

MONASH UNIVERSITY



Report  
of the  
Council

1964





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# REPORT OF THE COUNCIL FOR 1964

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In accordance with section 41 of the *Monash University Act 1958*, I submit the annual report of the Council of the University for 1964.

## 1. THE COUNCIL

The Council held eleven meetings during the year, one of these being the first full Graduation Ceremony of the University at which 67 undergraduates were admitted to Bachelors' degrees.

Death took two valued members from the Council: Dr. S. H. Bastow, who had served for only a few months, died suddenly in January; and Mr. R. W. T. Cowan, whose long membership dated back to the first meeting of the Interim Council and who was in a real sense one of the founders of the University, died after a prolonged illness in June. In March, Dr. F. G. Lennox was elected by the faculty of Science to serve in the place of Dr. Bastow and in September the Right Reverend Felix Arnott was elected by the faculty of Arts as its representative in place of Mr. Cowan. Other newcomers to the Council were Mr. A. R. Austin and Miss B. A. Woodberry, who were elected in October for four years and two years respectively as the first representatives of the graduates of the University.

At its meeting in March the Council re-elected Sir Robert Blackwood as Chancellor and Sir Michael Chamberlin, whose knighthood had been announced in the New Year Honours List, as Deputy Chancellor. Later in the year, under the new provisions of an amendment to the *Monash University Act*, Sir Robert Blackwood and Sir Michael Chamberlin were elected as Chancellor and Deputy Chancellor respectively for three years commencing March, 1965.

The Council noted with pleasure the conferring of the knighthood referred to above upon Sir Michael Chamberlin, the award of an O.B.E. to Miss Alice Hoy also in the New Year Honours List, and the appointment in July of the Honourable J. F. Rossiter as Assistant Minister of Education for Victoria.

## 2. DISTINGUISHED VISITORS

In April the University was honoured by the presence of its Visitor, His Excellency the Governor of Victoria, Sir Rohan Delacombe, on the occasion of its first Graduation Ceremony.

Mr. W. S. Philip opened the new University building at Alfred Hospital in March.

Sir John Eccles visited the University to open the library in April.

Mr. W. H. Connolly visited the University to name the H. R. Harper Memorial Laboratory in the school of Engineering in August.

Among other distinguished visitors during the year were two Ministers of the State Government, the Honourable J. S. Bloomfield, Minister of Education, with Mrs. Bloomfield, and the Honourable J. F. Rossiter, Assistant Minister of Education, with Mrs. Rossiter. An increasing number of visitors, both from Australia and from overseas, and from a great many callings and professions, is evidence of the growing interest which the University attracts.

### 3. DEVELOPMENT OF SITE AND BUILDINGS

With the near-completion of the main part of the Robert Menzies School of Humanities at the end of 1964, the location of Monash University has become well known to the general public for the twelve storey building provides a landmark visible for miles around. The upper four floors of the western half of the building were completed early in the year so that the whole of the west wing was in use in 1964. At the same time the construction of the eastern half of the building continued and it is expected that eight floors will be in use by May, 1965. The remaining four floors will be completed thereafter.

The first stage of the heavy laboratories of engineering, mentioned in last year's report as being under construction, was completed in January and the contract for the second stage was issued in July.

Other buildings similarly mentioned in last year's report were the Administration building which came into use in April and the Union building which was progressively occupied from the middle of the year and was finally taken over in November. At Queen Victoria Memorial Hospital the building incorporating two floors for the use of the University was almost complete at the end of the year and is expected shortly to be in use.

Work commenced on the second stage of the medical school in January and occupation of the building is expected in April, 1965.

During the year construction began on two of the three further buildings which will, when complete, form the group of halls of residence known as the North-East Halls, consisting of three halls grouped around a central catering building. The buildings commenced were the second complete hall and the central catering building. The erection of the second wing of the already established Deakin Hall was also begun. The contract for the third hall, planned as a tower block, is expected to be let early in 1965. The completion of these buildings at the end of the current triennium will provide accommodation for a total of 519 students and 81 others.

The accommodation of newly-arrived staff at the University, prior to the time when they find permanent homes, has been a problem and

it is good to be able to report progress on a project to provide a small number of staff transit flats. These are being erected on a site in Clayton Road and, when completed in 1965, they will accommodate eight new members of staff at a time for short periods.

The contract for the sports building was issued in July and completion is expected in March, 1965.

Work on the second stage of the maintenance building started in September and was well advanced at the end of December.

Plans were also well advanced, but had not yet reached the tendering stage, for the public lecture theatre block, the Great Hall, and the Religious Centre.

Among site works undertaken during the year may be mentioned the considerable amount of levelling of sports grounds, the extension of the University's road system and paths, the installation of street lighting, and the erection of bus shelters.

A contract was also issued to increase to 2,000 the number of telephone extensions operated by the PABX.

#### 4. ADMINISTRATIVE MATTERS

##### *Legislation*

Two amending Acts have become law during the year as follows:

*Monash University (Amendment) Act* 1964, No. 7128

*Monash University (Amendment) Act* 1964, No. 7217

The main purposes of these amendments were to provide for three-year periods of office for the Chancellor and Deputy Chancellor with election by ballot; to clarify the tenure of office of the Vice-Chancellor; to make the Librarian a member of the Professorial Board; to include in the membership of the University the Registrar and certain staff other than the teaching staff; to eliminate uncertainty about the establishment of faculties; and to make more adequate the sections of the Act relating to financial matters.

A large number of new and amending statutes was made as a part of the continuing process of providing an adequate statutory basis for the University's activities. Special mention may be made of the *Victorian Universities and Schools Examinations Board Statute* made, in agreement with the University of Melbourne and in uniform terms with the equivalent statute of that University, to establish and administer the joint Universities and Schools Examinations Board.

##### *University Bookshop*

Plans were made during the year for the establishment of a University bookshop following the termination in 1965 of the agreement with a commercial bookseller to provide bookselling facilities in the University. The bookshop will be in the Union building where the banks and other commercial facilities are also situated.

*University Publications*

As in previous years, a booklet "General Information for Students" was published together with a faculty handbook for each of the five faculties and for Education and Law which are in process of formation. In addition in 1964 an illustrated brochure entitled, "An Introduction to Monash University", was produced largely though not entirely for the purposes of staff recruitment overseas, and the first University "Calendar" was published. With the admission of the first graduates to their degrees, opportunity was taken to issue the first number of the University "Gazette" and this will appear twice a year in future. The first "Gazette" included the addresses delivered at the opening of the University, at the opening of various buildings in the University, and at the Graduation Ceremony. For the purposes of internal communication, a University "Reporter" has also been established and is now issued at roughly monthly intervals throughout the academic year.

*Funds for Great Hall*

The need of the University for a Great Hall and for other necessities, such as books for the Library and equipment for faculty laboratories, resulted in the planning of a public appeal for funds to be launched in mid-1965. The target of the appeal was made £350,000.

## 5. STAFF APPOINTMENTS

The University continues to be fortunate in the quantity and quality of its appointees in the face of increasing demand for University teaching staff. The 1963 total of 214 members of full-time academic staff had increased by a net 105 to 319 by December, 1964. This number was made up as follows (the number given in brackets is the number who took up their appointments at Monash in 1964):

	Arts	Economics and Politics	Engineering	Medicine	Science	Law	Education	Total
Professors	10( 2)	3(1)	5( 2)	9( 1)	9( 3)	1(1)	1(1)	38( 11)
Readers	1			2( 1)				3( 1)
Senior Lecturers	18( 7)	9	10( 1)	13( 3)	17( 3)	4(4)	1(1)	72( 19)
Lecturers	42(13)	21(6)	10( 7)	19( 7)	25(11)		2(1)	119( 45)
Senior Teaching Fellows	18( 9)	3(1)	1	13(11)	19(10)	1(1)		55( 32)
Teaching Fellows	20(18)	2		1( 1)	8( 7)	1(1)		32( 27)
<b>TOTAL</b>	<b>109(49)</b>	<b>38(8)</b>	<b>26(10)</b>	<b>57(24)</b>	<b>78(34)</b>	<b>7(7)</b>	<b>4(3)</b>	<b>319(135)</b>



In addition, staff of equivalent status in the central administration increased by 12, to a net 44, and professional library staff by 10, to 23. Administrative staff in academic departments and ancillary services increased by 4, to a total of 8.

The overall full-time staff of the University stood at 722 in December, 1963. In December, 1964 full-time staff numbered 994.

Of the academic staff who took up appointment during the year, 85 (of whom 66 had taken their first degree in Australia and 19 overseas) were recruited from Australia and 49 (of whom 18 had taken their first degree in Australia and 31 overseas) were recruited from overseas.

The following professors took up their duties in 1964:

- Canny, M. J. P., M.A., Ph.D. *Cantab.* (Botany)  
Derham, D. P., M.B.E., B.A., LL.M. *Melb.*, Barrister-at-Law (Dean of the faculty of Law)  
Finch, P. D., B.A. *Durh.* (Mathematical Statistics)  
Gruen, F. H. G., B.A., B.Com. *Melb.*, M.A. *Chic.*, M.Sc. *Wis.* (Agricultural Economics)  
Murray, N. W., B.E. *Adel.*, Ph.D. *Manc.*, A.M.I.C.E., A.M.I.E.Aust, (Structural Engineering)  
Potter, O. E., M.Sc.App. *Q'ld.*, M.Sc. *Lond.*, Ph.D. *Manc.*, A.M.I.Chem.E., A.R.A.C.I. (Chemical Engineering)  
Selby Smith, R., M.A. *Oxon.* and *Harv.*, F.A.C.E. (Education)  
Shaw, A. G. L., B.A. *Melb.*, M.A. *Oxon.* (History)  
Skinner, C., B.A., Ph.D., Dip.O.A.S. *Lond.* (Indonesian and Malay)  
West, B. O., B.Sc., Ph.D. *Adel.*, Ph.D. *Cantab.*, F.R.A.C.I. (Inorganic Chemistry)  
Wood, E. C., M.B., B.S. *Melb.*, M.R.C.O.G., F.R.C.S. (Obstetrics and Gynaecology)

The following professors were appointed in 1964 and will take up duty in 1965:

- Bennett, J. W., B.Com. *Melb.*, A.A.S.A., A.A.A.A. (Accounting)  
Clark, A. C. L., M.D., B.S. *Melb.*, M.R.A.C.P. (Paediatrics)  
Day, R. H., B.Sc. *W.A.*, Ph.D. *Brist.* (Psychology)  
Hammarström, U. G. E., Fil.Dr. *Uppsala* (Linguistics)  
Isaac, J. E., B.A., B.Com. *Melb.*, Ph.D. *Lond.* (Economics)  
Rankin, H. D., M.A. *Dub.* (Classical Studies)  
Waller, P. L., B.C.L. *Oxon.*, LL.B. *Melb.* (Sir Leo Cussen Chair of Law)

The University records with regret the death, in a road accident on August 4, 1964, of Dr. Ralph L. Ghent, senior lecturer in zoology since January, 1963.

## 6. ACADEMIC DEVELOPMENT

At a Graduation Ceremony on April 8 the first undergraduates who had completed their courses and qualified for degrees were admitted to their degrees as follows:

	<i>Men</i>	<i>Women</i>	<i>Total</i>
Bachelor of Arts	19	26	45
Bachelor of Economics	10	1	11
Bachelor of Science	9	2	11
Total	38	29	67

With this event the first full cycle of teaching in the University was completed and the occasion was celebrated with some pride in what had been achieved.

In addition to these first degrees two higher degrees were conferred during the year, namely one Ph.D. and one M.Eng.Sc.

Thought continued to be given during the year to the matter of University government and decisions of some importance for the future were taken. It was decided that the faculty structure generally found in universities should be continued and that at the head of each faculty should be a full-time dean. The implementation of this decision will, it is hoped, result in some administrative decentralization and also ensure that professors whose interests lie elsewhere than in the administration of their faculties are not called upon to act as part-time deans to the detriment of their other work. Other decisions about the administration of the faculties and the important matter of the relation of departments to the faculties and to one another are being written into new legislation which it is hoped to finalize early in 1965.

As in previous years the University has been glad to make its premises available for courses arranged by the Council of Adult Education and it is pleasing to record that in 1964 no less than 19 courses were organized. Members of the staff have been very glad to take part in the courses.

The following reports from the faculties (including Education and Law, legislation for which had not yet been passed by the end of 1964) and from the Library indicate, together with the list of publications in section 12 of this report, the scope of the academic work now in progress at the University.

*Faculty of Arts (Dean: Professor W. A. G. Scott,  
B.A. Melb., B.Litt. Oxon.)*

More than 800 first year students were enrolled in 1964 in the faculty of Arts and the total number of students rose from 712 to 1,246. Fourth year courses were given for the first time and 11

students successfully completed work for the degree with honours. Of these, 5 qualified in English, 3 in History, 2 in Philosophy and 1 each in Politics and Pure Mathematics. There were over 30 enrolments for higher degrees.

A major development was the introduction of Anthropology and Sociology. An unexpectedly large number of students sought to take the first course offered (a joint introductory course in anthropology and sociology). It was necessary to limit enrolments to 280 and to appoint additional part-time staff. Russian was taught for the first time; there were 40 enrolments. Two first year courses were given in Indonesian Languages, one in Malay and one in Bahasa Indonesia, together attracting 80 students. Teaching in Geography and in Indonesian Languages was extended to second year courses. The faculty has continued its policy of encouraging studies of the areas and peoples to our north. During the year a centre for South-East Asian studies was established to promote co-operation in postgraduate studies between the departments of History, Politics, Economics, Anthropology and Sociology, and Modern Languages (Indonesian and Malay). It will be noticed that this cuts across faculty barriers. A Board of Asian Studies was also set up to encourage co-operation between departments at the undergraduate level. There already exists a range of suitable courses which enables students to specialize in Asian studies if they wish. In other fields of study, integrated interdepartmental courses (at second year level) have been worked out between the department of Modern Languages and the department of History.

A number of chairmen of departments made visits abroad in 1964. Professor Legge (History) taught for six months at Cornell University and the University of British Columbia. Professor Johnson (Geography) attended the International Geographical Congress in London, and paid brief visits to his areas of research interest in Pakistan on his return journey. Professor de Bray (Russian) attended the fifth International Congress of Phonetic Sciences in Münster and later made brief visits to Moscow and Leningrad. Professor Bodi (German) spent four weeks in Germany at the invitation of the German government.

There has been some extension of language laboratory facilities. The recording-playback laboratory is now completed, making a total of 72 booths available to students in three laboratories. Representatives of a number of universities and schools considering the establishment of language laboratories have visited Monash for advice.

A number of departments have maintained close liaison with pupils and teachers in the schools. Members of the department of Geography conducted a course of 16 lectures in physical geography for the Geography Teachers' Association of Victoria, which was attended by some 50 teachers. A course for matriculation students of German was held, in which 150 students and teachers from 24 schools took part.

All departments have been active in research and research seminars (sometimes in co-operation with the University of Melbourne) have been held regularly. The first three numbers of the *Australian Journal of French Studies*, edited from Monash University, appeared during the year.

*Faculty of Economics and Politics (Dean: Professor D. Cochrane, B.Com. Melb., Ph.D. Cantab.)*

The faculty continued its rapid growth into 1964. The number of first year enrolments rose from 188 in 1963 to 280 in 1964. In addition, a large number of students from Arts, Law, and the scientifically oriented faculties took first year courses in the faculty. As a consequence, first year numbers in Economics I and Politics I exceeded the 450 mark.

With an increasing number of students moving through to later years it became necessary to increase substantially the number of courses available to these students.

Accounting and Commercial Law were taught through to final year level for the first time. The content and grouping of topics in these courses has been treated in a relatively novel, and it is hoped, interesting and stimulating way. Further, special combinations of accounting with economic statistics, operations research and data processing were developed.

In economics and politics the number of third year units was expanded in order to provide a wider choice of topics and to keep the size of later year classes down to reasonable levels. The teaching of international relations was introduced while an expanded programme of courses on topics relating to South-East Asian politics was developed.

The first group of honours students completed their degrees in 1964. The department of Economics had 6 students while the department of Politics had 2. It was very pleasing and rewarding to be able to award first class honours to two of the students in the department of Economics.

In this connection it is interesting to observe the steady improvement, as measured by matriculation results, that has taken place in the quality of students admitted to the faculty. For instance, the percentage of students with matriculation marks exceeding, say, 190 for their best three subjects has increased from 24 per cent in 1962 to 33 per cent in 1963 to 43 per cent in 1964. The year 1965 is expected to show an even more dramatic improvement.

Staffing continued to be the major problem; with a possible establishment of 34 members of staff, the department of Economics succeeded in raising its numbers to 27 by the end of 1964 — a shortage of more than 20 per cent for the year. Since students were admitted on the basis of the possible establishment, the shortage imposed a heavy

burden of teaching on the staff, who accepted their load without complaint.

One important consequence, however, was that the staff of the department of Economics found it difficult to find sufficient time to devote to the research programmes they had planned. Nevertheless a number of research projects were undertaken. In particular the work on long term projections of supply and demand of selected agricultural products in Australia being undertaken by Professor Gruen with the assistance of a number of members of staff proceeded to a satisfactory stage during the year.

Two new professors were appointed during 1964 — a professor of Accounting and a second professor of Economics. This is perhaps one important way in which the shortage of staff may be overcome.

While the department of Politics had few staffing difficulties in 1964, it became apparent towards the end of the year that continued expansion of staff was not going to prove so easy. Several important research projects in the department were pushed forward to advanced stages during the year.

The faculty initiated steps which brought into existence a centre for research into aboriginal affairs. The centre is to provide a means whereby work on aboriginal problems relating to economics, politics, medicine, law, history, anthropology and sociology may find a common meeting place.

*Faculty of Engineering (Dean: Professor K. H. Hunt,  
M.A. Oxon., M.Mech.E. Melb., M.I.Mech.E., M.I.E.Aust.)*

During 1964, the academic staff of the faculty more than doubled.

Professor O. E. Potter took up his duties as chairman of the department of Chemical Engineering, and Professor N. W. Murray, previously senior lecturer in the department of Civil Engineering, was appointed chairman of that department. The second and third stages of the heavy laboratories were taken beyond contract stage; planning and detailing of the lecture theatres was to all intents and purposes completed. Much thought was given to the problem of adequately equipping the school, and much more still needs to be done in respect of existing laboratories as well as new ones.

Enrolments, both for first and higher degrees, have continued to expand to numbers that are beginning to tax resources. The first year intake was 117 (more than two and a half times the previous year's figure), the overall engineering undergraduate population more than doubling. Higher degree enrolments increased by one-third during 1964.

Very substantial financial support for the department of Electrical Engineering has been received from the State Electricity Commission of Victoria who have agreed to donate £5,000 per annum for five

years for the purchase of equipment for that department. In recognition of their generosity and of other associations this faculty has with the S.E.C.V., one of the power laboratories in the Electrical Engineering department was opened on August 10, 1964, by W. H. Connolly, Esq., C.B.E., chairman of the State Electricity Commission, and named the H. R. Harper Memorial Laboratory. Mr. H. R. Harper was the first chief engineer of the State Electricity Commission; members of his family were present at the opening ceremony.

At the Vice-Chancellor's request the dean visited centres in the U.K. and Europe, and in North America, to examine trends in the teaching of architecture and building science with particular reference to the possibility of setting up a Monash school of architecture. During this overseas journey (September/October, 1964) the dean also took part in two engineering conferences, one in East Germany and the other in U.S.A. (at Purdue).

In September, Professor Potter visited New Zealand at the invitation and expense of the University of Canterbury and delivered in the Chemical Engineering department there a short course of lectures. He took the opportunity of visiting major university centres in New Zealand.

Visiting academic staff in the faculty included Professor D. O. Pederson from the University of California and Mr. J. S. Coombs from the A.N.U., both of whom were in Melbourne for the whole year.

Provisional recognition of the Bachelor of Engineering course by the Institution of Engineers, Australia, was granted during the year, coincident with the first output of graduates.

The services of staff members continue to be sought as technical consultants in various fields to outside organizations.

In addition to housing the department of Geography in building 1, the University computer centre was fully established in buildings 4 and 5. Here the CDC 3200 computer is now in action in addition to the Ferranti Sirius computer previously purchased.

*Faculty of Medicine (Dean: Professor R. R. Andrew,  
M.D., B.S. Melb., F.R.C.P., F.R.A.C.P.)*

This year is notable for the spread of our teaching and research to the clinical schools with which we are affiliated — Alfred and Prince Henry's Hospitals. Only 31 students had reached the fourth year (there being 150 in first year, 126 in second year, and 71 in third year and 3 doing B.Med.Sc.).

The new University building at Alfred Hospital was opened by the president of the Alfred Hospital Board of Management, Mr. W. S. Philip, C.M.G., M.C., on March 7, 1964. It contains the departments of Pathology and Microbiology and also the student area and Univer-

sity branch library. The study area, where each fourth year student has his own desk, opens off the library and pathology museum, and in a short time has proved to be extraordinarily successful. The department of Surgery, also at Alfred Hospital, and that of Medicine, at Prince Henry's, have deployed their teaching and research resources over the year. The chairmen of these departments have played a notable part in devising the new clinical curriculum, based largely on topic teaching, and have gained the confidence and co-operation of their clinical colleagues on the hospital staffs.

The arrival of the foundation professor of Obstetrics and Gynaecology, and the appointment of the foundation professor of Paediatrics, focuses attention on Queen Victoria Memorial Hospital where each of these departments will be ready to function in the new Robert Menzies block to be completed early in 1965. The juxtaposition of these two departments in the same building provides an opportunity for teaching and research unique in Australia.

A glance at the publications in this report will give some idea of the volume of work which the preclinical departments have achieved. We look forward keenly to the completion of stage II of the medical school on the campus early in 1965 with its fulfilment of our basic plan of having Anatomy, Biochemistry, Physiology, and Pharmacology in the one building complex.

Tenders will be let early next year for the first stages of the bio-medical library and the animal house providing, with their completion, some alleviation of quite desperate deficiencies in these areas. A second stage in each instance will be required before the first is completed.

The full-time academic staff by the end of the year numbered 57, of whom 9 were professors. There were 61 technicians in 9 departments and 29 others engaged in clerical and similiar duties. The dean's department on the campus comprises common services for the whole faculty — animals, mechanical and electronic workshops, photography, electron microscopy, and the running of the multidiscipline laboratories. Considerable economy results and now that there is a laboratory manager with over-all surveillance, greater efficiency.

The designing of a curriculum over the six years of the medical course and the piecemeal occupation of new buildings, the arrangements of teaching, the problems of recruitment of staff, and the paramount need for starting strong research have thrown very heavy burdens on all staff, particularly the chairmen of departments who have achieved a notable measure of success in a short time. Their task has been made easier by the mature and co-operative attitude of the students who have shown, through difficult pioneering days, an admirable spirit which speaks well for the future of this school.

The following table shows comprehensively the building programme 1960-1965 for the medical school:

<i>On the Campus</i>	<i>Gross Area (sq. ft.) (rounded)</i>	<i>Cost</i>	<i>Completed</i>	<i>Departments</i>
Stage I Medical School	68,000	£493,000	1963	Dean, Anatomy, Physiology and Pharmacology
Stage II Medical School	(106,000)	(£878,000)	(1965)	Dean, Biochemistry, Physiology and Pharmacology, Experimental Psychology, University Health Service
Bio-Medical Library Stage I	(7,700)	(£71,500)	(1965)	Library
Animal House Stage I	(4,600)	(£42,500)	(1965)	—
<i>In the City</i> Medical School, Alfred Hospital	75,000	£636,000	1963	Pathology, Microbiology*
Dept. of Medicine, Prince Henry's Hospital	6,800	£35,000	1963	Medicine
Medical School, Queen Victoria Hospital	(26,000)	(£181,000)	(1965)	Obstetrics and Gynaecology, Paediatrics
Totals	530,100	£2,337,000		

\* Department of Surgery in existing hospital building.

*Faculty of Science (Dean: Professor K. C. Westfold,  
B.Sc., M.A. Melb., D.Phil. Oxon.)*

1964 was the first year of the new patterns of courses leading to the degree of Bachelor of Science. It is believed that the courses will have the desired flexibility. With the recent appointment of professors of Psychology and Botany new courses in these subjects will be given from 1966. In 1965 the department of Psychology will be offering a first year course in the faculty of Arts and the department of Botany will be contributing a major section of the course Biology I.



*Chemistry.* This year saw a large increase (almost doubling) in the size of the graduate school. A major development was the arrival of Professor B. O. West to take up the chair of Inorganic Chemistry and already a flourishing research group is established in this area.

The installation of an improved spectrophotometer (Perkin Elmer 521) has relieved the severe pressures on existing instruments. Other significant instrumental developments were the delivery of a Michaelson interferometer for far infra-red studies and the completion of the first stage of construction of a Stark-modulated microwave spectrometer for X-band.

*Mathematics.* Members of the department of Mathematics took an active part in the revision of the mathematics syllabus for schools. In addition relevant lectures were given to teachers attending summer schools held in January (140 teachers) and December (600 teachers).

Notable events were the arrival of Professor P. D. Finch to take up his chair in Mathematical Statistics and the inclusion in the University's plans of a Mathematical Institute to foster postgraduate study.

A number of papers by members have been accepted for publication in various journals and studies are proceeding on a variety of subjects including projects in genetics, statistics and probability, plasma theory, radiation, and the elasticity of road surfaces; the latter for the Australian Road Research Board.

*Physics.* During 1964 courses were arranged in the department of Physics to familiarize teachers with the new leaving certificate syllabus in physics. Members of the department played a leading part in these activities in which a total 519 teachers from 298 schools were involved. In addition, 19 observers from South Australia, New South Wales, Western Australia, and Tasmania attended the courses.

The department was particularly fortunate in having Dr. N. Kurti, F.R.S., from the Clarendon Laboratory, Oxford, as a temporary member for a short period during the year. He delivered a course of lectures on low temperature physics, which was attended by third year and postgraduate students and members of staff. In addition, he developed equipment for a fourth year student experiment, which, it is believed, produces the lowest temperature ever achieved in the Southern Hemisphere.

Research and postgraduate activities have continued to develop strongly. Particular features have been the increasing employment of the high magnetic field superconducting solenoid, made available by a grant from C.S.I.R.O., and the increasing use made of the neutron diffraction facilities at the Atomic Energy Research Establishment, Lucas Heights, Sydney. Members of the staff of other universities have continued to visit the department to use for their own research problems the specialized electron spin spectrometers we have designed and built.

*Zoology.* Recruitment of high grade staff has continued and the department is now able to cater for a wide range of research interests which includes fields such as: renal physiology of invertebrates, sensory physiology and ethology of invertebrates, population dynamics in freshwater invertebrates, vertebrate palaeontology, cave deposits (vertebrates), ethology and reproduction physiology in higher vertebrates, physiology and ecology of monotremes, physiology and ecology of desert vertebrates, and *Drosophila* genetics. This has the advantage that senior students are subjected to a battery of ideas and a wide spectrum of interests.

After four years it is believed that the department offers a comprehensive training in zoology that compares most favourably with any offered in the British Commonwealth. The only major fields not yet covered are experimental embryology and cellular biology. Continuing established policy, it is hoped that these gaps will be filled as soon as additional teaching positions are made available by the increased intake of students.

#### *Computer Centre*

The computer centre in November, 1964 took delivery of a second computer system, a Control Data 3200, which has substantially increased the facilities available.

Service courses in computer programming and numeral methods were provided for the faculties of Engineering and Science, and a course in data processing was given in the faculty of Economics. Courses in programming both the Sirius and the CDC 3200 computers were provided for University staff.

The investigation, purchasing, and installation of the new computer system has meant that in the past year academic staff have had little time to devote to research interests. Progress has been made on two projects concerning network analysis and automata theory and papers have been submitted for publication.

#### *Faculty of Education (Dean: Professor R. Selby Smith, M.A. Oxon. and Harv., F.A.C.E.)*

The first courses in Education were offered in 1964, and 39 students enrolled for the Diploma in Education. Most of these students had completed their first degree at Monash University as holders of secondary studentships.

The course included a study of the principles and methods of teaching, comparative education, educational psychology, and philosophy and history of education. Willing co-operation from the Victorian Education Department and the Independent Schools enabled a full programme of teaching practice and excursions to be provided, and

the faculty acknowledges its dependence on such co-operation from educational institutions outside the University.

Students were also required to take, as an integral part of the course for the Diploma, a course in some other University discipline intended either to broaden or deepen their academic background so as to improve its quality as a foundation for a career as a teacher. This was a first step towards providing special courses suited to the needs of Diploma students and offered by other University departments. In 1965 eight departments will be offering such courses as an integral part of the Diploma programme.

The faculty has begun to develop a curriculum laboratory which will contain a wide variety of school texts, curriculum materials, teaching aids, and audiovisual equipment. This laboratory is intended to serve as a resource centre for students and, when more fully developed, for teachers generally. Accommodation has been adequate, but the range of activities and training possibilities for students will necessarily be limited until specialist rooms and laboratories are completed.

Two principal research studies were initiated: a study of the intellectual and non-intellectual development of the most talented first year students entering Monash University, and an investigation of certain aspects of school performance in relation to social class, in six Geelong schools. Members of staff have maintained their active involvement in professional activities outside the University through such channels as the presentation of papers, curriculum revision, test construction, and the production of textbooks. Such activity can be inferred from the faculty's list of publications.

*Faculty of Law (Dean: Professor D. P. Derham,  
M.B.E., B.A., LL.M. Melb.)*

During 1964 five senior and two junior full-time academic appointments were made and a secretary to the faculty was appointed. The second professor, the Sir Leo Cussen Professor of Law, was appointed and will take up his duties in June of 1965. Regulations establishing and controlling the courses and degrees in law were prepared and came into force during the year. The courses for the degree of LL.B. were considered by the Council of Legal Education and were approved for the purpose of satisfying the academic requirements for admission to practice as a barrister and solicitor of the Supreme Court of Victoria. The necessary amendments to the rules of the Council of Legal Education to give legislative effect to that approval have been prepared and will, it is expected, come into force early in 1965. Work is proceeding on the preparation of a faculty statute and it is hoped that a faculty Board will be formed early in 1965. In the interim period the affairs of the faculty have been conducted with the advice of an

advisory committee appointed by the Council which includes representatives of the Judiciary and of both branches of the profession.

The faculty enrolled 149 undergraduate students in first year law courses in 1964, and one postgraduate student. The annual examination results in the law courses were satisfactory and were comparable with the results in similar courses at the University of Melbourne.

The faculty staff worked in makeshift accommodation on the first floor of the Hargrave Library until December, when the temporary accommodation provided at the north end of the central science block was made ready for them. The law library has been established temporarily on the first floor of the Hargrave Library and already the book requirements for first and second year courses have been acquired.

A plan for the development of the law school to provide for 1,200 undergraduate law students was prepared during the year and was approved and adopted by the Council. Planning for a law school building is proceeding.

*Library (Librarian: Mr. E. H. Clark, B.A. Melb.)*

By the end of 1964 the library had grown to approximately 180,000 volumes, of which about 26,000 had been received by gift or exchange. Some 140,000 books were classified and available on the shelves. Until March, 1964 the size of the staff had not made it possible for books to be fully catalogued, but since that time full cataloguing has been undertaken. Some 30,000 books have now been fully catalogued. Re-cataloguing of the earlier material has begun but must proceed slowly. 3,500 periodical titles are currently received.

With the establishment, at the beginning of 1964, of the law library (temporarily housed in the Hargrave building) the library was operating in five units: the main library, Hargrave, law, bio-medical, and a branch of the last-named at the Alfred Hospital. Small book collections are also being established at the non-affiliated teaching hospitals.

The first year of use of the main library building, which was opened by Sir John Eccles on April 4, demonstrated again that provision of adequate and attractive quarters immediately increases the demand for service. The heavy usage of the building, with a relatively small student population, made it clear that the need for extension by 1967, already envisaged, would be dire, and that demand for seats would exceed their provision in 1966.

The Hargrave Library completed its first year of separate operation with about 24,000 volumes in the fields of physical sciences and engineering. About 980 periodicals were being currently received, but the library's chief weakness remained the absence of back sets of a considerable number of important journals.

The law library was established in the Hargrave Library building, and a collection of 10,000 volumes was developed during the year.

Accommodation was adequate during 1964 but is likely to be severely strained before the law library is able to move into its own building.

The bio-medical library on the Monash campus, which houses nearly 8,000 volumes, has continued to give excellent service in quite inadequate quarters. The Alfred Hospital library contains about 2,000 books and space there remains adequate though not generous.

In the latter half of 1964 it proved possible to increase the staff to a total of 78. This increase was very welcome, but by the time it was effected demands on the library were very great, so that the effects of the increase were not immediately apparent. It is worth noting that the library staff can now cope with over 20 foreign languages.

The increase in the number of teaching staff and students, especially postgraduate and research students, during the year under review placed very heavy demands upon the library. This created problems with the re-shelving of books in the library and these were not met until extra attendant staff could be appointed.

Loans for the year were as follows:

	<i>Staff</i>	<i>Student</i>	<i>Total</i>
Main Library	10,888	51,635	62,523
Hargrave Library	5,927	11,636	17,563

Loans from the bio-medical library were 8,038 and from the Alfred Hospital library 1,217, making the total loans for the system 89,341.

The assistance given to the University during the year by other libraries must again be a matter of record and of appreciation. Inter-library loans to Monash amounted to 5,496 items, and by Monash to others 158.

The Xerox 914 unit continued as a valuable aid to the library's service, to the extent that a second machine was installed in the Hargrave Library. During the year 64,339 copies were produced. Supplementing these, coin-in-the-slot Docustat units were installed in both libraries late in the year, and were heavily used by students.

The library is happy to acknowledge the continued flow of gifts from many sources. Many of these gifts, especially those containing older material, are of especial use in building up quickly a library adequate to meet the needs of a rapidly expanding institution.

## 7. STUDENT ENROLMENT

The pressure of student numbers upon the two Victorian universities again increased in 1964 as had been expected, and there was inevitable disappointment for some would-be students. In the event, as is shown in table 1, a total of 2,923 students was enrolled compared with the 3,230 anticipated by the Australian Universities Commission in its Second Report (page 9). This result was secured only because of the determination of all concerned to meet the existing needs. Staff, accom-

Table 1. Distribution of Students by Faculty, Year, Sex, and Full- or Part-time  
(as at July 31, 1964)

Faculty and Year	FULL-TIME			PART-TIME			TOTAL		
	M	F	Total	M	F	Total	M	F	Total
Arts I	252	334	586	122	76	198	374	410	784
II	115	131	246	14	7	21	129	138	267
III	68	84	152	4	4	8	72	88	160
IV	10	4	14	—	—	—	10	4	14
Total	445	553	998	140	87	227	585	640	1,225
Econ. & Pol. I	178	23	201	74	2	76	252	25	277
II	93	7	100	4	—	4	97	7	104
III	54	6	60	5	1	6	59	7	66
IV	7	—	7	—	—	—	7	—	7
Total	332	36	368	83	3	86	415	39	454
Engineering I	114	2	116	1	—	1	115	2	117
II	45	—	45	1	—	1	46	—	46
III	28	—	28	—	—	—	28	—	28
IV	3	—	3	—	—	—	3	—	3
Total	190	2	192	2	—	2	192	2	194
Medicine I	130	17	147	—	—	—	130	17	147
II	105	20	125	—	—	—	105	20	125
III	65	6	71	—	—	—	65	6	71
B. Med. Sc. I	3	—	3	—	—	—	3	—	3
IV	28	3	31	—	—	—	28	3	31
Total	331	46	377	—	—	—	331	46	377
Science I	191	43	234	6	5	11	197	48	245
II	41	7	48	3	—	3	44	7	51
III	33	5	38	—	—	—	33	5	38
IV	3	3	6	—	—	—	3	3	6
Total	268	58	326	9	5	14	277	63	340
Law I	123	16	139	4	1	5	127	17	*144
Total Undergrad.	1,689	711	2,400	238	96	334	1,927	807	2,734
Not for Degree	—	—	—	1	1	2	1	1	2
Dip. Education	17	21	38	—	—	—	17	21	38
Master	26	12	38	12	3	15	38	15	53
Ph.D.	86	10	96	—	—	—	86	10	96
Total Postgrad.	112	22	134	12	3	15	124	25	149
Total Students	1,818	754	2,572	251	100	351	2,069	854	2,923

\* There were an additional 5 full-time male students enrolled in combined courses (incl. Law), but these have been included in the other faculty to avoid double counting.

Table 2. Distribution of Overseas Undergraduate Students by Country, Faculty, and Sex

Country of Permanent Home Residence		Arts	Economics and Politics	Engineering	Medicine	Science	Law	Total
Hong Kong	M	1	2	9	9	8	1	30
	F	3	1	—	1	—	—	5
Total		4	3	9	10	8	1	35
Indonesia	M	—	3	2	1	2	—	8
	F	1	—	1	1	—	—	3
Total		1	3	3	2	2	—	11
Malaysia	M	6	21	20	37	22	—	106
	F	8	3	1	9	6	—	27
Total		14	24	21	46	28	—	133
South Vietnam	M	1	1	7	—	1	—	10
	F	—	—	—	—	—	—	—
Total		1	1	7	—	1	—	10
Thailand	M	—	4	1	—	1	—	6
	F	—	3	—	—	1	—	4
Total		—	7	1	—	2	—	10
Elsewhere	M	6	—	2	3	3	1	15
	F	2	1	—	—	—	—	3
Total		8	1	2	3	3	1	18
Total	M	14	31	41	50	37	2	175
	F	14	8	2	11	7	—	42
Total		28	39	43	61	44	2	217

modation, equipment, and funds were fully extended and it is clear that there will in future years be a widening gap between actual enrolments and those originally envisaged by the Interim Council which intended that the planned maximum of 12,000 students should be reached by 1970. Pressures exist in all the above-mentioned fields but particularly in relation to accommodation since, on the funds provided and the programme approved by the Australian Universities Commission, buildings are not coming into use in time for the originally-planned number of students to be accommodated. The multitude of claims upon the public purse is well understood, but unless ways can be found to increase the financial provision for this University disappointments must continue to be expected.

Meanwhile conversations with the University of Melbourne continue

about the most effective ways in which the two universities, and later La Trobe University also, can co-operate to ensure that those most likely to profit by a university education are enrolled as students.

Of the total student enrolment of 2,923 in 1964, 2,734 were undergraduates, 38 were studying for the Diploma in Education, and 149 were postgraduate students. The intake of new students was 1,602 of whom 65 were postgraduate students.

Details of enrolment are given in the accompanying tables.

## 8. STUDENT FACILITIES

### *Student Residence*

The provision of living accommodation for students continues to be very difficult since the building of halls of residence and the finding of student lodgings in nearby homes both involve considerable problems.

In the immediate area surrounding the University there is only a limited number of houses in which rooms can be made available to students and such accommodation as is available nearby appears to be completely taken up. In addition there is still no appreciable alleviation of the public transport problem in relation to areas further off, to which reference was made in last year's report. The effect of unsuitable lodgings and of time and energy wasted in travel must be taking its toll in terms of students' performance at their studies, and there is evidence that some young people are deterred from applying for entrance to Monash because of lodging and transport problems.

The long term answer must involve the provision of considerable residential facilities on the University site, but here the problem of capital resources is involved. With the completion of additional rooms in the original building, the capacity of Deakin Hall rose to 92 students in 1964. With the addition of its second wing the Hall will be able to take its full complement of 149 students in 1965. The second hall, now under construction, will take 187 students but will not be available for occupation at the beginning of first term, 1965. When a third hall is completed by the end of the present triennium the total places for students will number 519, but this will provide for only some 7% of the students expected in 1967.

During 1964 a comprehensive questionnaire relating to their housing was issued to all Monash students. Over 1,600 replies were received. Analysis of the answers to the questions directed towards students' requirements for the future showed that over 40% of students believed that residence on the campus, in some form or another, would best suit them during all or part of their undergraduate courses. 16% expressed a preference for living in a hall of residence of the present pattern, and the remainder of the 40% (24% of the replies) would prefer to live in flats of various kinds. The tendency towards preference for flats was more marked in the higher years of students' courses.



With these figures in mind, planning for the next triennium is based on the provision of total accommodation of 30% of the student population, or about 2,500 students in 1968. Of this number about 600, representing 20% of third and higher-year students, would be housed in flats and the remainder in halls of residence.

### *Health Service*

The University's medical counsellor, who is a medical officer on loan from the Health Department, continued to work full time in 1964.

The examination of first year students was again carried out by the School Medical Service, 820 students being examined. Visits to the Health Service totalled 3,574 in the year.

The emphasis of the Health Service is upon health education although much medical counselling is given. Immunization campaigns remain an important branch of the work done.

In view of the expansion of its work the Council has appointed Dr. C. E. Sawrey as director of the Health Service. He will begin duty in March, 1965. The medical counsellor will assist him under a continuing arrangement with the Health Department.

### *Chaplaincy Centre*

During 1964 the Anglican, Roman Catholic, and Jewish chaplains continued their work in the University. The building made available in 1962 was still the centre for this work, as well as being a meeting place for the different religious societies in the University.

Increasing use was made of the interdenominational chapel in the centre by staff and students; services were held there daily by the various religious bodies as well as a considerable number of discussion groups on various topics of a religious, social, and moral nature.

Architect's plans for the projected new Religious Centre had reached an advanced stage at the end of the year.

## 9. STUDENT ACTIVITIES

In early June the first portion of the Union building, which includes the catering area, became ready for occupation. Later in the year when other areas became available Union activities, which had previously been temporarily housed in various parts of the University, were transferred to the new building. For the first time since the University began the recreation, catering, commercial, and administrative parts of the Union were assembled together and this proved extremely popular with both staff and students.

Approximately 1,200 first year students attended the Orientation proceedings in the week prior to first term. The expansion of non-academic activities in the University necessitated an increase in the duration of the Orientation period to three and a half days. A most

successful innovation was the invitation to first year students to bring their parents to the University on the Saturday prior to the commencement of term.

Few new clubs and societies were formed during the year but the existing bodies were reasonably active and there was a noticeable increase in the participation by faculty clubs in national conventions and congresses.

The Sports Association again had a good year both in local competition and "Intervarsity" contests, and one student became the first Monash sportsman to win a section of the Intervarsity boxing contest.

Monash Players, with their production of "The Tempest" (also performed as part of the Moomba Festival), of "End Game", and of "Taste of Honey", again contributed to the cultural life of the University. The first Monash revue, "6, 7/8th's", held under the combined auspices of the Monash Players and the Students' Representative Council, was most successful and set a high standard of production and acting.

The Students' Representative Council continued to represent the views of the student body to the University Council and, in addition, organized several Commencement and Recovery Balls, all of which were well patronized. Publication of the student newspaper "Chaos", which later changed its name to "Lot's Wife", and of the student magazine "Orpheus", continued as in previous years.

In September work commenced on the sports building. The first stage, to be completed early in 1965, will consist of changing rooms and a large building suitable for basketball, badminton, boxing, fencing, table tennis, and gymnastics.

## 10. FINANCE

Funds for expenditure on recurrent purposes in respect of the year ended December 31, 1964, were available from the following sources:

	£000's
State Government Grants and Academic Fees	1,906
Commonwealth Government Grant	1,032
	2,938

The legislative sanction for the Commonwealth contribution is contained in the *Universities (Financial Assistance) Act* No. 68 of 1963 as amended by Act No. 129 of 1964. In addition to the above amount, a Commonwealth recurrent grant of £3,955 was received for the purpose of providing financial assistance to the hall of residence.

Government funds available for expenditure on non-recurrent purposes during the 1964-66 triennium are as follows:

	£ 000's
Buildings other than Halls of Residence	4,370
Buildings — Halls of Residence	1,110
Computing Facilities	100
	5,580

The legislative sanction for the Commonwealth portion of each of these amounts is contained in the *Universities (Financial Assistance) Act* No. 68 of 1963.

From the £5,000,000 Special Research Fund for 1964-66 the University has had sums of £75,000 and £50,000 allocated to it in 1964.

The amendment of the *Monash University Act* 1958 mentioned elsewhere in this report included the amendment of the financial sections of the Act to meet certain difficulties that had been encountered by the University. At the same time a clause was inserted under which the State Government made available a capital sum of £10,000 for the Students' Loan Fund and this amount has since been received.

In November and December, 1964 work proceeded on the University's submission to the Australian Universities Commission for funds in 1967-69 to meet basic needs and the expansion programme, the submission being due in February, 1965.

The overall fee for a full-time undergraduate student undertaking a normal year's work in any faculty remained at £142.10.0 per annum including the Union fee. Fees for part-time courses also remained unchanged.

The Union fee was £21 for full-time students and £14 for part-time students.

Academic fees for postgraduate students were as follows:

Master's degree — full-time £45 per annum; part-time £22.10.0 per annum for the first two years and £5 per annum thereafter.

Doctor of Philosophy degree — £30 per annum.

The appropriate Union fee was also payable by postgraduate students.

Late in 1964 decisions were taken to increase all student fees by approximately one third in 1965.

The academic salary scales which became effective on July 1, 1963, remained in force for the year ended December 31, 1964. In November, 1964 the Eggleston Inquiry released its report recommending an increase of £600 per annum at the Professorial level. The Prime Minister had indicated that this would be payable from January 1, 1964.

Non-academic salaries were increased from July 1, 1964, as a result of a basic wage award.

A fundamental review of technical staff salaries was in progress in the latter part of the year with the assistance of a staff officer with special qualifications in this field.

## 11. GIFTS AND DONATIONS

The following bequests were received by the University:

£6,475 from the estate of the late Mrs. P. M. Bowling for equipment in the department of Physiology (£4,500), Surgery (£1,000), and Pathology (£975).

£2,000 from the estate of the late Mr. G. H. Robinson.

£500 from the estate of the late Mr. M. M. Corstorphan to be used for cancer research.

The residue of the estate of the late Mr. H. Armstrong for the study and promotion of the applied sciences.

The following grants and gifts were received by the University:

£10,000 from the trustees of the estate of the late Helen McPherson Schutt towards the cost of the Religious Centre.

Two Shell senior research scholarships each of £3,250 per annum for three years tenure, for 1965 and 1968 respectively.

£4,000 from the trustees of the Collier Charitable Funds.

\$3,700 from the Cleveland Diabetes Association Research Fund to Dr. P. R. Davoren (Biochemistry) for research on the biosynthesis of insulin.

A further £500 from the Joe White Bequest for the University Library Fund.

£500 from Dr. Clive Disher to the Monash Rowing Club.

£500 from the Commonwealth Banking Corporation for a study of the wind effect on tall buildings being conducted by Professor R. G. Barden (Mechanical Engineering).

£500 from the trustees of the William Angliss (Victoria) Charitable Fund to the department of Obstetrics and Gynaecology for research.

£500 from the trustees of the William Angliss (Victoria) Charitable Fund to the department of Surgery for research.

£460 from Total Oil Products (Australia) Pty. Ltd. for the Australian Journal of French Studies (department of Modern Languages).

£250 from the trustees of the William Angliss (Victoria) Charitable Fund to the Interdenominational Chaplaincy Fund.

A black granite surface plate with stand valued at over £100 from Wing Industries for the faculty of Engineering.

£100 from the Speleological Research Council Ltd. and the Sydney University Speleological Society Nullarbor Expedition Committee to Miss Jeannette Partridge (Zoology) for the purpose of carbon dating a thylacine skeleton discovered in a cave on the Nullarbor Plains in Western Australia.

£100 from Pechiney, Compagnie de Produits Chimiques et Electro-metallurgiques, Paris, for the Australian Journal of French Studies (department of Modern Languages).

£65 from Dr. F. A. C. Wilson to purchase books for the English department library.

A further 50 guineas from Arthur Andersen & Company for Deakin Hall.

An annual prize of £50 from C.S.R. Chemicals Pty. Ltd. for competition amongst honours candidates in the department of Chemistry.

£45.8.8 from Monsieur P. Couroux, Societe d'Electro-Chimie d'Electrometallurgie et des Acieries Electriques d'Ugine for the Australian Journal of French Studies (department of Modern Languages).

An annual prize of £30 a year from W. Ramsay (Surgical) Ltd. for proficiency in practical obstetrics and gynaecology.

£25 from the Ford Motor Company (Australia) to establish a prize in mechanical engineering.

£20 from Lurgi Chemical and Metallurgical Engineering, Melbourne, to the German section of the department of Modern Languages towards the compiling of a German book catalogue.

£15 from Dr. C. J. Louis of Mt. Waverley for the purchase of books for the library of the department of Zoology and Comparative Physiology.

£15 from members of the Bradford Club for the purchase of books for the department of Mechanical Engineering.

Royalties (shared equally with the University of Melbourne) from the Honourable J. S. Bloomfield's "Screens and Gowns".

Statutes of the State of New South Wales for the years 1824-1957 from the Government of New South Wales for the law library.

A Ward-Leonard set from McColl Electric Works Pty. Ltd. for the department of Electrical Engineering.

A mounted 10 h.p. 6-pole totally enclosed motor from Simpson Pope Distributors Ltd. for the department of Electrical Engineering.

Microwave equipment and a number of electrical power machines from the department of Physiology in the University of Melbourne for the department of Electrical Engineering.

A heavy current set from the department of Electrical Engineering in the University of Melbourne for the department of Electrical Engineering.

In addition to the above there have been many gifts of books to the library.

## 12. PUBLICATIONS

### FACULTY OF ARTS

#### *Department of Anthropology and Sociology*

BECKETT, J. R. — *Aborigines, alcohol and assimilation in Aborigines Now*, ed. Marie Reay, Angus and Robertson, Sydney, 1964.

- BECKETT, J. R. — Social change in Puka Puka. *Journal of the Polynesian Society*, LXXIV, no. 4, 1964.
- EVERS, H. D. — Die soziale organisation der singhalesischen religion. (Social organization of Sinhalese religion). *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, XVI, no. 2, 314-326, 1964.
- EVERS, H. D. — Kulturwandel in Ceylon, eine untersuchung über die entstehung einer industrie-unternehmerschicht. (Cultural change in Ceylon, a study on the rise of a group of industrial entrepreneurs.) Nomos Verlagsgesellschaft, Baden-Baden (Germany) 206, 1964.
- EVERS, H. D. — Buddhism and British colonial policy in Ceylon, 1815-1875. *Asian Studies*, II, no. 3, 323-333, 1964.
- GLASS, Y. — The motivation of migrant labourers: a social psychological study. 1964 Johannesburg, National Institute for Personnel Research, 119. (This is a confidential document at present not released for circulation.)
- MARWICK, M. G. — An ethnographic classic brought to light. *Africa*, XXXIV, no. 1, 46-56, 1964.
- MARWICK, M. G. — Some problems in the sociology of sorcery and witchcraft. Chapter IX of *African Systems of Thought*, ed. Meyer Fortes and Germaine Dieterlen, Oxford University Press for International African Institute, 1964.
- MARWICK, M. G. — Witchcraft as a social strain-gauge. *Australian Journal of Science*, XVI, no. 9, 263-268, 1964.

#### *Department of English*

- BRADLEY, D. — James McAuley — The landscape of the heart, in *The Literature of Australia*, ed. G. Dutton, 389-406, 1964.
- DAVISON, D. — The Poetry of Andrew Marvell, Edward Arnold, 1964.
- DOUGLAS, D. L. — Tom Collins's conscience. *Australian Quarterly*, 75-82, December, 1964.
- MARTIN, P. J. T. — Shakespeare's sonnets. *Twentieth Century*, XIX, 131-141, Summer, 1964.
- MORGAN, MARGERY M. — "High Fraud": paradox and double plot in the English shepherd's plays. *Speculum*, XXXIX, 4, 676-689, October, 1964.
- MORGAN, MARGERY M. — Strindberg and the English theatre. *Modern Drama*, VII, 2, 161-173, September, 1964.
- PARRISH, C. — On Little Henry, *The Junior Bookshelf*, XXVIII, 4, October, 1964.

#### *Department of Geography*

- DALE, W. L. — Sunshine in Malaya. *Journal of Tropical Geography*, XIX, December, 1964.
- DERBYSHIRE, E. — Air photo interpretation of glacial geomorphological features. *Special Commission on Cartography*, International Geography Union, 1-14, 1964.
- DERBYSHIRE, E. — Australian landform examples, no. 2 — cirques. *Australian Geographer*, 178-179, March, 1964.
- LEA, D. A. M. — Some notes on shifting cultivation. *Taminga*, 18-22, November, 1963.
- WILSON, M. G. A. — N.S.W. export coal trade. *Australian Geographer*, IX, no. 3, 173-174, 1964.

*Department of History*

- DUNCAN, R. — Problems of first year university students. *The Secondary Teacher*, XCV, 16-17, 1964.
- DUNCAN, R. — South Australia's contribution to the development of the Northern Territory cattle industries, 1863-1910. *Historical Studies, Australia and New Zealand*, II, no. 43, 324-342, 1964.
- GELBER, H. G. — France and the deterrent. *Australian Outlook*, XVIII, no. 1, 62-76, 1964.
- GELBER, H. G. — The Atlantic community. *Australian Outlook*, XVIII, no. 3, 340-345, 1964.
- LEGGE, J. D. — Indonesia. Prentice-Hall Inc., Englewood Cliffs, New Jersey, viii + 184, 1964.
- MCLACHLAN, N. — The Memoirs of James Hardy Vaux, Heinemann, London, lxxxii + 315, 1964.
- POTTS, E. D. — The Baptist missionaries of Seranpore and the Government of India. *Journal of Ecclesiastical History*, XV, no. 2, 229-246, 1964.
- TURNER, I. A. H. — The social setting, in *The Literature of Australia*, ed. G. Dutton, Penguin Books, 1964.

*Department of Modern Languages**French*

- BROOME, P. — Henri Michaux and failure in Mescaline. *Australian Journal of French Studies*, I, 2, 188-220.
- BIRNBERG, J. — Le socialisme intégral. *Esprit*, 32 année, numéro special, 8-9, 343-357.
- HANKS, L. — Translation of D. E. Littlewood. The Skeleton Key of Mathematics under title *Le passe-partout mathématique*, Paris, Masson, 170 pp., 1964.
- KIRSOP, W. — The bibliography of French literary history: progress, problems, projects. *Australian Journal of French Studies*, I, 3, 325-364.
- KIRSOP, W. — The family of love in France. *Journal of Religious History*, III, 2, 103-118, 1964.
- LAUFER, R. — Candide: joyau du style rococo. *Australian Journal of French Studies*, I, 2, 134-145.
- RIVERS, W. M. — The Psychologist and the Foreign-Language Teacher, University of Chicago Press, viii + 212, 1964.

*German*

- BODI, L. — Some Problems of Language Teaching in Australian Adult Education. Proceedings of the 4th National Conference, A.A.A.E., 1-7, Canberra, 1964.
- CLYNE, M. G. — Migrant Languages in Schools. *Babel*, 27, 11-14, October, 1964.
- KELLER, E. — K. E. Berendt. Die Boten. Keller Verlag A.G., Aarau, 187 pp., 1964.

*Indonesian and Malay*

- SKINNER, C. — A Trengganu letter of 1839. *Journal of Southeast Asian History*, 1, 1964.

SKINNER, C. — A Kedah Letter of 1839. *Malayan and Indonesian Studies — Essays presented to Sir Richard Winstedt on his 85th birthday*, Oxford University Press, 1964.

SKINNER, C. — The Influence of Arabic upon Modern Malay, *Intisari* (Journal of the Malaysian Sociological Research Institute), II, 1, 1964.

#### *Department of Philosophy*

HERON, D. B. — Censorship, sex and security. *Makerere Journal*, no. 10, 27-35, 1964.

MONRO, D. H. — Critical notice of R. M. Hare's *Freedom and Reason*. *Australasian Journal of Philosophy*, XLII, no. 1, 119-134, May, 1964.

MONRO, D. H. — Obscenity and the censor. *Current Affairs Bulletin*, XXXIV, no. 9, 130-144, September 14, 1964.

MONRO, D. H. — Pawns against the devil. *Melbourne Studies in Education*, ed. E. L. French, 33-46, 1963.

PALMA, A. B. — Memory and personal identity. *Australasian Journal of Philosophy*, XLII, no. 1, 53-68, May, 1964.

RANKIN, K. W. — Referential identifiers. *American Philosophical Quarterly*, I, no. 3, 233-243, July, 1964.

RANKIN, K. W. — More on the deterministic windmill. *Australasian Journal of Philosophy*, XLII, no. 3, 405-411, December, 1964.

#### FACULTY OF ECONOMICS AND POLITICS

##### *Department of Economics*

BENNETT, J. W. — Some current problems in the theory of corporate finance. Paper presented to the Convention of the Australian Association of University Teachers of Accounting, Canberra, 1964. (Published in Conference proceedings.)

BENNETT, J. W. (with GRANT, J. MCB. and PARKER, R. H.) — Financial mathematics and the accountant. *Australian Accountant*, XXXIV, no. 3, 150-155, 1964.

COCHRANE, D. — Aims of an incomes policy. Sixth Autumn Forum of Economic Society of Australia and New Zealand, Melbourne, 8-17, 1964.

JOY, S. — British railway track costs. *Journal of Industrial Economics*, XIII, no. 1, 74-89, 1964.

JOY, S. — Unregulated road haulage: the Australian experience. *Oxford Economic Papers*, XVI, no. 2, 275-285, 1964.

MCGREGOR, L. — Industrial review of Australia. *Britannica Book of the Year, 1964 — The Events of 1963 in Australia and New Zealand*, 43-44.

PEIRSON, G. C. — Some problems of funds statement preparation. *Australian Accountant*, XXXIV, no. 7, 368-371, 1964.

PEIRSON, G. C. — Some aspects of Government business undertakings' accounts. *Australian Accountant*, XXXIV, no. 12, 675-679, 1964.

SCHNEIDER, M. — Trade credit. Chapter 10, *Studies in the Australian Capital Market*, R. R. Hirst and R. H. Wallace (eds.); Melbourne, Cheshire, October-November, 1964.

SNAPE, R. H. — International trade. *Britannica Book of the Year, 1964 — The Events of 1963 in Australia and New Zealand*, 46-48.

WACHTEL, T. — The demand for vegetables grown at Carnarvon. *Farm Policy*, III, no. 3, 81-86, 1963.



*Department of Politics*

- DE CRESPIGNY, A. R. C. — The nature and methods of non-violent coercion. *Political Studies*, XII, no. 2, 256-265, 1964.
- DE CRESPIGNY, A. R. C. — Review of C. A. R. Crosland's *The conservative enemy*, in *South African Journal of Economics*, XXXI, no. 4, 325-327, 1963.
- FEITH, H. — Indonesia, in revised second edition of *Governments and Politics of Southeast Asia*, by George McT. Kahin, Ithaca, N.Y., Cornell University Press, 1964.
- FEITH, H. — President Soekarno, the army and the communists: the triangle changes shape. *Asian Survey*, IV, no. 8, 969-980, 1964.
- FEITH, H. — Some political dilemmas of Indonesian intellectuals. Paper presented to conference of the Australian Political Studies Association, August, 1964.
- GLEZER, L. — Political chronicle, Victoria. *Australian Journal of Politics and History*, X, no. 1, 106-109, 1964.
- GLEZER, L. — Political chronicle, Victoria. *Australian Journal of Politics and History*, X, no. 2, 231-233, 1964.
- MARTIN, R. M. — Governments, industrial tribunals and the rule of the law. *Journal of Industrial Relations*, VI, no. 1, 36-50, 1964.
- MARTIN, R. M. — Australian trade unionism, 1963. *Journal of Industrial Relations*, VI, no. 1, 67-72, 1964.
- TATZ, C. M. — Commonwealth aboriginal policy. *Australian Quarterly*, XXXVII, no. 4, 49-63, 1964.

## FACULTY OF ENGINEERING

*Department of Chemical Engineering*

- SINCLAIR, C. G. and MURTAGH, R. W. — Optimising process control using a digital computer. *Victorian Computer Society Bulletin*, 3, no. 8, 4-14, 1964.

*Department of Civil Engineering*

- ROZVANY, G. I. N. — Optimum synthesis of prestressed structures. *Proceedings of the American Society of Civil Engineers*, Structural Division, 90, 189-211, December, 1964.
- MURRAY, N. W. — On the stability of plane overbraced frameworks. *Civil Engineering Transactions*, the Institution of Engineers, Australia, 29-40, March, 1964.
- MURRAY, N. W. — Some aspects of structural problems in reactor engineering. *Atomic Energy in Australia*, 6-14, January, 1964.
- MCPHERSON, R. — Intercrystalline thermal stresses in ceramics. Paper presented at A.A.E.C. meeting on the mechanical behaviour of ceramics, Sydney, December, 1964.

*Department of Electrical Engineering*

- COOPER, B. F. C., COUSINS, T. E., and GRUNER, L. — A low noise 11 centimetre receiver installation on the C.S.I.R.O. 210 ft. radio telescope. *Proceedings of the I.R.E.E.Aust.*, 25, no. 4, April, 1964.

- KEENAN, R. K. — Tertiary education in a developing economy. *International Science and Technology*, August, 1964.
- KEENAN, R. K. — An RC regenerative/superregenerative amplifier. *Proceedings of the I.E.E.E.* (Correspondence), 52, no. 10, September, 1964.
- KEENAN, R. K. — An RC regenerative/superregenerative amplifier. *Proceedings of the I.E.E.E.* (Correspondence), 52, no. 12, December, 1964.
- MORSZYNY, K. — Study of oscillations in the doubly fed synchronous machine. *Elec. and Mech. Engineering Transactions of Inst. of Engineers*, Australia, November, 1964.
- REDMAN, S. J. and LAMPARD, D. G. — The spectral properties of first-order networks having a binary random parameter variation. *I.E.E.E. Transactions of P.T.G.C.T.*, vol. CT-11, no. 2, June, 1964.

#### FACULTY OF MEDICINE

##### *Department of Anatomy*

- FINK, G. — Nerve fibres in deciduous and non-deciduous uteri. *J. Anat., Lond.*, 98, 486, 1964.
- HART, J. A. L. and HUDGSON, P. — Acute ergotism; report of a case and review of the literature. *Medical J. of Aust.*, 2, 589-591, 1964.
- SCHOFIELD, G. C. — Teaching in medical sciences. *Crux*, 67, 4, 4, 1964.
- SCHOFIELD, G. C. — Learners and learning. *Karyon*, 1, 19-21, 1964.
- SCHOFIELD, G. C. and DOYLE, A. E. — Unilateral renal agenesis, genital abnormalities and hypertension. *Medical J. of Aust.*, 2, 145-148, 1964.
- SCHOFIELD, G. C. and SOUTHWELL, J. M. — Argentaffin and argentophil cells in primary explant cultures. *J. Anat. Lond.*, 98, 486, 1964.

##### *Department of Biochemistry*

- BORNSTEIN, J., HYDE, D., and CATT, K. J. — Pituitary polypeptide antagonists of insulin. *CIBA Foundation Colloquia on Endocrinology*, 15, 240-248, 1964, published by J. & A. Churchill Ltd., London.
- BORNSTEIN, J. — The anterior pituitary. *CIBA Foundation Colloquia on Endocrinology*, 15, 345-347, 1964, published by J. & A. Churchill Ltd., London.
- WALLACE, P. G. and LINNANE, A. W. — The oxygen-induced synthesis of yeast mitochondria. *Nature*, 201, 1191, 1964.
- LINNANE, A. W. — The origin and oxygen induced synthesis of mitochondria by yeast. *Proceedings of the Sixth International Congress of Biochemistry*. New York, 1964.
- AUSTIN, L., PHILLIS, J. W., and STEELE, R. P. — The distribution of cholinesterase in the cat cerebellar cortex. *Experientia*, 20, 218, 1964.
- AUSTIN, L., PHILLIS, J. W., and STEELE, R. P. — The distribution of cholinesterase in the cerebellum of various species, in *A Collection of Papers Presented to Sir Charles Lovett Evans*, published by C. D. E. E. Porton, ed. D. R. Davies, 1964.
- SUTHERLAND, E. W. and DAVOREN, P. R. — The formation of adenosine-3'5' phosphate in *The Biochemical Aspects of Hormone Action*, ed. Albert B. Eisenstein, published by Little, Brown and Co., Boston, 149-166, 1964.
- SUTHERLAND, E. W., DAVOREN, P. R., and MACKMAN, R. — The cellular location of adenyl cyclase and adenosine-3'5' phosphate in *E. Coli* in *The*

- Control of Glycogen Metabolism, ed. W. J. Whelan and M. P. Cameron, published by J. & A. Churchill Ltd., London, 233-246, 1964.
- BACHELARD, H. S. and TRIKOJUS, V. M. — The identification of thioglucosides and their aglucones in weed contaminants of pastures in goitrous areas of Tasmania and Southern Queensland, *Aust. J. Biol. Sci.*, **16**, 147-165.
- BACHELARD, H. S. and TRIKOJUS, V. M. — The behaviour of 3-methylsulphonylpropyl isothiocyanate (cheirolin) and other isothiocyanates in bovine rumen liquor, *Aust. J. Biol. Sci.*, **16**, 166-176.
- BACHELARD, H. S., MCQUILLAN, M. T., and TRIKOJUS, V. M. — An investigation of the antithyroid activities of isothiocyanates and derivatives with observations on fractions of milk from goitrous areas, *Aust. J. Biol. Sci.*, **16**, 177-191.
- VRBA, R., BACHELARD, H. S., and KRAWCZYNSKI, J. — The interrelationship between glucose utilization of brain and heart, *Nature*, **197**, 869-870.
- BACHELARD, H. S. and TRIKOJUS, V. M. — Chemical and biochemical studies on endemic goitre in Naturally Occurring Goitrogeous and Thyroid Function, ed. J. Prodoba and P. Langer, S.A.V., Bratislava, 57-60.
- KRAWCZYNSKI, J., BACHELARD, H. S., and VRBA, R. — Concentrations of glucose and other reducing substances in the organs of fed and fasting rats. *Acta Physiologica Polonica*, **15**, 367-372.
- YOUNG, R. J. and BARKER, G. R. — The ribosomes of staphylococcus aureus (Strain Duncan), *Biochem. J.*, **91**, 22C.
- RAJBHANDARY, U. L., YOUNG, R. J., and KHORANA, H. G. — Studies on polynucleotides. The labelling of end groups in polynucleotides. The selective phosphorylation of phosphomonoester groups in amino acid acceptor ribonucleic acids. *J. Biol. Chem.*, **239**, 3875.

#### Department of Medicine

- DULMANIS, A., COGHLAN, J. P., WINTOUR, M., and HUDSON, B.: The estimation of testosterone in biological fluids: II. Testosterone in urine. *The Australian Journal of Exp. Biol. & Med. Sci.*, **42**, 385, 1964.
- GORDON, E., GORDON, R., and HUDSON, B — A synthetic polypeptide (Ciba 30'920-Ba) with adrenocorticotrophic properties. *M.J.A.*, **1**, 590, 1964.
- SHEARMAN, R. P., SINGH, S., LEE, C. W. G., HUDSON, B., and IBERY, P. L. T. — Clinical, hormonal and cytogenetic findings in a true hermaphrodite. *J. Obstet. & Gyn. of the Brit. Com.*, **71**, 627, 1964.
- HANSKY, J. — Maximal secretory capacity of the canine pancreas in response to pancreaticozym and secretin. *Am. J. Physiol.*, **206**, 351, 1964.
- HANSKY, J. and JANOWITZ, H. D. — The pancreas. III. *Gastroneoterology*, **46**, 182, 1964.
- HANSKY, J. — The diagnosis of chronic pancreatic insufficiency: with special reference to the secretin test. *M.J.A.*, **2**, 823, 1964.
- FORBES, J. A. — Epidemic bronchiolitis due to the respiratory syncytial virus. *M.J.A.*, **1**, 850, 1964.
- GURR, F. W. — Peritoneal dialysis. *M.J.A.*, **2**, 653, 1964.

#### Department of Microbiology

- JACOBS, S. I., WILLIS, A. T., and GOODBURN, G. M. — Pigment production and enzymatic activity of staphylococci: the differentiation of pathogens from commensals. *J. Path. Bact.*, **87**, 151, 1964.

- WILLIS, A. T., JACOBS, S. I., and GOODBURN, G. M. — Pigment production, enzymatic activity and antibiotic sensitivity of staphylococci: subdivision of the pathogenic group. *J. Path. Bact.*, **87**, 157, 1964.
- WILLIS, A. T. and JACOBS, S. I. — A case of meningitis due to clostridium welchii. *J. Path. Bact.*, **88**, 312, 1964.
- JACOBS, S. I. and WILLIS, A. T. — Some physiological characteristics of neomycin and kanamycin-resistant strains of *Staphylococcus aureus*. *J. Clin. Path.*, **17**, 612.
- WILLIS, A. T. — Anaerobic Bacteriology in Clinical Medicine. 2nd ed. London, Butterworth, 1964.
- WILLIS, A. T. and JACOBS, S. I. — Elementary bacteriology. How do bacteria spread? 35 mm. film strip produced by Reckitt & Sons Ltd., Hull, 1964.
- FORSYTH, J. R. L. — Studies on inactivated influenza vaccine. M.D. thesis, University of Cape Town, 1964.
- ALLIBONE, E. C., GOLDIE, W., and MARMION, B. P. — *Pneumocystis carinii* pneumonia and progressive vaccinia in siblings. *Arch. Dis. Child.*, **39**, 26.

*Department of Obstetrics and Gynaecology*

- MORRIS, E. D., WOOD, C., and ARCHER, G. D. — Effect on cord blood glucose levels of the intravenous administration of fructose to the mother. *J. Obstet. & Gyn. of the Brit. Com.*, **71**, October, 1964.
- OSMOND-CLARK, F., MURRAY, M., and WOOD, C. — Endocrine cytology in pregnancy. Cytological changes before normal and premature labour. *J. Obstet. & Gyn. of the Brit. Com.*, **71**, 2, 231, April, 1964.
- WOOD, C. — The expansile behaviour of the human uterus. *J. Obstet. & Gyn. of the Brit. Com.*, **71**, 4, 615, August, 1964.
- SCHOFIELD, B. and WOOD, C. — Length tension relation in rabbit and human myometrium. *J. Physiol.*, **175**, December, 1964.
- SANDLER, M., RUTHVEN, C. R., and WOOD, C. — Metabolism of C14-norepinephrine and C14-epinephrine and their transmission across the human placenta. *Int. J. of Neuropharmacol.*, **3**, 123-128, 1964.
- WOOD, C. — Physiology of uterine contractions. *J. Obstet. & Gyn. of the Brit. Com.*, **71**, 3, 360, June, 1964.
- WOOD, C. and BEARD, R. W. — Temperature of the human foetus. *J. Obstet. & Gyn. of the Brit. Com.*, **71**, October, 1964.
- BOOTH, R. T., STERN, M. I., WOOD, C., and PINKERTON, J. H. M. — Urinary oestriol as an index of placental function and foetal viability. *J. Obstet. & Gyn. of the Brit. Com.*, **71**, 2, 266, April, 1964.

*Department of Pathology*

- DE BOER, W. G. R. M. — Two children with auto-immune thyroiditis. *Ned. T. Geneesk.*, **108**, 1252-1259, 1964.
- DE BOER, W. G. R. M. — Surgical treatment of squamous and basal cell carcinoma of the skin. *Ned. T. Geneesk.*, **108**, 1566, 1964.
- MCGIVEN, A. R. — Autoimmunity in thyroid disease. *N.Z. Med. J.*, **63**, 21-24, 1964.
- NAIRN, R. C. — Fluorescent Protein Tracing. 2nd ed. Edinburgh, Livingstone, 1964.
- NAIRN, R. C. — Uses of fluorescent antibody in Recent Advances in Clinical Pathology, ed. Dyke, S.C. London, Churchill.

POTWOROWSKI, E. — Detection du sulfate de chondroïtine dans les chondrocytes par la méthode des anticorps fluorescents. *Annales de l'A.C.F.A.S.*, 1964.

*Department of Physiology*

- AUSTIN, L., PHILLIS, J. W., and STEELE, R. P. — The distribution of cholinesterase in cat cerebellar cortex. *Experientia*, **20**, 218-219, 1964.
- BURNSTOCK, G., CAMPBELL, G., BENNETT, M., and HOLMAN, M. E. — Innervation of the guinea-pig taenia coli: Are there intrinsic inhibitory nerves which are distinct from sympathetic nerves? *J. Neuropharmacol.*, **3**, 163-166, 1964.
- BURNSTOCK, G. and HOLMAN, M. E. — An electrophysiological investigation of the actions of some autonomic blocking drugs on transmission in the guinea-pig vas deferens. *Brit. J. Pharmacol.*, **23**, 600-612, 1964.
- BURNSTOCK, G., KURIYAMA, H., and HOLMAN, M. E. — Facilitation of transmission from autonomic nerve to smooth muscle of the guinea-pig vas deferens. *J. Physiol.*, **192**, 31-49, 1964.
- GIBBS, C. L., JOHNSON, E. A., and TILLE, J. — An example of information retention in rabbit ventricular muscle fibres. *Biophysical J.*, **4**, 329-333, 1964.
- HOLMAN, M. E. — Electrophysiological effects of adrenergic nerve stimulation, in Symposium on Pharmacology of smooth muscle. Second Internat. Pharmacol. Meeting, 1963. Pergamon Press, Oxford, **6**, 19-36, 1964.
- HOLMAN, M. E. and JOWETT, A. — Some actions of catecholamines on the smooth muscle of the guinea-pig vas deferens. *Aust. J. Exp. Biol.*, **42**, 40-53, 1964.
- JOHNSON, E. A. and TILLE, J. — The repolarization phase of the cardiac ventricular action potential: a time-dependent system of membrane conductances. *Biophysical J.*, **4**, 387-399, 1964.
- MCCANCE, I. — Studies of potentiation of hexobarbitone infused intravenously. *Arch. Int. Pharmacodyn.*, **148**, 270-286, 1964.
- MCCANCE, I. and PHILLIS, J. W. — The discharge patterns of elements in cat cerebellar cortex and their responses to iontophoretically applied drugs. *Nature*, **204**, 844-846, 1964.
- MCCANCE, I. and PHILLIS, J. W. — The action of acetylcholine on cells in cat cerebellar cortex. *Experientia*, **20**, 217-218, 1964.
- MCDONALD, I. R., HARRISON, F. A., and PATTERSON, J. Y. F. — Cortisol turnover in sheep. Evaluation of isotope dilution method of measuring cortisol secretion rate. *J. Endocrinol.*, **28**, 173-181, 1964.
- MCINTYRE, A. K. — On the functions of Vater-Pacini corpuscles. *J. Anat. Lond.*, **97**, 489, 1963.
- MARTIN, A. R. and PILAR, G. — An analysis of electrical coupling at synapses in the avian ciliary ganglion. *J. Physiol.*, **171**, 454-475, 1964.
- MARTIN, A. R. and PILAR, G. — Quantal content of the synaptic potential in the chick ciliary ganglion. *J. Physiol.*, **175**, 1-16, 1964.
- MARTIN, A. R. and PILAR, G. — Post-tetanic potentiation and facilitation in the ciliary ganglion of the chick. *J. Physiol.*, **175**, 17-30, 1964.
- WESTERMAN, R. A. and VON BAUMGARTEN, R. — Wiederherstellung der Riechfunktionen nach Tractus olfactorius Durchschneidung bei Karpfen. *Pflügers Arch. ges. Physiol.*, **279**, 20-21, 1964.

WESTERMAN, R. A. and VON BAUMGARTEN, R. — Regeneration of olfactory paths in carp (*Cyprinus carpio* L.). *Experientia*, 20, 519-520, 1964.

*Department of Surgery*

DUDLEY, H. A. F. — Liver sepsis. *Brit. J. Surg.*, 5, 5, 363.

DUDLEY, H. A. F. — Hospital design: a view from the bridge. *Med. J. Aust.*, 1, 1022.

DUDLEY, H. A. F. and JONES, P. F. — Access and Exposure in Abdominal Surgery. London, Lloyd Luke, 1964.

DUDLEY, H. A. F., BAKER, L. W., and JONES, P. F. — Intestinal activity after operation. *Proc. Roy. Soc. Med.*, 2.

DUDLEY, H. A. F. — Surgery for duodenal ulcer. *Med. J. Aust.*, 11, 20, 777.

DUDLEY, H. A. F. and SIMPSON, D. C. — A surgical contrempe of 1869 and its effects. *J. Roy. Coll. Surg. Edin.*, 10, 72.

DUDLEY, H. A. F. and CAMPBELL, R. C. — Hospital stay of patients undergoing minor surgical procedures. *Lancet*, 1, 403.

DUDLEY, H. A. F. — The hospital's role in the education of doctors. *Hospital Adm.*, 12, 6, 20.

DUDLEY, H. A. F. — Pre-operative and post-operative care in Clinical Surgery, Rob, C. G. and Smith, R. Butterworth, London, 1964.

NAYMAN, J. — Gritti-Stokes amputation for obliterative arterial disease association with gangrene. *Med. J. Aust.*, 1, 141.

NAYMAN, J. — A synchronous dual infusion syringe for use in regional heparinization during haemodialysis. *Med. J. Aust.*, 1, 753.

NAYMAN, J. and FREAKE, R. E. — A simplified blood culture apparatus. *Amer. J. Clin. Path.*, 41, 279.

NAYMAN, J. — An arteriovenous shunt for use in acute renal failure. *Trans. Amer. Soc. Artif. Int. Organs.*, 10, 127.

NAYMAN, J. — Technique and apparatus for a plastic cannula junction. *Med. Technology Aust.*, 6, 33.

NAYMAN, J. — An arterioarterial shunt for use in haemodialysis. *Lancet*, 1, 365.

NAYMAN, J. — Induction of reversible and irreversible patterns of renal failure: a reproducible preparation in the dog. *J. Surg. Res.*, 4, 82.

NAYMAN, J. — Primary resection without anastomosis for carcinoma of the sigmoid colon with obstruction. *Aust. and N.Z. J. Surg.*, 33, 22.

NAYMAN, J. — Current status of renal homotransplantation and periodic haemodialysis. *Med. J. Aust.*, 11, 470.

NAYMAN, J. — Renal transplantation. *Scientific Aust.*, 2, 40.

NAYMAN, J. and FREAKE, R. E. — Estimation of plasma, sodium and potassium ions: a rapid method of employing a simplified dilution technique. *Amer. J. Technology*, 30, 377.

NAYMAN, J. — Semi-automatic Wangensteen suction apparatus. *J. Roy. Coll. Surg. Edin.*, 2, 154.

NAYMAN, J. — Technical developments in haemodialysis. *Alfred Hospital Clinical Reports*, 12, 41.

## FACULTY OF SCIENCE

*Department of Chemistry*

- BROWN, R. D. — Modern aspects of heterocyclic chemistry. *Proc. R.A.C.I.*, **31**, 1, 1964.
- BROWN, R. D. — Molecular orbital calculation and electrophilic substitution, in *Molecular Orbitals in Chemistry, Physics and Biology*, Academic Press Inc., N.Y., 1964.
- PULLMAN, B. J. and WEST, B. O. — Mixed alkyl-perfluoroalkyl derivatives of group V B element. *Aust. J. Chem.*, **17**, 30-37, 1964.
- BERETKA, J., WEST, B. O., and (in part) O'CONNOR, M. J. — The catalytic hydrogenation of some N-substituted salicylideneimines and their metal complexes. *Aust. J. Chem.*, **17**, 192-201, 1964.
- DICKSON, R. S. and SILKINSON, G. — Transition-metal fluorocarbon complexes. Part V tetrakis-(trifluoromethyl) cyclopentadienone and some related fluorocarbon complexes of rhodium. *J. Chem. Soc.*, 2699-2704, 1964.
- CRANK, G. and EASTWOOD, F. W. — Derivatives of orthoacids. I. Bicyclic orthoesters. *Aust. J. Chem.*, **17**, 1385-1891, 1964.
- CRANK, G. and EASTWOOD, F. W. — Derivatives of orthoacids. II. The preparation of olefins from 1,2-diols. *Aust. J. Chem.*, **17**, 1392-1398, 1964.
- ELLIS, D. R. and BATES, J. A. — Safety in university laboratories. *Safety News of Australia*, **34**, 6, 1963.
- ELLIS, D. R. — Vacuum filling of one entrance apparatus. *J. Sci. Inst.*, **40**, 604, 1963.
- ELLIS, D. R. — A cheap and versatile thermostat bath. *Laboratory Practice*, June, 1964.
- GODFREY, P. D., HEFFERNAN, M. L., and KERR, D. F. — Hg<sup>100</sup> wide line NMR spectra of chloride complexes of mercury. *Aust. J. Chem.*, **17**, 701-704, 1964.
- BLACK, P. J. and HEFFERNAN, M. L. — The analysis of the proton magnetic resonance spectra of heteroaromatic systems. II. Quinoline and its mononitroderivatives. *Aust. J. Chem.*, **17**, 558-566, 1964.
- BLACK, P. J., HEFFERNAN, M. L., JACKMAN, L. M., PORTER, Q. M., and UNDERWOOD, G. R. — Proton magnetic resonance spectra of indolizine and its methyl derivatives and aza analogues. *Aust. J. Chem.*, **17**, 1128-1137, 1964.
- HEFFERNAN, M. L. and HUMFFRAY, A. A. — High resolution proton magnetic resonance and selenophene. *Molecular Physics*, **7**, 527-532, 1964.
- ASGAR, A. M., COHEN, D., CAREY, J. G., JONES, A. J., MILLER, I. T., and WILSON, K. V. — Phenanthrene chemistry. II. Reactions of 9, 9-biphenanthryl. *J. Chem. Soc.*, 387-396, 1964.
- CHEESMAN, G. H. and NUNN, E. K. — Lithium tetraiodide tetrahydrate. *J. Chem. Soc.*, 2265, 1964.
- CHEESMAN, G. H. and NUNN, E. K. — Algebraic extrapolation in ternary systems. *Aust. J. Chem.*, **17**, 399, 1964.
- RENWICK, G. M., GIUMARRO, K. C., and SIEGEL, S. M. — Hydrogen metabolism in higher plants. *Plant Physiology*, **39**, 303-306, 1964.
- SIEGEL, S. M., RENWICK, G. M. et al. — Oxidation reduction and ageing of leaves. International Botanical Congress, Edinburgh, 1964. Abstract of paper no. 420.

- PAUL, I. and SMITH, T. D. — The synthesis of tri-*t*-butylaluminium-diethyl ether complex. *J. Chem. Soc.*, 2770-2773, 1964.
- DUNCAN, J. F. and THOMAS, F. G. — The vapour pressures of lead iodide and neodymium tricyclopentadienide. *J. Chem. Soc.*, 360-364, 1964.
- KOLTHOFF, I. M. and THOMAS, F. G. — Polarography in acetonitrile of tetarium tetrachloride and tetraiodide in various supporting electrolytes. *J. Electrochem. Soc.*, 3, 1065-1074, 1964.

*Department of Mathematics*

- FINCH, P. D. — The limit theorem for aperiodic discrete renewal processes. *J. Aust. Math. Soc.*, 4, 122-128, 1964.
- FINCH, P. D. — A lemma on maximal sets and the theorem of Denjoy-Vitali. *J. Aust. Math. Soc.*, 4, 195-201, 1964.
- FINCH, P. D. — Integration of real valued set junctions in abstract spaces. *J. Aust. Math. Soc.*, 4, 202-213, 1964.
- FINCH, P. D. — The theory of information and statistical inference. *J. Applied Probability*, 1, 1, 121-140, 1964.
- WATTERSON, G. A. — The application of diffusion theory to two population models of Moran. *J. of Applied Probability*, 1, 2, 1964.
- WATTERSON, G. A. — The film star's problem. *Matrix*, 26, 1964.

*Department of Physics*

- HUTTON, D. R. and TROUP, G. J. — Paramagnetic resonance of Gd<sup>3+</sup> in zircon. *Brit. J. Appl. Phys.*, 15, 405-406, 1964.
- BOLTON, H. C., TROUP, G. J., and WILSON, G. V. H. — A new use of the Kronig-Kramers relations in nuclear magnetic resonance. *Phil. Mag.*, 9, 591-605, 1964.
- DUGGIN, M. J. and RACHINGER, W. A. — The nature of the martensite transformation in a copper-nickel-aluminium. *Acta Met.*, 12, 529-535, 1964.
- MUNDAY, B. C., PEPPER, A. R., and STREET, R. — Properties of chromium cooled in a magnetic field. *Brit. J. Appl. Phys.*, 15, 611-612, 1964.
- WILSON, G. V. H. — Corrections to the moments of modulation broadened magnetic resonance line shapes. *J. of Sci. Instr.*, 41, 98-99, 1964.
- WILSON, G. V. H. — A frequency swept nuclear magnetic resonance absorption circuit. *J. of Sci. Instr.*, 41, 436-439, 1964.
- HUTTON, D. R. and TROUP, G. J. — Paramagnetic resonance of Cr<sup>3+</sup> in kyanite. *Brit. J. Appl. Phys.*, 15, 257-280, 1964.
- HUTTON, D. R. and TROUP, G. J. — Paramagnetic resonance of Fe<sup>3+</sup> in kyanite. *Brit. J. Appl. Phys.*, 15, 1493-1499, 1964.
- BASTOW, T. J. and STREET, R. — Transverse magnetoresistance of high purity chromium foils. *Phil. Mag.*, 10, 269-276, 1964.
- TROUP, G. J. and WORNER, J. — Theoretical sensitivities of ESR spectrometers using Maser preamplifier and Maser Q-multiplier techniques. *Quantum Electronics III*, 1, 943-946, 1964. Columbia University Press.
- FRANCEY, J. L. A. — Diffusion of meteor trails in the earth's magnetic field. *Aust. J. of Phys.*, 17, 315-322, 1964.
- McLAREN, A. C. — Dislocation substructure in deformed and annealed chromium. *Aust. J. of Phys.*, 17, 447-451, 1964.
- TROUP, G. J. — The continuous wave gas laser. *Scientific Australian*, 2, 32-35, 1964.



- WILSON, G. V. H. — Nuclear magnetic resonance in iron-rich FeCo and FeNi alloys. *Proc. Phys. Soc.*, 84, 689-692, 1964.
- CARO, D. E., McDONELL, J. A., and SPICER, B. M. — Introduction to Atomic and Nuclear Physics. Aldine Publishing Co., Chicago, 222 pp., 1964.
- DUGGIN, M. J. and RACHINGER, W. A. — A martensitic transformation in gold-copper-zinc alloys. *Acta Met.*, 12, 1015-1024, 1964.
- LECIS, I. — An electronic stroboscope. *Lab-Talk*, 8, 13-15, 1964.
- BRETTELL, J. M. — Nuclear resonance of Co<sup>59</sup> in some cobalt-rich alloys. *Phys. Letters*, 13, 100-101, 1964.

*Department of Zoology and Comparative Physiology*

- DAVIS, D. G. — Genic control of chromosome behaviour in *Drosophila*: claret nondisjunctional. Radiation Protection and Recovery Conference, Oak Ridge, Tennessee. *Blood*, 23, 1.
- EALEY, E. H. M. — L'euro, ou Kangourou des collines *Macropus robustus* dans le nord-ouest de l'Australie. *La Terre et la Vie*, 1, 3-19, 1964.
- ETTERSHANK, G. with BROWN, W. L. — *Monomorium solleri* (comb. nov.) Ettershank and Brown. *Pilot Reg. Zoology*, 18.
- ETTERSHANK, G. with BROWN, W. L. — Malpighian tubules as a meristic character in the ants. *Ent. Mon. Mag.*, 100, 5-6.
- MARSHALL, A. J. with ARMSTRONG, C. N. — Co-editorship and chapter authorship of *Intersexuality in Vertebrates, including Man*, 479 pp., Academic Press, London and New York, 1964.
- NELSON, J. E., with BARTHOLOMEW, C. A. and LEITNER, P. — Body temperature, oxygen consumption, and heart rate in three species of Australian flying foxes. *Physiol. Zool.*, 37, 179-198.
- NELSON, J. E. — Notes on *Syconycteris australis*, Peters, 1867 (Megachiroptera) *Mammalia*, 28, 429-432.
- WARREN, J. W. — A mid tertiary freshwater turtle from Tasmania, Australia. *Journ. Palaeontology*, 38, 4, 570.
- WARREN, J. W. — A trichosurine humerus from marine miocene beds, Victoria. *Proc. Roy. Soc. Vict. N.S.*, 78, 1, 170.
- WILLIAMS, W. D. — A contribution to lake typology in Victoria, Australia. *Verh. Internat. Verein. Limnol.*, 15, 158-168.
- WILLIAMS, W. D. — Directory of Australian Limnologists. Edited for Australian Society of Limnology. First edition, 45 pp., Canberra.
- WILLIAMS, W. D. — Subterranean freshwater prawns (Crustacea: Decapoda: Atyidae) in Australia. *Aust. J. Mar. Freshw. Res.*, 15, 1, 93-106.
- WILLIAMS, W. D. Limnological observations on Lake Tarli Karng. *Aust. Soc. Limnol. Newsletter*, 3, 1, 14-15.
- WILLIAMS, W. D. — Some chemical features of Tasmanian inland water. *Aust. J. Mar. Freshw. Res.*, 15, 2, 107-122.
- WILLIAMS, W. D. with BAYLY, I. A. E. — Chemical and biological observations in some volcanic lakes in the south-east of South Australia. *Aust. J. Mar. Freshw. Res.*, 15, 2, 123-132.

FACULTY OF EDUCATION

- BALSON, M. — Report on education in Australia. *Australian Journal of Education*. VIII, 255-256, 1964.
- SCHOENHEIMER, H. P. — Senior Speller, Melbourne, F. W. Cheshire, 44 pp., 1964.

- SELBY SMITH, R. — Teacher Training at Monash. *The Secondary Teacher*, XCVII, 18-19, July, 1964.
- THEOBALD, J. H. — An Introduction to the Principles of Classroom Testing. Melbourne, Hall's Book Store Pty. Ltd., vi + 82, 1964.

#### FACULTY OF LAW

- DERHAM, D. P. — Chapter 2 in Melbourne Studies in Education 1963, ed. E. L. French, Melbourne University Press, 1963.
- DERHAM, D. P. — Legal education in Victoria. *The Australian Bar Gazette*, December, 1964.
- DERHAM, D. P. — Profound influence of Sir Owen Dixon. *Sydney Morning Herald*, April 14, 1964.
- JACKSON, D. C. — Equity and the Torrens system — statutory and other interests. *Malaya Law Review*, July, 1964.

### 13. CONCLUSION

The foregoing pages will, we hope, have given the impression that 1964 has been a year of consolidation. The days of pioneering a virgin site and of the everyday facing of brand new tasks in temporary rooms are coming to an end and a pattern of settled and continuing activities has been established. It may perhaps now be said that we have reached the end of the beginning and that the coming years will reveal how good or ill that beginning has been. One of the factors that has of course contributed to this sense of being no longer new has been the announcement of the birth of a third university in Victoria. We wish La Trobe well as it begins its life. We hope that its struggles may be in some ways less than our own have been because our own experience may be taken into account at many points as the new university develops. To the further development of Monash and to the common task that confronts the growing family of universities in Victoria we bend our energies.

For and on behalf of the Council,

R. R. BLACKWOOD,  
Chancellor.



EXPENDITURE—	Recurrent	Buildings, Equipment and Furniture	Research Vote	5% Furniture Vote	Grants and Donations	Union Develop- ment	Total
Teaching & Research: Salaries & Associated Expenses	1,218,356				48,337		1,266,693
Other Operating Expenses	182,336		615		15,068		198,019
Books & Journals	8,836				534		9,370
Equipment & Furniture	224,781	214,737			27,602		467,120
Research Equipment			48,699				48,699
Library: Salaries & Associated Expenses	92,992						92,992
Other Operating Expenses	8,964						8,964
Books, Journals & Binding	194,052						194,052
Equipment & Furniture	2,112						2,112
Central Administration: Salaries & Associated Expenses	150,699						150,699
Advertising & Appointment Costs	81,361						81,361
Printing & Stationery	18,552						18,552
Public Ceremonies & Publications	8,853						8,853
Equipment & Office Machines	6,996						6,996
Other Expenses	33,305						33,305
Forward:	2,232,195	214,737	49,314		91,541		2,587,787

	Recurrent	Buildings, Equipment and Furniture	Research Vote	5% Furniture Vote	Grants and Donations	Union Development	Total
Forward:	2,232,195	214,737	49,314		91,541		2,387,787
General Administration:							
Motor Vehicles — Purchase & Maintenance	9,650						9,650
Cleaning Expenses, Equip. Power & Fuel	68,675						68,675
Building Furnishings, Maintenance, Alterations & Grounds Maintenance & Equipment	75,366						75,366
General Services & Associated Expenses	49,976	47,046		61,399			158,421
Telephone & Postage	20,556						20,556
Other Expenses	40,733						40,733
Sundry Auxiliary Expenditure:	14,719						14,719
Union Activities	30,560						30,560
Student Services	32,452					10,132	42,584
Hall of Residence	5,914						5,914
Outside Earnings:	2,700 Cr.						2,700 Cr.
Equipment	72,000						72,000
Other Expenses	3,933						3,933
Buildings:							
Site Acquisition	15,074	148,142				543	15,617
Site Development		2,066,982				75,000	148,142
New Buildings							2,141,982
<b>TOTAL EXPENDITURE</b>	<b>£ 2,669,103</b>	<b>2,476,907</b>	<b>49,314</b>	<b>61,399</b>	<b>91,541</b>	<b>85,675</b>	<b>5,433,939</b>

## (II) STATEMENT OF SOURCES AND APPLICATION OF FUNDS

SOURCES—	1958-61	1962	1963	1964	Progressive Totals to 31/12/1964
	£	£	£	£	£
1. State Grants:					
Recurrent	610,050*	523,477	1,031,039	1,528,092	3,692,658
Buildings & Site**	2,391,145	1,612,828	1,021,480	1,305,560	6,331,013
Research Vote	4,810	36,690	4,000	33,000	78,500
5% Furniture Vote	30,983	94,517	76,166		201,666
Total State	3,036,988	2,267,512	2,132,685	2,866,652	10,303,837
2. Commonwealth Grants:					
Recurrent	293,750	323,000	631,669	964,678	2,213,097
Buildings & Site**	2,364,015	1,362,828	1,017,831	1,305,560	6,050,234
Research Vote	4,810	36,690	4,000	33,000	78,500
5% Furniture Vote	30,982	94,518	76,166		201,666
Total Commonwealth	2,693,557	1,817,036	1,729,666	2,303,238	8,543,497
Total Government:	5,730,545	4,084,548	3,862,351	5,169,890	18,847,334
3. Academic & Union Fees & Other Income	47,979	87,379	173,465	383,613	692,436
4. Grants & Donations	2,552	62,098	97,820	113,231	275,701
5. Union Development			10,767	21,810	32,577
<b>TOTAL FUNDS AVAILABLE</b>	<b>5,781,076</b>	<b>4,234,025</b>	<b>4,144,403</b>	<b>5,688,544</b>	<b>19,848,048</b>

\* Includes special equipment grant of £104,000.

\*\* For the year 1963, this item includes funds available for expenditure on equipment at teaching hospitals. Commencing with the year 1964, this item includes funds available for expenditure on equipment and furniture at all locations.

APPLICATION—	1958-61	1962	1963	1964	Progressive Totals to 31/12/1964
1. Recurrent Purposes:					
Salaries & Other Expenses	560,026	796,672	1,295,507	2,139,582	4,791,787
Equipment & Furniture	322,416	178,504	250,974	323,886	1,075,780
Books, Journals & Binding	166,695	41,839	152,709	205,635	566,878
2. Site Acquisition & Development	536,092	361,298	97,481	148,142	1,143,013
3. Building Funds:					
Buildings	3,477,464	2,930,562	2,026,302	2,066,982	10,501,310
Equipment	108,000		28,584	214,737	351,321
Furniture			3,041	47,046	50,087
4. Research Vote	9,620	38,193	37,217	49,314	134,344
5. 5% Furniture Vote	61,965	126,228	147,703	61,399	397,295
6. Grant & Donations:					
Salaries & Other Expenses	260	25,657	31,796	63,405	121,118
Equipment		15,775	44,076	27,602	87,453
Books & Journals		1,179	59	534	1,772
7. Union Development			54,612	85,675	140,287
<b>TOTAL FUNDS APPLIED</b>	<b>5,242,538</b>	<b>4,515,907</b>	<b>4,170,061</b>	<b>5,433,939</b>	<b>19,362,445</b>
<b>DEFICIT (Dr.) or SURPLUS (Cr.)—</b>					
1. Recurrent	97,358Dr.	83,159Dr.	136,983Cr.	207,280Cr.	163,746Cr.
2. Capital	633,604Cr.	218,210Dr.	140,685Dr.	89,500Cr.	364,209Cr.
3. Grants & Donations	2,292Cr.	19,487Cr.	21,889Cr.	21,690Cr.	65,358Cr.
4. Union Development	538,538Cr.	281,882Dr.	43,845Dr.	63,865Dr.	107,710Dr.
			25,658Dr.	254,605Cr.	485,603Cr.

## (III) STATEMENT OF BALANCES AT DECEMBER 31, 1964

	£		£
Sundry Creditors and Accrued Expenses	444,222	Cash on Hand and at Bank	2,325
Loans on Mortgage	99,719	Investments—	
Accumulated Funds—		Short Term	325,000
Recurrent	163,746	Other	20,500
Capital	364,209	Sundry Debtors—	
Grants and Donations	65,358	Accrued Government Grants	544,657
Union Development	(Dr.) 107,710	Other	102,413
	<u>485,603</u>	Stocks on Hand	15,479
		Payments in Advance	19,170
	<u>1,029,544</u>		<u>1,029,544</u>

Contingent Liability for  
Outstanding Purchase Orders: £293,000



(IV) STATEMENT OF RECEIPTS AND PAYMENTS OF TRUST FUNDS  
FOR THE YEAR ENDED DECEMBER 31, 1964

Receipts—	£	£
William and Katherine Winter Foundation ....	20,000	
Bequest from Estate of S. S. McCutcheon ....	892	
The David B. Rosenthal Memorial Trust .....	538	
Gift from Dr. C. Disher .....	500	
D. J. Shing Trust .....	300	
Interest on Investments .....	365	22,595
<hr/>		
Payments—		
Hooker, Morawetz, and Olver Scholarship .....	1,260	
Hume Turnbull Scholarship .....	125	
The David B. Rosenthal Memorial Trust .....	25	1,410
		<hr/>
		21,185
		<hr/> <hr/>

SCHEDULE OF TRUST FUNDS AT DECEMBER 31, 1964

Inscribed Stock—	£
Melbourne and Metropolitan Board of Works .....	25,697
State Electricity Commission of Victoria .....	587
Commonwealth Government .....	500
	<hr/>
	26,784
<hr/>	
Current Account—	
Commercial Bank of Australia Limited .....	808
	<hr/>
	27,592
	<hr/> <hr/>

(V) STUDENTS' LOAN FUND  
BALANCE SHEET AS AT DECEMBER 31, 1964

Students' Loan Fund .....	£		
	2,003	Cash at Bank .....	1,173
	<u>2,003</u>	Loans to Students .....	830
	<u>2,003</u>		<u>2,003</u>

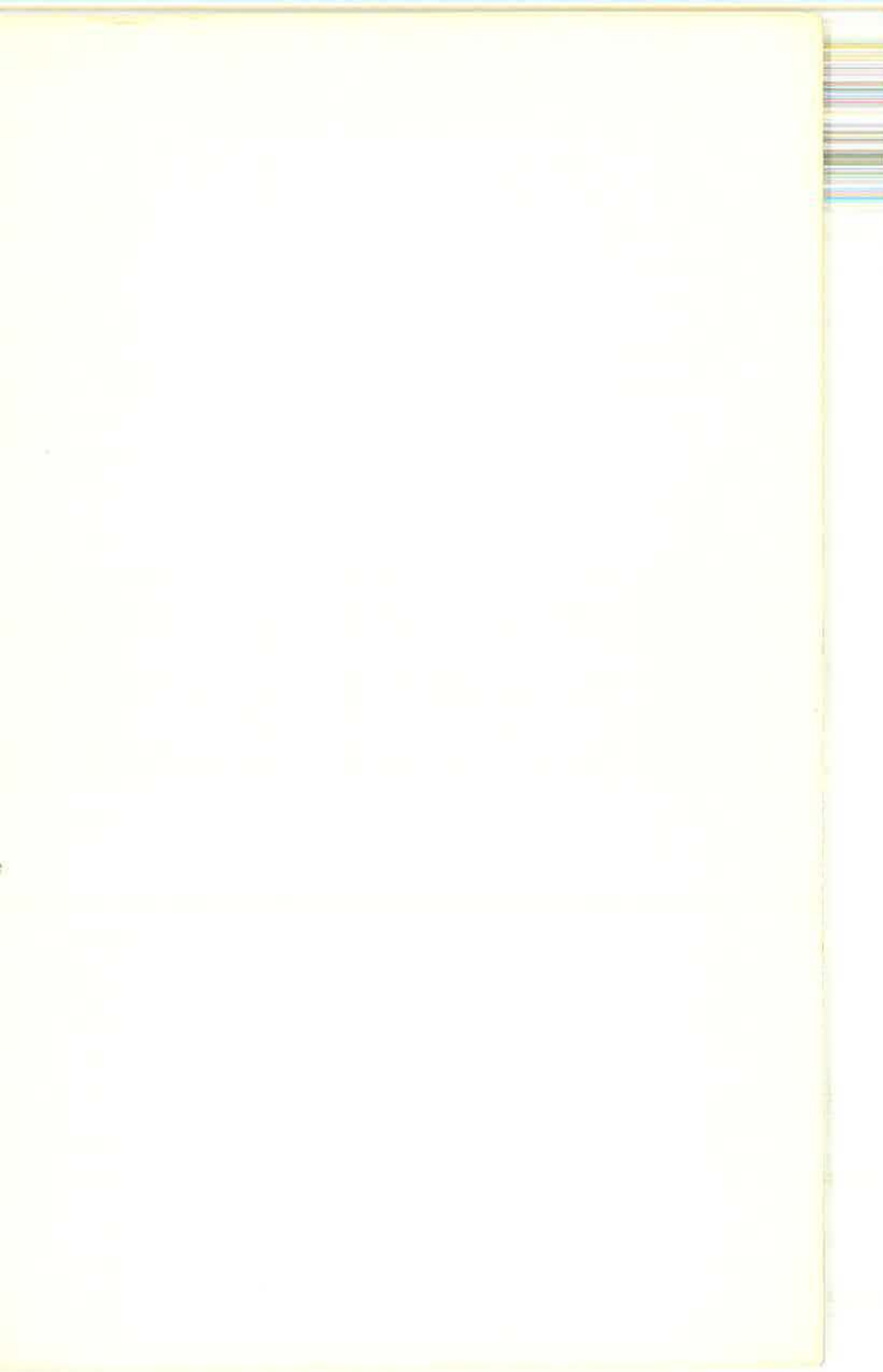
AUDITOR-GENERAL'S CERTIFICATE

PURSUANT TO THE PROVISIONS OF SECTION 36 OF THE MONASH UNIVERSITY ACT 1958

The books and accounts of Monash University for the year ended December 31, 1964, have been audited by officers acting under my direction.

In my opinion, the statements of accounts herewith numbered (I) to (V) are true and correct.

R. W. GILLARD  
Auditor-General  
22/9/1965



5