The Australian National University

Report of the Council for the period
1 January 1974 to 31 December 1974
Contents

Page  1  The Acting Vice Chancellor's Report
       5  The Research Schools
      18  The Faculties
     30  University Academic Centres
     35  University Services
     35  The Library
     36  Australian National University Press
     36  University House
     37  Student Accommodation
     38  Report of the Dean of Students
     40  Counselling Services
     40  Health Service
     41  University Union
     43  Site and Buildings
     44  The Council
     46  Publications
    109  Degrees Conferred
    115  Prizewinners
    117  Academic Visitors
    119  University Public Lectures
    120  Senior Staff Appointments and Promotions
    120  School of General Studies
    120  Institute of Advanced Studies
    122  Senior Staff Resignations and Retirements
    122  School of General Studies
    122  Institute of Advanced Studies
    123  Building Program Summary
    124  University Statistics
    129  Principal Benefactions
    133  Financial Statements

To His Excellency the Honourable Sir John Kerr, KCMG, KStJ, Governor-General of Australia and Commander-in-Chief of the Defence Force of Australia.

May it Please Your Excellency

I have the honour to transmit to Your Excellency the Report of the Council of The Australian National University for the period from 1 January 1974 to 31 December 1974 furnished in compliance with Section 33 of the Australian National University Act 1946–1973.

H. C. Coombs

Chancellor
The Acting Vice-Chancellor's Report

During the year the Council of the University re-elected Dr H. C. Coombs, FAHA, FASSA, FAA, as Chancellor and reappointed the Honourable Sir Anthony Mason, KBE, as Pro-Chancellor for a further period of two years.

The Vice-Chancellor, Dr R. M. Williams, CBE, announced in 1974 that he would be resigning early in 1975 to take up the position of Chairman of the State Services Commission of New Zealand. I am happy to have the opportunity of thanking him publicly, on behalf of the University, for the leadership and inspiration he gave, and I wish to record my personal recognition of his contribution to the well-being of the University during the period, regrettably short, that he was here. Pending the appointment of his successor, I was required by Statute to undertake the duties and functions of the Vice-Chancellor. With the concurrence of the Council, I invited Professor I. G. Ross, FAA, and Professor G. Sawer, FASSA, to assist me as Pro Vice-Chancellors.

The year saw some changes in the membership of the Council. Among those from outside the University, Senator McClelland came in the place of Senator Wheeldon; Sir Norman Cowper retired after nineteen years, Sir Warwick Fairfax after eleven years and Dr G. L. McDonald after eight years of valued service to the Council and the University. New members were Professor R. R. Andrew, Mrs J. A. Wright McKinney and Mr J. M. Wark.

The Council noted with regret the death of Professor D. Pike who, until his retirement due to ill health in 1973, had served with distinction as Editor of the *Australian Dictionary of Biography*.

A number of significant changes have occurred in senior posts, both academic and administrative. Professor A. J. Youngson came from the University of Edinburgh to the Directorship of the Research School of Social Sciences and Professor R. Street, FAA, from Monash University, was appointed Director of the Research School of Physical Sciences. Later in the year Professor F. C. Courtice, FAA, was appointed Director of the John Curtin School of Medical Research and the first holder of the Howard Florey Chair of Medical Research. Professor C. I. E. Donaldson, FAHA, of the Department of English in this University, became the first Director of the Humanities Research Centre.

Professor A. N. Hambly resigned as Deputy Chairman of the Board of the School of General Studies prior to his retirement from the Chair of Chemistry at the end of the year. He was succeeded as Deputy Chairman of the Board by Professor L. D. Pryor of the Department of Botany.

There were changes also in senior administrative officers during the year. The Registrar, Mr D. K. R. Hodgkin, went on leave prior to retirement in March and was succeeded as Registrar by Mr W. S. Hamilton, FASA, who had been the University
Bursar since 1956. The Academic Registrar, Mr C. G. Plowman, left the University in March to become Registrar of the University of New South Wales. He was succeeded by Mr G. E. Dicker, who had been Deputy Academic Registrar. The Secretary of the University, Mr R. A. Hohnen, OBE, informed the Council that he wished to retire early in 1975 on grounds of ill health. Finally, the University Accountant, Mrs. L. A. Bellingham, retired in December after 28 years’ service in the University.

1974 was the middle year of a triennium, and the University was able to pause to take stock, after the concentrated effort of detailed planning for the 1976–78 triennium which had occupied much of its attention in 1973. The Boards of the Institute of Advanced Studies and of the School of General Studies devoted much attention during the year to reviewing the objectives of the two principal academic divisions of the University. Their re-appraisals included an examination of the functions and operations of the Boards themselves and of their ability to handle effectively the academic business of a University which has assumed a shape significantly different from that of 1960, when the present machinery of academic government was established.

Pressures for change in the University’s practices and procedures came to a head early in the year. In April a number of students occupied part of the Chancellery and presented a series of demands to the Council. This action was followed by a sequence of events involving staff and some students in a series of discussions, disputes and confrontations which on one occasion required the assistance of the police to remove a group of students from the telephone exchange.

The principal aim of the student action, which was to achieve a greater student voice in the determination of course content and choice of assessment, received substantial support throughout the University but the coercive methods employed gave rise to resentment and caused opposition and delaying action among some of the academic staff who, like many in the community at large, respond more readily and effectively to persuasion. The proportion of students involved may have been small, but the issues were important and require to be fully examined and where possible settled in the best interests of all concerned.

The Council of the University has sought to have the University Act amended to increase from one to two the number of its student members (in addition to the President of the Students Association, who is a member ex officio) and to add two members elected by the general (i.e. non-academic) staff. Pending legislation, the Council agreed to admit two representatives of the general staff to its meetings as observers.

In keeping with the examination of long-term academic objectives undertaken by the Boards, the Library too gave consideration to the course of its development. At the invitation of the Universities Commission, the development of the Library over the next ten to fifteen years has been examined by the Librarian in consultation with the Library Committee. This review aroused strong interest throughout the University, particularly in the Faculty of Arts and the Research School of Social Sciences, and certain matters of long-term policy relating to the expansion and disposition of the collection in different buildings of the Library were left for further examination.

Progress was made with the project of establishing an Arts Centre which will provide facilities for members of the University and of the wider community to involve themselves in the arts. By the end of the year Council had authorised commencement of
construction of the building and an appeal for funds to complete the project was in hand.

Under a joint arrangement with the Australian Academy of Science, five members visited China in March and April as guests of the Academia Sinica and a return visit to Australia was paid by members of the Academia Sinica in October. Fruitful contacts were established and the way was opened for stimulating and beneficial exchange between this University and people working in related fields in China. This year the delegations were composed for the most part of natural scientists, but it is intended to widen the scope of the exchange to include scholars working in the humanities and the social sciences.

Towards the end of the year the Council agreed to the establishment within the University of a Social Psychiatry Unit under the directorship of Dr A. S. Henderson, formerly Professor of Psychiatry at the University of Tasmania, on the basis that the Unit would be financed by the National Health and Medical Research Council. The University will review the arrangements after five years.

Professor R. St C. Johnson, Head of the Department of Classics, was appointed Dean of Students for a period of three years from December 1973. With Professor Johnson’s appointment it was intended that the office of Dean of Students should assume a greater importance than it had in the past in the oversight and co-ordination of matters relating to the welfare of students. For this reason Professor Johnson was appointed for a longer period than had been the practice.

Following the Australian Government’s decision to adjust triennial grants in the course of a triennium to take account of movements in costs over and above those allowed for when the grants were established, new procedures adopted during the year have done much to restore the University’s capacity to implement its agreed academic programs.

The University expressed its concern to the planning and investigating authorities over the proposed Molonglo Parkway which is to traverse the southern part of the campus through the Acton Ridge, and was informed during the year that current planning has reduced the proposed parkway from a six-lane to a four-lane arterial road.

In 1974 student accommodation was a matter of much interest. A study of housing needs of students was prepared for the University and this reported the changing desires and needs of students. Measures to meet the current and future demand are mentioned elsewhere in this Report.

During the year an agreement on the terms of a splendid gift by Miss Joy London of 348 hectares of land at Kioloa on the south coast of New South Wales to the University for use only for specified purposes was concluded and a management committee appointed, which included the donor. The nature of the land offers opportunities for a markedly wide range of teaching and research activities.

Anumin Pty Ltd, a company formed by the University in 1973 to aid and encourage research in mineral science and to arrange for the investigation of inventions in this field and their patenting, commenced negotiations with a major overseas chemical engineering company for the development and exploitation of a patent hydro-metallurgical technique for processing copper and other non-ferrous minerals discovered by a team in the Research School of Chemistry led by Dr A. J. Parker (now Professor and
Head of the Department of Physical and Mathematical Sciences at Murdoch University).

The academic year was one of steady but not spectacular progress. Growth in the Institute of Advanced Studies is slowing down where the older research schools are approaching the limits accepted in the Fifth Report of the Universities Commission, and attention was given during the year to the manner in which new ideas and initiatives can be readily introduced within the constraints of a constant size. In the School of General Studies there was steady growth towards their mature size in all faculties except Arts where the number of students admitted and retained was abnormally large. There was good progress with the planning and establishment of the centres for academic activities and academic services provided for in the approved triennial program.

The substantial increase in requests for the assistance of the University in government and public administration was noted in the Annual Report for 1973. The University continued its co-operation in 1974 and members of staff from all parts of the University served as consultants, members of boards and committees, and on secondment in departments, agencies and institutions with activities and interests ranging widely over local, national and international fields.

It is customary for the Vice-Chancellor to conclude his report by expressing thanks to all members of the administrative staff who have assisted him during the year. I am sure Dr Williams would wish me to do this on his behalf and I add my own thanks for the loyal support I received as Deputy Vice-Chancellor in what was, in many respects, a difficult and demanding year.
The Research Schools

The reports of the Directors of the Research Schools which follow testify to the wide scope of the activities undertaken by members of the staff of the Institute of Advanced Studies ranging from engagement in an advisory capacity by various government departments to concentration upon very specialised areas of research. The increasing number of visiting research workers from all parts of the world is evidence of the reputation of the University as a centre of excellence and they make a most valuable contribution not only to this University but to other places in Australia which they usually take the opportunity to visit.

The Board of the Institute examined and reaffirmed its belief that the Institute should continue as the main centre in Australia for advanced research in the natural and social sciences but recognised that the Universities Commission and other universities would expect to establish more research and research training centres elsewhere.

The strengthening of particular areas of research and the collaboration of workers in different schools and departments to pursue objectives of common interest has continued during the past year. A notable development in the Institute following the submission of a report submitted in 1973 by a Committee on the Future of the Institute was the formation of a General Policy Committee which is examining, in depth, the long-term questions arising in the Institute. Proposals have already been made for more effective consultation during the preparation of triennial submissions and the simplification of procedures for appointment of certain academic staff. The committee is also examining factors which impinge on the problems of maintaining a viable research organisation over a long period so that it can continue to function most effectively.

Research School of Biological Sciences

The School continues to work on a wide variety of biological problems, with interests ranging from viruses, the smallest living organisms, through cells and higher organisms to plant and animal communities. Though the main emphasis is on advancing biological knowledge, especially in the fast expanding areas of research, possible practical applications are also kept in mind. Some aspects of the School's work are illustrated in a display area newly established in the central concourse of the building.

During the year three new Professors and a Professorial Fellow joined the School. Professor W. Hayes, FRS, took over the Department of Genetics in January and effected some reorganisation of the work of that Department. Professor B. E. Gunning joined the Department of Developmental Biology in May and introduced a whole new program of research in the ultrastructure of plant cells using the electron microscope.
and studying in particular how water and dissolved substances are transferred across roots. Dr J. B. Gibson, a new Professorial Fellow in the Department of Population Biology, began work on both the population genetics of lower organisms and some aspects of human genetics.

With the arrival of Professor R. F. Mark late in the year, the new Department of Behavioural Biology began work on the role of short range memory in behaviour. Both physiological and chemical techniques are being used in a study of the nerve and brain systems involved.

Several specially significant advances were highlights of the School’s research during the year.

The way in which plants use the energy of sunlight to build up their structure from carbon dioxide, liberating oxygen (i.e. photosynthesis), is still not fully understood but it has been suspected that a particular enzyme (ribulose-1, 5-diphosphate-carboxylase oxygenase) has been a key factor in the process. For the first time, workers in the Department of Environmental Biology have isolated and purified this enzyme enough to show that it now accounts for the known rates of photosynthesis under natural atmospheric conditions and for the well established inhibition of photosynthesis by oxygen.

Leguminous plants harbour special bacteria in their root nodules which enable them to use atmospheric nitrogen (nitrogen-fixation) to build their nitrogenous components: this association is very specific. On the other hand, crop plants require nitrogenous fertilisers, such as nitrates. Members of the Department of Genetics have discovered that a common strain of bacterium has a nitrogen-fixing capability of its own and that it can also activate nitrogen-fixing genes transferred to it from a root nodule bacterium, an activation which normally occurs only in association with the plants. This may be the first step in enabling major crop plants to fix nitrogen for themselves.

Virus growth in host cells is regulated by the genetic material of the virus. In order to understand how this works in nature, the way in which viral proteins are made by extracts of cells in test tubes, under the direction of purified genetic material, has been much studied. Workers in the Department of Developmental Biology, using extracts of plant cells, have now succeeded for the first time in making the complete ‘coat’ protein of a plant virus and analysis of this protein is proceeding.

A discovery of great interest in its special field has been made by the Unit of Molecular Biology. This finding relates to the way in which the genetic material, RNA, is altered in transit between the cell nucleus and other parts of the cell in which it determines how proteins are made for cell growth.

During the year the University was a joint sponsor with the Technical University of Darmstadt, West Germany, of an international workshop on how eyes capture light to form images. This was the opportunity for members of the Department of Neurobiology to show that the principles established by their work on insect vision have general application in all eyes.

Several members of the School received special awards or honours during 1974. Professor D. G. Catcheside, FAA, FRS, was elected a Foreign Associate of the United States National Academy of Sciences, only the fifth Australian to be honoured in this way. Professor Mark was elected a Fellow of the Australian Academy of Science and
Dr C. B. Osmond received the Edgeworth David Medal of the Royal Society of New South Wales for outstanding research achievement.

Research School of Chemistry

The School is integrated and has no departments, but work is divided into three broad areas: organic, inorganic and physical-theoretical chemistry. This system facilitates work in interfacial areas, for example between organic and inorganic (co-ordination, organometallic), and between organic or inorganic and theoretical chemistry.

Of three new appointments to tenured staff, one is to assist development of the junction of organic and theoretical chemistry and replaces to some extent activities in physical organic chemistry recently lost by staff resignations. Another appointment strengthens the areas of organic synthesis and one assists the extension of theoretical chemistry to more experimental areas in physical chemistry.

The emphasis continues to be on fundamental work of long-term relevance to the Australian environment, using the term in a very broad sense, and mutually supporting and illuminating work in fields where problems can be approached from the viewpoints of differing expertise. Biologically active compounds in organic chemistry, combinations involving metals and organic compounds (inorganic and organometallic chemistry) are ‘relevant’ in obvious ways, in the former case because of contributions to understanding in medicine and agriculture, in the latter case because of the future and present importance of minerals and natural gas and oil. More subtle arguments concern areas in inorganic and physical-theoretical chemistry which are needed for the health of the general topic in Australia and which are not adequately pursued elsewhere, often because they are too difficult or too long-term for the teaching organisation and resources in State universities and are unsuitable for PhD training.

Research Fellows from this Research School began an experiment to supplement in new ways the teaching of undergraduates in the Faculty of Science.

The effects of metal atoms on the properties and reactivities of attached organic groups continue to yield interesting results which have some applications in synthetic chemistry, including peptide synthesis and degradation. Studies of aspects of inorganic substances which do not have fixed compositions continue to support the new theoretical model. Magnetic techniques are being used to study unstable and unusual compounds. Electrochemical and mass-spectrometrical techniques are also being extensively used. More biochemical-related areas of metal co-ordination compounds include the studies of the iron-transport complex of *Escherichia coli* (enterochelin), cytochrome models, and metal porphyrin chemistry. X-ray crystallography in structure work again has contributed extensively to the work of the whole School and its own studies have been facilitated by the availability of a wide range of natural products and unusual organometallic compounds from other areas of the School.

Organic work has further examined the metal-ammonia reductions of heterocyclic and other systems, both in connection with developments of theory and the consequent provision of practical synthetic methods. Organometallic work, particularly with tricarbonyliron complexes, is yielding further synthetic methods and throwing light on some interesting rearrangement mechanisms. A notable feature is the direct involvement of theoretical chemists in predictions and rationalisations of the experimental results,
using new techniques and newly available computers. It is becoming possible for the first time to tackle a range of genuinely practical organic problems in this way. Isolations of compounds of biological importance are continuing, notably from insects and the metabolites of plant pathogenic fungi. Among interesting products are fungal inhibitors of the 'die-back' fungus *Phytophthora cinnamomi*. The chemical control of sexual behaviour in this and other fungi is also being elucidated. The structures and biosyntheses of several antibiotics have been defined. Syntheses of interesting substances, including nootkatone, the flavour of grapefruit, and some other odoriferous terpenoids, and some highly strained and theoretically interesting molecules have been successfully accomplished.

Physical organic chemistry, while reduced in scale, still involves examinations of metal ions in non-aqueous solutions and the stabilisation of cuprous ions (related to Dr Parker's Copper Project, now largely transferred to Murdoch University).

Physical and theoretical work is extensively examining further the optical behaviour of molecules isolated in crystal lattices or matrices. Among other results are information on disorder in crystals and processes of light energy absorption and transfer.

The effects of molecular impurities in crystals not only provide very useful techniques for examining the molecules, but also shed light on the whole subject of crystal structure.

Dye lasers, using mixed dyes, have very interesting prospects for tunability and research in this area and in the production of pico-second pulses from solid lasers is in progress.

Information and understanding is being sought about exchange interactions between pairs of inorganic ions when one or both are in the excited state. This work is related to successful development of techniques for growing crystals of complex fluorides.

Very basic information of the definition, validity and role of chemical valence concepts, using computational methods, and the use of *ab initio* computer calculations in transition states, geometry of molecules, etc. is contributing to new understandings of chemical structures and reactions, fundamental to all chemical studies.

The themes may appear at first sight to be unrelated, but there are in fact some half-dozen major strands linking these and a number of other activities.

Staff members are in considerable demand in Australia and abroad for conferences and lectures. For example, Dr M. A. Bennett was awarded a Humboldt Fellowship at the Max Planck Institute, Mulheim; Professor D. P. Craig, FAA, FRS, gave a Plenary Lecture at a Theoretical Chemistry Conference in Canada; and Dr J. Ferguson was an invited Visiting Professor in Tokyo and NATO Seminar Lecturer in Oxford. Professor A. Albert who is a member of the Medicinal Chemistry Section of the International Union of Pure and Applied Chemistry also attended the 4th International Symposium of Medicinal Chemistry, and spoke at a Cancer Conference in Texas. The School continues to be a popular focus for both long and short term visitors from Australia and abroad.

Research School of Earth Sciences

During 1974 Professor A. E. Ringwood, FAA, FRS, was awarded the Bowie Medal of the American Geophysical Union and the Day Medal of the Geological Society of America in honour of his contributions to the understanding of the processes in the
deep interior of the Earth by which the rocks of the crust of the Earth have been formed. Under his leadership, the petrology group in the former Department of Geophysics and Geochemistry did pioneering work in high temperature-high pressure studies of the changes in crystal structure which are important for understanding of the Earth shaping processes. Techniques recently developed in Japan and America have made it possible to extend these studies to pressures corresponding to depths of 1,000 km. Steps are now being taken to introduce these new techniques in the laboratories of the Research School of Earth Sciences.

Other petrological and geochemical activities at this University have been concerned with studies of samples collected from the moon during the Apollo program. These lunar studies have formed a substantial part of the programs of the petrology, trace element geochemistry and isotope geochemistry groups over the past five years.

Since the creation of the program for the measurement of the ages of rock the geochronology group has been involved in a co-operative program with the Bureau of Mineral Resources for the determination of the ages of rocks using the rubidium strontium method. During the year preliminary arrangements were made to extend this co-operation into the field of uranium lead dating.

Another longstanding program of the former Department of Geophysics and Geochemistry is concerned with the fossil magnetism of rocks and, in particular, with the role which this magnetism can play in understanding of the relative positions of the continents in the past. Until recently most of this research was concerned with rocks of ages less than 500 million years but during the past two or three years considerable effort has been devoted to the much older rocks of the Precambrian of Western Australia. It is expected that this emphasis will continue for several more years and will involve close co-operation with the isotope geochemistry group.

During the early days of the Snowy Mountains development a seismic monitor network was created which covered the Snowy Mountains dam site areas. The network was extended to the Sydney area by arrangement with the Sydney Water Board. Arrangements were made during the year to extend the network into Victoria and also to install another station in the Shoalhaven region.

During 1974 a start was made on renovation of the seismic array at the Australian National University Seismic Station at Warramunga and additional equipment is being installed there.

Theoretical research involving the free oscillations of the Earth continued to be a major feature of the research program. In recent years hopes have risen high of the possibility that useful prediction of impending earthquakes may be achieved in the not too distant future. Plans are afoot for the rock mechanics group, which has in the past concentrated on studies of the deformation of rocks, to undertake a program of research into the physical basis of one of the more promising prediction techniques. In addition some experimental work on the measurement of strain and tilt in underground workings is being undertaken by the seismology group.
John Curtin School of Medical Research

On 8 November the Council of the University appointed Professor F. C. Courtice, FAA, Head of the Department of Experimental Pathology, as Director of the School to succeed Professor F. J. Fenner, FAA, FRS, who resigned in May 1973. Professor Courtice, as Director, became the first Howard Florey Professor of Medical Research and relinquished his Chair of Experimental Pathology which he had held since 1958.

The work of the School covers a very broad spectrum of endeavour in biomedical research. Problems are approached at many levels, from the interaction of molecules to the behaviour of populations. Although much of this work concerns basic biological processes, it has considerable relevance to a better understanding of many human disorders of function or behaviour. In particular this applies to research on the epidemiology of Murray Valley Encephalitis, the life history of the influenza virus, transplantation biology, immunity, foetal development and disorders of development, cardiovascular diseases such as hypertension, thrombosis, atherosclerosis and coronary heart disease, diabetes, obesity, arthritis and drugs affecting arthritis, muscle in relation to the muscular dystrophies and malignant hyperpyrexia, vision and the mechanisms of squint, genetic control of growth patterns in relation to aboriginal health, specific genetic traits in an epidemiological study of oesophageal and nasopharyngeal cancer and the effect of crowding on disease patterns in the population of Hong Kong.

In addition to the established tenured and non-tenured staff, the School maintained an active Visiting Fellowship program with 31 visiting fellows who came to work in the School for periods of one to twelve months. Whereas several of these visiting fellows were from clinical departments of medicine, the majority came from the disciplines of the basic medical sciences. During the year consideration was given to ways in which the School might become more aware of the major medical problems in the community. It was agreed that research workers with an interest in clinical medicine should, where appropriate, be encouraged to accept visiting fellowships. This is in keeping with the original concept of the School that one of its major functions would be to train future clinicians in experimental methods. A closer liaison with clinical medicine should also help to create a better awareness of the practical medical problems confronting our society today.

Besides visiting fellows there were numerous short-term visitors to the School, most of whom gave lectures or seminars. Among these were: Sir Alan Hodgkin, President of the Royal Society; the Director-General of Health, Dr Gwyn Howells; and three members of the educational and scientific delegation to Australia of the Chinese Peoples Republic, Professor Chang Lung-hsiang from Peking University, Mr Wang Chin-ken from the Institute of Physiology, Academia Sinica, Shanghai, and Mr Li Ming-te, Academia Sinica, Peking. During the visit of the Chinese delegation, Mr Wang gave a School Lecture on the neurological basis of acupuncture.

The international recognition of the research of the School may be assessed not only by published work but by the participation of members of the academic staff in international conferences. The importance of the work on the ecology of Hong Kong by members of the Department of Human Biology was also recognised by the award of a significant grant by the Nuffield Foundation. Among the honours conferred on members
of the School during 1974 was the election of Professor D. R. Curtis, FAA, to the Fellowship of the Royal Society for his work in neuropharmacology.

The PhD program was also actively supported and the year ended with 56 scholars enrolled for the PhD degree. This represents about the maximum number of PhD students the School can accommodate. Of these, about 60% came from Australian universities and 40% from overseas countries.

Members of the academic staff have taken part in a wide variety of national and international activities in addition to participation in conferences. For example, Professor H. M. Whyte served as a member of the Canberra Hospital Management Board; Professor G. L. Ada, FAA, as a member of the Scientific Council of the International Agency for Research on Cancer and as a Vice-President of the Australian Academy of Science; Professor P. O. Bishop, FAA, as a member of the Council of the International Union for Physiological Sciences and of the Australian Research Grants Council; Dr R. L. Kirk as a Consultant on Aboriginal Health to the Australian Health Department; and Professor Courtice as a member of the Medical Research Liaison Committee of CSIRO.

During the first half of the year a series of eighteen lectures entitled 'Cancer Today' held in the School's Florey Lecture Theatre covered a broad spectrum of the problems of cancer. The lecturers were chosen from several research institutes and universities in Australia. The School decided to publish the lectures in the form of a book with Dr Kirk and Dr P. J. McCullagh as editors. This book, the first such venture by the School, will be released for sale early in 1975 and will interest all students of medicine.

The building for the Department of Human Biology was completed and the Urban Biology Group moved from temporary accommodation on the campus to the School. Alterations in Wing D to house the Department of Pharmacology have proceeded satisfactorily during the year and Professor Curtis should be able to move from the Department of Physiology into the new laboratories early in 1975. Considerable difficulties were encountered during 1974 in the Animal Breeding Establishment. Construction activity above part of its accommodation greatly affected the breeding of mice. The gradual move into the new Specific Pathogen Free (SPF) animal house for the breeding of mice and rats proceeded smoothly, but the full establishment of such a colony, involving many different inbred strains, takes a considerable time and the heavy calls made by the new Departments of Immunology and Pharmacology revealed a need for a further extension of these facilities in the near future.

Research School of Pacific Studies

In 1974 the School celebrated its 25th anniversary. From the time when its first professors were appointed (Professor O.H.K Spate, FAHA, FASSA, is happily still here, now embarked on a major study of Pacific exploration since Magellan) it has been a major centre in the world for the study of the South Pacific, and has become one of the more important centres outside the continent for the study of East, South-East and South Asia. Its record of publications speaks for itself: to take only two examples, the 56th monograph in the School’s New Guinea Research Bulletin (which has always been readily available in Papua New Guinea itself) was published during 1974, and the Bulletin of Indonesian Economic Studies (which provides a unique monitoring of the economy
of a Third World country) entered its tenth year. The School’s graduates increasingly provide some of the key academic staff in other Australian and overseas universities; for instance with the appointment in 1974 of Dr M. L. Treadgold (lately Senior Research Fellow in Economics) as Professor of Economics in the University of New England both the Professors of Economics as well as two Professors of Geography at that university are graduates of the School. Moreover, the School’s academic staff contains many people with long-term associations with each of the larger and most of the smaller countries of the Pacific, South-East Asian and South Asian regions and these render the School a repository of practical experience as well as theoretical knowledge of the whole area.

With accelerating inflation the costs of field work overseas and of publication, both essential in this School, began to present serious problems in 1974. During the year a process of adjustment was initiated. An investigation was put in hand to develop the offset printing unit so as to produce more departmental publications for ready sale and thus reduce, though not eliminate, the need to have as many books published at the prohibitive prices which are nowadays prevailing. Experiments were conducted in the Department of Economics, and of International Relations, with MA programs. Further the Papua New Guinea Cabinet decided late in 1974 to establish a PNG Institute of Applied Economic and Social Research bringing the possibility of the transfer of the major role of the highly successful New Guinea Research Unit to a local institution. As a result the NGRU Advisory Committee was terminated and a Pacific Research Committee, with a wider and less specific brief, constituted in its place.

The prime appointment of the year was that of Professor G. A. Daws, an Australian from the University of Hawaii, to the Headship of the (renamed) Department of Pacific and South-East Asian History. The School has been delighted to find such a distinguished Pacific historian to succeed the late Professor J. W. Davidson. With Professor Daws’ arrival, and that of Professor R. M. Keesing to the second Chair of Anthropology, and with the appointment to a Senior Research Fellowship of Dr N. R. McArthur the distinguished Pacific demographer, who delighted the School by obtaining her second doctorate, this time in Prehistory, 25 years after her first, the strength of the academic staff of the School with major interests in the Pacific has been fully secured.

With the initiation of a regular Melanesian seminar in Canberra and of an interdisciplinary South Asian seminar, there are now regular gatherings (usually in association with people from elsewhere in the University) of those concerned with each of the areas in which the School works. For besides the Contemporary China Centre, there are also the Indonesian, South-East Asian, and Japanese study groups, and meetings of those engaged in Quaternary studies.

During 1974 there were a number of notable developments in research. Dr A. Kendon opened a Human Ethology laboratory in the Department of Anthropology and took in a first research student. Members of the Department of Biogeography and Geomorphology were quick to study the exceptional storms off the New South Wales coast. Professor R. G. Ward, FASSA, led a group of his colleagues in the Department of Human Geography in a combined departmental study of growth centres and area improvement in the New Guinea highlands which was eagerly taken up by the Papua
New Guinea Central Planning Office and led to the establishment there of the institution of Maket Raun (circulating markets). Likewise several members of the Department of Linguistics contributed to the completion of a major volume on the languages of the New Guinea area. There were at the same time spectacular developments in the research of the Department of Prehistory, with which some members of the Department of Biogeography and Geomorphology were associated. Professor J. Golson’s third major dig in the Wahgi irrigation systems in the New Guinea highlands is showing, for example, that it is a site of major importance. One research student in the department found a cache of wooden tools in a South Australian bog which are nearly ten thousand years old (and include the world’s oldest boomerang) and another finally determined that man entered Tasmania on foot.

Meanwhile the Departments of Economics and Human Geography joined in the first stage of a seminar series on ‘Development and Equality’ which was particularly enlivened by a lecture by Professor V. M. Dandekar from the Gokhale Institute of Politics and Economics, Poona, India. In the Director’s Section a conference was held on the Indian National Congress 1920–47 which is promising to lead to an important book. Several members of the Department of Far Eastern History contributed to the publication Essays on the Sources of Chinese History, in honour of the Department’s first head, Professor C. P. FitzGerald.

During the year Mr E. K. Fisk (Professorial Fellow in Economics) was elected a Fellow of the Academy of Social Sciences. Professor Wang Gungwu, FAHA, gave the Annual Lecture to the Academy of Humanities on ‘The Rebel-Reformer and Modern Chinese Biography’. Dr J. B. M. Guy (Postdoctoral Fellow in Linguistics) was a joint recipient of one of the two J. G. Crawford Prizes for the best theses of the year. Professor J. Ch’en (York University, Canada) gave the Morrison Lecture on ‘Peasant Activism in Contemporary China’, while Professor R. Falk of Princeton University gave the Yencken Memorial Lectures in the form of two public lectures under the general title ‘Beyond International Relations’. The first lecture was entitled ‘What’s wrong with Henry Kissinger’s Foreign Policy?’ and the second was called ‘Towards a World Order Focus’.

The School’s contributions in the public realm included Dr T. B. Millar’s chairmanship of the Committee on the Citizen Military Forces; Dr R. J. O’Neill’s membership of the panel restructuring the Joint Services Staff College; Professor J. D. Freeman’s two reports to the Aboriginal Housing Panel on the housing needs of an Aboriginal community; Mr D. M. Bensusan-Butt’s membership of the Australian Taxation Review Committee; the Director’s membership of the Papua New Guinea Committee on University Development; the completion of a five-volume survey under Mr E. K. Fisk’s guidance of the economic circumstances of the Torres Strait Islanders; and Dr R. G. Garnaut’s participation in the Papua New Guinea team renegotiating the Bougainville copper agreement, for which the School received especial thanks from the Secretary of the PNG Department of Finance and the Chief Planning Officer.

A careful review was completed during the year by a Committee under Professor Ward’s chairmanship of the School’s obligations to the overseas countries and communities in which it works. ‘Country Advice Files’ were opened to ensure that members of the School are kept fully informed of the current regulations about entry, and
about permission to do research in the countries of the Pacific and Asian region; and
guidelines were laid down on such matters as the speedy despatch of copies of theses,
seminar papers and publications to interested institutions in the country in which
research has been done.

A major new initiative during the year was the establishment under the auspices of
the School of a Development Studies Centre. In view of the prospective readjustments
in the School’s work in Papua New Guinea, and the sustained movement of the Department
of Human Geography into the field of (overseas) development studies, in which the Department of Economics has long been involved, it seemed desirable to make some new institutional arrangements for effecting co-operation between them. With them in the Centre will also be associated members of the Department of Demography in the Research School of Social Sciences, the prospective Department of Political and Social Change, and many other people elsewhere in the University with an active interest in these matters. In the course of the Centre’s establishment, consultations were held with the Director-General of the Australian Development Assistance Agency the Director of the (British) Institute of Development Studies, the President of the (Canadian) International Development Research Centre, and interested people in other Australian universities and institutions. It is hoped that the Centre will undertake a range of administrative and co-ordinating tasks in the field of Development Studies both within the University and overseas so as to facilitate the major contributions which the School and the University can make to these vital human concerns.

Research School of Physical Sciences

The incoming Director of the School, Professor R. Street, FAA, took up his appointment on 1 October 1974. Until then, Professor K. J. Le Couteur, FAA, had been Acting Director and the tributes paid to him at meetings of the Faculty and Faculty Board of the School indicate how well he discharged a difficult responsibility.

Professor B. H. Neumann, FAA, FRS, retired on 31 December from his appointment as Head of the Department of Mathematics. The School took pleasure in the fact that his appointment by the University as an Honorary Fellow will ensure his continued presence in the Department he led with so much distinction for thirteen years.

The reports from the individual Departments record continuing achievement, reflecting the many and varied activities within the School.

Continued participation in programs to bring visitors to the departments has provided a valuable stimulus to the School’s research activities. Links with other research bodies seem to be particularly encouraged and developed by the Department of Applied Mathematics. Their work on vision research, colloid science and membrane biophysics has involved active co-operation with such diverse bodies as the Australian Post Office, Bell Telephone Laboratories and Unilever Research.

The Department of Astronomy continues to investigate, among other things, the discovery made very recently by Mount Stromlo and Siding Spring astronomers of the stream of gas between our galaxy and its nearest neighbour, the Clouds of Magellan. A very significant event of the year, for Australian astronomy in general, and the members of the Department of Astronomy in particular, was the inauguration of the 3.9 m Anglo-Australian Telescope at Siding Spring Mountain.
The work of the Diffusion Research Unit has been centred around the measurement and interpretation of self diffusion in liquids. Investigations have been made of the existence and of the nature of isotopic diffusion effects in liquids—a matter of extreme practical interest if, in fact, it proved to be possible to utilise the phenomenon to separate the isotopes of uranium. Claims elsewhere that this is possible and is being applied have been made, but the Unit’s present results appear to contradict these reports.

It is a pleasure to note in the record of achievement of the Electron and Ion Diffusion Unit the publication of a definitive text on the diffusion and drift of electrons in gases by Dr R. W. Crompton and Emeritus Professor Sir Leonard Huxley, FAA, an Honorary Fellow of the Unit and Vice-Chancellor of the University from 1960 to 1967.

The main preoccupation of the Department of Engineering Physics is in research towards the production of new energy sources. Significant research programs were carried on during the year in information science, plasma physics, high energy lasers and in the utilisation of solar energy and there were further developments in the technical arrangements for the utilisation of the homopolar generator in different experimental applications. The Department has developed and maintained its external contacts with Government Departments and commercial organisations.

The year was marked for the Department of Mathematics by the International Congress of Mathematicians held every four years, which took place in August at Vancouver, Canada. The Department was represented by four of its senior members. The influence of the members of the Department on the art and science of mathematics throughout Australia continued at a high level.

The Department of Nuclear Physics during the year concerned itself mainly with bringing the 14UD Pelletron accelerator and supporting equipment into operation. It appears that the facility is living up to its promise and the Department is looking forward to a number of years of important research endeavour.

The Department of Solid State Physics continued its program of spectroscopic investigation, primarily of paramagnetic centres in non-metallic matrices. The construction of the building which will house the Department was begun in 1974. The occupation of this building will provide urgently needed accommodation for some existing and new endeavours within the School.

The Department of Theoretical Physics has a wide range of research interests in nuclear physics, high energy physics and solid state physics. Fruitful collaboration externally and across departments within the School was maintained.

A computer unit was established and this will be developed to provide a variety of services utilising the computing facilities based on the recently installed PDP 10 and PDP 11 computers.

It was possible at the expense of some inconvenience to others to provide laboratory accommodation for the Director’s Unit which will undertake research in low temperature physics and in magnetism. It became clear during the year that additions are required to the laboratory and service accommodation.

Research School of Social Sciences

During 1974 an exceptionally large number of staff of the School were engaged, either wholly or from time to time, in research and advisory activities in connection with the
formulation of public policy and parliamentary and other official inquiries. Professor F. H. G. Gruen, FASSA, (Economics) continued to work half-time in the Department of the Prime Minister and Cabinet; Dr R. G. Gregory (also Economics) continued on leave in the post of First Assistant Commissioner, Industry Economics Division, Industries Assistance Commission; Dr G. C. L. Hazlehurst (History) was on leave as Assistant Secretary, Head of the Information Service, Department of Urban and Regional Development; Dr G. N. Hawker (Politics) went on leave to act as Director of Research with the Royal Commission into Australian Government Administration; Dr D. W. Rawson (Politics) was appointed one of the three part-time commissioners to redistribute federal electoral boundaries in Victoria; Mr P. N. Troy (Urban Research Unit) was on leave working in the Department of Urban and Regional Development; Dr J. J. Pincus (Economic History) acted as consultant to the Industries Assistance Commission and the Priorities Review Staff; and Professor G. Sawer, FASSA, continued to act as consultant to the Australian Government in a number of constitutional matters and cases. This list is not exhaustive. In addition, there was a good deal of co-operation between the School and national and international organisations such as the CSIRO, the Australian Bureau of Statistics and the World Health Organization.

The School thus made a substantial direct contribution to the management of public affairs. While this contribution must temporarily weaken the School’s research effort it is, in the longer run, a very important source of experience promoting and where necessary correcting more strictly academic work.

Several important pieces of research were completed during the year. Professor W. D. Borrie, FASSA, submitted to the Minister for Labor and Immigration his Report arising from the Australian National Population Inquiry, commissioned by the Government; a document certain to be widely and constantly referred to in the years ahead. Volume V of the Australian Dictionary of Biography was published, a fitting memorial to the scholarship of the late Professor D. H. Pike, who died unfortunately a few months before the volume appeared. A major interdisciplinary study, undertaken at the invitation of the Commission on Advanced Education, and dealing with various aspects of the Non-Metropolitan Colleges of Advanced Education, was completed by the Education Research Unit. Among the numerous books and articles published by members of the School, Professor J. A. Passmore’s Man’s Responsibility for Nature aroused widespread interest. The Urban Research Unit published two monographs on urban development processes in Melbourne and Sydney, as well as a social atlas of Sydney, based on 1971 data and produced by computer mapping. It seems likely that there will be a wide readership for the latest volume from the History of Ideas Unit, Feudalism, Capitalism and Beyond, a collection of essays, edited by Dr E. Kamenka, FASSA, FAHA, arising out of the Unit’s 1973 interstate seminar. To mention these is of course not to belittle the many other important publications by members of the School during 1974.

Among major projects begun or continuing in 1974 three deserve special mention. In the Department of Political Science a research project on policy-making in Australian government was commenced. This project, employing three members of staff, is designed to examine the structure and processes by which central government policy is made. In the Department of Sociology most of the resources of the Department were devoted to a study of social and occupational mobility in Australia. The sample survey, com-
pleted in 1974, is probably the most comprehensive social survey conducted in this country by an academic body. The writing program for the project emphasises comparisons both within Australia and between Australia and other countries. Special attention is being given to farm life and the effects of rural-urban migration, to changing educational and career patterns, and to the expanding work-force participation of women. Thirdly, there is the Botany Bay Project. This project has been financed with Federal money and has involved the NSW Government as well as the three Academies. It has encountered unexpected difficulties and its future is now in some doubt in the form originally conceived. Although conducted in Sydney, it has been directed throughout by Professor N. G. Butlin, FASSA, on leave from the Department of Economic History during 1974 and it is expected that he will continue to be associated with it in some modified form.

The structure of the School was altered at the end of the year by setting up a Centre for Foreign Politics (Western Europe). This small group is led by Professor A. L. Burns, FASSA, and will build to some extent on Professor Burns' unofficial contacts with the staffs of European embassies in Canberra and with public servants. The School acquired a second chair in Law, filled by Professor S. J. Stoljar, and three new professorial fellows were appointed — Dr K. S. Inglis in History (until recently Vice-Chancellor of the University of Papua New Guinea), Dr F. B. Smith, FAHA, in History (already a Senior Fellow) and Dr C. Hughes in Political Science (formerly Professor at the University of Queensland). Professor A. J. Youngson succeeded Professor Sawer as Director in the middle of the year.

During 1974 nine students were admitted to the degree of Doctor of Philosophy. This number compares with seventeen in 1973.

Finally, the Visitors Program continued as a major School activity. There were eighteen visitors, four of whom stayed for a year or almost a year, and many of whom took the opportunity to visit and lecture at other Australian universities. Visitors came from Canada, France and Japan as well as the United States and the United Kingdom. These personal contacts and the consequent interchange of ideas are of much value to the School and, certainly, provide wider benefits.
The Faculties

Early in the year the Council of the University had received from the Board of the School of General Studies a report recommending changes in its structure and operation. After discussion of the report, the Council approved in principle that the name 'School of General Studies' be replaced by the term 'The Faculties' and that the Board be reconstituted as 'Board of the Faculties'. It also approved proposals that specified numbers of non-professorial staff and students be admitted to membership of the Board and that these non-professorial members be selected in such a way that all Faculties would be adequately represented. Amending legislation to give effect to these changes is being prepared.

The Board itself reviewed its procedures and agreed on certain changes. It enlarged its Standing Committee and asked it, in the future, to give more formal consideration to long-term planning issues.

In each Faculty report there is reference to increased student participation throughout the School in decision making and academic management. There was strong student pressure during the year for changes in educational practices especially in course content and methods of assessment. In part this involved direct student action first by confronting the Council and then in occupying the Chancelry on two separate occasions. A special meeting of the Board of the School of General Studies was held in Melville Hall in April with a substantial number of students present. Later in the year there were some meetings between members of the Students Association Education Committee and members of the Standing Committee of the Board of the School. Lengthy discussion by this group has resulted in some agreement but other matters remain on which opinion is diverse and where there is no consensus. Towards the end of the year the Board asked that departments set up departmental committees in a form which would be the subject of a statute later and which would include student members. At the close of the year this had already been done in some instances. It was apparent however that there would be a good deal of variation in the structure of such committees not only between faculties but also between departments within faculties. Although the student view that there should be equal representation in members between academic staff and students was not accepted by most departments, some contemplated committees in which there were more students than staff.

The teaching and research functions of the School of General Studies developed further during the year. In many departments there has been consolidation of the existing teaching program as well as a considerable amount of innovation through the introduction of new courses. Research has expanded both in amount and diversity. It ranges from more practical studies in areas where immediate application of results is possible through wider but still specifically topical problems such for instance as those
of cultural relations between Australia and elsewhere or of local conservation and pollution to the more highly specialised theoretical research of longer term application. The enthusiastic response from academic colleagues in Australia and abroad in their published writings and the extent of exchange visits eloquently indicates the great value of this activity of the faculties. In the reports of the five faculties which follow, both the research achievements and the details of teaching accomplishments are set out in more detail.

Faculty of Arts

The Faculty of Arts offers a broad range of studies in the humanities and social sciences, from which any subjects may be chosen towards the degree of Bachelor of Arts, so long as at least two disciplines are pursued to third-year level.

In 1974 the number of undergraduates enrolled in the Faculty (including Arts/Law) was 2,232 a significant increase over 1973 (when 1,971 graduates were enrolled). Such an increase in undergraduate numbers permitted consolidation of teaching, inauguration of new courses, and promises well for the future continuing growth of graduate studies. Graduate enrolments also increased significantly from 201 in 1973 to 237 in 1974. This figure was made up of 57 candidates for the degree of Doctor of Philosophy, 107 candidates for the degree of Master of Arts, and 73 candidates in Master of Arts qualifying courses. Continued growth in postgraduate enrolments has been made possible by the initiative of departments in deploying their resources to meet the demand for higher degrees from graduates who seek an academic career or wish to use a higher degree in other ways. Whilst the doctorate is by thesis only, the degree of Master of Arts may be awarded by course work, providing a bridge between a general first degree and advanced professional qualifications. Both graduate enrolments and the variety of graduate education should continue to increase.

New units offered in the Department of Romance Languages were Introductory French and Italian I. Enrolments in Medieval Studies increased with the introduction of Medieval Studies I, and enrolments in Anthropology I were encouraging for this major new development, which completes the range of social sciences presently planned for the Faculty. Sociology, a rapidly growing department over recent years, had this year its first fourth-year honours students.

The Faculty and its Education Committee engaged in considerable discussion of the ‘desirable educational objectives’ adopted by the Board of the School of General Studies last April. There was more experimentation than in previous years in forms and methods of assessment. These were often worked out by individual lecturers or departments in consultation with students enrolled in their courses. Moreover, the Faculty has approved, in every instance, the recommendations of departments concerning the number of students to be represented on Departmental Committees in 1975 and has recommended to the Board that a Women’s Studies course be established. The debates within the Faculty have brought to the fore fundamental educational questions on which views are naturally diverse. Such rethinking can only be of benefit and the changes made during the year reflect the practical application of this concern with principles.

The encouraging growth of the Faculty necessitated a change in its administrative
structure. The number of sub-deans was increased to two, and the Faculty formally elected a Deputy Dean.

There were no acute problems in providing teaching and study accommodation for staff and students during the year.

Teaching, which is the first purpose of the Faculty, merges into research, especially at the level of graduate studies. Most members of the Faculty have heavy teaching duties, but the research output of the Faculty as a whole during 1974 represented a considerable scholarly achievement. The research work of individual departments is summarised below.

**Applied Mathematics:** Research continued on a variety of topics, including physical processes involved in insects' receptor equipment, dispersion forces between molecules, population growth models and epidemic models using differential-difference equations, speeding up the convergence of series by term-splitting, and changes in the geomagnetic dipole field over the last ninety years.

**Classics:** The principal research topics carried further in the Department of Classics were Roman social history, literary and linguistic features of Latin epic poetry, aspect in the ancient Greek verb, the editing of an early Christian Greek text, some features of classical and Byzantine education, and narrative techniques in Indian poetry.

**English:** An illuminating study of the eighteenth-century novel of sentiment was published, and work nearing completion included the Oxford Standard Authors edition of the *Poems of Ben Jonson*, volume IV of the Oxford Donne, a study of William Wordsworth, a book on Scottish fifteenth and sixteenth-century poetry, and *Studies in the Eighteenth Century*, volume III. Also in preparation were a paper for the Jane Austen Bicentennial Conference and a text of the *Ludus Coventriae*.

**Geography:** Active research was conducted on demographic aspects of Thailand, development in Bangladesh, Pleistocene geomorphology, manufacturing location and other topics.

**Germanic Languages:** Research included work on syntax and language, and on the early Romantic novel.

**History:** Although about half the research effort continues to be directed towards Australian history, research work done in Britain, the United States, Italy, Rhodesia and Indonesia shows the Department's range of interest and expertise. Postgraduate work is being carried out in Canada, Britain, West Germany, India, the Solomon Islands and (on a new project) in West Africa.

**Linguistics:** Research was pursued on the following Australian languages: Kaititj (Alice Springs area), Andigirinja, Yidinj (south of Cairns), Wargamay and Njawaygi (near Ingham). An ARGC grant was made available for a comparative study of the languages of New South Wales and Queensland. A detailed grammar of Hua in the Eastern Highlands District of Papua New Guinea was brought near completion, and theoretical research on 'Semantic Primitives' and Syntactic Targets was begun.

**Philosophy:** Research was carried on in various fields of philosophy including epistemology, metaphysics, philosophy of language, political and social philosophy, logic
and semantics, theories of space and time, existentialism and phenomenology, philosophy of law, and history of philosophy.

Political Science: Members of the Department worked on research projects in a number of fields, including Australian politics and political history, public administration, contemporary Japanese politics, political development in China and in South Asia and international crisis diplomacy.

Prehistory and Anthropology: Investigation of Pleistocene human occupation settlement patterns and environmental adaptation in western New South Wales continued with the support of the Australian Institute of Aboriginal Studies and was pursued in collaboration with the Department of Biogeography and Geomorphology, Research School of Pacific Studies. A petrological investigation of the sources and distribution of stone for ground axes in southeastern Australia was supported by an ARGC grant. Work was carried out in northern Sulawesi and the Sangihe and Talaud Islands in collaboration with archaeologists from the Lembaga Purbakala dan Peninggalan Nasional, Jakarta. This was the first archaeological investigation to be attempted in this remote region and resulted in the discovery of several major prehistoric sites, rich in ceramic, stone and faunal remains. Two field trips were made to the Laura area, Cape York, to excavate a major rock shelter and recover rock engravings at considerable depth in the deposit. Their dating (by relation to overlying charcoal) will provide important evidence on the antiquity of Aboriginal art.


Romance Languages: Among research topics was work on the French author Réne Béhaine and the Italian author Giovanni Verga, as well as Giraudoux's play 'Ondine', twelfth-century French romance and fourteenth-century pastourelle. A new research project, the translation into English of Lacour-Gayet's History of Australia, was begun during the year.

Russian: Research in the Department followed both linguistic and literary topics. In the former category Russian morphology and syntax, a dictionary of Old Church Slavonic, and Macedonian morphology were studied. In the latter, work proceeded on the Soviet war novel and Soviet drama, and on transcendental themes in Russian literature, including a PhD thesis on this last theme in the writings of Turgenev.

Sociology: Research was conducted in the following areas: analysis of census data relating to socio-economic status of minorities (Australia, USA, Canada), a demographic study of Eurobodalla Shire (undertaken with GRES and CSIRO), and (within the ACT) a community survey of Ginninderra, of 'social networks' in Canberra, and of attitudes of some parents and students towards the Campbell Report on Schools in the ACT. Assistance was also given to the NCDC in its 'social impact' statement on a proposed development near Hall, ACT.
Faculty of Asian Studies

In 1974 the Faculty of Asian Studies maintained its growth rate of previous years. The total number of undergraduate unit enrolments at 30 April 1974 was 852 (Asian Civilizations 393; Indonesian Languages and Literatures 158; Japanese 104; Chinese 156 and South Asian and Buddhist Studies 41).

Miss C. E. Walker, who gained first-class honours in Asian Civilizations, was awarded the Canberra Association of University Women Prize and University medals were awarded to the following first-class honours graduands; Mr T. Crowley (Linguistics), Mr P. K. Austin (Linguistics), Miss C. E. Walker (Asian Civilizations) and Miss R. Walker (Japanese).

Twenty-three students were enrolled for the degree of Doctor of Philosophy and 26 students for the degree of Master of Arts (Asian Studies). Thirteen graduands were admitted to the Bachelor of Arts (Asian Studies) honours degree and 29 to the pass degree.

Five students, including Dr Rajapatirana of the Department of South Asian and Buddhist Studies, completed work for the degree of Doctor of Philosophy and 12 for the degree of Master of Arts (Asian Studies).

Through the Colombo Plan aid in reverse the Thai Government made available to the University a lecturer in Thai, to be attached administratively to the Department of Indonesian Languages and Literatures. Both Thai I and Thai II were offered in 1974 and in 1975 Thai III will be offered. Also taught for the first time in 1974 was Literary Arabic II.

During 1974 the Faculty actively pursued its policy of stimulating interest in Asian Studies. Forty-two lectures were given to students of schools in and near Canberra and a group from Parkes High School attended an Open Day program. An Asian Food Fair organised by students and staff attracted many visitors.

Student participation was an important issue during the year. The Faculty Education Committee met regularly and considered the proposals adopted by the Board of the School of General Studies with regard to course content, assessment, class sizes and women's studies. Discussions were held on the role of students in changing the University, employment of graduates, and careers. Reports from the departments within the Faculty indicated that considerable effort had been made to promote good staff-student relationships by such means as encouraging attendance of students at departmental meetings, as well as informal personal contact, reducing the numbers in some language classes and introducing a wider choice of assessment. The Department of Chinese enriched its Departmental Centre with additional reference works and study facilities.

During the year Dr S. A. A. Rizvi, FAHA, gave private tuition in Urdu and Persian to three officers of the Department of Foreign Affairs.

Dr H. H. E. Loofs was admitted as 'membre actif' to the Societe des Etudes Indo-chinoises (Saigon), and was made a Chevalier dans l'Ordre des Palmes Academiques by the French Government.

Dr J. G. Caiger participated in 1974 in a variety of activities to promote better teaching about Asia in secondary schools: co-editing the proceedings of a January conference at the University, now published by the Interim ACT Schools Authority.
under the title 'Teaching about China'; helping to run a Faculty-sponsored workshop "Framework for Teaching about Asia"; and helping to prepare the manuscript for a resource book *Japan: Beyond the Headlines* for publication in 1975. He was also local president of the Asia Teachers' Association.

Professor Liu continued to serve as External Examiner for the degree examinations of the Nanyang University, Singapore, and for a number of postgraduate candidates of the Chinese University of Hong Kong, and was also the Assessor for the Matriculation Examinations of the University of Hong Kong.

As President of the Institute of International Affairs, Canberra Branch, Dr R. R. C. de Crespigny arranged a series of public lectures for the Institute, some of which were about China.

In November, Professor A. H. Johns, FAHA, visited the University of Queensland and Griffith University for discussions concerning the introduction of courses in Indonesian and the development of courses in South-East Asian studies.

In September Dr S. Soebardi accepted an invitation extended by the Western Australian Tertiary Education Commission to visit Perth as a member of the Investigating Panel to consider the submission from the Western Australian Institute of Technology for the award of a bachelor degree for the course in Asian Studies. In June he was invited to be Chairman of the Examining Board of the Language School of the First Recruit Training Battalion, Blamey Barracks, Kapooka, NSW.

Between December 1973 and March 1974 Dr Soewito Santoso visited Indonesia under the sponsorship of the Department of Foreign Affairs to organise the libraries of the Sunan, Prince Mangkunegoro, and Radya Pustaka Museum of Surakarta.

During 1974 four new lexicographers joined the English-Malay Dictionary Project, bringing the staff up to full strength for the first time in four years. The augmentation of staff numbers, combined with several reforms introduced during the year aimed at streamlining the dictionary-making process, resulted in an encouraging increase in the amount of work produced.

As a joint venture with the Centre for Continuing Education intensive courses were again offered in Chinese, Japanese and Indonesian languages.

Professor A. Alfonso, in co-operation with the Committee for Asian Studies in the Department of Education, began work on the composition of a new series of books for use in teaching Japanese in high schools and in August visited Japan in connection with this project.

**Faculty of Economics**

The year 1974 was chiefly one of consolidation in the Faculty of Economics. Some time ago it was decided that a more even balance should be sought within the Department of Statistics between its two main areas of teaching and research: econometrics and mathematical statistics. A number of excellent appointments were subsequently made in econometrics and by 1974 the Faculty was very well equipped to produce graduates with training in this important field. There is also a strong group within the Department of Statistics conducting teaching and research in Computer Science. This adds to the administrative complexity of the Department and, with the growth of staff numbers in Computer Science (which offered its first full final honours year in 1974), it is hoped
that a separate Department of Computer Science can be established in the 1976-78 triennium. Two other innovations in the Department of Statistics were the teaching of a summer course in mathematics for students lacking background in the subject and the establishment of remote access facilities to the University's central computer. There is a prospect of further improvement in remote access facilities in 1975, an important development for a significant part of the Faculty's teaching and research.

The first degree year in the new Master of Administrative Studies program will not be taught until 1975 but a beginning was made in 1974 with bridging and qualifying courses required for admission, partly with the generous assistance of other departments and the Faculty of Law. With the addition of the Master of Administrative Studies program, the Faculty became responsible for the administration of three different programs for degrees of master by course work, the other two being Master of Economics by course work and Master of Agricultural Development Economics though responsibility for the last of these may soon be transferred to the Research School of Pacific Studies.

The Faculty has been fortunate in being able to appoint Professor A. D. Barton of Macquarie University, as Professor of Accounting and Public Finance. He will take up duty in 1975 and will be the new Head of Department, replacing Professor R. L. Mathews, FASSA, who remains a member of the Department but is now Director of the Centre for Research on Federal Financial Relations. Other senior appointments made during the year were of Dr P. D. Drysdale and Dr. P. Trivedi as Readers in the Department of Economics. The Faculty was able to recruit first-class academic staff at junior levels in spite of the high financial rewards offered for good honours graduates outside the University.

With growing numbers of staff and doctoral students in established departments, combined with the introduction of new activities such as the Centre for Research on Federal Financial Relations and the Master of Administrative Studies program, the Faculty faced problems of accommodation in the Copland Building. In effect, new activities such as those just named absorbed most of the space gained by the departure of Student Services from the south wing. Accommodation difficulties will become even more acute early in 1975, pending completion of the A. D. Hope Building.

A number of changes were made both in teaching and assessment methods in the unit Economics I, the first part of the compulsory major taken by all candidates for the degree of Bachelor of Economics. These included, among other things, the provision of a comprehensive set of work manuals for each student (no small task: Total enrolment in Economics I was 501 and there were another 64 in the terminal unit Economics A); small-group meetings offered to students with members of the University Counselling Services and academic staff, beginning in February and continuing into first term; division of the class into even smaller tutorial groups than previously, all of which were served by full-time academic staff to ensure greater opportunities for consultation outside normal tutorial hours; and the setting of an additional examination in the seventh week of first term, not to be taken into account for the purpose of final assessment in the unit but intended to give students an early indication of the level of their understanding. (Subsequently, those apparently experiencing difficulties were offered special help.) In 1973 the combined failure rate of those sitting the November
examinations in Economics I, Economics I (Honours) and Economics A was 34%; in 1974 this came down to 21%. This is a marked improvement which outweights a rise in the proportion of wastage from withdrawals during the year among those originally enrolled. (In 1973 17% of those enrolled in Economics I and Economics A on 30 April did not sit the November examination; in 1974 this rose to 25%.) Wastage seems to run at similar levels in the unit Accounting I. In both Economics I and Accounting I there may be some reason to suggest an element of parental influence in choice of course and/or course content.

New and welcome life was given to the Faculty Education Committee, composed of staff and students in equal numbers, by discussions arising from what has been called 'the education campaign' conducted generally throughout the School by some members of the Students' Association, together with the Report of the Board of the School of General Studies/ANU Students Association Joint Committee ('the 10/10 Committee'). The Faculty Education Committee met much more frequently than it has in the past with an impressively mature and constructive approach and its conclusions were of material assistance to the Faculty in forming its own views. As chairman both of Faculty and the Faculty Education Committee, the Dean of the Faculty was able to act as a liaison officer between the two bodies, so keeping each informed of the other's thinking.

All departments of the Faculty conducted surveys of student opinion on questions of course content and methods of assessment; here it was found that unless time was made available in lectures for completion of questionnaires, the percentage of respondents was usually very low indeed. This is something of a paradox, as is the generally poor attendance at liaison meetings arranged between a lecturer and his class, since a number of our students have made it clear that they wish to have direct opportunities for expressing their own views instead of having them represented for them by others.

Greater use was made of surveys in 1974 by lecturers seeking assessments from their classes of their qualities as teachers. Study of some completed questionnaires suggested that students respond in a thoughtful and highly responsible way; this is a valuable activity that deserves to be maintained and improved in the future.

Faculty of Law

The Faculty of Law at the request of the Department of Accounting and Public Finance made arrangements to introduce for the first time in 1975 the subject of Introductory Business Law. This is intended to provide second or third-year economics students specialising in accounting with sufficient knowledge to proceed directly to the study of Company Law and Taxation. Previously these students have been required to pass both Legal Method and Contracts over successive years before continuing with further law subjects.

The Faculty was disappointed that, despite wide publicity, only nine qualified applicants sought to enrol for the degree of Master of Laws by course work which was to have been introduced in 1975. The Faculty therefore decided that having regard to its other teaching commitments and staffing, the course should not be offered in 1975.

The Faculty and its Education Committee spent considerable time examining the report of the joint Board of the School of General Studies and Students Association
Committee. Both bodies, in general, endorsed the desirable objectives embodied in the joint committee’s report. There was also agreement that the Faculty’s present practice for consultation on the means of assessment of law subjects worked well and that no rules should be laid down which would preclude moves in a more liberal direction.

The Faculty again experienced difficulty in recruiting staff and a number of positions remained vacant throughout the year.

In 1974 members of staff undertook research in a wide range of legal fields including land law and environmental concern, computers and the law, mining law, international law, jurisprudence, comparative legal systems, trade union law, parliamentary law and international commercial law.

The Legal Workshop conducted experiments with video tape as a teaching aid and hopes to make significant advances in 1975.

The Faculty continued to assist government. For the first time a member of staff was granted a year’s leave of absence to work with a department of government. Another member of staff joined the Australian delegation to the UNCTARAL Working Group on International Shipping Law. The Dean gave a legal opinion to the Australian Constitutional Convention on the provisions of the Constitution relating to the judiciary. Professor D. J. Whalan has continued as a member of the ACT Law Reform Commission and as convener of the Federal Government’s Committee of Enquiry into the Protection of Privacy. The Dean also chaired a seminar convened by the Attorney-General’s Department on Environmental Law and the Australian Government.

In August 1974 the Faculty conducted a weekend seminar on ‘Australian Lawyers and Social Change’. The seminar, which was convened by Professor A. D. Hambly, Mr J. L. Goldring and Mr W. E. Holder, was attended by judges, practising and academic lawyers, representatives of business, trade unions, politics and government departments and economists and political scientists from a number of Australian universities.

The aim of the seminar was to assess the responsiveness of Australian law and lawyers to social change and to examine the extent to which the law and lawyers can, and should, be used as instruments for promoting change. The seminar opened with an examination of the constraints on social and economic policy imposed by the Australian Constitution as interpreted by the High Court, and a discussion of the role of Australian lawyers in influencing the formation and implementation of social and economic policy. A detailed examination was then made of the role of lawyers in the regulation of economic activity.

The seminar was opened by the Chancellor of the University, Dr H. C. Coombs, and the first paper was delivered by His Excellency, the Governor-General, Sir John Kerr, KCMG. The proceedings of the seminar will be published by the Law Book Co. Ltd in 1975.

Mr K. F. O’Leary, the Director of the Legal Workshop, was appointed President of the Law Council of Australia.

In September a conference on Professional Legal Education was organised by the Legal Workshop. Directors and teaching staff of all similar courses throughout Australia exchanged ideas and discussed methods of conducting vocational courses.
Faculty of Science

The Faculty of Science continued to provide tuition in a broad range of basic sciences as well as further developing research in diverse scientific problems.

The year 1974 may be noted for the marked increase in active student participation in the teaching commitments of the University. As with all other faculties, students and staff of the Faculty of Science participated in the work of the Board of the School of General Studies/ANU Students Association Committee and in the consideration of their recommendations, first in the Faculty Education Committee and then in the Faculty. Although time-consuming, these discussions were fruitful and constructive and the collaboration of staff and students generally positive and helpful. This has led to the adoption of two measures designed to be essential first steps in an evolutionary development of the optimum arrangements for staff and student co-operation in the teaching situation. Firstly, the principle was accepted of ensuring student representation on departmental committees of all aspects of the department's teaching and research activities. In addition, Faculty agreed that each department should, as a matter of urgency, develop a size and structure of committee commensurate with this principle and report back to Faculty by the end of first term in 1975 on progress achieved. Secondly, a proposal for a Faculty Disputes Committee was approved as a means of resolving departmental staff/student disputes on teaching issues which could not be resolved within a department. This was adopted without prejudice to the setting up of whatever intra-departmental machinery might be most appropriate by departments for the settlement of differences of opinion on student matters. Hopefully, these are precautionary measures which demonstrate a wish to ensure fair play rather than a sign that the relationship between teaching staff and students is strained.

During the year the Faculty's Course Review Committee was very active in initiating discussion of the purpose and aims of a science degree and the effectiveness of the Faculty's attempts to achieve these objectives. These discussions led to a proposal to examine the ultimate destinations of graduates and the applicability of their training for the type of work they are doing. This is essentially a long-term study which has evoked a good deal of interest in the Public Service Board and other government departments, and some very relevant information has already been supplied from various sources as a result of this inquiry.

Enrolments in science subjects in 1974 showed an increase (7.2%) over the previous year; but the most interesting feature which has considerable implications for both the Faculty and the University, is the changing pattern of enrolments. The trend of student interest in the biological sciences was reflected in the marked increase in enrolments in forestry and zoology subjects in particular, as compared with the somewhat static picture shown by geology and the physical sciences.

The research activities of the Faculty continued to make notable contributions to knowledge during the year as reflected in for example, the award of the Pawsey Medal (which is awarded by the Australian Academy to a scientist not over the age of 35 years for distinguished research in physics) to Dr D. B. Melrose, the number of research grants made to various staff members and the high quality of the research publications.

In keeping with student interests in environmental problems, many of the research projects undertaken by the academic staff were directed towards current and popular
issues such as pollution, population and the conservation of resources. Examples of such research may be found in almost every department, for example in Zoology a study was begun to monitor the changing water quality and the biological life of Lake Ginninderra in the ACT.

Correspondingly in the Department of Geology, a recently completed doctoral thesis dealt incidentally with the pollutional effects of heavy-metal contamination in a typical south coast of NSW estuary (the Genoa River) and it is hoped to extend this work to other coastal estuaries. Surficial geology studies on the Murrumbidgee-Bredbo interfluve were similarly directed towards environmental and soil stability aspects of the region.

The orientation of much of the research activity of the Department of Forestry was towards conservation of the environment and examination of present and future social needs. For example, one of the main aims of a project sponsored by the ARGC was to examine the current pattern of recreational use of Kosciusko National Park. The study included an ecological, sociological and economic analysis of visitor use and behaviour to provide a sound basis for future planning and management of the Park.

One aspect of work carried on in the Department of Chemistry was directly concerned with the quality of the environment. The concentrations of two key air pollutants (carbon monoxide and photochemical oxidants — primarily ozone) were carefully monitored over a period of twelve months at selected sites in the ACT and the results used to formulate a model to predict future levels and to provide information for town planning purposes. The importance of the work is in comparing present and predicted future levels of these pollutants to the acceptable International Health Standards and a report was completed on this work, which had been financially supported by the Department of the Capital Territory.

With the arrival of Professor J. F. Williams to head the Department of Biochemistry, a new aspect of research was introduced, related to community health. Several funding institutions, including the National Heart Foundation of Australia and the NSW State Cancer Council provided financial support for work on some of the mechanisms involved in the metabolism of heart muscle on the one hand and in a comparative study of energy metabolism in healthy liver and tissue in which tumours have been induced on the other.

Development and conservation of resources is also a feature clearly evident in the work of the Department of Botany. For example, progress continued towards the production of an Australian Vegetation Map for the Atlas of Australian Resources to be published by the Department of Minerals and Energy.

Insofar as community health is related to both the availability of food resources and population size, some work begun in the Department of Psychology is relevant here. The Rockefeller Foundation provided substantial financial support for a study of the value of children in West and Central Java. A survey was undertaken of 3,000 respondents examining the values, attitudes and motivations associated with the determination of family size and child preferences, the results of which should aid in the development of family planning programs and population policy formation.

Most of the research projects in the Departments of Physics and Theoretical Physics were less immediately related to the theme of pollution and/or conservation of resources than is the work of other departments in the Faculty. During the year Professor H. A.
Buchdahl, FAA, completed a book entitled *Twenty lectures on thermo-dynamics*. An important aspect of the Department of Physics' work was concerned with the study of the excitation and reaction rates of CO$_2$ over a wide temperature range using an experimental shock tunnel. This work has provided data of importance in the understanding of reaction involving CO$_2$ in the earth's upper atmosphere (e.g. the 'greenhouse effect') and in the flow around fast bodies such as supersonic aircraft and rockets.

Finally, a word should be said about the exchange of scientists during the year between this University, the Australian Academy of Science and the Chinese Academy of Science. In March, Professor J. D. Ovington and Professor Buchdahl, together with seven other scientists from Australia, visited a variety of institutions in China over a three-week period. An unpublished report was compiled as a result of the visit giving a most informative glimpse of the type of work in progress there and the style of institution visited by each member of the party. Later in the year nine members of a delegation from the Academia Sinica visited Australia and spent some time in Canberra where a number of delegates gave lectures and seminars. As a result of this exchange much has been learned and it is hoped that further visits in both directions will be possible.

During 1974 a number of administrative changes occurred affecting the Faculty. Professor Hambly withdrew as Deputy Chairman of the Board of the School of General Studies and his place was taken by Professor L. D. Pryor. Professor Ovington completed his one year's term of office as Dean and resigned from the University to take up an appointment in the Department of the Environment and Conservation. Professor I. G. Ross, FAA, was appointed to one of the two new Pro Vice-Chancellorships until a new Vice-Chancellor arrives.
University Academic Centres

Centre for Continuing Education

During 1974 the Centre for Continuing Education continued to explore the implications of social, community and organisation change for education and learning generally, and for non-formal education in particular. The Centre as a community-oriented unit of the national university located at the seat of federal administration, was again involved with a number of governmental initiatives. It acted largely in a consultative capacity, mainly to assist departments (Social Security, Customs and Excise, Labour and Immigration, Environment, Aboriginal Affairs, the Australian Public Service Board and various state departments and instrumentalities) in their efforts to adapt themselves to new needs and conditions.

Similar close relations were maintained with a number of large private organisations interested in the educational philosophy and methods of the Centre, one of which offered the University a substantial grant for this work. Relations and activities were sustained in the trade union area and were extended in formal, especially tertiary, education, and several areas of health and welfare. These organisation involvements resulted in the Centre providing some workshops and seminars.

The Centre’s main shift in academic attention was towards community groups and organisations, around the problems of genuine and effective, rather than merely token, community participation in planning and decision-making. Several search conferences and other inquiries attended specifically to this interest, which was reflected also in staff writing, internal seminars and participation in outside conferences.

In recent years to 1974 the Centre has changed its emphasis from activities where it is the organising body to activities administered by others to which the Centre’s staff have made a significant contribution. This change enabled the Centre to extend its understanding of continuing education and to make its expertise available more widely through enterprises arranged by the Centre.

The Centre continued to act also as an extension agency for other parts of the University which have knowledge and skills to make available other than to internal degree students. The main vehicle for such extension remains an increasingly rich and varied Community Education Program of weekly classes and courses for residents of the Canberra region. The Program balances new subjects and teaching methods with a number of well-established annual courses, and is gradually widening its base to draw on suitably qualified teachers from beyond the University, especially from the Canberra College of Advanced Education.

The Centre’s month-long intensive language courses in Japanese, Chinese and Bahasa Indonesia continue to prove successful. Some new languages were offered, but, despite intensive publicity, numbers enrolling remained modest.
A successful program of teacher refresher education was launched during the year, based on the articulated needs of teachers through the Commonwealth Teachers’ Federation, and in close co-operation with the Canberra College of Advanced Education and the Commonwealth Teaching Service.

The national status and identity of the Centre was enhanced during the year by many involvements with organisations in different parts of the country, as far afield as Western Australia, northern Queensland and the Northern Territory, as well as southeastern states. Internationally also, the Centre has come to be quite widely known for the application of behavioural science findings to education, very broadly understood. The Director and other members of the Centre have played a part in developing adult and continuing education in the Asian region, and have prepared the way for more sustained involvement with Australia’s Asian neighbours, as foreshadowed in the Centre’s 1969 founding policy statement.

Centre for Resource and Environmental Studies

Established in 1973 on a non-departmental, interdisciplinary basis, the Centre proposes to work in three fields; resource studies, land use, and environmental problems in human settlements. The major initial study, ‘Resources for Australia’s Future’, will begin early in 1975 with the arrival in the University of the Professor of Resource Economics and the Professorial Fellow in Systems Analysis.

In 1974 the Centre continued work with the Division of Land Use Research of CSIRO and the Government of New South Wales on a land use study of the Shire of Eurobodalla on the south coast of the State—the ‘South Coast Project’. The Centre appointed a social geographer and four research assistants to work with the CSIRO group and also acted as a focus for the participation in the project of members of other parts of the University.

It has been peripherally involved in the ‘Botany Bay Project’, sponsored by the three learned academies in Australia. It is hoped to develop urban environmental studies further with the appointment of a Professor of Human Ecology.

Computer Centre

Recent years have seen a steady expansion in academic and programming staff numbers, and the evolution of informal groupings in both sections. Thus the academic staff divides into an applications group with interests in numerical analysis, large-scale computations in physics, and various other aspects of scientific data processing, and a systems group with more direct interest in the hardware and software facilities provided by the Centre. The applications group plays the major part in the teaching and consulting work of the Centre, while the systems group also contributes directly to the facilities available in the Centre. The growth in the use of mini-computers in an increasingly diverse range of applications provides an important source of consulting problems for this group.

Teaching activities have been diversified to provide a range of brief introductory courses on a broad range of topics relating to computing and its applications for those seeking basic information in addition to the usual series of courses which treat individual
topics in depth. During the year two important new courses were developed on simulation and modelling and on the computer analysis of speech records. The use of the computers for simulation provided an important stimulus both to the research worker to analyse his problem, methodology in depth and to the computer scientist to develop appropriate facilities. These challenges are an important factor in present evolutionary developments in programming languages. The speech problem is an excellent illustration of the way in which interface hardware, language facilities, and computer hardware can be organised to solve fundamental data analysis problems.

The active program of research was further expanded and continued to attract good students. The major strengths remained in the areas of numerical analysis and large-scale computations in the physical sciences, but the computer systems group developed during the year and work in problem description and language design was a new departure which made a promising start.

The development of the campus computing network proceeded steadily and Centre staff were involved actively in the acquisition of computing equipment to serve as network nodes and local concentrators, and in the design and installation of a cable link to facilitate connection to the network. There were some delays in installing this cable but it should be possible to start making connections from the new UNIVAC computer to the major nodes in the first quarter of 1975.

It is very satisfying to be able to report that the UNIVAC 1108 has functioned most effectively in 1974, and the major cause of down-time was again environmental problems related to the air-conditioning system. The capacity of this was improved by the installation of a new cooling tower but the lack of backup capacity remained. The load on the machine continued at a very high level and increasing delays were experienced with the larger batch jobs. This type of computing essentially distinguishes the computing load of this University from that of other organisations in this country and is a result of the particular form of the University and of the kind of research projects undertaken. It is therefore necessary to register concern about the adequacy of the present level of computer capacity available. A major increase in loading came from the Research School of Chemistry which has now become, as expected, one of the very large users of the computing facilities.

The major item of new equipment installed was a new core module providing $64 \times 1,024$ words of additional main storage. This will permit a significant increase in the number of terminals that can be attached to the system. Other items of equipment installed included 4,096 words of MOS memory in the PDP 11/45 network controller to speed up its message-handling capability. The major projects undertaken by the technical support group included a 16-line terminal multiplexor for the network controller, and analogue to digital and digital to analogue conversion equipment.

Mention must also be made of the general level of performance of the operations staff who provided continuing service 24 hours a day throughout the year. This staff is small in number for the comprehensive service offered which is critically dependent on the efficiency and goodwill of all.
The Humanities Research Centre made a modest but useful start with its activities this year, despite encountering some unexpected difficulties. Early in the year the Director-elect was prevented by ill health from accepting appointment. The work of the Centre continued under the guidance of the Chairman of its Advisory Committee, Professor R. St C. Johnson, and of its Administrative Officer, Mr R. J. C. Horan. In October Professor C. I. E. Donaldson, of the Department of English, was appointed to act as a temporary Director of the Centre for a period of up to two years.

A second difficulty was caused by the fact that the Centre’s premises in the A. D. Hope Building were not ready for occupancy in August, as expected (and are now not expected to be ready before May 1975). Members of the Centre were accommodated throughout the year in six different and widely scattered buildings on the campus: Communications have therefore at times been difficult and the Centre’s sense of corporate identity somewhat impaired.

Five Visiting Fellows were working in the Centre during 1974: Professor E. Gould of the Department of English of the University of Denver; Professor R.-D. Herrman, of the Department of Philosophy, College of Liberal Arts, University of Tennessee; Mr S. Sutherland, of the Department of Philosophy, University of Stirling; Dr T. Schabert, of the Geschwister-Scholl Institute of Political Science, University of Munich; and Mr A. Ryan, tutorial fellow in Politics, New College, Oxford. The Centre also helped to sponsor the visit of Professor J. A. Leith (Department of History, Queen’s College, Kingston, Ontario) in the University’s History of Ideas Unit. The Visiting Fellows gave a number of papers and lectures both at this University and at other Australian Universities.

The Centre ran a four-day conference in August on ‘The impact of seventeenth and eighteenth-century philosophy on modern thought’, and a one-day conference in October on Australian lexicography. In October the Centre helped to organise a discussion of the University’s proposed Arts Centre, with Miss E. Sweeting, Administrator of the Oxford Playhouse.

Purchase of library materials relevant to the work of the Centre proceeded throughout the year; a start was made on the purchase of reference books for the Centre’s Working Collection; and several valuable bibliographies of local holdings in the humanities were prepared by Mr C. A. Burmester, the Centre’s part-time bibliographical adviser. It is hoped that the post of full-time bibliographer in the Centre will be advertised early in 1975.

The Centre’s Advisory Committee, composed of members of the University and several representatives from State universities, continued to meet throughout the year; a smaller Steering Committee of five members of this University advised the Director on day-to-day matters.

Much of 1974 was spent in long-term planning for the Centre. A number of future seminars and conferences was arranged, and the Centre also agreed to take on co-sponsorship and organisation of the triennial David Nichol Smith Memorial Seminars, under the guidance of their convener, Dr R. F. Brissenden. Several distinguished overseas scholars have accepted invitations to visit the Centre in the near future. The Centre’s work is gathering momentum and should soon be in full swing.
North Australia Research Unit

In the first year of the Unit's existence, attention was necessarily concentrated on the acquisition of offices, residences, vehicles and equipment at Darwin, and the first academic appointee, the Field Director, did not take up duties until July. However, a study of the Northern Territory Legislative Assembly elections was organised and a preliminary survey made of the effects on rural areas of the exceptional 'wet' season of 1973/4. All Australian universities were approached regarding the Unit's objectives and a start made on publication of an annual record of research in the north.

The Unit's physical assets at Darwin were seriously damaged by Cyclone Tracy but staff were unharmed and there is no thought either of abandoning projects on hand or curtailing the development of new ones.

Survey Research Centre

The Survey Research Centre commenced operations in March, initially to provide the following facilities: a consultation service, chiefly for the social science departments of the University, on the design, conduct, analysis and reporting of surveys; an extension of this consultation service involving the actual design and management of such surveys; teaching and training in survey methodology; research into sampling and other survey techniques; and liaison with other survey organisations, especially the Australian Bureau of Statistics, and with particular reference to the listing of data available for secondary analysis.

The research staff, though numerically small this year, was able to provide over one hundred hours of consultation sessions to a number of postgraduate students, several staff members, two outside bodies, and several members of other universities. Assistance was given on many aspects of the design, conduct and analysis of surveys; how relevant information may be obtained without resorting to the use of survey methods; and how to present statistical data in a readily understandable form.

The Centre's aid was enlisted by the Academic Registrar's office and the Students' Association to carry out the 1974 Student Accommodation Survey. A 94% response was obtained from the six hundred full-time undergraduate students randomly selected, and the published report has been widely distributed.

In March the Director gave a series of twelve lectures on Sampling Theory for the Department of Statistics in the School of General Studies.

A comprehensive reprint collection was assembled on sampling theory and a start made on assembling another reprint collection on non-statistical survey techniques. Work proceeded on several research projects, chiefly concerned with sample design.

During the first half of July and the first half of August, the Director visited university institutions in Australia and Papua New Guinea, the State offices of the Australian Bureau of Statistics, and representatives of the Associated Market Research Organizations and State branches of the Market Research Society.

During these visits a preliminary schedule for the Centre's Inventory of Australian Surveys was tested, while several hundred people engaged in survey work were personally interviewed. The schedule has since had several revisions and a pilot test version is almost ready for circulation to interested staff within this University.
University Services

The Library

Libraries are entering an era of change brought about by the pressures of rising costs and also by new opportunities to fulfill longstanding objectives. Automation now seems to be the only means of significantly improving the productivity of library systems and the quality of library services and accordingly the gradual process of change to computer-based systems has begun. Specifically, the establishment of a national database of machine-readable catalogue records will assist libraries to reduce processing costs and in addition will provide the basis for computer-printed catalogues and circulation systems. Similarly, the Australian Library-Based Information System (ALBIS) has greatly enhanced the prospects for national resource planning and the development of systems for sharing information services and resources. At the University Library these changes have added new dimensions to library planning and a sense of urgency to reviews of library operations.

During the year the Library analysed most of its major systems to determine their cost and effectiveness and to provide data for evaluation of proposed new systems. As the greatest benefit in terms of cost reduction and improved services will be derived from the automation of acquisitions and cataloguing procedures, these areas took precedence in the work study program. The objectives of an overseas study tour by the Associate Librarian were also related to this program.

Inflation and devaluation seriously eroded the purchasing power of the book vote during the year. Current serials in particular increased sharply in price, with the total expenditure on serials 23% higher than in 1973. It appears that the Library must seek additional funds if it is to maintain the present level of collection building.

There was continuing steady growth in all areas of the Library's collections, the most significant developments being in the life sciences, earth sciences and contemporary China studies. New areas of collecting included women's studies, research on north Australia, ethnomusicology and medieval and Victorian studies. The creation of a new senior position for collection development in South-East Asian studies marked the beginning of substantial and systematic growth in this area. During 1974 preliminary work was carried out on designing a survey to be conducted in 1975 to determine the needs of the users of the University Library.

Changed teaching methods have resulted in greater use of research material by undergraduate students. The Library in co-operation with academic staff and student representatives during the year examined ways of providing better access to these materials.

In 1974 efforts in the technical services departments were concentrated on analysis and planning with the aim of achieving greater economy and efficiency in house-
keeping operations and management. The framework was laid down for a computer-based system integrating acquisitions and cataloguing operations, and extending ultimately to include serials operations, circulation control, and reference and information retrieval services through on-line access to data. The amount of staff time devoted to analysis and planning during the year caused some problems in the technical services departments. It is expected that the time invested will ultimately result in more effective cost control and improved services to readers.

Monograph volumes accessioned during the year numbered 59,217 and the 722 new titles added to the 12,479 current titles of Serials held, brings the total holdings to 750,622 volumes.

Australian National University Press

The Press, the publishing agency of the University, in 1974 published 28 new books, and eighteen new publications issued by departments were accepted for general distribution. Four press titles were purchased from overseas publishers, while nine editions or edition rights were sold outside Australia. Three titles were reprinted, and sheet stock of another five was bound. Of titles not imported, two were printed in New Zealand and 22 in Australia. Altogether 54,300 copies of new press titles were printed.

Ninety-eight manuscripts were submitted to the press, and twenty were accepted for publication. The number submitted was nearly one-third higher than for 1973, but the acceptance rate continued to decline.

Distribution continued to be troubled by currency fluctuations, postal rate increases, contraction in the North American market and soaring printing costs.

In order to keep costs from rising to unacceptable levels publication output was lower than the previous year and staff numbers fewer as vacancies caused by attrition were not filled. Nevertheless a record amount of business was transacted during the year.

University House

Emeritus Professor R. W. V. Elliott, FAHA, succeeded Professor Sir Rutherford Robertson, FAA, FRS, as Master, on 1 January. In March, Council approved a new category of selected membership in order to foster contact with persons active in the professions, the public service and the diplomatic community in Canberra who are graduates of other universities or hold equivalent professional qualifications.

The membership of the House increased considerably during the year to a total of 1,139 of whom 201 were graduate students and 78 invited members. Honorary Fellowships were conferred by Council on two former Vice-Chancellors, Sir Leslie Melville and Sir Leonard Huxley. Honorary membership was conferred by the Governing Body on Sir Grenfell Price, Dr P. A. Arriens, Mr D. M. Bensusan-Butt and Professor A. R. Crawford.

Occupancy rates were generally satisfactory, averaging 82% for the year. To ease the severe shortage of student accommodation in the first term, the House made available a number of study bedrooms in the staff quarters; and approximately a third of the rooms in the House continued to be occupied by graduate students for most of the year.
The House continued its policy of accepting some permanent residents who are associated with institutions other than the University, such as the Canberra College of Advanced Education, CSIRO, the National Library, the ABC, and the Commission on Advanced Education. Their presence has proved a valuable addition to the intellectual and social life of the House.

As in previous years, conferences held at the House during 1974 varied considerably in character, size and duration, ranging from a one-day conference of the Australian Conservation Foundation to several two-week courses under the auspices of the Interim Council of Trade Union Training. Among other organisations represented were the Centre for Continuing Education, UNESCO, the Academies of Science, the Humanities and the Social Sciences, the Australian Bureau of Statistics and the International Marketing Institute.

The Governing Body introduced a quarterly review of tariffs during 1974. The pressures of inflation and exceptionally high increases in staff wages during the year made it necessary to raise charges for accommodation from 1 April, to adjust meal prices at intervals, and to reduce room service for permanent residents.

Between March and December, ten lunch-time music recitals were held in Hall, at which local, interstate and overseas artists performed a variety of programs. In addition to the traditional choral concerts given in Hall by the University Choral Society, the House organised twelve evening recitals. The Australian Broadcasting Commission recorded six of the evening recitals, several of which have since been broadcast.

Under the auspices of the Arts Council (ACT Division), six poetry readings by prominent Australian poets were held in the Common Room during the winter months. Exhibitions were mounted in the Common Room at various times during the year, of Chinese paintings, of photographs by members of the House Photographic Group and of Modern Italian Graphic Art, the latter in conjunction with the Italian Embassy.

Student Accommodation

The University's fourth hall of residence, named Toad Hall in response to the residents' imaginative suggestion, opened during 1974. Toad Hall provides study-bedrooms for 237 students, in groups of ten and a few of five. Each group has its own kitchen, bathroom and living room areas. It has proved extremely popular with students, both because of its comparatively low cost ($10 a week in 1974) and because it enables residents to pursue a more independent lifestyle. Toad Hall has no warden, and a secretary/manager, a member of the staff of the Academic Registrar, is responsible to the Governing Body for its day-to-day administration. Eight of the eleven members of the Governing Body are residents, giving the Hall a high degree of self-government.

The completion of Toad Hall was planned for the beginning of the academic year, but the first stage was not ready for occupation until April and the building was fully occupied by the start of third term. The delay contributed to a shortage of student accommodation at the beginning of the academic year. A house in Northbourne Avenue was opened in 1974 as an annex to Bruce Hall, to provide emergency accommodation for up to 28 students. A further 25 rooms, allocated by the Students Association on the basis of financial need, were available in Lennox House.
An increasing number of students are seeking off-campus accommodation in group houses or flats. This is always difficult to find; during 1974 particularly so. After extensive investigation and consultation within the University, it was decided that student accommodation to be built for the University in the next triennium will take the form of terrace or row-type housing, some off-campus and some as an extension to Bruce Hall. This will give the University a wider variety of types of housing for its students.

The year proved a difficult one for the halls and affiliated colleges. In the light of steeply increasing costs of wages and catering during the year, Council appointed a committee, chaired by Dr A. R. Hall to carry out a detailed inquiry into the financial problems of the halls. As a result of the inquiry, fees in the halls were raised in third term and arrangements were made for Nationwide Food Service Pty Ltd to take over the catering in Burton and Garran Halls. Despite these financial problems, the halls and colleges maintained a high level of occupancy, though there were some vacancies in third term.

Graduate House, which provides self-contained accommodation for postgraduate students, continued to enjoy full occupancy and had a long waiting list.

Reports of the Dean of Students
Professor R. St C. Johnson

I succeeded Professor D. P. Scales as Dean of Students in December 1973. The term of the office was extended from one year to three years, as part of the Vice-Chancellor's policy to extend its responsibilities and activity. The main work in 1974 has been twofold: The development and implementation of new policies in the welfare area, and liaison between students and the University's administration in a year of some tension and conflict.

Some time ago, Council asked the Academic Boards to comment on the 1971 Reports of the Health Service and the Counselling Services; both these reports had raised in a disturbing form the question of stress on students. The Boards set up a committee to report on these matters, and the preparation of that report occupied a good deal of time in the early part of 1974. The Report was later completed and came before the Boards and Council, at which bodies it attracted a good deal of comment.

One of the problems in the field of student welfare has been the great diversity of agencies for promoting that welfare, and the lack of contact between them. At the beginning of the year, I invited all those whom I could identify as being primarily concerned with student welfare to join in a body called the Student Development Group. This became a body of about sixty people, including such specialised groups as Parents on Campus, Contact, and the Credit Union. It works as a source of ideas and a forum for discussion; it has no official role nor power. Out of this group came recommendations for other groups or investigations. One of these, to discuss the form of future undergraduate accommodation, concentrated on the interim report of Mr E. Walker, a consultant architect from Melbourne with experience of student residences; as a consequence, the outline of a policy for future undergraduate accommodation emerged quite clearly. Other investigations which came out of the Student Development Group or from the review of the Reports on the Health and Counselling Services
were: A study of the problems of overseas students, and a study of the problems of graduate students. These are both in progress, and not yet completed.

Further studies arose at the request of the Board of the School. One of these was an inquiry into the reasons for students' withdrawal from the University, or 'dropout'. This was undertaken through a questionnaire devised largely by the Adviser to Part-time Students, who is conducting a major part of the investigation.

Besides activities in organised student welfare, the Dean of Students has some role in dealing with individual students and members of staff. He is officially responsible for a variety of approvals of requests from National Undergraduate Scholars; he is also something of an ombudsman for students who feel themselves unfairly treated in one way or another within their departments. A very few such cases occurred during the year, from both undergraduate and postgraduate students and none required more than a neutral intermediary and goodwill on all sides.

During first term, the Standing Committee of the Board of the School of General Studies asked the Dean of Students to undertake measures towards the development of teaching within the University. If the Office for Research in Academic Methods (ORAM) were in existence, this would be one of its responsibilities; but pending its establishment the Standing Committee felt some minor measures could be effectuated. During the year there have been a one-day workshop on audiovisual equipment, attended by about 25 people; a discussion group on teaching and learning, using the tapes of the BBC series on this topic; and a five-day residential workshop on problems on first-year teaching, attended by about 35 members of staff.

I have deliberately not yet discussed the demonstrations and other student activities of 1974, in order to keep in perspective the role and duties of the Dean of Students, of which these are a minor part. In summary, a large group of students, acting on resolutions of the Students' Association, occupied the Council's meeting room in April and presented to Council a series of demands aimed mainly at easing the methods of assessment and giving students more say in determining the content of courses. These matters were extensively discussed in the Board of the School of General Studies, in the various faculties and many committees throughout the year, with intermittent further demonstrations and occupations by the students. These activities aroused a good deal of resentment amongst the staff of the University as well as some support. The main role of the Dean of Students was to act as an intermediary, representing the official student views to the academic bodies and the views of these bodies to the student leaders. This activity certainly did not do away with the mutual hostility and suspicion between many staff and the student leaders, but that there was relative moderation was due in part to patience and willingness to negotiate on the part of the University's administration; in part to the abjurement of violence and major damage by the student groups; and perhaps, in a small but useful degree, to the existence of an official intermediary recognised by both sides, in the Dean of Students. However if the polarisation of attitudes in the University proceeds much further, it is not likely that the office can continue to be acceptable in this role.
Counselling Services

As a consequence of incorporating additional functions and staff in 1973 it was expected that 1974 would be a year of considerable exploration and productivity for the Counselling Services. This expectation was certainly realised as new ground was broken in several ways while existing services were maintained. Among the newer activities were:

- A major project in co-operation with the Department of Economics; a comprehensive diagnostic assessment of mathematical skills in the Department of Chemistry; significant attempts to contact part-time students and enhance the quality of their involvement in the University, and an attempt to enrich the tutoring process in the Department of Asian Civilizations. The Counselling Services experienced some difficulty in carrying out all programs because of an unprecedented degree of staff movement.

Two new functions experienced their first full year of operation in 1974. Mr G. W. Mortimore, responsible for investigation and assistance in the part-time studies area, initiated quite a range of activities to assist part-time students and investigations to develop some knowledge of them and part-time studies generally. Mrs E. J. Giles, Instructor in Mathematical Methods, devised and employed some diagnostic tests with first-year students in the Department of Chemistry. She made significant progress towards enlightening the University as to the types of mathematical weaknesses affecting many students and ways of more effectively assessing and remedying those weaknesses.

All sections of the Counselling Services experienced a strong demand for the services offered. In particular staff offered and participated in many more group activities. Short courses and small counselling groups proved both popular and effective and it is expected that this trend will increase. Not only are group techniques more diverse and sophisticated but also counselling staff are increasingly involving themselves with a wide range of groups on campus. Counsellors met with faculty secretaries and sub-deans during the year, attended faculty meetings and spoke by invitation to the staff of one faculty. They also actively contributed to the new Student Development Group, and the Thredbo Workshop on 'The First University Year'. Counselling Services continued to give support to 'Contact'—the student-run information and referral service.

Careers work is becoming increasingly important as educational and career opportunities react to a tightening economy. The Careers Office was again in 1974 in the National Graduate Destinations Survey, and Mr S. J. Rawling returned to continue his efforts to establish much more effective careers development work in the University, and to operate more efficient systems of information distribution.

The Student Employment Service continued to provide a very popular and well patronised part-time and vacation employment service. Many employers in the community have come to rely strongly on this service.

Health Service

Since September 1974, the University Health Centre has functioned with one full-time physician and part-time medical assistants drawn both from within the University and the outside medical community. In addition a consultant gynaecologist was appointed for one session a week for advice with family planning and gynaecological problems.
The policy of the Health Service has been to follow the team approach to health care, with emphasis on self-reliance amongst students and awareness of long-term opportunities for prevention of disease and promotion of positive aspects of well-being. As an index of this policy analysis of five hundred consecutive consultations showed that only 39% required a drug prescription (including 11% for contraceptives, 9% for antibiotics, 10% for skin preparations and 9% for miscellaneous drugs such as antihistamines). No prescriptions for psychotropic drugs were written (in contrast to the rising figures for the Australian population as a whole). The alternatives of talking out the problem with the patient, relaxation therapy and physical activity were encouraged.

In the Health Service report for 1971, a recommendation was made to introduce more flexibility into enrolment procedures in allowing students to make a positive choice to defer enrolment for a year after leaving school or to take a year off during their course — a policy which was supported by a committee established under the chairmanship of the Dean of Students. A number of students who have taken deferment decisions and who were seen during the year in the health centre appeared to appreciate the wider view of life obtained through outside work or travel which resulted from interruption of their academic career. By way of contrast a number of acute stress reactions presented themselves amongst students from South-East Asia, particularly in those who were separated from their spouse. Some of these problems might be avoided if due consideration were given to social and environmental factors before awarding Colombo Plan scholarships.

A total of 141 fitness tests were conducted during the year (including 21 on staff members), using cardiac monitoring of submaximal work on a cycle ergometer. Although this sample cannot be said to be representative of the University as a whole, the fitness level of the group (in terms of predicted maximum oxygen carrying capacity), was higher than in the previous year. Thus 24% had a low level of fitness (compared to 54% in 1973), and 65% had a high level of fitness (compared with 17%). Amongst male undergraduates 79% of those with a high rating pursued active recreational activity on three or more days a week while only 27% of those with a low rating did so.

During the year the health service participated in seminars with students in the human sciences and biochemistry courses, including planning field work in the human biology class. Seminars were also held with the Counselling Services, the Postgraduate Committee in Medicine of this University and the Department of Demography and papers to the Australian Sports Medicine Federation on cardiovascular aspects of training. Talks were also given to the nurses training group at Canberra Hospital and to school groups on preventive aspects of health care.

University Union

The principal item of concern within the Union in 1974 was to recover from the disappointing financial position of 1973 when expenditure exceeded income by some $67,000. This recovery appears to have been successfully commenced and the Union looks to 1975 with optimism.
The Union decided to appoint a part-time accountant and changes were made in the responsibilities of various staff members. The kitchen area is to become a separate area for accounting purposes.

As well as by the adverse legacy from 1973 the year was made difficult by rapidly increasing costs for labour and food (many employees' wages rose by over 50% during the year); and by the fact that 1974 was the ninth year on the fees first set down when the Union was established. That the year was a success is very largely a tribute to the hard work and competence of staff. Trading (where turnover is now over $500,000) recorded a fair surplus — largely the result of profits on catering for outside functions. This was offset by the substantial deficit apparent when administrative costs are deducted from fee income. Nevertheless, the Union managed to perform substantially better than in 1973 and the end-of-year position is much stronger. This is particularly so when reference is made to the condition of the bank overdraft, which is now being reduced at the rate set down by the bank. A fee increase is planned for 1975 and this coupled with further strong trading gives the Union some hope for a financially secure future.

The physical state of the Union has continued to be unsatisfactory. This flows from the necessity to cut costs when the building was constructed and the general need for financial restraint. However, it was found that a small outlay on paint could work wonders. Plans were completed for large-scale renovations to the bar, a terrace-garden area to the rear of the Union, modifications to the Refectory and extensions to the Union shop. All of these should be complete for the opening of 1975.

Staff/student functions were held with the help of the Union's catering at cost but some other amenities for members were reduced for budgetary reasons. Bookings for Union facilities were heavy and the Union continued as a focus of student life on campus.
Site and Buildings

A list of buildings completed and under construction in 1974 is set out in the summary which appears later in the report.

Approval by the Australian Government late in 1972 of the recommendations of the Universities Commission for the building program for 1973–75 triennium enabled the University to proceed with early planning and design of buildings in an attempt to limit cost escalation.

Extensions for the Faculty of Law and the Faculty of Asian Studies were planned to an advanced stage in 1972 enabling an early start to be made in 1973. Difficulties in the building industry resulted in some delay but the building was completed in time for use at the beginning of the academic year 1974.

The life sciences building was delayed while approval was sought to add an additional floor. This approval was given and the building was under construction in 1974. It will provide a life sciences teaching laboratory and science faculty office on the ground floor, three floors for the life sciences collection of the University Library and a floor for the Centre for Resource and Environmental Studies. The top floor will provide a seminar room, staff amenities and plant.

The opening of the new Union in 1973 opened the way for the conversion of the old Union for Administration purposes. The conversions were completed and the building now known as Chancelry Annex was occupied in March 1974.

The A. D. Hope Building for the Faculty of Arts, scheduled for completion during 1974, was delayed when the Universities Commission approved the completion of certain shelled areas which had been proposed to be completed as part of the 1976–78 triennium works. However, part of the building needed for the Department of Prehistory and Anthropology is planned for completion in time for the opening of the 1975 academic year.

Toad Hall, the new-style student residence, was occupied progressively throughout the year. In an endeavour to meet mounting needs for student accommodation the Government made available to the University four huts from the Corin Dam site. These were transferred to the site late in the year and after conversion will be available to house 55 students at the beginning of 1975. One block of the old Lennox House was similarly converted for students.

Arrangements were made late in the year for the construction of the first stage of the Arts Centre. Work is expected to be taken as far as funds permit by the end of 1975.

The program of landscaping and site improvements continued. The major work during the year was the upgrading of the flood flow capacity of Sullivans Creek at and below Canberry Bridge. The hydraulic works were designed to be also an attractive water feature.
The Council

The Council met six times during the year in March, April, May, July, September and November. The Chancellor presided over all meetings.

Members of the Council as at 31 December 1974

Members Ex Officio
Herbert Cole Coombs, MA WAust., PhD Lond., HonDlitt WAust., HonLLD Melb., Syd. & ANU, FAHA, FASSA, FAA—Chancellor
The Honourable Sir Anthony (Frank) Mason, KBE, BA LLB Syd.—Pro-Chancellor
Robert Martin Williams, CBE, MA NZ, BA PhD Cantab., HonLLD Otago—Vice-Chancellor
David Noel Ferguson Dunbar, MSc NZ, PhD Melb.—Deputy Vice-Chancellor
Frank William Ernest Gibson, DPhil Oxon., DSc Melb., FAA—Deputy Chairman of the Board of the Institute of Advanced Studies
Lindsay Dixon Pryor, DSc Adel.—Deputy Chairman of the Board of the School of General Studies
Julius Roe—President of the Australian National University Students’ Association

Members elected by the Senate
James Robert McClelland, BA Melb., LLB Syd.
Peter Elliot Rae, BA LLB Tas.

Members elected by the House of Representatives
Richard Emanuel Klugman, BSc MB BS Syd.
Michael John Randal MacKellar, BScAgr Syd., BA Oxon., MP

Members appointed by the Governor-General
Richard Roderick Andrew, MD BS Melb., FRCP, FRACGP
George Austin Colman
John Qualtrough Ewens, CMG, CBE, LLB Adel.
Sir Brian (William) Hone, OBE, BA Adel., MA Oxon.
Peter James Lawler, OBE, BEd Syd.

Thomas Fulton Coleman Lawrence, BSc BE Syd., FRAeS
Judith Arundell Wright McKinney, DLitt Q’dl & NE, FAHA
John Colinton Moore, BCom Q’dl, AAUQ
Sir (Horace) Frank Richardson
John Mervyn Wark, BA Syd.
Sir Frederick (William George) White, KBE, MSc NZ, PhD Cantab., HonDSc Monash, ANU & P&NG, FAA, FRS
Arthur John Russell Yencken, MA Cantab.

Members chosen by Heads of the Research Schools in the Institute of Advanced Studies
Donald Anthony Low, MA DPhil Oxon., FAHA
Robert Street, PhD DSc Lond., FAIP, FInstP

Members chosen from among the Deans of the Faculties in the School of General Studies
Eric Charles Fry, BA BEc DipEd Syd., PhD
Leslie Ronald Zines, LLB Syd., LLM Harv.

Member elected by the Professors in the Institute of Advanced Studies
George Adrian Horridge, MA PhD ScD Cantab., FAA, FRS

Member elected by the Professors in the School of General Studies
Liu Ts’un-yen, BA Peking, BA PhD DLitt Lond., DipEd HK, HonDLitt Yeung-Nam, FAHA
Members elected by the
Non-Professorial Academic Staff
in the Institute of Advanced
Studies
Peter John McCullagh, MD BS *Melb.*, DPhil
*Oxon.*, MRCP
Stuart Ross Taylor, MA *Oxon.*, MSc *NZ*, PhD
*Indiana*

Members elected by the
Non-Professorial Academic Staff
in the School of General Studies
Donald William Archdall Baker, MA *Melb.*
Beryl Marie Rawson, BA *Qld.*, MA PhD *Bryn Mawr Coll.*

Member elected by the Research
Students
Judith Anne Slee, BA

Member elected by the
Undergraduate Students
Allan Murray-Jones

Members elected by Convocation
Ruth Emma Auguste Arndt, BSc(Econ) *Lond.*
The Honourable Thomas Eyre Forrest Hughes,
QC, LLB *Syd.*
Germaine Anne Joplin, BA DSc *Syd.*, PhD *Cantab.*
Elizabeth Anne Reid, BPhil *Oxon.*, BA

Members appointed by the
Council
John Darling
Roy Douglas Wright, MB MS DSc *Melb.*, DSc,
FRACP

Secretary to the Council
The Registrar
Publications

The Faculty of Arts

Applied Mathematics

Brown, A.

Craske, N. G.

Davies, B.

Drummond, J. E.

Meggitt, S. M. A., Nichol, L. W. and Winzor, D. J.

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Ritchie, J. D.

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* Former Member
**South Asian and Buddhist Studies**

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de Jong, J. W.
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**Faculty of Economics**

Accounting and Public Finance

Bird, R. G.

Brennan, H. G. and Walsh, C.

Walsh, C.

Walsh, C., Chisholm, A. H. and Brennan, H. G.

Economic History

Forster, C.

Jackson, R. V.

Tucker, G. S. L.

Economics

Ahlburg, D. A.

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- "Economic nationalism and resources diplomacy." *Bankers Mag.*, April.
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* Former member


Coat, J. I.


Drysdale, P. D.


Milne, F.

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Vousden, N. J.


**Statistics**

Bojanic, R. † and Seneta, E.


Chant, D. C.

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Jarvis, R. A.

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† Not a member of this University
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Seneta, E.
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**Centre for Research on Federal Financial Relations**

Grewal, B. S.
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Harris, C. P.

Herber, B. P.

Jay, W. R. C.

Mathews, R. L.

Mathews, R. L.

Mathews, R. L., Buckley, J. W.† and Kircher, P.†

Mathews, R. L. and Campbell, W. B.†

Mathews, R. L. and Drake, P. J.†

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Mathews, R. L., Melville, L. G.† and Lane, W. R.†

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Prest, W.
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Faculty of Law
Goldring, J. L.

Goldring, J. L. and Griffin, J. A.

Greig, D. W.
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Faculty of Science
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Gravell, K.† and Rawling, S. J.

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The Library
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Degrees conferred

Bachelor of Arts

Adamson, J. G.
Adamson, M. A.
Adcock, G. E.
Alkana, H.
Allen, W. S.
Anderson, B. E.
Ash, C. J.
Ashley, J. M.
Bailey, W. F.
Baker, W. T. A.
Ball, R. M.
Barratt, P. M.
Basri, A. I. M.
Beattie, W. H.
Bellamy, J. J.
Bennett, J. M.
Bennett, S. L.
Bird, M. J.
Blessing, C. T.
Blowes, R. W.
Blums, J. E.
Blyton, M. B.
Boeker, C. T.
Bottoms, J. R. R.
Bown, V. E.
Brady, H. M.
Bragg, G. H.
Brennan, T. J.
Brettell, P. L.
Brigden, J. M.
Brigden, P. K.
Brown, D. M.
Brown, G.
Brown, A. E.
Bruce, A. A.
Brydie, R.
Buchanan, D. A.
Buckingham, J. J.
Bullock, P.
Burke, H. E.
Buxton, A. M.
Byrne, P. M.
Calver, C.
Cameron, J. G.
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Campbell, D. J.
Campbell, S. D.
Carpenter, J. C.
Carroll, P. N. W.
Castellari, G. D.
Castle, P. C.
Chambrellain, S. M.
Chapman, D. L.
Chisholm, K. M.
Chmura, S. J.
Christensen, A. T.
Claburn, J. J.
Coble, F. L.
Coffey, P. R.
Constable, M. L.
Cooper, H. E.
Cooper, R. J.
Corrie, J. A.
Cosgrove, M. J.
Costello, J. J.
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Crebbin, I. G.
Crewe, F. T.
Cropper, J. V.
Crothers, L. T.
Crowdy, R. J.
Cruckshank, J. R.
Curtis, M. J.
Dalton, B. M. T.
Damerian, J. L.
Danaher, M. J.
Daniels, W. L.
Davis, J. L.
Davis, L. E.
Davis, N. B.
Denny, M. E.
Dillon, A. W.
Douglas, L. A.
Dwyer, C. F.
Eckhardt, R.
Egan, R. L.
Faichney, G. D.
Falcoher, M. R.
Farquhar, D. S.
Fearon, M. E. J.
Febury, M. A.
Ferguson, R. M.
Findlay, M. J.
Fisher, P. G.
Fletcher, P. C. J.
Ford, A. H.
Forner, B. H.
Forster, R. J.
Fraser, R. F.
Freiberg, S. M.
Fry, K. L.
Fuary, P. A.
Fulton, G. J.
Gallagher, D. H.
Gaylard, S. M.
Geekie, L.
Glowsrey, E. J.
Goddard, R. F.
Godden, G. B.
Gonz, P. M.
Gordon, D. A.
Gordon, M. C.
Graham, D. R.
Gray, P. F.
Griffen, P. A.
Griffen, J. F.
Hackman, D. J.
Hadrill, G. R.
Haggard, C. J.
Hamilton, J. T.
Hannan, C.
Harber, G. R.
Harber, J. J.
Harden, P. R.
Harders, J. S.
Hardy, D. F.
Harris, P. J.
Harrison, G. M. L.
Harrison, L. F.
Hartstein, V. A.
Harvey, P. G.
Hayward, R. D.
Hegerty, E.
Hennessy, M. C.
Henry, L. S. D.
Henry, M. M.
Hickerton, A. V.
Hill, K. C.
Hines, B. A.
Hobson, P.
Holt, J. G.
Hosking, J. R.
Hunt, L.
Jarrett, C. T.
Jarvis, P. A.
Jeffery, P. A.
Jeffery, W. A.
Jones, G. C.
Jones, E. K.
Joyce, S. F.
Kalms, B. P.
Keaney, P. G.
Keighley, F. S.
Kelo, P. M.
Kennedy, E. M.
Kiddle, J. M.
Kirk, A. L.
Lambart, D. J.
Lamond, I. H.
Landsberger, E. R.
Lange, P. C.
Langham, A. L.
Lapins, A.
Latham, M. A.
Leaver, P. L.
Lee, P. K. K.
Lees, E. D.
Lemke, H. J.
Lewis, E. B.
Lind, T. D.
Litchfield, S. G.
Longhorn, I. R.
Lowe, B. K.
Lukey, R. A. M.
McAlister, S. E.
McArthur, R. E.
McAveney, J.
McAvoy, W. J.
McCann, J. P.
McEwin, M. K.
McEwin, N. D.
Mackay, T. J.
McKimm, C. J.
McLean, K. A.
McNamara, S. M.
Madin, D. A.
Mann, S. P.
Mansfield, N.
Marshall, L. M.
Martin, A. G.
Martin, B. M.
Martin, C. D.
Martin, E. A.
Merrell, R. M.
Mills, C. M.
Mills, S. E.
Minge, N. M.
Mitchell, L.
Monti, J. M.
Moor, A. F.
Moore, M. F.
Morwood, B. N.
Moylan, M. J.
Moyle, P. W.
Murphy, D. J.
Murphy, D. T.
Murphy, J. D.
Nairn, J. F.
Needham, L. E.
Nelson, P. A.
Newbigin, C. J.
Newport, M. H.
Newson, M. B.
Newton, K. A.
Nicholson, A. -M.
Nicoll, G. A.
O'Hara, K. M.
Orrell, D. L.

Bachelor of Arts degree with honours

Bachelor of Arts (Asian Studies)
Bachelor of Arts (Asian Studies) degree with honours

Bowtell, G. R. Jorgensen, J. A. Laycock, K. G. Thwaytes, J. R. 
Chin, V. M. N. Kauffman, P. R. Lee, T. Wade, E. J. 
Hamilton, A. P. Kelloway, D. M. Taylor, P. M. Wong, E. D. 
Jones, M. M. 

Master of Arts (Asian Studies)

Holmgren, J. Lamb, M. L. Low, A. D-t. Rajah, N. 

Bachelor of Economics

Anderson, L. C. Harris, A. C. McInnes, R. V. Simpson, R. L. 
Anderssen, H. E. Hartley, M. Maclachlan, B. C. Simpson, R. M. 
Andrew, E. Hewett, K. A. McMurray, D. W. Smith, H. R. 
Andrews, W. S. Ho, S. M. McNally, R. J. Smith, L. R. 
Armstrong, R. E. Holberton, P. C. L. Macphillamy, C. E. Snell, J. S. 
Bell, J. W. Holt, G. J. Maddern, D. I. Starke, J. S. 
Bosak, M. P. Humphreys, J. V. Marges, J. P. Stewart, W. E. 
Bourke, E. D. Hutton, T. M. Matthew, G. A. R. Stoner, M. F. 
Brewer, G. J. Jeffery, J. H. Mayo, K. H. Storr, D. A. 
Brokenshire, R. Kain, J. D. Mayo, W. Stroop, J. L. 
Burmester, W. P. Kearey, P. G. Meggs, D. G. Struik, J. H. 
Clarke, B. A. King, I. R. Newby, P. V. Temby, W. H. 
Colless, F. E. Kruger, H. E. Ning, M. E. Thai, N. N. 
Cook, M. G. Kyburz, M. P. Norquay, A. S. Thomas, N. R. 
Crennan, M. M. Kyburz, S. R. Osborne, L. E. Thomson, F. M. 
Crichtlely, E. G. Lambert, G. Patrick, H. L. Tier, M. D. J. 
Cuddihy, D. J. Lane, R. F. Pellegrino, M. Trewin, R. C. 
Dann, R. Lane, R. P. Pinnock, J. G. Tse, M. K.-S. 
Darling, J. H. Leahy, B. A. P. Price, M. J. A. Usher, D. C. 
Della, L. Le Couteur, C. M. Quadraccia, S. Wheller, J. S. 
Dent, M. C. Lee, L. H. Randell, M. J. Wickman, P. A. 
Duffus, G. W. Lee, S. J. Reid, M. A. Williams, E. J. 
Fienberg, S. R. Le Mesurier, J. E. Rice, J. J. P. Windridge, D. J. 
Fitzpatrick, B. M. Linacre, A. K. Riesz, E. J. Wise, R. R. 
Fiveash, M. T. Livermore, J. F. Roberts, R. C. Wollum, J. P. 
Franklin, P. G. Loh, A. K. C. Rogers, P. J. Woolcock, R. F. 
Fraser, A. K. Longworth, E. G. Salter, A. B. Worthington, P. A. 
Gardner, P. M. Lowe, J. W. Schubert, B. M. Wright, A. A. 
Gilbertson, A. J. Luttrell, T. H. Sharah, J. C. Wydeveld, P. E. 
Gondro, P. McDonald, B. I. Silver, B. F. Yarra, D. J. 
Harlow, R. S. 

Bachelor of Economics degree with honours

Chapman, B. J. Grant, T. M. Robinson, I. J. Thompson, J. K. 
Choo, C. S. Maritz, A. K. Santikarn, M. 
Chuitkul, S. Nicholas, M. A. Witchard, L. C. 

Davies, G. A. Kuskie, N. V. Mahnken, P. A. Thai thi Ngoc-Suong
Eagleton, G. E. Lam, P. Y. Ricketts, A. B. Wanty, E. 
Hetherington, J. F. McBride, D. J. Simmons, N. J. White, G. H. 
Hitchcock, H. M. McCulloch, S. A. C. 
Honeyman, M. K. McDonald, J. J. M. 
Hetherington, J. F. McBride, D. J. Simmons, N. J. White, G. H. 
Hitchcock, H. M. McCulloch, S. A. C. Slater, P. A. 
Honeyman, M. K. McDonald, J. J. M. 
Hetherington, J. F. McBride, D. J. Simmons, N. J. White, G. H. 
Hitchcock, H. M. McCulloch, S. A. C. Slater, P. A. 
Honeyman, M. K. McDonald, J. J. M. 

### Master of Economics

- Ahlburg, D. A.
- Banks, G. R.
- Carland, D. J.
- Chan, P. H.
- Keele, P. T.
- Kohn, R.
- McPherson, M. F.
- Monahan, G. A.
- Morony, A. P.
- O'Connor, W. M.
- Paterson, P. R.
- Petch, R. E.
- Roberts, T. B.
- Sims, R. G.
- Street, J. A.
- Stretton, A. W.
- Upcher, M. R.
- van Gelder, M. M.

### Master of Agricultural Development Economics

- Adhikary, G. M. S.
- Kariuki, S. M.
- Sharma, S. R.
- Cordova, V. G.

### Bachelor of Laws

- Adcock, R. S.
- Baumann, M. J.
- Bentwood, S. Z.
- Bradley, J. D.
- Chapman, R. A.
- Clarke, J. C.
- Clifford, J. J.
- Clynes, R. P.
- Delamarter, A. W.
- De Martin, P. T.
- Dwyer, P. J.
- Ellis, P. J.
- Fleeton, M.
- Gibson, P. A.
- Griffiths, E. E.
- Grigg, R. T.
- Hamilton, R. D.
- Johnston, P. P.
- Leahy, C. S.
- Leithbridge, P. B. S.
- Leithbridge, R. G.
- Lowe, P. T.
- Mackay, C. J.
- Maley, G. P.
- Mannerings, H. E.
- Martin, M. A.
- Meyer, G. B.
- Moloney, R. C. F.
- Morrissey, K. F.
- Olliffe, P. J.
- Owens, J. E.
- Potas, I. L.
- Pratt, S. J.
- Reid, J. R.
- Reiner, P.
- Roberts, V. E.
- Scholde, S. L.
- Scott, J. E.
- Shaw, D.
- Smythe, J. E.
- Tiirikainen, M. M. J.
- Tucker, N. A.
- Walker, M. T.
- Walters, D. A. W.
- Winch, P. M.
- Ziade, A.

### Bachelor of Laws degree with honours

- Andrews, W. M. C.
- Bermingham, I. R.
- Brown, R. A.
- Campbell, N. D.
- Crooks, P. G.
- Deane, I. R.
- de Lacy, P. A.
- Dingwall, P. G.
- Harvey, I. L.
- Healey, T. J.
- Hess, B. J.
- Hohnen, P. E.
- Lahy, P. J.
- Lampe, D. S.
- Livingston, R. F.
- McDermott, J. P.
- Mackrell, M. W.
- Patterson, A. W.
- Proctor, K. B.
- Simpson, G. I.
- Smith, M. B.
- Spain, R. A. A.
- Walker, S. J.
- Warnick, L. A.
- Wells, W. A. B.
- Wilde, W. R.
- Witynski, G.

### Master of Laws

- O'Keefe, P. J.

### Bachelor of Science

- Bannister, L. W.
- Barrett, S. M.
- Birch, R. J.
- Blamey, S. J.
- Booth, B. J.
- Brook, P. W. J.
- Brown, C. R.
- Brown, P. F.
- Brush, J. B.
- Bryan, P. J.
- Bryant, J. A.
- Campagnolo, I. M.
- Carrabba, C.
- Chegwidden, K.
- Clark, D. A.
- Clarke, R. A.
- Cobham, S. W.
- Conley, E. I. M.
- Cooper, R. P.
- Craft, R. F.
- Craig, J. C.
- Crick, P. M.
- Dart, P. W.
- Davies, R. M.
- Davis, D. I.
- Desmet, M. A.
- Down, P. P.
- du Roure, F.
- Eckersley-Maslin, J. C.
- Ewens, L. R.
- Frost, M. A.
- Gamlen, M. W.
- George, R. C.
- Gibson, M. A.
- Glenville, E. A.
- Goldsmith, R. C. M.
- Grady, C. L.
- Grant, A. H.
- Guster, M. A.
- Hall, J. P.
- Harris, D. K.
- Hawkins, K. M.
- Heatley, S.
- Helyard, K. B.
- Hoban, M. J.
- Hood, A. J.
- Hook, R. A.
- Horner, D. R.
- Irving, L. W.
- Jenkins, R. W. G.
- Johns, E. M.
- Jones, S. R.
- Kesteven, T. H. L.
- Khoo, T. C.
- Kuok, K.
- Lloyd, D. J.
- Longmore, R. C.
- Longworth, J. K.
- Lucas, S. J.
- McCredie, J. A.
- MacDonald, M. A.
- McGinness, S. F.
- McGrath, M. J.
- McIntosh, R. A.
Bachelor of Science degree with honours

Adams, G. E. Creaser, P. H. Keig, G. Rink, L. H.
Botterill, P. Crompton, M. W. Konowalow, C. A. Schooneveldt, M. G. M.
Budge, J. R. Dallwitz, R. Leemon, H. I. See, J. K.
Cameron, J. I. Dickson, R. G. McIntyre, H. J. Tam Poe, N.
Cantrill, N. J. Dwyer, T. J. Ngan, M. C. S. Vincent, C. S.
Carew-Reid, J. E. Gell, K. I. O'Brien, K. F. White, G. L.
Chan, P. W. P. Gowland, P. N. Pang (Pangestu), T. Whitelaw, E.
Chilcott, A. B. Heath, D. P. Parn, P. Williams, C. R.
Coggan, M. A. Huggan, K. S. Reid, I. D. Williams, I. S.
Collings, S. Joyce, A. M. R. Riggs, P. A. Williams, P. G.
Cornish, R. A.

Bachelor of Science (Forestry)

Backen, P. L. Cromarty, D. J. Mangum, M. C. Royal, B. J.
Cassells, D. S. Curtis, J. J. Montgomery, P. J. Taylor, M. G.
Chadwick, P. M. Dundas, I. A. Moore, J. C. Thompson, M. J.
Chandler, R. J. Jeffcoat, A. Potter, M. Unwin, G. L.
Collett, S. H. B. Locos, P. H. Qualischefski, P. Wong, L. K.
Conley, E. I. M. McCormack, R. J. Roberts, C. D. Yauieb, A. M.
Craighed, G. T.

Bachelor of Science (Forestry) degree with honours

Ali, S. A. Campbell, A. J. Fulton, J. A. Stirling, P. D.
Ashcroft, B.G. Drielsma, J. H. Pentony, K. I. Wilson, R. A.
Awang, K. B. Enchelmaier, R. L. Ritson, P. Zed, P. G.

Master of Science

Adler, R. J. Herrald, P. C. Rickard, J. D. Snowdon, P.
Awe, J. O. Hogan, A. M. Russell, C. M. Waring, P.
Ferguson, B. A. Leech, J. W. Shirley, J. W. Whiteley, D.
Fuler, S. M. Lush, W. M.

Doctor of Philosophy

Abraham, G. Brown, L. R. Dastur, K. P. Foote, G. S.
Ali, A. Bucknall, K. B. Davey, M. W. Forster, B. A.
Armstrong, D. J. Butter, H. R. Davy, J. L. Foster, J. J.
Atchison, J. F. Campbell, A. J. de Hoog, F. R. Fox, C. D.
Balcar, V. J. Chant, D. C. Dhawale, M. R. Gardner, P. R.
Barbetti, M. F. Chappell, J. M. A. Dien, S. J. George, M. L.
Behm, C. A. Cother, E. J. Doobov, M. H. Glover, W. W.
Boreham, B. W. Crichton, R. Fagan, R. H. Gordon, M. E.
Brewer, J. D. Crosby, E. B. V. Farooque, A. K. M. Gresshoff, P. M.
Briese, D. T. Cunneen, C. Flood, J. M. Grover, N. S.
<table>
<thead>
<tr>
<th>Groves, S. C.</th>
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<th>Sofield, C. J.</th>
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<td>Rogers, P. J.</td>
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<td>Rymer, M. F.</td>
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<td>Miller, N. E.</td>
<td>Sandercok, L. K.</td>
<td>Wilson, K.</td>
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<td>Khan, S. M.</td>
<td>Milloy, H. B.</td>
<td>Siegrist, M. R.</td>
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<td>Kien, J. M.</td>
<td>Miyamoto, M.</td>
<td>Siemon, G. R.</td>
<td>Wood, T. E.</td>
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<td>Kilcullin, R. J.</td>
<td>Morey, G. C.</td>
<td>Smith, A. K.</td>
<td>Worth, B. R.</td>
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<td>King, D. W.</td>
<td>Murphy, D. P.</td>
<td>Sneddon, J. N.</td>
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Mr Hyacinth Tungutalum (centre), National Aboriginal Consultative Committee representative from Bathurst Island, spoke at a ceremony in the University in February 1974 to mark the acquisition by ANU of three Pukamani poles from Bathurst Island. Honouring the dead, Pukamani poles are unique in Aboriginal culture to the Tiwi people of Bathurst Island, 50 miles north of Darwin. The ANU poles, two metres high and carved by hand from bloodwood then fire-blackened, were commissioned as part of the University landscape and are believed to be the only ones of their kind in southeastern Australia. They have been set in the lawn among eucalypts and banksias on the western side of the H.C. Coombs Lecture Theatre.

The area of the campus between the University Union and the J. B. Chifley Building of the University Library has been developed as an attractive pedestrian plaza known as Union Court. It is now the focal point of student life. Housed in the long, low building are the University credit union, AUS travel agency, banks, pharmacy, bookshop and post office.
New Directors of three of the University’s seven Research Schools took up appointment during 1974 — Professor F. C. Courtice, a long-standing member of the John Curtin School of Medical Research, as JCSMR Director; Professor Robert Street, a prominent figure in Australian science, as Director of the Research School of Physical Sciences; and Professor Alexander Youngson, a distinguished Scot with extensive academic and administrative experience, as Director of the Research School of Social Sciences. Professor Courtice, Head of the Department of Experimental Pathology, came to the John Curtin School in 1958 and had been Acting Director since early 1973 when he succeeded Professor F. J. Fenner. Professor Street, previously foundation Professor and Chairman of the Department of Physics at Monash University, succeeded Professor Sir Ernest Titterton as Director of the Research School of Physical Sciences. Professor Youngson, whose academic interests range from history to economics, urban development, architecture and the history of ideas, was formerly Dean of the Faculty of Social Sciences and Vice-Principal (Planning and Finance) of the University of Edinburgh. As Director of the Research School of Social Sciences, he succeeded Professor W. D. Borrie.
Professor A. E. Ringwood, Professor of Geochemistry in the Research School of Earth Sciences, was awarded the Bowie Medal for 1974, the highest award of the American Geophysical Union. Professor Ringwood has earned an international reputation for his research on the nature of geological materials at very high temperatures and pressures. His research group in the Research School of Earth Sciences has worked on samples brought back from the moon since the first lunar landing.

1974 was a year in which students pressed their claims for staff-student control of course content; student choice of means of assessment; an end to overcrowded classes; and establishment of a women's studies course. The events began in April when students occupied the Chancelry and stayed overnight to confront a meeting of the University Council the next day (pictured).
Preparatory to the establishment of the Office for Research in Academic Methods in the University in 1975, programs were offered during 1974 to help staff improve their teaching. One part of the program was a workshop on audio-visual aids as teaching devices in which staff prepared teaching projects in media such as videotape, overhead projection and tape/slide presentation.

Radio ANU, the student-run campus radio station which began broadcasts in 1973, has been developing successfully and is now planning to broadcast Canberra-wide. The Minister for the Media, Senator D. McClelland, visited the station during 1974 to inspect its facilities. Radio ANU, which is entirely student-built, has two fully-equipped studios (a third is under construction), a computer-catalogued record library, and a soundly-based administrative system. It tries for innovation in its programming and to cater for non-commercial, minority audiences.
To introduce the public to the science and technology behind man’s quest for knowledge and understanding of the universe, the University has erected ‘Exploring the universe’, a large and permanent exhibition on astronomy at Siding Spring Observatory, near Coonabarabran, New South Wales. The exhibition, covering all aspects of contemporary astronomy, is spread over a floor area of more than 200 square metres in a special visitors centre and includes six working models.

A replica, in reduced size, of an ancient Aztec calendar stone was presented to the University in October by the Ambassador of Mexico, Mr Jose Gamas-Torrucio (left), seen here with the Director of Mount Stromlo and Siding Spring Observatory, Professor O. J. Eggen (centre), and the then Vice-Chancellor of the University, Dr R. M. Williams. A product of the advanced astronomy of the Aztec civilisation, the calendar stone has been incorporated in the visitors centre display at Siding Spring Observatory.
A co-operative research program involving Dr Graeme Laver (left) of the Department of Microbiology, John Curtin School of Medical Research and a former member of the department, now in the United States, has led to a new theory on how influenza epidemics arise. Work is also proceeding on an improved vaccine against influenza viruses including ones like Port Chalmers Type A which caused a small influenza epidemic throughout Australia during the winter of 1974. The virus, particles of which are shown in the electron micrograph, is the result of antigenic drift from the Hong Kong flu virus which arose in 1968.

The University's fourth hall of residence came into use in 1974. The first student occupants spontaneously named it 'Toad Hall' because of its Wind in the Willows setting on Sullivans Creek. The University Council subsequently endorsed Toad Hall as the official name for the residence which offers accommodation on an open communal plan instead of the traditional style of collegiate accommodation.
The Department of Geology has developed a computer program — believed to be one of the most advanced of its type in the world — to allow rapid reconstruction of the continents of the globe. The program is being used to test theories of the earth's development and may later be used to test for patterns in the location of mineral deposits. It has been developed by Senior Lecturer in Geology, Dr Mike Rickard (left), and Research Assistant, Mr Lee Belbin. The illustration is one of the many reconstructions that can be drawn quickly by computer and is of the world as it may have looked during the Devonian period, about 370 million years ago.

Mr Wataru Hiraizumi, a member of the House of Councillors of the Japanese Diet, visited the Faculty of Asian Studies as part of a tour of Australia to discuss cultural exchanges between Australia and Japan. A former Minister for Science and Technology, Mr Hiraizumi, is vice-chairman of the special committee for international cultural exchange affairs of the Japanese Liberal Democratic Party.
‘Contact’ is a student-run information and referral service. It operates in the University Union and acts as a first point of contact for students seeking advice on matters such as health and counselling services, legal aid, public transport facilities and accommodation.

The University Library holds induction courses for new students during Orientation Week each year. Students are introduced to the range of reader services offered by the Library and to the catalogue system.

Recently-published books by members of the University were displayed in the reading room of the Parliament House Library during November. The 86 books displayed covered the scope of research undertaken in the University in recent years.
Prizewinners

The University Medal
Peter Kenneth Austin Linguistics
Matthew William Butlin Economics
Terence Michael Crowley Linguistics
John Edward Griffiths Law
John Michael Kennard Geology
Peter John Kennewell Applied Mathematics
Rosemary Jane Morgan Japanese
Huw Price Pure Mathematics
Christine Edna Walker Asian Civilizations

The Alliance Française de Canberra Prizes
Christina Reece French Language & Literature I
Lynn Banbrook French Language & Literature III
Adrian James Clynes French Language & Literature IV

Australian-American Association Prize for American Studies
Simon Nicolas Haines American Literature

The Australian Capital Territory Bar Association Prize
Stephen Francis Michael Skehill

The Australian Computer Society Prize
Krisorn Jittorntrum

The Australian Institute of Physics Prize
William Roy Young

The Australian Psychological Society Prize
Linda Kathryn Hort

Australian Society of Accountants' Prize
Peter John Parsons

The B. C. Meagher Prize for Commonwealth Constitutional Law
Bruce Roland McClintock

Canberra Association of University Women Prize
Christine Edna Walker

The CSR Chemicals Prize
Roderic John Phillips

The Commonwealth Forestry Bureau Book Prize
Charmien Silvya Shepherd

The E. A. Lyall Memorial Prize
Robert Leslie Arden Arts/Law

The Economic Society of Australia and New Zealand (Canberra Branch Prizes)
Ian Malcolm McKenzie Economics II
Matthew William Butlin Economics IVH

The Freehill, Hollingdale and Page Prize for Commercial Studies
Alan John Sullivan
Robert Kenneth O'Connor \( \{ \) shared

The Geological Society of Australia Prize
Not awarded.

The George Knowles Memorial Prize
Susanne Patricia Tongue
John Edward Griffiths \( \{ \) shared
The Goethe Society Prizes
Iain Murray Johnstone  German Language & Literature I
Anton Paul Muller  German Language & Literature II
Christine Joy Barnes  German Language & Literature III (shared)
Dierk von Behrens

The Hanna Neumann Prizes for Pure Mathematics
Graeme Arthur Chandler  Pure Mathematics IIIH
Robyn Gaye Wansbrough (shared)
Huw Price  Pure Mathematics IVH

The Institute of Advanced Studies Prizes in Economic History
Paul Henry Kitney  Economic History I
John Anthony McWilliam  Economic History II or III

The Lady Isaacs’ Prize
Gregory Leigh Curnow
Diana Jane Shurman (shared)

The Law Society of the Australian Capital Territory Prize for Contracts
Philip Mortimer Thomas

The Leslie Holdsworth Allen Memorial Prize
David Gordon Brooks

The Marie Halford Memorial Prize
Helen Fleur O’Shea

The Permanent Trustee Company (Canberra) Limited Prizes
Allan Gordon Murray-Jones  Property II (shared)
Susanne Patricia Tongue
Joanna Robyn Featherston  Trusts

Priscilla Fairfield Bok Prize
Yongwimon Wiriyawit

The Professional Officers’ Association Prizes
Bruce Ronald Goleby  Geology AO1
Nicholas Philip Warner  Pure Mathematics I
Applied Mathematics I

Rachel Dorph Memorial Prize
David Thomas Sampson

The Ramsay Prize
Jennifer Reed

The Royal Australian Chemical Institute Prize
Philip John Charles Chappell

The Scandinavian-Australian Society Prizes
Raymond Laurence Field  Swedish
Ingrid Glienke  Old Norse II

Schlich Memorial Trust Prize
Kevin Bruce Carter

The Shell Company Prizes
Iain Ronald Jones (shared)
Peter Michael Wood
Philip John Charles Chappell (shared)
Matthew Allen Simpson

The Statistical Society of Australia (Canberra Branch) Prizes
Ian Malcolm McKenzie  Statistics B01 & B02 or B03
Graeme Arthur Chandler  Statistics C01(H) & C02 (H) or C05 (H)

The Supreme Court Judges’ Prize
John Edward Griffiths

The Tillyard Prize
Ann Margaret Pickering

The Timbind Utilization Prize
Stephen Noel Shaw

The Trustees, Executors (Canberra) Limited Prize
Raymond Leslie Conwell (shared)
John Leslie Harwood

The United Commercial Travellers’ Association Prize
William David Anthony Bryant

The W. B. Clarke Prize in Geology
Sally Miranda Rigden
Academic visitors

Professor H. Arvon  University of Paris
Dr D. E. Ashhurst  University of Birmingham
Professor D. Atkinson  State University of Groningen
Dr D. C. Ayres  University of London
Professor K. Baier  University of Pittsburgh
Professor G. T. Barrett-Lennard  University of Waterloo
Professor M. S. Bartlett  University of Oxford
Professor A. E. Bence  State University of New York
Professor A. L. Bloom  Cornell University
Professor P. Bloomfield  Princeton University
Dr E. Bofinger  University of New England
Dr V. Bofinger  University of New England
Associate Professor H. Bolitho  Monash University
Dr G. L. Braglie  University of Parma
Professor G. B. Breckenridge  McMaster University
Dr A. Brillante  University of Bologna
Professor R. H. Brookes  Victoria University of Wellington
Dr J. M. Brown  Victoria University of Manchester
Professor E. Burmeister  University of Pennsylvania
Dr E. L. Bydder  University of Waikato
Dr R. G. Cant  University of Canterbury
Dr A. Capell  University of Sydney (Retired)
Professor G. Carter  University of Salford
Professor D. Char  University of Hawaii
Mrs N. Christesen  University of Melbourne
Professor B. Chu  State University of New York
Professor A. R. Crawford  University of Canterbury
Dr J. M. Creeth  Lister Institute of Preventive Medicine, London
Dr M. J. Crumpton  National Institute for Medical Research, London
Professor G. L. Cumming  University of Alberta
Professor L. Curry  University of Toronto
Dr J. M. Daley  University of Canterbury
Mr M. J. Day  University of Oxford
Dr S. B. D. de Silva  Institute of South-East Asian Studies, Singapore
Dr M. S. De Wolfe  Dalhousie University
Professor D. Donnison  University of London
Dr S. F. Dyke  University of Bath
Dr A. M. Dziewonski  Harvard University
Dr A. D. Edgar  University of Western Ontario
Dr E. Elizur  The Hebrew University of Jerusalem
Associate Professor G. W. Everett, Jnr.  University of Kansas

Dr R. J. Eyles  Victoria University of Wellington
Mr D. M. Fenbury  Department of Social Development and Home Affairs, Papua New Guinea (Retired)
Professor C. W. Ferguson  University of Arizona
Professor L. Field  The Vanderbilt University
Associate Professor P. C. Ford  University of California
Dr B. D. Giorgio  University of Alberta
Miss S. Goto  Sophia University
Professor J. D. Gould  Victoria University of Wellington
Dr A. D. Greenwood  University of London
Professor R. T. Gregory  University of Texas
Dr J. Gressel  Weizmann Institute of Science, Israel
Professor K. W. Gruenberg  University of London
Dr S. L. Gulmon  University of California (Santa Barbara)
Dr A. J. Gutman  University of Newcastle, NSW
Dr H. J. M. Hanley  National Bureau of Standards, Colorado
Professor C. P. Harris  James Cook University of North Queensland
Dr D. R. Harris  University of London
Professor H. Harris  University of Oxford
Dr G. A. Harrison  University of Oxford
Dr G. Havas  Canberra College of Advanced Education
Professor B. S. Hayne  University of Toronto
Dr H. P. Helm  University of Innsbruck
Professor B. P. Herber  University of Arizona
Professor R.-D. Herrmann  University of Tennessee
Dr G. M. Hewitt  University of East Anglia
Professor E. S. Holdsworth  University of Tasmania
Professor H. Hora  Max Planck Institute
Professor M. Horiguchi  Tohoku University
Dr B. F. Hoskins  University of Melbourne
Professor L. M. Jackman  Pennsylvania State University
Professor D. H. Jennings  University of Liverpool
Professor W. Johnson  University of Hawaii
Dr P. D. Jones  Control Data Australia Pty Ltd, Canberra
Dr E. A. Karakhanov  Moscow State University
Professor W. A. Kaufmann  Princeton University
Professor K. K. Kirschfeld  Max Planck Institute
Professor F. Kohler  University of Vienna
Professor B. Krishnamurti  Osmania University, Hyderabad
University public lectures

24 Apr. 
  1 May   Prof. S. Ullmann  Words and their meanings
  8 May 

'Man The Manipulator' series

12 June Prof. W. Hayes  Man: the genetic manipulator
19 June Prof. F. K. Hare  Manipulation of world climate, deliberate and inadvertent
26 June Dr T. C. Beard  Is public health a health hazard?
  3 July Mr J. L. Paynter  Towns in the desert
10 July Dr J. L. Denburg  Drugs and the chemical manipulation of states of consciousness
17 July Dr R. C. Winkler  The social implications of research in behavioural control
24 July Dr Moss Cass  Socialism: manipulation for man

Single public lectures

27 Mar. Prof. M. W. Thring  Machines can give us heaven or hell in the 21st century
26 July Debu Chaudhuri  The theory and practice of Indian music
23 Oct. Prof. L. Stebbins  Human evolution and the future of man

Kenneth Bailey Memorial Lecture

  3 Apr. Sir Victor Windeyer  Seabed in law

Morrison Lecture

22 July Prof. J. Ch'en  Peasant activism in contemporary China

John Curtin Memorial Lecture

14 Oct. Prof. L. F. Crisp  Gravediggers and undertakers—then and now

Arthur Yencken Memorial Lectures

  9 Sept. Prof. R. Falk  What's wrong with Henry Kissinger's foreign policy?
10 Sept. Prof. R. Falk  Towards a world order focus
Senior staff appointments and promotions

School of General Studies

Dr A. Alfonso  Professor of Japanese, formerly Reader.
Dr C. V. Baldock  Senior Lecturer in Sociology, formerly Assistant Professor in Sociology, City University, New York.
Dr A. M. Baxter  Senior Lecturer in Physics, formerly Lecturer.
Dr J. A. Broomhead  Reader in Chemistry, formerly Senior Lecturer.
Dr C. G. Crisp  Senior Lecturer in French, formerly Lecturer.
Dr R. G. Cushing  Reader in Sociology, formerly Senior Lecturer.
Dr P. Drysdale  Reader in Economics, formerly Senior Lecturer.
Professor D. W. Grieg  Professor in Law, formerly Professor in Law, University of Wales Institute of Science and Technology.
Mr A. D. Hambly  Professor of Law, formerly Reader.
Dr B. Y-p. Hong-Fincher  Senior Lecturer in Chinese, formerly Associate Professor of Chinese Language and Literature, Dartmouth College.
Dr T. G. Marples  Senior Lecturer in Zoology, formerly Lecturer.
Dr I. McBryde  Senior Lecturer in Prehistory, formerly Associate Professor of Prehistory, University of New England.
Dr J. N. Molony  Senior Lecturer in History, formerly Lecturer.

Institute of Advanced Studies

Dr W. P. Anderson  Senior Research Fellow in the Director's Unit, Research School of Biological Sciences, formerly Lecturer in Genetics, Liverpool University.
Dr N. G. Cain  Senior Fellow in Economic History, formerly Fellow.
Dr H. P. Caton  Senior Research Fellow in the History of Ideas Unit, formerly Research Fellow.
Dr J. P. Cleary  Senior Fellow in Geophysics and Geochemistry, Research School of Earth Sciences, formerly Fellow.
Dr W. Compston  Professorial Fellow in Isotope Geochemistry, Research School of Earth Sciences, formerly Senior Fellow.
Professor F. C. Courtice  Director and Howard Florey Professor of Medical Research, John Curtin School of Medical Research, formerly Professor and Head of Experimental Pathology.
Professor E. S. Crawcour  Professorial Fellow in Far Eastern History, formerly Professor and Head of Japanese.
Professor G. A. Daws  Professor and Head of Pacific and South-East Asian History, formerly Professor of History, University of Hawaii.
Dr J. H. Fincher  Fellow in Far Eastern History, formerly Associate Professor of History, Johns Hopkins University.
Dr K. G. Freeman  Senior Fellow in Astronomy, formerly Fellow.
Professor L. Goddard Senior Research Fellow in Philosophy, formerly Professor of Logic and Metaphysics, University of St Andrews.

Dr D. H. Green Professorial Fellow in Experimental Petrology, Research School of Earth Sciences, formerly Senior Research Fellow.

Dr J. B. Gibson Professorial Fellow in Population Biology, formerly Lecturer, Department of Genetics, University of Cambridge.

Mr P. D. Hastings Senior Research Fellow in Strategic and Defence Studies Centre, formerly correspondent for Sydney Morning Herald.

Professor B. E. S. Gunning Professor in Developmental Biology, formerly Reader in Botany, Queen's University, Belfast.

Professor W. Hayes Professor and Head of Genetics, formerly Professor of Molecular Genetics, University of Edinburgh.

Dr M. Herzog Senior Research Fellow in Mathematics, formerly Associate Professor of Mathematics, Tel Aviv University.

Dr J. Higley Senior Research Fellow in Sociology, formerly Assistant Professor of Sociology, University of Texas.

Dr A. Hughes Senior Research Fellow in Physiology, formerly Postdoctoral Fellow.

Professor R. M. Keesing Professor of Anthropology, formerly Professor of Anthropology, University of California.

Dr A. Kendon Senior Research Fellow in Anthropology, formerly Research Scientist, Bronx State Hospital, New York.

Dr G. E. Kron Senior Research Fellow in Astronomy, formerly Director of Flagstaff Station, US Naval Observatory, Arizona.

Dr R. C. Liebermann Senior Research Fellow in Research School of Earth Sciences, formerly Research Fellow.

Dr N. R. McArthur Senior Research Fellow in Pacific and South-East Asian History, formerly Visiting Fellow in Prehistory.

Dr P. J. McCullagh Senior Fellow in Immunology, formerly Senior Research Fellow.

Dr J. Mahanty Senior Fellow in Theoretical Physics, formerly Senior Research Fellow.

Dr A. W. Martin Senior Research Fellow in History, formerly Professor of History, La Trobe University.

Dr J. I. Martin Senior Research Fellow in Sociology, formerly Professor of Sociology, La Trobe University.

Dr D. S. Mathewson Professorial Fellow in Astronomy, formerly Senior Fellow.

Dr D. J. Newman Senior Fellow in Solid State Physics, formerly Lecturer in Physics, Queen Mary College, London.

Dr C. R. Parish Fellow in Microbiology, formerly Research Fellow.

Dr J. J. Pincus Fellow in Economic History, formerly Research Fellow.

Dr A. J. S. Reid Senior Fellow in Pacific and South-East Asian History, formerly Fellow.

Dr P. Richmond Senior Research Fellow in Applied Mathematics, formerly Research Fellow.

Dr L. T. Ruzicka Senior Fellow in Demography, formerly senior Research Fellow.

Dr P. G. Sack Fellow in Law, formerly Research Fellow.

Dr G. Singh Senior Fellow in Biogeography and Geomorphology, formerly Fellow.

Dr F. B. Smith Professorial Fellow in History, formerly Senior Fellow.

Professor S. J. Stoljar Professor in Law, formerly Professorial Fellow.

Professor R. Street Director of the Research School of Physical Sciences, formerly Professor and Chairman of Department of Physics, Monash University.

Dr F. C. Teiwes Senior Research Fellow in International Relations, formerly Research Fellow.

Dr B. G. Thom Senior Research Fellow in Biogeography and Geomorphology, formerly Research Fellow.

Professor Chi-Hua Wu Senior Research Fellow in Far Eastern History, formerly Professor of History, Nanyang University.

Dr M. W. Young Fellow in Anthropology, formerly Assistant Lecturer in Social Anthropology, University of Cambridge.

Professor A. J. Youngson Director of the Research School of Social Sciences, formerly Vice-Principal of the University of Edinburgh.

University Academic Centres

Dr F. H. Bauer Senior Fellow and Field Director, North Australia Research Unit, formerly Professor of Geography, California State University.

Mr K. R. W. Brewer Director of the Survey Research Centre, formerly Director of Methodology and Mathematical Research, Bureau of Census and Statistics.

Dr F. E. Emery Senior Research Fellow in the Centre for Continuing Education, formerly Senior Research Fellow in Sociology.
Senior staff resignations and retirements

School of General Studies
Dr E. L. Burge Senior Lecturer in Classics, on appointment as Warden, Trinity College, Melbourne.
Professor E. S. Crawcour Professor of Japanese, on appointment as Professorial Fellow in Far Eastern History, Research School of Pacific Studies.
Dr D. G. Crisp Senior Lecturer in Romance Languages, to Senior Lecturer in French, Griffith University.
Professor A. N. Hambly Professor of Chemistry, retired.

Institute of Advanced Studies
Dr A. W. Crawford Senior Research Fellow in Research School of Earth Sciences.
Professor J. B. Langridge Professor and Head of Genetics.
Mr G. E. Parker Senior Fellow in Law.

Dr J. R. Niland Reader in Economics, on appointment to Chair of Economics (International Relations), University of New South Wales.
Professor J. D. Ovington Professor of Forestry, to Department of Environment and Conservation.
Professor G. S. Reid Professor of Political Science, on appointment as Professor of Political Science, University of Western Australia.

Dr D. H. Penny Senior Fellow in Economics.
Dr S. J. B. Reed Senior Research Fellow in Research School of Earth Sciences.
Mr G. Warner Senior Research Fellow in International Relations.
# Building program summary

<table>
<thead>
<tr>
<th>Buildings completed in 1974</th>
<th>Date completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law/Asian Studies extensions</td>
<td>March 1974</td>
</tr>
<tr>
<td>Chancellry Annex (conversion of old Union)</td>
<td>March 1974</td>
</tr>
<tr>
<td>Toad Hall (fourth student residence)</td>
<td>May/June, August 1974</td>
</tr>
<tr>
<td>John Curtin School of Medical Research (Wing E)</td>
<td>July 1974</td>
</tr>
<tr>
<td>Shared science area—animal holding building</td>
<td>July 1974</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Buildings under construction in 1974</th>
<th>Estimated completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. D. Hope Building (formerly Arts V)</td>
<td>February/May 1975</td>
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<tr>
<td>Life Sciences building</td>
<td>August 1975</td>
</tr>
<tr>
<td>Solid State Physics/University Computer Centre/</td>
<td>December 1975</td>
</tr>
<tr>
<td>Lecture theatre</td>
<td></td>
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<tr>
<td>Arts Centre</td>
<td>December 1975</td>
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</table>
University statistics

Full-time staff as at 30 April 1974

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<tr>
<th>Designation</th>
<th>males</th>
<th>females</th>
<th>total</th>
</tr>
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<tbody>
<tr>
<td><strong>Academic activities</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Teaching-and-research staff</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>professor</td>
<td>46</td>
<td>—</td>
<td>46</td>
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<tr>
<td>associate professor, reader</td>
<td>45</td>
<td>2</td>
<td>47</td>
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<tr>
<td>senior lecturer</td>
<td>100</td>
<td>10</td>
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<tr>
<td>lecturer</td>
<td>86</td>
<td>15</td>
<td>101</td>
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<tr>
<td>senior demonstrator, senior tutor</td>
<td>28</td>
<td>15</td>
<td>43</td>
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<tr>
<td>demonstrator, tutor, teaching fellow</td>
<td>14</td>
<td>8</td>
<td>22</td>
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<tr>
<td><strong>Total</strong></td>
<td>319</td>
<td>50</td>
<td>369</td>
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<tr>
<td><strong>Research only staff</strong></td>
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<tr>
<td>professor</td>
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<tr>
<td>professorial fellow, reader, senior fellow</td>
<td>128</td>
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<td>130</td>
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<tr>
<td>fellow, senior research fellow, research fellow</td>
<td>305</td>
<td>11</td>
<td>316</td>
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<tr>
<td>junior research staff</td>
<td>81</td>
<td>137</td>
<td>218</td>
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<tr>
<td><strong>Total</strong></td>
<td>571</td>
<td>150</td>
<td>721</td>
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<tr>
<td><strong>Non-academic administrative staff supporting academic activities</strong></td>
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<td><strong>Technical staff</strong></td>
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<tr>
<td>technical officer</td>
<td>277</td>
<td>42</td>
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<tr>
<td>technical assistant</td>
<td>194</td>
<td>140</td>
<td>334</td>
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<tr>
<td><strong>Total</strong></td>
<td>471</td>
<td>182</td>
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<td><strong>Library staff</strong></td>
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<td>professional</td>
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<td>other</td>
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<td><strong>Total</strong></td>
<td>33</td>
<td>103</td>
<td>136</td>
</tr>
<tr>
<td>Designation</td>
<td>males</td>
<td>females</td>
<td>total</td>
</tr>
<tr>
<td>------------------------------------------------</td>
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<tr>
<td><strong>Administrative staff</strong></td>
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<tr>
<td>chief administrative officer</td>
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<tr>
<td>senior administrative officer</td>
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<td>administrative officer</td>
<td>24</td>
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<tr>
<td>administrative assistant</td>
<td>27</td>
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<tr>
<td>clerk, typist, etc.</td>
<td>84</td>
<td>189</td>
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<tr>
<td>other</td>
<td>4</td>
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<tr>
<td><strong>Total</strong></td>
<td>150</td>
<td>217</td>
<td>367</td>
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<td><strong>Building planning and maintenance staff</strong></td>
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<td>tradesmen</td>
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<td>other</td>
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<tr>
<td><strong>Total</strong></td>
<td>113</td>
<td>12</td>
<td>125</td>
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<tr>
<td><strong>Other services</strong></td>
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<tr>
<td><strong>Total teaching-and-research</strong></td>
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<tr>
<td><strong>Total staff</strong></td>
<td>1,989</td>
<td>1,282</td>
<td>3,271</td>
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</table>

<p>| Teaching-and-research staff                    |       |         |       |
| <em>Academic activities</em>                          |       |         |       |
| John Curtin School of Medical                  |       |         |       |
| Research                                       | 1     | 1       | 1     |
| Faculty of Arts                                | 46    | 47      | 103   |
| Faculty of Asian Studies                       | 8     | 7       | 15    |
| Faculty of Economics                           | 10    | 16      | 26    |
| Faculty of Law                                 | 6     | 7       | 13    |
| Faculty of Science                             | 10    | 16      | 26    |
| <strong>Total for academic activities</strong>              | 46    | 47      | 101   |
| Centre for Continuing Education                | 1     | 1       | 2     |
| <strong>Total teaching-and-research</strong>                | 47    | 48      | 111   |</p>
<table>
<thead>
<tr>
<th></th>
<th>professor</th>
<th>professorial fellow</th>
<th>reader</th>
<th>senior fellow</th>
<th>senior research fellow</th>
<th>fellow</th>
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<th>postdoctoral fellow</th>
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<th>research officer</th>
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<td>Survey Research Centre</td>
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<td>Centre for Resource and Environmental Studies</td>
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<tr>
<td>The Research School of Biological Sciences</td>
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<td>1</td>
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<td>The John Curtin School of Medical Research</td>
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<td>The Research School of Pacific Studies</td>
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<td>21</td>
<td>7</td>
<td>14</td>
<td>32</td>
<td>5</td>
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</tr>
<tr>
<td>The Research School of Social Sciences</td>
<td>16</td>
<td>12</td>
<td>14</td>
<td>7</td>
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<td>35</td>
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<td>155</td>
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<tr>
<td>Micro-Analytical Services</td>
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<tr>
<td>Total for academic activities</td>
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<td>45</td>
<td>85</td>
<td>40</td>
<td>52</td>
<td>224</td>
<td>218</td>
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<tr>
<td>Centre for Continuing Education</td>
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<tr>
<td>Computer Centre</td>
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<tr>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Total research only</td>
<td>57</td>
<td>46</td>
<td>85</td>
<td>40</td>
<td>56</td>
<td>228</td>
<td>218</td>
<td></td>
<td></td>
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</table>
## Enrolments to 30 April 1974

<table>
<thead>
<tr>
<th></th>
<th>Full-time</th>
<th>Part-time</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>PhD course</strong></td>
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<tr>
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<td>2</td>
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<tr>
<td>The Faculties</td>
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<td>38</td>
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<tr>
<td>University Academic Centres</td>
<td>6</td>
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<td>7</td>
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<tr>
<td><strong>Total</strong></td>
<td>404</td>
<td>41</td>
<td>445</td>
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<td><strong>Master degree courses</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Institute of Advanced Studies</td>
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<td>7</td>
<td>11</td>
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<tr>
<td>The Faculties</td>
<td>90</td>
<td>102</td>
<td>192</td>
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<tr>
<td>University Centres and other courses</td>
<td>26</td>
<td>—</td>
<td>26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td>109</td>
<td>229</td>
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<tr>
<td><strong>Bachelor degree courses</strong></td>
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<tr>
<td>The Faculties</td>
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<td></td>
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</tr>
<tr>
<td>arts</td>
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<td>arts/law</td>
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<td>Asian studies</td>
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<tr>
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<td>720</td>
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<td>9</td>
<td>118</td>
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<tr>
<td>law</td>
<td>91</td>
<td>109</td>
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<td>science</td>
<td>661</td>
<td>113</td>
<td>774</td>
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<tr>
<td>science (forestry)</td>
<td>229</td>
<td>7</td>
<td>236</td>
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<tr>
<td><strong>Total</strong></td>
<td>2,929</td>
<td>1,509</td>
<td>4,438</td>
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<tr>
<td><strong>Non-degree courses</strong></td>
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<td>legal workshop</td>
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<tr>
<td>master preliminary/qualifying</td>
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<td>123</td>
<td>166</td>
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<tr>
<td>courses of research not leading to a degree</td>
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<td>—</td>
<td>4</td>
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<td><strong>Total</strong></td>
<td>76</td>
<td>123</td>
<td>199</td>
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<tr>
<td><em><em>Net total</em> enrolments at the University</em>*</td>
<td>3,535</td>
<td>1,997</td>
<td>5,532</td>
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</table>

*adjusted by 32 for students counted in more than one course
**Assisted students**

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<tr>
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<th>females</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Postgraduate students</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Australian Government assistance</td>
<td>219</td>
<td>44</td>
<td>263</td>
</tr>
<tr>
<td>University assistance</td>
<td>265</td>
<td>64</td>
<td>329</td>
</tr>
<tr>
<td>other assistance</td>
<td>17</td>
<td>2</td>
<td>19</td>
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<tr>
<td><strong>Undergraduate students</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian Government assistance</td>
<td>297</td>
<td>177</td>
<td>474</td>
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<tr>
<td>State Government assistance</td>
<td>84</td>
<td>97</td>
<td>181</td>
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<tr>
<td>University assistance</td>
<td>51</td>
<td>26</td>
<td>77</td>
</tr>
<tr>
<td>other assistance</td>
<td>4</td>
<td>—</td>
<td>4</td>
</tr>
<tr>
<td><strong>Net total</strong> * assisted students**</td>
<td><strong>930</strong></td>
<td><strong>407</strong></td>
<td><strong>1,337</strong></td>
</tr>
<tr>
<td>at the University</td>
<td></td>
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</tr>
</tbody>
</table>

* adjusted by 10 for students counted in more than one category of assistance

**Degrees conferred**

<table>
<thead>
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<th></th>
<th>males</th>
<th>females</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor of Letters * (honoris causa)</td>
<td>1</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Doctor of Science</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>96</td>
<td>13</td>
<td>109</td>
</tr>
<tr>
<td>Master</td>
<td>53</td>
<td>18</td>
<td>71</td>
</tr>
<tr>
<td>Bachelor</td>
<td>509</td>
<td>260</td>
<td>769</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>659</strong></td>
<td><strong>291</strong></td>
<td><strong>950</strong></td>
</tr>
</tbody>
</table>
Principal benefactions

Special Purpose Grants and Bequests to the University during 1974 were as follows—

APM Forests Proprietary Ltd, $1,500 for research Department of Forestry
Academy of the Social Sciences in Australia, $9,600 fellowship Research School of Pacific Studies
Alliance Industries and Shippers Pty Ltd, $666 scholarship School of General Studies
Anonymous, $100 for general purposes
Associated Pulp and Paper Mills Ltd, $1,500 for research Department of Forestry
Australian Academy of Science, $7,500 for research Department of Clinical Science
Australian Advisory Committee on Research and Development in Education, $18,200 for research Department of Nuclear Physics
Australian Commission on Advanced Education, $6,000 for research Education Research Unit
Australian Institute of Aboriginal Studies, $3,840 fellowship Department of Linguistics, SGS; $5,300 scholarship Department of Chemistry, SGS; $200 for research Department of South Asian and Buddhist Studies
Australian Institute of Nuclear Science and Engineering, $1,605 for research Department of Engineering Physics; $17,947 for research Department of Nuclear Physics
Australian Institute of Urban Affairs, $11,726 for research Urban Research Unit
Australia/Japan Business Co-operation, Scholarships Committee, $400 scholarship Graduate Degrees Committee
Australian Newsprint Mills Ltd, $1,500 for research Department of Forestry
Australian Vice-Chancellors’ Committee, $3,200 fellowship Department of Economics, IAS
Australian Research Grant Committee, $16,645 for research Department of Biochemistry, SGS; $3,368 for research Department of History, SGS; $6,410 for research Department of Political Science, SGS; $16,010 for research Department of Linguistics, SGS; $18,137 for research Department of Prehistory and Anthropology; $12,972 for research Department of Economics, SGS; $6,727 for research Department of Statistics, SGS; $6,142 for research Department of Statistics, SGS; $6,647 for research Department of Asian Civilizations; $2,126 for research Department of South Asian and Buddhist Studies; $45,073 for research Department of Chemistry; $2,300 for research Department of Geology; $33,216 for research Department of Physics; $38,173 for research Department of Zoology; $43,812 for research Department of Forestry
Bougainville Copper Pty Limited, $26,348 for research Research School of Pacific Studies
Canberra Metropolitan Lions Club, $3,763 for research Department of Physiology
Mr B. W. Chappell, $900 for research Department of Geology
Commonwealth Scientific & Industrial Research Organization, $6,600 for research Department of Zoology; $875 scholarship Research School of Biological Sciences; $869 scholarship School of General Studies; $350 scholarship Research School of Physical Sciences; $350 scholarship Research School of Social Sciences
Community Aid Abroad, $3,629 scholarship Research School of Social Sciences; $1,439 for Masters Degree Course in Agricultural Development Economics
Dalgety Agri-Lines Ltd, $4,000 for research Department of Clinical Science
Danish Embassy in Thailand, $6,500 scholarship School of General Studies
Department of Aboriginal Affairs, $5,350 for research Department of Economics, SGS
Department of The Capital Territory, $5,300 for research Department of Chemistry
Department of Defence, $4,000 for research Department of Pacific and South-East Asian History
Department of Education, $10,453 for research Department of Psychology; $5,141 for National Summer School for Talented Students in Mathematics; $17,735 for Masters Degree Course in Agricultural Development Economics; $1,832 scholarship Department of Forestry; $15,000 for research Administrative Studies Program Department of Foreign Affairs, $393 for Nepal Forestry Project; $8,077 for Laos-Australian Reafforestation Project; $1,000 for Assistance on the Development of Australian Studies—University of Venice; $20,000 for research Education Research Unit; $505 for Laos-Australian Forest School Project; $20,428 for Masters Degree Course in Agricultural Development Economics; $30,000 for Japan, Australia and West Pacific Economic Integration Study
Department of Forestry—Queensland, $1,000 for research Department of Forestry
Department of Health, $26,568 for research Department of Sociology; $665 for research Department of Neurobiology; $3,080 for research Department of Pharmacology; $54,745 for NHMRC Social Psychiatry Research Unit
Department of Immigration, $24,233 for research Department of Demography
Department of Manufacturing Industry, $9,900 for Forestry Environmental Consultancy Group
Department of Primary Industry, $1,470 for research Department of Physical Biochemistry; $15,626 for research Department of Zoology; $6,338 scholarships School of General Studies
Department of The Prime Minister and Cabinet, $89,849 for Centre for Research on Federal Financial Relations; $100 for research Department of Physics Department of Science, $26,484 fellowships John Curtin School of Medical Research; $43,908 fellowships Research School of Physical Sciences; $13,506 fellowships Department of Biogeography & Geomorphology; $46,709 fellowships Research School of Chemistry; $9,399 fellowship Research School of Biological Sciences; $13,729 fellowship Department of Zoology; $18,500 for National NMR Centre; $14,110 fellowships Research School of Physical Sciences
Department of Social Security, $100 for research Research School of Physical Sciences
Esso Australia Ltd, $600 scholarship Department of Geology; $1,700 for research Research School of Earth Sciences
F. M. Forests Pty Ltd, $500 for general purposes
Flinders University, $1,000 for research Department of Pacific and South-East Asian History
Ford Foundation, $45,692 for research Research School of Pacific Studies
Forestry Commission of Victoria, $1,500 for research Department of Forestry
Government of South Australia, $1,000 for research Department of Pacific and South-East Asian History
IBM Australia Ltd, $1,000 for National Summer School for Talented Students in Mathematics
Imperial Chemical Industries of Australia and New Zealand Ltd, $3,450 fellowship Department of Physics
International Development Research Centre, $1,856 for research Department of Human Geography
James Cook University, $1,000 for research Department of Pacific and South-East Asian History
La Trobe University, $2,046 for research Department of Pacific and South-East Asian History
Leighton Contractors, $2,500 for general purposes
Life Insurance Medical Research Fund of Australia and New Zealand, $6,352 for research Department of Clinical Science
Macquarie University, $1,000 for research Department of Pacific and South-East Asian History
Medical Research Council—Canada, $382 for research Medical Chemistry Group
Merck, Sharp and Dohme Aust. Pty Ltd, $2,000 for research Department of Zoology
Monash University, $1,000 for research Department of Pacific and South-East Asian History
Mt Isa Mines Ltd, $17,950 for research Research School of Earth Sciences
Muscular Dystrophy Association of America, $5,396 for research Department of Physiology
National Capital Development Commission, $7,400 for Forestry Environmental Consultancy Group
National Heart Foundation of Australia, $7,473 for research Department of Clinical Science
New Zealand Forest Service, $284 for research Department of Forestry
Nuffield Foundation, $42,930 for research Department of Human Biology
Mr C. D. Oakley, $100 for National Summer School for Talented Students in Mathematics
Oxford University, $659 for research Department of Psychology
Reserve Bank of Australia, $10,187 for research New Guinea Research Unit; $3,230 for research Department of Economics, SGS; $15,794 for research Department of Forestry
Rockefeller Foundation, $1,523 for general purposes; $9,879 for research Department of Genetics
Rothmans University Endowment Fund, $5,050 scholarship Research School of Physical Sciences
Sandford Truss Australia Pty Ltd, $1,000 for research Department of Forestry
St Jude’s Children’s Research Hospital, $333 for research Department of Microbiology
Taxation Review Committee, $7,448 for research Department of Economics, IAS
The Myer Foundation, $1,000 for Asian and Pacific Fellowship Grant
Mr P. N. Troy, $500 for research Urban Research Unit
Mr A. Turnbull, $1,000 for research Department of Economics, IAS
United States Air Force, $12,434 for research Research School of Earth Sciences
University of Hawaii, $2,992 for research Department of Pacific and South-East Asian History
University of Melbourne, $1,000 for research Department of Pacific and South-East Asian History
University of Newcastle (NSW), $1,000 for research Department of Pacific and South-East Asian History
University of New South Wales, $1,708 for research Department of Pacific and South-East Asian History; $100 for research Research School of Earth Sciences
University of Papua New Guinea, $1,000 for research Department of Pacific and South-East Asian History
University of Queensland, $5,000 for research Department of Pacific and South-East Asian History
University of Southampton, $627 for research Department of Geology
University of Sydney, $1,000 for research Department of Pacific and South-East Asian History
Western Mining Corporation Limited, $1,125 for research Department of Geology; $500 for research Department of Economics, IAS
Woods and Forests Department—South Australia, $1,000 for research Department of Forestry
World Health Organisation, $798 for research Department of Microbiology
Auditor-General’s Report

AUDITOR-GENERAL’S OFFICE, CANBERRA, ACT
29 July 1975

The Vice-Chancellor,
The Australian National University,
Canberra, ACT 2600

Dear Sir,

Financial Statements
Year ended 31 December 1974

In compliance with a request by the Treasurer in terms of section 33(1.) of the
Australian National University Act 1946–1973, the accounts of the University have
been audited for the year ended 31 December 1974.

The statements listed hereunder have been examined and are in agreement with
the accounts and financial records of the University—

Statement of Net Assets as at 31 December 1974
Statement of Receipts and Payments (excluding Ancillary Activities) for the year
ended 31 December 1974
Ancillary Activities—Consolidated Operating Statement for the year ended 31
December 1974
The Australian National University Press—Operating Statement for the year
ended 31 December 1974
Centre for Continuing Education—Operating Statement for the year ended 31
December 1974
Housing Operation—Operating Statement for the year ended 31 December 1974.

In my opinion the abovementioned statements show fairly the financial operations
for the year ended 31 December 1974 and the state of the affairs of the Australian
National University as at that date.

I have noted that action is being taken by the University staff to ensure that
accounting records and financial statements will be made available for audit in future
years within adequate time to enable the Council to transmit to the Governor-General
a report in accordance with section 33(1.) of the Act.

Yours faithfully,

(Sgd.) D. R. Steele Craik

(D. R. Steele Craik)
Auditor-General
# Financial Statements

## Statement of Net Assets as at 31 December 1974 (i)

<table>
<thead>
<tr>
<th></th>
<th>Current Assets</th>
<th>Non-Current Assets</th>
<th>Reserve for Employer's Liability for Superannuation</th>
<th>Restricted Purpose Recurrent Funds</th>
<th>Total University General Funds</th>
<th>Ancillary Activities</th>
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<tbody>
<tr>
<td><strong>Current Assets:</strong></td>
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<td></td>
<td></td>
<td></td>
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</tr>
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<td>Cash on hand at bank and on deposit</td>
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<td>—</td>
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<td>Prepayments</td>
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<td>—</td>
<td>—</td>
<td>—</td>
<td>57</td>
<td>18</td>
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<tr>
<td>Materials in stores and service pools (at cost)</td>
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<td>—</td>
<td>—</td>
<td>—</td>
<td>503</td>
<td>398</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>—</td>
<td>64</td>
<td>1,569</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>12,264</td>
<td>441</td>
<td>12,705</td>
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<tr>
<td><strong>Non-Current Assets:</strong></td>
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<td>Buildings (at cost or valuation)</td>
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<td>Non-residential and Service Installations</td>
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<td>Equipment and Furniture (at cost or valuation)</td>
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<td>Teaching and Research</td>
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<td>Central Areas</td>
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<td>—</td>
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<tr>
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<td>—</td>
<td>—</td>
<td>550</td>
<td>—</td>
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<tr>
<td>Halls of Residence</td>
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<td>—</td>
<td>—</td>
<td>—</td>
<td>1,093</td>
<td>—</td>
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<tr>
<td>Books and Publications (at cost or valuation)</td>
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<td>—</td>
<td>—</td>
<td>5,548</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104,368</td>
<td>12,264</td>
<td>441</td>
<td>117,073</td>
<td>1,106</td>
<td></td>
</tr>
</tbody>
</table>

## Total Assets

<p>| | | | | | | |
|                          |                |                   |                                                   |                                   |                                |                     |
|--------------------------|----------------|-------------------|---------------------------------------------------|-----------------------------------|                                |                     |
|                          | 3,154          | 104,368           | 12,328                                            | 2,010                             | 121,860                        | 1,836               |</p>
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<th>Less: Liabilities</th>
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<th>—</th>
<th>—</th>
<th>—</th>
<th>—</th>
<th>198</th>
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<td>Cash advanced to Ancillary Activities</td>
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<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>122</td>
</tr>
<tr>
<td>Creditors and Accruals</td>
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<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>140</td>
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<tr>
<td>Provision for Return Fares</td>
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<td>529</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>529</td>
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<tr>
<td>Loan from Superannuation Fund</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>262</td>
<td>529</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>791</td>
</tr>
<tr>
<td><strong>Net Assets</strong></td>
<td>2,892</td>
<td>103,839</td>
<td>12,328</td>
<td>2,010</td>
<td>121,069</td>
<td>1,325</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contingent Liabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Guarantees—Staff Housing Loan Program</td>
<td>487</td>
</tr>
<tr>
<td>University Union—Bank</td>
<td></td>
</tr>
<tr>
<td>overdraft for building purposes</td>
<td>215</td>
</tr>
<tr>
<td><strong>Trust and Agency Funds</strong></td>
<td>5,206</td>
</tr>
</tbody>
</table>

D. A. Low  
Vice- Chancellor

N. G. MacDonald  
Accountant
Statement of Receipts and Payments (Excluding Ancilliary Activities) for the Year ended 31 December 1974 (ii)

<table>
<thead>
<tr>
<th>Recurrent Funds</th>
<th>Capital Works and Services</th>
<th>Reserve for Employer's Liability for Superannuation (1)</th>
<th>Restricted Purpose Recurrent Funds</th>
<th>Total University General Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
</tr>
</tbody>
</table>

**Receipts**

- Balances brought forward from 1973—Reserved Uncommitted

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Government Grants:</td>
<td></td>
</tr>
<tr>
<td>Standing appropriation (vide section 30(1) of The Australian National University Act)</td>
<td>650</td>
</tr>
<tr>
<td>For running expenses (vide Appropriation Act (No. 1) 1973–74 Division 214·1 and Appropriation Act (Nos. 1, 3 &amp; 5) 1974–75 Division 214·1)</td>
<td>45,556</td>
</tr>
<tr>
<td>Research grants (vide Appropriation Act (No. 1) 1973–74 Division 475·3·03 and Appropriation Act (No. 1) 1974–75 Division 475·3·03)</td>
<td></td>
</tr>
<tr>
<td>Postgraduate awards (vide Appropriation Act (No. 1) 1973–74 Division 200·4·01 and Appropriation Act (No. 1) 1974–75 Division 200·4·01)</td>
<td>83</td>
</tr>
<tr>
<td>Approved capital program (vide Appropriation Act (No. 2) 1973–74 Division 845·1·01 and Appropriation Act (No. 2) 1974–75 Division 845·1·01)</td>
<td></td>
</tr>
<tr>
<td>Tuition and examination fees</td>
<td>6</td>
</tr>
<tr>
<td>Subsidies and donations</td>
<td>602</td>
</tr>
<tr>
<td>Other receipts</td>
<td>391</td>
</tr>
<tr>
<td><strong>Total Receipts</strong></td>
<td>47,288</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td>50,731</td>
</tr>
</tbody>
</table>
**Payments:**

<table>
<thead>
<tr>
<th></th>
<th>28,961</th>
<th>—</th>
<th>—</th>
<th>28,961</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll tax, workmen’s compensation insurance and superannuation provision</td>
<td>4,465</td>
<td>—</td>
<td>—</td>
<td>4,465</td>
</tr>
<tr>
<td>Materials and supplies</td>
<td>2,585</td>
<td>—</td>
<td>—</td>
<td>2,585</td>
</tr>
<tr>
<td>Field research expenses</td>
<td>356</td>
<td>—</td>
<td>—</td>
<td>356</td>
</tr>
<tr>
<td>Scholarships and fellowships</td>
<td>1,400</td>
<td>—</td>
<td>—</td>
<td>1,400</td>
</tr>
<tr>
<td>General expenses</td>
<td>5,171</td>
<td>192</td>
<td>—</td>
<td>5,363</td>
</tr>
<tr>
<td>Equipment</td>
<td>3,179</td>
<td>311</td>
<td>—</td>
<td>3,490</td>
</tr>
<tr>
<td>Library books</td>
<td>677</td>
<td>—</td>
<td>—</td>
<td>677</td>
</tr>
<tr>
<td>Payments from Australian Government grants for needy students</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Payments from Australian Government research grants</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>260</td>
</tr>
<tr>
<td>Payments from Australian Government postgraduate awards</td>
<td>102</td>
<td>—</td>
<td>—</td>
<td>102</td>
</tr>
<tr>
<td>Buildings and site services</td>
<td>1,279</td>
<td>3,176</td>
<td>—</td>
<td>4,455</td>
</tr>
<tr>
<td>Fund disbursements</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1,642</td>
</tr>
<tr>
<td>Net investments</td>
<td>—</td>
<td>—</td>
<td>2,051</td>
<td>4</td>
</tr>
<tr>
<td>Other payments</td>
<td>38</td>
<td>—</td>
<td>—</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total Payments</strong></td>
<td>48,213</td>
<td>3,679</td>
<td>2,051</td>
<td>1,907</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55,850</td>
</tr>
</tbody>
</table>

**Balances carried forward to 1975—Reserved**

<table>
<thead>
<tr>
<th></th>
<th>1,498</th>
<th>24</th>
<th>64</th>
<th>1,276</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncommitted</td>
<td></td>
<td></td>
<td></td>
<td>2,862</td>
</tr>
<tr>
<td></td>
<td>1,020</td>
<td>—</td>
<td>—</td>
<td>1,020</td>
</tr>
</tbody>
</table>

**Total Balance carried forward**

<table>
<thead>
<tr>
<th></th>
<th>2,518</th>
<th>24</th>
<th>64</th>
<th>1,276</th>
</tr>
</thead>
</table>

(1) Formerly known as the Commonwealth Superannuation Fund
### Statement of Changes in Assets and Liabilities for the Year ended 31 December 1974 (iii)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash holdings (including Restricted Funds)</td>
<td>$4,699</td>
<td>$807</td>
<td>$3,892</td>
<td>$3,892</td>
</tr>
<tr>
<td>Debtors (including Restricted Funds)</td>
<td>$304</td>
<td>$41</td>
<td>$263</td>
<td>$263</td>
</tr>
<tr>
<td>Prepayments</td>
<td>$728</td>
<td>$58</td>
<td>$670</td>
<td>$670</td>
</tr>
<tr>
<td>Materials in Stores and Service Pools</td>
<td>$445</td>
<td>$58</td>
<td>$387</td>
<td>$387</td>
</tr>
<tr>
<td>Liabilities</td>
<td>$(707)</td>
<td>$(64)</td>
<td>$(643)</td>
<td>$(643)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$5,516</td>
<td>$1,535</td>
<td>$3,981</td>
<td>$3,981</td>
</tr>
</tbody>
</table>

### Non-Current Assets

<table>
<thead>
<tr>
<th>Buildings and Site Services</th>
<th>Non-residential</th>
<th>Halls of Residence</th>
<th>Dwellings</th>
<th>Library Books</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>$48,292</td>
<td>$6,855</td>
<td>$5,101</td>
<td>$5,911</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment and Furniture</th>
<th>Non-residential</th>
<th>Furniture in Dwellings</th>
<th><strong>Total</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>$30,210</td>
<td>$3,472</td>
<td>$33,682</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>$10,631</td>
</tr>
</tbody>
</table>

**Note:** The table above represents the changes in assets and liabilities for the year ended 31 December 1974, with specific details for various asset categories.
<table>
<thead>
<tr>
<th></th>
<th>Increases and Acquisitions</th>
<th>Decreases and Disposals</th>
<th>Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Recurrent Funds</td>
<td>$900</td>
<td>$600</td>
<td>$300</td>
</tr>
<tr>
<td>From Capital and Works and Services Funds</td>
<td>$1,279</td>
<td>$1,114</td>
<td>$165</td>
</tr>
<tr>
<td>From Other Sources</td>
<td>$3,176</td>
<td>$1,175</td>
<td>$1,001</td>
</tr>
</tbody>
</table>

**Building and Site Services**
- Non-residential: $2,554, $112, $2,720
- Halls of Residence: $2,828, $108, $2,720
- Dwelling: $622, $29, $653

**Equipment and Furniture**
- Non-residential: $3,651, $161, $3,472
- Furniture in Dwellings: $61, $344, $3,472

**Library Books**
- $677, $20, $697

**Total**
- $5,135, $3,487, $8,622

**Net Change**
- $5,135, $3,487, $8,622
Ancillary Activities
Consolidated Operating Statement for the Year ended 31 December 1974 (iv)

<table>
<thead>
<tr>
<th></th>
<th>University House</th>
<th>Graduate House</th>
<th>Bruce Hall</th>
<th>Burton* Hall</th>
<th>Garran* Hall</th>
<th>Toad Hall</th>
<th>Staff Centre</th>
<th>Siding Spring Lodge</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
<td>$000</td>
</tr>
<tr>
<td>Tariff Received</td>
<td>262</td>
<td>78</td>
<td>360</td>
<td>286</td>
<td>286</td>
<td>59</td>
<td>—</td>
<td>36</td>
<td>1,367</td>
</tr>
<tr>
<td>Membership and Reg. Fees</td>
<td>22</td>
<td>—</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>29</td>
<td>—</td>
<td>67</td>
</tr>
<tr>
<td>Casual Meals, Catering and Sundry Income</td>
<td>135</td>
<td>—</td>
<td>73</td>
<td>15</td>
<td>15</td>
<td>1</td>
<td>185</td>
<td>3</td>
<td>427</td>
</tr>
<tr>
<td>Beverage and Canteen Sales—Gross Profit</td>
<td>123</td>
<td>—</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>—</td>
<td>97</td>
<td>—</td>
<td>243</td>
</tr>
<tr>
<td>Subvention from University</td>
<td>38</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>38</td>
</tr>
<tr>
<td>Subsidy based on Universities Financial Assistance Act 1966 Section 8</td>
<td>—</td>
<td>—</td>
<td>20</td>
<td>21</td>
<td>21</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>62</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td>580</td>
<td>78</td>
<td>464</td>
<td>333</td>
<td>333</td>
<td>66</td>
<td>311</td>
<td>39</td>
<td>2,204</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foodstuffs</td>
<td>53</td>
<td></td>
<td>—</td>
<td>106</td>
<td>57</td>
<td>—</td>
<td>98</td>
<td>6</td>
<td>377</td>
</tr>
<tr>
<td>Fuel, Light, Power and Heating</td>
<td>24</td>
<td>11</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>10</td>
<td>5</td>
<td>4</td>
<td>117</td>
</tr>
<tr>
<td>Cleaning, Laundry and Sundry Materials</td>
<td>13</td>
<td>6</td>
<td>14</td>
<td>11</td>
<td>11</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>64</td>
</tr>
<tr>
<td>Domestic Staff Wages</td>
<td>282</td>
<td>—</td>
<td>187</td>
<td>118</td>
<td>118</td>
<td>12</td>
<td>161</td>
<td>16</td>
<td>894</td>
</tr>
<tr>
<td>Other Operating Expenses</td>
<td>11</td>
<td>—</td>
<td>6</td>
<td>62</td>
<td>62</td>
<td>—</td>
<td>38</td>
<td>1</td>
<td>180</td>
</tr>
<tr>
<td><strong>Administrative Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Salaries</td>
<td>80</td>
<td>9</td>
<td>47</td>
<td>37</td>
<td>37</td>
<td>8</td>
<td>31</td>
<td>9</td>
<td>258</td>
</tr>
<tr>
<td>Payroll Tax, Workmen's Compensation Insurance and Superannuation Provision</td>
<td>26</td>
<td>1</td>
<td>21</td>
<td>14</td>
<td>14</td>
<td>1</td>
<td>13</td>
<td>3</td>
<td>93</td>
</tr>
<tr>
<td>Other Administrative Expenses</td>
<td>42</td>
<td>2</td>
<td>14</td>
<td>13</td>
<td>13</td>
<td>3</td>
<td>32</td>
<td>1</td>
<td>120</td>
</tr>
<tr>
<td><strong>Property Maintenance and Service Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repayment of Loan</td>
<td>—</td>
<td>32</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>1</td>
<td>—</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total Expenditure</strong></td>
<td>577</td>
<td>80</td>
<td>452</td>
<td>359</td>
<td>359</td>
<td>54</td>
<td>389</td>
<td>51</td>
<td>2,321</td>
</tr>
<tr>
<td><strong>Net Operating Profit (Loss)—transferred to Accumulated Profits and Losses</strong></td>
<td>3</td>
<td>(2)</td>
<td>12</td>
<td>(26)</td>
<td>(26)</td>
<td>12</td>
<td>(78)</td>
<td>(12)</td>
<td>(117)</td>
</tr>
</tbody>
</table>

* Operated jointly
Centre for Continuing Education  
Operating Statement for the Year ended 31 December 1974 (v)

<table>
<thead>
<tr>
<th>A. Courses</th>
<th>$000</th>
<th>$000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fees</td>
<td>15</td>
<td>235</td>
</tr>
<tr>
<td>University Subvention</td>
<td>220</td>
<td>235</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Costs</td>
<td>235</td>
<td>235</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Seminars, Conferences and Workshops</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fees</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Costs</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td><strong>Net Operating Surplus — transferred to Equalisation Fund</strong></td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Statement of Equalisation Fund — Seminars, Conferences and Workshops

| Balance as at 1 January 1974 (surplus) | 9 |
| Add: 1974 Operating Surplus           | 9 |
| Less: Disbursed during 1974            | 5 |
| Adjustment of 1973 Deficit            | 1 |
|                                       | 6 |
|                                       | 12 |
Operating Statement for the Year ended 31 December 1974 (vi)

<table>
<thead>
<tr>
<th></th>
<th>$000</th>
<th>$000</th>
<th>$000</th>
<th>$000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sale of Publications</td>
<td>242</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Rights, Permission Fees and Sundry Income</td>
<td>6</td>
<td></td>
<td>248</td>
<td></td>
</tr>
<tr>
<td><strong>Cost of Sales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock, 1 January 1974</td>
<td>151</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Book Manufacturing Costs</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Editorial Expenses and Commission on Sales</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalties</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>16</td>
<td>175</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Less:</strong> Stock, 31 December 1974</td>
<td>161</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work in Progress</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net External Subsidies Received</td>
<td>7</td>
<td>169</td>
<td></td>
<td>157</td>
</tr>
<tr>
<td><strong>Operating Gross Profit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries</td>
<td>114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll Tax, Workmen's Compensation Insurance and Superannuation Provision</td>
<td>24</td>
<td>138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stationery and Office Supplies</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising</td>
<td>16</td>
<td></td>
<td></td>
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<tr>
<td><strong>Net Operating Loss — transferred to Accumulated Funds</strong></td>
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Housing Operation  
Operating Statement for the Year ended 31 December 1974 (vii)

<table>
<thead>
<tr>
<th>Income</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Expenditure</th>
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<tr>
<td><strong>Operating Costs</strong></td>
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<td>Gardening</td>
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<td>Laundry and Dry Cleaning</td>
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<th>Administrative Costs</th>
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<td>Payroll Tax, Workmen’s Compensation Insurance and Superannuation Provision</td>
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<table>
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<td>Total Accumulated Funds as at 31 December 1974</td>
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