

MONASH UNIVERSITY



Report
of the
Council

1965

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REPORT OF THE COUNCIL FOR 1965

In accordance with section 41 of the *Monash University Act 1958*, I submit the annual report of the Council of the University for 1965.

1. THE COUNCIL

The Council held eleven meetings during the year, one of these being a Graduation Ceremony.

One change in the membership of Council took place in 1965. Mr. A. McDonell who, as Director of Education for Victoria, had served first as a member of the Interim Council almost from its inception and subsequently *ex officio* as a member of the Council, retired from his post as Director in March and was succeeded by Mr. F. H. Brooks, who automatically took his place on the Council of the University. The Honourable P. V. Feltham, Dr. H. A. Jenkins, and the Honourable J. F. Rossiter representatives of the Parliament of Victoria, Sir Robert Blackwood and Sir Michael Chamberlin, representing industrial and commercial interests, and Mr. G. P. H. Wilson representing agricultural interests, were re-appointed by the Governor-in-Council in July; Professor R. R. Andrew was re-elected by the professors of the University, and the Right Reverend Felix Arnott, Sir Walter Bassett, and Mr. J. G. Wilson were respectively re-elected by the faculties of Arts, Engineering, and Economics and Politics; Professor Sir George Paton was re-appointed by the Council upon the nomination of the Council of the University of Melbourne, and Mr. J. A. Forrest, Mr. B. W. Hone, Miss A. Hoy, and Mr. I. Langlands were re-elected.

Sir Robert Blackwood and Sir Michael Chamberlin continued to serve respectively as Chancellor and Deputy Chancellor of the University, each commencing a new three-year period of office at the March meeting of the Council.

2. DISTINGUISHED VISITORS

Distinguished visitors to the University during the year included: Their Royal Highnesses, the Duke and Duchess of Gloucester, His Excellency Major General Sir Rohan Delacombe and Lady Delacombe, The Honourable Senator Gorton, Minister in Charge, Commonwealth Activities in Education and Research, The Honourable J. S. Bloomfield, Minister of Education for Victoria, The Right Honourable Lord

Bowden of Chesterfield, Minister of State for Education and Science in the British Government, and Lord Murray of Newhaven, whose work with the Murray Commission in 1957 prepared the way for the University's foundation.

Once again we have been honoured and encouraged by the growing interest in the University evidenced by the increasing number of visitors both from Australia and from overseas and from a great variety of callings and professions.

3. DEVELOPMENT OF SITE AND BUILDINGS

The remaining part of the Robert Menzies School of Humanities was finished and occupied during the year. Construction work on the public lecture theatre commenced towards the end of the year, and is due to be completed by the end of 1966.

The second stage of the heavy laboratories for engineering was completed and the third stage will be ready early in 1966. The only other engineering project scheduled for the current triennium is the engineering lecture theatres. This building was commenced during the year and is scheduled to be completed in April, 1966.

The first stage of the bio-medical library and connecting link between the faculties of Science and Medicine were started during the year and will be ready for handing over before the start of the 1966 academic year. Both the bio-medical library and the engineering lecture theatre projects received setbacks during 1965 when the building contractor went into liquidation.

The second stage of the medical school, which includes a six storey tower block, was progressively occupied throughout the year and finally completed in November. The first stage of the central animal house was constructed during the year and occupied in December.

At the Queen Victoria Memorial Hospital the Robert Menzies block was completed and the two floors allocated to the University were both brought into full use.

In the halls of residence complex the final stage of Deakin Hall was completed and the central block housing dining and administrative facilities for the halls was also completed. The men's wing of Farrer Hall was completed and the women's wing almost finished. The latter will be ready for occupation before the beginning of the 1966 academic year. Construction of Howitt Hall, which is a tower block, was started and by the end of the year the concrete framework had reached the ninth storey level. The whole of the complex of halls (known as the North-East Halls) consisting of three halls grouped around a central catering and administrative building, is scheduled for completion in 1966. It will provide accommodation for a total of 519 students and 81 others.

Two blocks of transit flats on a site in Clayton Road were completed by the middle of the year and now provide accommodation for eight members of staff, and their families, for short periods.

Work was completed on the second stage of the maintenance building.

The sports building, which was constructed in two stages, was completed towards the end of the year. The first stage comprising the main gymnasium and an amenities block was in use by the middle of the year, and the second stage consisting of four squash courts and an additional gymnasium was completed in October.

The planning of the new Religious Centre was well advanced and work on this project is expected to commence in 1966.

The planning of the Great Hall continues with a view to construction beginning in 1967.

A considerable amount of site works was undertaken consisting of drainage and levelling of sports grounds, further extensions of the University's road system and paths, additional car parks, the laying of a 12" water ring main and additional street lighting. The contract increasing to 2,000 the number of internal telephone extensions of the PABX was completed.

4. ADMINISTRATIVE MATTERS

Administration

With the growth and development of the University, a need was felt for a division of the duties which until now had been the Registrar's sole responsibility. It was decided to create two new positions named respectively Comptroller and Academic Registrar.

Mr. F. H. Johnson, to whose untiring efforts as Registrar in its formative years the University owes so much, was appointed Comptroller with responsibility for business management and general administration; Mr. J. D. Butchart, formerly Deputy Registrar, became Academic Registrar with responsibility for academic administration.

Legislation

The *Universities (Amendment) Act 1965* which amends certain sections of the Acts governing the three Victorian universities, became law during the year. The main amendments to the *Monash University Act 1958* were designed to enable the affairs of faculties to be governed by faculty boards and to clarify the responsibilities of the University in the matter of undergraduates' places of living.

The appointment of a part-time legal officer has made possible the beginnings of a complete revision of the University's statutes and regulations with a view to ensuring their validity and adequacy. At the close of the year a number of statutes, including those govern-

ing faculties and changes in the University's administration consequent upon the appointment of a Comptroller, were submitted for approval: they are expected to take effect early in 1966.

Funds for Great Hall

A major preoccupation during the latter part of the year was a public appeal for funds to build a Great Hall in the University. By December gifts and promises had reached the encouraging figure of more than £235,000 and, if hoped-for recommendations by the Australian Universities Commission are made and accepted, it is expected that the Hall may be available for use for the graduation ceremonies in 1968.

5. STAFF APPOINTMENTS

Notwithstanding a continued high demand for teaching staff it was possible to maintain a satisfactory level of recruitment during 1965, both in terms of numbers and the quality of staff obtained. The total of 419 full time academic staff at December 31, 1965, shows a net increase of 100 on the December, 1964, figure. The table below shows the figures at December 31, 1965, with numbers in brackets of those who took up their appointments at Monash in 1965.

	Arts	Economics and Politics	Educa- tion	Engin- eering	Law	Medi- cine	Science	Total
Deans	1(1)	1	1	1	1	1	1	7(1)
Professors	13(3)	4(2)		4	2(2)	10(2)	12(4)	45(13)
Readers	1					2(1)		3(1)
Assoc. Prof.	1(1)		1(1)	1(1)		1(1)	1(1)	5(5)
Senior Lecturers	21(2)	13(3)	3(2)	13(4)	4(3)	18(6)	22(7)	94(27)
Lecturers	60(16)	23(4)	4(1)	17(8)		24(6)	34(9)	162(44)
Senior Teaching Fellows (Permanent)	5(5)							5(5)
Senior Teaching Fellows	14(2)	5(2)		3(3)	1	21(17)	19(7)	63(31)
Teaching Fellows	17(7)	4(4)	1(1)		2(1)	2(2)	9(2)	35(17)
Total	133(37)	50(15)	10(5)	39(16)	10(6)	79(35)	98(30)	419(144)

In addition, staff of equivalent status in the central administration increased by 3, to a net 47, and professional library staff by 10, to 33. Administrative staff in academic departments and ancillary services increased by 3, to a total of 11.

The overall full-time staff of the University stood at 994 in December, 1964. In December, 1965, full-time staff numbered 1,201.

Of the academic staff who took up appointment during the year, 95 (of whom 76 had taken their first degree in Australia and 19 overseas) were recruited from Australia and 49 (of whom 17 had taken their first degree in Australia and 31 overseas) were recruited from overseas.

The following professors took up their duties 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)
 Jackson, D. C., M.A., B.C.L. *Oxon.*, of the Inner Temple, Barrister-at-Law (Law)
 Janko, Z., D.Sc., Ph.D. *Zagreb* (Pure Mathematics)
 Jones, T. A., M.A. *Syd.* (Music)
 Linnane, A. W., M.Sc., Ph.D. *Syd.* (Biochemistry)
 Miller, J. B., B.Sc. *Syd.* and *Cantab.*, Ph.D. *N.E.* (Pure Mathematics)
 Rankin, H. D., M.A. *Dub.* (Classical Studies)
 Van der Borcht, R. F. E., Lic. Sc. Math., Dr. es Sc. *Louvain* (Applied Mathematics)
 Waller, P. L., B.C.L. *Oxon.*, LL.B. *Melb.* (Sir Leo Cussen Chair of Law)

Professor K. C. Westfold, formerly professor of Applied Mathematics, took up appointment as full-time dean of the faculty of Science, Professor G. R. Manton, former professor of Classics in the University of Otago, as full-time dean of the faculty of Arts, and Professor R. Selby Smith, foundation professor of Education, as full-time dean of the faculty of Education.

Dr. C. E. Sawrey took up appointment as director of the University Health Service.

The following professors were appointed in 1965 and will take up duty in the year indicated —

1966

- Dunn, S. S., B.A., Dip.Ed. *Adel.*, B.Ed. *Melb.* (Education)
 King, A., M. A. *Oxon.*, Dip.Ed. *Lond.* (English)
 McBriar, A. M., B.A. *Melb.*, D.Phil. *Oxon.* (History)
 Swan, J. M., D.Sc. *Melb.*, Ph.D. *Lond.* (Organic Chemistry)

1967

- Brunt, Maureen, B.Com. *Melb.*, Ph.D. *Harv.* (Economics)

Morton, B. R., M.Sc. *N.Z.*, B.A., Ph.D. *Cantab.* (Applied Mathematics)

The University records with regret the death in a road accident of Miss Simone Cecile Parrish, lecturer in the department of English, on April 16, 1965, the loss of Mr. John J. Tille, senior teaching fellow in the Department of Physiology, who disappeared while skin-diving on the evening of December 22, 1965, and the deaths in road accidents in September of Mrs. Valda Wilson and Mrs. Ena Mills of the Union catering staff and in December of Mrs. Margaret Dobson of central services.

6. ACADEMIC DEVELOPMENT

The following degrees and diplomas were conferred by the University in 1965:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Bachelor of Arts	49	57	106
Bachelor of Arts with Honours	8	3	11
Bachelor of Economics	23	1	24
Bachelor of Economics with Honours	7	—	7
Bachelor of Engineering	1	—	1
Bachelor of Engineering with Honours	2	—	2
Bachelor of Medical Science	3	—	3
Bachelor of Science	11	4	15
Bachelor of Science with Honours	3	3	6
Master of Science	1	—	1
Doctor of Philosophy	6	—	6
	114	68	182
Diploma in Education	12	18	30

With the establishment of the faculties of Education and Law the main framework of the University is almost complete. Only one further faculty, Architecture, is contemplated and that may not be started for some time to come.

Within the components of the framework the picture is still one of rapid growth and development, of new courses being introduced, and of older ones being remodelled. The two new faculties, naturally, show the most rapid change from a mere embryo state to one in which exciting ideas about their future programmes are beginning to materialise into functioning courses and research work.

In the older faculties too there are many new developments to record of which brief accounts will be found in the deans' reports that follow. Of these, the Centre of South-east Asian Studies, the involvement of the department of Physics in helping teachers with the new matriculation syllabus, and the planning of post-graduate

courses in engineering may be given special mention here as being rather striking examples of Monash people bending their energies in directions that are particularly useful and important in this time and place.

Mention must also be made of the growing significance of post-graduate research work right across the University. Although it is now commonly accepted that the functions of a university include both teaching and research there is still a feeling in some quarters that too much effort is spent on the latter at the expense of the former. Such a view perhaps underestimates the "teaching" element in post-graduate work which can not inaccurately be described as "guided self-education". At any rate the rise in the number of research students is most welcome from the point of view of future undergraduates, for the supply of university teachers, who usually start their careers by taking a higher degree, is now much more promising than it has ever been.

Much attention has been devoted during the year to the question of the government and administration of the University. Full-time deans and faculty secretaries have been appointed in all faculties, and faculty boards — deliberative bodies smaller than the whole faculty — have been instituted. These steps, it is hoped, will go some way to reducing the number of man-hours involved in decision-making without preventing people from participating in affairs if they want to. There is still much to be done, especially on the mechanical side of the administration, before we can begin to be satisfied with the way things run.

A reference may not be out of place here to two student activities which are not without educational significance: the "teach-ins" on Vietnam and Education. Teach-ins are said to be a perpetuation of an attempt to prevent "sit-ins" being a complete waste of time by turning them into a sort of marathon debate. In some ways they are an appalling way in which to discuss public affairs and yet the experience of being present, quite late at night, when a couple of thousand students were packed into the Union functions room listening attentively to what was being said, was quite unforgettable.

The following reports from the faculties and from the Library, together with the list of publications in section 12 of this report, indicate the scope of the academic work in progress at the University.

Faculty of Arts (Dean: Professor W. A. G. Scott, B.A. Melb., B.Litt. (January-October) Professor G. R. Manton, M.A. Cantab. (November-December))

The number of first year Arts students rose from 800 in 1964 to 982 in 1965, and the total number of students in the faculty from

1,246 to 1,701. 17 fourth year students completed their degrees with honours as against 11 in 1964 and the number of enrolments for higher degrees rose from 30 to 67. In the course of the year the first Ph.D. degree was awarded in the faculty. Budget provision was made for an increase in academic staff from 124 to 151. In most departments vacancies were satisfactorily filled, but some senior positions could not be filled and appointments were made at a lower level.

Four new professors arrived to take up their duties in the course of the year: Professor H. D. Rankin (Classical Studies), Professor T. A. Jones (Music), Professor U. G. E. Hammarström (Linguistics) and Professor G. R. Manton, who from November took over in a full-time capacity the duties of dean which had been carried out since 1960 by the professor of English, Professor W. A. G. Scott. The University suffered a severe loss in the death in August, 1965, of Professor R. C. Bald, of the University of Chicago, who was to have taken up his appointment to the second chair of English from the beginning of 1966. Professor A. M. McBriar of Melbourne University was appointed to the third chair of History and Dr. J. H. Park of the University of Wisconsin-Milwaukee, to the position of senior lecturer and head of the Spanish Section in the department of Modern Languages. The chair of Japanese and a second chair of Philosophy have not yet been filled. Dr. Gaston Hall held the position of visiting lecturer in French en route from the United States to take up a position at the University of Warwick. At the end of 1965 Dr. G. C. Bolton, senior lecturer in History, was appointed to the chair of History in the University of Western Australia and Mr. M. J. Deutscher, senior lecturer in Philosophy, to the foundation chair of Philosophy at Macquarie University.

During the year Professor M. G. Marwick (Anthropology and Sociology) was visiting professor in the summer session of Western Michigan University. Professor D. H. Monro (Philosophy) spent twelve months at St. John's College, Cambridge, as Commonwealth Fellow, and Professor L. Bodi left in July for a year's study leave to be spent mainly in Vienna.

With the completion of the east wing of the Robert Menzies Humanities Building the Geography department was able to move from its temporary quarters into more spacious accommodation on the 7th floor, with laboratories in the basement. All departments of the faculty are now housed in the building.

In 1965 the department of Classical Studies offered its first subjects — Latin and Classical Civilization. Classical Civilization attracted over 100 students. Other subjects offered for the first time were Anthropology and Sociology (second year), Geography (third year) and Indonesian and Malay (third year). Within the faculty of Science the department of Psychology in the first year of its existence offered Psychology as a first year subject for Arts students. This was in great

demand but a quota of 240 was imposed. It is expected that many of those for whom places could not be found in 1965 will be able to take the subject in 1966 when the department will be equipped to double the 1965 quota.

New subjects to be offered in 1966 include Spanish I, Latin II, Greek I, Ancient History I, Music I, and Linguistics II. Music will be available both as a self-contained first year subject and as a subject leading to pass and honours sequences. Linguistics will be offered as a second year subject following an approved first year language course.

The Centre of South-east Asian Studies offered a series of seminars to staff and research students. Visitors to the Centre included Professor H. J. Benda, Assistant Director of South-east Asian Studies, Yale University, Professor Wang Gungwu of the University of Malaya and Dr. Cecil Hobbs, Director of the Orientalia division of the Library of Congress. Professor D. G. E. Hall, Emeritus Professor of South-east Asian History in the University of London, held the position of visiting professor within the department of History between May and October.

Under arrangements made with the Australian Institute of Aboriginal Studies in Canberra, a research fellow in Ethnomusicology was appointed to the Music department to carry out research and teaching and to establish an Ethnomusicology section of the Institute.

Members of all departments have been actively engaged in research, assisted by grants from various services. Although in some fields joint projects are possible, and in all fields research seminars or informal discussions are held, in the main research work in the Arts faculty is the responsibility of the individual scholar, whose work does not necessarily lend itself to immediate publication. The books and articles listed elsewhere in this report as published in 1965 represent only a very small part of the research activity of the Faculty.

A workshop on language laboratories was held from 18th to 21st August under the direction of Dr. Wilga Rivers. This was attended by visitors from most universities in Australia and New Zealand. A fourth language laboratory has been equipped for 1966.

As in previous years a number of departments has maintained close liaison with the schools, arranging conferences and providing special courses for teachers.

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

Some 390 first year students enrolled at the beginning of 1965 for the degree of Bachelor of Economics, an increase of more than 40 per cent over the first year enrolments of the previous year. Total

student enrolments in the faculty rose to 688. In addition a large number of students from the faculties of Arts and Law took subjects in the faculty.

The faculty moved into permanent premises early in 1965, as the east wing of the Menzies Building was completed. Owing to building delays, accommodation difficulties were experienced in the early weeks of the first term but these problems were soon overcome and the faculty enjoyed the luxury of having its staff together as a consolidated unit once again.

After becoming accustomed to having a few spare rooms available during the year the last few months of 1965 brought the realization that accommodation difficulties were far from over and that 1966 would see a recurrence of the early accommodation difficulties. How and where the staff required to handle the high student intake and the rapidly rising student numbers in the later years of the courses are to be accommodated is a problem which is once more plaguing the faculty.

Despite recruitment difficulties there was a steady expansion in staff during 1965. Most of these appointments were from recent graduates but a further professor of Economics (Professor Maureen Brunt) was appointed.

Several additional third year units were added in order to provide an increase in the range of topics available to students and in order to restrict the size of the rapidly growing third year classes.

Regular staff seminars were held at Monash during the year in co-operation with the University of Melbourne. A number of these were conducted by overseas visitors.

A two-day conference on operations research was held at the University during the second term vacation. This conference was conducted in co-operation with the Operational Research Society of Victoria and the Statistical Society of Australia. With an attendance of 220 it proved to be a great success.

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

The passing of the Faculties Statute during the second half of 1965 made possible the formal establishment of an elected faculty board, and the appointment of a full-time dean, and a faculty secretary. The board includes, besides its University members, representatives of the Minister of Education, the Director of Catholic Education, the Independent Schools, and the Melbourne University Faculty. Until the board was established, a steering committee, appointed by Council, regulated the affairs of the faculty.

The recruitment of staff has proceeded rapidly, and the number and quality of the applicants for vacancies has, so far, been very

satisfactory. Five new academic appointments were made for 1965, including that of Associate Professor E. A. Morey. Eight further appointments have been made for 1966, including that of Professor S. S. Dunn. Professor Dunn has been Assistant Director of the Australian Council for Educational Research, and is especially interested in the problems of Measurement in Education.

The faculty moved into the top two floors of the east wing of the Menzies Building in third term, and found its new quarters well suited for its needs. They will be fully adequate for 1966 but the pressure of numbers will make additional accommodation necessary in 1967.

The full-time course for the Diploma in Education continued. 117 students enrolled, including a number who had completed their first degree at Melbourne and other universities. The course was opened to part-time students, and 31 enrolled on this basis. A course for the degree of Bachelor of Education has been instituted, and 19 candidates were enrolled. The number of subjects available in this course will be increased in 1966. Regulations for the degree of Master of Education have now been approved, and it is hoped that several candidates will be enrolled for higher degrees.

Early in 1965, the dean was granted the opportunity of a short period of overseas travel to visit a selected group of university departments and faculties of Education in Canada, the U.S.A. and the United Kingdom. He found that the trip was of great value in making contacts with a number of those institutions which are facing problems similar to those confronting us at Monash.

Members of the faculty have taken a full share in professional conferences such as those held by the Australian College of Education and by A.N.Z.A.A.S., and have addressed many meetings of educational bodies in Victoria and other States. A number of distinguished overseas scholars have visited the faculty and made a valuable contribution to its work.

The research activities mentioned in last year's report have continued, and a new enquiry into the value of programmed instruction in certain areas of study has been begun. As the staff increases, it is hoped that there will be a rapid expansion in the number and variety of research projects. Preliminary steps are being taken to organize a Child Study Centre, to begin a project to evaluate the effectiveness of the new P.S.S.C. physics course, to plan and to assess the value of the wider use of visual aids for teacher training, and to study the difficulties encountered by Asian students in this University. It is also planned to study the effect of the restricted opportunities for play, which are available to young children in multi-storey housing developments, and to make a comparative study, on an Australia-wide basis, of the varying types of secondary schools which are now taking shape.

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

The faculty continued its growth in 1965 with 131 students enrolled in first year, (an increase of 14), and 134 students enrolled in second, third and fourth years, (an increase of 77). The far larger numbers coming forward into later years has been pleasing, though exposing the problems arising out of temporary location of some laboratory equipment in areas designed for different purposes. This situation was, however, already showing signs of improvement by the end of the year with the completion of stage II of the heavy laboratory block, the areas here being designed for servicing workshops, production science, engine dynamics, thermodynamics and heat engines, but being used, in the first instance, for fluid mechanics and applied mechanics as well. Stage III of the heavy laboratories (structures, concrete, soil mechanics, materials science, and related studies) was near completion at the end of the year, and will enable the department of Civil Engineering to set up their laboratories in good condition with a fine structural testing floor which has access beneath it for jacks and other equipment. The block of three lecture theatres to the east of the concourse would have made better progress if it had not been for the bankruptcy of the original contractor.

Early in the year the first 3 Bachelor of Engineering degrees were awarded. Enrolments for higher degrees increased to a total of 41, about two-thirds of these being in the departments of Chemical Engineering and Electrical Engineering. The list of publications of members of staff indicates that research activity is growing, even though so much of staff members' time is still taken up with development of facilities. Numerous research colloquia have proved very successful, and sometimes controversial, and have attracted many, as visitors and participants, from outside the University. The academic staff actually taking up their positions increased by 9 to a total of 37. During the year the establishment of laboratory managers was increased from one to five, and progress was made to fill the positions in the departments of Chemical, Civil, Electrical and Mechanical Engineering.

During the year plans were implemented to mount courses at post-graduate level in fields of special interest to industry and with industry's support. The advance information for the first of such courses (noise and vibration studies, to take place in February and March, 1966) was widely distributed before the end of the year.

Professor D. G. Lampard visited the U.S.A. for a short period to be present at Los Angeles for the official presentation to him of the Sperry Distinguished Achievement Award by the Instrument Society of America. He received a gold medal and a cash prize, shared with an officer of C.S.I.R.O., awarded in recognition of important work

on the theory and development of a new standard capacitance of extreme accuracy that has achieved world recognition.

The school of Engineering continues to house the University computers alongside the faculty's analogue computer facilities. (The rapidly increasing pressure of demand for using the analogue computers is gratifying: a fire in the ventilation trunking did, however, interrupt proceedings at one stage, though doing little serious damage.) By the end of the year the department of Geography was starting to move out, the faculty of Law taking over the area occupied by Geography until such time as their own building is ready.

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

1965 marked a number of important steps in the development of the faculty of Law. The Rules of the Council of Legal Education were amended to recognize the Monash LL.B. degree for the purpose of qualifying for admission to practise as a barrister and solicitor of the Supreme Court of Victoria. *The Legal Profession Practice Act* was amended to provide for Monash representation on the Council of Legal Education. The faculty of Law and the Law faculty board held their first meetings under the new faculty statute. The Sir John Latham Professor of Law was appointed and assumed his duties during the year. Four new law subjects, open to students in their second and later years, were established and taught in 1965; and senior staff were appointed to provide for the establishment and teaching of the remaining seven subjects required to be taught in the course for the degree of Bachelor of Jurisprudence. In all 8 new senior full-time appointments were made for 1966, and 5 junior appointments. Two teaching fellows resigned to take up lectureships in other universities. Two of the senior appointments deserve special mention. We are pleased to have with us, as a visiting teacher for two years, Mr. Gerald Dworkin, who is reader in Law, London School of Economics. We are fortunate also that Mr. W. T. Charles, B.A., LL.B. (Melb.), Barrister-at-Law, will be joining the faculty to take responsibility for the establishment of the moot court programme. Mr. W. T. Charles is at present the Honourable Mr. Justice Charles, Senior Puisne Justice of the High Court of Zambia and formerly a Justice of the High Court of Western Nigeria.

At the beginning of 1965, in the confident belief that the planning and construction of a law school building would be possible during 1965 and 1966, the maximum possible number of first year students was admitted to the law school. The number of students enrolled for first year courses (including some second year students repeating first year subjects) was more than 200. Shortly after the beginning

of first term, however, it was learned that no accommodation designed for law could be available before 1968 at the earliest. For much of the year possible ways of providing temporary accommodation which would permit the law school to continue to grow, even if at a reduced rate, were explored. A series of plans was produced to provide for various temporary expedients which seemed to be possibilities. Finally temporary accommodation was provided in a part of no. 1 engineering building and the law school office staff and part of the academic staff will move into new temporary quarters in January, 1966. The enrolment of first year students was reduced to 150 for 1966 to prevent gross overcrowding which would otherwise occur in the school's temporary quarters before proper accommodation could be provided. If it becomes clear that a law school building can be available for use by the beginning of 1968, it should become possible to resume the upward trend of first year student numbers.

Development of the law library in the first floor of the Hargrave Library has continued under the guidance of Emeritus Professor F. R. Beasley. Only 116 readers' seats are provided on that floor, and an overflow reading area is planned, on a temporary basis, in part of the engineering building occupied by the law school. Additional seats can be provided in this way to make minimum facilities available to the 430 (approx.) law students who will be enrolled in 1966, and further seats for numbers up to a maximum of 650, and for whom provision must be made until the law library is built.

Messrs. Eggleston, McDonald and Secomb were appointed, at the end of 1965, as architects for the construction of a law school building and planning of the building is proceeding.

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

Buildings

On the Campus: During the year the six-storey stage II medical school building with additional two-storey areas was progressively occupied. The first stage of the central animal house was finished in December. Building of the bio-medical library and the link across to science proceeded and occupation will be possible before first term starts in 1966.

Monash University Hospital: planning is now going forward with the aid of a grant from the State Government. A Professional Planning committee was formed by Council and the Hospitals and Charities Commission and this has met weekly since August 16. Approval by Council has been given for the secondment of Professor Dudley for a year to this committee in an almost full-time planning

capacity. It is envisaged that the hospital, to be built on the campus and next to the medical school, will ultimately be at least 1,000 beds.

Alfred Hospital: A grant in November of £204,165 following Australian Universities Commission recommendations will provide for extensions to the medical school. One floor of 10,000 square feet will be used for the department of Surgery and accommodation for 10 students in residence. In addition a further 40 study area places and extensions to the library will now be possible.

A grant of £25,000 from the Wellcome Foundation to the departments of Microbiology, Medicine, Surgery and Pathology will allow for an animal house of about 2,000 square feet in these building extensions.

Prince Henry's Hospital: The Australian Universities Commission recommendation of a grant for clinical facilities in a new block has been in part approved in November by the Federal Government (£39,500 of the £165,260 recommended). In collaboration with the Hospital planning is proceeding on a building of 8 floors of which the University will occupy the whole or parts of five floors. This facility urgently needed will provide library, study area, teaching rooms and students residence quarters.

Queen Victoria Hospital: A grant of £138,430 by the government in November on the Australian Universities Commission's recommendation will allow for a new building to house the antenatal clinic and labour wards. From this grant and through bridging finance provided by the Hospitals and Charities Commission the new department of Paediatrics, contiguous with the department of Obstetrics and Gynaecology, was built during the year and occupied in November. There is also provision for future teaching rooms to be part of the two new paediatric wards which the hospital is planning.

Fairfield Hospital: Our students spend two weeks in residence here and a small grant of £2,000 will allow renovation of domestic quarters which will be put to this use.

Staff

There are (December 31, 1965) the following staff in the faculty:

Academic	
full-time	79
part-time	103
Technical	128
Clerical	46

From the beginning of the year all clinical staff appointments were aligned with standard university designations. The terms first, second and third assistant have been abolished.

During February Professor A. C. L. Clarke took up his position at Queen Victoria Hospital as foundation professor of Paediatrics.

In October Dr. A. W. Linnane was promoted to the second chair in the department of Biochemistry.

Students

Pressures to enter the faculty continue to increase. For the 150 places available at Monash and 180 available at Melbourne University there were 822 qualified applications. This has resulted in a rise in the cut-off point of acceptance arrived at by aggregating the three best subjects at any one matriculation attempt. For this year an average of 67% or better was required.

The students in their various years are as follows:

1st year		151
2nd year		128
3rd year		111
4th year		67
5th year		31
B.Med.Sc.	3rd year	4
	4th year	1

Teaching

The development of television as a teaching aid in the University has continued in the faculty where the embryonic department of audio visual aids is situated. The officer-in-charge (Mr. E. Snell) has provided closed circuit facilities for a number of demonstrations in physiology, and with the ordering of video tape and authority to employ two technicians next year, a considerable advance can be expected.

Curriculum

A standing committee of the faculty board with the dean as chairman has been appointed to keep under continuing review the curriculum.

Approval was given early in the year to the curriculum of the first three years of the medical course by the Medical Board of Victoria. The curriculum for the final three years has the authority of the faculty professorial board of Council (December 10, 1965) and has now been directed to the Medical Board of Victoria. The view has been accepted in this Faculty, as in most medical schools, that the six year medical course can provide in the main scientific principles and that the vocational and technical aspects belong in the main to the hospital years as a postgraduate study.

Research

The occupation of the various new buildings, the recruitment of staff and the accumulation of equipment has led to an extensive

research programme in all departments. This has been aided very considerably by grants for research, and includes £2,500 (Wellcome Trust for animal house, Alfred Hospital).

Publications during the year are listed on pages 34-51 of this report — in all, 98 items indicating the areas in which medical and biological research is at present conducted in the faculty.

Affiliation

On December 23, an agreement was signed by representatives of the University and the Baker Medical Research Institute affiliating the two institutions.

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

During 1965 Professor K. C. Westfold resigned his chair of Applied Mathematics to take up appointment as full-time dean of the faculty. Professor P. D. Finch became acting dean during the absence on sabbatical leave of Professor K. C. Westfold. Four new chairs were filled during the year, one in the department of Chemistry and three in the department of Mathematics. From 1966 second, third and fourth year subjects will be offered in Mathematical Statistics, and Psychology will be offered as a first year subject in the faculty of Science, in addition to the course which is at present offered in the faculty of Arts.

Department of Chemistry

Further increases in staff and broadening of interests within the department made the time ripe for some reconsideration of the content of the chemistry courses in the various years. Changes were introduced particularly in respect of the increasing of the inorganic chemistry content of courses.

A major development was the appointment of Dr. J. M. Swan to the chair of Organic Chemistry. He will take up this appointment from the beginning of 1966 and this is expected to lead to a broadening of the activities in the area of organic chemistry.

Two Ph.D. degrees were awarded during the year — to Dr. H. G. Ang and to Dr. P. J. Black. Their work was in the inorganic and spectroscopic areas respectively.

Grants were awarded by the ARGC for projects in crystallography, inorganic chemistry, and microwave spectroscopy. An AAEC contract for studies on dissolution of crystals and a Wool Board award for inorganic chemical research have come to the department. These are just one manifestation of the general expansion of graduate school activities.

Department of Botany

Much of 1965 was spent in the details of assembling staff and planning laboratories to house them. The year began with the staff numbering one, and ended with 13, 5 of whom are teaching staff. From January to April we were guests of Mathematics, and thereafter housed in 2 laboratories of the Biochemistry department. Up till July plans were being developed to occupy an area in the Central Science block and tenders had been received, when the space was re-allocated to Chemistry. Planning began then on housing the department temporarily in the Medical block. This space is now ready for occupation.

The department assumed responsibility for teaching Botany to Biology I students in the 3rd term, and gave a course of 21 lectures (repeated) and 4 weeks of practical classes. An equivalent proportion of the final examination, both theory and practical, was also operated by the Botany department.

Throughout the year our research effort has been hampered by limited space and the need to buy every item of apparatus, but each staff member, as he has arrived, has begun assembling equipment, and all are now at work. Mr. Lumley (STF), who has been here longest, has actively followed his research for a Cambridge Ph.D. on the physiology and histochemistry of phloem, and spent a month in Canberra using the controlled environments in the Phytotron. Dr. Churchill, who arrived towards the end of the year, has launched a scheme for mapping the distribution of all the species of plants in Victoria, and has begun the survey work for his studies of Quaternary Ecology.

Professor Canny attended the meeting of the International Biological Programme in Canberra in March, and gave an invited paper at the Gordon Conference on "The design of biocides and inhibitors" at Tilton, N.H. in June. During this latter trip, he also attended the meeting of the Canadian Society of Plant Physiologists at Fredericton. Mr. Lumley and Professor Canny attended the ANZAAS meeting in Hobart.

Department of Mathematics

Professor K. C. Westfold resigned his chair of Applied Mathematics and the chairmanship of the department to become full-time dean of the faculty. Professor G. B. Preston is now chairman of the department. Professor R. F. E. Van der Borgh was appointed to the second chair in Applied Mathematics and Professors Z. Janko and J. B. Miller were appointed to the second and third chairs in Pure Mathematics. Professor P. D. Finch became acting dean during the full-time dean's sabbatical leave.

At the request of the Mathematical Association of Victoria Mr. G. C. Smith and Dr. G. A. Watterson gave a series of about twenty

lectures to secondary school teachers. About 120 teachers attended the course which gave an introduction to the new 5th and 6th form syllabus for school mathematics. Members of the department were active in the formation of the Victorian School of Mathematics Research Foundation and the chairman of its Interim Council is Mr. G. C. Smith.

A number of papers by members have been published in various journals and studies continue on a variety of topics including the fields of Algebra, Functional Analysis, Elasticity, Astronomy, Mathematical Statistics, and Genetics.

Department of Physics

Research and postgraduate activities have continued to expand. The number of postgraduate research students reached 45. A particular feature has been the installation of a large 15", 35,000 gauss, Varian electromagnet. The design of its installation allows its employment in up to six concurrent projects including studies of nuclear magnetic resonance, electron spin resonance and magnetostriction.

Work was also begun on the conversion of the former faculty club dining room into a laser laboratory and a fourth year student laboratory.

Another feature was the development of an ultra-high vacuum evaporator for producing clean surfaces or pure thin films for use in optical and superconductivity studies.

During 1965 a course was arranged in the department to familiarize about 300 teachers with the new matriculation syllabus in Physics. Members of the department, as in the case of the 1964 leaving courses, again played a leading role in the proceedings.

The department benefited very considerably from a six month visit by Dr. J. Hatton of the Clarendon Laboratory, Oxford. Besides delivering postgraduate lectures on thermodynamics, Dr. Hatton initiated work on the effects of high pressures and low temperatures on electric resistivity. The equipment he has built can develop pressures up to 8,000 atmospheres at temperatures near absolute zero.

The department collaborated with the ABC in the production of another set of T.V. programmes in the 'University of the Air' series, this time on "Einstein's Theory of Relativity".

Members of the department were involved in the organisation of the International Conference on Electron Diffraction and the Nature of Defects in Crystals held in Melbourne in August.

The Ian Potter Foundation awarded the department a grant of \$10,400 for the purchase of a Lang X-ray topography camera. This will be used to extend the electron microscope studies of crystal defects.

Members of the department spent study-leave variously in the Physics departments of Sheffield University, the University of Notting-

ham and the University of Florence. This resulted in valuable feedback of information on current research and undergraduate teaching overseas.

Two postgraduate students who successfully completed their Ph.D. degrees were awarded postdoctoral fellowships at Harwell and the University of Bristol, respectively.

Department of Psychology

The department of Psychology was established in January, 1965, when the chairman (Professor R. H. Day) took up duties with two staff. A sum of \$10,000 had been made available during 1964 for equipping the department in preparation for the first year.

The following appointments were made late in 1964 for commencement of duties in 1965:

Mr. M. B. Macmillan	Senior Lecturer
Dr. A. G. Worthington	Lecturer
Mr. G. von Sturmer	Senior Teaching Fellow
Mrs. L. P. Pasieczny	Secretary

During 1965, Mr. A. D. Perriment (lecturer) was appointed and commenced duties on October 1. A technical officer was appointed in August, 1965. In addition Mr. W. R. Webster (senior lecturer) was appointed to commence duties in 1966.

One subject (Psychology IA) in the faculty of Arts was taught in 1965. The enrolment was 200 out of about 350 applicants. During the year preparations were made for Psychology I (Science) and Psychology IIA (Arts).

During January-June the department was temporarily housed on floor 1, Humanities building pending completion of quarters on floor 8 and 9 of the east wing which were occupied in July. At the request of the Vice-Chancellor space consisting mainly of staff accommodation on floor 8 was made available to another department. Following discussions with the dean of Medicine, two small laboratories and four staff rooms in the medical area were acquired for teaching and research in physiological and comparative psychology.

Two research students were appointed during the year and all members of staff initiated research projects. The Commonwealth Research Grants Committee made \$19,680 available to Professor R. H. Day and Mr. W. R. Webster (since appointed) for a project concerned with physiological correlates of behaviour.

Department of Zoology and Comparative Physiology

Recruitment of high grade staff has continued. The department is now the centre of a wide range of research interests including fields such as: comparative physiology of water metabolism; physiology

and ecology of social insects; physiology of molluscs; freshwater ecology; vertebrate palaeontology; molecular genetics; chromosome mechanics; experimental cytology; experimental embryology; and reptilian, avian, and mammalian physiology, ecology, and behaviour. This has the advantage that senior students are stimulated by the diverse ideas of men who are actively engaged in a wide spectrum of interests.

After five years the department now offers a comprehensive training in zoology that compares favourably with that offered anywhere. The only major field not yet covered is cell physiology. Continuing established policy, it is hoped that this gap will be filled as soon as additional teaching positions are made available by the increased intake of students.

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

By the end of 1965 the University library had grown to approximately 200,000 volumes. 4,740 periodicals were being currently received.

The University library is now operating in five major units: the main library (136,000 volumes), the Hargrave Library for the fields of physical science and technology (30,000 volumes) the bio-medical library on the Monash campus (14,000 volumes) and the law library (14,000 volumes). In addition the bio-medical library has sub-branches at the Alfred Hospital (5,000 volumes), and at the Queen Victoria Hospital (800 volumes). Small collections of books are also located at some of the other hospitals (Prince Henry's, Fairfield, Royal Park).

Regrettably, the only major building development during the year was the erection of the very limited first stage of the bio-medical library (4,000 square feet). Pending its move into this new building, the bio-medical library continued to provide service in the small temporary area in the Anatomy department. It is hoped that the greater space available and the incorporation of biology material previously held in the Hargrave Library will materially improve the service, although it is clear that within a year space for both books and readers will again be at a premium.

Loans for the year were as follows:

	<i>Staff</i>	<i>Student</i>	<i>Total</i>
Main Library	16,684	96,958	113,642
Hargrave Library	9,860	17,956	27,816
Bio-Medical Library			
(a) Monash Campus	7,912	6,145	14,057
(b) Alfred Hospital	4,120	2,761	6,881
(c) Queen Victoria Hospital	357	277	634

A welcome additional grant for staff salaries was made towards the end of the year and this will enable the staff to be increased to a probable 105 at the beginning of 1966.

Xerox services were again heavily used, producing 61,620 prints. Supplementing the library's own facilities, the Docustat units have continued to be heavily used by students.

We must again record our debt to other libraries, from whom we borrowed 7,089 items, lending in return only 1,264.

The library has again been fortunate in 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

This report, like those which have preceded it and no doubt those which will follow it for many years to come, must record again the pressure of student numbers upon the Victorian universities. Even when La Trobe University opens its doors in 1967 it is clear that the pressure will continue unabated since the increase in university places is not keeping pace with the numbers seeking to enrol. At Monash, in spite of the unstinted efforts of all concerned, it is clear that the Interim Council's realistic goal of capacity for 12,000 students in 1970 will not be reached until long after that year, and actual student intake lags behind all predictions. In 1964 the actual enrolment fell short of the total anticipated in the Australian Universities Commission second report (page 9) by 307; in 1965 the gap was 787, a total of 4,283 being enrolled as compared with the Commission's prediction of 5,070. We can only use again a sentence that appeared in last year's report — "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."

Of the total student enrolment of 4,283 in 1965, 3,906 were undergraduates, 148 were studying for the Diploma in Education and 19 for the degree of Bachelor of Education; 210 were postgraduate students. The intake of new student was 2,006 of whom 66 were postgraduate students.

Details of enrolment are given in the accompanying tables.

Distribution of Students by Faculty, Year, Sex, and Full- or
Part-time as at the beginning of the Academic Year

Faculty & Year	FULL-TIME			PART-TIME			TOTAL		
	M	F	T	M	F	T	M	F	T
Arts — not for degree	—	—	—	4	1	5	4	1	5
I	280	423	703	172	107	279	452	530	982
II	161	223	384	34	25	59	195	248	443
III	114	117	231	9	12	21	123	129	252
IV	10	9	19	—	—	—	10	9	19
Total Arts	565	772	1337	219	145	364	784	917	1701
Econ. & Pol. — not for degree	1	—	1	3	4	7	4	4	8
I	253	50	303	82	5	87	335	55	390
II	148	15	163	15	1	16	163	16	179
III	76	6	82	15	3	18	91	9	100
IV	9	2	11	—	—	—	9	2	11
Total Econ. & Politics	487	73	560	115	13	128	602	86	688
Engineering I	130	1	131	—	—	—	130	1	131
II	67	1	68	—	—	—	67	1	68
III	48	—	48	—	—	—	48	—	48
IV	18	—	18	—	—	—	18	—	18
Total Engineering	263	2	265	—	—	—	263	2	265
Law I	154	22	176	16	2	18	170	24	194
II	95	13	108	—	1	1	95	14	109
Total Law	249	35	284	16	3	19	265	38	303
Medicine I	126	25	151	—	—	—	126	25	151
II	110	18	128	—	—	—	110	18	128
III	93	18	111	—	—	—	93	18	111
B. Med. Sc. IV	4	—	4	—	—	—	4	—	4
B. Med. Sc. V	61	6	67	—	—	—	61	6	67
Total Medicine	422	71	493	—	—	—	422	71	493
Science — not for degree	—	—	—	1	—	1	1	—	1
I	180	52	232	14	6	20	194	58	252
II	132	30	162	—	1	1	132	31	163
III	35	6	41	—	—	—	35	6	41
IV	18	1	19	—	—	—	18	1	19
Total Science	365	89	454	15	7	22	380	96	476
Gross Total Undergraduate	2351	1042	3393	365	168	533	2716	1210	3926
Adjustment for students enrolled in more than one course	19	1	20	—	—	—	19	1	20
Nett Total Undergraduate	2332	1041	3373	365	168	533	2697	1209	3906
Dip. Education	71	46	117	24	7	31	95	53	148
Bach. Education	—	—	—	14	5	19	14	5	19
Total Education	71	46	117	38	12	50	109	58	167
Master Ph.D.	46	21	67	32	8	40	78	29	107
Ph.D.	92	11	103	—	—	—	92	11	103
Total Post-graduate	138	32	170	32	8	40	170	40	210
Total Students	2541	1119	3660	435	188	623	2976	1307	4283

OVERSEAS STUDENT ENROLMENT
 Distribution of Overseas Undergraduate Students by Country,
 Faculty, and Sex.

Country of Permanent Home Residence		Arts	Economics and Politics	Engin- eering	Medicine	Science	Law	Total
New Zealand	M	—	2	—	—	—	—	2
	F	1	—	—	—	—	—	1
	Total	1	2	—	—	—	—	3
Great Britain	M	1	—	—	—	—	—	1
	F	—	—	—	—	—	—	—
	Total	1	—	—	—	—	—	1
U.S.A.	M	—	1	—	—	—	—	1
	F	—	—	—	—	—	—	—
	Total	—	1	—	—	—	—	1
Burma	M	1	—	—	—	—	—	1
	F	—	—	—	—	—	—	—
	Total	1	—	—	—	—	—	1
Ceylon	M	1	—	—	—	—	—	1
	F	—	—	—	—	—	—	—
	Total	1	—	—	—	—	—	1
Fiji	M	—	—	1	2	1	—	4
	F	—	—	—	—	—	—	—
	Total	—	—	1	2	1	—	4
Hong Kong	M	—	3	6	9	10	1	29
	F	5	—	—	1	1	—	7
	Total	5	3	6	10	11	1	36
Indonesia	M	—	3	5	1	—	—	9
	F	3	—	1	1	—	—	5
	Total	3	3	6	2	—	—	14
Malaysia	M	8	23	16	47	19	2	115
	F	11	7	1	11	8	—	38
	Total	19	30	17	58	27	2	153
Sth. Vietnam	M	1	2	8	4	1	—	16
	F	—	1	—	—	—	—	1
	Total	1	3	8	4	1	—	17
Thailand	M	—	4	4	—	1	—	9
	F	—	7	—	—	1	—	8
	Total	—	11	4	—	2	—	17
Macao	M	—	—	—	1	—	—	1
	F	—	—	—	—	—	—	—
	Total	—	—	—	1	—	—	1
Iran	M	—	—	—	—	—	—	—
	F	1	—	—	—	—	—	1
	Total	1	—	—	—	—	—	1
	M	12	38	40	64	32	3	189
	F	21	15	2	13	10	—	61
	Total	33	53	42	77	42	3	250

8. STUDENT FACILITIES

Student Residence

Of all the problems facing the University, that of securing living accommodation for students is, together with the accompanying problem of public transport facilities, among the most intractable. Progress in building halls of residence is recorded on page 4, but the 273 students so provided for in 1965 were only a small proportion of 4,199 enrolled for courses: the 519 places that will be available in 1967 will represent only a slightly greater proportion of enrolments expected in that year. Proposals for an increased number of Halls of Residence and for student flats, for which there is a demand, were included in the University's submission for the 1967-9 triennium, but with what result is not yet known. It is also hoped that at some time in the future a part of the problem may be met if plans being made by the various churches mature for the use of land which they have bought near the University. Meanwhile the search continues for ways in which accommodation may be provided.

Clearly, however, for a very long period ahead, most Monash students apart from those whose homes are in Melbourne will continue to live in student lodgings — more and more of them travelling long distances and using up valuable time, energy, and money as the area in which lodgings are taken perforce expands. Already many students live too far from the University whilst others, in order to avoid the cost and other disadvantages of inadequate public transport, find lodgings which are, in the opinion of the University, far from satisfactory.

Health Service

Dr. C. E. Sawrey commenced duty as director of the health service on March 1, 1965. He had the assistance of the medical counsellor who is on loan from the Department of Health under a continuing arrangement.

1,095 first year students were medically examined for the University by doctors of the school medical service.

Visits to the health service totalled 5,787 for the year. Immunization remains an important part of the work done by the service. The scope of the service was expanded during 1965 by the giving of lectures to various members of staff on important aspects of first aid and emergency resuscitation.

Bookshop

During the year the Monash University bookshop came into existence following the termination of the agreement with a commercial bookseller to provide facilities in the University. Already well established, the bookshop not only provides essential services for students

and staff, but will it is hoped become increasingly known over a wide area around the University.

Careers and Appointments

A careers and appointments office was established early in the year and has quickly begun its work of helping students in their choice of careers and in their transition to employment. Contact was made with a considerable number of employing organizations and the field is rapidly widening. A careers directory for engineering students was published jointly with the Universities of Sydney and Melbourne and the University is sharing with all Australian universities in the preparation and publication of a more ambitious graduate careers directory. There is a close working arrangement with the Melbourne University Appointments Board which is very valuable.

Student Counselling

The student counselling service had a promising first year in 1965 in spite of the fact that this type of service takes some time to become known and accepted. Over 500 students sought help with problems — mainly vocational, financial, or study problems, and those related to adjustment to university life. In the belief that some such problems can be prevented, a three-day residential conference with 70 students and 15 members of staff was held. This attempted to confront the problems of transition to university life, enabling staff to understand the problems and students to cope better with their new environment. The experiment was very worthwhile and will be repeated on a larger scale in 1966.

It is intended that research into both the remedial and the preventive aspects of the work will increasingly be undertaken.

Chaplaincy Centre

During 1965 the temporary Religious Centre was in daily use for religious services of the various denominations, discussion groups and interdenominational activities. Sunday services were of particular value to students resident in the University and the chaplains report an increasing amount of pastoral work. Some student camps were also held.

An appeal by the churches for funds to build an interdenominational centre has received good support and it is hoped that building may commence in 1966.

9. STUDENT ACTIVITIES

By first term, the Union building (completed June-September, 1964) had become well accepted as the focal point of student activity. For perhaps the only year in its present or future existence, the build-

ing itself was large enough to accommodate the number of students and staff at the University for the wide range of services and activities which it is the function of a Union to provide.

The Orientation programme, helped considerably by the fact of having the Union building as a base for operations, was clearly the best so far held. The increased academic content of the programme gave a more balanced introduction to University life.

During the year, daily use was made of the Union Hall for meetings, films, plays, revues and concerts. University concerts brought a number of leading artists to perform at Monash. The Monash Players performed "Volpone", "Waiting for Godot", and "A Taste of Honey", and a new group, the Monash Staff Group, played "Lysistrata", "No Exit", and "The Maids".

The Film Group, with a wide range of 16mm and 35mm films, and the Russian Club, organized a consistently good series of films throughout the year.

The Students' Representative Council, besides carrying out its representative function, took particular interest in educational affairs, at both secondary and tertiary levels. A newspaper, "Tumbriel", which was circulated to all secondary schools in second term, with the aim of introducing matriculation students to thoughts about university education, was well received by the schools. Many reports, meetings, and recommendations were concerned with such subjects as the library, orientation, the compulsory language subject in Arts, the Martin Report, the Papua/New Guinea University, and teacher training. Very well attended teach-ins on Vietnam and Education were staged in the Union building. As in previous years, Commencement, Graduation, and Recovery Balls were held and a revue played for a week.

The student newspaper "Lot's Wife", with a much improved standard of production and layout, appeared regularly during the year.

The formation of another seven clubs took the number of non-sporting clubs and societies to fifty. Although the range of activities covered is very wide, the percentage participation by students seems to have dropped somewhat, compared with the days when the University was smaller and more personal.

During 1965 the Union in general, and the Sports Association in particular, have benefited from the appointment of Mr. D. R. Ellis as deputy warden/sports administrator. Monash sporting teams have now become an established part of metropolitan sporting life, and are gradually achieving promotion to higher grades in most sports. There was also a marked increase in the number and type of inter-faculty contests.

Intensive use was made of the new gymnasium for fencing, badminton, basketball, boxing, judo, and body-building, and Monash was host for Intervarsity boxing. In October the squash courts and a

small gymnasium were completed and the squash courts were well used in November and December, in spite of the hotter weather.

10. FINANCE

Funds for expenditure on recurrent purposes during the year ended December 31, 1965, were available from the following sources:

	£ 000's
State Government Grants and Academic Fees	2,701
Commonwealth Government Grant	1,461
	4,162

The legislative sanction for the Commonwealth contribution is contained in the *Universities (Financial Assistance) Act* No. 68 of 1963 as amended by Acts Nos. 129 of 1964, 40 of 1965 and 101 of 1965. The above amounts include the funds required to pay increases in academic salaries retrospective to January 1, 1964 (arising out of the enquiry conducted by Mr. Justice Eggleston in 1964), and to provide for specified types of recurrent expenditure at teaching hospitals as from July 1, 1965.

In addition to the above amount, a Commonwealth recurrent grant of £7,895 was received for the purpose of providing financial assistance to the two Halls of Residence in use during the year.

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

	£ 000's
Buildings, Equipment, and Furniture —	
On University site, other than Halls of Residence	4,370
Halls of Residence	1,110
Teaching Hospitals	385
Computing Facilities	100
Special Research	319
	6,284

The legislative sanction for the Commonwealth portion of each of these amounts (i.e. one-half) is contained in the *Universities (Financial Assistance) Act* No. 68 of 1963 as amended by Acts Nos. 40 of 1965 and 101 of 1965, and in the *States Grants (Research) Act* 1965, the last-named enabling the Parliament to give effect to the recommendations of the Australian Research Grants Committee.

As from January 1, 1965, the normal academic fee payable by a full-time undergraduate was £168 per annum, whilst the fees payable by students reading for higher degrees were as follows:

Master	full-time £60 per annum; part-time £30 per annum for the first two years and £7.10.0 per annum thereafter
Doctor of Philosophy	£40.10.0 per annum
Higher Doctor	£75

The following Union fee was payable by all students: full-time £21 per annum; part-time £14 per annum.

The amounts received during the year in response to the appeals for funds for the erection of a Great Hall and a Religious Centre have been suitably invested pending the commencement of construction work on these projects.

The University acquired twenty-four acres of land in Clayton for use by affiliated sporting clubs, and built a block of eight flats in Clayton to serve as temporary accommodation for new members of staff upon arrival in Melbourne. Both these ventures were financed by long-term bank loans.

11. GIFTS AND DONATIONS

The following bequests were received by the University:

£2,000 for the Library from the estate of the late Mrs. Margery Timmins. £1,000 of this amount is to be used for text books on education.

The following grants and gifts were received by the University:

£25,000 from the Wellcome Trust and £250 from Cynamid D.H.A. Pty. Ltd. to the Medical School, Alfred Hospital, for animal house extension to facilitate research.

£12,027.10.0 from the National Heart Foundation apportioned for research as follows: Dr. G. A. Bentley (Physiology) £1,300; Dr. C. L. Gibbs (Physiology) £3,250; Dr. Mollie Holman (Physiology) £3,527.10.0; Dr. D. A. Lowther (Biochemistry) £1,600; Dr. K. H. McLean (Medicine) £2,350.

£6,885 from the Ian Potter Foundation apportioned for research as follows: £4,000 to Dr. G. Ettershank (Zoology and Comparative Physiology) for research into the mechanisms of microclimate stability in desert ants; £1,445 together with four annual grants of £360 to Dr. D. F. Dorward (Zoology and Comparative Physiology) for studies in the biology of the Cape Barren Goose.

£5,400 from the Australian Cattle and Beef Research Committee to Dr. D. Lowther (Biochemistry) for research into the structure and bio-synthesis of connective tissue.

Two gifts totalling £3,571.4.0 from the World Health Organization to the department of Microbiology for the study of mycoplasma pneumoniae as a cause of respiratory illness in south-eastern Asia.

£1,000 from the Thomas Baker, Alice Baker and Eleanor Shaw Medical Research Institute for the departments of Medicine and Surgery.

£500 from the trustees of the William Angliss (Victoria) Charitable Fund to the department of Paediatrics for research, and £500 to the Interdenominational Chaplaincy Fund.

£850 from the Social Science Research Council of Australia towards the research programme on aborigines by Professor F. H. Gruen and Dr. Colin Tatz.

A further £600 for the Library from the trustees of the Joe White Bequest.

£500 from the Felton Bequests Committee to enable further research abroad by Dr. F. H. Hocking of the department of Medicine.

A further £453 from Total Oil Products (Australia) Limited for the Australian Journal of French Studies (department of Modern Languages).

£450 from Monsanto Chemicals (Australia) Limited apportioned as follows: £250 for the department of Chemistry; £200 for the department of Chemical Engineering.

£400 from Mobil Exploration Australia Pty. Ltd. and £100 each from Alliance Oil Management Pty. Ltd. and Delhi Australia Petroleum Pty. Ltd. to assist Dr. K. G. McKenzie (Zoology and Comparative Physiology) in his research on fossil ostracods.

£400 from Mr. K. S. Frearson (Economics) for the purchase of sporting equipment by the University Union.

£250 from A.R.C. Engineering Pty. Ltd. to the department of Civil Engineering.

£250 to the library from the Canadian Women's Club of Victoria.

£250 from the W. C. F. Thomas Charitable Trust for the law library.

£200 to the department of Chemistry from C.S.I.R.O. for special purchases for inorganic chemistry research.

£100 from Merck, Sharp and Dohme (Australia) Pty. Ltd. for the purchase of books for the library of the department of Medicine.

£50 from Abbott Laboratories Pty. Ltd. to the department of Obstetrics and Gynaecology for the purchase of equipment.

£50 from Petroleum Refineries (Australia) Pty. Ltd. for use by the careers and appointments office.

An annual prize of £20 from the Australian Institute of Cost Accountants for students in Accounting and Commercial Law.

£10 for the Library from Dr. W. Kirsop (Modern Languages).

£5 to the Sports Association from Mr. R. Blakemore.

A set of Gould's *Birds of Australia*, valued at £5,750 from Major H. W. Hall to the department of Zoology and Comparative Physiology.

A number of flasks of neon gas from Commonwealth Industrial Gases Limited to the department of Chemistry.

A Sartorius Analytical Balance, valued at approximately £75, from Mr. M. Martin of Canterbury for the department of Chemical Engineering.

A Chancellor's Chair for the Council Room, from Aristoc Industries Pty. Ltd.

In addition to the above, there have been many gifts of books, journals, and other material, some very valuable, to the library and to departmental libraries. The University of Melbourne also lent its valuable Ethnographical Collection for an indefinite period.

The following research grants, recommended by the Australian Research Grants Committee, were approved by the Commonwealth and State Governments.

Investigator	Title of Project	Amount £.
Day R. H. and Webster W. R.	The physiological basis of attentional mechanisms	9,740
Laufer R.	Critical editions of C17 and C18 texts	3,000
Wilson M. G. A.	The black coal industry — 1954-65	690
Snape R. H.	An investigation of the Sydney greasy wool futures market	1,000
Gruen F. H. G.	Multi-sectoral analysis of supply and demand	2,300
Shaw A. G. L.	Governors' policies in Australia 1800-1855	1,476
Sinclair W. A.	The economic growth of Australia 1900-1930	1,660
Roff W. R.	Islam in Malaya	700
Glass Y.	Victorian aborigines health project	3,635
Feith H.	Ideology in Soekarno's Indonesia	1,150
Rankin H. D.	The early cynics	400
Street R.	Spin density waves in metals at low temperatures	11,760
Pilbrow J. R.	Magnetic resonance studies of minerals	1,820
Derbyshire E.	Glaciation and periglaciation	6,470
Brown R. D.	Short lived species — spectroscopy	14,510
West B. O.	Chloro and fluoro substituted compounds	6,500
Dickson R. S.	Organometallic chemistry	500
Gatehouse B. M. K. C.	Crystal chemistry	4,040
Rozvany G. I. N.	Minimum volume synthesis of prestressed plates and other floor systems	4,000
Lampard D. G.	Information coding in the nervous systems	2,700

Investigator	Title of Project	Amount £
Barden R. G.	Surface effects in boiling liquid heat transfer	3,500
Brown R. H.	Plastic deformation and residual stress formation in machining	1,300
Dorward D. F.	Breeding biology and behaviour of the Cape Barren Goose <i>Cereopsis novaehollandiae</i>	955
Canny M. J.	Physiological and structural studies of phloem	5,550
McDonald I. R.	Adrenal function in monotremes and marsupials	4,000
Lee A. K.	Survival of frogs in arid regions	1,240
Burgher H. G. and Catt K. J.	Secretion of human pituitary	10,520
Lowther D. A.	Structural aspects of connective tissues	10,760
Linnane A. W.	Biogenesis of mitochondria	17,880
Bornstein J.	Hormonal control of bone	2,800
Marmion B. P.	<i>Mycoplasma pneumoniae</i>	2,500
Marmion B. P.	Survey of respiratory illness and leukaemia	1,745
Nairn R. C.	Immunological studies	3,200

12. PUBLICATIONS

FACULTY OF ARTS

Department of Anthropology and Sociology

- BECKETT, J. R. — The land where the crow flies backwards. *Quadrant*, IX, no. 4.
- BECKETT, J. R. — Papua's off-shore islands. *New Guinea*, I, no. 4.
- BECKETT, J. R. — Australia's Melanesian minority, political development in the Torres Straits Islands. *Human Organization*, XXIV, no. 2.
- MARWICK, M. G. — Sorcery in its social setting, Manchester University Press, Manchester, xxii + 339, 1965.

Department of Classical Studies

- RANKIN, H. D. — Symbolism in *contus cum malo?* — (Petronius Satirae 56). *Rheinisches Museum*, 107, 361-364, 1965.
- RANKIN, H. D. — Dream/Vision as philosophical modifier in Plato's Republic. *Eranos*, LXII, 75-83, 1965.
- RANKIN, H. D. — Plato's Eugenic Euphemia and Apotheosis in Republic, Book V. *Hermes*, 93 Bd. Heft 4, 407-420, October, 1965.
- RANKIN, H. D. — Taylorised world (356.10) and Platonism. *A Wake News-litter*, N.S. II, no. 6, 11, December, 1965.

- RANKIN, H. D. — Joyce's remove from Aristotle to Plato. *A Wake Newsletter*, N.S. II, no. 4, 10-13, August, 1965.
- RANKIN, H. D. — Another for the census. *A Wake Newsletter*, N.S. II, no. 6, 14, December, 1965.
- RANKIN, H. D. — Poem: elegy for Nestor. *Poetry Magazine*, Sydney, no. 6, 21, 1965.
- BETTS, G. G. — The silence of Alcestis. *Mnemosyne*, S.IV, XVIII, no. 2, 181-2, 1965.
- BICKNELL, P. J. — Aristotle and the Parmenidean One. *In Acta Classica*, no. 7, 109-112, 1965.
- BICKNELL, P. J. — Some missing slaves. *Mnemosyne*, S.IV, XVIII, no. 2, 187-188, 1965.

Department of English

- BEAR, A. S. — Criticism and the popular novel. *Southern Review*, I, no. 4, 45-57, 1965.
- DOUGLAS, D. — Blake's "Europe": a note on the Preludium. *AUMLA*, no. 23, 111-116, 1965.
- MORGAN, MARGERY M. — "Back to Methuselah": the poet and the city, in G. B. Shaw, ed. R. J. Kaufman, Twentieth Century Views Series, Prentice Hall, 130-142, 1965.

Department of Geography

- DERBYSHIRE, E. — The internal constitution of a Tasmanian end moraine. *Journal of Geology*, LXXIII, 377-383, 1965.
- DERBYSHIRE, E. (in collaboration with J. N. Jennings, M. R. Banks, and J. L. Davies) — Glacial map of Tasmania. *Royal Society of Tasmania, Special Publication*, no. 2, 1965.
- JOHNSTON, R. J. — The measurement of a central place hierarchy. *Australian Geographer*, IX, no. 5, 1965.
- JOHNSTON, R. J. — Sales in Australian central business areas: 1956-7, 1961-2. *Australian Geographer*, IX, no. 6, 380-381, 1965.
- JOHNSTON, R. J. — Multi-variate regions: a further approach. *Professional Geographer*, XVII, no. 5, 9-12, 1965.
- LEA, D. A. M. — The Abelam: a study in local differentiation. *Pacific Viewpoint*, VI, no. 2, 191-214, 1965.
- LEA, D. A. M. — The Abelam: shifting cultivators in New Guinea. *Geography Teacher*, V, no. 2, 2-8, 1965.
- RIMMER, P. J. — Patterns and portents: a study of the changes in the status of New Zealand ports in the country's overseas trade. *Proceedings of the 4th N.Z. Geographical Conference*, 1965.
- RIMMER, P. J. — Changes in the status of seaports 1953-63. *New Zealand Geographer*, XXI, 65-72, 1965.
- WILSON, M. G. A. — Port Phillip Bay. Longmans Australian Geographies, no. 24, 40 pp, Longmans Green, 1965.

Department of History

- BOLTON, G. C. — Richard Daintree: a Photographic Memoir, Jacaranda Press, Brisbane, in association with Australian National University, Canberra, 89 pp., 1965.
- GELBER, H. G. — Der Morgenthau Plan. *Viertel jahreshefte fuer Zeitgeschichte*, no. 4, 372-402, 1965.

- POTTS, E. D. — Early 19th century missionary work among Indian women. *Bulletin of the Church History Association of India*, no. 7, 9-16, March, 1965.
- POTTS, E. D. — The progressive profile in Iowa. *Mid-America*, XLII, 257-68, October, 1965.
- POTTS, E. D. — British missionary archives and the Asian historian. *The Journal of Asian Studies*, XXIV, 645-50, August, 1965.
- SHAW, A. G. L. — How world events have involved Australia in the modern world of the twentieth century. *Teaching History*, no. 14, 7-10, September, 1965.
- TURNER, I. A. H. — Industrial Labour and Politics, Australian National University, Canberra, xx + 272, 1965.
- TURNER, I. A. H. — The split in Australian communism, in *The Disintegrating Monolith*, ed. T. H. Rigby, Australian National University, Canberra, 149-164, 1965.
- TURNER, I. A. H. — The parable of 'Voss', in *An Overland Muster*, ed. S. Murray-Smith, Jacaranda, Brisbane, 71-75, 1965.
- TURNER, I. A. H. — Intellectuals in Australian life. *Overland*, Melbourne, 30-32, December, 1965.
- WATERSON, D. B. — Transport in New Zealand, 1900-1930. *Land and Society in New Zealand*, Wellington, 1965.

Department of Modern Languages

French

- LAUFER, R. M. A. — Le heros tragique dans les romans de Roger Vailland. *AUMLA*, no. 22, November, 1964.
- BROOME, P. — Michaux and the exorcism on God. *Australian Journal of French Studies*, II, no. 2, 1965.
- HALL, H. G. — Guarini in Boileau's 'Lutrin'. *The Modern Language Review*, LX, no. 1, 1965.
- HALL, H. G. — The seventeenth century, in section II (French Studies) of *The Year's Work in Modern Language Studies*, XXV, 49-65, 1965.
- RIVERS, W. M. — The Audio-Lingual or Aural-Oral Method. *The Oral-Aural Approach in the Teaching of Modern Languages*, (Proceedings of the first conference of the Modern Language Teachers' Association of New South Wales), 1965.
- RIVERS, W. M. — Tape recorders and language laboratories. *The Secondary Teacher*, no. 103, 1965.
- RIVERS, W. M. — The Colorado experiment in audio-lingual teaching. *Babel*, I, no. 2, 19, July, 1965.

German

- BONYHADY, D. — Tapes and problems. *The Secondary Teacher*, no. 102, February, 1965.
- CLYNE, M. G. and TAENI, R. — Efficient German, Macmillan, 1965.
- CLYNE, M. G. — Migrant languages in schools. *Babel*, no. 27, October, 1964.
- KELLER, E. — Der Unpolitische Deutsche, Francke Verlag, Bern, 1965.
- LIVINGSTONE, R. S. — The world view of Max Frisch. *Southern Review*, I, no. 3, 1965.

Indonesian and Malay

- IDRUS — Cherita2 Pendek Pilipina, Oxford University Press, London, xiv + 177, 1965.

Linguistics

- HAMMARSTROM, U. G. E.—Über die variation der phone. *Phonetica*, 11, 196-201, 1964.
- HAMMARSTROM, U. G. E.—Type et typème, graphe et graphème. *Studia neophilologica*, 36, 332-340, 1964.

Department of Philosophy

- CHOPRA, Y. N.—The consequences of human actions. *Proceedings of the Aristotelian Society*, New Series, LXV, 147-166, 1964-65.
- DEUTSCHER, M. J.—Descartes, in *Early Seventeenth Century Scientists*, ed. R. Harre, Oxford, Pergamon Press, 159-188, 1965.
- DEUTSCHER, M. J.—A note on saying and disbelieving. *Analysis*, XXV, 53-57, January, 1965.
- TIECHMAN, JENNY—A note on incompatible predicates. *Analysis*, XXVI, 57-58, December, 1965.

FACULTY OF ECONOMICS AND POLITICS

Department of Economics

- BENNETT, J. W.—Capital Budgeting, in *The Accounting Frontier*, eds. R. J. Chambers, L. Goldberg, and R. L. Mathews, Melbourne, Cheshire, 127-143, 1965.
- COCHRANE, D.—Australia's economy under scrutiny. *The Banker*, CXV, no. 477, 718-723, 1965.
- FREARSON, K. S.—Recent developments in the theory of economic growth. *Australian Economic Papers*, III, nos. 1 and 2, June-December, 1964.
- FREARSON, K. S.—The nature of economic growth, in *Readings in Australian Economics*, eds. N. T. Drohan and J. H. Day, Cassell, Australia, 1965.
- GRUEN, F. H.—The rural community, in *The Australian Society*, ed. A. Davies, Melbourne, Cheshire, July, 1965.
- GRUEN, F. H.—Some hidden gains and losses of a wool reserve scheme. *Australian Journal of Agricultural Economics*, VIII, no. 2, 181-188, December, 1964.
- ISAAC, J. E.—Employer provision for social welfare, in *The National Income and Social Welfare*, ed. Keith Hancock, Cheshire, 112-126, 1965.
- ISAAC, J. E.—Wage drift in the Australian metal industries. *Economic Record*, XXXXI, no. 94, 145-172, June, 1965.
- ISAAC, J. E.—The federal basic wage—margins case 1965. *Journal of Industrial Relations*, VII, no. 3, 225-249, November, 1965.
- JOY, S.—Transport and communications, in *Chamber's Encyclopaedia World Survey 1964*, George Newnes, London, 1965.
- LITTLE, F. G.—The Martin Report on the Universities. *Journal of Christian Education*, VIII, no. 2, September, 1965.
- MCGREGOR, L.—The development of manufacturing in Australia, in *Readings in Australian Economics*, eds. N. T. Drohan and J. H. Day, Melbourne, Cassell, 1965.
- MCGREGOR, L. Industrial review: Australia, in *Britannica Book of the Year, 1964*, Encyclopaedia Britannica, 1965.
- MCGREGOR, L.—Business review: Australia, in *Britannica Book of the Year, 1964*. Encyclopaedia Britannica, 1965.

- POWELL, A. A. — Post-war consumption in Canada: a first look at the aggregates. *Canadian Journal of Economics and Political Science*, XXXI, no. 4, November, 1965.
- POWELL, A. A. and DILLON, J. L. — An econometric model of retail demand in Santiago de Chile. *Cuadernos di Economia*, Universidad Catolica de Chile, August, 1965.
- SINCLAIR, W. A. — Aspects of economic growth, 1900-1930, in *Aspects of the Australian Economy*, ed. A. H. Boxer, 93-104, Melbourne University Press, 1965.
- SINCLAIR, W. A. — The depressions of the 1890's and the 1930's in Australia: a comparison, in *Readings in Australian Economics*, eds. N. T. Drohan and J. H. Day, 85-92, Cassell, Melbourne, 1965.
- SNAPE, R. H. — International trade, *Aspects of the Australian Economy*, ed. A. H. Boxer, Melbourne University Press, Chapter 4, 1965.
- SNAPE, R. H. — International trade, in *Encyclopaedia Britannica Book of the Year, 1965, Supplement for Australia and New Zealand*, 56-57.
- SNAPE, R. H. and YAMEY, B. S. — Tests of the effectiveness of hedging, *Journal of Political Economy*, LXXIII, no. 5, 540-544, October, 1965.
- WARD, I. D. S. — George Berkeley: his place in economic thought. *Encyclopaedia of the Social Sciences*, Chicago.
- WARD, I. D. S. — New hope in China. *Dissent*, 1965.
- WARD, I. D. S. — Vietnam: a negotiated settlement, in *Vietnam Tragedy*, Monash University Labour Club, Melbourne, 1965.
- WRIGHT, J. C. G. — The economics of Australian industry: a review. *Australian Economic Papers*, III, nos. 1 and 2, 101-112, 1964.

Department of Politics

- DE CRESPIGNY, A. R. C. — Political equality in South Africa and methods of reform. *Australian Journal of Politics and History*, XI, no. 3, 1965.
- FEITH, H. — History, theory and Indonesian politics: a reply to Harry J. Benda. *Journal of Asian Studies*, XXIV, no. 2, 305-312, 1965.
- MARTIN, R. M. — White-Collar Unions in Australia. Monograph No. 5, Australian Institute of Political Science, Sydney, 40 pp, 1965.
- MARTIN, R. M. — Australian trade unionism, 1964. *Journal of Industrial Relations*, VII, no. 1, 77-87, March, 1965.
- MARTIN, R. M. — Class identification and trade union behaviour: the case of Australian white-collar unions. *Journal of Industrial Relations*, VII, no. 2, 131-148, July, 1965.
- MARTIN, R. M. — Australian professional and white-collar unions. *Industrial Relations: A Journal of Economy and Society*, V, no. 1, 93-102, October, 1965.
- MARTIN, R. M. — The A.C.T.U. congress of 1965. *Journal of Industrial Relations*, VII, no. 3, 322-325, November, 1965.
- TATZ, C. M. — Some aboriginal thoughts. *Dissent*, no. 15, Spring, 1965.
- TEICHMANN, M. E. — Armed neutrality. *Australia's Neighbours*, 4-8, July, 1965.
- TEICHMANN, M. E. — The balance of power. *The Philosopher*, I, no. 1, 14-15.
- TEICHMANN, M. E. — Australia and south east Asia. *The Peacemaker*, XXVII, no. 2, p. 4.

- TEICHMANN, M. E. — Some alternative foreign policies for Australia. *The Peacemaker*, XXVII, no. 4, p. 4.
- TEICHMANN, M. E. — Australian Attitudes, *Peace News*, (U.K.), no. 1520, p. 7, August, 1965; reprinted *Sanity*, IV, no. 4, 1965; reprinted *Tharunka*, Penultimate Issue for 1965.
- TEICHMANN, M. E. — American foreign policy. *The Vietnam Tragedy*, Monash Labour Club, Ch. 2.
- WALKER, K. J. — Victorian political chronicle. *Australian Journal of Politics and History*, XI, no. 1, 94-96, April, 1965.
- WALKER, K. J. — Victorian political chronicle. *Australian Journal of Politics and History*, XI, no. 2, 227-230, August, 1965.

FACULTY OF EDUCATION

- BALSON, M. — A critical review of the application of learning theory to programmed instruction. *Australian Journal of Education*, IX, no. 3, 215-224, 1965.
- BALSON, M. — Application of programmed instruction to accounting. *Australian Accounting Student*, XVIII, 25-28, 1965.
- BALSON, M. — Programmed instruction: writing techniques and a review of research findings — Part 2. *Australian Accounting Student*, XVIII, 72-76, 1965.
- BALSON, M. — The Relationship Between Social-Class Membership and Certain Aspects of School Performance and Attitudes Towards Education in the Geelong Area. Monash University, mimeo, 55 pp, 1965.
- BALSON, M. — The evaluation of a programme. *Programmed Instruction Bulletin*, I, 17-22, 1965.
- BALSON, M. — Principles of curricular revision in mathematics. *Vinculum*, II, 4-8, 1965.
- HUNT, F. J. — Institutional status, stability and effectiveness. *Australian Journal of Higher Education*, II, 131-137, November, 1965.
- MOREY, E. A. — Relationships between adolescents and adults. *Proceedings, Conference on Students in Residence*, Adelaide University, February, 1965 — in press.
- MOREY, E. A. — The mothering of young children. Australian Pre-School Association, Victorian Branch, 1965.
- MOREY, E. A. — The Children We Teach. *Proceedings, Conference of Teachers in Special Schools*, August, 1965. Mimeo — Education Department, Melbourne.
- MOREY, E. A. — The retarded child in modern urban society. (Minda lectures on Mental Deficiency Minda Homes), Adelaide, 1965 — in press.
- MOREY, E. A. — Unmarried mothers and their babies. Mimeo, Department of Health, Victoria — Maternal Infant and Pre-school Welfare Division, 1965.
- MOREY, E. A. — The impact of mental deficiency on the family. *Proceedings, Third Conference on Mental Retardation*, Australian Group for the Scientific Study of Mental Deficiency, Canberra, 1965.
- MOREY, E. A. — The pre-school child with cerebral palsy. *Australian Pre-School Quarterly*, VI, no. 1, 5-11, August, 1965.

- SCHOENHEIMER, H. P. (with GANDERTON, W.) — "Summary". F. W. Cheshire, Melbourne, 170, pt. vi, 1965.
- SURETIES, B. P. — Poetry in the classroom. *Quadrant*, 35, IX, no. 3, 63-71, 1965.
- THEOBALD, J. H. — Is science a liberal study? *Aust. Sci. Teach. Journ.*, X, 71-81, November, 1964.

FACULTY OF ENGINEERING

Department of Applied Mechanics

- BROWN, R. H. (with BALINT, J.) — A note on the investigation of rake face tool wear. *International Journal of Machine Tool Design and Research*, 4, no. 2, 117-122, December, 1964.
- BROWN, R. H. (with RUSSELL, J. K.) — Deformation during chip formation. *Trans. American Society of Mechanical Engineers*, 86, Series B, no. 1, 53-56, 1965.
- BROWN, R. H. (with DORAN, K. J., MANIE, K. C., and TAO, H. S.) — Metal cutting in Australia. *Factory and Plant*, 53, no. 12, 38-45, 1965.
- BROWN, R. H. (with TAO, H. S.) — Machinability testing for the production workshop. *Factory and Plant*, 53, no. 12, 38-45, 1965.
- CRISP, J. D. C. (Editor) — Strength, Fracture and Fatigue of Materials, by T. Yokobori, Translation from the Japanese, P. Noordhoff, Groningen, 1965, pp 336, Notation, References, Indices, Prefaces, p 41.
- HUNT, K. H. (with PHILLIPS, J. R.) — On the theorem of three axes in the spatial motion of three bodies. *Australian Journal of Applied Science*, 15, no. 4, 267-287, December, 1964.
- HUNT, K. H. (with PHILLIPS, J. R.) — Zur kinematik mechanischer verbindungen für raumliche bewegungen. *Maschinenbau Technik*, 14, no. 12, December, 1965.

Department of Chemical Engineering

- BHAT, G. N. (with WEINGAERTNER, E.) — Studies on the gaseous fluidization of solids: part IV — effect of temperature on fluidised beds. *Brit. Chem. Eng.*, 10, 458-461, 1965.
- BHAT, G. N. (with WEINGAERTNER, E.) — Studies on the gaseous fluidization of solids: part V — wall-to-bed heat transfer characteristics. *Brit. Chem. Eng.*, 10, 615-618, 1965.
- BHAT, G. N. (with SINGH, B. and KULLOOR, N. R.) — Kinetics of absorption of zinc acetate by charcoal from solutions. *Ind. J. of Tech.*, 3, 119-121, 1965.
- BHAT, G. N. (with SRIMATHI, C. R. (Miss)) — Drag interaction effects in linear sphere-assemblies. *Brit. J. of Appl. Physics*, 16, 551-556, 1965.
- BHAT, G. N. (with KUMAR, R. N. and KULLOOR, N. R.) — Mechanism of catalytic vapour-phase oxidation of toluene over V_2O_5 fluidized catalyst. *Ind. J. of Tech.*, 3, 83-86, 1965.
- BHAT, G. N. (with VENKITAKRISHNAN, G. R.) — Minimum velocity for the gaseous fluidization of dissimilar materials. *Indian Chemical Engineer. (Trans.)* 7, no. 3, 53-58, 1965.
- POTTER, O. E. (with SINCLAIR, R. J.) — The dispersion of gas through a bed of packed solids. *Trans. Institute of Chemical Engineers*, 43, T3-T9, 1965.

POTTER, O. E.—Technical kinetics. *Chemical Engineering Practice*, **8**, 43-153, Butterworths, London, 1965.

SINCLAIR, C. G. (with MCNAUGHTON, K. J.)—Residence time probability density of complex flow systems. *Chemical Engineering Science*, **20**, 261, 1965.

Department of Civil Engineering

MCPHERSON, R. (with SINHA, H. N.)—Intergranular Fracture of Magnesium Oxide Bi-crystals. *Philosophical Magazine*, **11**, no. 111, 451-458, March, 1965.

Department of Electrical Engineering

BROWN, W. A. (with KING, R. E.)—Parameter sensitivity and redundancy in a class of optimum time-quantized control systems. *Int. Journal of Control*, **1**, no. 3, 227-237, March, 1965.

BROWN, W. A. (with KING, R. E.)—Low frequency spectral distortion in a class of non-linear time-quantized control systems. *Int. Journal of Control*, **1**, no. 6, 519-532, June, 1965.

GRUNER, L.—The steady state characteristics of nonuniform R.C. distributed networks and lossless lines. *Institute of Electrical and Electronic Engineers Trans. on Circuit Theory*, *CT-12*, no. 2, 241-247, June, 1965.

MORTON, R. R. A. (with RIORDAN, R. H. S.)—The use of analog techniques in binary arithmetic units. *Institute of Electrical and Electronic Engineers Trans. on Electronic Computers*, *EC-14*, no. 1, 29-35, February, 1965.

REDMAN, S. J.—Stochastic Sampling of a Binary Random Process—11. *Institute of Electrical and Electronic Engineers Trans. on Circuit Theory*, *CT-12*, no. 1, 39-43, March, 1965.

TURSKI, A. J.—Transient and oscillating solution of Boltzmann Vlasov equation in linearisation plasma. *Annals of Physics*, **35**, no. 2, 62, December, 1965.

Department of Mechanical Engineering

BARDEN, R. G.—Some aspects of thermoelectric cooling. *Australian Refrigeration, Air Conditioning and Heating*, **19**, no. 8, 28-33, 1965.

FACULTY OF LAW

JACKSON, D. C.—A kind of damage, foreseeability, probability and causation. *The Australian Law Journal*, **XXXIX**, no. 1, 3-16, 1965.

JACKSON, D. C.—Estoppel as a Sword. *The Law Quarterly Review*, **lxxxi**, 84-105, 223-247, 1965.

NASH, P. G. Ed.—Paul's Justices of the Peace, second edition, Law Book Co. of Australasia Pty. Ltd., February, 1965, 1-663, i-iii, and index 665-791.

WALLER, P. L. (with BRETT, P. (Professor))—Cases and Materials in Criminal Law, second edition, Butterworth & Co. (Australia) Ltd., Sydney, 1965, pp. 1-918.

FACULTY OF MEDICINE

Dean's Department

ANDREW, R. R.—The plan of the new medical school, Monash University. *Med. J. Aust.*, **1**, 940, 1965.

Department of Anatomy

- FINK, G. — Studies on the innervation of the ovary in cats. *Proc. VIII Con. Internat. Anat. Wiesbaden*, 39, 1965.
- HO, A. K. S., PADDLE, B. M., and FREEMAN, S. E. — The estimation of the activity of acetylcholinesterase and other esterases in the rat brain by an amperometric method. *Biochemical Pharmacology*, 14, 151-157, 1965.
- SCHOFIELD, G. C. and ADAMS, W. E. — Manual of Human Anatomy, 3, 454, Peryer, Christchurch, 1965.
- SCHOFIELD, G. C., NELSON, P. G., and DUDLEY, H. A. F. — Healing at intestinal anastomoses. *Brit. J. Surg.*, 52, 67, 1965.
- SCHOFIELD, G. C. and SOUTHWELL, J. M. — Studies on the effect of reserpine and guanethidine administration on the argentaffin cells in the adult mouse colon and in primary explant cultures. *J. Anat. (Lond.)*, 99, 948, 1965.
- SCHOFIELD, G. C., SOUTHWELL, J. M., and ALEXANDER, R. M. — Eosinophilic cells in the colonic mucous membrane of mice following the administration of a monoamine oxidase inhibitor. *J. Anat. (Lond.)*, 99, 950, 1965.
- SCHOFIELD, G. C., and SOUTHWELL, J. M. — Autoradiographic studies on argentaffin and acidophilic cells in the mouse colon. *J. Anat. (Lond.)* 99, 955, 1965.
- WILSON, A. S. — Quantitative studies on the phrenic nerve. *J. Anat. (Lond.)*, 99, 953, 1965.
- WILSON, A. S. — Electronmicroscopic studies on the nerve fibres and vessels of the phrenic nerve. *Proc. VIII Con. Internat. Wiesbaden*, 127, 1965.
- WILSON, A. S. and SILVA, D. G. — Ultrastructure of the phrenic nerve. *Nature (Lond.)*, 208, 707-8, 1965.

Department of Biochemistry

- ARMSTRONG, J.McD. — The oxidation of *L*-lactate by cytochrome b_2 of baker's yeast. *Annals of the New York Acad. Sci.*, 119 art. 3, 877-887, 1965.
- AUSTIN, L. and PHILLIS, J. W. — The distribution of cerebellar cholinesterases in several species. *J. Neurochem.*, 12, 709-727, 1965.
- AUSTIN, L., CHUBB, I. W., and LIVETT, B. G. — Biosynthesis of catecholamines in smooth muscle. *J. Soc. Med. Res.*, 1, 132, 1965.
- LINNANE, A. W., HUANG, M., LUKINS, H. B., and WALLACE, P. G. — Some cytological characteristics of *Saccharomyces cerevisiae* grown aerobically and anaerobically under conditions of glucose repression. *Aust. J. Sci.*, 28, 82, 1965.
- BIGGS, D. R. and LINNANE, A. W. — The effect of oxygen on the enzymological and cytological characteristics of *Candida parapsilosis*. *Aust. J. Sci.*, 28, 83, 1965.
- LINNANE, A. W. — Aspects of the biosynthesis of mitochondria of *Saccharomyces cerevisiae*. *Oxidases and Related Redox Systems*, 2, 1102-1128, 1965. Edited by Tsao E. King, Howard S. Mason, and Martin Morrison. Published by John Wiley & Sons.
- TOOLE, B. P. and LOWTHER, D. A. — Isolation of a dermatan-sulphate-protein complex from bovine heart valves. *Biochim. Biophys. Acta*, 101, 364, 1965.

- LOWTHER, D. A., TOOLE, B. P., GOH, A. T. W., and BAXTER, E. — Molecular changes in connective tissue during physiological ageing. *Med. Res.*, **1**, 131, 1965.
- GOH, A. T. W., BAXTER, E., and LOWTHER, D. A. — The chondroitin sulphate-protein complexes of bovine nasal septa and intervertebral discs. *Aust. J. Sci.*, **28**, 91, 1965.
- LOWTHER, D. A. and TOOLE, B. P. — Protein-polysaccharide complexes in bovine skin and heart valves. *Aust. J. Sci.*, **28**, 91, 1965.
- TOOLE, B. P., GOH, A. T. W., LOWTHER, D. A., and BAXTER, E. — The organisation of acid mucopolysaccharides in bovine connective tissues. *Aust. J. Sci.*, **28**, 90, 1965.
- PARSONS, I. C. — Inhibitory action of testosterone on mouse mammary tumours *in vitro*. *Nature*, **206**, 717-8, 1965.
- OGSTON, A. G. and PRESTON, B. N. — Use of light scattering to measure the selective interaction of a macromolecular solute with the components of a binary solvent. *Nature*, **207**, 80, 1965.
- PRESTON, B. N., DAVIES, M., and OGSTON, A. G. — The composition and physicochemical properties of hyaluronic acids prepared from ox synovial fluid and from a case of mesothelioma. *Biochemical Journal*, **96**, 449, 1965.
- WHEELDON, L. W., SCHUMERT, Z., and TURNER, D. A. — Lipid composition of heart muscle homogenate. *Journal of Lipid Research*, **6**, 481-489, 1965.

Department of Medicine

- HUDSON, B., COGHLAN, J. P., WINTOUR, M., and DULMANIS, A. — An evaluation of the use of labelled acetic anhydride for steroid measurement. *Proc. 2nd. Int. Cong. of Endocr.*, London, August, 1964.
- HUDSON, B., COGHLAN, J. P., WINTOUR, M., and DULMANIS, A. — The measurement of testosterone in biological fluids in the evaluation of androgen activity. *Proc. 2nd Int. Cong. of Endocr.*, London, August, 1964.
- MCLEAN, K. H., SLOMAN, A., and ROBINSON, J. S. — Propranolol (inalderal) in persistent ventricular fibrillation. *B.M.J.*, **1**, 895, 1965.
- CATT, K. J. and MOFFAT, B. — Fractionation of rat pituitary extract by starch gel electrophoresis and identification of growth hormone and prolactin. *Endocr.*, **76**, 678, 1965.
- HANSKY, J., LANGNAN, M. J. S., DRURY, R. A. B., and AVERY-JONES, F. — The gastric mucosa in radiologically negative acute gastrointestinal bleeding. *Gut.*, **5**, 550, 1964.
- HANSKY, J. and BALLA, J. Tranylcypramine in Multiple Sclerosis. *M.J.A.* **1**, 906, 1965.

Department of Microbiology

- FALLON, R. J., GRIST, N. R., INMAN, D. R., LEMCKE, Ruth M., NEGRONI, G., and WOODS, D. A. — Further studies of agents isolated from tissue cultures inoculated with human leukaemic bone-marrow. *Brit. Med. J.* **2**, 388, 1965.
- LEMCKE, Ruth M. — A serological comparison of various species of *Mycoplasma* by an agar gel double diffusion technique. *J. Gen. Microbiol.*, **38**, 91, 1965.
- LEMCKE, Ruth M. — The serology of the *Mysoplasmataceae*. *Proc. Roy. Soc., Med.*, **58**, 82, 1965.

- LEMCKE, Ruth M. — Media for the *Mycoplasmataceae*. *Lab. Practice*, **14**, 712, 1965.
- LEMCKE, Ruth M., SHAW, Elizabeth J., and MARMION, B. P. — Related antigens in *Mycoplasma pneumoniae* and *Mycoplasma mycoides* var. *mycoides*. *Aust. J. Biol. Med. Sci.*, **43**, 761-770, 1965.
- MARMION, B. P., PERCEVAL, A., and ENNIS, G. C. — Respiratory illness and *Mycoplasma pneumoniae* (Eaton Agent). *Med. J. Aust.*, **2**, 233, 1965.
- SMITH, J. A., WILLIS, A. T., and O'CONNOR, J. Jean — New epidemic strains of *Staphylococcus aureus*. *Lancet*, **2**, 772, 1965.
- TATE, G., THOMPSON, H., and WILLIS, A. T. — *Clostridium welchii* colitis. *Brit. J. Surg.*, **52**, 194, 1965.
- WILLIS, A. T. — Prophylaxis against tetanus. *Med. J. Aust.*, **2**, 129, 1965.
- WILLIS, A. T. — Media for *Clostridia*. *Lab. Practice*, **14**, 690, 1965.

Department of Obstetrics and Gynaecology

- WOOD, C., BANNERMAN, R. H. O., BOOTH, R. T., and PINKERTON, J. H. M. — The prediction of premature labour by observation of the cervix and external tocography. *Am. J. Obst. & Gynec.*, **91**, no. 3, 396-402, 1965.

Department of Paediatrics

- CLARK, A. C. L., MOORE, A. E., and NIALL, M. — Metabolites of catecholamines in the urine of children with tumours of neural crest origin. *Aust. Paediatric J.*, **1**, 42, 1965.
- COLEBATCH, J. H. and CLARK, A. C. L. — Acute leukaemia; the role of chemotherapy. *Aust. Paediatric J.*, **1**, 64, 1965. (Abstr.)
- CAMPBELL, P. E. and CLARK, A. C. L. — Lymphosarcoma in children; histopathology and results of treatment. *Aust. Paediatric J.*, **1**, 182, 1965. (Abstr.)
- COLEBATCH, J. H., HOWARD, R. N., WILLIAMS, A. L., KURRLE, G., and CLARK, A. C. L. — Results of Actinomycin D. therapy for Wilm's tumour. *Acta Un. int. Cancr.*, **20**, 491, 1964.
- TAFT, L. E. and CLARK, A. C. L. — Studies in the pathogenesis of microangiopathic haemolytic anaemia in childhood. *Proc. 10th Congress International Soc. Haematol.*, 1964.
- KERRY, K. R. and TOWNLEY, R. R. W. — Genetic aspects of intestinal sucrose-isomaltase deficiency. *Aust. Paediatric J.*, **1**, 223, 1965.
- ANDERSON, G. M., KERRY, K. R., and TOWNLEY, R. R. W. — An inborn defect of intestinal absorption of certain monosaccharides. *Arch. Dis. Childh.*, **40**, 1, 1965.
- KOPITO, L., MAHMOODIAN, A., TOWNLEY, R. R. W., KHAW, K. T., and SHWACHMAN, H. — Studies in cystic fibrosis: analysis of nail clippings for sodium and potassium. *New Engl. J. Med.*, **272**, 504, 1965.
- FINDLAY, I. I. and KIDD, L. — Aortic stenosis in childhood. Techniques for the measurement of pressure gradients in the outflow tract of the left ventricle. *Aust. Paediatric J.*, **1**, 161, 1965.
- FINDLAY, I. I. — The pulled elbow. *Med. J. Australia*, **II**, 549, 1965. (Letter to Editor).

Department of Pathology

- DATTA, S. P., STONE, W. H., TYLER, W. J., and IRWIN, M. R. — Cattle transferrins and their relation to fertility and milk production. *J. Animal Sci.*, **24**, 313-318, 1965.

- DE BOER, W. G. R. M. and LAMBERTS, H. B. — Contributions to the study of immediate and early X-ray reactions with regard to chemoprotection IX: X-ray-induced coronary occlusion leading to heart damage in rabbits. *Int. J. Radiat. Biol.*, **8**, 359, 1964.
- DE BOER, W. G. R. M., NAIRN, R. C., and MAXWELL, A. — Pernicious anaemia autoantibody to gastric parietal cells. Immunofluorescence test with rat stomach. *J. Clin. Path.*, **18**, 456, 1964.
- MCGIVEN, A. R., ADAMS, D. D., and PURVES, H. D. — A comparison of the heat-stability of long-acting thyroid stimulator and human thyroid-stimulating hormone. *J. Endocrinol.*, **32**, 29, 1965.
- NAIRN, R. C. — Fluorescent protein tracing in pathology, in *Methods and Achievements in Experimental Pathology (Volume 1)*, Karger, A. G., Basel-New York, 1965.
- FANTL, P., and WARD, H. A. — Molecular weight of human fibrinogen derived from phosphorus determinations. *Biochem. J.*, **96**, 886-889, 1965.
- Department of Physiology*
- AUSTIN, L. and PHILLIS, J. W. — The distribution of cerebellar acetylcholinesterase in various species. *J. Neurochem.*, **12**, 709-727, 1965.
- BENTLEY, G. A. — Potentiation of responses to noradrenaline and reversal of sympathetic nerve blockade in the guinea-pig vas deferens. *Brit. J. Pharmacol. & Chem.*, **25**, 243-256, 1965.
- CHONG, G. C. and PHILLIS, J. W. — Pharmacological studies on the heart of *Tapes turgida*: a mollusc of the family Veneridae. *Brit. J. Pharm.*, **25**, 481-496, 1965.
- DEVANANDAN, M. S., ECCLES, R. M., and WESTERMAN, R. A. — Single motor units of mammalian muscle. *J. Physiol.*, **178**, 359-367, 1965.
- DORWARD, Patricia, MCINTYRE, A. K., and PROSKE, U. — Vibration detection by receptors in vertebrate skeletal tissues. *Abst. XXIII Int. Congr. physiol. Sci.*, 375, 1965.
- HALL, J. G., MORRIS, B., and WOOLLEY, G. — Intrinsic rhythmic propulsion of lymph in the unanaesthetised sheep. *J. Physiol. (Lond.)*, **180**, 336-349, 1965.
- HOLMAN, Mollie E. and HUGHES, Janice, R. — An inhibitory component of the response to distension of rat ileum. *Nature*, **207**, 641-642, 1965.
- HOLMAN, Mollie E. and HUGHES, Janice R. — Inhibition of intestinal smooth muscle. *Austral. J. exp. Biol. med. Sci.*, **43**, 277-290, 1965.
- KELLETT, R. C., PHILLIS, J. W., and VEALE, J. L. — A spike intensifier and single trigger generator for identification of ventral root axons. *Electroenceph. Clin. Neurophysiol.* **18**, 82-84, 1965.
- KNIGHTS, A. — The activity of single motor fibres in arthropods. I. The dragonfly nymph. *J. exp. Biol.*, **42**, 447-461, 1965.
- MCCANCE, I. and PHILLIS, J. W. — The location of microelectrode tips in nervous tissues. *Experientia*, **21**, 108-109, 1965.
- MCINTYRE, A. K. — Some applications of input-output technique, in *Studies in Physiology*, (ed. Curtis, D. R. and McIntyre, A. K.), 199-206, Springer-Verlag, Berlin, 1965.
- MCINTYRE, A. K. (with CURTIS, D. R.) — Co-editorship of *Studies in Physiology*, 284 pp. Springer-Verlag, Berlin, 1965.
- MARK, R. F. — Fin movement after regeneration of neuromuscular con-

- nections: an investigation of myotypic specificity. *Exp. Neurol.*, **12**, 292-302, 1965.
- PHILLIS, J. W. — Cholinesterase in the cat cerebellar cortex deep nuclei and peduncles. *Experientia*, **21**, 266, 1965.
- PHILLIS, J. W. — Cholinergic mechanisms in the cerebellum. *Brit. med. Bull.*, **21**, 26-29, 1965.
- PHILLIS, J. W. and CHONG, G. C. — Acetylcholine release from the cerebral and cerebellar cortices: its role in cortical arousal. *Nature*, **207**, 1253-1255, 1965.
- WEISS, Magda and McDONALD, I. R. — Corticosteroid secretion in the monotreme *Tachyglossus aculeatus*. *J. Endocrinol. (Lond.)*, **33**, 203-210, 1965.
- WESTERMAN, R. A. — Specificity in regeneration of optic and olfactory pathways in teleost fish, in *Studies in Physiology*, (ed. Curtis, D. R. and McIntyre, A. K.), 263-269, Springer-Verlag, Berlin, 1965.

Department of Surgery

- DUDLEY, H. A. F., MASTERTON, J. P., and NAYMAN, J. — Problems at the frontiers of surgical survival. *New Zealand Med. J.*, **64**, 481.
- DUDLEY, H. A. F. — Problems and pitfalls in the surgery of the biliary tract. *New Zealand Med. J.*, **64**, 436.
- DUDLEY, H. A. F. — Classification of septic states. *Lancet*, **2**, 1237.
- DUDLEY, H. A. F. — The surgeon's changing role in medical education. *Med. J. Aust.*, **1**, 529.
- DUDLEY, H. A. F. and LUKE, H. A. — An unusual complication of right hepatic lobectomy. *Aust. & N.Z. J. Surg.*, **34**, 275.
- NAYMAN, J. and FREAKE, R. — Atlas of Urinary Deposits, Melbourne University Press, 1965.
- NAYMAN, J. and FREAKE, R. — A pre-mixed and pre-tested dialysing bath concentrate for use in haemodialysis. *Med. J. Aust.*, **1**, 752, 1965.
- NAYMAN, J., THOMAS, C. V., and FEINT, G. — An arteriovenous shunt associated with an adenocarcinoma of the kidney. *Brit. J. Surg.*, **52**, 943, 1965.
- NAYMAN, J. and McDERMOTT, F. — Wound dehiscence in acute renal failure: clinical and experimental studies. *Med. Res.*, **1**, 180, 1965.
- MASTERTON, J. P. — Sleep of hospital medical staff. *Lancet*, **1**, 41, 1965.
- MASTERTON, J. P. — Tube Feeds. *The Journal of the Dietetic Association, Victoria*, **16**, 31, 1965.
- MASTERTON, J. P. — Some nutritional problems in gastro-enterology and surgery. *Ibid.*, **16**, 53, 1965.
- MASTERTON, J. P. and THOMAS, C. V. — Volvulus of the caecum and ascending colon. *Australian and New Zealand Journal of Surgery*, **35**, 77, 1965.
- MASTERTON, J. P., OWEN, J. A., and DUDLEY, H. A. F. — Acid-base status assessed from Measurements of Hydrogen-ion concentration and PCO₂. *Lancet*, **2**, 660, 1965.
- MASTERTON, J. P. — Some patterns of sleep, in *Physiology of Survival*. Academic Press, London, 1965.
- McDERMOTT, F. and MONRO, R. S. — The elimination of causal Factors in pilonidal sinus treated by Z-plasty. *British Journal of Surgery*, **52**, 177, March, 1965.

- NELSON, P. G., SCHOFIELD, G. C., and DUDLEY, H. A. F. — Healing of Intestinal Anastomoses. *Brit. J. Surg.*, **52**, 67. (Abstract.)
- NELSON, P. G. — Pathological Horse-Shoe Kidney. *Alfred Hospital Clinical Report*, **12**, 87.
- THOMAS, C. V. — Duodenal loop reversal following Kocher's Manoeuvre. *The Australian and New Zealand Journal of Surgery*, **35**, 2, 155-157, November, 1965.
- WATSON, G. (Student-Scholar, Edin. 1964) — Monash University — the medical curriculum. *Univ. of Edin. Journal*, **22**, 164.

FACULTY OF SCIENCE

Department of Chemistry

- BROWN, R. D., BURDEN, F. R., and PEZ, G. P. — The isomers of S_2F_2 . *Chem. Com.*, 277, 1965.
- BROWN, R. D., PEZ, G. P., and O'DWYER, M. F. — Infrared spectrum. Potential constants, and structure of thio-thionyl fluoride. *Aust. J. Chem.*, **18**, 627-635, 1965.
- BROWN, R. D. and HARCOURT, R. D. — The electron structure of N_2O_4 . — electron delocalization study. *Aust. J. Chem.*, **18**, 1115-1132, 1965.
- BROWN, R. D., BUCHANAN, A. S., and HUMFFRAY, A. A. — Protodemercuration of thiophenboronic acids. *Aust. J. Chem.*, **18**, 1521-1525, 1965.
- BROWN, R. D., BUCHANAN, A. S., and HUMFFRAY, A. A. — Protodemercuration of organomercuric chlorides, II. Heterocyclic mercuric chlorides. *Aust. J. Chem.*, **18**, 1513-1530, 1965.
- BROWN, R. D., BUCHANAN, A. S., and HUMFFRAY, A. A. — Protodeboronation of thiophenboronic acids. *Aust. J. Chem.*, **18**, 1521-1525, 1965.
- BROWN, R. D., BUCHANAN, A. S., and HUMFFRAY, A. A. — Iodinolysis of boronic acids. *Aust. J. Chem.*, **18**, 1527-1538, 1965.
- BROWN, R. D. and HARCOURT, R. D. — The electronic structure of N_2O_4 . *Aust. J. Chem.*, **18**, 1885-1895, 1965.
- UHLHERR, P. H. T., SINCLAIR, C. G., and BAXTER, B. A. — A multiple image photographic technique for recording the path and velocity of moving objects. *Chem. Eng. Science*, **20**, 997-1000, 1965.
- BLACK, D. S., BLACKBURN, G. M., and JOHNSTON, G. A. R. — Aliphatic and ketonic monocarboxylic acids and related compounds, in Rodd's Chemistry of Carbon Compounds, Ed. Coffey (Elsevier) Amsterdam, Vol. ID, chapter 14, 80, 1965.
- BLACK, D. S., BLACKBURN, G. M., and JOHNSTON, G. A. R. — Aldehyde and ketonic monocarboxylic acids and related compounds, in Rodd's Chemistry of Carbon Compounds, Ed. Coffey (Elsevier) Amsterdam, Vol. ID, chapter 16, 214, 1965.
- BLACK, D. S. and MARKHAM, E. — Effect of chelation on the synthesis of organic macrocycles, *Rev. Pure and Applied Chem.*, **15**, 109, 1965.
- BELL, R. P. and COLLIER, B. A. W. — Kinetics of the alkaline hydrolysis of ethyl acetate with sulphur containing substituents. *Trans. Faraday Soc.*, **61**, 1445, 1965.
- DICKSON, R. S. — Perfluorophenylaluminium Complexes. *Chem. Com.*, 68, 1965.

- CRANK, G. and EASTWOOD, F. W. — Derivatives of orthoacids, III. Sulphonamide derivatives. *Aust. J. Chem.*, **18**, 1967-1972, 1965.
- GATEHOUSE, B. M. and WADSLEY, A. D. — The crystal structure of the high temperature form of niobium pentoxide. *Acta Cryst.*, **17**, 1545, 1965.
- GATEHOUSE, B. M., ROTH, R., and WADSLEY, A. D. — Composition of phases in the systems $\text{NbO}_2\text{-Nb}_2\text{O}_5$ and $\text{TiO}_2\text{-Nb}_2\text{O}_5$. *Naturwissenschaften*, **11**, 1, 1964.
- GATEHOUSE, B. M., ROTH, R., and WADSLEY, A. D. — The modification of the Nb_2O_5 structure by controlled cation substitution. International Conference on Electron Diffraction and the Nature of Defects in crystals, Proceedings, August, 1965.
- BLACK, P. J. and HEFFERNAN, M. L. — The analysis of the proton magnetic resonance spectra of heteroaromatic systems, IV. Benzofuran, indole and related compounds. *Aust. J. Chem.*, **18**, 353-361, 1965.
- BLACK, P. J. and HEFFERNAN, M. L. — The analysis of the proton magnetic resonance spectra of heteroaromatic systems, V. Diazanaphthalenes. *Aust. J. Chem.*, **18**, 707-713, 1965.
- CULVENOR, C. C. J., HEFFERNAN, M. L., and WOODS, W. G. — The nuclear magnetic resonance of the pyrrolizidine alkaloids. Part I. The spectra of retronecine and heliotridine. *Aust. J. Chem.*, **18**, 1605-1624, 1965.
- JOHNS, S. R., RUSSEL, J. H., and HEFFERNAN, M. L. — Ficine, a novel flavonoidal alkaloid from *Ficus pantaniana*, *Tetrahedron letters*, 1987-1990, 1965.
- STRANKS, D. R., HEFFERNAN, M. L., LEE DOW K., MCTIGUE, P. T., and WITHERS, G. R. — Chemistry. A Structural View. Melbourne University Press, 1965.
- WITHERS, G. R., STRANKS, D. R., HEFFERNAN, M. L., LEE DOW K., and MCTIGUE, P. T. — Chemistry. A Structural View. Practical Manual. Melbourne University Press, 1965.
- CHEETHAM, N. F. and PULLIN, A. D. E. — Interaction between tertiary amines and perfluoro-organo-halides. *Chem. Com.*, 125-8, 1965.
- BARRACLOUGH, G. C., BLACK, P. J., DAVID, D. J., PULLIN, A. D. E., and SHANNON, J. S. — Spectroscopy in Australia. *Nature*, **208**, 125-128, 1965.
- WEST, B. O., ANG, H. G., and SHANNON, J. S. — The expansion of a phosphorus ring system by coordination to a metal. *Chem. Com.*, **10**, 1965.
- SMITH, T. D. — Chelates formed by tin II with citric and tartaric acids and their interaction with certain transition-metal ions. *J. Chem. Soc.*, 2145-2150, 1965.
- BOLTON, P. D. and WILSON, I. R. — Hydrolysis of amides. I. The hydrolysis of acetamide and chloroacetamide in dilute acid. *Aust. J. Chem.*, **18**, 795-800, 1965.
- YOUATT, Jean — Changes in the phosphate content of mycobacteria produced by isoniazid and Ethambutol. *Aust. J. Exp. Biology and Medical Science*, **43**, 305-314, 1965.

Department of Mathematics

- WATTERSON, G. A. (with J. J. Bartko) — Some problems of statistical inference in absorbing Markov chains. *Biometrika*, **52**, 127-138, 1965.
- MILLER, J. B. — Mobius transforms of Reynolds operators. *J. fuer die reine & angewandte Mathematik*. **218**, 6-16, 1965.

- STRZELECKI, E. — Some theorems on interpolation by periodic functions. *Colloquium Mathematicum*, **12**, 240-248, 1964.
- STRZELECKI, E. and RYBANSKI, A. — Frequency of oscillations of a synchronous motor. *Zastosowam 'a Matematyki*.
- VAN DER BORGH, R. and WAN, F. S. — Non-radial adiabatic oscillations of very massive stars. *Bull. Acad. Roy. Belg. Cl. Sc. 5^e Serie*, October, 1965.
- VAN DER BORGH, R. and MURPHY, J. O. — Anharmonic pulsations of an early main-sequence star. *Monthly not. Roy. Astr. Soc.*, **131**, 1965.
- JANKO, Z. — A new finite simple group with abelian 2-Sylow subgroups. *Proc. Nat. Acad. Sci. U.S.A.*, **53**, 657, 1965.
- PRESTON, G. B. — Chains of congruences on a completely O-simple semi-group. *J. Aust. Math. Soc.*, **5**, 76-82, 1965.
- FINCH, P. D. — A generalisation of the Radon-Nikodym Theorem. *J. Aust. Math. Soc.*, **5**, 17-24, 1965.
- FINCH, P. D. and PEARCE, C. — A second look at a queueing system with moving average input process. *J. Aust. Math. Soc.*, **5**, 100-106, 1965.
- PHATARFOD, R. M. — Correlated random walk. *J. Indian Statistical Assn.* **1**, 229-233, 1965.
- PHATARFOD, R. M. — A note on cumulative sums of Markovian variables. *J. Aust. Math. Soc.*, **5**, 285-87, 1965.
- PHATARFOD, R. M. — Sequential analysis of dependent observations I. *Biometrika*, **52**, 157-65, 1965.
- PHATARFOD, R. M. — Some aspects of yarn structure. *Translations of the Journal of Textile Institute*, **56**, 225-47, 1965.

Department of Physics

- BASTOW, T. J. and STREET, R. — The antiferromagnetic phases of field-cooled chromium. *Proc. Phys. Soc.*, **86**, 1143, 1965.
- BRYANT, R. L., TROUP, G. J., and TURNER, R. G. — The use of a high intensity-range photographic film in recording extended diffraction patterns for spectrographic work. *J. of Sci. Instru.*, **42**, 116, 1965.
- BURLEY, S. P. and TROUP, G. J. — Paramagnetic resonance of Fe³⁺ in benitoite. *Brit. J. Appl. Phys.*, **16**, 315, 1965.
- BURSILL, L. A. and McLAREN, A. C. — Transmission electron microscope observations of fracture in quartz and zircon. *J. Appl. Phys.*, **36**, 2084, 1965.
- BURSILL, L. A., McLAREN, A. C., and PHAKEY, P. P. — Radiation damage in quartz and zircon. International conference on electron diffraction and crystal defects, Melbourne, 1965. *Aust. Acad. of Science*.
- COATES, D. W. — The cosmic radiation. *A.S.V. Journal*, **18**, 48, 1965.
- DONALDSON, R. H. and EDMONDS, D. J. — Measurement of the spin-wave specific heat of antiferromagnetic CoCl₂.6H₂O and NiCl₂.6H₂O. *Proc. Phys. Soc.*, **85**, 1209, 1965.
- HICKS, T. J. and BROWNE, J. D. — Diffuse magnetic scattering from a metallic antiferromagnet. *Proc. Phys. Soc.*, **86**, 139, 1965.
- McLAREN, A. C. and PHAKEY, P. P. — A transmission electron microscope study of amethyst and citrine. *Aust. J. of Phys.*, **18**, 135, 1965.
- McLAREN, A. C. and PHAKEY, P. P. — Dislocations in quartz observed by transmission electron microscopy. *J. Appl. Phys.*, **36**, 3244, 1965.
- MUNDAY, B. C., PEPPER, A. R., and STREET, R. — The magnetic and mechanical properties of chromium. *Proceedings of the Int. conference on*

- magnetism* — Nottingham, England, 1964. Institute of Physics and the physical society. London, 201, 1965.
- PEPPER, A. P. and SMITH, J. H. — Improvements to a sucksmith ring balance. *J. of Sci. Instr.*, **42**, 328, 1965.
- PERLMAN, H. S. — Equivalence of Schroedinger and Heisenberg pictures. *Nature*, **204**, 771, 1964.
- POWELL, D. G. M. and FLETCHER, G. C. — Thermal expansion and other properties of sodium chloride. *Aust. J. of Phys.*, **18**, 205, 1965.
- RACHINGER, W. A. — Low friction devices for demonstration equipment. *S.A.S.T.A., Journal*, **23**, November, 1965.
- TROUP, G. J. — Coherence intensity distributions from boson statistics. *Proc. Phys. Soc.*, **86**, 39, 1965.
- TROUP, G. J. — On the intensity distribution for a two-mode laser beam. *Phys. Letters*, **17**, 264, 1965.
- TROUP, G. J. — On radiation statistics. *Bull. Inst. Physics and Phys. Soc.*, **16**, 257, 1965.
- TROUP, G. J. — Quantum and classical coherence of stationary modes. *Nuovo cimento*, **38**, 1411, 1965.
- TROUP, G. J. — The statistics of Kastler's multimode radiation ensemble. *Proc. I.E.E.E.*, **53**, 1732, 1965.
- TROUP, G. J. — The application of electron spin resonance to biological materials. *The Australian Physicist*, **2**, 147, 1965.
- TROUP, G. J. and WALTER, J. — A new use of the Kronig-Kramers relations in nuclear magnetic resonance II. *Phil. Mag.* **11**, 1059, 1965.

Department of Psychology

- DAY, R. H. and POWER, R. P. — Apparent reversal (oscillation) of rotary motion in depth: A general theory. *Psychological Review*, **7**(2), 117-127, 1965.
- DAY, R. H. — Inappropriate constancy explanation of spatial distortions. *Nature*, 207 (4999), 891-893, 1965.
- DAY, R. H. and SINGER, G. — Comment on experiments by Weinstein et. al. on self-induced movement as a determinant of spatial adaptation. *Perceptual & Motor Skills*, **20**, 755-756, 1965.
- DAY, R. H. and SINGER, G. — Temporal determinants of kinesthetic after-effect. *Journal of Experimental Psychology*, **69**(4), 343-348, 1965.
- MACMILLAN, M. B. and MACAULAY, M. E. — The concept of mental age and maturation. *Developmental Medicine and Child Neurology*, **7**(4), 419-422, 1965.
- MACMILLAN, M. B. — Teaching severely retarded children to walk. *Developmental Medicine and Child Neurology*, **7**(5), 549-556, 1965.
- WORTHINGTON, A. G. and DIXON, N. F. — Changes in guessing habits as a function of subliminal stimulation. *Acta Psychologica*, **23**, 1965.
- WORTHINGTON, A. G., MELNYK, W. T., and LAVERTY, S. G. — Abrupt withdrawal of chlorpromazine and thioridazine from schizophrenic in-patients. *Canad. J. Psychiat.*, 1965.

Department of Zoology and Comparative Physiology

- BAYLY, I. A. E. — The fate of Lake Pedder and its biota. *Aust. Soc. Limnol. Newsletter*, **4**, (2), 26-30, 1965.

- BAYLY, I. A. E. — Ecological studies on the planktonic Copepoda of the Brisbane River estuary with special reference to *Gladioferens pectinatus* (Brady) (Calanoida). *Aust. J. Mar. Freshw. Res.*, **16**, 315-50, 1965.
- BAYLY, I. A. E. and WILLIAMS, W. D. — Endemism in the Tasmanian freshwater fauna: a comment on an article by Dr. E. R. Guiler in Atlas of Tasmania. *Aust. Soc. Limnol. Newsletter*, **4**, (2), 31-35, 1965.
- DORWARD, D. F. and PIZZEY, G. M. — Breeding of the Cape Barren Goose on the Ansas and Glennie Islands, Victoria, Australia. *Wildfowl Trust 16th Annual Report*, 64-67, 1965.
- EALEY, E. H. M., BENTLEY, P. J., and MAIN, A. R. — Studies on water metabolism of the hill kangaroo, *Macropus robustus* (Gould), in north-west Australia. *Ecology*, **46** (4), 473-479, 1965.
- EALEY, E. H. M. and DIENER, E. — Immune system in a monotreme: Studies on the Australian echidna (*Tachyglossus aculeatus*) *Nature*, **208** (5014), 950-953, 1965.
- ETTERSHANK, G., EISNER, T., and ALSOP, R. — Adhesiveness of spider silk. *Science*, **148**, 1058-1061, 1965.
- ETTERSHANK, G. — A new modular-design artificial ant nest. *Turtlox News*, **43**, 42-43, 1965.
- ETTERSHANK, G. — A new Megalomyrmex from the Chilean Andes (Hymenoptera: Formicidae). *Psyche*, **72**, 55-58, 1965.
- LEE, A. K., BARTHOLOMEW, G. A., and TUCKER, V. A. — Oxygen consumption, Thermal Conductance, and Heart Rate in the Australian Skink, *Tiliqua scincoides*. *Copeia* 1965, 169-173, 1965.
- MARSHALL, A. J. — Conservation in Australia today. Annual Address. *Proc. Roy. Zool. Soc. N.S.W.*, 1964-1965, 9-12.
- MARSHALL, A. J. — Wildlife — Conservation or Carnage? *Current Affairs Bulletin*, **37**, 35-47.
- NELSON, J. E. — Behaviour of Australian Pteropodidae (Megachiroptera). *Animal Behaviour*, **13**, 544-557, 1965.
- NELSON, J. E. — Movements of Australian flying foxes (Pteropodidae: Megachiroptera) *Aust. J. Zool.*, **13**, 53-73, 1965.
- SMITH, B. J. (with RUNHAM, N. W., and ISARANKURA, K.) — Methods for Narcotizing and Anaesthetizing Gastropods. *Malacologia*, **2** (2), 231-238.
- WILLIAMS, W. D. — Subterranean occurrence of *Anaspides tasmaniae* (Thomson) (Crustacea, Syncarida). *Int. J. Speleology*, 85-89.
- WILLIAMS, W. D. — Ecological notes on Tasmanian Syncarida (Crustacea: Malacostraca), with a description of a new species of *Anaspides*. *Int. Revue ges. Hydrobiol.*, **10** (1), 95-127, 1965.
- WILLIAMS, W. D. — Identification Key for larger Invertebrates in Tasmanian creeks and lakes. Published by the Inland Fisheries Commission, Hobart, 1-12.
- WILLIAMS, W. D. and HYNES, H. B. N. — Experiments on competition between two *Asellus* species (Isopoda: Crustacea). *Hydrobiologia*, **26**, 203-10, 1965.
- WILLIAMS, W. D. — The distinctiveness of Australia's inland aquatic fauna. *Aust. Soc. Limnol. Newsletter*, **4** (2), 36-42, 1965.

13. CONCLUSION

Monash University was begun at great speed because of a crisis in the development of tertiary education in Victoria; it has grown very rapidly and has confronted many daunting problems in the process. Nevertheless, those who have been entrusted with its development feel a not inconsiderable pride in what has been achieved as they survey the buildings now in permanent use and the work that is being done in them. We hope that the pattern of educational development, both in research and teaching, is good in itself and that it will prove increasingly of service to Australia and the wider world.

In submitting this report for and on behalf of the Council, I express the thanks of the Council for the devoted work of the Vice-Chancellor and of the staff, both academic and administrative, during these formative years.

For and on behalf of the Council

M. CHAMBERLIN

Deputy Chancellor.

MONASH UNIVERSITY

(I) STATEMENT SHOWING INCOME AND EXPENDITURE FOR ALL PURPOSES YEAR ENDED DECEMBER 31, 1965

	GOVERNMENT GRANTS			OTHER FUNDS			TOTAL
	Recurrent	Research Projects	Buildings, Equipment & Furniture	Grants & Donations	Union Develop- ment	Other Items	
	£	£	£	£	£	£	£
INCOME—							
State Government Grants:							
Received this year	2,182,799	10,000	1,210,000				3,402,799
<i>Add</i> Accrual at December 31, 1965	7,296	9,500	350,000				366,796
<i>Deduct</i> Accrual at January 1, 1965			505,560Dr.				505,560Dr.
Commonwealth Government Grants:							
Received this year	1,495,000	21,250	1,054,500				2,570,750
<i>Add</i> Accrual at December 31, 1965	3,944						3,944
<i>Deduct</i> Accrual at January 1, 1965	37,347Dr.	1,750Dr.					39,097Dr.
Academic Fees	512,390						5,799,632
Ad Hoc Course Fees	136						512,390
Union Fees						51,906	136
Union Development Fees					28,836		51,906
Grants & Donations				153,937			28,836
Appeals:							153,937
Great Hall				205,624			205,624
Religious Centre				15,863			15,863
Forward:	4,164,218	39,000	2,108,940	375,424	28,836	51,906	6,768,324

	GOVERNMENT GRANTS			OTHER FUNDS			TOTAL
	Recurrent	Research Projects	Buildings, Equipment & Furniture	Grants & Donations	Union Development	Other Items	
	£	£	£	£	£	£	£
Forward:	4,164,218	39,000	2,108,940	375,424	28,836	51,906	6,768,324
Outside Earnings					9,486	10,888	20,374
Other Income	5,634					17,270	22,904
TOTAL INCOME	4,169,852	39,000	2,108,940	375,424	38,322	80,064	6,811,602
Deficit		23,421	93,430		33,006	26,883	
Surplus	383,891			203,450			410,601
	3,785,961	62,421	2,202,370	171,974	71,328	106,947	6,401,001
EXPENDITURE —							
Teaching and Research:							
Salaries & Associated Expenses	2,129,519	2,056		83,077			2,214,652
Other Operating Expenses	262,739	3,625		21,403			287,767
Books & Journals	12,735	15,450		582			28,767
Equipment & Furniture	251,827	41,290	100,495	27,488			421,100
Teaching Hospitals:							
Salaries & Associated Expenses	3,350						3,350
Other Operating Expenses	7,140						7,140
Books & Journals	750						750
Library:							
Salaries & Associated Expenses	142,639						142,639
Other Operating Expenses	7,935						7,935
Books, Journals & Binding	104,673			223			104,896
Equipment & Furniture	1,569						1,569
Forward:	2,924,876	62,421	100,495	132,773			3,220,565

	GOVERNMENT GRANTS			OTHER FUNDS			TOTAL
	Recurrent	Research Projects	Buildings, Equipment & Furniture	Grants & Donations	Union Development	Other Items	
	£	£	£	£	£	£	
Forward:	2,924,876	62,421	100,495	132,773			3,220,565
Central Administration:							
Salaries & Associated Expenses	230,836						230,836
Advertising & Appointment Costs	85,478						85,478
Printing & Stationery	20,384						20,384
Public Ceremonies & Publications	8,933						8,933
Equipment & Office Machines	7,029						7,029
Other Expenses	62,980			377			63,357
General Administration:							
Motor Vehicles—Purchase & Maintenance	9,202						9,202
Cleaning Expenses & Equipment	74,599						74,599
Power & Fuel	87,707						87,707
Buildings—Furnishings, Maintenance & Alterations	94,637		162,378			5,950	262,965
Grounds Maintenance & Equipment	17,357						17,357
General Services & Associated Expenses	56,294						56,294
Telephone & Postage	41,119						41,119
Other Expenses	29,815						29,815
Forward:	3,751,246	62,421	262,873	133,150		5,950	4,215,640

	GOVERNMENT GRANTS			OTHER FUNDS			TOTAL
	Recurrent	Research Projects	Buildings, Equipment & Furniture	Grants & Donations	Union Development	Other Items	
	£	£	£	£	£	£	£
Forward:	3,751,246	62,421	262,873	133,150		5,950	4,215,640
Sundry Auxiliary Expenditure:							
Union Activities				2,464	23,327	56,984	82,775
Student Services	23,519						23,519
Halls of Residence						2,211Cr.	2,211Cr.
Audio-Visual Aids	11,090						11,090
Appeals:							
Great Hall				35,092			35,092
Religious Centre				386			386
Expenditure re Ad Hoc							
Courses	106						106
Expenditure re Outside							
Earnings:							
Equipment & Furniture						716	716
Other Expenses						4,238	4,238
Buildings:							
Site Acquisition					6,500	8,423	14,923
Site Development			144,195		2,859		147,054
New Buildings			1,795,302	882	38,642	32,847	1,867,673
TOTAL EXPENDITURE	3,785,961	62,421	2,202,370	171,974	71,328	106,947	6,401,001

(II) STATEMENT OF SOURCES AND APPLICATION OF FUNDS

	1958-63	1964	1965	Progressive Totals to 31/12/1965
	£	£	£	£
SOURCES—				
(1) State Government Grants:				
Recurrent	2,164,566*	1,528,092	2,190,095	5,882,753
Site, Buildings, Equipment & Furniture**	5,227,119	1,305,560	1,054,440	7,587,119
Research Projects	45,500	33,000	19,500	98,000
Total State Government	7,437,185	2,866,652	3,264,035	13,567,872
(2) Commonwealth Government Grants:				
Recurrent	1,216,419	964,678	1,461,597	3,642,694
Site, Buildings, Equipment & Furniture**	4,978,340	1,305,560	1,054,500	7,338,400
Research Projects	45,500	33,000	19,500	98,000
Total Commonwealth Government	6,240,259	2,303,238	2,535,597	11,079,094
Total Government:	13,677,444	5,169,890	5,799,632	24,646,966
(3) Academic & Ad Hoc Course Fees	247,808	254,332	512,526	1,014,666
(4) Union Fees	33,699	35,958	51,906	121,563
(5) Grants and Donations, including Appeals	162,470	113,231	375,424	651,125
(6) Union Development	10,767	21,810	38,322	70,899
(7) Other Income	27,316	93,323	33,792	154,431
TOTAL FUNDS AVAILABLE	14,159,504	5,688,544	6,811,602	26,659,650

* Includes special equipment grant of £104,000.

** Prior to the year 1963, this item did not include any funds available for expenditure on equipment.

	1958-63	1964	1965	Progressive Totals to 31/12/1965
	£	£	£	£
APPLICATION—				
(1) Recurrent Purposes:				
Salaries & other operating expenses	2,629,159	2,095,847	3,360,724	8,085,730
Equipment & Furniture	739,525	249,291	306,582	1,295,398
Books, Journals & Binding	359,207	203,206	118,655	681,068
(2) Site Acquisition & Development	994,871	148,142	144,195	1,287,208
(3) Building Funds:				
Buildings	8,434,328	2,059,808	1,795,302	12,289,438
Equipment	136,584	214,737	100,495	451,816
Furniture	338,937	108,445	162,378	609,760
(4) Research Projects	85,030	49,314	62,421	196,765
(5) Grants & Donations, including Appeals:				
Salaries & other operating expenses	57,713	63,405	140,342	261,460
Equipment	59,851	27,602	29,945	117,398
Books & Journals	1,238	534	805	2,577
Buildings			882	882
(6) Union Development	54,612	85,675	71,328	211,615
(7) Other Expenditure	37,451	127,933	106,947	272,331
TOTAL FUNDS APPLIED	13,928,506	5,433,939	6,401,001	25,763,446

(III) STATEMENT OF BALANCES AT DECEMBER 31, 1965

	£		£
Sundry Creditors and Accrued Expenses	481,885	Cash on Hand and at Bank	646,645
Loans on Mortgage	161,525	Investments—	
Accumulated Funds—		Short Term	150,000
Recurrent	490,268	Other	230,246
Capital	286,532		<u>380,246</u>
Grants and Donations, including Appeals	268,808	Sundry Debtors—	
Other (Dr.)	149,404	Accrued Government Grants	370,740
	<u>896,204</u>	Other	86,939
			<u>457,679</u>
		Stocks on Hand	26,787
		Payments in Advance	28,257
	<u><u>1,539,614</u></u>		<u><u>1,539,614</u></u>
Contingent Liability for Outstanding Purchase Orders	£543,000		

(IV) STATEMENT OF RECEIPTS AND PAYMENTS OF TRUST FUNDS
FOR YEAR ENDED DECEMBER 31, 1965

		£	
Cash at Bank, January 1, 1965	.....		808
Receipts—		£	
Hooker, Morawetz, and Olver Scholarship	.....	1,000	
Interest on Investments	.....	1,442	
Sale of Investment	.....	697	3,139
		<hr/>	<hr/>
			3,947
Payments—			
William and Katherine Winter Foundation	.....	975	
Hooker, Morawetz, and Olver Scholarship	.....	1,155	
Hume Turnbull Scholarship	.....	500	
Bequest from Estate of S. S. McCutcheon	.....	688	
D. J. Shing Trust	.....	100	
The David B. Rosenthal Memorial Trust	.....	25	
Purchase of Investment	.....	50	3,493
		<hr/>	<hr/>
Cash at Bank, December 31, 1965	.....		<u>454</u>

SCHEDULE OF TRUST FUNDS AT DECEMBER 31, 1965

	£	£
INSCRIBED STOCK—		
Melbourne and Metropolitan Board of Works	25,000	
State Electricity Commission of Victoria	637	
Commonwealth Government	<u>500</u>	26,137
 CURRENT ACCOUNT—		
Commercial Bank of Australia Limited		<u>454</u>
		<u><u>26,591</u></u>

(V) STUDENTS' LOAN FUND
BALANCE SHEET AS AT DECEMBER 31, 1965

	£		£
Students' Loan Fund	10,167	Cash at Bank	602
		Loans to Students	3,065
		Investments	<u>6,500</u>
	<u><u>10,167</u></u>		<u><u>10,167</u></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, 1965, 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.

A. J. A. GARDNER
Auditor-General
17/8/1966.





