The Australian National University

REPORT OF THE COUNCIL FOR THE PERIOD
1 JANUARY 1966 TO 31 DECEMBER 1966
Contents

THE COUNCIL

Membership  page 1
Principal Activities  page 4

DEVELOPMENTS
OF 1966
IN SUMMARY

The Institute of Advanced Studies  page 8
The School of General Studies  page 9

General University Activities:
  Adult Education  page 12
  Drama Committee  page 13
  Research Students' Association  page 13
  Students' Association  page 14
  Sports Union  page 15
  Inaugural Lecture  page 15
  Public Lectures  page 15
  The David Nichol Smith Memorial Seminar  page 16
  Publications Committee  page 16

Site and Buildings  page 17
Enrolments  page 18
Degrees Awarded  page 18
Honorary Degree  page 21
Prizewinners  page 21

Staff:
  Staff Numbers  page 22
  The Institute of Advanced Studies:
    Senior Staff Appointments  page 22
    Senior Staff Resignations  page 23
    Retirement  page 23
  The School of General Studies:
    Senior Staff Appointments and Promotions  page 24
    Senior Staff Resignations  page 24
    Retirement  page 25
    Visiting Research Workers  page 25

Visitors  page 26
Benefactions  page 26

ACCOMPANYING
REPORTS AND
STATEMENTS

The Institute of Advanced Studies:
  The Dean, The John Curtin School of Medical Research  page 28
  The Dean, The Research School of Physical Sciences  page 45
  The Director, The Research School of Social Sciences  page 61
  The Acting Director, The Research School of Pacific Studies  page 73
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 1966 to 31 December 1966 furnished in compliance with Section 33 of the Australian National University Act 1946-1965.

H. C. COOMBS

Pro-Chancellor
The Council

The Council met seven times during the year in March, May, July, August, September, October and November. The Chancellor presided over the meetings in July and August. Dr H. C. Coombs, Pro-Chancellor, presided over meetings in March, May, October and November. In the Pro-Chancellor's absence Mr J. Q. Ewens was elected to preside over the meeting in September.

The terms of office of the following members expired on the dates shown:

* **Member ex officio:** Professor P. H. Partridge, The Deputy Chairman of the Board of the Institute—29 September 1966†.

* **Members appointed by the Governor-General:** Mr N. L. Cowper*; Mr J. Q. Ewens*; Mr W. O. Fairfax*; Mr H. J. Goode*; Mr B. W. Hone*; Mr P. J. Lawler*; Dr G. L. McDonald*; Mr C. G. McGrath; Sir Frank Richardson*; Mr A. T. Shakespeare*; Sir Frederick White*; Mr A. J. R. Yencken*—29 September 1966.

* **Members chosen or elected:** Professor W. Macmahon Ball; Professor D. N. F. Dunbar*; Dr A. R. Hall; Mr J. A. Merritt; Sir Harold Raggatt; Mr A. J. Rose; Professor W. E. H. Stanner*; Professor E. W. Titterton*; Sir Roland Wilson*; Professor R. D. Wright*; Mr S. C. Yocklunn*—29 September 1966.

* **Member co-opted:** Sir John Crawford—13 November 1966.

The following resignation from the Council was accepted by the Council from the date mentioned: Mr J. M. Fraser—26 January 1966.

**MEMBERS OF THE COUNCIL AS AT 31 DECEMBER 1966**

**MEMBERS EX OFFICIO**


David Guthrie Catcheside, D.Sc(Lond.), F.A.A., F.R.S.—The Deputy Chairman of the Board of the Institute of Advanced Studies.

Cecil Austin Gibb, M.A., B.Ec.(Syd.), Ph.D.(Ill.), F.B.Ps.S.—The Deputy Chairman of the Board of the School of General Studies.

† Chosen by Heads of Research Schools in the Institute.

* Reappointed or re-elected.
MEMBERS ELECTED BY SENATE

Keith Alexander Laught, LL.B. (Adel.).
Elected 1 July 1959; re-elected 1 July 1962 and 1 July 1965; present tenure expires 30 June 1968.

Dorothy Margaret Tangney, B.A., Dip.Ed. (W.Aust.).
Elected 13 July 1951; re-elected 1 July 1953, 1 July 1955, 1 July 1957, 1 July 1959, 1 July 1962 and 1 July 1965; present tenure expires 30 June 1968.

MEMBERS ELECTED BY THE HOUSE OF REPRESENTATIVES

Kim Edward Beazley, B.A. (W.Aust.).
Became member of Interim Council 10 June 1949; elected to Council by House of Representatives 13 July 1951; re-elected 1 July 1953, 1 July 1955, 13 June 1956, 1 July 1958, 8 September 1960 and 3 March 1964; present tenure expires 2 March 1967.

One seat vacant.

MEMBERS APPOINTED BY GOVERNOR-GENERAL

Kenneth John Clements, B.A. (Syd.), Bishop of Canberra and Goulburn.
Appointed 30 September 1966; present tenure expires 29 September 1969.

Norman Lethbridge Cowper, C.B.E., B.A., LL.B. (Syd.).

John Qualtrough Ewens, C.B.E., LL.B. (Adel.).

Sir Warwick (Oswald) Fairfax, M.A. (Oxon.).

Herbert John Goodes, C.B.E., B.A. (W.Aust.).
Became member of Interim Council 9 August 1946; appointed to Council by Governor-General 1 July 1951; reappointed 1 July 1953, 1 July 1955, 1 July 1958, 30 September 1960, 30 September 1963 and 30 September 1966; present tenure expires 29 September 1969.

Brian William Hone, B.A. (Adel.), M.A. (Oxon.).

Peter James Lawler, O.B.E., B.Ec. (Syd.).

Appointed 26 May 1966; reappointed 30 September 1966; present tenure expires 29 September 1969.

Sir (Horace) Frank Richardson
Appointed 1 July 1953; reappointed 1 July 1955, 1 July 1957, 30 September 1960, 30 September 1963 and 30 September 1966; present tenure expires 29 September 1969.
Arthur Thomas Shakespeare
  Appointed 30 September 1960; reappointed 30 September 1963 and 30
  September 1966; present tenure expires 29 September 1969.

Sir Frederick (William George) White, K.B.E., M.Sc.(N.Z.), Ph.D. (Cantab.).
  Appointed 30 September 1960; reappointed 30 September 1963 and 30
  September 1966; present tenure expires 29 September 1969.

Arthur John Russell Yencken, M.A.(Cantab.).
  Appointed 26 May 1966; reappointed 30 September 1966; present tenure
  expires 30 September 1969.

CHOSSEN BY HEADS OF THE RESEARCH SCHOOLS IN THE INSTITUTE
OF ADVANCED STUDIES

Percy Herbert Partridge, M.A.(Syd.).
  Chosen 30 September 1966; present tenure expires 29 September 1967.

Professor E. W. Titterton, C.M.G., M.Sc., Ph.D., Dip.Ed.(Birm.), F.R.S.A.,
  F.A.A.
  Chosen 1 January 1966; re-chosen 30 September 1966; present tenure
  expires 29 September 1967.

CHOSSEN FROM AMONG THE DEANS OF THE FACULTIES IN THE
SCHOOL OF GENERAL STUDIES

David Noel Ferguson Dunbar, M.Sc.(N.Z.), Ph.D.(Melb.).
  Chosen 30 September 1963; re-chosen 30 September 1966; present tenure
  expires 29 September 1969.

  Chosen 8 December 1965; present tenure expires 29 September 1967.

ELECTED BY THE PROFESSORS IN THE INSTITUTE OF ADVANCED STUDIES

William Edward Hanley Stanner, M.A.(Syd.), Ph.D.(Lond.).
  Elected 2 September 1965; re-elected 30 September 1966; present tenure
  expires 29 September 1968.

ELECTED BY THE PROFESSORS IN THE SCHOOL OF GENERAL STUDIES

Graham Shardalow Lee Tucker, B.Com.(Melb.), Ph.D.(Cantab.).
  Elected for three years from 30 September 1965.

ELECTED BY THE NON-PROFESSORIAL ACADEMIC STAFF IN THE
INSTITUTE OF ADVANCED STUDIES

  Elected 30 September 1966; present tenure expires 29 September 1969.

ELECTED BY THE NON-PROFESSORIAL ACADEMIC STAFF IN THE
SCHOOL OF GENERAL STUDIES

Eric Charles Fry, B.A., B.Ec., Dip.Ed.(Syd.), Ph.D.
  Elected 30 September 1966; present tenure expires 29 September 1969.
ELECTED BY THE RESEARCH STUDENTS

Douglas Allen Lauriston Auld, B.A.(W.Ont.), M.A.(Tor.).
Elected for one year from 30 September 1966.

ELECTED BY THE UNDERGRADUATE STUDENTS


ELECTED BY CONVOCATION

John Johnstone Dedman, B.A., Hon. LL.D.
Elected 30 September 1966; present tenure expires 29 September 1969.

Sir Robert (Bowden) Madgwick, O.B.E., M.Ec.(Syd.), D.Phil.(Oxon.), Hon. D.Litt.(Syd.), Hon. LL.D.(Qld.).
Elected 30 September 1966; present tenure expires 29 September 1969.

Sir Roland Wilson, K.B.E., B.Com.(Tas.), D.Phil., Dip.Econ. and Pol.Sc. (Oxon.), Ph.D.(Chic.).
Elected 1 July 1951; re-elected 1 July 1955, 1 July 1959, 30 September 1960, 30 September 1963 and 30 September 1966; present tenure expires 29 September 1969.

Roy Douglas Wright, M.B., M.S., D.Sc.(Melb.), F.R.A.C.P.
Appointed to Interim Council by Governor-General 9 August 1946; elected to Council by Convocation 1 July 1951; re-elected 1 July 1953, 1 July 1957, 30 September 1960, 30 September 1963 and 30 September 1966; present tenure expires 29 September 1969.

SECRETARY

The Registrar

PRINCIPAL ACTIVITIES

The former Prime Minister, the Rt Hon. Sir Robert Menzies, K.T., was admitted to the degree of Doctor of Laws (*honoris causa*) at the Conferring of Degrees Ceremony held on 13 May. Sir Robert received the degree for his distinguished eminence in public service. Presenting Sir Robert for the honorary degree, the Vice-Chancellor, Emeritus Professor Sir Leonard Huxley, said ‘the Australian National University is especially indebted to Sir Robert for the manner in which he whole-heartedly supported this new and unusual academic creation of an earlier government and of another party . . . At this time, following so closely upon his retirement, when, after a long and distinguished career in the service of the nation, he returns to the enjoyment of academic pursuits, the Australian National University is proud to honour this eminent Australian.’ After the ceremony Sir Robert was guest of honour at a dinner given in University House by the University Council.

Council re-elected Dr H. C. Coombs as Pro-Chancellor for a further period of two years from 13 May 1966.
Installation of the Chancellor

Lord Florey of Adelaide was installed as Chancellor of the University at a ceremony in the Canberra Theatre on 7 July 1966.

Appointment of New Vice-Chancellor

Council has appointed Professor Sir John Crawford, Director of the Research School of Pacific Studies, to succeed Sir Leonard Huxley as Vice-Chancellor upon his retirement at the end of 1967.

Administrative Arrangements in School of General Studies

1966 was the first year of operation of the School without a Principal. In anticipation of this change, offices of Deputy Chairman of the Board of the School and Dean of Students had been established in 1965. They were occupied from the beginning of 1966. The arrangements have been very successful due largely to the fine performances of Professor C. A. Gibb, who has been appointed Deputy Chairman of the Board of the School for a period of three years, and Professor D. A. Brown, who was appointed Dean of Students for 1966 and has been reappointed for 1967.

Retirement of Sir Mark Oliphant

Professor Sir Mark Oliphant retires from the University on 1 January 1967. Sir Mark’s contribution to the University has been a significant one, having been a member of its early Academic Advisory Committee, and later of Council. He was Director of the Research School of Physical Sciences from 1950-1963 when he resigned the Directorship to devote himself to scientific research. Sir Mark has been appointed a University Fellow for two years from 1 January 1967, a post recently created as a means of honouring a limited number of scholars of great distinction, and enabling them to continue scholarly work after retirement.

Honours School in Asian Civilization

The University will establish an Honours School in Asian Civilization from the beginning of the 1967 academic year.

Director of University Press

The University, after considering a report prepared by Mr M. Jeanneret, Director of the Toronto University Press, on publishing activities in the University, has authorised the establishment of a University Press and the creation of the post of Director.

Student Welfare

As envisaged in the previous report, the University has appointed Mr J. E. Gough as full-time Student Counsellor. The University Counselling Service will be responsible for dealing with the personal problems and welfare of students, and will be available to advise students on the choice of courses and employment opportunities.

The University has also appointed Dr S. B. Furnass as Director of its Health Service. The Service is available to all students with health problems; it will also be responsible for programmes of health education in the University.

1967-69 Triennium

The Government has approved the following levels of expenditure for the University based on the recommendations of the Australian Universities Commission:

- Recurrent Expenditure: 1967, $15,565,000; 1968, $17,480,000; 1969, $19,188,000.
Buildings and Site Works: $9,976,000.

Research Equipment: $2,760,000 to the Institute and $240,000 to the School of General Studies.

Computers: $184,000 for the expansion of the University's computer facilities.

In addition to the above levels of expenditure for the University the Government has approved a capital expenditure level of $2,640,000, and a recurrent expenditure level of $38,000 for student residences to be established as affiliated colleges at the University.

Academician M.A. Lavrentiev, President of the Siberian Branch of the U.S.S.R. Academy of Science, and a founder of the Academic City project near Novosibirsk, Siberia, visited Australia in July at the invitation of the University. Dr Lavrentiev, who was accompanied by his wife, attended the installation of Lord Florey as Chancellor, and lectured in Australian universities on mathematical topics and on research and education in Academic City in the context of Siberian development.

The University has awarded a Fellowship in the Creative Arts to Melbourne composer Mr George Dreyfus, who will take up his Fellowship in March 1967. Mr Dreyfus has had wide experience as an orchestral musician and as a conductor; recently he has been devoting his energies entirely to composition and the public performance of contemporary music.

The first volume of the Australian Dictionary of Biography was published in March and covers the years 1788-1850 (A-H) in more than 530 entries from some 250 authors. The Dictionary, when completed, will contain more than 6,000 articles by 2,000 contributors in its twelve volumes. The project was sponsored and largely financed by the University, and has received much support from history departments in all Australian universities, historical and genealogical societies and individual scholars.

The University has allotted sites and approved plans for the construction of Burgmann College (Anglican, Methodist, Presbyterian), John XXIII and Ursula Colleges (Roman Catholic) which will become colleges affiliated with the University. Ultimately they will jointly provide 1,000 student places.

The University has established a Strategic and Defence Studies Centre in the Research School of Pacific Studies; the studies to be undertaken will be of an academic character and related to national and international problems of strategy and defence, as well as other aspects of the maintenance and restoration of international peace and security; they will not be preoccupied with military strategy.

The University has conferred the title of Emeritus Professor on Professor H. Burton, Professor Sir Keith Hancock and Professor Sir John Eccles.

A University Staff Council, comprising representatives from the Staff Association, the General Staff Association and the Administrative and Allied Officers' Association, has been formed to deal with matters of joint interest and concern.
The University has received the greater part of the London head office records of the Australian Agricultural Company. These records date from 1824 and their acquisition will fill the main gaps in the company's records which were collected from its Newcastle office by Mr N. G. Butlin (now Professor of Economic History) in 1955.

The University is proud to have a handsome silver ceremonial bowl as a gift from Sir John Cockcroft commemorating his period of office as Chancellor. The bowl is the work of a young British silversmith, Robert Welch, and will be used as a table centrepiece on ceremonial and other special occasions.

The University Staff Centre commenced operations in Old Canberra House in February and provides facilities for members of the academic staff, members of Convocation, graduate staff and other senior officers, to meet socially.

Council has named the new Economics Building in the School of General Studies, the 'Copland Building' after the first Vice-Chancellor, Sir Douglas Copland.

Professor B. J. Bok, who was appointed Professor of Astronomy and Director of Mount Stromlo Observatory in January 1957, returned to the United States in April to take up an appointment as Professor of Astronomy in the University of Arizona. During his term of office the equipment at Mount Stromlo has been greatly improved, the new observatory at Siding Spring brought into operation, and the output of astronomical research greatly increased. Professor Bok's successor, Dr O. J. Eggen, arrived in July.

Professor Sir John Eccles, Head of the Department of Physiology in the John Curtin School of Medical Research since January 1951, resigned from the University in August to take up an appointment in the Institute of Biomedical Research in Chicago. Sir John was President of the Australian Academy of Science from 1957-61, and Nobel Laureate in 1963.

Council has established a Research School of Biological Sciences within the Institute of Advanced Studies. The new School will undertake fundamental research in biology and the development of the basic biological sciences. Initially it is intended to fill three chairs within the School.

The University established the following new departments and chairs:

Chair of Pharmacology in the Department of Physiology, John Curtin School of Medical Research—Dr D. R. Curtis.
Chair of History, Faculty of Arts—Professor C. M. Williams.
Chair of Biochemistry, John Curtin School of Medical Research—Dr F. W. E. Gibson.
Chair in the Department of International Relations, Research School of Pacific Studies—Mr N. H. Bull.
Chair in the Field of Geochemistry, Department of Geophysics and Geochemistry, Research School of Physical Sciences—to be filled.
Chair in the Department of Political Science, Research School of Social Sciences—Mr A. L. Burns.
Chair of Chinese, Faculty of Oriental Studies—Dr Liu Ts'\'un-Yan.
Developments of 1966 in Summary

THE INSTITUTE OF ADVANCED STUDIES

Research has continued actively; this has been mainly in the areas defined in earlier years. Nevertheless, several important developments occurred in 1966, including the foundation towards the end of the year of a sixth Research School. This is the Research School of Biological Sciences, the character of which has been discussed widely for several years. Council established three Chairs of Biology in the new Research School. In the established Schools, the wind of change in research seems to be felt most in those with regional interests, notably in the Research School of Pacific Studies. Accompanying these events are signs of the breaking down of distinctions between departments, leading to the growth of interdisciplinary research. Scholarship is perhaps entering upon an active phase of synthesis.

The total number of academic staff of Research Fellow and upwards in the Institute of Advanced Studies at the end of the year was 269, compared with 244 at the end of 1965. This does not include the substantial number of Visiting Fellows, often of considerable seniority, who spent various periods of time here during the year and contributed much to the work of the Institute. Increasingly, the Institute is becoming an international, as well as a national, research centre, attractive in many disciplines. This desirable trend must continue to be fostered and it is most important that the Institute should have ample funds to support its programme of visiting fellowships.

Amongst several notable changes which occurred in the John Curtin School of Medical Research, Professor Sir John Eccles resigned to take up an appointment as a member of the American Medical Association's Institute for Biomedical Research in Chicago. The importance of neuropharmacology was recognised by the establishment of a second professorship in the Department of Physiology and Dr D. R. Curtis was appointed to this Chair in April. Professor H. M. Whyte took up his appointment as Professor of Clinical Science in August, but his work has been handicapped by delays in completion of the hospital building where his department will be housed. Professor F. W. E. Gibson was appointed to a Chair of Biochemistry and to the Headship of the Department of Biochemistry which was vacated by Professor Sir Hugh Ennor when he became Deputy Vice-Chancellor.

In the Research School of Physical Sciences, Professor Sir Mark Oliphant retired at the end of the year and was appointed a University Fellow. Professor B. J. Bok left in March and Professor O. J. Eggen, the new Director of the Mount Stromlo Observatory and Head of the Department of Astronomy, arrived in July. The first staff members of the Computer Centre began work during the year. Despite some initially unsatisfactory performance which has led to serious delays in some areas of research, the new I.B.M. 360/50 Computer, which was installed in April, has carried a considerable load of work for the University.
In the Research School of Social Sciences, the Urban Research Unit began work on the study of problems of urban development. The study of problems concerning the development of a legal system for Papua and New Guinea, also began during the year. An Education Research Unit, to deal with aspects of higher education and also, perhaps, closely related aspects of secondary education, was established; a Professorial Fellow will be appointed to the most senior post in the Unit. The second chair in the Department of Political Science was filled by the appointment of Mr A. L. Burns. Professor J. A. La Nauze took up his appointment in the Department of History, in succession to Sir Keith Hancock, at the beginning of the year. Sir Keith continues to hold his University Fellowship.

In the Research School of Pacific Studies a Strategic and Defence Studies Centre has been established with Dr T. B. Millar as its Executive Officer. Although in particular association with the Department of International Relations, it will co-ordinate the work of many who may be in any department of the School. A second chair has been created in the Department of International Relations and filled by the appointment of Mr H. N. Bull, who will arrive in 1967.

The main building for the Research School of Chemistry is expected to be ready for occupation in June 1967. The members of the Biological Inorganic Chemistry Unit were transferred from the John Curtin School of Medical Research to the Research School of Chemistry. Mr R. W. Rickards commenced work in temporary quarters in Canberra, while nine Post-doctoral Fellows and ten research students were working in laboratories overseas, under the supervision of Professor Birch or of Professor Craig.

During the year discussion continued, in the Research Schools, of many aspects of academic policies and practices of the Institute of Advanced Studies and particular attention has been paid to the future role of the Institute; it seems likely that these discussions will reach provisional conclusions during 1967. In the meantime, careful study of a number of particular problems is under way.

At the end of 1966 there were 266 full-time students working in the Institute of Advanced Studies as candidates for the degree of Doctor of Philosophy and another forty-nine working in the School of General Studies, making a total of 315 degree of Doctor of Philosophy students in the University as a whole. Of these students, 153 were from other countries. During the year, 120 new scholarships were taken up in the five Research Schools. At the 1966 Conferring of Degrees Ceremony, sixty-five students of the Institute of Advanced Studies received the degree of Doctor of Philosophy, together with nine who had pursued their courses in the School of General Studies.

THE SCHOOL OF GENERAL STUDIES

Growth was both the most pleasing feature of the School of General Studies in 1966 and the source of its principal problem. Because the number of students, both graduate and undergraduate, continues to increase and a growing proportion of these are full-time students the School must continually adapt its facilities, its staff and its curricula to changing needs. The total number of students in all categories in the School of General Studies increased from 2,550 in 1965 to 2,750 in 1966; this represents an overall growth rate of approximately 8%. However, if the crude numbers are weighted as the
Australian Universities Commission weights them, so that the figures represent more fairly the growth of demand on teaching time and facilities, the corresponding figures are 2,265 for 1965 as compared with 2,575 in 1966 or a 13% increase. It is particularly noteworthy that of the 435 degree of Doctor of Philosophy students in the University in 1966 at least eighty were actually working within departments of the School of General Studies under the supervision of School staff members.

The most noticeable feature of planning and administration during 1966 has been the devising of procedures ranging from curriculum modification to staff establishments for coping with growth of this order with a financial grant which for the coming triennium 1967-69 will permit additions to teaching staff at the rate of only about 6%.

The composition of the student body has continued to change in some expected and some unexpected directions. The number and proportion of postgraduate and honours students increased; there are now 50% more full-time than part-time undergraduates; for the first time the Faculty of Arts had more full-time than part-time students; the Faculty of Science remained predominantly full-time, while two-thirds of students in the Faculty of Economics are still part-time. The most notable increase (26%) in numbers and in the proportion of full-time students was in the Faculty of Law which in 1966 had 332 students. On the other hand there was a slight (6%) decline in enrolments in the Faculty of Economics while the increases in the Faculties of Science, Arts and Oriental Studies were considerably below those of 1965.

In the School of General Studies it is a matter of primary concern to determine whether teaching staff and facilities have kept pace in growth with need. In this respect it may be noted that the number of established positions was increased by 13% in the year but the increase in filled positions was only 8%. These figures serve to highlight the great difficulty experienced in obtaining qualified staff. There were some indications in the latter part of the year that able young scholars were becoming available. However, the School again lost a significant number of its senior scholars to chairs in other Australian universities and to more attractive positions overseas. These senior people are exceedingly difficult to replace, with the result that in the most sensitive disciplines a decline in the sum of experienced teaching in departments is noticeable and the increased load of responsibility on few senior members is a constant cause for concern. On the other hand the School is pleased to have made some distinguished appointments during the year. Notably, Dr Liu Ts' stun-Yan formerly Reader in the Department, succeeded Professor N. G. D. Malmqvist in the Chair of Chinese; and Professor C. M. Williams, Head of the Department of History in the University of New England, accepted appointment to the second Chair of History in place of Professor K. S. Inglis.

The Faculties of Economics and Law occupied the new Copland Building in May. While this accommodation is greatly superior to that which they occupied in the temporary Childers Street buildings it remains less than satisfactory for the Faculty of Law which looks forward to its own building by the end of 1968. Such had been the changes in need during the period of construction of this building that the Department of Political Science, whose inclusion had been planned, could not be satisfactorily housed in it and chose to remain at Childers Street. As a result a temporary but very satisfactory location was found in the Copland Building for the new University Health and Counselling Services.
During the year Garran Hall was completed. At the year's end Lennox House which had earned itself and its Warden, Dr M. M. Gore, an enviable reputation for 'spirit' was seen to be a costly enterprise for which there would be relatively little demand in 1967 and the decision was made to relinquish it. The University has, however, been fortunate that the accommodation for students will not be lost because an arrangement has been made with the Dominican Order for the premises to be used as John XXIII College, an affiliated residential College of the University. The College will have a building of its own on the site but it will not be ready until 1968. With this change there will be about 750 student places in University controlled halls for undergraduates in 1967.

The first year of operation without a Principal but with a Deputy Chairman of the Board (Professor C. A. Gibb) and a Dean of Students (Professor D. A. Brown) in his stead has necessitated a good deal of attention to the modification of old administrative procedures and the adoption of new ones. By and large this can be said to have been accomplished smoothly though undoubtedly with loss to the departments administered by the two professors concerned, namely Psychology and Geology.

The University Health and Counselling Services, which were established by Council on the recommendation of its Hone Committee on Student Welfare, began full-scale operations in 1966. The University was particularly fortunate in securing the services of Dr S. B. Furnass as Director of University Health and of Mr J. E. Gough as University Counsellor. Each has excellent qualifications for his position and the already smooth operation of the services is directly due to their experience and skill and to the exceptionally fine performance by Professor D. A. Brown in his role of Dean of Students.

Another notable feature of 1966 has been the first year of eligibility for staff members of the School to make application for research funds from the Australian Research Grants Committee.

Having regard for the very short time to prepare proposals this year the result was very satisfactory. Eight staff members received grants to a total value of $89,938. There is nevertheless a concern in the School lest this method of controlling funds for specific research projects of considerable scale should cause the University and the Universities Commission to lose sight of the fact that sizeable funds are still required by the School of General Studies for the training of its degree of Doctor of Philosophy students, that this is still a developing young institution whose teaching laboratories are not yet fully equipped, and that a steady flow of research funds through the general budget is still required to meet the needs of less costly routine staff research.

Examination results continue to be a matter of some concern. On the results of 1966 examinations 310 degrees of bachelor will be awarded compared with 191 on the 1965 examinations. The overall failure rate remains high, indeed it appears to have been a little higher in 1966. The failure rates in first year classes of any size range from 21% to 58% with a median failing rate at 33%. This would not, of course, be out of line with most other Australian universities. It is not clear that higher standards of admission would correct this situation but certainly uneasiness with present matriculation procedures has increased markedly in all Australian universities in 1966 and particularly in New South Wales and the Australian Capital Territory. There is a severe problem for educational research. A much more worrying feature of the position in the School of General Studies is that the number of enrolled students who drop out during the year remains high. In Political Science, for instance,
this wastage is 21% of enrolments so that in sum 39% of enrolled students fail to complete first year satisfactorily. Indeed, because of a high rate of drop out combined with a high failure rate in Economics I only 27% of enrolled students succeeded in 1966. The proportion of students in the School proceeding to the fourth honours year remains disappointingly low though some departments report signs of a change and the School's own Final Honours Year Scholarships are undoubtedly helping in this regard.

All faculties have reported the pleasing presence of distinguished visitors during the year but special mention might be made of the large number of eminent visitors in the Department of English on the occasion of the David Nichol Smith Seminar organised jointly by the University and the National Library of Australia. The University was again grateful for the assistance given in the teaching of Russian by Moscow State University in permitting Mrs V. N. Shekhova to remain as Visiting Lecturer for a second academic year, and in the visit of Professor Kuleshov in April. The Faculty of Arts has recorded the resignation, on attaining the age of sixty-five, of Associate Professor T. Inglis Moore, O.B.E. Professor Moore established the course in Australian Literature in the University and was pioneer in the academic study of the subject. The School records its appreciation of him as a distinguished scholar in his field.

From several of the faculties reports are made of interesting and significant curriculum changes. In the Faculty of Law, Council approved new rules for the award of Degree of Bachelor of Laws with Honours. Students will now be invited by the Faculty at the end of the third year of the course to enter for the Final Honours Examination. During the fourth year of their course these students will prepare a research paper on a legal topic and will undergo an oral examination based upon that paper. The results of this examination together with results in all law subjects in the degree course will be considered by Faculty in determining the award of honours. In the Faculty of Oriental Studies modification in the curriculum in the Department of Japanese will have the effect of requiring pass students to concentrate rather more than in the past on current Japanese as a means of communication or as a tool of research, while the course for honours students will give greater emphasis to training for further work in Japanese language and literature. Within the Faculty of Science the Department of Geology made some adjustments to its curriculum better to meet the needs of non-university employers of geologists. These changes followed a very successful symposium on Undergraduate Geological Training arranged by the Department and held in Canberra in February 1966.

It would be folly indeed to attempt any forecast of developments in the School of General Studies even in the near future, but it does seem prudent to give notice that the somewhat restricted flow of funds and especially the lag behind of the building programme will certainly necessitate 'quotas' or selection of new students in some departments in 1968. Every effort must, of course, be made to use this circumstance to seek ways of selecting students for admission to these departments who are more likely to be successful.

**GENERAL UNIVERSITY ACTIVITIES**

The Department of Adult Education provided forty-seven classes in thirty-three subjects. The enrolment in these courses totalled 1,725, an increase of 32% over the corresponding figures for 1965. Of the forty-seven classes, twenty-four...
were of thirty sessions each, ten of twenty sessions and thirteen of nine to ten sessions each, a total of 1,045 two-hour lecture-discussion sessions.

Ten schools, conferences or seminars were organised with an enrolment of 458. Several of these schools and conferences drew members from various parts of New South Wales and from other States, as well as from the Australian Capital Territory. The total enrolment in classes and in these schools and conferences was some 850 higher than in 1965.

The educational background of the students enrolled in the classes varies considerably in different subjects, but it may be noted that of the total enrolment 33.2% were graduates; 10.8% were holders of university or other tertiary diplomas; 8.5% held Teachers’ Colleges or other tertiary certificates; and nearly 22% of the remainder had completed a full secondary education. In some cases the proportion of those who held tertiary educational qualifications ranged between 50%, 60%, 70% and 80% of the total enrolled in these courses. In the case of some of the schools and seminars, the proportions ranged from 90% to 100%.

As in 1965, the Department arranged in First and Second Terms a number of tutorials in English Expression for some 170 of the undergraduates who had failed to reach satisfactory results in the special English examinations held in February and March.

The Advisory Committee on Adult Education appointed by Council at its November 1965 meeting, met in May to receive a report on the programme and the report of the Electoral Committee appointed by Council to consider the applications for the Director’s position. Later in the year the Electoral Committee decided to defer an appointment pending clarification of the future position of university adult education arising from the Government’s decision neither to accept nor to reject the recommendations of the Australian Universities Commission on this matter, pending further inquiry.

The Committee met three times during the year. Regular quarterly meetings will be held in the future. It noted with satisfaction and approval the formation of the Performing Arts Council with its plans to foster dramatic and other theatrical activity on the campus, and in particular its intention to raise money for the building of a Fine Arts Centre. The Committee is represented on the Performing Arts Council and on the Users’ Committee for the Fine Arts Centre. On the advice of the Committee plans for alterations and extensions to the Childers Street Hall were prepared. When these are completed the hall, although still in many ways unsatisfactory, will be better equipped for the staging of plays. Interest in theatrical and musical activity within the University is growing rapidly, however, and the need for a University theatre is becoming increasingly urgent.

A Drama Committee storeman has been appointed to exercise general supervision over the storage and maintenance of University theatre equipment. Further scenery, costumes, lighting and sound equipment were purchased during the year, and financial assistance was extended to the Theatre Group.

One of the major projects of the Research Students’ Association was a survey among scholars enrolled for the degree of Doctor of Philosophy, on the question of course work in the doctoral programme. The survey received a high level of response and the final tabulation of results was distributed to the heads of departments in the University.
The executive of the Association had discussions with the Directors of the Research School of Social Sciences and Research School of Pacific Studies on the question of supervision and thesis topics. These deliberations were quite fruitful and clarified several issues that had been confronting scholars.

The Thesis Typing Scheme was revised and certain guidelines set up to ensure that a thesis will be completed on time if these guidelines are followed. Moneys from the scheme in reserve were invested in the University Credit Union.

During the year the Association was represented on the Committee which was drawing up plans for a new postgraduate hall of residence. It is hoped that this hall will be completed in 1969 or 1970.

In May the Research Students' Association and the Students' Representative Council co-sponsored a forum on Papua-New Guinea. This was the first joint venture of its kind and although it was not well-attended, a similar function may be held in the future.

The Annual Lecture was delivered by Professor R. M. Hare, University of Oxford, in September.

The expansion of the Association's activities this year required the employment of an additional full-time secretarial assistant. To relieve the work load placed on the major honorary office holders, the Students' Representative Council is currently investigating the possibility of appointing an office manager who would perform some of the duties now carried out by these officers.

An important development this year was the establishment of the Performing Arts Council to co-ordinate and supervise the activities of undergraduate cultural groups. The Students' Representative Council and the University each contributed $1,000 to the Performing Arts Council, which has now launched an appeal to raise finance for the construction of a University theatre.

The welfare of students was assisted by the appointment of a Students' Representative Council employment officer, and the setting up of a coaching service. This has resulted in part-time employment being found for numerous students throughout the year.

A successful Bush Week raised $2,000 for the Australian Capital Territory Liaison Committee for the New South Wales Royal Blind Society and the University Theatre Fund. This was the first year in which the costs incurred in raising the money were subtracted from the collection before it was distributed.

It is hoped that a university radio programme will begin on the local commercial station during First Term 1967, and that it will be a valuable link between students and the community.

Student interest in national affairs, particularly education, has been displayed through the Students' Representative Council organised activities, such as the Work-Out (during which a broadsheet on education was distributed to almost every home in Canberra and students took part in community aid services), and the Teach-In on Education. Students of the University are also participating in the Overseas Student Travel Scheme, and voluntary aid projects in New Guinea.

This year the Students' Representative Council joined with the Research Students' Association in inaugurating a lecture series which has proved successful and paved the way for future co-operation.
Previously established services such as the Student Loan Fund, were further expanded this year, with grants from both the Students' Representative Council and the University Club and societies have developed rapidly—their number almost doubling throughout the year.

*Prometheus*, the Australian National University literary and social-comment magazine, which was last published in 1958, was again published in 1966, and has been well received by students.

The Students' Representative Council continued to represent students on a broad dimension of matters ranging from parking fines to study vacation. The co-operation of the University administration and the Dean of Students have been of great importance in this regard.

**Sports Union**

The executive committee of the Sports Union, called the Sports Council, is the controlling body for all sport in the University.

Membership of the Sports Union and its twenty-five affiliated sports clubs is open to all graduate and undergraduate students and people holding a degree from another university. Sports Union subscriptions are used to equip and assist the various sports within the University as well as to send teams to intervarsity contests. University teams regularly take part in all the local sporting competitions.

Professor Liu Ts'un-Yan, who took up his appointment as Professor and Head of the Department of Chinese in May 1966, gave his Inaugural Lecture in the Chemistry Lecture Theatre on 5 October. Professor Liu spoke on ‘Chinese Scholarship in Australia’.

**Inaugural Lecture**

**Public Lectures**

The twelve public lectures given in the University during 1966 ranged over such fields as archaeology, the philosophy of religion, English, Australian and Russian literature, and problems of numerical analysis. This last was discussed by Professor L. Fox, Director of the Computing Laboratory and Professor of Numerical Analysis in the University of Oxford, in a lecture entitled ‘Numerical Analysis in a Mathematics Syllabus’. Professor Fox gave his lecture on 4 April in the course of an eight weeks tour of Australia as a Commonwealth University Interchange Visitor.

In two late afternoon lectures which were open to the public, Mr R. D. Williams, Reader in Classics in the University of Reading, spoke on ‘Horace and the English Augustan Age’ on 18 April and ‘Attitudes to Vergil from Dryden to Tennyson’ on 20 April. Mr Williams spent some time as a Visiting Fellow in the University's Department of Classics.

‘Contemporary Soviet Poetry’ was discussed by Professor V. I. Kuleshov in his public lecture on 19 April. Professor Kuleshov is Head of the Department of Russian Literature in Moscow State University and was visiting the Australian National University as an Exchange Visitor.

The year's Commonwealth Literary Fund Lecture was given on 10 May by Professor R. L. McDougall, Professor of English and Director of the Institute of Canadian Studies in Carleton University, Ottawa. Professor McDougall who spent First Term as a Visiting Fellow in the University's Departments of English and History, spoke on 'Australia Felix: Joseph Furphy and Patrick White'.

The Charles Strong Memorial Lecture for 1966, entitled ‘Religious Atheism—Early Buddhist and Recent American’, was given by Professor Cantwell Smith,
on 18 July. Professor Cantwell Smith, Professor of World Religions and Director for the Study of World Religions at Harvard University, gave the lecture in the course of a five weeks tour of Australian universities.

The twenty-seventh in the series of Morrison Lectures was given on 9 August by Dr A. M. Halpern, Research Associate in the Center for International Affairs in Harvard University. Dr Halpern posed the question 'Communist China's Foreign Policy—Success or Failure?'

Two public lectures were given in association with the David Nichol Smith Seminar in Eighteenth Century Studies held in the University in August. Dr H. Davis, of the University of Oxford, spoke on David Nichol Smith on 15 August, and Professor J. T. Burke, Professor of Fine Arts in the University of Melbourne, spoke on 'The Grand Tour and the Rule of Taste' on 18 August.

A lecture on 'American Foreign Policy', given by Professor R. N. Current, Professor of History in the University of North Carolina, was sponsored jointly by the Australian and New Zealand American Studies Association, the Australasian Political Studies Association, and the University. The lecture was given on 23 August at the time of an American Studies Conference in the University.

Professor S. G. Raybould, Professor of Adult Education and Head of the Department of Extramural Studies in the University of Leeds, discussed 'British and American Approaches to Adult Education' in a public lecture on 1 September. Professor Raybould was in Canberra for the Sixth National Adult Education Conference.

One of the world's leading archaeologists, Professor S. Marinatos, gave an illustrated lecture on 'The Site of Peristeria: Mycenae's Rival in the Western Peloponnese' on 21 September. Professor Marinatos is Professor of Archaeology and Head of the Department of Antiquities in the University of Athens. He was visiting Professor in Archaeology for Trinity Term in the University of Sydney.

Under the auspices of the National Library of Australia, the Australian Humanities Research Council and the Australian National University, a seminar in Eighteenth Century Studies was held at the University from 15-19 August. The seminar honoured the memory of the distinguished British scholar, David Nichol Smith, and celebrated the acquisition by the National Library of the books he had collected during his lifetime. Among the 104 members of the seminar there were representatives of most Australian and New Zealand universities, and visitors from other parts of the world. Seventeen papers were delivered by scholars from Britain, Canada, the United States of America, New Zealand and Australia. The proceedings of the seminar are to be published by the Australian National University Press.

The Publications Committee is a committee of Council whose thirteen members are appointed from the Institute of Advanced Studies and the School of General Studies. The Committee administers the University imprint—Australian National University Press—and publishing fund.


The David Nichol Smith Memorial Seminar in Eighteenth Century Studies

Publications Committee

16


The Press has continued an active policy of promoting overseas interests in its books by exhibition at the Frankfurt International Book Fair, the Los Angeles Australian Trade Fair, the Evian International Conference of Sociologists, and the Tokyo International Book Fair.

As in the past, the Press has given editorial and production advice and assistance to various departments. On behalf of Central Administration it has edited and seen through the press the Inaugural Lecture of Professor Liu Ts'un-Yan, Chinese Scholarship in Australia, the Research Students' Association Lecture, Peace, by R. M. Hare, and the 1966 Morrison Lecture, Chinese Foreign Policy—Success or Failure? by A. M. Halpern. It has also distributed the following new and continuing departmental publications: H. C. Brookfield and Doreen Hart, Rainfall in the Tropical Southwest Pacific; New Guinea Research Bulletin, Bulletin of Indonesian Economic Studies and the Oriental Monographs and Occasional Papers of the Centre of Oriental Studies.

During 1966 Council considered the Jeanneret Report on the University's publishing activities and authorised the position of Director of the Press to be filled in 1967.

SITE AND BUILDINGS

A list of buildings completed, under construction and in the stage of planning are included in the Building Programme Summary which appears later in this Report.

The majority of the buildings approved for the 1964-66 triennium were completed by 1966. The only buildings outstanding from this triennium are the Research School of Chemistry, the H. C. Coombs Lecture Theatre and two or three minor projects.

The planning of some of the 1967-69 triennium buildings was completed during 1966. Contracts were let in December 1966 for the completion of the General Studies Building of the University Library, the Forestry Building and the Botany Building, allowing construction to commence forthwith. It is planned
to have the Forestry Building, the Botany Building and part, at least, of the Library ready for the 1968 academic year.

The last major section of the Sullivans Creek improvement works, between the Maintenance Depot and the Boldrewood Street boundary, was completed during the year, leaving only a small section between Canberry Bridge and the 'cascade' to be completed after the precintual planning of this area has been determined. The present design covering the Sullivans Creek proposal does not provide for any treatment of the creek bed and an experimental section of grouted stone channel with turfed wings has been constructed below the upper pond. It is believed that this form of treatment will provide a pleasant yet economical method of finishing the creek bed.

Landscaping work and tree planting has been continued throughout the year, being concentrated largely on the southern side of the mouth of Sullivans Creek near the Research School of Physical Sciences and on the important vista line stretching from the Zoology Building to the University Union.

Planning of all buildings approved for the 1967-69 triennium is in hand, the aim being to have all tender documentation completed prior to the expected date on which funds will be available.

University approval has been given to the sketch plans of Burgmann, John XXIII and Ursula Colleges. The services to be provided for the college sites have been determined and design work has commenced.

ENROLMENTS

One hundred and twenty-one new research students were enrolled by the Institute of Advanced Studies in 1966 for courses of higher research. (The new research students include some seventy-seven Australians, eighteen from Britain, six from New Zealand, thirteen from the United States of America and six from Asian countries.)

There were 1,062 new students in the School of General Studies compared with 1,173 in 1965. The total number of students was 2,785 compared with 2,568 in 1965. Of these 1,520 were full-time students and 1,048 were part-time students. Students enrolled in 1966 for the degree of master numbered 178 (168 in 1965). The number of enrolments for the degree of bachelor was 2,555 and there were 109 enrolments (318 in 1965) for miscellaneous subjects.

DEGREES AWARDED

Lord Florey of Adelaide addresses the congregation at his installation as Chancellor on 7 July.

Conversing after the ceremony for his installation as Chancellor are Lord Florey (centre), the Pro-Chancellor, Dr H. C. Coombs (left) and the Vice-Chancellor, Emeritus Professor Sir Leonard Huxley.
The silver ceremonial bowl presented to the University by Sir John Cockcroft in commemoration of his period of office as Chancellor.

The Rt Hon. Sir Robert Menzies, K.T., the former Prime Minister, received the honorary degree of Doctor of Laws at the Conferring of Degrees Ceremony.
Professor Sir John Crawford will succeed Emeritus Professor Sir Leonard Huxley as Vice-Chancellor at the end of 1967.

After the formalities of his installation as Chancellor, Lord Florey was made an 'Honorary Doctor of Bush Week' by students of Garran Hall who clad the new Chancellor in a hessian gown and a cork-fringed bushman's hat.
Professor Sir Mark Oliphant was appointed a University Fellow to enable him to continue his scholarly work after retirement.
Professor H. M. Whyte in the Department of Clinical Science began duties in August.

Melbourne composer George Dreyfus, the most recently appointed of the University’s Creative Arts Fellows.

Mr Sohn Singh Redal, from the All-India Institute of Medical Sciences, New Delhi, studied techniques of scientific glassblowing while working in the John Curtin School of Medical Research under the Colombo Plan.

Academician M. A. Lavrentiev, President of the Siberian Branch of the U.S.S.R. Academy of Science, visited Australia in July at the invitation of the University.
The University Co-operative Bookshop Ltd situated on the lower ground floor of the University Union.

Mrs J. North (left) and Mrs J. Douglas, two of the eight entrants who shared first prize in the first art exhibition organised by the University Union.
Dr R. J. Stalker with the shock tunnel designed and built in the Department of Physics. The tunnel is capable of producing speeds of up to 20,000 m.p.h. and was seen publicly for the first time during Open Days on 8 and 9 July.

The Arts/Economics complex is taking shape on the northern part of the site. The Faculty of Arts is housed in the Haydon-Allen Building (right). To the left of the Haydon-Allen Lecture Theatre is the Copland Building for the Faculty of Economics.
The cascade and lower pond of Sullivans Creek, looking towards Ward Bridge.

The staff lodge at Siding Spring Observatory—the field station of Mount Stromlo Observatory.

Cloisters lend a traditional university atmosphere to the Oriental Studies Building and provide an area in which students can relax between lectures.

The degree of Bachelor of Arts with Honours was conferred on: M. J. Dallwitz, O. F. Dent, W. L. Gammage, A. D. Gilbert, Mary P. Kneipp, J. L. Lander, I. J. Martin, I. G. F. Paton, Elizabeth A. Reid, Claudia Rhodes, Marlene Spiegler, Anne J. Wildash, O. D. Mendelsohn.

The degree of Master of Arts was conferred on: G. W. Kerrison (Philosophy, School of General Studies); Siew E. Lee (Geography, School of General Studies); Marjorie A. Moffat (Classics); H. R. G. Oakes (History, School of General Studies); Frances M. O'Connor (English); Martha D. Rutledge (History, School of General Studies) Linda L. Viney (Psychology).


The degree of Bachelor of Economics with Honours was conferred on: D. P. Guneratne, R. J. Hides.

The degree of Master of Economics was conferred on: R. F. O'Donohue (Economics, School of General Studies).


The degree of Bachelor of Laws with Honours was conferred on: R. M. Alexander, Pauline R. Armstrong, P. Buchanan, M. C. Scott.

The degree of Master of Laws was conferred on: D. R. Anderson (Faculty of Law).

The degree of Bachelor of Arts (Oriental Studies) was conferred on: Bettina Gorton, Irene M. Hoy, J. R. Landman, Aleida Van Haren, Theresa M. Y. Yo.

The degree of Bachelor of Arts (Oriental Studies) with Honours was conferred on: Carolyn Christison, Patricia C. Hamilton, Ann L. Kumar.

The degree of Master of Arts (Oriental Studies) was conferred on: Chien-Ming Twanmoh (Asian Civilization); Patricia R. Uberoi (Chinese).


The degree of Bachelor of Science (Forestry) with Honours was conferred on: L. Bolland, M. D. Higgins, M. L. Higgs, K. J. Phillis, E. J. Rider, R. H. Squire.

The degree of Master of Science was conferred on: A. L. Andrew (Applied Mathematics, School of General Studies); C. K. Cheong (Statistics, School of General Studies); P. J. Cook (Geology); D. A. Gilmour (Botany); H. E. Huppert (Mathematics, Institute of Advanced Studies); N. E. A. Johnson (Geology); J. G. McColl (Botany), R. G. Mollan (Geology); D. F. Nicholls (Statistics, School of General Studies); D. R. Osgood (Nuclear Physics); J. M. Rhodes (Geology); J. Rungis (Physics); Elizabeth F. Scarr (Nuclear Physics); J. W. Smith (Geology); R. F. C. Smith (Zoology); A. G. R. Stewart (Mathematics, Institute of Advanced Studies).

The degree of Doctor of Philosophy was conferred on: E. P. Adams (Experimental Pathology); M. J. Abbott (Geology); J. D. Allingham (Demography); G. N. Appell (Anthropology and Sociology); R. E. Barwick (Zoology); E. F. Bradley (Mathematics, Institute of Advanced Studies); D. T. Brash (Economics, Research School of Social Sciences); J. C. Briden (Geophysics and Geochemistry); D. Brook (Philosophy, Institute of Advanced Studies); C. Brooks (Geophysics and Geochemistry); R. G. Burns (Mathematics, Institute of Advanced Studies); H. R. Bustard (Zoology); G. L. Buxton (History, Institute of Advanced Studies); H. A. Cohen (Theoretical Physics, Institute of Advanced Studies); J. M. Crawford (Physiology); A. W. David (Statistics, Institute of Advanced Studies); M. S. Devanandan (Physiology); Miriam J. Dixson (History, Institute of Advanced Studies); J. A. Dowie (Economic History, Institute of Advanced Studies); B. K. Filshie (Electron Microscope Unit); P. W. Gage (Physiology); G. I. Gaudry (Mathematics, Institute of Advanced Studies); M. V. George (Demography); N. D. Gupta (Mathematics, Institute of Advanced Studies); J. F. Harris (Geology); Phyllis M. Healey (Anthropology and Sociology); W. A. Heather (Botany); Thelma E. Heyde (Biochemistry); B. L. Hillcoat (Biochemistry); R. K. Jain (Anthropology and Sociology); B. S. Jardine (Philosophy, Institute of Advanced Studies); G. W. Jones (Demography); L. J. Kavic (International Relations); J. A. R. Koehler (Astronomy); P. Kolbe (Geophysics and Geochemistry); G. L. Kristianson (Political Science, Institute of Advanced Studies); T. Kuribayashi (Law, Institute of Advanced Studies); K. S. K. Lam (Microbiology); R. Linas (Physiology); Y. Løvsteng (Physiology); Janice M. Lyall (Medical Chemistry); K. D. Lyall (Geophysics and Geochemistry); A. M. Maude (Geography, Institute of Advanced Studies); Phyllis G. Mitchell (History, Institute of Advanced Studies); J. W. Morgan (Geophysics and Geochemistry); H. F. Owen (History, Institute of Advanced Studies); J. R. Patterson (Nuclear Physics); C. E. M. Pearce (Statistics, Institute of Advanced Studies); R. M. Pike (Sociology); I. H. Pitman (Medical Chemistry); A. Ploeg (Anthropology and Sociology); R. M. Price (Astronomy); J. Purcal (Economics, Research School of Pacific Studies); D. J. Routledge (Pacific History); M. K. Roy (Theoretical Physics, Institute of Advanced Studies); K. B. Ryan (Geography, Institute of Advanced Studies); J. F. Sambrook (Microbiology); D. C. Simbulan (Political Science, Institute of Advanced Studies); M. Singarimbun (Anthropology and Sociology); S. Singh
(Economics, Research School of Pacific Studies); J. F. Skidmore (Zoology),
Margaret T. S. South (Far Eastern History); P. L. Spedding (Diffusion
Research Unit); M. L. Srivastava (Demography); K. E. Turnbull (Chemistry);
N. Visvanathan (Astronomy); M. A. Ward (Mathematics, Institute of
Advanced Studies); J. F. Williams (Physics); R. M. Wright (Philosophy,
Institute of Advanced Studies); P. G. Young (Nuclear Physics).
The degree of Doctor of Science was conferred on: R. L. Blakley (Bio-
chemistry).

HONORARY DEGREE
The degree of Doctor of Laws (honoris causa) was conferred on: The Rt Hon.
Sir Robert Menzies, K.T., on the ground of his distinguished eminence in
learning and in public service.

PRIZEWINNERS
The Alliance Francaise de Canberra Prize FRENCH I: Deborah Jean Wilkins
FRENCH II: Judith Alison King FRENCH III: Jane Philippa Gil-
mour FRENCH IV: Not awarded.
The Australian Institute of Physics Prize Peter Gordon Browne
The Australian Psychological Society Prize Neill John Haine
The Australian Society of Accountants' Prize ACCOUNTING I: Robert Stanley
Beggs ACCOUNTING II: Gregory Mitchell Maughan
Canberra Association of University Women Prize Sally Marjorie Borthwick
The Canberra Goethe Society Prize GERMAN I: Catherine Ann Borrie
GERMAN II: Janet Elizabeth Price GERMAN III: Karin Doris
Ernst GERMAN IV: Helena Aulikki Immonen
The Commonwealth Forestry Bureau Book Prize David Bruce Boomsma
The C.S.R. Chemicals Prize John Robert Christie
The Economic Society Prizes ECONOMICS I: Francis Edward Fisher
ECONOMICS II: Alastair James Fischer ECONOMICS III: Ross
Gregory Garnaut
The Geological Society of Australia Prize Richard Charles Price
The George Knowles Memorial Prize Anatolij Cork and James William
Constance
The Institute Prize for Economic History Not awarded
The Lady Isaacs' Prize Ronald Gordon Fraser and Donald Gordon Mitchell
The Leslie Holdsworth Allen Memorial Prize Penelope Allum
The Marie Haldsworth Memorial Prize Patricia Hope Hewitt
The Permanent Trustee Company (Canberra) Limited Prizes PROPERTY II:
Not awarded TRUSTS: Bruce Gordon Donald
Priscilla Fairfield Bok Prize Juliet Morgan
Professional Officers' Association Prizes PHYSICS I: Anthony Donald Weir
ZOOLOGY I: Madeleine Alice Ryan
The Pure Mathematics Prizes PURE MATHEMATICS IV: George Alexander
Maxwell PURE MATHEMATICS III: Christopher James Smyth
Rachel Dorph Memorial Prize Audrey Frances Dargan and Patricia Hope
Hewitt
The Ramsay Prize  Rhonda Maree Meech
The Royal Australian Chemical Institute Prize  Gerald James Stubbs
The Royal Institute of Public Administration Prize  Desmond John Ball
The Shell Company Prizes  ECONOMICS: Not awarded  SCIENCE: John Francis Haasz
The Statistical Society of Canberra Prize  Edwin Ronald Coleman
The Tillyard Prize  Graham Richard Alliband
The Timbind Utilization Prize  Roger Sands
The United Commercial Travellers' Association Prize  Ross Gregory Garnaut
The University Prizes  Sally Marjory Borthwick: HONOURS SCHOOL OF CHINESE
John Robert Christie: HONOURS SCHOOL OF CHEMISTRY
Geoffrey Stewart Marchant: HONOURS SCHOOL OF THEORETICAL PHYSICS
George Alexander Maxwell: HONOURS SCHOOL OF PURE MATHEMATICS
Neil Hale Williams: HONOURS SCHOOL OF PURE MATHEMATICS

The W. B. Clarke Prize in Geology  Not awarded

STAFF

The total full-time staff (excluding research scholars) as at 31 July 1966, was 1,928 representing a net increase of 195 over the corresponding figure at 31 July 1965, namely 1,733.

The academic staff increased by ninety-four (18%) from 510 to 604 and the non-academic staff increased by 101 (8%) from 1,223 to 1,324.

SENIOR STAFF APPOINTMENTS
Professor A. L. Burns, Professor of Political Science, formerly Reader.
Dr E. G. Cleary, Senior Research Fellow in Experimental Pathology, formerly Overseas Fellow, National Heart Foundation.
Mr W. A. Coppel, Senior Fellow in Mathematics, formerly Fellow.
Dr C. H. Doy, Senior Fellow in Genetics, formerly Senior Lecturer in Microbiology, University of New South Wales.
Professor O. J. Eggen, Professor of Astronomy and Director of Mount Stromlo Observatory, formerly of Mount Wilson and Palomar Observatories, California.
Dr A. L. Epstein, Professorial Fellow in Anthropology and Sociology, formerly Senior Lecturer, University of Manchester.
Professor F. W. E. Gibson, Professor and Head of Department of Biochemistry, formerly Professor of Chemical Microbiology, University of Melbourne.
Mr J. L. S. Girling, Senior Research Fellow in International Relations, formerly Senior Research Scientist, Foreign Office, London.
Dr R. B. Goldrick, Senior Fellow in Clinical Science, formerly Senior Research Fellow of the National Heart Foundation, Kanematsu Memorial Institute, Sydney Hospital.
Mr B. D. Haig, Senior Fellow in Economic History, formerly Fellow.
Dr A. Hunter, Senior Fellow in Economics, Research School of Social Sciences, formerly Senior Research Fellow.
Professor S. Izumi, Senior Research Fellow in Mathematics, formerly Professor of Mathematics, Nihon University, Japan.
Dr E. Kamenka, Senior Fellow in Philosophy, formerly Fellow.
Dr S. Kaneff, Professorial Fellow in Engineering Physics, formerly Reader in Electrical Engineering, University of Adelaide.
Dr J. Kowalik, Senior Research Fellow in the Computer Centre, formerly Fellow of the Royal Norwegian Council for Scientific and Industrial Research, Technical University of Norway, Trondheim.
Dr M. W. McElhinny, Senior Fellow in Geophysics and Geochemistry, formerly Lecturer in Physics, University College of Rhodesia.
Dr R. E. Miles, Senior Research Fellow in Statistics, formerly Lecturer in Statistics, University College of Wales, Aberystwyth.
Dr T. B. Millar, Senior Fellow in International Relations, formerly Fellow.
Dr P. J. Nestel, Professorial Fellow in Clinical Science, formerly Second Assistant, Department of Medicine, University of Melbourne.
Dr G. M. Neutze, Senior Fellow in Economics, Research School of Social Sciences, formerly Senior Lecturer in Economics, School of General Studies.
Dr T. R. Ophel, Senior Fellow in Nuclear Physics, formerly Fellow.
Dr J. Panglaykim, Senior Research Fellow in Economics, Research School of Pacific Studies, formerly Associate Professor, Faculty of Economics, University of Indonesia.
Dr A. W. Rodgers, Senior Fellow in Astronomy, formerly Fellow.
Dr Gutta I. Schoeff, Senior Research Fellow in Experimental Pathology, formerly Postdoctoral Fellow, Sir William Dunn School of Pathology, Oxford.
Dr K. Serkowski, Senior Research Fellow in Astronomy, formerly Astronomer at Lowell Observatory, Arizona.
Professor T. H. Silcock, Senior Research Fellow in Economics, Research School of Pacific Studies, formerly Visiting Fellow.
Dr V. Subramaniam, Senior Research Fellow in Political Science, formerly Senior Lecturer, University of Western Australia.
Professor H. M. Whyte, Professor of Clinical Science, formerly Director of Medical Research, Kanematsu Memorial Institute, Sydney Hospital.
Dr R. K. Wilson, Senior Research Fellow in the New Guinea Research Unit, formerly Senior Lecturer in Economic Geography, University of Melbourne.

SENIOR STAFF RESIGNATIONS

Dr R. T. Appleyard, Senior Fellow in Demography, on appointment to the Chair of Economic History, University of Western Australia.
Dr Paula Brown, Senior Fellow in Anthropology and Sociology, on appointment as Associate Professor in Anthropology, University of New York.
Dr W. M. Corden, Professorial Fellow in Economics, Research School of Pacific Studies, on appointment as Nuffield Reader in International Economics and Fellow, Nuffield College.
Professor Sir John Eccles, Professor of Physiology, on appointment to the Institute for Biomedical Research, Chicago.
Dr J. I. Hubbard, Senior Fellow in Physiology, on appointment to the Chair of Biological Sciences, Northwestern University.
Dr H. A. Lamb, Senior Fellow in History, on appointment as Research Fellow, University of Leeds.
Dr W. E. Stehbens, Senior Fellow in Experimental Pathology, on appointment as Director of Pathology, Jewish Hospital, Missouri.

RETIREMENT

Professor Sir Mark Oliphant, K.B.E., Professor of Physics and Head of Physics of Ionized Gases Unit.
SENIOR STAFF APPOINTMENTS AND PROMOTIONS

Dr G. J. Aitchison, Reader in Physics, formerly Senior Lecturer.
Dr A. Alfonso, Reader in Japanese, formerly Assistant Professor in Japanese, University of Hawaii.
Dr R. E. Barwick, Senior Lecturer in Zoology, formerly Lecturer.
Dr J. A. Broomhead, Senior Lecturer in Chemistry, formerly Lecturer in Chemistry, University of Queensland.
Mr B. R. B. Crouch, Wool Board Fellow, formerly District Agricultural Officer, Victorian Department of Agriculture.
Mr J. E. Drummond, Reader in Applied Mathematics, formerly Senior Lecturer.
Dr C. Forster, Reader in Economic History, formerly Senior Lecturer.
Dr C. R. Heathcote, Reader in Statistics, formerly Senior Lecturer.
Mr P. R. Ireland, Senior Lecturer in Russian, formerly Lecturer.
Mr G. K. W. Johnston, Reader in English, formerly Robert Wallace Professor in English, University of Melbourne.
Dr H. G. Kinloch, Senior Lecturer in History, formerly Visiting Professor in American History, University of Malaya.
Professor T. Y. Liu, Professor of Chinese, formerly Reader.
Mr R. Ma, Senior Lecturer in Accounting and Public Finance, formerly Lecturer in Accounting, University of Singapore.
Dr S. A. A. Rizvi, Senior Lecturer in Asian Civilization, formerly Reader and Head of the Department of History, University of Jammu and Kashmir.
Dr P. Rudman, Senior Lecturer in Forestry, formerly Visiting Fellow, University of Leeds.
Dr D. K. Sloane, Senior Lecturer in Economics, formerly Lecturer.
Dr J. A. A. Stockwin, Senior Lecturer in Political Science, formerly Lecturer.
Dr L. J. Tassie, Reader in Theoretical Physics, formerly Senior Lecturer.
Dr C. A. Tisdell, Senior Lecturer in Economics, formerly Lecturer.
Dr R. N. Warrener, Senior Lecturer in Chemistry, formerly Lecturer.
Mr I. F. H. Wilson, Senior Lecturer in Political Science, formerly Lecturer.

SENIOR STAFF RESIGNATIONS

Dr R. L. Backus, Senior Lecturer in Japanese, on appointment to the University of California.
Dr E. C. F. Bird, Senior Lecturer in Geography, on appointment as Reader in Geography, University of Melbourne.
Dr D. C. Corbett, Associate Professor in Political Science, on appointment to the Chair of Political Theory and Institutions, Flinders University of South Australia.
Dr S. Encel, Reader in Political Science, on appointment to the Chair of Sociology, University of New South Wales.
Dr W. J. Ewens, Senior Lecturer in Statistics, on appointment as Professor of Mathematics, La Trobe University.
Professor K. S. Inglis, Professor of History, on appointment to the Chair of History, University of Papua and New Guinea.
Dr I. A. McDougall, Senior Lecturer in Economics, on appointment to the Chair of Economics, Massey University of Manawatu.
Dr G. M. Neutze, Senior Lecturer in Economics, on appointment as Senior Fellow in Economics, Research School of Social Sciences.
Mr A. J. Rose, Reader in Geography, on appointment to the Chair of Geography, Macquarie University.
Dr J. S. Western, Senior Lecturer in Psychology, on appointment as Senior Lecturer in Government, University of Queensland.

RETIREE

Associate Professor T. Inglis Moore, O.B.E., Associate Professor in English.

The University was glad to afford facilities for the work of the following overseas research workers: Dr H. S. Levy, Director, Foreign Service Institute, Japanese Language and Area Training Centre, Yokohama; Dr S. Banno, University of Tokyo; Dr J. Goldacre, Chester Beatty Research Institute, London; Dr H. P. C. Hogenkamp, University of Iowa; Dr M. W. Whitehouse, University of Oxford; Dr J. Rehacek, Institute of Virology, Czechoslovak Academy of Sciences; Dr Pik Sin, The Bosscha Observatory, Lembang, Indonesia; Dr A. E. Beck, University of Western Ontario; Mr M. D. Leggo, University of Melbourne; Dr A. Ewart, New Zealand Geological Survey; Mr V. J. Willis, University of Alberta; Mr J. Poland, McGill University; Dr G. Stafford, Rutherford Laboratory, United Kingdom; Mr W. L. Weinstein, University of Oxford; Dr E. Eshag, University of Oxford; Dr W. L. Rowe, Duke University; Professor V. I. Kuleshov, Moscow State University; Dr J. Kolmas, Oriental Institute, Czechoslovak Academy of Sciences; Mr S. Pasupathi, Forest Department, Madhya Pradesh, India; Dr I. F. Wright, University of Manchester; Professor M. Hiramatsu, Keio University; Professor A. G. Anderson, University of Washington; Professor M. C. Havens, Duke University; Mr P. Luyk, University of Hong Kong; Professor R. Cohen, University of California; Dr V. B. Olenin, Moscow State University; Dr M. Jennings, University of Oxford; Dr R. Cecil, University of Oxford; Dr D. S. Evans, Royal Observatory, Cape Town; Professor D. S. Burch, Oregon State University; Dr K. H. Walen, University of California; Dr M. Ishizuki, Research Institute of Humanistic Science, Kyoto University; Professor N. P. Grushinskii, Moscow State University; Dr C. K. J. Paniker, University of Kerala; Dr A. Stamp, Massachusetts Institute of Technology; Dr L. N. Vorobiev, Moscow State University; Mr K. Yoneda, Institute of Asian Economic Affairs, Tokyo; Dr G. M. Crawley, Michigan State University; Professor P. S. Sarma, Indian Institute of Science, Bangalore; Professor D. B. Zilversmit, University of Tennessee, Memphis; Professor B. Osogoe, Okayama University; Mr G. W. P. Dawson, University of Dublin; Professor N. H. Giles, Yale University; Professor H. L. Roman, University of Washington; Dr J. J. McCormack, Yale University; Dr Billie L. Padgett, University of Wisconsin; Dr G. Appleyard, Porton Microbiological Research Establishment; Dr Berttina Wentworth, University of California; Dr Helen V. Coates, National Institute of Allergy and Infectious Diseases, Bethesda Md.; Dr D. Stancek, Institute of Virology, Czechoslovak Academy of Sciences; Dr P. Strata, Institute of Physiology, Pisa; Dr P. P. N. Rudomin, Research and Advanced Studies Institute of Mexico; Dr W. C. de Groat Jr, University of Pennsylvania; Dr L. Hosli, University of Basel; Professor R. C. Williams, University of California; Dr J. B. Oke, California Institute of Technology; Dr J. E. Everett, University of Cambridge; Professor A. E. Beck, University of Western Ontario; Dr M. W. McElhinny, University College of Rhodesia and Nyasaland, Dr F. Smithies, University of Cambridge; Professor S. J. Tobin, University College, Galway; Associate Professor H. J. F. Lowig, University of Alberta; Emeritus Professor E. Hille,
University of California, Irvine; Dr Mary Rees, University of Reading; Mr G. J. McCallum, New Zealand Institute of Nuclear Science; Professor G. Breese, Princeton University; Dr M. P. Jain, University of Delhi; Professor M. Black, Cornell University; Professor R. M. Hare, University of Oxford; Dr D. Butler, Nuffield College, Oxford; Dr K. H. Connell, Queen's University, Belfast; Mr Shunsaku Kato, Kanto Gakuin University; Dr A. Robinson, Victoria University of Wellington; Mr R. D. Williams, University of Reading; Professor R. L. McDougall, Carleton University; Mrs V. N. Shekhova, Moscow State University.

VISITORS
During the year the University was honoured by the visit of:
H.E. The British High Commissioner and Lady Johnston
H.E. The Ambassador of Nepal.

Among overseas visitors to the University were: Mr E. H. Cousins, Senior Chief Education Officer, Jamaican Ministry of Education; Sir Ronald Bodley Scott, K.C.V.O., London; Sir Patrick Linstead, F.R.S., Imperial College, London; Mr J. K. Collins, Christchurch, New Zealand; Mr M. A. Hunt, Christchurch, New Zealand; Dr J. S. Salcedo, Chairman, Philippines National Science Development Board; Dr O. S. Pascual, Philippines Atomic Research Centre; Tan Sri Sardon, Malaysian Minister of Transport; Mr C. H. Moreira, Director of Civil Aviation, Malaysia; Dr K. Inoue, Vice-Minister for Science and Technology, Japan; Dr N. Takagi, Director of the Space Development Centre, Japan; Dr S. S. Dhalwal, University of Malaysia; Dr F. P. Galbraith, University of Alberta; Mr J. C. Daly, University of Waikato.

BENEFACTIONS
Special Purpose Grants and Bequests to the University during 1966 were as follows:

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</table>

Acknowledgment must also be made here of the many gifts in kind received by the University.
Accompanying Reports and Statements

THE INSTITUTE OF ADVANCED STUDIES

THE JOHN CURTIN SCHOOL OF MEDICAL RESEARCH

REPORT OF THE DEAN

Professor Sir Hugh Ennor, C.B.E., F.A.A.

In a year notable for changes within the School, Professor Sir John Eccles resigned from his position as Head of the Department of Physiology to take up an appointment as a member of the American Medical Association's Institute for Biomedical Research in Chicago. Professor Eccles was appointed to the foundation Chair of Physiology in this School in December 1951 and built up an outstanding international reputation for himself and the Department in the field of neurophysiology. Professor Eccles' contributions to the University were recognised by subscriptions given by members of the University towards the cost of a portrait for which the Australian artist, Miss Judy Cassab, was commissioned.

As has already been noted in the 1965 Report, Dr H. M. Whyte was appointed to the foundation Chair of Clinical Science. Professor Whyte took up his appointment in August 1966 but because of delays in completing the hospital building where his Department will be housed, he has been engaged in laboratory work in this School and in field-work in New Guinea since that time. It is now expected that his new Department will be completed in April 1967.

During the year the appointment of Professor F. W. E. Gibson to a Chair of Biochemistry and to the Headship of the Department of Biochemistry was announced. Professor Gibson, who holds a personal professorship in the School of Bacteriology, University of Melbourne, is expected to take up his appointment on 1 January 1967. He is well known in Australia and overseas for his contributions to knowledge in the fields of aromatic synthesis in microbial systems.

Recognising the importance of neuropharmacology within the general field of neurophysiology, the University established a second professorship in the Department of Physiology and in April 1966 announced the appointment of Dr D. R. Curtis to this chair. Professor Curtis, who was elected a Fellow of the Australian Academy of Science in 1965, was previously a Professorial Fellow in the Department and is well known for his work in both the fields of neurophysiology and neuropharmacology.

The development of the Research School of Chemistry has made it possible to consider the appropriateness of retaining the Biological Inorganic Chemistry Unit within this School. After discussions with the Dean-elect of the Research School of Chemistry, the University decided that Dr A. M. Sargeson and members of his group should be transferred to the Research School of Chemistry.
where their special demands and interests will be more appropriately placed. It is, however, proper to record here our deep appreciation of the work of Dr Sargeson and his colleagues while they have been part of this School and to wish them continuing success in their new milieu.

During the year under review, the first stage of a training programme for Indian technicians from the All-India Institute for Medical Research in New Delhi was completed. This programme, undertaken at the request of the Commonwealth Government and sponsored by the Colombo Plan, was most successful. Thirteen Indian technicians selected by the Technical Manager, Mr J. B. Wight, completed, at a high level of efficiency, training courses involving the whole gamut of fabrication and maintenance of sophisticated research equipment. A similar programme for a further thirteen Indian technicians will be commenced in 1967.

The Dean was appointed National President of the National Heart Foundation of Australia and a member of the Advisory Committee of the Ciba Foundation.

The work of the Department of Biochemistry during the year has been an extension of the existing programmes of research into various fundamental aspects of biochemistry. This research is organised into a number of groups of staff and students and although the work of the various groups is not coordinated into an overall programme, the special interests and expertise possessed within each group supplements and benefits the others. The research groups have in common an interest in enzymes, the proteins in living cells which promote the chemical reactions upon which life depends.

One aspect of this interest is illustrated by studies on the biosynthesis of the uncommon amino acid lanthionine. By the use of radioactive substances it has been possible to discover which of these are transformed into lanthionine by enzyme-catalysed reactions which occur in insects. Another group, investigating the way in which enzymes from muscle promote the transfer of phosphate groups from one substance to another, has made further substantial contributions to knowledge in this area of enzyme research. Within the same group information has been obtained on the way in which the effectiveness of enzymes in promoting chemical reactions is governed by the combination of specific substances (effectors) with a part of the enzyme (the allosteric site) other than that directly involved in the reaction-promoting effect of the enzyme.

Investigations have been continued into how enzymes that react with vitamin derivatives function. Several such enzymes have been obtained in more highly purified form, and physical methods and reaction velocity studies have been used to investigate the formation of complexes between the enzyme and coenzyme derivatives of either folic acid or vitamin \( B_{12} \). Both of the latter substances are vitamins essential for normal blood cell formation. Information on enzyme-coenzyme interaction has also been obtained by carrying out reactions that are promoted by such enzyme-coenzyme mixtures in radioactive water or water labelled with heavy hydrogen. Preliminary results suggest that a prime function of the co-enzyme form of vitamin \( B_{12} \) is to act as a hydrogen-transfer agent. Some of this work has been carried out in conjunction with the Department of Medical Chemistry.

Further progress has been made in elucidating the enzyme reactions by which protozoa utilise phosphonates, the unusual class of compounds in which phosphorus is directly linked to carbon. Evidence has been obtained that in the protozoa the conversion of phosphonates to compounds analogous to normal
constituents of the lipids (fats) is the work of special enzymes. Some of these phosphonate analogues have been isolated and identified.

The milk protein, lactoglobulin, from genetic strains of cattle in which the protein is different from normal, has been investigated in conjunction with the Department of Physical Biochemistry. The nature of variations from the normal protein have been precisely determined.

The Biological Inorganic Chemistry Unit* is concerned with the properties, structure and behaviour of the compounds formed between metals and some organic molecules and with their behaviour and possible use in biological systems. The work in the past year has given an improved understanding of how chemical reactions take place at the metal centre and how the structure of the organic molecule can make the association stereospecific. The latter studies lead to an appreciation of the factors affecting specificity in biological reactions.

The Department of Clinical Science was initiated during the year by Dr H. M. Whyte taking up his appointment to the foundation Chair of Clinical Science. There has been delay in preparing the area to be occupied by the Department in the Canberra Community Hospital so that the unit will now not be properly installed and fully active before mid 1967. However, details of working relationships between the Department and the hospital have been drawn up, and progress has been made with recruiting staff and gathering equipment. The Department will undertake clinical responsibilities for the investigation and treatment of patients and will pursue clinical and laboratory research into problems related to coronary heart disease. One facet of the work is being done among natives in the Highlands of New Guinea who are believed to have a low incidence of coronary disease.

In the Electron Microscope Unit movements of cells and of objects inside them raise interesting and important problems for members of the Unit. In animals, cell movements have much to do with the construction of tissues and organs; cells are like bricks, which build the tissues and these bricks both move and lay themselves in place. On the other hand uncontrolled migration, accompanied by rapid cell division, is characteristic of malignant tumour cells. By marking the surface of cells with a dye, which is visible as dense particles in the electron microscope, it was found that some cells advanced by thrusting out processes in advance and pulling in their rear. The membrane taken in at the rear is moved up to the front to make fresh membrane to cover the advancing tips.

In most cellular tissues the cells eventually are stuck to each other by a kind of glue on their surfaces and cannot wander about. When the tissue is injured, a certain amount of cell movement follows, aimed at repairing the damage and re-establishing the stable situation. At such times some cells, with their surfaces now free, may engulf particulate material, including bacteria, found in their neighbourhood. Bacteria may thus gain entry to cells normally safe from such invaders. In nerves this situation, provoked by slight damage, appears to be a factor favouring the entry of the leprosy bacillus. The phenomenon is being studied by injecting small plastic particles, about as big as bacteria and visible in the microscope, into damaged nerves. Certain cells engulf these particles as they would food particles.

Plants are characteristically different from animals in that cell movement is impossible because each cell, from the moment it is formed, is imprisoned

* Transferred to the Research School of Chemistry as from 1 July 1966.
within a woody cell wall. Plants grow by the cells pushing back the walls of their containers and dividing on the spot. As the cells settle down, they thicken their walls by secreting various polysaccharides. These wall precursors are built up in vacuoles within the cells and passed to its surface, where they burst and release their contents. The movement can be traced by labelling the contents of the vacuoles with radioactive chemicals and allowing these materials to register their presence photographically (autoradiography). The location of future deposits of wall substance on the outside of the cell membrane is determined by the distribution of bands of fine tubules, often called microtubules, just within the surface of the cell membrane. The vacuoles can only burst through the walls in places not braced by the tubules.

These mysterious microtubules, which have not long been discovered, seem to appear commonly to guide or control the movement of objects in cells. For example, they form the apparatus that manipulates the chromosomes at cell division. We have found them also in an interesting grasshopper, which lives only on the highest peaks of the Snowy Mountains. When warm these insects are a bright sky blue due to light scattered by particles in their superficial cells—the blue of the sky arises in the same way—when cold, black pigment granules, guided by a meshwork of microtubules, move up from the depths of the cells quenching the scattered light and the insect turns black.

The work of the Department of Experimental Pathology is concerned with investigations into the underlying causes of cardiovascular disease and inflammation and the basic mechanisms of immunity.

Cardiovascular disease is currently the most important cause of death in modern civilised communities. The commonest expression of this disease is atherosclerosis which affects the coronary arteries and the aorta.

Atherosclerosis is characterised by the deposition of large amounts of lipid in the walls of blood vessels and this deposition is accompanied by the degeneration of the cells making up the intima and media and by the ulceration of the endothelium on the surface of the lesion.

These several features of arterial disease are being investigated through various lines of research. Experiments are being done to study the mechanisms of fat absorption transport and metabolism and the significance of dietary fat in the pathogenesis of atherosclerosis. The ultrastructure of the arterial wall with special reference to the endothelial and elastic tissue components of vessels is being studied, together with biochemical investigations into the synthesis of elastin and collagen from specific precursors in the arterial wall. The techniques of micro cinematography and light and electron microscopy are also being used in a study of the mechanisms of inflammation, thrombosis and embolism in living tissues and on the effects of injury on the microcirculation.

Immunity in animals is manifest by the synthesis of specific antibodies against foreign materials and by the phenomena of delayed type hypersensitivity and allergy, and the development of an antigenic memory which confers on the animal an enhanced ability to react to subsequent experiences to foreign material. The lymphatic system and lymphoid apparatus of the animal is intimately concerned with immunological reactions and investigations concerning the immune response are being directed towards studying the significance of lymphocytes and macrophages in these processes.

Various antigenic stimuli such as viruses, bacteria and grafted tissues have been used to examine the mechanism of synthesis of antibodies, the mode of
rejection of homografts and the establishment of secondary reactivity and immunological memory.

The Department of Genetics has grown steadily and, while broadening its interests, has continued to concentrate on the solution by genetical methods of fundamental problems in biology. One such problem is the mechanism of control of gene activity, so that particular genes are active only at certain times, under specific conditions and in particular tissues. The general principles of the control in bacteria of enzyme production and of enzyme activity, which have been elucidated in recent years, provide a basis for theories of control in more complex organisms. Substantiation of these theories is essential to progress in understanding the control of differentiation and the cause of abnormal development. Several independent lines of work are concerned with this problem, which is likely to engage increasing attention.

Continued progress has been made with the determination of the detailed structure of a chosen enzyme and with correlation of alterations in it with functional changes and with mutations in the gene responsible for it. Some important technical advances have been made. It is hoped to extend the genetical aspects of this study by using suppressor mutations.

The Department of Medical Chemistry is studying the chemical families, of low molecular weight, in which strong, highly selective biologically active properties reside. The work falls into these three sections: (i) organic chemical syntheses of new substances followed by their analysis, and the study of their chemical properties; (ii) studies of their physical properties and attempts to correlate these with molecular structure and, beyond this, with biological properties; and (iii) the inorganic co-ordination of biologically-active metal cations.

Under the first heading, an interesting extension has been found to the hydration phenomenon which was described in last year’s Report. This covalent addition of water has now been proved to take place also in an aromatic nucleus bearing a 5-membered ring. The nucleus is called 8-azapurine and it is an analogue of the purines which help regulate growth, energy-storage, and information-retrieval in all living cells. The Sloan-Kettering Institute for Cancer Research, New York, has requested a supply of one of these hydrating analogues to study its inhibitory action on tumours. Several interesting new facets of pyrimidine chemistry have also been uncovered during 1966 and studies have been made of this family, and related heterocyclic substances, to place their reactions and transformations on a more quantitative basis. The reagents chosen for these studies are the nucleophiles, i.e. the type which pyrimidines, etc., mainly encounter under biological conditions.

Results achieved under the second heading include many useful spectral and equilibrium studies of heterocyclic substances with biological interest. The new nuclear magnetic resonance spectrometer proved its usefulness in this field. A particularly satisfying achievement was the determination, by kinetic methods, of the relative electron attracting and releasing powers of a singly-bound and a doubly-bound nitrogen atom when both kinds of atom were present in the same ring. This problem has long been encountered in nuclei (such as imidazole) of special biochemical interest, but it has hitherto remained unsolved.

Research under the third heading, which deals with biological inorganic chemistry, has made great progress during the year by the development in this Department of a special computer programme. This programme enables calculation, after a series of titrations have been performed in the laboratory, of
the distribution of the body's various essential trace metals among ligands of
the three main types operating in the living cell. As a result of this new
approach, equilibria of this kind can now be determined for the first time, even
when as many as three kinds of metal and three types of binding molecules are
simultaneously present.

Results of practical importance emerge only slowly from the basic research
carried out in any particular department working in the biomedical sciences.
Myxomatosis, which was a major interest to the Department of Microbiology
between 1950 and 1965, provided information of national interest and impor-
tance as well as being a model study of the evolution of virus diseases, of great
theoretical interest. There are indications this year that investigations on influenza
virus carried out over the last decade may soon yield results of practical impor-
tance in two ways. Research by biochemists and immunologists in the Depart-
ment points the way to the production of influenza virus vaccines of high potency
and low toxicity, and the Commonwealth Serum Laboratory is carrying out
large-scale developments of this discovery. At another level the major problem
in human influenza is to recognise the source of the new strains which cause
pandemics like those of 1918-19 and 1957. Chemical, immunological and genetic
studies being carried out in collaboration with workers in the United States of
America and Europe offer hope of progress towards this objective.

The past year has yielded valuable results in another field in which essential
basic studies had been conducted over the previous five years without much to
show for the effort. During this period no success attended efforts to recover
viruses from man, animals and mosquitoes in the Sepik River area in New
Guinea. This year over eighty isolates have already been made from sick
human patients as well as from some species of mosquitoes. It will take some
years to work out the full significance of these discoveries.

Research in other fields—virus genetics, pathogenesis of virus diseases, viruses
of insects and the immune response to viral infections—has also proceeded
actively.

The aim of the Department of Physical Biochemistry is to apply the general
principles and methods of physical chemistry to biochemical problems, and to
help members of other departments to do so. The members of the Department
are mostly physical chemists by original training. The current research pro-
gramme may be considered conveniently under four main headings: (i) A
matrix of 'connective tissue' embeds and supports the cells of the body. This
matrix contains a number of complex polysaccharides, whose presence helps to
determine the mechanical strength, rigidity and permeability of the tissues.
Some of these polysaccharides are being isolated and characterised in order to
determine their properties and the effects that they may have under normal
and pathological conditions. Emphasis has been placed recently on the applica-
tion of equilibrium sedimentation in a density gradient and rate zonal sedimen-
tation to the improvement of the isolation of these substances. (ii) One of the
major problems of protein chemistry is the understanding of the principles of
folding of protein chains and of their state of association. It is believed that
such knowledge will lead to a better appreciation of the factors governing the
biological properties of proteins. One approach to this problem is the study of
the biochemical evolution of particular classes of proteins and its effect on their
properties. A study made in this Department of the evolution of milk proteins
has been richly rewarding in gaining such information. At the same time this
work has important implications for problems arising out of the processing
of milk for infant nutrition. (iii) Recent work has shown that steroid hormones, and other compounds of physiological and pharmacological interest, may undergo important changes in the body when present as sulphate esters. Work in this Department has been directed towards an understanding of the enzymes involved both in the formation and breakdown of such esters. The results are of interest both in relation to steroid metabolism and to the general properties of enzymes. They may also be important in the understanding of some human diseases. (iv) Transport methods are of considerable use in the separation and characterisation of biological substances in solution. A limitation to these methods is that interactions between substances may influence profoundly the type of pattern which is observed. An understanding of the basis of such interactions would enable greater confidence to be placed in the interpretation of the patterns. A theoretical investigation in the Department has led to important conclusions which will be highly useful in studies of macromolecules.

Research work in the Department of Physiology has been concerned with the manner in which individual nerve cells of the brain and spinal cord are interconnected, and how the cells communicate with each other. Such problems are of vital importance in understanding how the brain processes and stores information. Nerve cells are of two basic types; those that excite other cells and those that prevent excitation by a direct inhibitory effect. The actual process of excitation and inhibition are initiated by the release of chemical substances from nerve cell terminals which lie in close contact with specialised areas of other cells and a major line of research involves the identification of these substances. Considerable progress has been made in the cerebellum in identifying the function of the various cell types which exist in this structure, and in analysing the role they play in this important organ. It has thus been possible to make a fairly detailed analysis of how the cerebellum operates. In contrast, knowledge of the cerebral cortex is much less detailed, and research has commenced into the location of inhibitory cells within this tissue.

In the identification of excitatory and inhibitory substances use is made of fine glass micro-pipettes having five or seven individual barrels within an overall diameter of less than one two-hundredth of a millimetre. It is thus possible to study single and identified neurones as a means of testing the excitant and depressant properties of chemical substances isolated from nerve tissue which may normally operate in controlling the firing of nerve cells. The testing of these substances follows the controlled separation of nerve cell terminals from brain tissue, and subsequent chemical fractionation of the various components. A new development has been an electronmicroscopical study of separated nerve terminals.

Many of the processes involved in the excitation or inhibition of nerve cells can be studied in less complex tissues, and research is also being carried out into the factors which control the release of the excitatory substances at the neuromuscular junction, a region where nerve impulses evoke muscle contraction.

All this neurophysiological and neuropharmacological research requires a considerable amount of highly specialised electronic apparatus, a high proportion of which is developed, designed and built in the Department.
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† Not a member of this University.
‡§§ A member of the Department of Physical Biochemistry.
§ § A member of the Department of Medical Chemistry.
* Based on work done while a member of the Department.
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†† Transferred to the Research School of Chemistry as from 1 July 1966.
* Based on work done while a member of the Department.
** Based on work done prior to joining this University.
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† Not a member of this University.
§ A member of the Department of Experimental Pathology.
§§ A member of the Department of Microbiology.
† Visiting Research Worker.
§§§ A member of the Electron Microscope Unit.
|| Based on work done while a member of the Department of Physiology.
** A member of the Department of Nuclear Physics.
* Based on work done while a member of the Department
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§ A member of the Department of Microbiology.
§§ A member of the Electron Microscope Unit.
* Based on work done while a member of the Department.
§§§ A member of the Department of Zoology.
‡ Not a member of this University.
** Based on work done prior to joining this University.
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‡ Not a member of this University.
§ A member of the Department of Biochemistry.
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‡ Visiting Research Worker.
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§ A member of the Department of Experimental Pathology.
§§ A member of the Electron Microscope Unit.
* Based on work done while a member of the Department.
** Based on work done prior to joining this University.
† Not a member of this University.
†† Visiting Research Worker.
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‡ Not a member of this University.
§ A member of the Department of Biochemistry.
* Based on work done while a member of the Department.
† Visiting Research Worker.
§§ A member of the Department of Experimental Pathology.
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WATKINS, J. C., CURTIS, D. R. & BISCOE, T. J.


† Visiting Research Worker.
* Based on work done while a member of the Department.
‡ Not a member of this University.
The year was one which saw considerable changes within the School. Professor O. J. Eggen, the new Professor of Astronomy, arrived at Mount Stromlo Observatory in July, following Professor B. J. Bok's departure to Steward Observatory, Arizona, in March. Astronomy suffered a great loss and the staff was saddened by the sudden death of Dr A. R. Hogg, Deputy Director of the Mount Stromlo Observatory, in March.

Professor Sir Mark Oliphant retired as Professor of Physics in December, but will continue his researches for a further two years as a University Fellow.

The Electron and Ion Diffusion Unit, which came to Canberra with Sir Leonard Huxley on his appointment as Vice-Chancellor, and whose researches have been directed by him since then, was formally absorbed into the School in November. Sir Leonard relinquished control of the Unit and in future it will be headed by Dr R. W. Crompton.

Important changes occurred in the School Administration. Following the departure of Mr A. A. Robertson to become Planning Officer, Associate Registrar's Division, Mr R. D. Whittle took over as Laboratory Manager in March. The Graduate Assistant, Mr G. L. Williamson, was appointed Secretary to the Science Faculty, Monash University, and his place was taken by Mr E. D. Warton in May.

Research progressed well in all departments and units and the year saw the publication of 233 papers, mainly in overseas journals, by the 168 academic staff and students in the School. The researches of two senior staff members, Professors S. C. B. Gascoigne and A. E. Ringwood, were recognised by the Australian Academy of Science, which elected both to Fellowships.

On the equipment side the I.B.M. 1620 computer was replaced by an I.B.M. 360/50 computer which, by the end of the year, was fully operational. The 24-in polarising telescope at Siding Spring Observatory came into operation in June; the new seismic array at Tennant Creek began to yield data and a helium liquefying plant became fully operational during the year.

Two major equipment proposals—the first to increase the energy of the tandem accelerator complex by the addition of a second tandem machine as an injector, and the second, the erection of a 150-in optical telescope, possibly at Siding Spring Observatory—were under consideration by the Commonwealth Government at the end of the year.

Favourable decisions on these items would greatly enhance the research capabilities of the two departments concerned. Both are long-term projects; the former would take two to three years to complete and the latter six to seven years.

The announcement by the Government of the funds available to the Institute of Advanced Studies for the triennium 1967-69 showed that this School's requests had been cut by approximately 3.5% on running expenses and by 17% on capital equipment. This necessitated a careful reappraisal of priorities in the research programme and some cuts were made. The review was completed by the end of the year.
In the notes which follow the more important developments in each of the departments and units of the School are outlined.

In the Department of Astronomy the telescopes, both at Mount Stromlo and at Siding Spring Observatories, have been fully utilised during the year. Several staff members are carrying out joint research programmes with colleagues at the Mount Wilson and Palomar Observatories and the Lick Observatory in California. The pattern for very close co-operation with the Californian observatories was set this year by visits from Dr A. Whitford, the Director of the Lick Observatory, and Dr J. B. Oke of Mount Wilson and Palomar Observatories.

One joint project with the latter observatories involves an all-sky survey of blue stars in the galactic halo. Spectra taken with the Mount Stromlo 74-in telescope and the 200-in Palomar telescope of near examples of the oldest galactic stars are expected to provide a measure of the helium abundance at the birth of the galaxy.

A second project, shared by the two observatories, involves a whole sky survey of 'dead stars' (white dwarfs) which are the end product of stellar evolution.

Such co-operation also helps greatly in instrument development. Thus a photoelectric scanner of the most advanced design has been obtained, similar to the one built for Mount Wilson Observatory, and one of the first image tubes produced by Radio Corporation of America has been obtained through the agency of the Carnegie Institution of Washington. A staff member of that Institution will use the image tube at the Cassegrain focus of the Mount Stromlo 74-in reflector. For some research purposes—such as the identification of Quasars and faint halo blue stars—this experimental arrangement rivals the unassisted 200-in Palomar telescope.

One event that warrants special mention occurred at the end of the year. The recurrent nova T Pyxis flared up, after twenty-two quiet years as a star of fourteenth magnitude, to magnitude 8 on 15 December. This 250-fold increase in light has been constantly monitored at Mount Stromlo and Siding Spring Observatories with all available equipment. If the outburst follows the pattern shown by previous eruptions in 1890, 1902, 1920 and 1944, the light will decrease again by a factor of two and then increase by a factor of ten early in January 1967. The star is very favourably placed for continuous observations. The results obtained from the observations will be especially important in view of the recent discovery that a similar object is one of the strongest known emitters of X-rays. Some of the first measurements made with a double channel polarimeter attached to our new 24-in rotatable telescope give the new and unexpected result that the light from the nova is polarised and the degree, but not the angle, of polarisation varies rapidly with time.

The first staff members of the Computer Centre took up their posts during the year and the suite of offices in the Cockcroft Building was occupied in May. The new I.B.M. 360/50 computer arrived in April and took over the main load of University work from the 1620 computer during May.

Initial performance of the new computer was disappointing due to the unsatisfactory nature of the systems programme supplied by I.B.M. However, there has been a steady improvement and the number of jobs run per day has
increased from about fifty to some 200. It is common, already, for the computer to be operated for twenty-four hours a day. However, additional equipment to be delivered in 1967 should improve system efficiency and extend the facilities available to the user.

The programming staff have been hard-pressed during the year in system development and in sorting out users' programming difficulties.

Research carried out by the group has been in the fields of numerical analysis and in the theory and implementation of programming languages; a number of papers have been published and offered for publication.

The main interest of the Diffusion Research Unit is in the investigation of the nature of liquids, often called 'liquid state physics'. The particular experimental probe used in the work is tracer-diffusion. It enables the force of interaction, when various molecules pass one another in liquids, to be measured.

During the year measurements have been made on various aqueous systems at room temperatures. New types of experimental apparatus and procedures have been developed for work directed towards a study of diffusion in the liquid rare gases which is the main long-term project of the group.

In the Electron and Ion Diffusion Unit work has continued on the measurement of the transport coefficients for electrons and ions in gases and on interpretation of the data in terms of the cross sections for the collision processes. Experiments have been performed in parahydrogen at 77° K which are believed to be the first of their kind. They demonstrate the differences in the rotational cross sections of the ortho and para forms of hydrogen. These results, and those of similar experiments in deuterium, have been compared with predictions of the Boltzmann equation, a numerical solution of which, taking account of elastic and inelastic collision processes between the electrons and molecules, was obtained using the computer. The analysis shows that the transport data is not consistent with currently accepted theoretical cross-sections for rotational excitation. Similar comparisons, using the results of high precision experiments in helium, have failed to confirm the existence of a low energy resonance which was reported recently.

Further progress has been made on an experiment to determine the mobility of mass identified ions using a quadruple mass filter; construction of the apparatus, designed to ultra high vacuum specifications and with facilities for low temperature experiments, is now well advanced.

The work of the Department of Engineering Physics extends over three broad areas. The first of these involves the development of the homopolar generator and its application to the study of phenomena requiring high energy pulses. At present the h.p.g. is being used mainly to power high field magnets for research in solid state physics, but investigations and preliminary work are proceeding for other applications. The possession of this machine places the Department in a unique position in that experiments requiring high energy pulses can now be carried out for little additional expense.

The second research programme makes use of a small toroidal plasma machine to attempt to produce a hot, stable, predictable plasma. This machine was operating by the end of the year and some initial spectroscopic investigations on the properties of the plasma have been carried out.

Thirdly, a study of information processing, particularly the processing of seismic records from the Warramunga array at Tennant Creek, Northern Territory, is
under way. The arrangements for the operation of this array, which is a joint project with the Department of Geophysics and Geochemistry, were described in last year's Report. The original objectives of the work in this area have been enlarged somewhat and it is now intended to study the whole range of information processing using digital methods, including automation of the production of experimental results and pattern recognition.

Research in the Department of Geophysics and Geochemistry, which is directed towards such fundamental problems as the internal constitution of the earth and the composition and evolution of the earth's crust, continued during the year and some eighty-two papers were published in this field.

The geochronology group, partly in collaboration with the Bureau of Mineral Resources, dated over 1,300 rocks, mainly by rubidium-strontium, potassium-argon and lead methods. In addition, carbon 14 dating was established on a routine basis and a start was made with fission-track dating. The Department can now date rocks and samples ranging in age from 10,000 years to 4,500,000,000 years. The results are providing information on the geologic evolution of the Australian continent—particularly on the Precambrian Shield.

Extensive studies of the distribution and abundances of many trace elements in the Australian crust and rocks from the upper mantle have been made. Special emphasis is given to the geochemistry of uranium, thorium and potassium which are responsible for the generation of most of the earth's internal heat. Measurements of the surface heat flow are being co-ordinated with geochemical investigations.

An apparatus capable of generating pressures up to 250,000 atmospheres at 1,000°C has been constructed. With this a number of major phase transformations in silicate minerals have been discovered. The work is leading to a detailed understanding of the structure of the earth's mantle. An experimental investigation of the genesis and fractionation of basaltic magmas at high temperatures and pressures was completed. The investigation, extending over four years, was successful in its objectives.

Work in the fields of rock deformation at high pressures and temperatures and rock mechanics has proceeded actively. In palaeomagnetism, emphasis has been largely on apparatus development. However, in co-operation with the geochronology group, some useful results were obtained in the dating of reversals of the earth's field. This work is leading to establishment of a new type of time scale.

The seismological group participated in experiments with the Bureau of Mineral Resources, the Royal Australian Navy and other Australian universities in determining the crustal structure of the Bass Strait region and the Mount Isa-Tennant Creek area. During the year 101 local earth tremors were located by the seismic network.

The work of members of the Department of Mathematics dealt mainly with group theory and related parts of algebra, with functional analysis and differential equations, and with number theory, in particular the theory of transcendental numbers.

Dr P. M. Weichsel returned to the United States of America and Dr S. J. Tobin to Eire; Professor E. Hille is paying a return visit to the Department.

Researches in nuclear structure physics have continued in the Department of Nuclear Physics during the year. The emphasis on work in the very light elements
has been maintained, but a new programme of researches involving medium-weight and heavy target elements was developed and shows good promise.

Although the tandem accelerator suffered an unscheduled shutdown of seven days due to a belt failure, nevertheless some 6,000 hours of beam time was obtained during the year. A 600 KeV He³ and He⁴ injector was delivered in December and will be installed early in 1967. This will release the 2 MeV AK Machine presently used for the purpose, which will now be instrumented and brought into full operation as a second accelerator.

The original H.T. set, capable of 1.2 MeV, which has operated since 1951, therefore becomes redundant. It has given splendid service over the fifteen years of its life and will be retired in 1967 with full honours.

The Department's proposal for a second tandem accelerator, type FN, to act as an injector to the present machine is still under consideration by the Australian Universities Commission and the Commonwealth Government. The proposed development would allow the present particle energy range to be extended from 14 MeV up to some 24 MeV—greatly increasing the field of experimentation available to the group.

Researches completed have been described in thirty-five papers already published, mainly in overseas journals, and at the end of the year a further ten papers were in press and five others in preparation.

Notable among the researches were the investigation of the compound system N¹⁸ in and above the giant resonance region; the discovery of sixty-two new energy levels of Na²⁸ and 17 of Mg²³; the determination of the spins and parities of O¹⁷ states in the 9-10.5 MeV excitation region and a study of the line shape of the 2⁺ first excited state of Be⁸.

In the Physics of Ionized Gases Unit observations have been made of the effects of bombarding a platinum surface with low energy protons. Use of these particles, the simplest in nature, makes it possible to obtain theoretical predictions which can be compared with the experimental results. An unexpected effect of temperature of the target has been observed which, if confirmed, could have important results.

Progress has been made in the preparation of apparatus cooled to 4.2° above absolute zero of temperature, with liquid helium, for observation of the exchange of electric charge between protons and hydrogen atoms. At this temperature all residual gases in the vacuum are frozen out and clean results should be obtained. Previous work has been difficult to assess because of the effect of these residual gases in the best vacuum which can be produced.

The Department of Theoretical Physics continued its work on problems of nuclear physics, elementary particle physics, statistical mechanics and plasma physics, which have in common many analytical techniques. Members of the group work closely with experimentalists from time to time to solve outstanding problems. Fundamental theoretical studies in the various fields, however, properly occupy the bulk of the time.

Three members of staff went overseas either on study leave and/or to attend international conferences.
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§ A member of the Department of Anthropology and Sociology.
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*** Based on work done while a Visiting Research Worker.
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§ A member of the Department of Pure Mathematics, School of General Studies.
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‡ Based on work done while a member of the Department.
** Based on work done prior to joining this University.
† Not a member of this University.
§ A member of the Department of Nuclear Physics.
The work recorded in the reports of the several departments shows that the interests of the School are very varied and range widely. One of the central interests of the School is, of course, the study of Australia itself: most of the departments are continuously engaged in research on aspects and problems of Australian political, economic and social development. The output of the Departments of Economics, Economic History, Political Science, Demography, Sociology, History and Law is a substantial and continuing contribution to the understanding of Australian institutions and development. Historical and empirical or analytical work on Australian problems is one of the major functions of the School.

The departments are producing interesting and important work on other countries, including Britain, India, South-East Asia, West Africa and the Soviet Union. Two of the Departments, Political Science and Law, are engaged in work on international politics and international law. In addition, there is a considerable amount of work in progress dealing with various branches of social theory, especially in the Departments of Philosophy, Political Science, Economics and Sociology. A good deal of work is also being done and published on the history of philosophical and social ideas and theories. Although the School is not large, it is active in a number of different fields; its published work on other societies, its contributions to philosophical, political and social theory and to the history of philosophical and social thought have gained it a good reputation in the world of international scholarship.

The decision to establish an Urban Research Unit to promote interdisciplinary study of problems of urban growth was mentioned in the Report of 1965. The Unit was in operation through 1966 and the series of seminars which it organised, and in which a number of people concerned with urban growth and planning from other parts of the country participated, has stimulated interest and activity in this field of research, planning and administration. It is expected that papers prepared for the seminars will later be incorporated in a book. The work of the Department of Law records that another decision made in 1965, to initiate studies of problems concerning the legal development of Papua and New Guinea, also bore fruit in 1966. A further expansion of the School's interest in Papua and New Guinea (the Department of Political Science has for some time been working on aspects of the political development of the Territory) is referred to in the work of the Department of Demography.

In its submission for the 1967-69 triennium, the University proposed the establishment of an Education Research Unit in the Research School of Social Sciences. The proposal was approved by the Australian Universities Commission and the first and most senior post in the new Unit, a Professorial Fellowship, was advertised at the end of the year. The function of the Unit will be to promote research from the points of view of different social science disciplines on aspects of higher education and also, perhaps, closely related problems of secondary education. Some members of this School will also be taking part in the Strategic and Defence Studies Centre being developed within the Research School of Pacific Studies.

A second chair in the Department of Political Science was filled by the appointment of Mr A. L. Burns who has been a Professorial Fellow in the Department
for some years. Professor Burns' recent work has been mainly concerned with contemporary theory in international relations.

Visiting academic staff from overseas and from other Australian universities worked in the School for longer or shorter periods of time during the year; the contribution that visitors make to the School's work continues to grow. As is mentioned in the report of the Department of Political Science, the new Australian political survey which has been initiated in the Department will be assisted in its early stages by two leading political scientists from abroad, one from Oxford and the other from the University of Michigan. The School is doing what it can to encourage well-known social scientists from other countries and other Australian universities to participate for a time in the research activities of its own departments.

At the end of 1966, forty-nine scholars were enrolled for the degree of Doctor of Philosophy within the School. Thirty new scholarships were awarded in the course of the year. Degrees were conferred on nineteen graduates of this School at the 1966 Conferring of Degrees Ceremony.

In the Department of Demography some major studies were completed and two new projects were initiated. Dr McArthur completed her manuscript of *Island Populations of the Pacific* and the book is expected to appear during 1967. As in previous years, a number of projects dealing with aspects of migration have been in progress. These have included studies of Australia's restrictive immigration policy and of comparative migration policies which have been supported financially by the Australian Institute of International Affairs. The study of British migrants to Australia which has been in progress for several years was continued, and basic research for a study of a sample of Greek migrants completed.

Work that has been going on in the Department on demographic problems of West Africa was substantially finished. A new appointment made during the year will enable further work on South-East Asia to be undertaken: the newly appointed member of staff is working on projections of the populations of selected countries of the ECAFE region between 1960 and 1980. Another new appointment was made for the purpose of initiating studies of the population of the Territory of Papua and New Guinea. Initial steps were taken for the development of a joint project with the Department of Sociology of demographic and sociological aspects of the Australian family and a post in each Department to staff this project was advertised in December.

In the Department of Economic History work continued on quantitative measurement of economic growth and on international comparisons of actual produce and consumption. The final draft of a book on Soviet science and technology has been completed. The study of the aboriginal workforce in northern Australia was well advanced by the end of the year.

Members of the Department co-operated with other economic historians in Australia to prepare a volume on recent Australian economic development. Three members of the Department prepared preliminary studies for the volume. Professor Butlin also co-operated with the Urban Research Unit in the organisation of seminars on urban re-development and in research on the costs of automobile collisions.

The Department of Economics continued to work on theories of capital and growth, on current economic conditions, and on weekly and annual variations in economic time series. A new member appointed to the Department during
the year is studying Australia's industrial structure, in particular the economics of oil exploration and the shipping industries. A history of the Melbourne Stock Exchange is being written. Work being done by students includes studies of technical progress and theories of economic growth. One student has begun a study of the structure, ownership and financing of firms; a Public Service Fellow is working on problems of wages policy in Australia.

Professor J. A. La Nauze took up his appointment as Head of the Department of History in succession to Sir Keith Hancock at the beginning of the year. Members of staff have been engaged on a wide variety of subjects. In Australian history, the early Commonwealth, the career of W. M. Hughes, the Commonwealth Bank, and the early mercantile history of New South Wales are being studied. Research is proceeding on English mediaeval history and on English nineteenth century intellectual history.

The study of Asian boundaries resulted in the publication of a large work on the McMahon Line and a short volume on the Kashmir dispute. Work on modern Indian urban history was begun.

The first volume of the Australian Dictionary of Biography, published in March 1966, was well received; the second is shortly to be published, completing the first period (1788-1850) and intensive work on the second period (1851-1890) is proceeding. The survey of manuscript resources in Britain relating to Australia, New Zealand and the South-West Pacific, conducted jointly with the National Library of Australia, is revealing much valuable material.

Scholars studying for the degree of Doctor of Philosophy continued to work in a number of fields of Australian political and social history. New projects include studies of Commonwealth-State political and administrative relations in the first decade of the Commonwealth; the Wakefield policy in New South Wales; the history of a 'white-collar' union, the New South Wales Teachers' Federation; and land settlement in north-eastern Tasmania. In modern Indian history new projects include studies of political groups in the Central Provinces, and the development of Delhi between 1911-1921.

At the end of November a highly successful specialist seminar on 'India in 1919' was held. Scholars in modern Indian history, including a number who had been trained at this University, were invited from various State universities. It is expected that the papers read at the seminar will be published as a book which will be one of the first close studies of this important period.

The first Fellow in Papua-New Guinea Law was appointed to the Department of Law, and after a conference of lawyers and anthropologists in Canberra and several field investigations, work was initiated on two of the main problems suggested by the conference—completing the structure of sophisticated law at one end, and at the other end organising a system of village-level courts. Responsibility was accepted for keeping in touch with world developments in the use of computers for legal purposes, and a pilot study initiated on the use of such systems for purposes of land title registrations. Staff work continued on fundamental problems of international law, constitutional law and the law of contracts, and student work on hire-purchase law and industrial arbitration.

The Department of Philosophy continued to concentrate special attention upon fields of inquiry which are little explored in most other Australian departments of philosophy: the philosophy of education, political and social philosophy, the history of philosophical and related ideas. During the year a number of studies in the philosophy of education were published which are preliminary to more
substantial works in this somewhat neglected field. In moral and political philosophy, senior members of the Department and scholars were working on problems of punishment, equality and freedom; preliminary work has been done towards larger studies of power and interference. In the field of intellectual history further work was done on the philosophy of Fritz Maudtner, on Feuerbach, on Marxist philosophy and Soviet philosophy; new projects started include studies of eighteenth century ideas on the philosophy of mind, Hume's philosophy of sentiment in relation to eighteenth century literature, and the philosophy of Spinoza.

The Department has not confined itself, however, to these special fields. Senior members of the Department and scholars have been working also in what are traditionally the more central areas of philosophy, in metaphysics, logic and epistemology.

In the field of principal concern to the Department of Political Science—Australian politics—a new major project was initiated in 1966: a survey of political attitudes and behaviour, on the lines of work by the Survey Research Center of the University of Michigan and extending for several years, will deal successively with non-election and election situations. A staff appointment has already been made and two Visiting Fellowships have been accepted in this project. A smaller enterprise, supported from foundation funds, will test the validity of quantitative theories about international stability in conditions of nuclear proliferation. Work on the post-war history of the Australian Labor Movement is nearing completion, as are shorter studies of the government of the Australian Capital Territory and of the incidence of violence in Australian politics. A biography of Sir Michael Bruxner is likely to be published in 1967. A volume on government in Papua and New Guinea is being prepared. In the field of Soviet politics, research continues on the structure and personnel of the Soviet Council of Ministers; biographical data on several hundred government and Communist party officials of the U.S.S.R. has been gathered. In world politics, a book-length study is in progress concerning conflict between national policies and commitment to international organisation among United Nation members who have participated in peace-keeping operations. Doctoral theses are being undertaken on the Liberal Party in Victoria, the Graziers' Association of New South Wales, political and social attitudes in Sydney and Melbourne, the Civil Service of South Australia 1856-1916, political modernisation in Malaysia, and the politics of wheatgrowing in Australia.

Theses completed dealt with politics and administration of Soviet Kazakhistan 1955-64, with the offices of Premier and Prime Minister in Australia, and with political protest movements. In co-operation with the Department of International Relations, a programme of course-work for doctoral students was inaugurated.

In the Department of Sociology research continued in three major fields: social stratification in Australia; the social functions of religion in Australian society; comparative studies of urban social structure. In addition, substantial progress was made with a long term study of Australia's occupational structure. Two other projects were brought to completion: a book on The Foreign Language Press in Australia 1848-1964 which will be published in 1967 and a study of aboriginal demography.

The Department of Statistics is engaged on the study of the mathematics of probability theory with a view to applying it in other sciences and in particular to the theoretical bases of statistical methods. In the past most of the interest
of the members of this Department has been devoted to the study of random processes, i.e. to the study of phenomena occurring in time in which an essential role is played by random events. This type of work, which has many particular applications, has continued but greater attention is now being paid to more traditional problems of statistical inference and in particular to problems of classification and discrimination. The increasing use of computers has drawn attention to the fact that most of the basic problems in this latter field are as yet unsolved. Such problems are of growing importance in medical diagnosis. The Urban Research Unit has been established as an interdisciplinary team to examine problems associated with urban growth in Australia. Although the first appointments were made in late 1965 it did not begin work until early 1966. The year has been spent in establishing contact with workers in urban research, development and administration in Australia and in developing the Library collection on urban problems. The Unit has surveyed organisations and workers engaged in dealing with urban problems, and has compiled an index of these organisations and workers in each State.

The Unit is now responsible for organising the Joint Urbanisation Seminars and successfully organised a series on Urban Redevelopment which will be edited for publication.

The major research activity for the year was an examination of road accidents in the Australian Capital Territory. One paper entitled 'The Cost of Road Accidents' was presented to the Australian Automobile Association Symposium held in Canberra in November. Another paper will be read to the Institution of Engineers in May 1967 and a book will be published early in 1967.

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†† University Fellow.
‡ Not a member of this University.
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‡ A member of the Department of Geography, School of General Studies.

§ A member of the Department of Pacific History.

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** Based on work done prior to joining this University.
‡ Not a member of this University.
In a broad sense the set of research interests for which the School made provision in the late 1940 years and early 1950 years still has much relevance to the conditions of today but in the course of almost two decades a certain strain has come about between tasks, circumstances and organisation. There is a sensible pressure to work out a new relationship between these elements.

The regional emphasis in the title of the School bespeaks a special responsibility which is unique within the University. The pattern of research activities has to reflect the constant and the changing, the historical and the contemporary, in the affairs and conditions of a great many countries in the Pacific and East and South Asia. The scale and speed of political, social and economic change is now particularly marked in China, India, Malaysia, Indonesia, New Guinea and the islands of Oceania, in all of which the School has a substantial research commitment. Situations are resulting—including a serious inflation of the costs of field study—which make for difficult problems of choice in respect of the maintenance or completion of established projects and the planning of future programmes. The decisions expressed in continuing and new commitments may be expected to have in them elements of tension and uncertainty because they have in some sense to be taken at risk.

Research has as well to reflect the changing perspectives and requirements of academic disciplines. In this respect, at least in part because of the School's own work, some horizons of inquiry have opened which could scarcely have been expected a decade ago. For example, in prehistoric archaeology and comparative linguistics, the Department of Anthropology and Sociology is developing intensive programmes of study in fields which until recently scarcely had a place in the established structure of Australian research. The work already done has attracted international interest and has given the School pre-eminence in these fields in Australia. There have been comparable developments in the Department of Geography, in which active pioneer work, at least as far as Australia is concerned, is being carried out in the neglected fields of biogeography, especially polynology and certain aspects of quaternary geomorphology. This work, while of interest and some excitement in itself, may also have a direct bearing upon the School's researches into the prehistory of Australia and New Guinea, and a close concert is being maintained therefore between the responsible departments. Another example of intellectual expansion in reply to a new challenge of inquiry is the establishment of a Strategic and Defence Studies Centre in association with the Department of International Relations. The Centre is a venture in several dimensions—in co-operative scholarship, in that while undertaking research of its own it will co-ordinate the work of many scholars, who may be attached to any department of the School; by corollary, in interdisciplinary research; and in its intention to study, in both empirical and theoretical terms, the problems of Australian defence in the widest strategical context. It will work in entire independence of Government and Service policy. In the Department of Far Eastern History there will be in future years an increased emphasis upon the contemporary affairs of both China and Japan.
The School, while continuing to act within its charter, has thus sought to respond positively to the onset of new conditions affecting Australia's situation in relation to Asia and the Pacific, and to the new invitations they present to the inquiring mind. The physical spread of its activities is very wide but even though its research resources are fully stretched its showing is thin on the ground of so vast a region. Large possibilities of research have to remain without attention.

Considerable thought was given during the year to questions of the internal organisation of the School. Departments vary in the number and cohesion of their interests. In two Departments, Geography and Anthropology and Sociology, a case could be made on objective and situational grounds for subdivision into discrete disciplines with departmental status. Alternatively a case could be made for grouping research activities, hitherto identified with departments, into larger and different combinations. The possibilities remain under active study, in the hope of agreement upon a formula of organisation which will promote fruitful growth without intellectual loss. The discussions have been given added point by recent decisions announced by the Government and the Australian Universities Commission. These allow the School less scope than had been hoped for. They also obscure parts of the pattern of research that were in clear view for the 1967-69 triennium.

At the end of the year the prospects of financial stringency were requiring each department, even those which had had some assistance from outside funds (especially the Ford Foundation grant) to face the likelihood of an enforced choice between fields of research in which staff and doctoral scholars might undertake medium or long-term commitments, and the number of doctoral students that could safely be accepted.

In December there were seventy full-time research students at work, including twenty-two who had started their courses during the year. As the outcome of studies in earlier years, fourteen students were awarded the degree of Doctor of Philosophy.

Nine new members of staff took up duty during the year, and a new chair was created in the Department of International Relations. The number of visitors increased appreciably. The visits, ranging from a few days to several months, were a welcome stimulus and an interesting indication of the recognition which is being accorded the work of the School in Australian and foreign universities.

There was a very substantial body of publications by members of the staff. The School's own media took on further strength with the appearance in November of the first issue of the *Journal of Pacific History*. Both the *Bulletin of Indonesian Economic Studies* and the *New Guinea Research Bulletin* made several issues.

In the *Department of Anthropology and Sociology* (including archaeology and linguistics) research was undertaken over an unusually broad regional front. Staff members and doctoral students worked at a large number of field stations in continental Australia, mainland New Guinea, New Britain and other islands of Melanesia, New Caledonia, Western Samoa, Portuguese Timor, Sabah (Borneo), Thailand and India. Much of the work promises to be of highly constructive value. In Aboriginal Australia further study was made from new theoretical viewpoints of subjects such as traditional religion, territorial divisions, and disputed aspects of kinship and social organisation in Arnhem Land, which
are of central importance to anthropological theory. The study of political and social developments in New Guinea was further advanced, and a planning conference took place with the object of making a detailed study of the 1968 election. In archaeology there were significant discoveries. It was established by excavation at Green Gully, Keilor, Victoria, that human occupation antedated by a considerable time the human skeletal remains which, recently discovered there, are themselves the most ancient human fossils to have been found in Australia. At Ingaladdi, on Willeroo Station in the Northern Territory, traces were found of the oldest art known from prehistoric Australia. The evidence was discovered in layers known to be older than 6,000 years. The search for data possibly bearing on the prehistoric settlement of the continent was extended to Portuguese Timor. In linguistics there were some worthwhile advances. Research further clarified the complex distribution and relationship of New Guinea languages. A new family of languages was discovered; touch was made with some almost unknown tribes; and some undescribed languages were recorded. In Australia six hitherto little known Aboriginal languages were more fully recorded.

During the year the Department of Economics continued to concentrate on three areas of research: economic problems of the South-East Asian region, with particular emphasis on Indonesia, New Guinea and Malaysia; the theory of growth and trade; and foreign aid. Major research projects under way include studies of industrialisation in South-East Asia; economic policy in Thailand; cash cropping and other aspects of the village economy of New Guinea; peasant agriculture, state trading enterprises, the taxation system and other aspects of the economy of Indonesia; the financial system of Hong Kong; and Australian investment in Singapore manufacturing industries. Three issues of the Bulletin of Indonesian Economic Studies were published. Although still circulated privately, the Bulletin is becoming widely known among persons interested in Indonesia throughout the world. Three students of the Department qualified for the degree of Doctor of Philosophy and five others are approaching completion of their theses. There was increasing contact between members of the Department and colleagues in South and East Asian countries through mutual visits and conferences.

No new staff appointments were made to the Department of Far Eastern History during the year. One senior post is at present vacant. The enrolment of research scholars at the end of the year was eight and during the year two research scholars completed their courses and submitted theses for examination. Three of the students come from South-East Asia, three are Australians, one English and one a New Zealander. Three students are working in the field of modern Chinese history, four in earlier Chinese history and one in modern Japanese history. Research by members of the staff in these fields continues.

The Department of Geography has had a year of moderate expansion which strengthened its work in the fields mentioned in the last Annual Report. The year has really been one of internal consolidation, though there have been new developments (for example, the first work in the Solomon Islands) and closer links have been developed with archaeology and with phytosociological analysis in the Commonwealth Scientific and Industrial Research Organization. The chief remaining gap in the staff structure is that of a specialist in historical and political geography, though the next triennium should see some filling-in of other branches. The number of visitors increased from last year, and their geographical range widened to include South Africa and the U.S.S.R. The increase in staff
numbers has led to the introduction of regular monthly meetings of all staff members, which has contributed greatly to the smooth running of the Department. Five scholars completed theses during the year and all have been recommended by the examiners for the degree of Doctor of Philosophy; a further five theses are in an advanced stage. A gratifying feature is the demand from other universities for our students, most of whom are placed well before completion of their courses.

In the Department of International Relations there were thirteen students at work for the degree of Doctor of Philosophy, the largest number since its establishment. They were mostly engaged in the study of foreign policies of Asian countries, with some attention to Australian and American relationships, and to international bodies ranging from the South Pacific Commission to the Ba'ath Party. A programme of formal lectures for new students was arranged in collaboration with the Department of Political Science, Research School of Social Sciences. Members of the staff pursued their researches on Afro-Asian international politics, Asian international exchanges, Australian defence and foreign policy, the diplomacy of foreign aid, 'People's War', Japanese-Australian relations, Malaysian foreign relations, and a variety of other topics. A Strategic and Defence Studies Centre, with Dr T. B. Millar as its Executive Officer, was set up to stimulate strategic studies. A second professor was appointed in the person of Mr H. N. Bull, Reader in International Relations at the London School of Economics and Political Science, and Director of the Arms Control and Disarmament Research Unit in the Foreign Office, London. He will take up duties in 1967.

To an unusual extent, the year in the Department of Pacific History was marked by the completion of projects that had been under way for a considerable time, rather than by the initiation of new lines of inquiry. The manuscripts of seven books by members of the Department were delivered to publishers. Two publishing ventures sponsored by the Department reached, or approached, fruition: the first issue of the Journal of Pacific History appeared in November; and the first group of manuscripts to be included in the Pacific History Series of books and monographs was nearing completion at the end of the year. Eleven students working for the degree of Doctor of Philosophy were attached to the Department during the year. Four of these submitted theses and have been recommended for the award of degrees; and two more were preparing to submit early in 1967.

The major research projects undertaken during the year by the New Guinea Research Unit were concerned with the potential for industrialisation and possibilities for import replacement in Papua and New Guinea, urbanisation, and non-traditional groupings (clubs, unions, welfare and political organisations) in urban and rural areas. Staff were recruited during the year to study indigenous entrepreneurs, co-operatives and questions of economic motivation. Four issues of the New Guinea Research Bulletin were published and several more were ready for publication at the end of the year.
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‡ Not a member of this University.
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'Preliminary report on pottery finds in Tonga.' Asian Perspective, VIII, i, 184-95, 1964.

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SINHA, D. P.

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STANNER, W. E. H.
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'The Selang resettlement project.' New Guinea Res. Unit Bull., X.

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FISK, E. K.


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HUNTER, A.*

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* Based on work done while a member of the Department.
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* Based on work done while a member of the Department.
† Not a member of this University.
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Barnard, N.


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* Based on work done while a member of the Department.
† Not a member of this University.
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* Based on work done while a member of the Department.
** Based on work done prior to joining this University.
‡ Not a member of this University.
ALBINSKI, H. S.***

MAHAJANI, Usha
‘The Malaysia Dispute: A study in mediation and intervention.’ Australian Outlook, XX, ii, 177-92, August.

MILLAR, T. B.
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GUNSON, W. N.

*** Based on work done while a Visiting Research Worker.
HEALY, A. M.*

JACK-HINTON, C.

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MAUDE, H. E. & LEESON, IDA‡

MAUDE, H. E. & DORAN, E. JR.§

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SHINEBERG, DOROTHY

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'THE FIRST "NATIONAL" ELECTION IN PAPUA-NEW GUINEA IN RETROSPECT.' Australian Quarterly, XXXVIII, iii, 57-66.

VAN DER VEUR, P. W. & HUGHES, C. A.§

WEST, F. J.


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* Based on work done while a member of the Department.
‡ Not a member of this University.
§ Based on work done while a member of the Department of Political Science, Institute of Advanced Studies.
BETTISON, D. G.*

CROCOMBE, R. G.
'A modern Orokaiva feast.' In *Orokaiva Papers, New Guinea Res. Bull.*, XIII.

RIMOLDI, M.
'Land tenure and land use among the Mount Lamington Orokaiva.' *New Guinea Res. Bull.*, XI.

VAN DER VEUR, KAROL & RICHARDSON, PENELOPE
'Education through the eyes of an indigenous urban elite.' *New Guinea Res. Bull.*, XII.

* Based on work done while a member of the Unit.
THE SCHOOL OF GENERAL STUDIES

THE FACULTY OF ARTS

REPORT OF THE DEAN

Professor D. P. Scales

Contrary to our predictions, first-year enrolments were generally somewhat lower than in 1965, though this diminution was offset by increases in the second and third years. It is to be hoped that from now on a growing number of students who are qualified to embark upon the fourth honours year will in fact do so.

Some departments reported a gratifying decrease in the examination failure rate, which they attributed at least in part to changes in their methods of teaching and testing.

Four members of staff were appointed to chairs in other universities: Dr D. C. Corbett (Politics, Flinders University of South Australia), Professor K. S. Inglis (History, University of Papua and New Guinea), Dr S. Encel (Sociology, University of New South Wales), and Mr A. J. Rose (Geography, Macquarie University); while Professor C. M. Williams, of the University of New England, was appointed to succeed Professor Inglis in the second chair in the Department of History.

A number of departments was visited by scholars from other centres in Australia and overseas who, by their lectures and their participation in seminars and informal discussions, made valuable contributions to the life of the University.

PUBLICATIONS

BURGE E. L.

DYER, R. R.

JOHNSON, R. ST. C.
‘Quintilian’s place in European education.’ In For Service to Classical Studies: Essays in Honour of Francis Letters (ed. M. Kelly), 79-101, Cheshire, F.W.

RAWSON, BERYL
‘Family life among the lower classes at Rome in the first two centuries of the Empire.’ Classical Philology, LXI, ii, 71-83, April.

BRISSENDEN, R. F. §
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Introduction to The Loved One (by E. Waugh), The Gateway Library, Hicks, 1965.
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DOWNER, L. J.
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§ A member of the Department of Philosophy, Institute of Advanced Studies.

86
GREEN, DOROTHY

MILGATE, W. M.
‘A difficult allusion in Donne and Spenser.’ Notes and Queries, CCXI, 12-14, January.

RAMSON, W. S.

RUSSELL, G. H.

FRENCH
GRIEVE, J. A.

LINGUISTICS
BLUHME, H.
‘Some problems of vowel quantity.’ In Proceedings of the Tenth Australian Universities Language and Literature Association Congress, 245-51, Auckland.

GEOGRAPHY
BIRD, E. C. F.

BIRD, E. C. F. & DENT, O. F.§

LEARMONT, A. T. A.
‘Medical geography—trends and prospects.’ Proceedings of the Special Meeting of the Commission on Medical Geography of the International Geographical Union, Mexico City, 1-10, August.
‘The demographic pattern, regionally considered.’ Australian Journal of Politics and History (special number: Modern India) XII, ii, 146-54, August.

REID, I. D.,† & LEARMONT, A. T. A.
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ROSE, A. J.
‘Metropolitan primacy as the normal state.’ Pacif. Viewpoint, VII, i, 1-27.

GERMAN
KUHN, H.
‘Once more “fyrir í fólkí”.’ Scandinavian Studies, XXXVIII, 175.

§ A member of the Department of Sociology.
† Not a member of this University.
History

Fry, E. C.
Parliamentary papers of Tasmania, 1856-1900, Western Australia, 1890-1900; Index.' Labour History, X, 38-49, May.

Burns, J. C.
‘Simple harmonic motion.’ Australian Mathematics Teacher, 22, 15-17.

Drummond, J. E.

Meggitt, S. M. A.

Van der Borght, R. F. E. *

Coates, J. H.

Gupta, N. D. & Newman, M. F.

Jones, A. R.

Kovacs, L. G. § & Newman, M. F.

Neumann, Hanna


Newman, M. F.

Stewart, A. G. R.

Gibson, Q. B.
‘Knowing the future.’ Analysis, Milano, XXVII, ii, 59-64.

Herbst, P.
‘Private morality today.’ In Man and Morals, 59-96, University of Western Australia, Adult Education Board.
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* Based on work done while a member of the Department.
§ A member of the Department of Mathematics, Institute of Advanced Studies.
Schlesinger, G.
‘Instantiation and confirmation.’ In Boston Studies in the Philosophy of Science, II.

Political Science Beddie, B. D.

Cooksey, R. J.
‘Foreign policy review.’ Australian Quarterly, XXXVIII, ii, 107-18, June.

Crisp, L. F.
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Encel, S.
‘Science and government policy—III.’ Publ. Adm. (Syd.), XXV, ii, 104-14, June.

Hume, L. J.

Hunter, Thelma A.

Stockwin, J. A. A.

West, Katharine O.
‘The Liberal Party.’ In Australian Politics: A Reader (ed. H. Mayer), 268-78, Cheshire, F.W.
THE FACULTY OF ECONOMICS

REPORT OF THE DEAN

Professor B. D. Cameron

The Faculty moved into the Copland Building in May.

Enrolments continued to rise, the number of students enrolled in the Economics major being 470 compared with 448 in 1965. All departments in the Faculty provide fourth year honours courses and supervise candidates for the degrees of Master of Economics and Doctor of Philosophy.

In the Department of Accounting and Public Finance research included public investment in Australia; welfare aspects of public finance; Australian government and national accounting; and company financial reporting in Australia.

The Department of Economic History worked on an investigation for the seventy years ended 1960 into Australian trade, industries and population growth; trends in American fertility 1800-60.

In the Department of Economics research included investigation into changes in employment, production in Australia and into post-war inflation; also into problems of uncertainty and resource allocation.

The Department of Statistics has concentrated on stochastic processes whose widest application is in industry (queueing and renewal theory), natural science (genetics, communication systems, control theory), and in social science (analysis of economic time series).

PUBLICATIONS

HEAD, J. G.

'On merit goods.' Finanzarchiv, XXV, i, 1-29.

MA, R. A.** & YOU, P. S.†
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STANDISH, P. E. M.
'Accounting and allied studies in the universities.' Vesies, IX, i, 29-37, March.

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DOWIE, J. A.
'A century-old estimate of the national income of New Zealand.' Business Archs Hist., VI, ii, 117-31, August.

** Based on work done prior to joining this University.
† Not a member of this University.
Economics

FORSTER, C.

CAMERON, B. D.
National Income and Employment. Cheshire, F. W.

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Statistics

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The maintenance of alleles by mutation—Monte Carlo results for normal and self-sterility populations.' Heredity, Lond., 21.

HANNAN, E. J.

HEATHCOTE, C. R.

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JOHN, S.

MORGAN, J. H. T.
'Two-link material handling systems.' Ops. Res. 14, 16.

SENETA, E.
'Quasi-stationary behaviour in the random walk with continuous time.' Australian Journal of Statistics, 8, 2, 92-8.

‡ Not a member of this University.
THE FACULTY OF LAW

REPORT OF THE DEAN

Professor J. E. Richardson

Council reappointed to membership of the Faculty the Hon. Mr Justice P. E. Joske of the Commonwealth Industrial Court and the Supreme Court of the Australian Capital Territory, Mr A. F. Mason, Q.C., Solicitor-General, Mr K. F. O'Leary of the legal firm of Martin, Crossin, O'Leary and Barker and Professor G. Sawer, Head of the Department of Law, Institute of Advanced Studies.

The full-time academic staff comprised two professors, two readers, five senior lecturers, one temporary lecturer, one senior tutor, one temporary tutor, three part-time lecturers and eight part-time tutors.

Guest Lecturers included Mr Justice Manning of the New South Wales Supreme Court and New South Wales Law Reform Commission; Mr P. R. H. Webb, Reader, University of Nottingham Law School; Dr H. W. Poulton, Executive Director, Ansett Transport Industries Limited; Mr R. Conacher, New South Wales Law Reform Commission; Mr Justice Selby, New South Wales Supreme Court; Mr P. Brazil, Assistant Secretary, Attorney-General's Department.

Professor Whitmore was elected Dean of the Faculty on Professor Richardson's departure on study leave and will hold office until March 1968.

In January, Mr D. W. Smith succeeded Mr D. P. O'Connor as Subdean of the Faculty.

Mr L. R. Zines, Reader, left for study leave in November. Mr A. D. Hambly was promoted to Senior Lecturer on 1 January 1966 and Mr G. J. Davies from Senior Tutor to Temporary Lecturer in February 1966.

Mr L. A. Whitfield, a former Deputy Master in Lunacy in New South Wales, was appointed as Temporary Tutor in July 1966.

Dr Alice E. S. Tay was appointed to the position of Senior Tutor in August following her return from Moscow where she was engaged in research for a year under an exchange scheme between this University and Moscow State University.

During the year applications were called for a third Chair of Law and for three Senior Lecturers/Lecturers.

There was an increase of 50% in the numbers of students enrolling for the first time for law courses. New enrolments rose from eighty-four in 1965 to 126 in 1966. The total enrolment for law courses increased in 1966 by 36%. A total of 326 students enrolled in 1966 as against 250 students in 1965. The ratio of full-time to part-time students showed little variation from the 1964 and 1965 figures. The proportion of full-time students enrolled for the combined Arts/Law course declined slightly from the 1965 figure.
Examinations

It was disturbing that the failure rate amongst first-year law students increased appreciably. It was, however, noticeable that the results obtained by first-year Arts/Law students were considerably better than those of first-year law students.

Four students attempted the degree with honours examination in February. First Class Honours were awarded for the first time to one of the candidates, two candidates gained Second Class Honours and one Third Class Honours.

The Course for the Degree of Bachelor of Laws

During the year Council approved the deletion of the subject Equity from the Bachelor of Laws degree course. Trusts and Remedies have been inserted in its stead as subjects of the third year of the course, making a total of twenty-one subjects in the course instead of twenty as previously.

During the year Council also approved new rules for the award of the Degree of Bachelor of Laws with Honours. Honours students will no longer be required, after February 1967, to sit a series of final honours examinations based on the entire law course. Students will be invited to enter for the Final Honours Examination by the Faculty at the end of the third year of the course for the degree of Bachelor of Laws. During the fourth year of the course honours students will be required to prepare a research paper dealing with a legal topic of their choice approved by the Faculty and to undertake an oral examination based on the research paper. A student's results in all law subjects in the degree of Bachelor of Laws, the research paper and the oral examination, will be taken into account by Faculty in determining whether honours should be awarded and the level of the award.

Postgraduate Students

No students qualified for the award of the degree of Master of Laws during 1966. Six candidates were proceeding to the degree by thesis. A seventh candidate was admitted to the course at the end of the year after passing a qualifying examination. Two other candidates were accepted during the year for qualifying courses. For the first time the University awarded a master's scholarship to a student undertaking the course for the degree of Master of Laws.

Moots

The compulsory moot programme, under the direction of Mr A. H. Simpson, was extremely effective in 1966. Students participated with enthusiasm and research was undertaken by the majority with diligence and in depth. Members of the Faculty, the Department of Law, Institute of Advanced Studies, and local legal practitioners gave considerable time to the setting of suitable problems and to adjudication.

A team from the Law School participated in the Intervarsity Law School Moots Competition held in Melbourne during May. One competitor from this University, Mr T. J. Higgins, was highly commended for his performance.

This University's team, which was narrowly defeated by Melbourne in the first round, won the second round contests against New Zealand and Western Australia, and the third round against Sydney.

Australasian Universities Law Schools Association

The Faculty was host for the first time to the Annual Conference of the Australasian Universities Law Schools Association in August. Over ninety delegates representing every Law School in Australia and New Zealand attended the highly successful Conference. The Faculty appreciates the help given by the Vice-Chancellor, University Administration, the Halls of Residence and the University Staff Club with arrangements for the Conference.
The Faculty also assisted the Law Council of Australia with arrangements for the inaugural conference of the Regional Law Society for Asia and the Western Pacific, which was held in Canberra in August. A reception for delegates was given by the Vice-Chancellor at University House.


A substantial increase in the library grant for the 1967-69 triennium will help to bring the Law Library’s collection nearer to the level desirable for a modern Australian Law School.

Following the 36% increase in student numbers efforts were concentrated on acquiring second sets of the principal series. Duplicate sets of the English Reports, Commonwealth Law Reports, New South Wales State Reports, Victorian Law Reports, and the Commonwealth, New South Wales and Victorian Statutes were added to the Library’s holdings.

During April the Faculty moved to the Copland Building. Conditions for staff have improved following the move. The Law Library is temporarily housed in unsuitable accommodation in converted classrooms in the building but considerable effort has been made during the year to improve student working conditions. Planning for the new Law School building continued. Schematic diagrams for the building were approved before the end of the year by the Buildings and Grounds Committee. The architect is now proceeding with sketch plans. It is hoped that work on the building will begin about the middle of 1967 and that it will be completed by the end of 1968. By this time the Faculty’s accommodation in the Copland Building, and especially the Library accommodation, will be severely strained.

Professor Whitmore continued his work in association with Professor D. G. Benjafield of the University of Sydney, on a research project concerning administrative law and practice in Australia.

Until his departure on study leave Professor J. E. Richardson was engaged in research relating to the *Australian Trade Practices Act* 1965. He has written an introductory book on the subject which will be published early in 1967. With Mr D. J. Rose, he is preparing a more detailed book which is to be published after the Act gets under way. Whilst he is at McGill University Professor Richardson is engaged in research concerning both Restrictive Trade Practices and Air and Space Law. In addition to his research on Restrictive Trade Practices, Mr Rose prepared comprehensive revision of ‘Lewis’ Australian Bankruptcy Law’, which will be published early in 1967.

In response to a request from the Standing Committee of Attorneys-General seeking the Faculty’s views regarding the advisability of amending the Sale of Goods Acts of the various States a lengthy memorandum was prepared by Mr D. L. Pape.

Dr Alice Tay is engaged on research concerning Soviet Law.
Other Activities

Professor Whitmore gave a lecture to Second Division Officers of the Commonwealth Public Service and delivered a paper on Administrative Law at a residential Administrative Staff Course conducted by the Institute of Administration, University of New South Wales.

Professor Richardson gave a series of five lectures in Sydney at the invitation of the Council for Continuing Legal Studies of the New South Wales Bar Association.

Professor Richardson and Mr Rose delivered a joint paper on Restrictive Trade Practices to the Conference of the Australasian Universities Law Schools Association. Mr Rose and Mr O'Connor gave lectures to the R.A.A.F. Staff College, Fairbairn—Mr Rose on the Australian Constitution and Mr O'Connor on Public International Law. Mr O'Connor delivered a lecture on Criminology to an Interstate Executive Police Course held in Canberra during the year.

PUBLICATIONS

O'CONNOR, D.
A Fair Trial—U.S. and Australia. Prepared for the United States Sending Office for Australia at the direction of the Secretary of State for Defense, March.

SMITH, D. W.
'The tort of intimidation in English law.' Tydskrif vir Hedendaagse Romeins, Hollandse Reg, March.

TAY, ALICE E. S.

WHITMORE, H. & BENJAFIELD, D. J.*
Australian Administrative Law. 3rd ed., Law Bk.

WHITMORE, H. & CAMPBELL, E.*
Freedom in Australia. Univ. of Sydney Press.

* Not a member of this University.
The Faculty of Oriental Studies

Report of the Dean

Professor A. H. Johns

The Faculty continued to develop satisfactorily in 1966. Vacancies left by resignations in the previous year were filled by the following appointments: Dr Liu Ts''un-Yan, formerly Reader in the Department was appointed to the Chair of Chinese to succeed Professor N. G. D. Malmqvist; Dr K. H. J. Gardiner succeeded Dr I. de Rachewiltz as Lecturer in the Department of Asian Civilization; and Dr A. Alfonso of the Department of East Asian Languages, University of Hawaii, succeeded Dr Joyce I. Ackroyd as Reader in the Department of Japanese. New appointments were Dr S. A. A. Rizvi, Senior Lecturer, and Mr J. G. Caiger, Lecturer in the Department of Asian Civilization, and Mr Supomo Surjohudojo as Lecturer in the Department of Indonesian Languages and Literatures.

Dr R. L. Backus, Senior Lecturer in Japanese, resigned to take up an appointment at the University of California, and Mrs S. Dyer, Lecturer in Chinese, resigned to accompany her husband to America.

Visitors to the Faculty during the year included Dr R. Thapar, Reader in History, University of Delhi and Professor W. Cantwell Smith, Professor of World Religions, Harvard University. Dr J. Kolmas, University of Prague, was visiting lecturer in Chinese during the period May to November, and Dr H. S. Levy, Director of the Foreign Service Institute Language School, Yokohama, was a visitor to the Department of Japanese from June to August.

Throughout the year members of the Faculty participated in seminars and Adult Education courses arranged in the University and gave lectures at the Universities of Sydney, Melbourne and Queensland. The Faculty was also represented at the University of New England seminar on Indonesia in January, and the Language Laboratory Workshop held at the University of Adelaide in May.

A project inaugurated by Associate Professor O. B. van der Sprenkel, a selective, annotated bibliography of Chinese thought, history and institutions, has received the support of the Robertson Committee which has provided funds for the employment of a research assistant.

The Robertson Committee has also made it possible for the Faculty to participate in a British Museum Archaeological Expedition to Thailand by providing the necessary funds for participation by Dr H. H. E. Loofs, Department of Asian Civilization.

Professor A. H. Johns has been invited to take charge of the editing of an English-Malay dictionary to be published by Cambridge University Press and financed by outside funds. Professor Johns visited Malaysia for a fortnight in May/June to collect materials and recruit staff for this project.

The scope of the teaching of the Faculty was extended by the creation of an Honours School in Asian Civilization and the introduction by the Department of Japanese of three new units to take effect in the structure of courses beginning with 1967 admissions: Literary Japanese as a second-year unit, and Japanese Literature A and B as alternative third-year units.

Specially Sponsored Faculty Activities
Enrolments

The total number of enrolments for units offered in the Faculty was 427 (of which 244 were full-time), including thirty-six cancellations and one non-examination, as compared with 374 in 1965.

Examination enrolments totalled 338 (Asian Civilization 144; Chinese twenty-five; Indonesian Languages and Literatures 122; Japanese thirty-four; South Asian and Buddhist Studies thirteen), as compared with 317 in 1965.

Thirty-eight students held Oriental Studies Scholarships during the year. It is regretted that five scholars lost their scholarships due to unsatisfactory results in the Annual Examinations. Deserving special mention, however, are Miss S. M. Borthwick and Mr G. R. Alliband, scholarship students who gained First Class Honours in Chinese Studies and South-East Asian Studies, respectively.

On the results of final honours examinations, postgraduate studentships were awarded to three students.

On 31 December four full-time students and three staff candidates were enrolled for the degree of Doctor of Philosophy, and four full-time students were enrolled for the degree of Master of Arts (Oriental Studies).

Publications

Asian Civilization

Basham, A. L.
‘Indian society and the legacy of the past.’ *Australian Journal of Politics and History*, XII, ii, 131-45, August.
‘The rise of Buddhism in its historical context.’ *Asian Stud.*, December.
‘Indian thought and the West.’ *Hemisphere*, 7-14, December.

Rizvi, S. A. A.
‘Ithna Ashariya Shias in India.’ *Milla wa Milla*, VI, 51-64.
‘Rawshaniyya movement.’ *Abr-Nahrain*, VI.

Chinese

De CrespiGny, R. R. C.
‘Chinese newspaper reports on the changes in Indonesia, September to December, 1965.’ *Australian Outlook*, XX, ii, 193-9, August.

Liu, T. Y.

Indonesian Languages and Literatures

Johns, A. H.

Japanese

Crawcour, E. S.

Mukai, H.
THE FACULTY OF SCIENCE

REPORT OF THE DEAN

Professor D. N. F. Dunbar

While no major developments were undertaken during the year steady progress has been made in both teaching and research activities. Some additional temporary accommodation has been provided for the Department of Forestry and the much needed Animal House is nearing completion, but in general attention has been directed to the planning of new buildings for the Departments of Botany, Forestry and Psychology and extensions to the present Chemistry, Geology and Zoology Buildings; all of which will be urgently needed in the next few years.

Research has been aided by a number of grants from agencies outside the University. Of these special mention should be made of the Australian Research Grants Committee which is providing substantial support for research in chemistry, forestry, geology, physics and zoology.

Discussions have continued in the Faculty on course modifications and revisions but as yet no major changes have been decided. The problem of providing further financial support for well qualified honours graduates to continue their studies at the postgraduate level has also attracted attention.

Members of the Faculty have continued to provide expert advice and assistance to a number of international agencies, while within the University the two new posts of Deputy Chairman of the Board of the School of General Studies and Dean of Students have been filled by Professor C. A. Gibb, Department of Psychology, and Professor D. A. Brown, Department of Geology, respectively.

PUBLICATIONS

Knox, R. B. & Evans, L. T.†

Knox, R. B. & Heslop-Harrison, J.†
‘Control of pollen fertility through the agency of the light regime in the grass Dichanthium aristatum.’ Phyton, B. Aires, 2, 256-67.

Pederson, D. G.
‘The expected degree of heterozygosity in a double-cross hybrid population.’ Genetics, Texas, 53, 4.

Pryor, L. D.
‘A report on past performance and some current aspects of the cultivation of quick-growing species (mainly Eucalyptus) in India.’ Indian Forester, 92, 10, October.

Thurling, N.

† Not a member of this University.
Chemistry

Bradbury, J. H., Chapman, G. V., Hambly, A. N. & King, N. L. R.

Bradbury, J. H. & Scheraga, H. A.‡
'Structural studies of ribonuclease. XXIV. The application of nuclear magnetic resonance spectroscopy to distinguish between the histidine residues of ribonuclease.' J. Am. chem. Soc., 88, 4240-6.

'Formation and fission of 2, 3-dehydropyrazine by pyrolysis of pyrazine-2, 3-dicarboxylic anhydride.' Chem. Ind., 343.

Brown, R. F. C., Rae, I. D.*, Shannon J. C.‡, Sternhell, S.* & Swan, J. M.‡
'Synthetic studies in the 1, 2-dithiole series. IV. The methylation of 4-Benzamido-1, 2-dithiole-3-thione.' Aust. J. Chem., 19, 503-11.

Brown, R. F. C. & Solly, R. K.

Chan, A. W. K. & Crow, W. D. L.

Crow, W. D. L. & Gosney, I.

Crow, W. D. L. & Solly, R. K.

Daly, N. J.** & Stimson, V. R.‡

Gill, Naida S. & Kingdom, Hilary J.*

Hambly, A. H.
'The concept of stability in chemistry.' In Approach to Chemistry, 1-19, Univ. of N.S.W.

'The preparation of deoxynucleosides via the fusion procedure.' The One Hundred-and-Fiftieth Meeting of the American Chemical Society, Abstract of Papers 10D, 20, Atlantic City, New Jersey, September 1965.

Warrener, R. N.
'Synthesis of 1-substituted-6-alkyl-5-cyanouracils, including the N(1)-amino and N(1)-hydroxy-derivatives.' Chem. Ind., 381.

Warrener, R. N. & Bremer, J. B.
'Excited-state reactions of 1, 2, 4, 5-tetramethyl-3, 5-cyclohexadiene-cis-1, 2-dicarboxylic anhydride.' Angew. Chem. 78, 305; International ed., 5, 311-2.

Warrener, R. N. & Cain, E. N.

‡ Not a member of this University.
* Based on work done while a member of the Department.
** Based on work done prior to joining this University.
Warrener, R. N. & Cain, E. N.
'The synthesis and rearrangement of 1, 3-oxazines.' Tetrahedron Lett., 3251-5.
'A novel synthesis of 1, 2-dithiol-3-thione.' Chem. Ind., 289-90.

Warrener, R. N., Taylor, E. C. & McKillop, A.
'A one-step synthesis of fused pyrimidine dithiones.' Angew. Chem. 78, 333;

Whittle, C. P. & Robins, R. K.

Boughton, W. C.

Greaves, T. & Florence, R. G.
'Incidence of termites in blackbutt regrowth.' Aust. For., 30, 1, 153-61.

Henry, N. B. & Florence, R. G.
'The establishment and development of regeneration in spotted gum—ironbark forests.' Aust. For., 30, 4, 304-16.

McGrath, K. P. & Carron, L. T.
'Prescribed yield from previously unmanaged indigenous forests.' Wild For. Congr., Madrid.

Ovington, J. D.

Ovington, J. D.
'Quantitative ecology and ecosystem dynamics.' Proceedings of the Ecological Society of Australia, 1, 97-105.
'Measuring the fruits of the land.' New Scient., 29, 631-2, March.

Rudman, P.
'Decay resistance in the Genus Callitris.' Aust. For., 30, 4, 279-82.

Brown, D. A.
Translation of 'Tektonicheskoe stroenie Evrassi (Tectonic structure of Eurasia)' (by A. L. Yanshin). Geotektonika, 5, 7-35, 1965. (Department of Geology Reprint 61.)
Translation of Stratigrificheskiy i paleobiogeograficheskiy Obzor Rugoz Ordovika i Silura (Stratigraphical and Paleobiogeographical Review of the Ordovician and Silurian Rugosa) (by A. B. Ivanovsky), 120, Nauka, Moscow, 1965. (Department of Geology Reprint 64.)


Campbell, K. S. W.
'An almost complete skull roof and palate of the dipnoan Dipnorhynchus sussmilchi (Etheridge).' Palaeontology, 8, 634-7, 1965.

Conybeare, C. E. B.

† Not a member of this University.
** Based on work done prior to joining this University.
Crook, K. A. W.


Crook, K. A. W. & Cook, P. J.

'Gosses Bluff—Diapir, Crypto-Volcanic structure or Astrobleme.' *J. geol. Soc. Aust.*, 13, 495-516.

Irving, E.Ø & Brown, D. A.

'Labyrinthodont abundance and diversity—a reply to F. G. Stehli.' *Am. J. Sci.*, 264, 488-96.

Kemežys, K. J.

'New criteria for an order of Brachiopods.' *J. Paleont.*, 39, 505-6, 1965.

Moss, A. J.


Powell, N. A.


Stauffer, M. R.


Stauffer, M. R. & Rickard, M. J.


White, A. J. R.


'Genesis of Migmatites from the Palmer Region of South Australia.' *Chem. geol.*, 1, 165-200.

White, A. J. R. & Lovering, J. F.¶

'High temperature “Eclogite” inclusions from the Delegate Braccia Pipe, N.S.W., Australia.' *Abstract Program of the Annual Meeting of the Geological Society of America*, 240.

Williams, K. L.

'Determination of the iron content of sphalerite.' *Econ. Geol.*, 60, 1740-7, 1965.

Wolf, K. H.*


Harding, B. C. & Mortlock, A. J.


MacDonald, R. J.** & Haneman, D.‡

'Depths of low energy ion bombardment damage in germanium.' *J. appl. Phys.*, 37, 1609.

'Low energy ion bombardment damage in germanium.' *J. appl. Phys.*, 37, 3048.

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'Solid state physics at the Australian National University.' *Australian Physicist*, 3, 53-6.

Rungis, J.* & Mortlock, A. J.

'The diffusion of calcium in magnesium oxide.' *Phil. mag.*, 14, 821.

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* Based on work done while a member of the Department of Geophysics and Geochemistry.

‡ Based on work done prior to joining this University.

§ Based on work done while a member of the Department.

% Not a member of this University.
STALKER, R. J.
'Use of argon in a free piston shock tunnel.' American Institute of Aeronautics and Astronautics Plasmadynamics Conference, P66-169, March.
'The free piston shock tube.' Aeronaut. Q., 17, 4, 351-70, November.

WILLIAMS, J. F.*
'Extraction of positive ions from electrodeless discharge.' Rev. scient. Instrum., 37, 9, 1205-10.
'Cros sections for double electron capture by 2-50 keV protons incident upon hydrogen and the inert gases.' Phys. Rev., 150, 1.

WILLIAMS, J. F.* & DUNBAR, D. N. F.
'Charge exchange and dissociation cross sections for H_1^+, H_2^+, and H_3^- ions of 2- to 50-keV energy incident upon hydrogen and the inert gases.' Phys. Rev., 149, 162-9.

CLARKE, A. M.

COOK, M. L.

PENTONY, P.
'Value change in psychotherapy.' Hum. Relat., 19, 39-46.
'Some observations on psychotherapy.' Marriage and Family, 3, 8-10.

SEAGRIM, G. N.

TROTTER, J. R.
'The geometrical optics of the blister effect.' Vision Res., 6, October.

VINEL, LINDA L.
'Congruence of measures of self-regard.' Psychol. Rec., 16, 4, 478-93, October.

WILSON, P. R., PATTERSON, J. R.† & LYONS, A. M.†

WILSON, P. R. & RUSSELL, P. N.‡

BUCHDAHL, H. A.

TASSIE, L. J. & LICHTENBERG, D. B.‡
'Quark-antiquark models of mesons with relativistic mechanics.' Aust. J. Phys., 19, 599.

BARWICK, R. E. & BRYANT, C.
'Physiological and biochemical aspects of hibernation in the scincid lizard Egernia cunninghami (Gray, 1832).' Physiol Zool., 39, 1-30.

BRYANT, C.

BRYANT, C. & NICHOLAS, W. L.
'Studies on the oxidative metabolism of Moniliformis dubius (Acanthocephala).' Comp. Biochem. Physiol., 17, 825-40.

* Based on work done while a member of the Department.
† Not a member of this University.
**Bustard, H. R.**


'Observations on the life history and behaviour of *Chamaeleo bitaeniatus* Fischer.' *Herpetologica*, 22, 1, 13,23.

**Bustard, H. R.**


**Bustard, H. R. & Maderson, P. F. A.†**


**Bustard, H. R. & Hughes, R. D.**


**Cheah, K. S. & Bryant, C.**

'Studies on the electron transport system of *Monezia expansa* (Cestoda).' *Comp. Biochem. Physiol.*, 19, 197-223.

**Clegg, J. A.**


**Clegg, J. A. & Morgan, Juliet**

'The lipid composition of the lipoprotein membranes on the egg-shell of *Fasciola hepatica*.' *Comp. Biochem. Physiol.*, 18, 573-88.

**Ewers, W. H.**

'Polymorphism in fossil *Velacumantus australis* (Gastropoda : Potamidae).'</p>

*Aust. J. Zool.*, 14, 867-75.

**Ewers, W. H. & Rose, C. R.*

'Polymorphism in *Velacumantus australis* and its relationship to parasitism.' *Aust. J. Zool.*, 14, 49-64.


**Hines, W. J. W.‡ & Bryant, C.**

'The effects of salicylate on guinea pig testis mitochondria compared with effects of aging and repeated washing.' *Biochem. Pharmac.*, 15, 119-21.

**Howell, M. J.**

'Notes on a potential parasite of man in New Zealand.' *Tuatara*, 13, 182-4.

'A new genus in the family Leopocreadiidae (Trematoda : Digenea) with notes on the status of some taxa within the family.' *Trans. R. Soc. N.Z.*, 8, 23-9.

'A contribution to the life history of *Bucephalus longicornutus* (Manter, 1954).' *Zoology Publ Univ. Wellington*, 40, 42.

**Howkins, A. B.**

'Hydatid disease in New South Wales.' *Med. J. Aust.*, 1, 486.


'The role of macropodidae in Tasmania as intermediate hosts of hydatid disease.' *Aust. vet. J.*, 42, 240.

**Based on work done prior to joining this University.**

‡ Not a member of this University.

* Based on work done while a member of the Department.
HOWKINS, A. B., GEMMELL, M. A.† & SMYTH, J. D.

MORSETH, D. J.
‘Chemical composition of embryophoric blocks of Taenia hydatigena, Taenia ovis and Taenia pisiformis eggs.’ Expl Parasit., 18, 347-54.

NICHOLAS, W. L. & JANTUNEN, R.
‘The effect of different concentrations of oxygen and of carbon dioxide on the growth and reproduction of Caenorhabditis briggsae (Rhabditidae).’ Nemato-logeria, 12, 328-36.

SKIDMORE, J. F.*

SMITH, G. T.

SMYTH, J. D.
‘Studies in tapeworm physiology. XI. In vitro cultivation of Echinococcus granulosus from protoscolex to the strobilat stage.’ Parasitology, 56, 763-6.
The Physiology of Trematodes. 256, Oliver.

SMYTH, J. D., HOWKINS, A. B. & BARTON, MARY
‘Factors controlling the differentiation of the hydatid organism Echinococcus granulosus into cystic or strobilar stages in vitro.’ Nature, Lond., 211, 1374-7.

STEIBENS, W. E.‡ & JOHNSTON, M. R. L.

TYNDALE-BISCOE, C. H.

WARDING, H.‡, MOIR, R. J.‡ & TYNDALE-BISCOE, C. H.

WEATHERLY, A. H.

WOOLLEY, PATRICIA A.

† Not a member of this University.
‡ Based on work done while a member of the Department.
¶ A member of the Department of Experimental Pathology.
The University Library

Report of the University Librarian

Mr J. J. Graneek

The University Library has continued to develop along lines laid down at the time of the amalgamation of the Australian National University and Canberra University College six years ago. The rates of growth have been well maintained and the total stock is nearly double what it was in 1960. Expansion of this order and magnitude gives rise to administrative problems of some complexity. It is now estimated that by 1980 there will be 1,000,000 books in the Library and it is at this stage that vital decisions should be taken about the housing and servicing of this mass of material. Considerable thought has been given in the past year to the relationship between the General Studies and Advanced Studies sections of the Library and between the main collections on the one hand and established and envisaged branches on the other.

Building operations on Stage 2 of the General Studies Building of the University Library began in December and it is hoped that the work will be completed by February 1968. Meantime, maximum use is being made of all available accommodation in the existing building. There was a considerable increase in the use made of the R. G. Menzies Building both by members of the Institute of Advanced Studies and by honours and final year undergraduates. An effort was made to remedy major defects in the mechanical ventilation system in both the General Studies and Menzies Buildings but without air conditioning or the equivalent, it seems unlikely that there will be any significant improvement in working conditions.

The intake of books acquired by purchase, gift and exchange is indicated in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Purchases</th>
<th>Gifts</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Institute of Advanced Studies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Library</td>
<td>8,904</td>
<td>2,760</td>
<td>11,664</td>
</tr>
<tr>
<td>John Curtin School of Medical Research</td>
<td>1,276</td>
<td>20</td>
<td>1,296</td>
</tr>
<tr>
<td>Research School of Physical Sciences</td>
<td>1,796</td>
<td>116</td>
<td>1,912</td>
</tr>
<tr>
<td>Mount Stromlo Observatory</td>
<td>320</td>
<td>53</td>
<td>373</td>
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<tr>
<td><strong>Total</strong></td>
<td>12,296</td>
<td>2,949</td>
<td>15,245</td>
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<tr>
<td><strong>The School of General Studies</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Main Library</td>
<td>10,355</td>
<td>1,086</td>
<td>11,439</td>
</tr>
<tr>
<td>Law</td>
<td>2,366</td>
<td>60</td>
<td>2,426</td>
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<tr>
<td><strong>Total</strong></td>
<td>12,721</td>
<td>1,144</td>
<td>13,865</td>
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<tr>
<td><strong>Oriental Studies</strong></td>
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<td></td>
</tr>
<tr>
<td>Western Languages</td>
<td>677</td>
<td>51</td>
<td>728</td>
</tr>
<tr>
<td>Oriental Scripts</td>
<td>4,609</td>
<td>198</td>
<td>4,807</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,286</td>
<td>249</td>
<td>5,535</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>30,303</td>
<td>4,342</td>
<td>34,645</td>
</tr>
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</table>

105
At 31 December the total stock of the Library was:

<table>
<thead>
<tr>
<th>Department</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute of Advanced Studies</td>
<td>213,666</td>
</tr>
<tr>
<td>School of General Studies</td>
<td>128,637</td>
</tr>
<tr>
<td>Oriental Studies</td>
<td>76,181</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>418,484</td>
</tr>
</tbody>
</table>

Two notable gifts were received during the year. In connection with the celebrations marking the millennium of the establishment of Christianity in Poland, the Polish Millennium Committee of Canberra and Queanbeyan organised the presentation of some 3,000 volumes in the field of Polish language, literature and civilisation. It is hoped that these books will serve as the nucleus of a collection supporting the work of a Polish lectureship in an expanded department of Slavonic Studies. A donation of a more personal kind came from Mr A. D. Rothman, for many years the Sydney Morning Herald representative in New York. Mr Rothman presented his library of about 200 volumes, many of which help to fill gaps in our collection of Australian literature and history.

Increased use of the Library is revealed in the statistics of loans set out below:

<table>
<thead>
<tr>
<th>Transactions recorded at Loans Desks</th>
<th>1964</th>
<th>1965</th>
<th>1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Institute of Advanced Studies</td>
<td>44,571</td>
<td>55,473</td>
<td>54,866</td>
</tr>
<tr>
<td>The School of General Studies</td>
<td>77,259</td>
<td>117,860</td>
<td>134,738</td>
</tr>
<tr>
<td>Reserved Books</td>
<td>43,109</td>
<td>56,625</td>
<td>64,337</td>
</tr>
<tr>
<td>Others</td>
<td>54,866</td>
<td>134,738</td>
<td>64,337</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>164,939</td>
<td>229,958</td>
<td>253,941</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inter-Library Loans Borrowed</th>
<th>1964</th>
<th>1965</th>
<th>1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Institute of Advanced Studies</td>
<td>5,257</td>
<td>5,307</td>
<td>4,435</td>
</tr>
<tr>
<td>The School of General Studies</td>
<td>1,906</td>
<td>2,356</td>
<td>2,063</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6,163</td>
<td>7,663</td>
<td>6,498</td>
</tr>
</tbody>
</table>

| **Lent**                            |      |      |      |
| The Institute of Advanced Studies   | 4,660 | 4,817 | 4,701 |
| The School of General Studies       | 476  | 585  | 824  |
| **Total**                           | 5,136 | 5,402 | 5,525 |

Under the heading of Inter-Library Loans it is interesting to note that whereas the number of books borrowed from other libraries has declined, the number of outgoing loans has maintained the upward trend of recent years. A clear implication of these figures is that we are making increasing provision for the needs of our own readers from our own stock and at the same time making a greater contribution to national book resources as a whole.

The most important single event of the year was the decision to adopt the Library of Congress system of classification in place of a diversity of classifications previously in use in the Library. The Library of Congress system was selected on the grounds that it is the least unsatisfactory of those available at
the present time, that it is in use in a number of major libraries in the United States and the United Kingdom and that a number of medium to large libraries in the United States are at present transferring from other classifications to Library of Congress. The adoption of this system makes possible the full use of the expert services provided by the Cataloguing Division of the Library of Congress in Washington, including the use of printed card proof sheets, thereby increasing the output of our cataloguing department with a consequential reduction in the cost of each title catalogued.

Concurrently with the decision to adopt Library of Congress classification, the opportunity was taken to carry through a major re-organisation of the cataloguing section of the Library. Senior cataloguers have been allocated groups of subjects for whose handling (i.e. cataloguing and classification) they are fully responsible under the general direction of the Chief Cataloguer and the Supervisor of Current Cataloguing. As a result of this re-organisation, which took effect on 1 October, all newly purchased books are now made available for use on library shelves within one month of their arriving in the Library and it is estimated that the backlog of cataloguing will be cleared in twelve to eighteen months. The reclassification of existing library stock will take somewhat longer. A start has been made with the books in the General Studies section of the Library. The inevitable inconvenience arising during the transition period will be out-weighed by the overwhelming advantage of having in due course a uniform system operating throughout the University Library.

Staff

Mr W. G. Buick, Associate Librarian in the Institute of Advanced Studies, resigned on appointment as the first Librarian of the University of Papua and New Guinea. He was succeeded by Miss Jean Waller, who was Librarian of the University of Singapore from 1960 to 1966. Mrs Galloway, Reference Librarian in the Institute of Advanced Studies, also resigned.

Throughout the year there was the usual ebb and flow of staff in the lower echelons. The amount of time used in training new members of staff is a considerable burden on the heads of sections and departments.

Exhibitions

During the year the following exhibitions were arranged mainly in the McDonald Room of the R. G. Menzies Building: Graphic Arts of the Belgrade Circle; Sculpture by Kenneth Armitage; Yugoslav photographic display; German books; French paintings, Books from the Nichol Smith Collection; Cambodian art; Mediaeval pottery; Blake Prize entries; polish arts and crafts.
The composition of the Governing Body at the end of 1966 was as follows:

**Master**: Emeritus Professor A. D. Trendall.

**Fellows**: Retiring 15 August 1967: Professor G. H. Newstead (Deputy Master), Mr I. P. Griffith, Dr J. F. Lovering, Professor Hanna Neumann, Miss E. W. Walsh.
Retiring 15 August 1968: Dr Germaine A. Joplin (Steward), Dr C. A. Tisdell (Bursar), Mr S. I. Benn.

The Master left on study leave at the end of October and will return early in March 1967. During his absence the Deputy Master, Professor G. H. Newstead, will be acting on his behalf.

In 1966 the new Statute providing for the election of two residents as Fellows on the Governing Body came fully into operation, and Mr I. P. Griffith and Miss E. W. Walsh were elected.

On the recommendation of the Master and Fellows, Council elected the Rt Hon. Sir Robert Menzies to an Honorary Fellowship of University House, and he stayed in the House on two occasions.

The Chancellor, Lord Florey of Adelaide, stayed in the House during July and August.

A re-organisation of the card-index of members was carried out and an up-to-date list of all members of the House was compiled. A supplement will be issued at regular intervals to bring the list up to date. The total current membership is just over 500, including thirty-four Invited and twenty-four Visitor Members.

To meet rising costs it was found necessary to raise the tariffs with effect from 17 March 1966. The Finance Committee approved the following as the current permanent weekly rates: Eastern Annexe $21.70 and $22.40; East/West rooms $23.10; two-room flats in the East/West Wings $29.75; North Wing flats $33.25; and double rooms for married couples $44.80.

At the same time the casual rates were raised by 50 cents per day and a small adjustment was made to the charges for casual meals.

Regulations governing room retention and short absences were modified from December, since the previous regulations were involving the House in considerable loss of revenue, which, with the present rising costs, it was impossible to offset.

Owing to the recent basic wage increases and consequent rises in food costs (which will probably amount to 5%) budget adjustments are being considered, but the Governing Body does not propose to raise tariffs further at present.
Furnishings

After more than twelve years, the furnishings in University House rooms and flats are showing signs of wear, and the Governing Body has endorsed in principle a master plan, prepared by Mr F. Ward, for the refurnishing of these rooms over the next few years. This plan is to ensure the maintenance of an overall unity in the decoration.

Telephones

The installation of telephones in all East, West and North Wing rooms has been successfully completed.

Library

The library is being extensively used. Two thousand three hundred and fifty-six loans were recorded and seventy-four new books acquired, half by donation and half by purchase. About forty books were presented to the Library by Dr H. A. Lamb; Mrs V. N. Shekhova, Mr A. R. Crawford and Mr J. P. Powell also presented several books, and Doubleday & Co., New York, presented a selection of modern American fiction.

Record Collection and Gramophone

A stereo-cartridge was fitted to the record player to permit the playing of stereo records, and a new cabinet for the better housing of the records was built. Approximately twenty-five new records were purchased during the year. Recordings of music by contemporary British composers were presented to the Record Library by the British Council. Dr D. C. Shaw, Professor D. H. Lehmer and Dr J. R. Patterson also presented records to the House.

Residents' Committee

The Residents’ Committee has been particularly active this year in organising dances and social functions. Regular screenings of films were also held in the Common Room and there were two play readings in the Meetings Room.

Functions and Activities

The usual Commencement Dinner was held on Tuesday, 8 March, to mark the beginning of the new academic year. A short choral programme was presented during the dinner by members of the Canberra Society of Singers and afterwards a short Revue was staged in the Meetings Room.

The Annual Dance was held on Friday, 1 April. This year dancing took place in the Main Common Room and supper was served in Hall. Some 240 members and guests were present at this function.

On Friday, 8 July, a University Dinner was held in Hall, following the Installation of the Chancellor, Lord Florey, on the previous day.

Two Guest Nights were held—one in the Second Term on 20 July, and another in the Third Term on 18 October. Both were attended to capacity, and the University Choral Society presented a programme of madrigals at the former.

The Research Students’ Association held their Annual Lecture in Hall on 13 July, and a concert of eighteenth century music, in conjunction with the David Nichol Smith Seminar, was held in Hall on 16 August.

Visitors

The number of academic and other distinguished visitors from overseas and from other parts of Australia who stay in University House continues to grow. In 1966, among overseas visitors the following stayed in the House for over one month: Professor and Mrs R. Cohen, University of California; Mr
G. W. P. Dawson, University of Dublin; Professor F. Ehrendorfer, University of Graz; Professor C. S. Johnson, California State Colleges; Professor and Mrs E. Hille, University of California; Professor M. Hiramatsu, Keio University; Professor N. P. Grushinskii, Moscow State University; Dr J. Kolmas, Czecho­lovak Academy of Science, Prague; Professor V. I. Kuleshov, Moscow State University; Professor Louise Overacker, Wellesley College; Dr Billie L. Padgett, University of Wisconsin; Dr and Mrs S. Pargellis, Chicago; Dr Mary R. Rees, University of Reading; Mrs V. N. Shekhova, Moscow State University; Professor and Mrs F. Smithies, England; Dr Berttina Wentworth, University of California; Professor R. C. Williams, University of California; Mr R. D. Williams, University of Reading.

Many other overseas scholars and visitors have been in residence for shorter periods. These include: Professor P. M. S. Blackett, Royal Society, London; Professor and Mrs G. E. Blackman, University of Oxford; Professor and Mrs L. Broom, University of Texas; Professor and Mrs M. Lavrentiev, Academy of Science, Novosibirsk, U.S.S.R.; Professor and Mrs E. Marinatos, University of Athens; Mr and Mrs J. E. Slater, Ford Foundation, New York; Professor I. Watt, Stanford University; Professor and Mrs D. H. Lehmer, University of California; Professor L. E. Rorabacher, Western Carolina College.

In addition to the above, many members of the staffs of Australian universities have spent short periods in the House.

Donations were received from Mrs M. Pargellis and Dr Mary R. Rees; the British Council, through Mr N. Williams, O.B.E., gave to the House a collection of prints; Mr Gruzman presented a Japanese print by Utamaro; Mr G. W. P. Dawson presented two reproductions from the Book of Kells; and Mrs H. V. Fitzhardinge presented two stucco heads of the fourth century A.D. from Hadda in Afghanistan.

Four sets of salt and pepper shakers were purchased from the gift fund.

Donations and Gifts

PUBLICATIONS

TRENDALL, A. D.

*South Italian Vase Painting.* 32 + 30 plates, British Museum.


STUDENT RESIDENCES

BRUCE HALL — Warden: Mr W. P. Packard (on study leave in 1966)
    Acting Warden: Dr W. S. Ramson

BURTON HALL — Warden: Mr G. G. Rossiter

GARRAN HALL — Warden: Dr J. R. T. Short

LENNOX HOUSE — Warden: Dr M. M. Gore

FORESTRY HOUSE — Warden: Dr J. R. T. Short

Subject to the directions of the Vice-Chancellor the responsibility for the
management of each hall is in the hands of a warden and governing body con­
sisting of persons appointed in accordance with rules made under the Halls of
Residence Statute. In the day to day running of the halls each warden is assisted
by one or two deputy wardens and a number of sub-wardens and by a hall
manager and domestic staff.

During the year the halls continued to provide accommodation of a high
standard for members. Membership was mainly undergraduate but there were
also a significant number of postgraduates.

The numbers in residence in 1966 were:

<table>
<thead>
<tr>
<th>Halls</th>
<th>Undergraduates</th>
<th>Postgraduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>Bruce</td>
<td>98</td>
<td>84</td>
</tr>
<tr>
<td>Burton</td>
<td>108</td>
<td>110</td>
</tr>
<tr>
<td>Garran</td>
<td>62</td>
<td>57</td>
</tr>
<tr>
<td>Lennox House</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>Forestry House</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>448</td>
<td>251</td>
</tr>
</tbody>
</table>

Although Council had established a Halls of Residence Admission Committee
in 1963, prior to 1966 it had not set down any procedure for the allocation of
applicants to halls. The allocation was made on the basis of the preference of
applicants. In 1966 it was decided that an attempt should be made to make an
equitable distribution of new members according to academic quality and field
of interest. Such a distribution was made and has proved to be satisfactory.

There was a reduction in the number and proportion of women applicants in
1966 and this led to some changes in the allocation of space between men
and women.

Bruce Hall (which is now well established) operated at capacity during the
year. Burton and Garran Halls operated as a combined unit for the first time;
Burton Hall was full but Garran Hall had only 128 of its 250 places available
at the beginning of the year. An additional 110 places became available in
August but this was too late in the year for them to be of use. The combined
kitchen, common room and recreational areas appeared to function well but will
not be fully tested until 1967 when both halls will be full. Lennox House con-
tinued to offer accommodation for more than 100 men. In November 1966
the Council decided to lease the premises to the Dominican Order of the Roman
Catholic Church for use in 1967 as premises for John XXIII College, a resident-
tial college affiliated with the University, which is expected to have its own
premises on the University site by the beginning of the 1969 academic year.
The Council also decided that Forestry House, a residence formerly used by
the Australian Forestry School, should continue to be used by the University to
accommodate forestry students until the Department of Forestry moves to the
University site. The Warden of Garran Hall is now responsible for Forestry
House and there is a resident deputy warden.

Halls now provide accommodation for about 50% of the full-time under-
graduate students of the University. Each hall endeavours to provide for its
students an educational, cultural and social environment which will enable
members to get the most out of their time at the University. To this end, they
made extensive use of both resident and non-resident tutors who were
encouraged to take an interest in first-year undergraduates especially. With four
halls in operation, inter-hall competitions for both men and women were keenly
contested throughout the year.

The facilities of the halls were keenly sought for conference accommodation
during the vacation periods, and this continued to be a vital element in the
halls’ financial arrangements. Bruce Hall remained open throughout the
Christmas vacation 1966-67 to house all the research and other students
needing accommodation over this period.
REPORT OF THE CHAIRMAN OF THE UNION BOARD OF MANAGEMENT

Mr A. G. Hartnell

In 1966 the Union had 2,550 undergraduate and other student members, nine staff members and twenty-five life members. The question of compulsory membership of postgraduate students was discussed within the University during the year. The Board supported the extension of membership to all undergraduate and postgraduate students.

Members of the Board of Management were as follows: Mr A. G. Hartnell: Chairman, co-opted by the Board; Professor D. A. Brown: the Vice-Chancellor's nominee; Mr A. T. Shakespeare: appointed by Council; The Bursar (Mr W. S. Hamilton): ex officio; Dr Beryl Rawson and Professor J. D. Smyth: appointed by the Staff association; Mr G. W. Kerrison: appointed by the Research Students' Association; Mr N. McDonald: appointed by the Sports Union; Mr T. Higgins, Mr R. Mackay and Mr S. C. Yocklunn: appointed by the Students' Association; Mr R. Fraser, Mr C. Lamb and Mr C. Mansfield: elected by the general membership at the Union elections held in July 1966.

The Board held six meetings, the Finance Committee held fourteen meetings, the House Committee met ten times and the Development Committee met four times during the year.

The Union administrative staff was increased during the year with the appointment of an Assistant Union Secretary whose duties are mainly concerned with the financial accounting of the Union. This has enabled the Secretary to give attention to other expanding areas of Union activities.

In 1966 revenue from membership fees, used by the Union for current purposes, was $37,000 ($25,000 in 1965). The rise can be accounted for by an increase in the fees charged during 1966, and by a slight rise in undergraduate membership. Entrance fees, used by the Union for capital expenditure, gave a revenue of $8,000 in 1966 ($15,000 in 1965—the first year of operation when every member paid an entrance fee). Trading enterprises operated by the Union during the year showed a small net surplus. Total Union expenditure during the year was high. On the current account wages and salaries (not including trading enterprises) were $19,000 ($13,000 in 1965) and accounted for the main single item of expenditure. This does not include the salary of the Secretary and his typist who are on the University payroll. Total expenditure on the income and expenditure account was $34,000 ($29,100 in 1965). With the building still so new, facilities required to be developed and accordingly expenditure on the capital account was under great pressure. Expenditure on new capital assets during the year was $10,000 ($4,000 in 1965). The Board is also committed to a record expenditure in this direction during 1967.

Activities in the Union Building naturally expanded greatly and the most noteworthy expansion was in the field of catering. The Refectory operated the whole
year serving lunches, dinners and snacks; a milkbar was established to augment the coffee bar service, and a new coffee lounge and light refreshment service were established on the first floor.

The Dining Room, established during 1965, was discontinued in 1966 due to lack of patronage.

A Union shop was opened early in 1966 dealing, amongst other items, in stationery, confectionery and second-hand books. The Union took over from the University the academic gown hiring service and this was also handled by the shop.

The establishment of a bookshop on the lower ground floor by the University Co-operative Bookshop Ltd was most welcome. Their tenure is for a period of three years in the first instance.

Union nights were established as a permanent activity during 1966 together with a Debates Union, which handled parliamentary type debating. The highlight of this activity was the visit of a team from the United Kingdom.

A Union Art Exhibition aiming to foster active participation of students and staff in the field of representative arts, attracted great interest and has undoubtedly become an annual event in the Union calendar. The annual Union Dinner was also received with similar enthusiasm.

It is becoming evident that in some areas of activities the Union lacks the necessary facilities. Common room, reading and writing areas are almost non-existent in the present building. This, together with kitchen and food preparation facilities, should form the basis of the next Union expansion.

Finally, it is important that the Union places on record how appreciative it has been of the help given by the Registrar and his staff during the year.

Facilities
## BUILDING PROGRAMME SUMMARY

### Buildings Completed in 1966

<table>
<thead>
<tr>
<th>Building</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension to Liquid Nitrogen Plant Room, Research School of Physical Sciences</td>
<td>January</td>
</tr>
<tr>
<td>Copland Building</td>
<td>March</td>
</tr>
<tr>
<td>Wardens' Houses, Burton and Garran Halls</td>
<td>April</td>
</tr>
<tr>
<td>Completion of Lower Ground Floor in Mathematical Sciences Building</td>
<td>June</td>
</tr>
<tr>
<td>Botany Controlled Environment House</td>
<td>June</td>
</tr>
<tr>
<td>Burton and Garran Halls</td>
<td>August</td>
</tr>
<tr>
<td>Extension to Mathematical Sciences Building</td>
<td>August</td>
</tr>
<tr>
<td>Zoology General Laboratory</td>
<td>October</td>
</tr>
<tr>
<td>New Guinea Research Unit, Port Moresby Houses (2)</td>
<td>October</td>
</tr>
<tr>
<td>Synchrotron Workshop, Research School of Physical Sciences</td>
<td>November</td>
</tr>
</tbody>
</table>

### Buildings Under Construction in 1966

<table>
<thead>
<tr>
<th>Building '&quot;&quot;&quot;&quot;</th>
<th>Estimated Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoology/Psychology Animal House</td>
<td>January 1967</td>
</tr>
<tr>
<td>North Oval (Civil Engineering Works)</td>
<td>January 1967</td>
</tr>
<tr>
<td>Isotope Laboratory—John Curtin School of Medical Research</td>
<td>March 1967</td>
</tr>
<tr>
<td>Research School of Chemistry:</td>
<td></td>
</tr>
<tr>
<td>Stage I</td>
<td>June 1967</td>
</tr>
<tr>
<td>Stage II</td>
<td>November 1967</td>
</tr>
<tr>
<td>Botany Building</td>
<td>January 1968</td>
</tr>
<tr>
<td>Forestry Building</td>
<td>March 1968</td>
</tr>
<tr>
<td>University Library—Completion of General Studies Building</td>
<td>April 1968</td>
</tr>
</tbody>
</table>

### Buildings Being Planned

- H. C. Coombs Building Lecture Theatre
- Maintenance Depot Extensions
- Conversion of Building for Research School of Biological Sciences
- Chancelry Stage 2b
- Pavilion for North Oval
- Law Building
- Geology Building Extension
- Zoology Building Completion
- Residence at Siding Spring Observatory
- Geophysics Building Extension
- New Guinea Research Unit—Administrative Building and Residences
- Completion of H. C. Coombs Building and a Laboratory Block
- Arts Building Extension
- Postgraduate Hall of Residence
- Nuclear Physics Building Extension
- Psychology Building
- Copland Building Lecture Theatre


### UNIVERSITY STATISTICS

#### FULL-TIME STAFF

**As at 31 July 1966**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teaching Staff</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professorships</td>
<td>31</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>Associate Professorships</td>
<td>7</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Readerships</td>
<td>16</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Senior Lectureships</td>
<td>62</td>
<td>5</td>
<td>67</td>
</tr>
<tr>
<td>Lectureships</td>
<td>65</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>Assistant Lectureships</td>
<td>17</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>Demonstratorships, Tutorships, Teaching Fellowships</td>
<td>13</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total Teaching Staff</strong></td>
<td>211</td>
<td>35</td>
<td>246</td>
</tr>
<tr>
<td><strong>Research Staff (The Institute of Advanced Studies)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Staff</td>
<td>262</td>
<td>11</td>
<td>273</td>
</tr>
<tr>
<td>Junior Staff</td>
<td>19</td>
<td>66</td>
<td>85</td>
</tr>
<tr>
<td><strong>Total Research Staff</strong></td>
<td>281</td>
<td>77</td>
<td>358</td>
</tr>
<tr>
<td><strong>Technical Staff</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Officers</td>
<td>153</td>
<td>15</td>
<td>168</td>
</tr>
<tr>
<td>Assistants</td>
<td>157</td>
<td>107</td>
<td>264</td>
</tr>
<tr>
<td><strong>Total Technical Staff</strong></td>
<td>310</td>
<td>122</td>
<td>432</td>
</tr>
<tr>
<td><strong>Library Staff</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Staff</td>
<td>6</td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>Other Staff</td>
<td>9</td>
<td>34</td>
<td>43</td>
</tr>
<tr>
<td><strong>Total Library Staff</strong></td>
<td>15</td>
<td>75</td>
<td>90</td>
</tr>
<tr>
<td><strong>Sundry Staff</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Education</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Counselling and Student Advisory Services</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Audio-visual Services</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Student Unions, etc.</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>University Colleges</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total Sundry Staff</strong></td>
<td>9</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td><strong>Central Administration Staff</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chief Administrative Officers</td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Senior Administrative Officers</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Administrative Officers</td>
<td>10</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Administrative Assistants</td>
<td>14</td>
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<tr>
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FULL-TIME STAFF—continued
AS AT 31 JULY 1966

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## The John Curtin School of Medical Research

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## The Research School of Physical Sciences

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118
### The Research School of Pacific Studies

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**Total** | 36 | 44 | 103 | 91 | 85 | 359

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119
### B. THE SCHOOL OF GENERAL STUDIES—TEACHING STAFF

**As at 31 July 1966**

<table>
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<th>Departments, etc.</th>
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120
### ENROLMENTS

**To 31 July 1966**

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## ASSISTED STUDENTS

### To 31 July 1966

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Higher Degree Students</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Commonwealth Government Assistance</td>
<td>73</td>
<td>10</td>
<td>83</td>
</tr>
<tr>
<td>State Government Assistance</td>
<td>1</td>
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<tr>
<td>University Assistance</td>
<td>339</td>
<td>64</td>
<td>403</td>
</tr>
<tr>
<td>Other Assistance</td>
<td>14</td>
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<tr>
<td><strong>Total</strong></td>
<td>427</td>
<td>74</td>
<td>501</td>
</tr>
<tr>
<td>Assistance from more than one source</td>
<td>2</td>
<td></td>
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<tr>
<td><strong>Total Assisted Higher Degree Students</strong></td>
<td>425</td>
<td>74</td>
<td>499</td>
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<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td><strong>Students Other than Higher Degree</strong></td>
<td></td>
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<tr>
<td>Commonwealth Government Assistance</td>
<td>428</td>
<td>190</td>
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<tr>
<td>State Government Assistance</td>
<td>146</td>
<td>108</td>
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<tr>
<td>University Assistance</td>
<td>40</td>
<td>24</td>
<td>64</td>
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<tr>
<td>Other Assistance</td>
<td>32</td>
<td>10</td>
<td>42</td>
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<tr>
<td><strong>Total Assisted Students other than Higher Degree</strong></td>
<td>646</td>
<td>332</td>
<td>978</td>
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<td><strong>Total Assisted Students at the University</strong></td>
<td>1,071</td>
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<td>1,477</td>
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<tr>
<td>Degree</td>
<td>Males</td>
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<td>---------------------</td>
<td>-------</td>
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<tr>
<td>Doctor of Science</td>
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<tr>
<td>Doctor of Philosophy</td>
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<tr>
<td>Master</td>
<td>21</td>
<td>5</td>
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<tr>
<td>Bachelor</td>
<td>144</td>
<td>73</td>
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<td><strong>Total Degrees</strong></td>
<td>233</td>
<td>84</td>
<td>317</td>
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### FINANCIAL STATEMENTS

#### STATEMENT OF ASSETS AND LIABILITIES
**AS AT 31 DECEMBER 1966 (i)**

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td><strong>GENERAL FUNDS</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Current Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash at Bank and on Deposit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restricted Funds—Cash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Held in Imprests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonwealth Superannuation and Provident Account Reserve—Investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debtors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advances and Prepayments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials in Store and Service Pools (at cost)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td></td>
<td>2,039,984</td>
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<tr>
<td><strong>Fixed Assets</strong></td>
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<td></td>
</tr>
<tr>
<td>Buildings (at cost or valuation)</td>
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<td></td>
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<tr>
<td>Buildings and Service Installations</td>
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<td>24,319,002</td>
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<tr>
<td>Dwellings</td>
<td></td>
<td>4,353,362</td>
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<tr>
<td><strong>Total Buildings</strong></td>
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<td>28,672,364</td>
</tr>
<tr>
<td>Teaching and Research Equipment and Furniture (at cost or valuation)</td>
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<td></td>
</tr>
<tr>
<td>The Institute of Advanced Studies</td>
<td></td>
<td>10,561,264</td>
</tr>
<tr>
<td>The School of General Studies</td>
<td></td>
<td>2,604,614</td>
</tr>
<tr>
<td>The Library</td>
<td></td>
<td>215,857</td>
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<tr>
<td>Administration and General Services</td>
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<td>515,393</td>
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<tr>
<td>Residential Properties</td>
<td></td>
<td>368,983</td>
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<tr>
<td><strong>Total Teaching and Research</strong></td>
<td></td>
<td>14,266,111</td>
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<tr>
<td>The Library</td>
<td>Books and Publications (at cost)</td>
<td>2,035,034</td>
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<tr>
<td>Halls of Residence</td>
<td>Buildings (at cost)</td>
<td>5,313,716</td>
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<tr>
<td>Furniture and Equipment (at cost less depreciation)</td>
<td></td>
<td>443,715</td>
</tr>
<tr>
<td>Works of Art (at cost)</td>
<td></td>
<td>2,336</td>
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<tr>
<td><strong>Total Halls of Residence</strong></td>
<td></td>
<td>5,759,767</td>
</tr>
<tr>
<td><strong>Carried forward</strong></td>
<td></td>
<td>57,235,299</td>
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</table>

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124
STATEMENT OF ASSETS AND LIABILITIES

AS AT 31 DECEMBER 1966 (i)—continued

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>$</th>
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</thead>
<tbody>
<tr>
<td>Brought forward</td>
<td>$57,235,299</td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
</tr>
<tr>
<td>Creditors</td>
<td>338,992</td>
</tr>
<tr>
<td>Loans from the Commonwealth Superannuation Fund and Provident Account</td>
<td></td>
</tr>
<tr>
<td>For erection of Residential Properties</td>
<td>187,500</td>
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<tr>
<td>For purchase of Northbourne House</td>
<td>69,683</td>
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<tr>
<td></td>
<td>596,175</td>
</tr>
<tr>
<td>Liabilities</td>
<td>56,639,124</td>
</tr>
<tr>
<td>Capital Accumulation Account (ii)</td>
<td>52,653,738</td>
</tr>
<tr>
<td>Restricted Funds (vi)</td>
<td>907,246</td>
</tr>
<tr>
<td>Commonwealth Superannuation and Provident Account</td>
<td></td>
</tr>
<tr>
<td>Reserve</td>
<td>3,078,140</td>
</tr>
<tr>
<td></td>
<td>56,639,124</td>
</tr>
<tr>
<td>Trust and Agency Funds (vii)</td>
<td>658,210</td>
</tr>
<tr>
<td>Contingent Liability</td>
<td></td>
</tr>
<tr>
<td>Guarantees—Staff Housing Loans Programme</td>
<td>$255,315</td>
</tr>
</tbody>
</table>

L. G. H. HUXLEY
Vice-Chancellor

L. A. BELLINGHAM
Acting Accountant

The above Statement of Assets and Liabilities and the accompanying Statement of Income and Expenditure have been examined and are in agreement with the accounts, which have been audited. In my opinion, they show fairly the financial operations for the year ended 31 December 1966, and the state of the affairs of the Australian National University as at that date.

V. J. W. SKERMER
Auditor-General for the Commonwealth
26 June 1967.
**CAPITAL ACCUMULATION ACCOUNT**

**FOR THE YEAR ENDED 31 DECEMBER 1966 (ii)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance, 1 January 1966</strong></td>
<td>$47,057,790</td>
</tr>
<tr>
<td><strong>Add:</strong> Transfer from Income and Expenditure Statement</td>
<td>$1,128,467</td>
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<tr>
<td><strong>Less:</strong> Previous year's Income and Expenditure Adjustments</td>
<td>$157</td>
</tr>
<tr>
<td>Commonwealth Grant for Capital Works and Services</td>
<td>$4,589,000</td>
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<tr>
<td>National Capital Development Commission Grant for Botany Building</td>
<td>$21,797</td>
</tr>
<tr>
<td>Purchases from Restricted Funds</td>
<td>$399,003</td>
</tr>
<tr>
<td>Profit on sale of houses sold to staff</td>
<td>$25,093</td>
</tr>
<tr>
<td>Transfer funds from University Reserve</td>
<td>$15,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$6,178,203</td>
</tr>
<tr>
<td><strong>Less:</strong> Disposal of equipment and adjustment of book values</td>
<td>$117,272</td>
</tr>
<tr>
<td>Transfer of assets to University Union</td>
<td>$7,923</td>
</tr>
<tr>
<td>Proceeds of houses sold to staff and transferred to Staff Housing Reserve</td>
<td>$110,663</td>
</tr>
<tr>
<td>Transfer to Computer Facilities Fund</td>
<td>$342,000</td>
</tr>
<tr>
<td>Transfer to Supplementary Superannuation Arrears Fund</td>
<td>$3,500</td>
</tr>
<tr>
<td>Gifts to other Institutions</td>
<td>$897</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$582,255</td>
</tr>
<tr>
<td><strong>Balance, 31 December 1966, as Contra to Assets in Statement of Assets and Liabilities (i)</strong></td>
<td>$52,653,738</td>
</tr>
</tbody>
</table>

**STATEMENT OF INCOME AND EXPENDITURE**

**FOR THE YEAR ENDED 31 DECEMBER 1966 (iii)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td>$14,081,027</td>
</tr>
<tr>
<td>Commonwealth Grant for Running Expenses</td>
<td>$13,453,000</td>
</tr>
<tr>
<td>Student and Examination Fees Received</td>
<td>$332,485</td>
</tr>
<tr>
<td>Rentals Received</td>
<td>$236,439</td>
</tr>
<tr>
<td>Sundry Income</td>
<td>$59,103</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$14,081,027</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
</tr>
<tr>
<td>The Institute of Advanced Studies (see Analysis attached—iv)</td>
<td></td>
</tr>
<tr>
<td>The John Curtin School of Medical Research</td>
<td>$1,760,891</td>
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<tr>
<td>The Research School of Physical Sciences</td>
<td>$2,139,760</td>
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<tr>
<td>The Research School of Social Sciences</td>
<td>$911,611</td>
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<tr>
<td>The Research School of Pacific Studies</td>
<td>$1,158,675</td>
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<tr>
<td>The Research School of Chemistry</td>
<td>$85,229</td>
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<tr>
<td>General Staff Reserve</td>
<td>$21,250</td>
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<tr>
<td><strong>Total</strong></td>
<td>$6,077,416</td>
</tr>
<tr>
<td>The School of General Studies (see Analysis attached—iv)</td>
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</tr>
<tr>
<td>The Faculty of Arts</td>
<td>$839,376</td>
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<tr>
<td>The Faculty of Economics</td>
<td>$287,575</td>
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<tr>
<td>The Faculty of Law</td>
<td>$116,240</td>
</tr>
<tr>
<td>The Faculty of Oriental Studies</td>
<td>$252,231</td>
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<tr>
<td>The Faculty of Science</td>
<td>$1,359,136</td>
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<tr>
<td>Language Laboratory</td>
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<tr>
<td><strong>Total</strong></td>
<td>$2,863,572</td>
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<tr>
<td>Scholarships</td>
<td>$916,230</td>
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<tr>
<td>Department of Adult Education</td>
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<tr>
<td><strong>Carried forward</strong></td>
<td>$9,905,110</td>
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<tr>
<td><strong>Total</strong></td>
<td>$14,081,027</td>
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</table>
## STATEMENT OF INCOME AND EXPENDITURE

**FOR THE YEAR ENDED 31 DECEMBER 1966 (iii)—continued**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Brought forward</td>
<td>$9,905,110</td>
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<tr>
<td><strong>The Library</strong></td>
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<td>Salaries and Wages</td>
<td>334,818</td>
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<td>Pay-roll Tax</td>
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<tr>
<td>Superannuation</td>
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<tr>
<td>Binding Costs</td>
<td>19,183</td>
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<tr>
<td>Administrative Expenses</td>
<td>62,179</td>
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<td><strong>Total</strong></td>
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<tr>
<td><strong>Administration</strong></td>
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<tr>
<td>Salaries and Wages</td>
<td>835,124</td>
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<td>Pay-roll Tax</td>
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<td>Superannuation</td>
<td>87,698</td>
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<td>Administrative Expenses</td>
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<td><strong>Total</strong></td>
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<tr>
<td><strong>Miscellaneous</strong></td>
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<td>Council and Committee Expenses</td>
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<tr>
<td>Conferences and Functions</td>
<td>41,412</td>
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<tr>
<td>Subscriptions, Donations and Grants to other organisations</td>
<td>15,528</td>
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<tr>
<td><strong>Bad Debts and Fees written off (including Decimal Currency Conversion Adjustments)</strong></td>
<td>85</td>
</tr>
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<td>University Calendar and Public Relations Materials</td>
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<td>Private Audit and miscellaneous expenses</td>
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<td><strong>Subvention</strong></td>
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<td>Publications</td>
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<td>University Films</td>
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<td>Drama Committee</td>
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<td>Australian Dictionary of Biography</td>
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<tr>
<td><strong>Facilities provided by University House for General University purposes</strong></td>
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<tr>
<td>University House—Master’s Stipend and Secretarial Assistance</td>
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<tr>
<td>Warden’s Stipend and Secretarial Assistance</td>
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<td>Bruce Hall</td>
<td>15,970</td>
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<tr>
<td>Lennox House</td>
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<tr>
<td>University Union</td>
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<td>Burton Hall</td>
<td>15,605</td>
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<td>Garran Hall</td>
<td>5,672</td>
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<tr>
<td>Forestry House</td>
<td>157</td>
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<tr>
<td><strong>Expenses—Staff Centre</strong></td>
<td>2,138</td>
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<tr>
<td>Preliminary Expenses—Faculty of Medicine</td>
<td>248</td>
</tr>
<tr>
<td>University Fellowships</td>
<td>5,744</td>
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<tr>
<td>Creative Arts Fellowships</td>
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<tr>
<td><strong>Carried forward</strong></td>
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<tr>
<td></td>
<td>$11,892,931</td>
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</tbody>
</table>

[7280/67—10] 127
STATEMENT OF INCOME AND EXPENDITURE
FOR THE YEAR ENDED 31 DECEMBER 1966 (iii)—continued

<table>
<thead>
<tr>
<th>Description</th>
<th>$</th>
<th>$</th>
<th>$</th>
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</thead>
<tbody>
<tr>
<td>Brought forward</td>
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<td>Publications Section—Salaries and Expenses</td>
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<tr>
<td>Translation Unit—Salaries and Expenses</td>
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<tr>
<td>Data Processing Unit—Salaries and Expenses</td>
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<td></td>
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<tr>
<td>University Counselling Service</td>
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<tr>
<td>University Health Service</td>
<td>6,675</td>
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<tr>
<td>Visual Aids Unit</td>
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<tr>
<td>Efficient Reading Course</td>
<td>2,267</td>
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</tr>
<tr>
<td>Maintenance—Buildings</td>
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<tr>
<td>Maintenance—Other</td>
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<td></td>
</tr>
<tr>
<td>Watchmen</td>
<td>34,197</td>
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<td></td>
</tr>
<tr>
<td>Freight, Supply and Disposal Expenses, General</td>
<td>8,840</td>
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<tr>
<td>Telephone Exchange Costs</td>
<td>51,494</td>
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<tr>
<td>Pay-roll Tax—Maintenance and General Service</td>
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</tr>
<tr>
<td>Salaries</td>
<td>5,901</td>
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<tr>
<td>Computer Centre</td>
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<td></td>
<td>941,003</td>
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</tr>
<tr>
<td>Halls of Residence</td>
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</tr>
<tr>
<td>University House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loss (including depreciation)</td>
<td>18,557</td>
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<td></td>
</tr>
<tr>
<td>Bruce Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loss (including depreciation)</td>
<td>30,627</td>
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<td></td>
</tr>
<tr>
<td>Lennox House</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loss (including depreciation)</td>
<td>30,833</td>
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<tr>
<td>Burton Hall</td>
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<tr>
<td>Operating Loss (including depreciation)</td>
<td>10,033</td>
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<tr>
<td>Garran Hall</td>
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<tr>
<td>Operating Loss (including depreciation)</td>
<td>7,709</td>
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<tr>
<td>Forestry House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loss (including depreciation)</td>
<td>4,400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northbourne House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loss (including depreciation)</td>
<td>7,492</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Centre</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loss (including depreciation)</td>
<td>8,975</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>118,626</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12,952,560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer to Capital Accumulation Account (ii), the predominant part of this balance having been used for the purchase of equipment which is capitalised in the statement of assets and liabilities</td>
<td>1,128,467</td>
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</tbody>
</table>
ATTACHMENT TO INCOME AND EXPENDITURE STATEMENT
31 December 1966 (iv)

<table>
<thead>
<tr>
<th>THE INSTITUTE OF ADVANCED STUDIES</th>
<th>Pay-roll Tax</th>
<th>Field Research and Travelling Expenses</th>
<th>Administrative Service Expenses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Research Materials</td>
<td>Salaries</td>
<td>Superannuation Expenses</td>
<td></td>
</tr>
<tr>
<td><strong>THE JOHN CURTIN SCHOOL OF MEDICAL RESEARCH</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Department of Biochemistry</td>
<td>39,677</td>
<td>119,880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Physical Biochemistry</td>
<td>17,649</td>
<td>79,339</td>
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<td></td>
</tr>
<tr>
<td>Department of Medical Chemistry</td>
<td>35,812</td>
<td>160,869</td>
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<td></td>
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<tr>
<td>Department of Microbiology</td>
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<td>127,974</td>
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<tr>
<td>Department of Experimental Pathology</td>
<td>28,723</td>
<td>103,424</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Biological Inorganic Chemistry Unit</td>
<td>2,858</td>
<td>8,228</td>
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<tr>
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<td>14,286</td>
<td>67,885</td>
<td></td>
<td></td>
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<tr>
<td>Department of Clinical Science</td>
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<td>7,234</td>
<td></td>
<td>263</td>
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<tr>
<td>Electron Microscope Unit</td>
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<td>40,569</td>
<td></td>
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<tr>
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<td>28,694</td>
<td>108,789</td>
<td>10,649</td>
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<td></td>
<td>19,585</td>
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<tr>
<td>Workshop</td>
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<td></td>
<td>29,888</td>
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<tr>
<td><strong>Total</strong></td>
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<td>1,134,399</td>
<td>28,694</td>
<td>108,789</td>
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<tr>
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<th>Field Research and Travelling Expenses</th>
<th>Administrative Service Expenses</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Department of Engineering Physics</td>
<td>27,911</td>
<td>218,922</td>
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<tr>
<td>Department of Nuclear Physics</td>
<td>28,528</td>
<td>145,571</td>
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<tr>
<td>Department of Theoretical Physics</td>
<td>347</td>
<td>69,718</td>
<td></td>
<td></td>
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<tr>
<td>Department of Geophysics and Geochemy</td>
<td>67,664</td>
<td>235,971</td>
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<tr>
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<td>47,440</td>
<td>320,561</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Mathematics</td>
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<td>Diffusion Research Unit</td>
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<td>13,815</td>
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<tr>
<td>Physics of Ionized Gases Unit</td>
<td>4,629</td>
<td>17,032</td>
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<td>95,145</td>
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<td>152,974</td>
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<td>Workshops</td>
<td>5,550</td>
<td>83,513</td>
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<tr>
<td>Electronics Workshops</td>
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<td>26,388</td>
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<tr>
<td>Electron and Ion Diffusion Unit</td>
<td>7,440</td>
<td>26,136</td>
<td>663</td>
<td>2,763</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>258,626</td>
<td>1,342,133</td>
<td>34,647</td>
<td>155,737</td>
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<table>
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<th>Field Research and Travelling Expenses</th>
<th>Administrative Service Expenses</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Department of Law</td>
<td>272</td>
<td>52,567</td>
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<td></td>
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<tr>
<td>Department of Economics</td>
<td>1,454</td>
<td>41,732</td>
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<td>79,908</td>
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<td></td>
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<td>4,203</td>
<td>112,332</td>
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<td></td>
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<tr>
<td>Department of Demography</td>
<td>1,251</td>
<td>71,087</td>
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<tr>
<td>Department of Statistics</td>
<td>172</td>
<td>26,514</td>
<td></td>
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<td>66</td>
<td>85,989</td>
<td></td>
<td></td>
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<tr>
<td>Department of Sociology</td>
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<td>44,013</td>
<td></td>
<td></td>
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<tr>
<td>Department of Economic History</td>
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<td>57,646</td>
<td></td>
<td></td>
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<tr>
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<td>17,043</td>
<td>55,134</td>
<td>2,247</td>
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<tr>
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<td>10,400</td>
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<tr>
<td>Archives Section</td>
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<td>7,455</td>
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<tr>
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<td></td>
<td>20,493</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,181</td>
<td>668,160</td>
<td>17,043</td>
<td>55,134</td>
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*continued on following page*
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<thead>
<tr>
<th>Field Research</th>
<th>Adminis­</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>and Travelling</td>
<td>trative</td>
<td></td>
</tr>
<tr>
<td>Expenses</td>
<td>and Service</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>Expenses</td>
<td></td>
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</table>

**The Research School of Pacific Studies**

Department of International Relations

<table>
<thead>
<tr>
<th>Research</th>
<th>Salaries</th>
<th>Pay-roll</th>
<th>Super-annuation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td></td>
<td>Tax</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|          |          |          |                  |       |

Department of Anthropology and Sociology

|          |          |          |                  |       |

Department of Pacific History

|          |          |          |                  |       |

Department of Geography

|          |          |          |                  |       |

Department of Far Eastern History

|          |          |          |                  |       |

Department of Economics

|          |          |          |                  |       |

New Guinea Research Unit

|          |          |          |                  |       |

General Administration

|          |          |          |                  |       |

Director's Section

|          |          |          |                  |       |

Visitors

|          |          |          |                  |       |

**Total:** The Institute of Advanced Studies

|          |          |          |                  |       |

**THE SCHOOL OF GENERAL STUDIES**

**The Faculty of Arts**

|          |          |          |                  |       |

**The Faculty of Economics**

|          |          |          |                  |       |

**The Faculty of Law**

|          |          |          |                  |       |

**The Faculty of Oriental Studies**

|          |          |          |                  |       |

**The Faculty of Science**

|          |          |          |                  |       |

The Language Laboratory

|          |          |          |                  |       |

**Total:** The School of General Studies

|          |          |          |                  |       |
HALLS OF RESIDENCE
CONSOLIDATED OPERATING STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 1966 (*)

<table>
<thead>
<tr>
<th>University House</th>
<th>Bruce Hall</th>
<th>Burton Hall</th>
<th>Garran Hall†</th>
<th>Lennox House</th>
<th>Forestry House</th>
<th>Northbourne House‡</th>
<th>A.N.U. Staff Centre*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Tariff Received—Residents</td>
<td>170,687</td>
<td>122,823</td>
<td>138,155</td>
<td>75,112</td>
<td>54,611</td>
<td>34,202</td>
<td>14,626</td>
<td>2,185</td>
</tr>
<tr>
<td>Visitors</td>
<td>..</td>
<td>23,667</td>
<td>34,925</td>
<td>8,856</td>
<td>18,992</td>
<td>356</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Membership Fees</td>
<td>4,999</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Registration Fees</td>
<td>..</td>
<td>780</td>
<td>1,080</td>
<td>992</td>
<td>501</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Reimbursement of Board—House Staff</td>
<td>5,337</td>
<td>2,562</td>
<td>..</td>
<td>3,624</td>
<td>1,281</td>
<td>..</td>
<td>..</td>
<td>150</td>
</tr>
<tr>
<td>Income from Casual Meals and Catering</td>
<td>25,851</td>
<td>9,116</td>
<td>8,387</td>
<td>2,361</td>
<td>2,445</td>
<td>134</td>
<td>66</td>
<td>12,571</td>
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<tr>
<td>Sundry Income</td>
<td>2,579</td>
<td>230</td>
<td>307</td>
<td>217</td>
<td>553</td>
<td>21</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Subvention from University Beverage Sales—Net Proceeds</td>
<td>10,000</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Canteen Sales—Net Proceeds</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>1,304</td>
</tr>
</tbody>
</table>

Less Expenditure:
Operating Costs
Cost of Foodstuffs | 56,130 | 50,877 | 54,712 | 28,140 | 35,626 | 16,772 | 5,115 | 8,902 | 256,274 |
Fuel, Light, Power and Heating | 20,372 | 21,142 | 31,304 | 15,896 | 10,658 | 4,664 | 1,458 | 2,345 | 107,839 |
Cleaning, Laundry and Sundry Materials | 9,981 | 7,704 | 8,242 | 3,948 | 4,392 | 1,068 | 587 | 940 | 36,862 |
Domestic Staff Wages | 98,970 | 74,008 | 67,341 | 34,635 | 40,216 | 11,821 | 6,475 | 6,419 | 339,885 |
Losses, Breakages and Replacements | 962 | 592 | 904 | 704 | 862 | 40 | 40 | 98 | 403 |
Local Transport, Freight and Supply Expenses | 1,502 | 224 | 451 | 538 | 297 | 9 | 2 | 1,049 | 4,072 |
Other Operating Expenses | 126 | 202 | 690 | 139 | 175 | 17 | 40 | 297 | 1,686 |

188,043 | 154,749 | 163,644 | 84,000 | 92,226 | 34,391 | 13,775 | 20,355 | 751,183 |

† Commenced operations on 31 March 1966.
‡ Ceased operations on 26 November 1966.
* Commenced operations on 7 February 1966.

continued on following page
HALLS OF RESIDENCE

CONSOLIDATED OPERATING STATEMENT

FOR THE YEAR ENDED 31 DECEMBER 1966 (v)—continued

<table>
<thead>
<tr>
<th></th>
<th>University House</th>
<th>Bruce Hall</th>
<th>Burton Hall</th>
<th>Garran Hall†</th>
<th>Lennox House</th>
<th>Forestry House</th>
<th>Northbourne House‡</th>
<th>A.N.U. Staff Centre*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Administrative Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Administrative Salaries</td>
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<td>6,403</td>
<td>2,479</td>
<td>2,315</td>
<td>2,312</td>
<td>56,599</td>
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<td>1,535</td>
<td>2,430</td>
<td>429</td>
<td>469</td>
<td>341</td>
<td>18,159</td>
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<td>2,359</td>
<td>1,213</td>
<td>607</td>
<td>72</td>
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<td>237</td>
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<td>677</td>
<td>670</td>
<td>761</td>
<td>47</td>
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<td>Newspapers and Periodicals</td>
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<td></td>
<td>591</td>
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<tr>
<td>Master's, Fellows' and Residents Committee Entertainment Expenses</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,136</td>
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<tr>
<td>Warden's Entertainment Expenses</td>
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<td>348</td>
<td>455</td>
<td>290</td>
<td>156</td>
<td>77</td>
<td>431</td>
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<td></td>
<td>28,743</td>
<td>17,748</td>
<td>16,191</td>
<td>9,119</td>
<td>10,891</td>
<td>3,183</td>
<td>7,268</td>
<td>3,637</td>
<td>96,780</td>
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<td>Rates and General Services</td>
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<td>546</td>
<td>918</td>
<td>472</td>
<td>95</td>
<td>80</td>
<td>89</td>
<td>92</td>
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<td>680</td>
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<td>30,067</td>
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<td>72,743</td>
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<td>Operating Profit</td>
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<td></td>
<td></td>
<td>1,298</td>
</tr>
<tr>
<td>Adjustment of Non-Depreciable Items of Inventory</td>
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<td>1,333</td>
<td>3,387</td>
<td>1,399</td>
<td>1,240</td>
<td>109</td>
<td>34</td>
<td>219Cr</td>
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<td>3,665</td>
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<td>36,675</td>
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<tr>
<td>University's Statement of Income and Expenditure</td>
<td>18,557</td>
<td>30,627</td>
<td>10,033</td>
<td>7,709</td>
<td>30,833</td>
<td>4,400</td>
<td>7,492</td>
<td>8,975</td>
<td>118,626</td>
</tr>
</tbody>
</table>

STATEMENT OF FUNDS GRANTED FOR RESTRICTED PURPOSES
FOR THE YEAR ENDED 31 DECEMBER 1966 (vi)

<table>
<thead>
<tr>
<th>Fund Balances 1 Jan. 1966</th>
<th>Subsidies and Donations Received during 1966</th>
<th>Funds Disbursed or Transferred during 1966</th>
<th>Fund Balances 31 Dec. 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>THE UNIVERSITY:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Curtin School of Medical Research Reserve</td>
<td>17,995</td>
<td>2,005</td>
<td>20,000</td>
</tr>
<tr>
<td>Research School of Physical Sciences Reserve</td>
<td>17,996</td>
<td>2,004</td>
<td>13,811</td>
</tr>
<tr>
<td>Research School of Social Sciences Reserve</td>
<td>7,995</td>
<td>2,005</td>
<td>10,000</td>
</tr>
<tr>
<td>Research School of Pacific Studies Reserve</td>
<td>7,996</td>
<td>2,004</td>
<td>10,000</td>
</tr>
<tr>
<td>School of General Studies Reserve</td>
<td>4,989</td>
<td>5,011</td>
<td>10,000</td>
</tr>
<tr>
<td>University Art Reserve</td>
<td>5,496</td>
<td>2,459</td>
<td>1,000</td>
</tr>
<tr>
<td>University Film Reserve</td>
<td>11,808</td>
<td>3,000</td>
<td>5,972</td>
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<tr>
<td>University Publications Reserve</td>
<td>60,480</td>
<td>63,088</td>
<td>63,690</td>
</tr>
<tr>
<td>Mount Stromlo Observatory Fund for Accumulated Furlough</td>
<td>9,482</td>
<td>6,559</td>
<td>2,923</td>
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<tr>
<td>University Theatre Group Reserve</td>
<td>1,406</td>
<td>1,080</td>
<td>1,820</td>
</tr>
<tr>
<td>Rockefeller Foundation Grant for General Purposes</td>
<td>4,462</td>
<td>189</td>
<td>4,651</td>
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<tr>
<td>Staff Housing Replacement Reserve</td>
<td>301,009</td>
<td>132,917</td>
<td>359,549</td>
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<tr>
<td>University General Reserve</td>
<td>104,178</td>
<td>15,000</td>
<td>89,178</td>
</tr>
</tbody>
</table>

THE INSTITUTE OF ADVANCED STUDIES:

The John Curtin School of Medical Research:
- Anonymous donation for general purposes: 150
- Department of Biochemistry: 27 Dr 965
- National Institutes of Health grant for research: 14 Dr 309

Department of Physical Biochemistry:
- Commonwealth Scientific and Industrial Research Organization grant for research in milk proteins: 547
- Australian Dairy Board grant for research in lactoglobulins of milk: 800

Department of Medical Chemistry:
- National Institutes of Health Fellowship grant: 20 Dr

Department of Microbiology:
- Wool Research Committee grant for research in myxomatosis: 2,911
- World Health Organization grant for research: 87
- World Health Organization grant for maintenance of regional reference laboratory for arthropod-borne viruses: 5,133
- National Institutes of Health grant for honorary fellow—Dr Bertina B. Wentworth: 448
- National Institutes of Health grant for visiting fellow—Dr Billie L. Padgett: 447
- Rockefeller Foundation grant for research: 605

Department of Experimental Pathology:
- National Heart Foundation of Australia grant for research in pathogenesis of arteriosclerosis: 626
- National Heart Foundation of Australia grant for study of the ultra structure of the aortic wall: 106
- National Heart Foundation of Australia grant for research fellowship: 37
- National Heart Foundation of Australia grant for research—Dr E. G. Cleary: 1,523

continued on following page
STATEMENT OF FUNDS GRANTED FOR RESTRICTED PURPOSES
FOR THE YEAR ENDED 31 DECEMBER 1966 (vi)—continued

<table>
<thead>
<tr>
<th>Subsidies and Donations Received during 1966</th>
<th>Funds Disbursed or Transferred during 1966</th>
<th>Fund Balances 31 Dec. 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>World Health Organization grant for studies in immunological mechanisms</td>
<td>$830Dr</td>
<td>$830Cr</td>
</tr>
</tbody>
</table>

Department of Physiology:

<table>
<thead>
<tr>
<th>Special Travel Fund</th>
<th>9</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellcome Trust Fund for purchase of equipment</td>
<td>8,405</td>
<td>8,405</td>
</tr>
<tr>
<td>Muscular Dystrophy Association of America grant No. 2 for research</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Muscular Dystrophy Association of America grant No. 3 for research</td>
<td>585</td>
<td>1,751</td>
</tr>
<tr>
<td>National Institutes of Health grant for research</td>
<td>1,423</td>
<td>22,743</td>
</tr>
<tr>
<td>Fund for Re-equipment</td>
<td>32,951</td>
<td>32,951</td>
</tr>
</tbody>
</table>

Biological Inorganic Chemistry Unit:

| Monsanto Chemicals grant for research in synthesis of metal complexes | 280 | 280 |

Electron Microscope Unit:

| Australian Wool Board grant for research on hydrogen-deuterium exchange | 600 | 600 |

The Research School of Physical Sciences:

Department of Engineering Physics:

| National Institutes of Health Fellowship grant | 200 | 200 |
| Anonymous grant for research in fuel cells | 209 | 209 |

Department of Nuclear Physics:

| Australian Institute of Nuclear Science and Engineering grant for computation of nuclear reactions | 113 | 103 | 10 |
| Tandem Generator tube replacement reserve | 15,614 | 10,514 | 5,100 |

Department of Geophysics and Geochemistry:

| Australian Institute for Nuclear Science and Engineering grant for activation studies in rocks | 211 | 211 |
| Metropolitan Water, Sewerage and Drainage Board and Snowy Mountains Hydro-electric Authority grant for seismological research | 1,015Dr | 5,000 | 2,508 | 1,477 |
| U.S. National Science Foundation grant for research in differentiation of ferrar dolerites of the McMurdo Sound area | 300Dr | 445 | 145 |
| Electron Probe Micro Analyser—Broken Hill Proprietary Company Limited | 2,054 | 2,054 |

Department of Astronomy:

| Myer Foundation grant for International Astronomy Union symposium | 218 | 1,028 | 810Dr |
| International Astronomical Union grant for distinguished visitors | 412 | 210 | 202 |
| Carnegie Institution of Washington grant for research | 1,778 | 76 | 2,770 | 916Dr |

Department of Mathematics:

| U.S. Department of Navy grant for research in wind-generated waves | 12,912 | 938 | 11,461 | 2,389 |
| U.S. National Science Foundation grant for fellowship | 447 | 447 |

continued on following page
## STATEMENT OF FUNDS GRANTED FOR RESTRICTED PURPOSES

**for the Year ended 31 December 1966 (vi)—continued**

<table>
<thead>
<tr>
<th>Fund Balances 1 Jan. 1966</th>
<th>Subsidies and Donations Received during 1966</th>
<th>Funds Disbursed or Transferred during 1966</th>
<th>Fund Balances 31 Dec. 1966</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

### The Research School of Social Sciences:

**Department of Economics:**
- Australian Banks' grant for visiting professor
- Special Travel Fund

### Department of Political Science:
- Australian Institute of International Affairs grant for research in strategic problems
- Special Travel Fund

### Department of History:
- W. M. Hughes grant for W. M. Hughes biography
- Grant for Australian Dictionary of Biography
- Australian Dictionary of Biography—Sales Volume 1

### Department of Demography:
- Australian Institute of International Affairs grant for research in migration problems
- Population Council grant—African Population conference—Publications Project
- Department of Immigration grant for British Migrant Survey
- Population Council grant for fellowship—Mr C. N. Ejiogu

### Department of Statistics:
- Anonymous grant for Australia's educational statistics
- National Capital Development Commission grant for survey of school leavers

### Department of Economic History:
- Wm. Cooper & Nephews (Aust.) Pty Ltd grant for research
- Goldsborough Mort grant for research
- Social Science Research Council grant for research
- R. Schalkenbach Foundation grant for research

### The Research School of Pacific Studies:
- The Ford Foundation grant for international research and training programme
- The Myer Foundation grant for seminar on Australian voluntary foreign aid
- Director's Special Fund
- Anonymous grant for study of economy of Indonesia

### Department of Anthropology and Sociology:
- E. M. Symon bequest for research
- Special Purpose Fund
- Nuffield Foundation grant for prehistory
- Australian Institute of Aboriginal Studies grant for linguistic research

### Department of Pacific History:
- Journal of Pacific History Fund
- General Motors Holden's Pty Ltd grant for Cranbourne History Project

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*continued on following page*
STATEMENT OF FUNDS GRANTED FOR RESTRICTED PURPOSES

FOR THE YEAR ENDED 31 DECEMBER 1966 (vi)—continued

<table>
<thead>
<tr>
<th>Department of Geography:</th>
<th>Subsidies and Donations Received during 1966</th>
<th>Funds Disbursed or Transferred during 1966</th>
<th>Fund Balances 31 Dec. 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bernice P. Bishop Museum grant for Mount Wilhelm Field Station</td>
<td>$46</td>
<td>Dr 46</td>
<td>Cr 46</td>
</tr>
<tr>
<td>Commonwealth Scientific and Industrial Research Organization grant for research</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>University of Tasmania grant for field-work in Tasmania</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Rural Credits Development Fund grant to cover costs of aerial photographs of the Chimbu sub-district in New Guinea</td>
<td>1,273</td>
<td>81</td>
<td>1,354</td>
</tr>
<tr>
<td>Commonwealth Scientific and Industrial Research Organization grant for visitor</td>
<td>1,359</td>
<td>87</td>
<td>1,446</td>
</tr>
</tbody>
</table>

Department of Far Eastern History:

Morrison Papers Project | 117 | 6 | 111 |

Department of Economics:

Various grants for study of American investment in Australia | 3,632 | 233 | 1,695 | 2,170 |
Rural Credits Development Fund grant for study of indigenous cash cropping in Territory of Papua and New Guinea | 9,613 | Dr 9,613 | 1,445 | 11,058 Dr |
Rural Credits Development Fund grant for study of indigenous land settlement in Territory of Papua and New Guinea | 4,940 | Dr 4,940 | 2,722 | 7,662 Dr |
Rural Credits Development Fund grant for a cost-benefits study of Coleambally irrigation area of New South Wales | 694 | 1,026 | 485 | 1,235 |

New Guinea Research Unit:

Rural Credits Development Fund grant for study of economic aspect of indigenous agriculture in Territory of Papua and New Guinea | 4,775 | 134 | 4,639 | 270 |
Rural Credits Development Fund grant for field-work in Territory of Papua and New Guinea | 8,712 | 563 | 9,275 |
Rural Credits Development Fund grant for study of co-operatives in Territory of Papua and New Guinea | 529 | Dr 529 |

THE SCHOOL OF GENERAL STUDIES:

The Faculty of Arts:

Commonwealth Literary Fund grant for lectures | 65 | 50 | 50 | 65 |

Department of Classics:

Special Fund | 13 | 13 |
Fund for purchase of classical antiquities | 673 | 450 | 353 | 770 |

Department of Geography:

Nuffield Foundation grant for study of Yass Valley project | 5,057 | 3,063 | 1,994 |
Wool Board Inter-Disciplinary Committee for study of Yass Valley project | 10,153 | 3,908 | 6,245 |
Wool Board grant for studies of Australian shearing industry | 1,000 | 177 | 823 |

Department of Political Science:

University of Melbourne grant for publication of book | 1 | 1 |
Commonwealth Scientific and Industrial Research Organization grant for research | 1,300 | 500 | 1,857 | 57 Dr |
Australian Institute of International Affairs grant for research | 2 | 2 |

continued on following page
<table>
<thead>
<tr>
<th>Department of German:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Institute of Aboriginal Studies grant for linguistic research</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>2,351</td>
<td>2,351</td>
<td></td>
</tr>
<tr>
<td>The Faculty of Economics:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Economics:</td>
<td>Anonymous grant for study of Australian Manufacturing Industry</td>
<td>1,350</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>Anonymous grant for study of company reporting</td>
<td>.</td>
<td>650</td>
</tr>
<tr>
<td></td>
<td>Anonymous grant for econometric study of Australian inflation</td>
<td>3,000</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>University of Papua and New Guinea grant for research assistant</td>
<td>.</td>
<td>2,708</td>
</tr>
<tr>
<td>The Faculty of Law:</td>
<td>Law Notes and Law Review Fund</td>
<td>963</td>
<td>4,070</td>
</tr>
<tr>
<td>The Faculty of Oriental Studies:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of South Asian and Buddhist Studies:</td>
<td>John Galvin Trust grant for English Malay Dictionary</td>
<td>20,483</td>
<td>1,074</td>
</tr>
<tr>
<td></td>
<td>Australian Research Grants Committee grant for participation in the Thai-British archaeological expedition</td>
<td>.</td>
<td>2,581</td>
</tr>
<tr>
<td>The Faculty of Science:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Botany:</td>
<td>General Purpose Fund</td>
<td>3,058</td>
<td>2,319</td>
</tr>
<tr>
<td></td>
<td>Rural Credits Development Fund grant for research in the characteristics of eucalyptus oil</td>
<td>1,822 Dr</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>Food and Agricultural Organization grant for collection of special tree seeds</td>
<td>.</td>
<td>1,785</td>
</tr>
<tr>
<td></td>
<td>National Capital Development Commission grant for ecological research</td>
<td>1,049</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>A.P.M. Forests Pty Ltd grant for research in eucalypti at Coffs Harbour</td>
<td>2,244</td>
<td>.</td>
</tr>
<tr>
<td>Department of Geology:</td>
<td>Australian Research Grants Committee grant for Patagonian Orocline project</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Department of Chemistry:</td>
<td>Wool Research Committee grant for wool research</td>
<td>340</td>
<td>9,137</td>
</tr>
<tr>
<td></td>
<td>Australian Research Grants Committee grant for time resolved—electronics spectroscopy</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>The Junior Rothmans Fellowship grant</td>
<td>2,701</td>
<td>5,109</td>
</tr>
<tr>
<td></td>
<td>Anonymous grant for research</td>
<td>.</td>
<td>14,035</td>
</tr>
<tr>
<td>Department of Physics:</td>
<td>Australian Atomic Energy Commission grant for research</td>
<td>5,444</td>
<td>7,600</td>
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</table>

continued on following page
### STATEMENT OF FUNDS GRANTED FOR RESTRICTED PURPOSES

**for the Year ended 31 December 1966 (vi)—continued**

<table>
<thead>
<tr>
<th>Subsidies and Donations Received during 1966</th>
<th>Funds Disbursed or Transferred during 1966</th>
<th>Fund Balances 31 Dec. 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department of Psychology:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Espata Educational Trust grant for research in education and professions</td>
<td>$1,411</td>
<td>$284</td>
</tr>
<tr>
<td>Social Science Research Council grant for travel</td>
<td>$830</td>
<td></td>
</tr>
<tr>
<td>Social Science Research Council grant to assist in processing data from study of attitudes towards aborigines</td>
<td>$53</td>
<td></td>
</tr>
</tbody>
</table>

| Department of Zoology:                       |                                          |                           |
| National Capital Development Commission grant for lake biology research | $234 |   | $179 | $55 |
| Wool Research Committee grant for studies on growth and nutrition of hydatids | $1,586 | $2,175 | $3,990 | $229Dr |
| United States Department of Public Health grant for biological research in schistosomiasis and hydatid diseases | $342 |   | $253 | $89 |
| Commonwealth Scientific and Industrial Research Organization grant for marsupial research | $723 |   | $723 |   |
| Insect ecology grant | $3,401 | $4,149 | $3,648 | $3,902 |
| World Health Organization grant for hydatids research | $1,016 | $1,372 | $1,065 | $1,323 |
| Rural Credits Development Fund grant for aphid research | $5,762 | $202 | $4,177 | $1,787 |
| World Health Organization grant for research |   |   |   |   |

### SCHOLARSHIPS:

| Commonwealth Postgraduate Scholarships | $5,136 | $110,150 | $109,039 | $6,247 |
| General Motors Holden Ltd Scholarship grant | $7,297 | $6,000 | $7,323 | $5,974 |
| British Commonwealth Postgraduate Scholarships and Fellowships | $5,362 | $4,000 | $1,210 | $8,152 |
| Wheat Industry Research Council Scholarship grant | $2,176 | $969 | $1,259 | $1,886 |
| Commonwealth Government sponsored schemes | $4,360 |   |   | $4,360 |
| Reserve Bank of Australia Fiftieth Anniversary Postgraduate Scholarship scheme | $4,431Dr | $5,071 |   | $640 |
| Riker Laboratories Pty Ltd Fellowship grant | $3,571 | $2,321 |   | $1,250 |
| National Health and Medical Research Council Scholarship | $2,578 | $2,464 |   | $114 |
| Queen Elizabeth II Fellowship grants | $3,103 | $14,044 | $13,090 | $4,057 |
| Australian Wool Board Scholarships | $3,200 | $1,551 |   | $1,649 |
| Ampol Scholarship grant | $335 | $1,200 | $1,604 | 69Dr |
| Brunei Malaysian Department of Education Scholarship | $1,589 | $1,188 |   | $401 |
| Fauna Protection Panel Scholarship award | $4,936 | $2,545 | $2,391 |   |
| Leverhulme Trust Fellowship grant | $13,000 | $2,510 |   | $10,490 |

### GENERAL:

| Grants for publication of *Campanian and Lucanian Pottery* | $1,051 | $1,640 | $2,557 | $134 |
| Donations for McDonald Collection | $1,473 | $94 |   | $1,567 |
| Research Scholars’ Thesis Scheme | $7,692 | $12,700 | $4,251 | $16,141 |
| Fund for repair of New Guinea Research Unit Houses | $2,951 | $4,348 | $5,599 | $1,700 |
| Fund for repair of Fijian House |   | $154 |   | $154 |
| Art and Library Fund—Library | $321 | $1,367 | $687 | $1,001 |
| Art and Library Fund—Bruce Hall | $209 | $3 | $206 |
| Art and Library Fund—Lennox House | $319 | $50 | $28 | $341 |
| Art and Library Fund—Burton Hall | $202 | $750 | $290 | $662 |

*continued on following page*
### STATEMENT OF FUNDS GRANTED FOR RESTRICTED PURPOSES

#### for the Year ended 31 December 1966 (vi)—continued

<table>
<thead>
<tr>
<th>Fund Balances 1 Jan. 1966</th>
<th>Subsidies and Donations Received during 1966</th>
<th>Funds Disbursed or Transferred during 1966</th>
<th>Fund Balances 31 Dec. 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
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</table>

**GENERAL—continued**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art and Library Fund—Garran Hall</td>
</tr>
<tr>
<td>Bruce Hall Staff Amenities Fund</td>
</tr>
<tr>
<td>Bruce Hall Junior Common Room Fund</td>
</tr>
<tr>
<td>Bruce Hall Fellows' Fund</td>
</tr>
<tr>
<td>Lennox House Staff Amenities Fund</td>
</tr>
<tr>
<td>Burton Hall Junior Common Room Fund</td>
</tr>
<tr>
<td>Garran Hall Junior Common Room Fund</td>
</tr>
<tr>
<td>Garran Hall Staff Amenities Fund</td>
</tr>
<tr>
<td>Linguistic Circle Publication Fund</td>
</tr>
<tr>
<td>Australian Japan Business Co-operative Committee Grant for Gavel</td>
</tr>
<tr>
<td>Fund for special art acquisition</td>
</tr>
<tr>
<td>Fund for Eccles portrait</td>
</tr>
<tr>
<td>Australia and New Zealand Bank grant for art purchase</td>
</tr>
<tr>
<td>Staff Association gift to Staff Centre</td>
</tr>
<tr>
<td>Computer Facilities Fund</td>
</tr>
<tr>
<td>Chancelry Murals Fund</td>
</tr>
<tr>
<td>Fund for Academic Salary Arrears—1964</td>
</tr>
<tr>
<td>Fund for Nichol Smith Seminar</td>
</tr>
<tr>
<td>Donations for special purchases for University House</td>
</tr>
<tr>
<td>Special Purpose Fund for University House</td>
</tr>
<tr>
<td>University House Staff Amenities Fund</td>
</tr>
</tbody>
</table>

| | $713,730 | $1,145,034 | $951,518 | $907,246 |

| | $ | |
| Advances from Restricted Funds | .. | .. | .. | 22,952 |
| Prepayments from Restricted Funds | .. | .. | .. | 89,976 |
| Publications—Stock on Hand as at 31 December 1966 | .. | .. | .. | 70,000 |
| Restricted Funds—Invested as at 31 December 1966 | .. | .. | .. | 12,343 |
STATMENT OF TRUST AND AGENCY FUNDS
FOR THE YEAR ENDED 31 DECEMBER 1966 (vii)

<table>
<thead>
<tr>
<th>Income Received</th>
<th>Interest</th>
<th>Subsidies, Donations and Subscriptions</th>
<th>Total</th>
<th>Disbursements</th>
<th>Transferred to Reserve</th>
<th>Fund Balance 1 Jan. 1966</th>
<th>Fund Balance 31 Dec. 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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**University Funds:**

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Australian National University Loan Account</td>
<td></td>
<td></td>
<td>5,776</td>
<td></td>
<td></td>
<td>5,776</td>
<td>Dr</td>
<td></td>
<td>5,776</td>
<td></td>
</tr>
<tr>
<td>The Supplementary Superannuation Benefits Fund</td>
<td>75,897</td>
<td>23,345</td>
<td>99,242</td>
<td></td>
<td>15,583</td>
<td>83,659</td>
<td>387,856</td>
<td>471,515</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Staff Superannuation Scheme: Members' Accumulations</td>
<td>55,971</td>
<td>8,874</td>
<td>64,845</td>
<td>170,313</td>
<td></td>
<td>105,468Dr</td>
<td>191,316</td>
<td>85,848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Non-Academic Staff Retirement Provisions—Cash Accumulation</td>
<td>3,987</td>
<td>27Dr</td>
<td>3,960</td>
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**Gifts and Endowments:**

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**Prize Funds:**

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*continued on following page*
### Statement of Trust and Agency Funds

For the Year ended 31 December 1966 (vii)—continued

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<th>Subsidies, Donations and Subscriptions</th>
<th>Interest and Capital Appreciation</th>
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<th>Transferred to Reserve</th>
<th>Fund Balance 1 Jan. 1966</th>
<th>Fund Balance 31 Dec. 1966</th>
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141,412 | 39,331 | 180,743 | 209,903 | 29,160Dr | 687,370 | 658,210
## STATEMENT OF TRUST AND AGENCY FUNDS

**FOR THE YEAR ENDED 31 DECEMBER 1966 (vii)—continued**

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*BY AUTHORITY: A. J. ARTHUR, COMMONWEALTH GOVERNMENT PRINTER, CANBERRA*