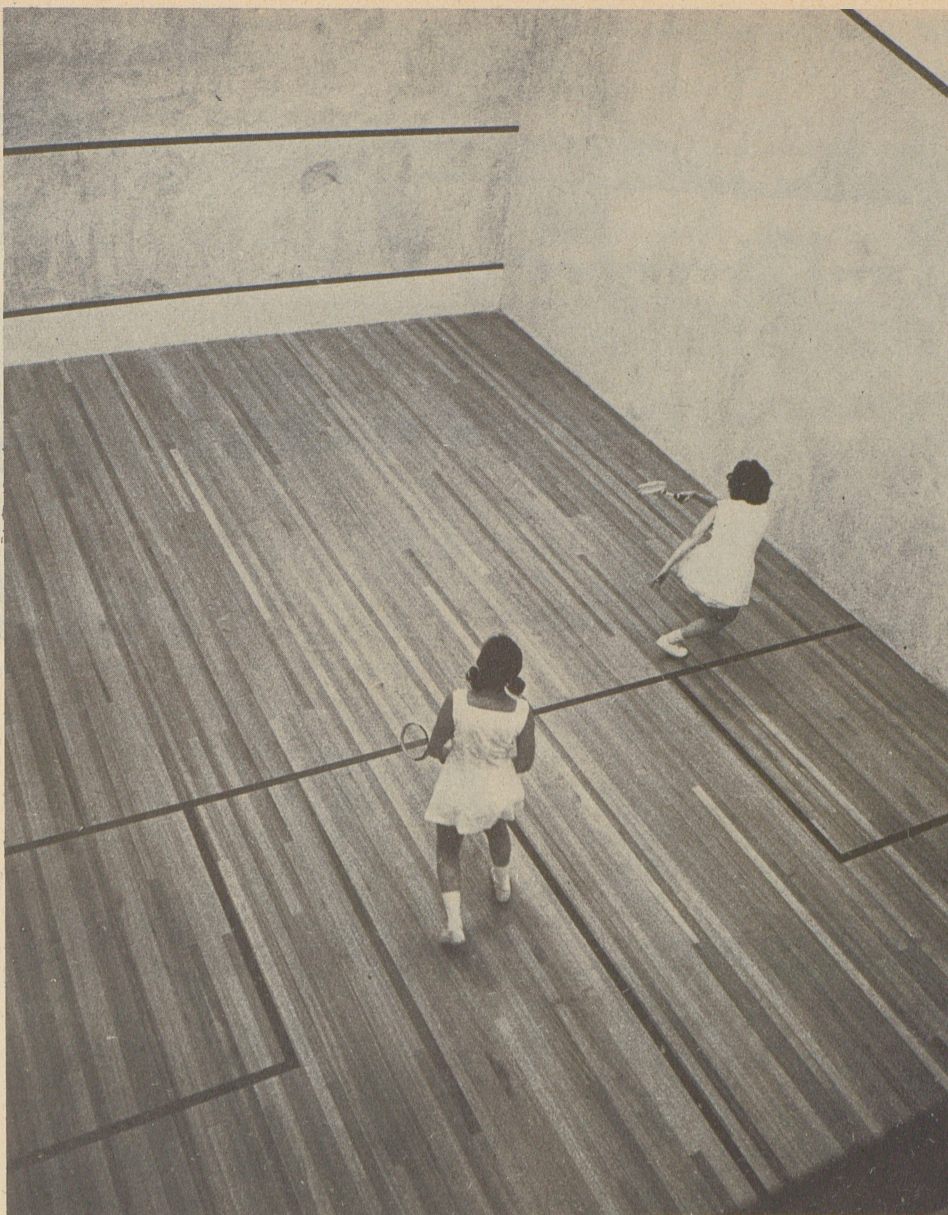
Sports Union secretary, Mr Neil Gray, told the *Reporter* this week that all courts were now in use and that bookings were being taken by a receptionist at the centre. Hours of operation are 9am-10.30pm weekdays; 9am-10pm Saturdays and 10am-9pm on Sundays.

The squash centre will be supervised according to demand. All courts are fitted with meters for coin-in-slot operation when the receptionist is not on duty.

Sports Union members can play for 50 cents per court per half hour (25 cents per player) while non Sports Union members will be limited to playing with a member at a total charge of 95 cents (25 cents member, 70 cents visitor), the same rate as commercial courts.

The receptionist collects playing charges, looks after equipment hiring and maintains time schedules for play. Casual bookings, a week in advance, and permanent bookings for one term and the following vacation, are now being accepted. Telephone bookings (ext. 2273) will be accepted on lodging a \$1 booking deposit.

Mr Gray said the Sports Council hoped that as the courts had been established as a sporting facility for students and staff, many staff members would want to join the Sports Union to take advantage of the new facilities. Membership is \$12 and can be arranged through the Sports Union (ext. 2273). Payment can be made by small, fortnightly payroll deductions.



Players were not slow to get into the swing of things on the new squash courts.

## ATW begins by 'offending audience'

The Australian Theatre Workshop (ATW) will begin its 1973 season with 'Offending the Audience' at Childers Street Theatre, 26-29 April. The play, written by Australian playwright, Peter Handke, was well received in Sydney and Melbourne last year. This will be its premiere performance in Canberra.

ATW Director, Mr Bruce Widdop, who directed the Sydney production of *Offending the Audience* last year, will direct the Canberra production. Mr Widdop feels the play is a perfect choice for opening the ATW season. It has been described as a 'prologue to the theatre' and will be a 'prologue to the 1973 ATW season', he suggests.

*Offending the Audience* is an attack on the theatre. The four speakers begin by telling the audience what it is not going to see: theatrical fixtures - sets, period, location. They then proceed to tell the audience what it is going to see: itself - in world theatre. The play actually reverses the standard situation where actors act out roles to one another while the audience observes. Handke in this play has made the audience the centre of the crossfire, making it part of the action with the aim of creating audience involvement and an awareness of the role of actors.

Mr Widdop says the play reflects the new directions of ATW in 1973. It plans to swing away from traditional theatre and concentrate exclusively on Australian and experimental productions with a full season

of nine plays never before presented in Canberra.

'We will not present traditional theatre - the type of plays handled by Canberra Repertory or other theatre groups such as Stage or ANU Theatre Group,' Mr Widdop said. 'We see a need in Canberra for Australian and experimental theatre and we plan to fill this void.'

As well as presenting nine stage productions, ATW will hold acting and writing workshops which will provide a training ground for a new style of theatre. Last year ATW staged no productions in Canberra but did conduct theatre workshops.

ATW is a loosely structured group with draws its personnel from the University and outside, its membership fluctuating with the requirements of particular productions. Its eventual aim is to adopt professional status.

Currently ATW activities are wholly financed by profits realised from productions. Some capital was consolidated last year when various ATW members presented or worked in productions in other major centres.

### MORE NOTICE NEEDED FOR USSR VISITS

The Department of Education has advised the University that the Australian Embassy in Moscow is experiencing difficulties in coping with the increasing flow of Australian visitors.

Because the type of assistance sought from the Embassy by University academic staff often includes help in preparing study programs, itineraries and arrangement or confirmation of contacts within the USSR, as well as travel arrangements, the Department suggests that persons planning to visit Russia also contact the Department of Foreign Affairs well in advance.

This will enable the Department of Foreign Affairs or the Embassy to give necessary guidance that might facilitate the objectives of academic visitors.

### WORK STARTS ON NEW STUDENT HALL

Construction has commenced on the University's fourth hall of residence - but it is different in design and concept from existing conventional-type residential halls and affiliated colleges. When completed for the beginning of the 1974 academic year it will provide communal living accommodation for 237 men and women students.

The four-storey hall is at the north end of the campus between Kingsley Street Hall and Barry Drive on the east bank of Sullivans Creek. The poplar trees, a feature of the area, will be retained.

Mixed groups of up to ten students will be accommodated in single rooms (there will be some double suites for married couples) and will share common kitchen, dining and lounge areas. Sharing will even extend to bathroom and toilet facilities, where there will be no 'men' or 'women' designation on doors.

This provision was requested by the hall users committee on which students are represented. The idea is to generate an atmosphere of family or communal living. Students will be able to prepare meals in hall (drawing up their own rules on kitchen tidiness) or eat at the new Union, a short distance away.

Each of the communal groups will have its own entrance hall and on each floor they will interconnect by a central passage. Rooms on the first floor will have a small balcony.

The hall, which will be built in mid-grey brick, has been designed by Sydney architect, Mr John Andrews, from a brief developed from the findings of a committee chaired by Professor C.A. Gibb. That committee recommended a break away from conventional halls of residence. The concept is similar to student accommodation provided at the Canberra College of Advanced Education, which has become very popular.

The hall is being constructed by Leighton Contractors Pty Ltd on the basis of an Australian Universities Commission grant of \$5,000 per student place to which the University will contribute another \$400 per student place by means of a loan. It is expected that tariffs in the new hall will be lower than a comparable without-meals tariff in a conventional hall of residence or affiliated college.

### CLASSIFIED ADVERTISEMENTS

#### For sale

1969 Hillman Hunter. Reg. January, excellent condition, \$1200. Dr M. Disney, Astronomy, phone 88 1111.

Books, wide range of recent theology text books and biblical commentaries. Phone 47 7963 after 5pm.

HMV Stereogram, wood cabinet, detach. legs, ideal for corner. \$50, Ext.2123.

Toyota Corona Mk 11, manual 6 cylinder, fully imported, registered until December. Owner leaving Australia in April, \$3,400 ono cash. Phone 81 3561.

Morris Marina Coupe, excellent condition, 10,000 miles, still under new car warranty. Radio, laminated wind screen, radials. \$2200 ono. Wigley, 19 Eldershaw Place, Garran, Phone 82 1657 or Ext.4342.

1971 Citroen D Special, original owner going overseas, regrets sale of coveted automobile. \$4,200. Ext.3398.

Vulcan plug-in stove. As new, suitable for coast or flat. \$50 ono. Ext.2314, or Jones, 65 Maitland Street, Hackett.

Morris 1100 'S', well maintained, 24,000 miles, NRMA inspected. \$850. Ext.2385.

Dolls pram, imported, very good condition, includes three sets of bedding and doll, loose hood, converts into stroller. \$38. Ext.2230. Inspection at 3 Myall Street, O'Connor, a.h.

New Rinnai gas radiator, 6000btus with flet and bayonet, \$20. Ext.3360.

Holden HQ workshop manual with HT supplement, \$5. Ext.3360.

#### Wanted

Women's tennis racquet, medium weight, Ext.3012/2229.

Girl, in 20s to share mixed house, own room, Farrer. Ext.2983.

Accommodation, 28 year-old male undergraduate and dog. Ian Grason, P.O. Box 1096, Canberra City, ACT. 2601.

Dog-kennel, water-tight, cheap. Ext. 2633 81 0293.

Reliable car, small and with at least three months reg., cheap as possible. Ext.2633.

Passengers to Northern Territory. Two experienced pilots require two passengers. May 12-27. Ext.2887 or 86 3742 before 8.30am.

Child's stroller, good condition, Ext.2202.

Piano, J. Armstrong, 48 7722, Ext.796.

#### To let

Furnished room, use of facilities, \$13 pw, 47-0022, ext.25.

Three bedroom house, furnished, Downer, \$38 p.w. Two year lease, quiet area, Phone 62 1395.

Rosedale beach. Two bedroom, fully furnished. Weekends \$12. Off-season \$40 p.w. No Easter. Seclusion and quiet. Phone 47 0136.

Reid, three bedrooms plus sun-room, fully furnished, including all kitchen-ware and bedding. Double garage. One minute to Civic, \$50. Phone 47 0136.

Two bedroom, fully furnished S.C. flat in Weetangerra, carpeted, own laundry with W.M., lawns, own entrance, \$36, Ext.4093.

#### Wanted to let

Small family house in Canberra for one or two weeks from 21 May (house in Deniliquin available for exchange if desired but not essential). Dr K. Hodgkinson, CSIRO, Deniliquin, NSW 2710.

#### Public notices

Gardening, concreting, trees lopped or rubbish removed. Phone 95 7040.

Spoken Chinese (Mandarin) and calligraphy tuition by David Lu. Evenings and weekends, Ext.3515 or 48 8383.

### REPORTER DEADLINES

*ANU Reporter* is published on the second and fourth Fridays of each month and contributions of material from departments and from individual staff and students are welcome. The copy deadline for each issue is the Friday before publication. Because of the Easter-Anzac Day break, copy for the next issue (Friday 27 April), including advertisements for the period 30 April - 13 May, should reach University Information by Thursday 19 April. Items such as diary notices and classified advertisements must be supplied in writing by the due date. This type of information cannot be accepted by telephone.

### SECOND EDUCATION EXHIBITION

The second Australian International Education Exhibition will be held in Melbourne in June. The exhibition, arranged by Educare Exhibitions Pty Ltd, which mounted the first exhibition in Melbourne in 1971, will feature education aids, materials and equipment from Australia and overseas.

A UK national exhibit containing 33 stands will be subsidised by the British Board of Trade and sponsored jointly by the Industrial Council for Educational Training Technology (ICETT), the Educational Equipment Association and the Book Development Council. Other bookings have been received from the US, France, India and Denmark.

As in 1971, a three-day conference will be held in conjunction with the exhibition. Six guest speakers from outside Australia have been invited to participate in the program.