### RESEARCH SCHOOL OF CHEMISTRY OPENING CEREMONY

#### FRIDAY 6 SEPTEMBER

Arrangements for the formal opening of the School are as follows.

THE CEREMONY: begins at 3 p.m., in the foyer.

The official party is:

The Chancellor
The Hon. Malcolm Fraser, Minister for Education & Science
Lord Todd, who will open the School.
The Vice-Chancellor
Professor Birch
Professor Craig

The official party will assemble and robe in Room 57. Academic dress is not required for others.

All members of the School are invited to attend, and to act as hosts to visitors during the afternoon. We expect a few more than 100 guests, and while there should be seats for everyone, it will be appreciated if our School people can do a "family hold back" job to make sure that our visitors are seated. No seats are "reserved", ushers will help in placing our guests.

The ceremony is expected to last 30 - 40 minutes, and will be followed by:

AFTERNOON TEA: in the Common Room at 3.45 p.m.

INSPECTION: of the building will follow. A paper will be distributed as guests arrive for the ceremony, to indicate those parts of the School which will be available for inspection. These places are to be manned from 4.15 to 6.00 p.m. by members of the School's staff as arranged by the heads of sections, and for safety, other areas will be locked.

The University has advertised in the local press that members of the public may inspect the School between 4.30 p.m. and 6.00 p.m. Again, it will be appreciated if School people are prepared to act as guides to all visitors, and to generally keep an eye open for any actions that may entail danger.

Finally, when visitors are cleared from the building at 6 p.m., the School party to celebrate the event will begin in the Common Room.

J.K. Sharp, Graduate Assistant.

### P.S. - Parking:

Everyone in this School is asked to park their vehicles away from the School for the whole day, leaving the School parking areas available for visitors. Thank you in anticipation.

# ANU gets aid for research

The Government has agreed to give money for the establishment of a research school of chemistry in the Australian National University's Institute of Advanced Studies.

The amount of financial assistance is not known at this stage.

The university's Acting-chemical development in the Vice-Chancellor, Professor Institute of Advanced Stud-Sir Hugh Ennor, said yester-lies had been in the specialday two foundation chairs ised field of medical chemin the new school had been istry.

Needs best

intellects'

"The Australian chemical

capacity, and the school will

"It will, at the same time,

Prof. Birch, 49, was educated at Sydney Techni-

cal High School and the

University of Sydney, where he obtained a Master of Science degree in 1938 and a scholarship tenable at

After obtaining a Doctorate in Philosophy, he

stayed at Oxford carrying

out research for the war

After the war, as an ICI research fellow, he followed up his previous research on hormones. In 1948, this work culminated in the first total synthesis of a male sex hormone by a process now used extensively in in-

From 1952-56 he was professor of organic chemistry at the University of Sydney. Since then he has been

Prof Birch is married with three sons and two

Prof Craig obtained a

MSc degree at the Univer-

After lecturing in chemistry at that university for a

short time after the war, he

was appointed a research fellow at University College,

London, and later became

chair of physical chemistry

at the University of Sydney

and later he took up his

present position in London.

Prof Craig holds the de-

He is married with three

Both men are expected to

arrive in Canberra in

grees of PhD and DSc of

the University of London.

sons and one daughter.

1967.

From 1952-56 he held the

lecturer in chemistry.

Oxford University.

effort.

dustry.

at Manchester.

sity of Sydney.

daughters.

accepted by distinguished "The new research school Australian chemists now in will contribute significantly the United Kingdom. towards advanced chemical

They are Professor A. J. development in Australia," Birch, who has accepted the he said. chair of organic chemistry, and Professor D. P. Craig, who has been appointed to the chair of physical and theoretical chemistry.

An appointment will be industry needs in its laboramade later to a foundation tivated to the limit of their chair in the field of inorganic chemistry. help in their training.

Prof Birch is now Professor of organic chemistry at the University of Manchester, and Prof Craig is pro-fessor of theoretical chemistry at University College, London.

provide opportunities for high level research attractive enough to bring back Australians who have gone overseas, and will retain London.

Sir Hugh said the need to leave." others who might otherwise comprehensive The new school will develop chemical studies had been bring the number of rekept constantly in mind since the university's early days, but so far the only five.

Australian 31/7/65

DRAIN OUR WAY

The Commonwealth Government will pay for a fifth research school at the Australian National University, Canberra.

It will be a research school of chemistry, and two Australian chemists working in Britain have accepted foundation chairs.

They are Professor A. J. Birch, who will occupy the Chair of Organic Chemistry, and Professor D. P. Craig, who has accepted the Chair of Physical and Theoretical Chemistry.

Professor Birch is Professor of Organic Chemistry at the University of Manchester, and Professor Craig is Professor of Theoretical Chemistry at the University College, London.

An appointment to a chair of inorganic chemistry will be made later.

The vice-chancellor, Sir Hugh Ennor, said the school would contribute significantly towards advanced chemical development in Australia. It would be especially

valuable in training to capacity the best intellects for the Australian chemical industries.

A feature of the school would be that it would be organised on a nondepartmental basis.

Sydney Morning Herald 31/7/65.

## University chairs for scientists

CANBERRA, Friday. - Two distinguished Australian scientists will return from Britain to join a new research school of Chemistry at the Australian National University.

The Commonwealth has agreed to provide funds for the school in the Institute of Advanced Studies.

The scientists are Professor A. J. Birch and D. P. Craig.

It was announced today that Professor Birch had accepted the chair of Organic Chemistry and Professor Craig, the chair of Physical and Theoretical Chemistry.

Professor Birch holds the chair of Organic Chemistry at Manchester University and Professor Craig the chair of Theoretical Chemistry at University College, London.

The acting Vice-Chancellor of the Australian National University, Professor Sir Hugh Ennor, said today the new research school would contribute towards advanced chemical development in Australia.

"The Australian chemical industry needs in its laboratories the best intellects cultivated to the limit of their capacity, and the school will help in their training," he said.

18 8 65 Canberna Times



An architect's impression of the main building and associated lecture theatre and library for the Research School of Chemistry at the ANU.

## Tenders called for

school

Λ

The Australian National University will call tenders today for a building to house the first stage of the new Research School of Chemistry.

Plans for the establish- commodation, and special the Institute of Advanced instrument rooms. Studies, were announced by the Acting Vice-Chancellor, Professor Sir Hugh Ennor, last month.

The building will incorporate some of the most recent innovations in chemical laboratory design, and will be built on part of what is now Turner sports ground.

The new school is expected to be ready for occupation early in 1967. The first stage will be built near the School of General Studies chemistry build-

This will lead to a closer working relationship between the department of chemistry and the research school,

The three sections of the new school -- organic chemistry, inorganic chemistry, and physical and rheoretical chemistry will each occupy a floor of the main block.

Provision has been made for two, four and six-mar

theatre and library block will be linked to the main building by a walk-way at first floor level.

A single-storey wing beaboratories, office ac hind the building will ment of the school, within purpose laboratories and house stores, woodworking, welding and glassblowing two-storey lecture plant, and a repair shop.

Canberra Times 218/65



Professor Birch

Professor Craig

## Appointed to ANU

Pictured above are the two new professors appointed to the ANU's Research School of Chemistry. Professor Birch will be foundation professor of organic chemistry. He is at present professor of organic chemistry at the University of Manchester. Professor Craig, now professor of theoretical chemistry at University College, London, will be foundation professor of physical and theoretical chemistry at the ANU. Both men are expected to take up their appointments in 1967.

#### EGGLESTON, MACDONALD & SECOMB

Architects and Town Planners 215 Grattan Street, Carlton, N.3. Victoria

AMP Building, Hobart Place, Canberra on behalf of the

Australian National University Tenders are invited for the erection of the RESEARCH SCHOOL OF

CHEMISTRY on the University site, comprising three storey block of approx 26,200 sq ft per floor, Workshop and facilities block of 17,300 sq ft and two storey Lecture Theatre Library block of 7,700 sq ft.

Drawings and specifications and Bills of Quantities are available from the Architects offices in Canberra and Melbourne. Tenderers should lodge a deposit of £50 with the Architects as security for the return of the drawings and specifica-

Tenders in sealed envelopes and addressed to the Associate Registrar, the Australian National University, Box 4, FOR THE RESEARCH SCHOOL OF CHEMISTRY BUILDING" and lodged in the Tender Box at the Univer-sity not later than 2 pm on 21st September, 1965, or reach the University by the first postal delivery on the closing

Plans and specification should be returned to the Architects office in a separate envelope. The lowest or any tender will not necessarily be accepted.

Comberna limes 21/8/65

TENDERS

**VOLUME 3 NUMBER 4 NOVEMBER 1965** 

## Research School of Chemistry building under construction

Work began in October on the erection of the first stage of a building for the Research School of Chemistry. Civil and Civic Pty. Ltd. are erecting the building at a cost of £894,120 which will be met from funds made available by the Commonwealth Government.

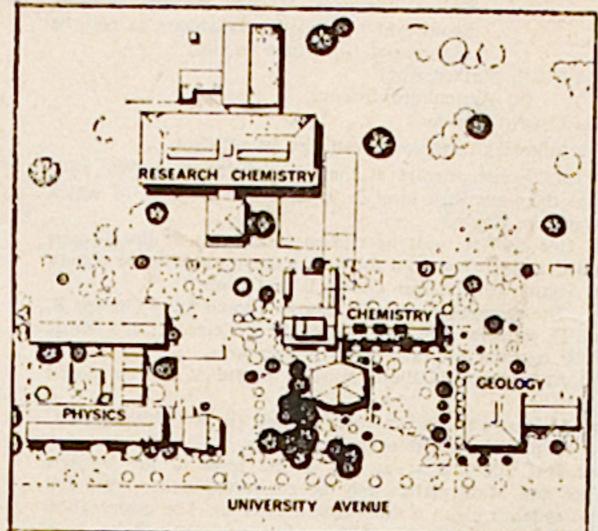
Architects Eggleston, Macdonald and Secomb, of Melbourne, have incorporated some of the most recent developments in chemical laboratory design in their plans for the building.

The building, which is expected to be ready for occupation in the first half of 1967, is being erected near the Chemistry Building of the School of General Studies so that a close working relationship may be developed between the Department of Chemistry and the new Research School.

Each of the three sections of the Research School-Organic Chemistry, Inorganic Chemistry and Physical and Theoretical Chemistry-will occupy one floor of the three-storey main block of the building. There will be two, four and six-man laboratories, office accommodation, and special purpose laboratories and instrument rooms.

A two-storey lecture theatre and library block will be linked to the main building by a walkway at first-floor level. A singlestorey wing behind the building will house stores, woodworking, welding and glassblowing plant, and a repair shop.

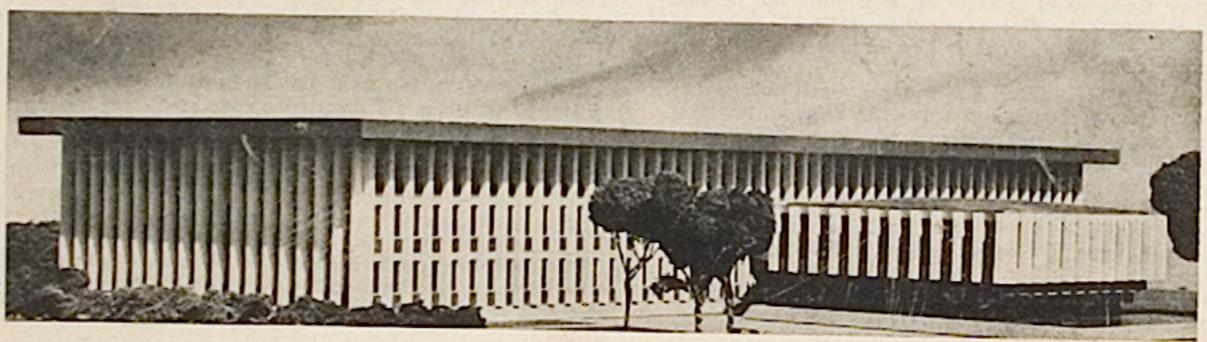
Until the Research School's laboratories are ready for use, a number of postgraduate scholars and postdoctoral fellows will work in Britain with Professor A. J. Birch and Professor D. P. Craig, who have accepted the School's Foundation Chairs of Organic Chemistry and Physical and Theoretical Chemistry respectively. Professor Birch is at present Professor of Organic Chemistry in the University of Manchester and Professor Craig is Professor of Theoretical Chemistry in University College, London. The postgraduate scholars will finish their



This site plan shows the placement of the building for the Research School of Chemistry in Science Road, between the Physics and Chemistry Buildings of the School of General Studies.

courses in Canberra when the Research School of Chemistry building is occupied, while the postdoctoral workers will come to the Australian National University as research fellows.

Professor Birch has been appointed Dean of the newlyestablished Research School for a period of three years. Professor Birch's appointment as Dean will be effective from the date in 1967 when he takes up his position as Professor of Organic Chemistry in the Research School. Until that time Professor Birch will be known as Dean-Elect of the Research School of Chemistry.



An architect's model of the main building and associated lecture theatre and library for the Research School of Chemistry.

## SCHOOL OF CHEMISTRY

# Huge chemical export market in Far East

The underdeveloped countries of the Far East offered a huge export market for the Australian chemical industry if it decided to tap fully its research potential, Professor A. J. Birch said yesterday.

Prof Birch, who has been appointed Head of the Department of Organic Chemistry and Dean-elect of the newly established Research School of Chemistry at the Australian National University, is visiting Canberra this week for discussions about the building, budget and staff of the new school.

The building to house the school, at present under construction on a site adjacent to the Department of Chemistry of the School of General Studies, is due to be completed at the end of March next year.

Prof Birch, now professor of organic chemistry at the University of Manchester, will not take up his appoint-

#### 'Closer link'

said one of the jobs he areas abroad. hoped to undertake in his "The character of Austra- what university - trained Prof Birch said he hoped new post was to assist in lian industry in the past was people could do for them. that Canberra's isolation sities in Australia. relatively simple things, Ition.



Professor Birch

"I don't think this connec-improved enormously since "In Britain a number of tion is strong enough here," he was last in Australia, universities are making use ment in Canberra until mid- he said. "In the United lack of contact between the of industrial people as States there is a much closer universities and industry honorary lecturers. This has link between the universi-still existed.

and development.

"Many of the firms here; "Many departments in were either British or British universities run re-American in origin, and they fresher courses for people were more concerned with in industry, to enable them having the research carried to eatch up with developout in the mother countries ments in the field," he said.

"It was argued that Aus- "In the United States tralia's population was too many university people act small to warrant large-scale as consultants for industrial research work in this field-firms, and often derive as but I don't believe this is much as 30 per cent of their a valid argument. income from this work.

"Australia should be exporting more of its chemical products to the Far Fast, and making use of the intellect available here to produce the things on the Continent industry and universities interchange can't make."

can't make." Prof Birch said that a parity of Income at varialthough the situation had ous levels in both fields.

la two-way benefit - the ties and industrial research. The blame for this should industrial person gains some

be shared by both parties. formal teaching experience Prof Birch, an Australian "In Australia there are Many university people to facilitate a switch to - he was Professor of reasons why research devel- were not as interested in academic work, and the stuorganic chemistry at Sydney opment in industry is not as practical problems as they dents are given a realistic University from 1952-56 - sophisticated as in some should be, and many indus- picture of the work being trial people did not realise done in industry."

Parity of

income

"In a number of countries

the closer co-operation be- mainly concerned with He suggested a number of from industry would not tween industry and univer-large-scale production of ways to improve the situa-deter him from "spreading the word" in Australia,

Canberra Times 16/3/66

## ACADEMIC NEWS

#### Australian National University

#### A.N.U. Research School of Chemistry

The Acting Vice-chancellor of the Australian National University, Professor Sir Hugh Ennor, Fellow, announced in July the establishment of a Research School of Chemistry in the Institute of Advanced Studies with funds provided by the Commonwealth Government.

Two Foundation Chairs in the new School have been accepted by distinguished Australian chemists at present working in Britain. They are Professor A. J. Birch, F.R.S., who has accepted the Chair of Organic Chemistry, and Professor D. P. Craig, who has accepted the Chair of Physical and Theoretical Chemistry. An appointment will later be made to a Foundation Chair in the field of inorganic chemistry.



Dr. A. J. Birch

Dr. A. J. Birch is at present Professor of Organic Chemistry at the University of Manchester. He was educated at Sydney Technical High School and at the University of Sydney, where he obtained the degree of Master of Science in 1938 and an 1851 Exhibition Scholarship tenable at the University of Oxford. After obtaining a Doctorate of Philosophy he remained at Oxford, carrying out research connected with the war effort. After the war, Dr. Birch, as an I.C.I. Research Fellow,

followed up his previous research in hormones. In 1948 this work culminated in the first total synthesis of a male sex hormone by a process now used extensively in industry in this and related fields. Between 1947 and 1952 he was Smithson Fellow of the Royal Society at Cambridge, where he worked on the development of ideas of biosynthesis. His results were later used in defining the origins of many natural substances such as the flower pigments and a number of antibiotics.

In 1952 Professor Birch returned to Australia to the Chair of Organic Chemistry at the University of Sydney, where he worked chiefly on Australian natural products. He expects to resume his work in this field, among his other interests, when he comes to Canberra.

Professor Birch has been at the University of Manchester since 1956. He is a Fellow of the Royal Institute of Chemistry, a Fellow of the Australian Academy and a Fellow of the Royal Society. In 1954 he was awarded the H. G. Smith Medal of the Royal

266 The Royal Australian Chemical Institute

Australian Chemical Institute and in 1962 the Fritsche award of the American Chemical Society and the Franklin Medal of Stanford University. In 1961 he was Simonsen Lecturer of the Chemical Society of London.



Dr. D. P. Craig

Dr. D. P. Craig, Fellow, was educated at the Sydney Church of England Grammar School and the University of Sydney, where he obtained the degree of Master of Science.

During World War II, he served as Captain in the A.I.F. After a short time as Lecturer in Chemistry at the University of Sydney he was appointed Turner and Newall Research Fellow at University College, London, where he later became Lecturer in Chemistry. There he developed methods

which are now generally accepted for the interpretation of the spectra of crystals. These methods throw light on the forces holding together the molecules in solids.

Returning to Australia in 1952, Professor Craig held the Chair of Physical Chemistry at the University of Sydney until 1956, when he was appointed Professor of Theoretical Chemistry at University College, London.

He was made a Fellow of University College in 1963, and in the same year was National Research Council-Nuffield Foundation Visiting Lecturer in Canada.

Professor Craig holds the degrees of Doctor of Philosophy and Doctor of Science of the University of London. He is a Fellow of the Royal Institute of Chemistry.

His recent work has included a theory of the chemical bonds in a new class of cyclic compounds now coming to be of industrial interest. In these compounds, atoms of phosphorus or sulphur are joined in an alternating sequence with nitrogen or oxygen. Professor Craig's interests also cover the field of quantum organic chemistry, which underlies modern studies of the nature of chemical reactions.

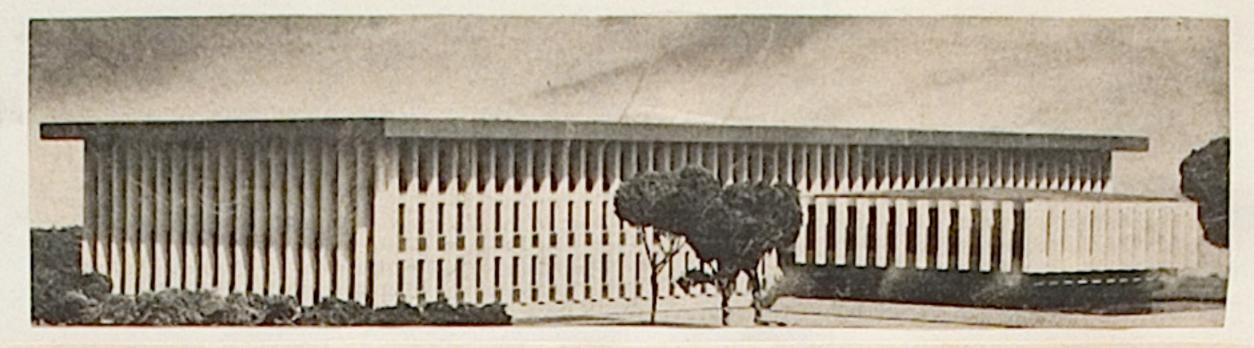
Mr. J. S. Harper, Associate, has been appointed Laboratory Manager of the new Research School of Chemistry at the Australian National University.

Dr. T. J. Batterham, Associate, has taken up a Research Fellowship in the Department of Medical Chemistry.

Proceedings, November, 1965



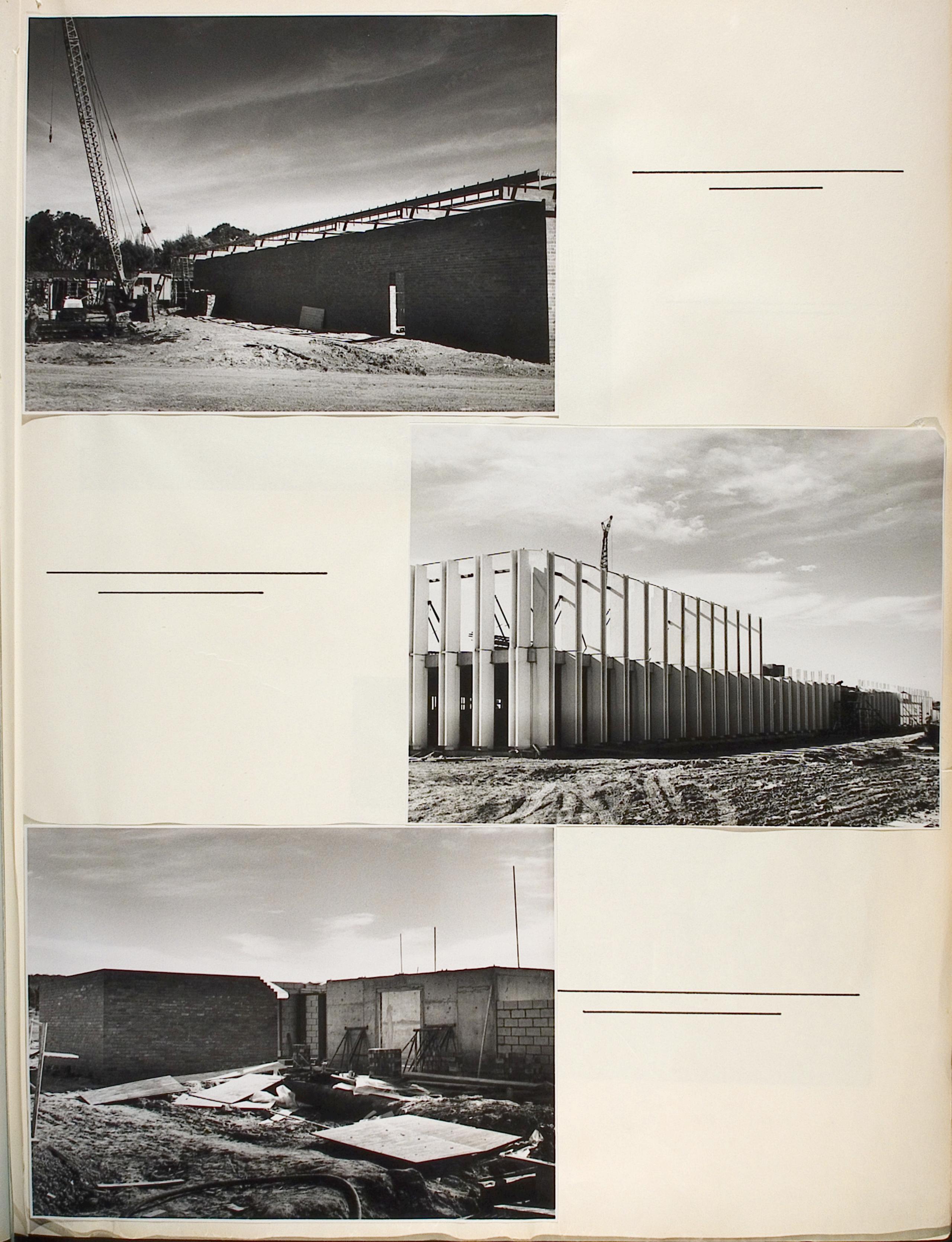
An architect's model of the main building and associated lecture theatre and library for the Australian National University's Research School of Chemistry. The building is expected to be ready for occupation early in 1967.



An architect's model of the main building and associated lecture theatre and library for the Research School of Chemistry.

Research School of Chemistry, 12th May, 1966.











The new Chancellor of the Australian National University, Lord Florey, right, is met on his arrival at Canberra Airport yesterday by the Vice-Chancellor, Sir Leonard Huxley.

## Lord Florey here for ANU installation

Lord Florey of Adelaide, who the foundation of the ANU, serving on arrived in Canberra last night, will the Academic Advisory Committee to the Interim Council, and later as adviser to the council. tralian National University at a cere- After the installation of the Chancellor mony in the Canberra Theatre on by the Pro-Chancellor, Dr H. C. Coombs, Thursday.

John Cockcroft as Chancellor last year, cellor of the University of Sydney, Sir is Provost of the Queen's College, Ox- Charles McDonald, and the Vice-Chanford, and immediate past-president of the cellor of the ANU, Sir Leonard Huxley. Royal Society.

Nobel Prize-winner. He was born in Ade- will attend the ceremony. Other Austra-

Lord Florey was closely associated with their chancellors or vice-chancellors.

addresses of greeting will be delivered by Senator Gorton, who will represent the Lord Florey, 67, who succeeded Sir Prime Minister at the ceremony, the Chan-

Members of the university council, con-The co-discoverer of penicillin with Sir vocation, staff, the student body and rep-Alexander Fleming. Lord Florey is a resentatives of the Canberra community lian universities will be represented by

# It was fun while it lasted, says Eccles

"Scientists are so damned expensive to train," Sir John Eccles said vigorously, "that no country can afford to retire them at 65." Government woke up to

The 63-year-old Nobel "You just can't pull — and we will have an international team including the land of the land and international team including the land of th natty Italian-style jumper air and you can't afford ing anatomists, physicists. under his coat as he gave to have them around and mathematicians and an interview on the eve deprive them of full scientists working on it of his departure from Sydopportunities."

ney for Chicago and a Sir John said his new good progress." new life.

Chicago than in talking for the finesse of a violin'1. about retirement.

Sir John would have had to retire from his professorship of physiology at the Australian National University, Canberra, in two years if he had not accepted the new

#### EXPERIENCE

He shrugged and said: I'm not at all bitter about the retirement age here. After all it's been very good fun.

"I've been here 14 years now and if you stay in the one place too long you lose a bit of your spark.

"It's time for me to leave and take on a new adventure because I believe in adventure.' Speaking in the office

of the professor of physiology at Sydney Univer-sity, Professor P. Bishop, Sir John said: "Of course, if the new job hadn't worked out I'd have felt differently about retire-

"I think 65 is too young to retire good scientists. "A decade of experience is necessary for a man who is going to lead a team - and it's time the

By GRAHAM WILLIAMS

player, a ballet dancer or a tradesman, is a wonderful computer.

"It has only five types of nerve cells and yet I still can't see how it functions.

"If we can find this out we will have made very

project would try to Sir John will spend two He was more interested understand how part of weeks in Chicago then in explaining with boyish the brain functioned. return to Australia for enthusiasm the new inter- "The cerebellum, which another two weeks before national brain research controls automatic move- taking up his appointment project he will direct in ments and is responsible in Chicago on September



SIR JOHN . . . Time the Government woke up.

Camberra Times, 5/7/66

## LORD FLOREY'S VIEW

## No reason now for 'brain drain'

Lord Florey of Adelaide indicated yesterday that the circumstances that took him from Australia 40 years ago should not apply to young scientists today.

Lord Flory has returned to Australia for his installation as Chancellor of the Australian National Univer-

He is also Provost of Queens College, Oxford, and in 1945 shared the Nobel Prize for medicine for his work on the clinical applications of penicillin.

In the next two months he will undertake research in the John Curtin School of Medical Research.

Although he has made many visits to Australia since taking up residence in Britain, he told a press conference at the ANU yesterday that he "was getting too old" to consider making his return home permanent. "I like to regard myself

as a citizen of the world-I feel at home in the United States just as much as in Britain or Australia, but the great attraction of Britain is that there are a lot of people with whom you can talk", he said.

#### Experience overseas

"When the Australian National University was not of a sufficiently high duce a great many psychobeing set up and my advice standard to attract them logical problems". was sought, I said it must back again, be established on a sufficiently large scale to provide a sizeable academic have seen a great improvecommunity.

Oxford as a young man where in the world". such communities just did

not exist in Australia". Lord Florey said he be- lieved it was essential for lieved it was all to the good governments to establish if young people went policies for the financing of abroad to gain experience science. in other countries.



Lord Florey

stayed away because work-jof human life in the future. ing conditions and facilities people to congregate in in their home country were megalopolises might pro-

"I think the last 15 years ment in this respect in Aus-"I feel this has been tralia - places like the "But when I first went to be considered first rate any-John Curtin School would

Lord Florey said he be-

"Although I am not suffi-What was not good was ciently familiar with the losing a substantial number situation in Australia. I beof these young people who lieve the question of scien-

tific policy is absolutely fundamental", he said.

"Communities won't be prepared to put everincreasing resources into all aspects of scientific research. Priorities have to be established".

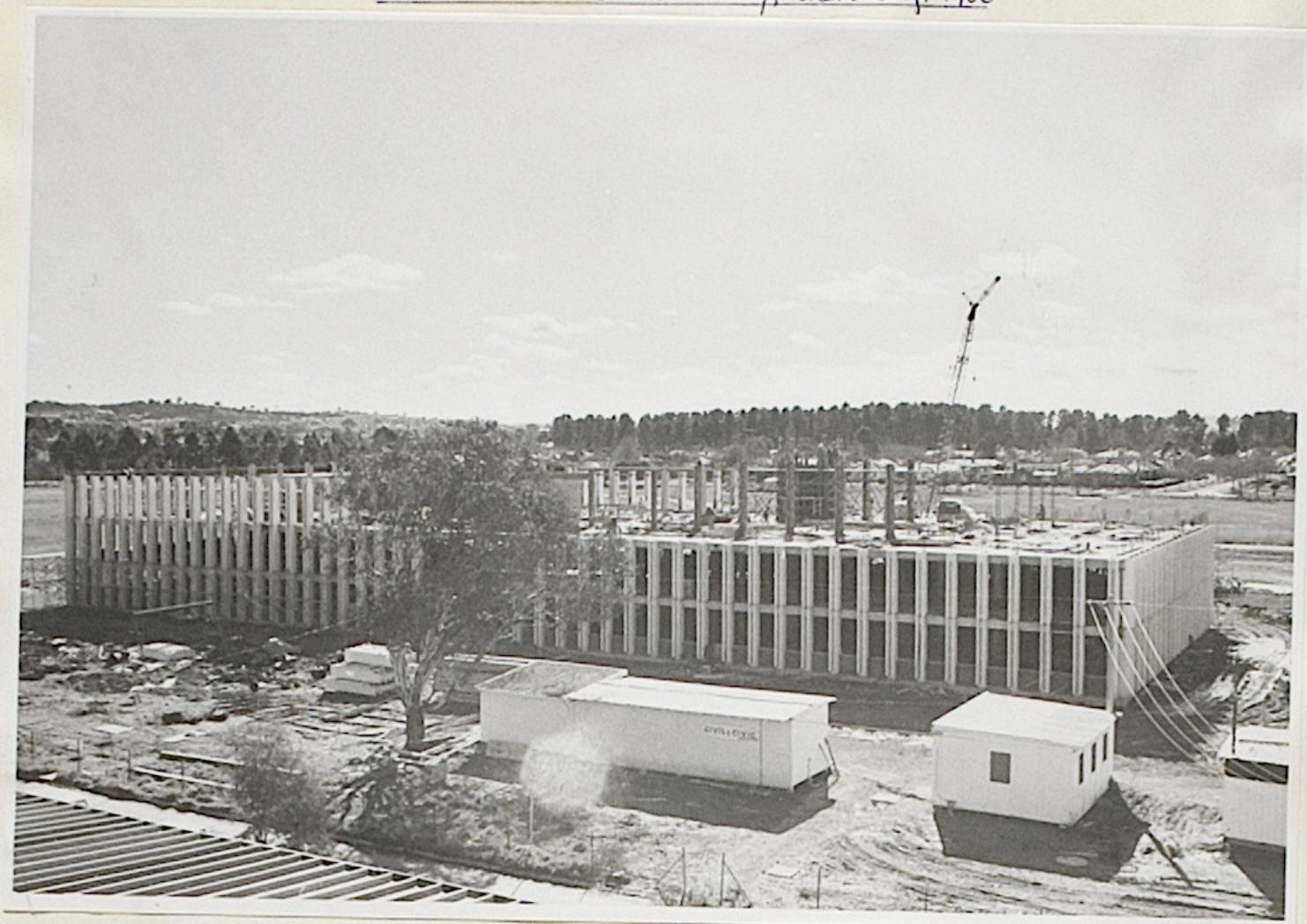
Looking to the future, Lord Florey predicted that world trends of increasing populations might produce an increasing number of health problems in the psychological rather than the physiological field.

"When you look at the general health situation today you might say that efforts to combat disease have been too successful", he said. "Now we have to look around to see how we can stop the population increasing.

"It is being recognised that even the highly developed countries are going to be in a serious position by the end of the century. "I take a gloomy view at

the prospect of the quality "I think the tendency for

Research School of Chamistry, 26th July, 1966



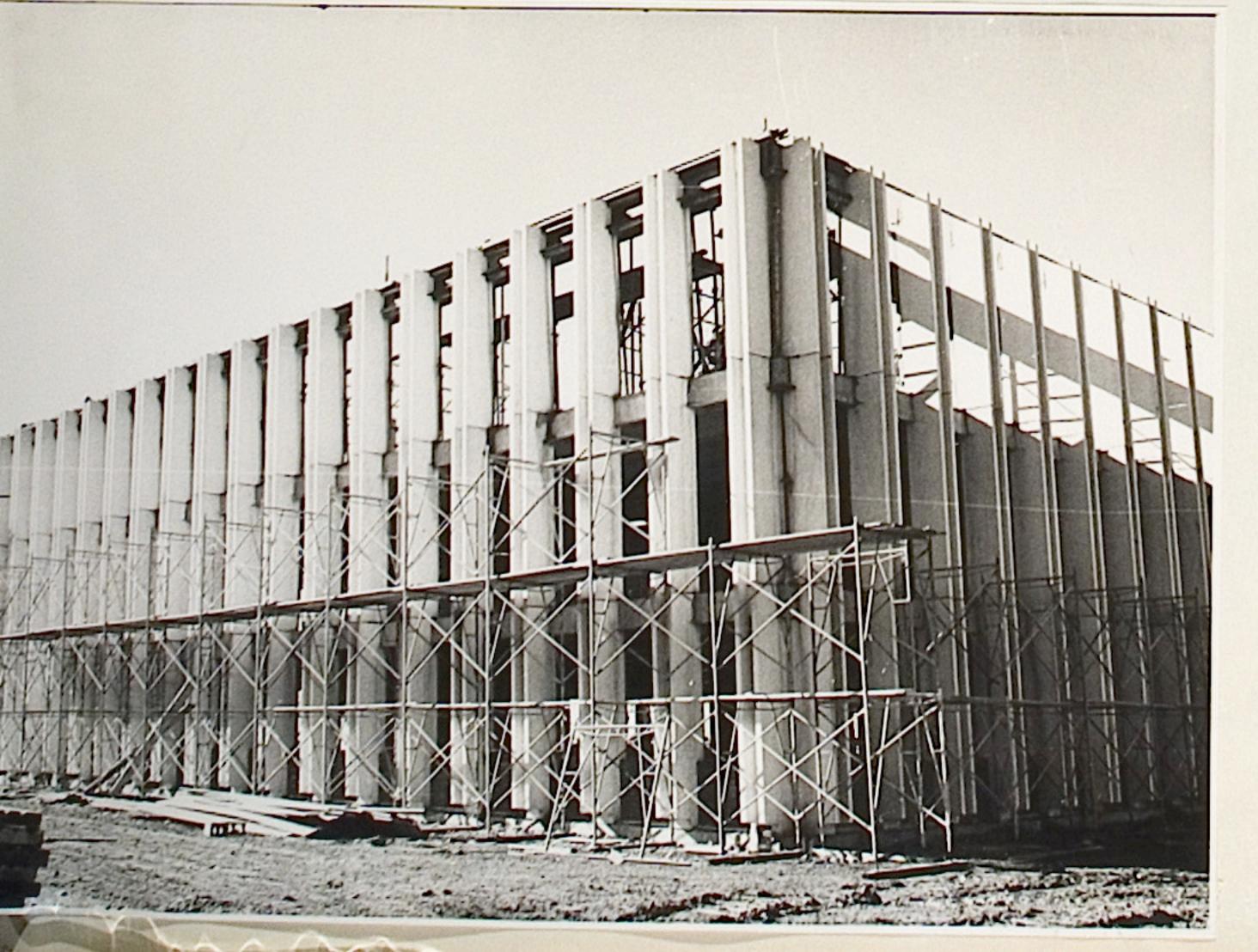




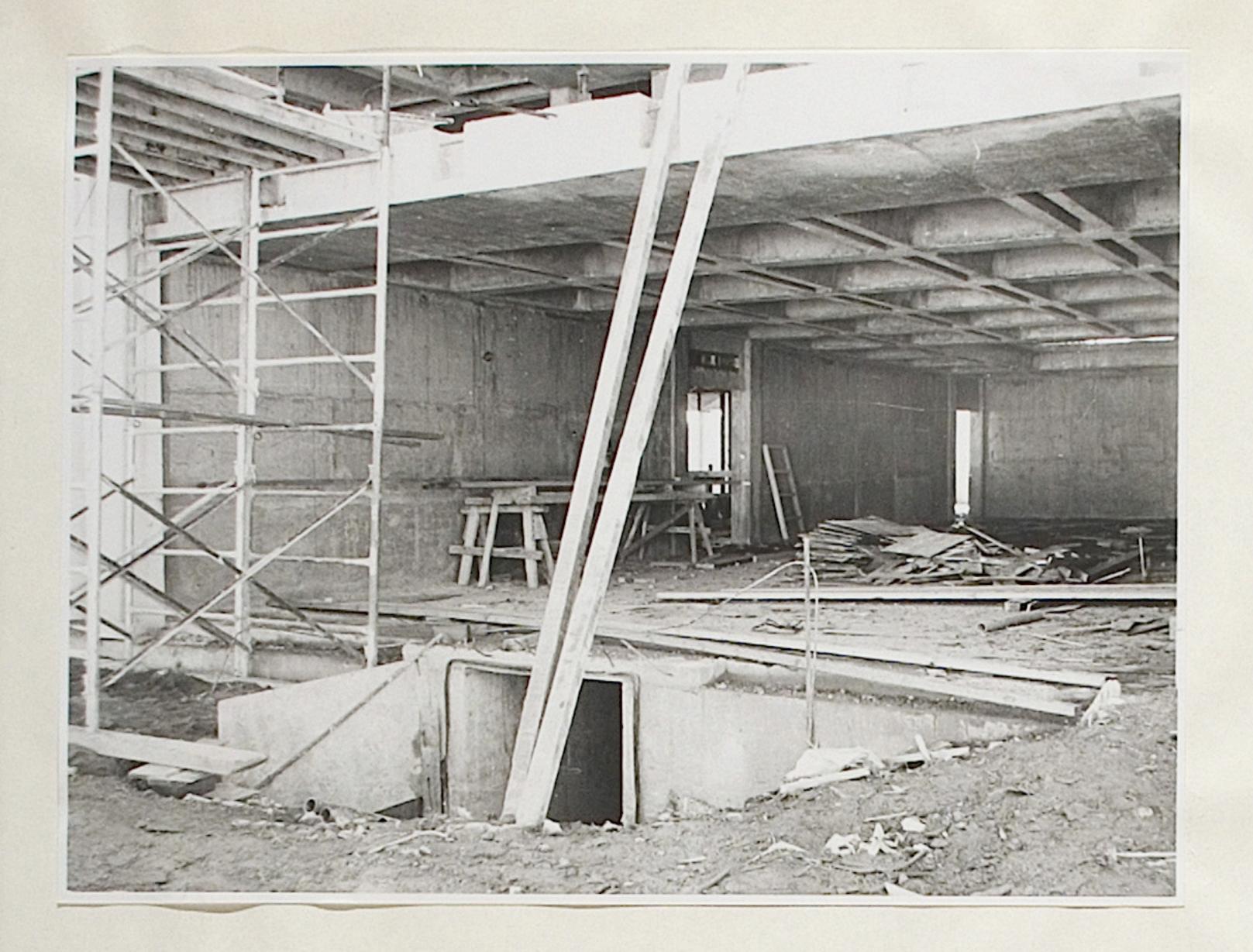
WESTERN END G. FLOOR 20TH JULY 1966.



G.O.W. BILL PEARCE.



FRONT ENTRANCE 20TH JULY 1966.









12TH MAY 1966.

## UNIVERSITIES COMMISSION RECOMMENDATIONS

## A.N.U. GRANTED ALMOST \$66m

sion recommended a University, of which telescope building: Government agreed to grant \$65,859,000.

The recommendations of the Commission for capital expenditure on buildings in the Australian National University totalled \$10,176,000 of which the Commonwealth agreed to grant \$9,976,000. The AUC's recommendations included:

#### Institute of Advanced Studies

John Curtin School of Medical Research: \$94,000 The university also refor minor alterations to quested a grant of Physiology and Medical \$1,700,000 for a tandem ac-Chemistry and for an ani- celerator for the Department mal-breeding unit including of Nuclear Physics. an animal hospital and an air-conditioned operating the university's request for a RECURRENT

Research School of Phyfor geophysics to provide Existing accommodation for all the major activities within the two schools is (a) Excludes direct Commonwealth items totalling \$2.322m. for of the department.

"Polarisation is becoming sion of a linguistics labora- building in 1967-69. increasingly important in tory. optical astronomy, especivelopments in radioastronomy. The university's Department of Astronomy is well ahead of any southern observatory in this field".

The university also requested support for a building to house at Siding Springs the 50-inch telescope now at Mt Stromlo. This telescope is used chiefly for photoelectric work.

The commission supports grant of \$234,000 for Nuc- General .. .. .. .. 35,928 52,168 50.021 lear Physics

fully taxed and the com- (b) Excluding income from fees, rents, etc.

The university's submis-mission recommends a fur-monwealth grant of \$2,030,- the following general points quest for an extra building a building to provide labora- Sporting facilities: A sion for extra facilities for the peartment of Astronomy at the Siding Springs of a heminomy at the Siding Springs

sion for extra facilities for the grant of \$622,000 in the 000, Stage I of the new Rein support of a proposal to create a Research School of Chemistry create a Research School of Chemistry create a Research School of Chemistry create a Research School of Biological Sciences — the hexagon, completion of all cal and theoretical) is now university's sixth research

Siding Springs

General

Construction of all cal and theoretical) is now university's sixth research

Siding Springs total expenditure of Observatory makes the fol-unfinished areas in the existrising on a site next to the school: Australian National University, of which University, of which and geology and the provi-\$624,000 to complete the

> Research School of Bio-Research School of logical Sciences: The unially because of recent de- Chemistry: With a Com- versity's submission included

## ANU PROGRAMME

32 8 is 32 is

	Approve Program	A.U.C Recment tions	Propose Program
CAPITAL	\$'000	\$'000	\$.000
University Buildings Computers Research Student Residences	7,356 340 3,780 2,593	10,176 184 3,400 2,641	9,976 184 3,000 2,640
Total Capital	14,069(a	17,782	15,800(a)

sical Sciences: 5714,000 for Research School of Social Total Recurrent . . . . . 35,928(b) 52,206(b) 50,059(b) additional accommodation Sciences and Pacific Studies: Total Capital and Recurrent 49,997 69,988 65,859

Student Residences .. ..

\$174,000 for the construction of the economics lecture theatre.

progress of all fields of for a new building for law. molished for the new law including the construction applied biology and, in As part of the proposed ac-building. particular, the proposed commodation will not be reschool would provide sup- quired immediately for law, ort to the many Austra- the university will use this lian institutes of biologi- area to house portion of adcal research which are ministration. oriented towards agricul-Botany: A grant of

ture and medicine. \$630,000 for a building for The influence and scope of the Department of Botany. university. The Army will Planning: A grant of the research school would be national. At the same commended to provide addi- ner, and the university has the commission to enable time the established bio-tional laboratory space.

logy departments in the Geology: The university School of General Studies and the John Curtin has demonstrated the need School of Medical Re- for completion of the geosearch would be comple- logy building. The commis-mented by a research sion supports the universchool devoted to funda-mental research in bio-\$274,000 for this work. Zoology: \$210,000 for the

The Commission sup-completion of the lower ports the University's re- ground floor. quest and recommends a grant of \$238,000 in the alterations to existing build-

#### School of General tion for the new Depart-Studies

Arts: The commission supports the university's re-

Administration: \$252,000 provision of tennis courts. to house elements of ad- Site works and services: ministration occupying tem- A grant of \$1,282,000 for Law: A grant of \$660,000 porary quarters to be de-general site development,

> University Hall: \$148,000 guttering, installation of to provide a building for use water supply, electricity, for examinations and other telephones, storm water purposes, to replace the drains, extension of the Childers Street hall

on a site allocated to the Springs and Mt Stromlo.

Chemistry: \$210,000 is re- be v cating its depot at Tur- \$60,000 is recommended by requested \$68,000 for the the university to plan for purchase of the drill hall. the 1970-72 triennium.

## **Kecurrent** grants

ernment agreed to grant \$50,059,000.

ment of Biochemistry. Forestry: \$950,000 for a grants included sufficient sities in the States. new building for Forestry funds to enable the insti- In calculating the recuron the university campus. tute to continue its research tent grants recommended

\$1,140,000 for completion Sciences.

Biochemistry: \$32,000 for

ings to provide accommoda-

of the library.

The AUC recom- of General Studies was enrecurrent visaged than had previously grants of \$52,206,000 existed. In 1964, 1965 and to the ANU for 1967- 1966 the ratio was 8.4, 8.7 69, of which the Gov- and 8,5 respectively. For 1967-69 is was estimated to

of roads, footpaths, curbing,

central boiler house and

minor site works at Siding

General Studies Library: programme for the 1967-69 for the Australian National

be 8.8, 9.6 and 10.1 respectively. This would approach It said the recurrent the ratios at similar unver-

The facilities available are inadequate and the commission recommends a grant of search School of Biological taken into account. This first Commonwealth pay-

A higher ratio of stud-ment towards the recurrent Psychology: \$364,000 for lents to staff at the School grants recommended.

Canberna Times, 22/9/66.

# Universities to cost \$610m over three years

The Commonwealth will spend \$276 million on tertiary education in Australia over the next three years.

This is 45 per cent of the anticipated total expenditure of \$610 million in the period on universities and advanced colleges of education. Total expenditure is \$192 million more than in the 1964-66 period.

The Minister in Charge of Commonwealth Activities in Education and Research, Senator Gorton, announced details of the Commonwealth's plans when he tabled reports of the Australian Universities Commission and the Advisory Committee on Advanced Education in the Senate last night.

The Commonwealth will spend about \$241 million on universities -\$66 million of it on the Australian National University - and \$35 million on advanced colleges of education.

The States and fee-paying students will make up the rest of the totals -\$512 millon on universities and \$98 million - advanced colleges of education.

The amount to be spent on universities is about 30 per cent higher than in the 1964-66 triennium.

Total expenditure on colleges of education is \$98 million, about \$70 million higher than in the last triennium - due primarily to the new emphasis now being placed on this area of tertiary education and the lack of any previous Commonwealth financial assistance.

Senator Gorton said the Commonwealth's entry into this field was a significant new step towards providing an alternative system of tertiary education which could grow in status and authority.

specific colleges the Com- embarrass it. monwealth would provide The largest cuts occurred \$500,000 for libraries and in South Australia.

\$250,000 for research on the The way advanced colleges agreed to major expenditure should develop in future. on teaching hospitals in The Government rejected support of a \$10 million

a recommendation by the programme to reduce "years committee that it should in-crease the rate at which it provides recurrent grants teaching hospitals". for the colleges. The committee wanted ences between the AUC and the Government to spend the Government was over \$1 for each \$1 spent by the finance for university re-

States - as it does for uni- search. versity grants. Instead the The AUC recommended Commonwealth will provide that \$10 million be spent on \$1 for every \$1-85 from the university research, com-

tralian Universities Commission either on specific grants or general questions of policy.

The AUC, in a report two inches thick, recommended the total pro-crease by \$7 million to \$11 gramme for universities million the amount which over the 1967-68 triennium would be spent on research should be about \$568 mil- by the Australian Research

duced this to \$512 million. lump sums to universities. which was nevertheless \$120 million more than in the Half of the \$11 million last triennium.

#### Premiers asked for cuts

recommendations affecting tion".

universities and ask the Commonwealth to set al

Apart from grants for programme that would not

Commonwealth

One of the major differ-

pared with \$6 million in the

The Commonwealth did last triennium. The Governnot fully accept recom- ment decided not to increase mendations of the Aus-its allocation at all. More for grants

## committee

Instead it decided to inallocates money for specific The Commonwealth re-research tasks and not it

> for the grants committee and half the \$6 million for the universities will have to come from the States.

The significance of the One of the reasons for the grants committee came out reductions was a request by in another section of Senathe last Premiers' Confer- tor Gorton's speech. He reence for the Commonwealth ferred to it as "a miniature to consult each State on the national science founda-

The Government agreed This allowed each State that it should cease to pay to determine the most it universities for the work could afford to spend on they do in adult education. Camberra Times, 22/9/66.

ANU GET \$65.8m

Australian National University will receive \$65,859,-000 in Commonwealth grants over the next three years - an increase of almost \$15 million, or 32 per cent increase on its grants in the last triennium.

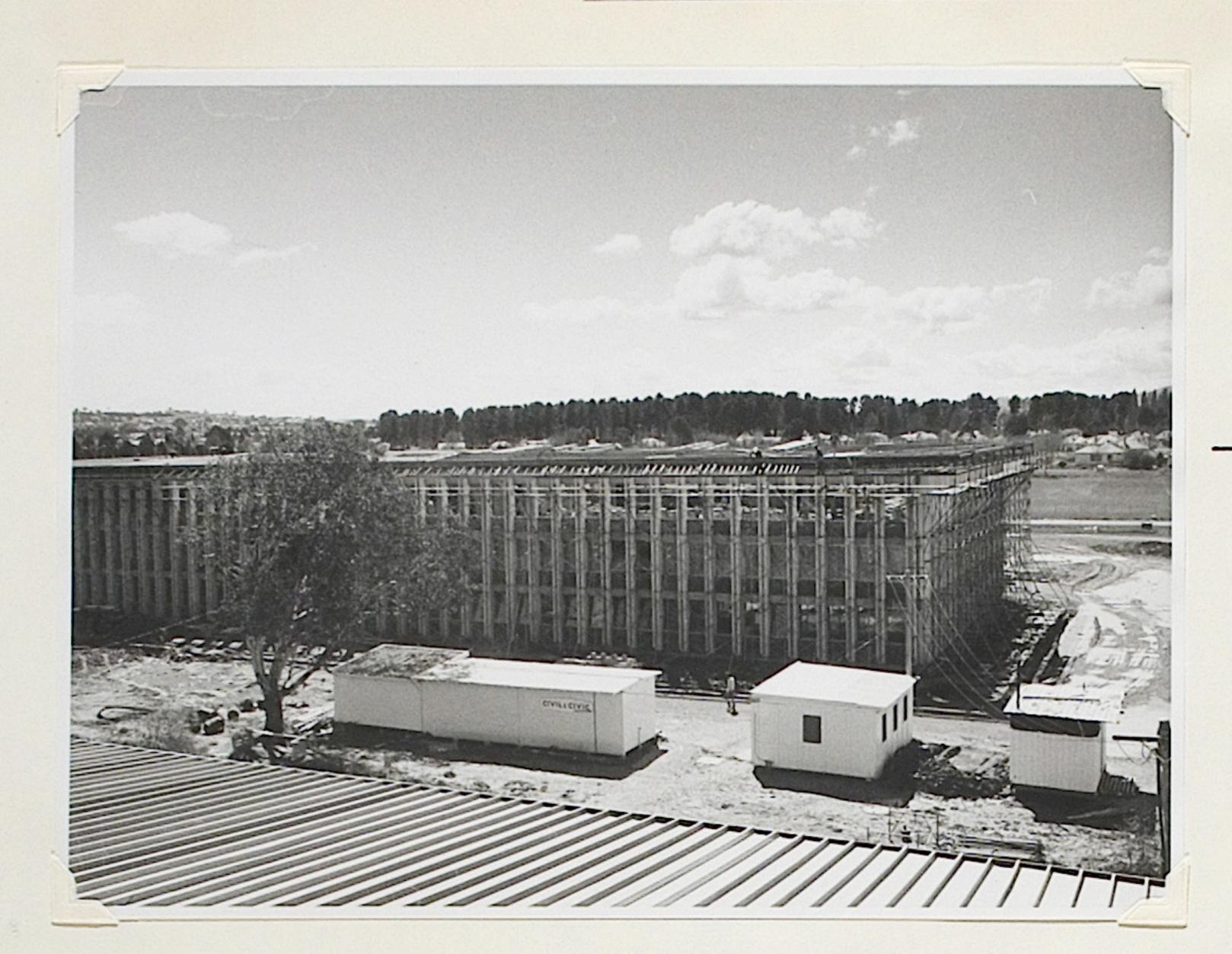
Most of the grant will go for recurrent expenditure, with about \$16 million being spent on capital works. Major developments in the triennium will be the inauguration of a sixth school in the Institute of General Studies - the Research School of Biological Sciences.

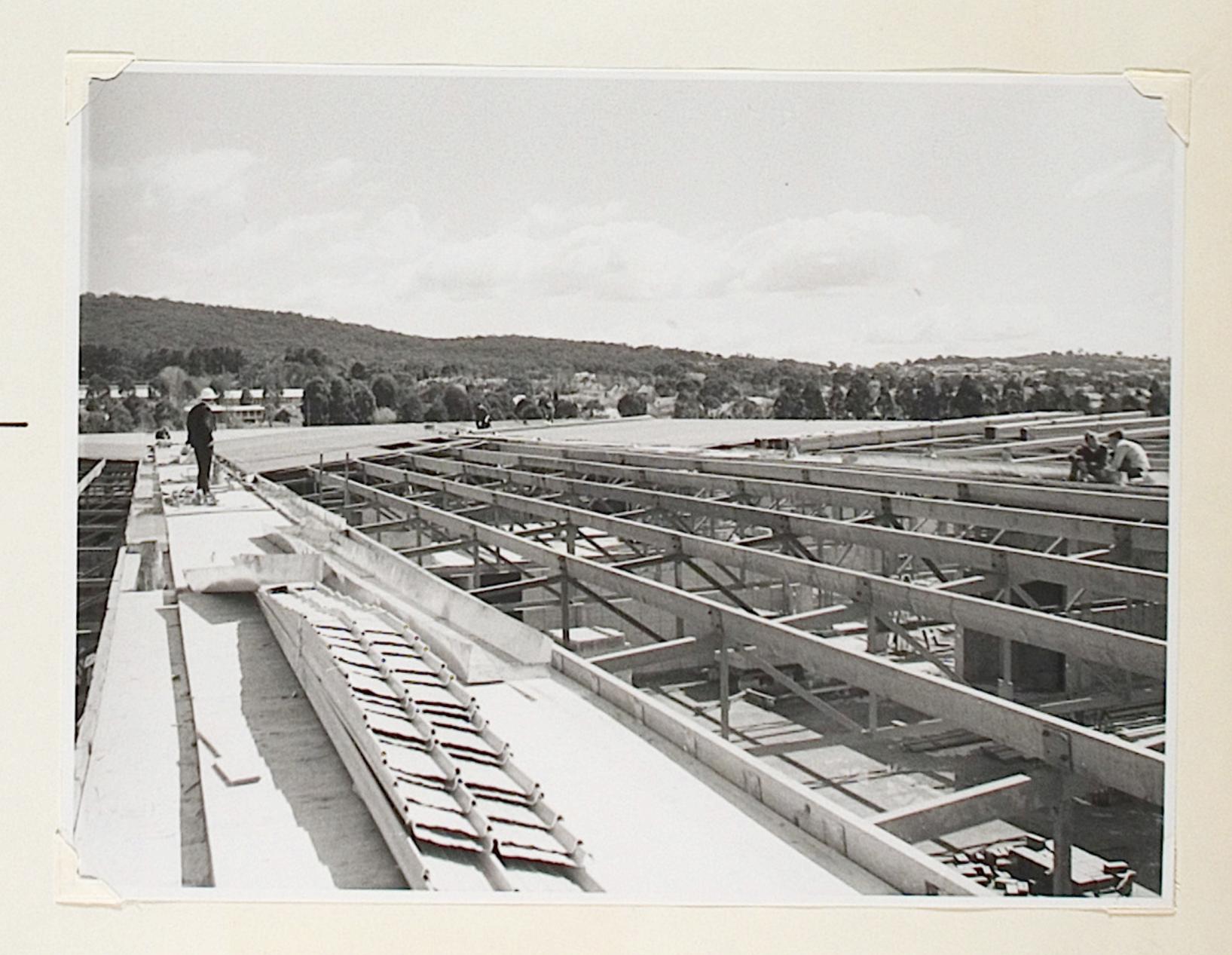
#### Residential colleges

In the School of General Studies \$1,140,000 will be spent on extending the library, \$734,000 on a new building for the Arts faculty and \$660,000 on a building for the law faculty.

The Government will provide 75 per cent of the capttal cost of three affiliated residential colleges - St John's, St Ursula's and the inter-church college, together with the whole of the amount needed for a second post-graduate hall of residence.

Special research grants of \$240,000 will be provided for postgraduate training in the School of General Studies, while the research grant for the Institute will be \$2,760,000.







North-East Corner, Ground Floor.



#### THE JOHN CURTIN SCHOOL OF MEDICAL RESEARCH

THE AUSTRALIAN NATIONAL UNIVERSITY

Telegrams Curtinschool
Telephone 49-5III
Telex 62033

Box 4, G.P.O. Canberra A.C.T.

16 January 1967

Messrs. J. Harper & R. Rickards,
Research School of Chemistry,
THE UNIVERSITY.

Dear John & Rod,

I was delighted to have your congratulatory letter of 11 January and to learn that you thought my appointment a good one.

While I will be sorry, of course, to leave the A.N.U. and my colleagues in the various Schools, may I take it that your final paragraph amounts to an election as an Honorary Drinking Member of the Research School of Chemistry? This being so, I am more than delighted to accept.

Best wishes,

Yours sincerely,

aff 6 mor.

(A. H. Ennor)

## The Canberra Times

Friday, January 13, 1967

## IN THE SERVICE OF THE PUBLIC

THE reaction of the president of the ACT branch of I the Administrative and Clerical Officers Association to the appointment of Sir Hugh Ennor as first permanent head of the Commonwealth Department of Education and Science is illogical and disturbing.

It is illogical because it finds something objectionable in the thought that a top Public Service post should go to a leading academic. What is the basis for that argument? Does the association suggest that departmental administration is an activity that can be carried out properly only by those who have spent their lives in the Commonwealth Public Service? A glance at the record of wartime administration and the contribution made to it by such outsiders as Sir John Crawford. Laurence Hartnett, and Essington Lewis is enough to dispose of such an assertion.

It is disturbing because it sees political patronage in the appointment. How can it be argued that a man with an international reputation as a biochemist, and holding the twin academic and administrative distinctions of Dean of the John Curtin School of Medical Research and Deputy Vice-Chancellor of the Australian National University, is a political appointee to a position for which his qualifications are so admirably suited? It is a silly allegation.

It is to be hoped that the views of the president are not supported by the whole Canberra membership. If they are, it is a poor reflection on the public spirit of public servants. The test of all appointments at the top of the Commonwealth Public Service is whether they serve the national interest. This one clearly does. The department is a new body which can do much to increase the quality of Australian education through research and advice to the States. It needs a top educationist to run it, and it has got one.

If public servants want to run a closed shop, as Mr O'Brien's statement implies, they must logically act to prevent their fellows from transferring to top jobs in industry or the academic world.

## Ennor's new appointment welcomed

By MICHAEL DALEY

Sir Hugh Ennor as to argue his department's and also the nation's permanent head of the needs in education and new Department of Science with Senator Gorton, who is regarded as a tough minister. was welcomed yester- Initially, no real surscientific circles.

almost inherent suspicion activities formerly held among academics of other in the Prime Minister's academics who become Department. involved in politics, in the context of the new department there are RESEARCH GRANTS few, if any, reservations.

many if a career public servant had got the job.

As far as the Government's relations with the control, Senator Gorton has promised the academic community - organisation's executive

psychology.

It at least offsets the minister. fears aroused by the Similarly, there are no appointment of a senior plans yet to bring the Treasury official, Mr C. Defence Science Service L. S. Hewitt, as head of within its administration. the Universities Com- The main development mission.

### TOUGH MINISTER

scientists and the needs the widely dispersed of education should head areas of Governmentthe department which supported research. will be involved in these A measure of cocomplex and interdepen- ordination has already

leading bio-chemist and bodies, the National deputy Vice-Chancellor Health and Medical Reof the Australian Nation-search Council and the al University, combines Australian Research these advantages.

he will be a strong search grants.

The appointment of administrator, prepared

day in academic and prises can be expected from the department. It will mainly consolidate Although there is an under the one roof the

Although there have There would have been been some fears that the hardly the best at present that there will be no - are concerned, the change in its status which appointment is good gives it direct access and responsibility to the

expected, possibly this year, is the establishment of a Science Advisory Council to advise the But it is also logical Cabinet on science policy that somebody who and to co-ordinate and understands science and plan overall spending in

been achieved between Sir Hugh, 54, as a two government funding hese advantages.

Colleagues believe that avoid duplicating re-

## TOP FEDERAL EDUCATION JOB FILLED

Professor Sir Hugh Ennor, deputy vice chancellor of the Australian National University, has been appointed permanent head of the new Commonwealth Department of Education and Science.

The Minister, Senator Gorton, said last night he could not recall a similar outside appointment to head a department since 1947. "I thought he was a pretty good bloke and just right for the job," he said.

(In 1947 Dr John Burton was appointed secretary of the External Affairs Department.)

Sir Hugh, who is 54, has an outstanding international reputation in Professor Sir Hugh Ennor both education and science.

He is head of the John Curtin School of Medical Research at the ANU and treasurer of the Australian Academy Science.

His new job is based in Canberra and he will be paid \$15,000 a year.

Senator Gorton said yesterday that Sir Hugh had a number of engagements to speak in London, Russia, America and Japan during the next few months.

#### KEEN TO BEGIN

The new department, created as the result of an election promise by the Prime Minister, Mr Holt, has taken over control of the CSIRO, and many of the Commonwealth's other activities in science and education.

Sir Hugh said last night: "I cannot think of anything more important to Australia than education and, in this technological age, science.

"I don't know yet when I will take up the appointment - that's a matter for the Prime Minister and Senator Gorton.

"But I do know that I am keen to begin. I still have a lot of commitments, including an overseas tour. Whether I continue with these will have to be discussed."



## Ennor's post 'shock to PS'

The selection of Sir Hugh Ennor as first permanent head of the new Commonwealth Department of Education had come as a great shock to Public Servants, Mr E. P. O'Brien said yesterday.

Mr O'Brien is president of the ACT branch of the Administrative and Clerical Officers' Association.

In a statement issued in Canberra yesterday Mr O'Brien said that within the Commonwealth Public Service there were a number of senior officers who had been closely associated with education since the early 1940s and who had had a wealth of experience in dealing with the major problems which would be taken over by the new department,

"It is disturbing to find that a top job in the public service is to be given to an undoubtedly highly intelligent member of the community who has technical and perhaps administrative skills in the research facilities of a university", Mr O'Brien continued.

"If we are to discard the current system of advancing public servants as their contributions to the Commonwealth administrative function warrants in favour of the United States system of political patronage, there should be a public announcement by the Government".



Sir Hugh Ennor

## Sir Hugh Ennor heads Science, Education

By BRUCE JUDDERY

The Deputy Vice-Chancellor of the Australian National University, Sir Hugh Ennor, is to be the first permanent head of the new Commonwealth Department of Education and Science.

With the appointment, the ANU loses one of its "founding fathers" from the late 1940's, when Sir Hugh became its first Professor of Biochemistry.

Announcing Sir Hugh's appointment yesterday, the Minister for Education and Science, Senator Gorton. said the choice had been made after four or five other candidates had been considered.

## Date not

set

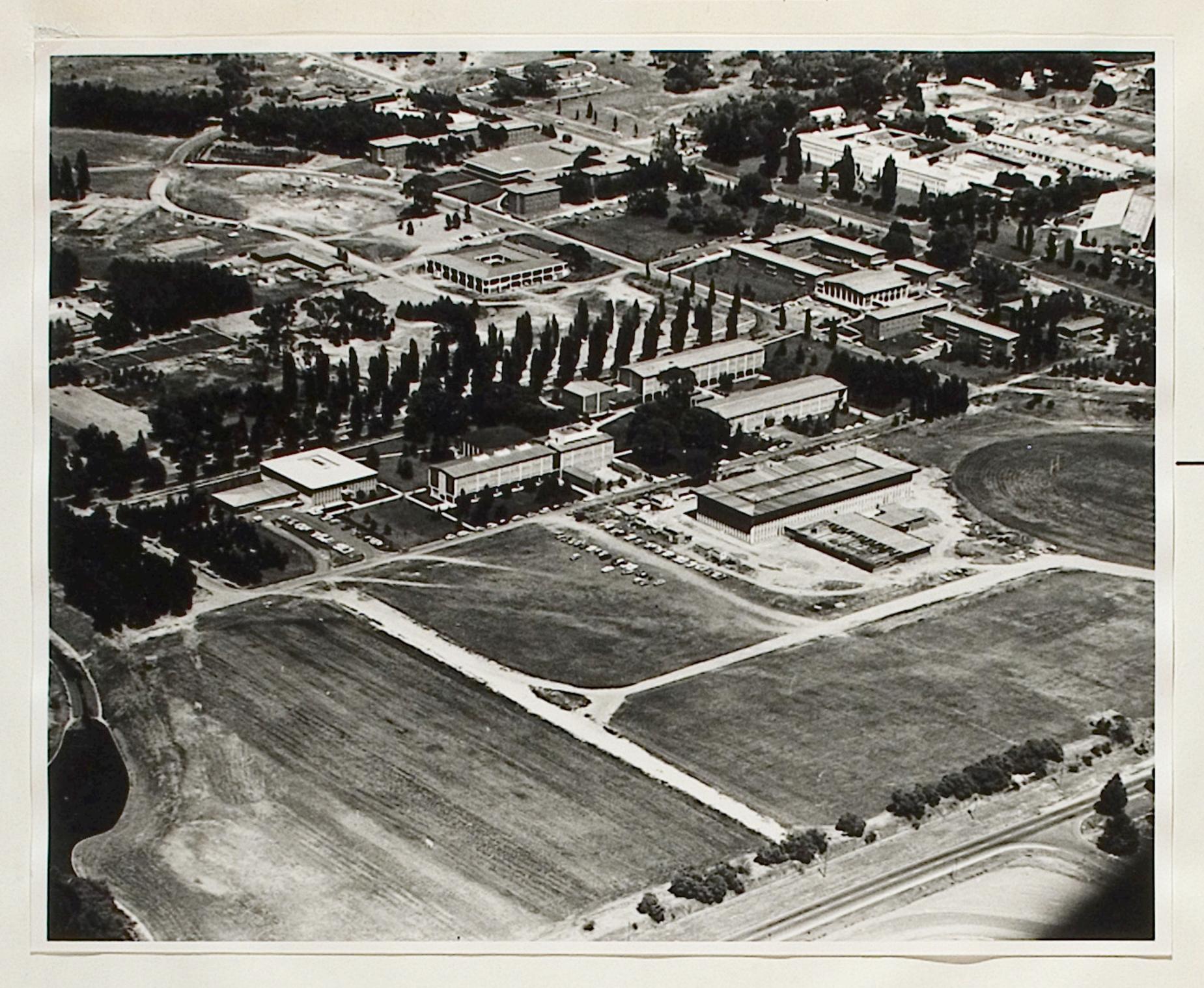
Sir Hugh is Dean of the John Curtin School of Medical Research; Deputy Vice Chancellor of the ANU; president of the National Heart Foundation. He was also a member of the Martin Committee on tertiary education.

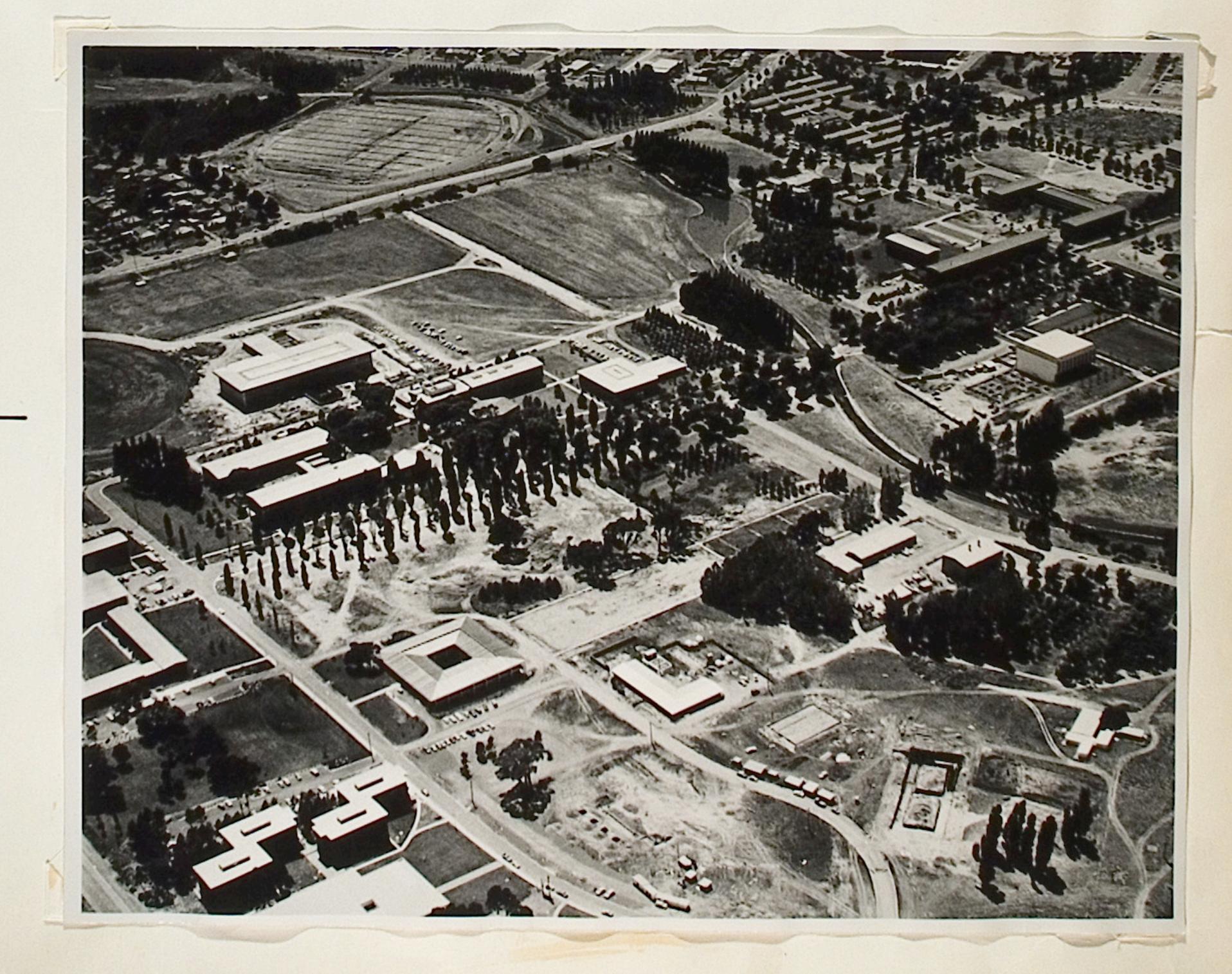
At his Red Hill home last night Sir Hugh was uncertain when he would take up his \$15,000 a year appointment. "A decision will be made by the Prime Minister and Senator Gorton in consultation with the Vice-Chancellor and myself', he

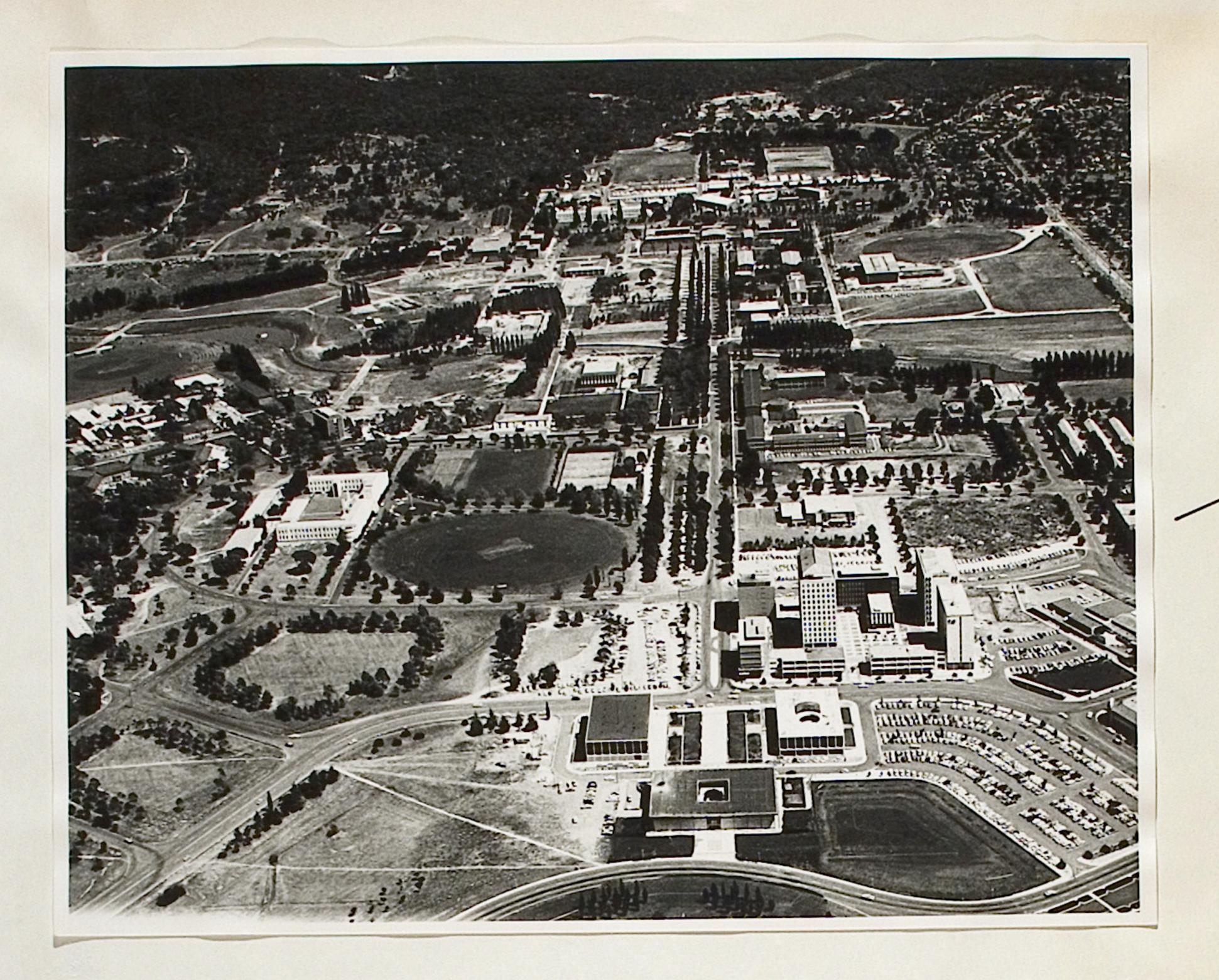
"I haven't come to grips with the situation at all", he said. "It is quite premature

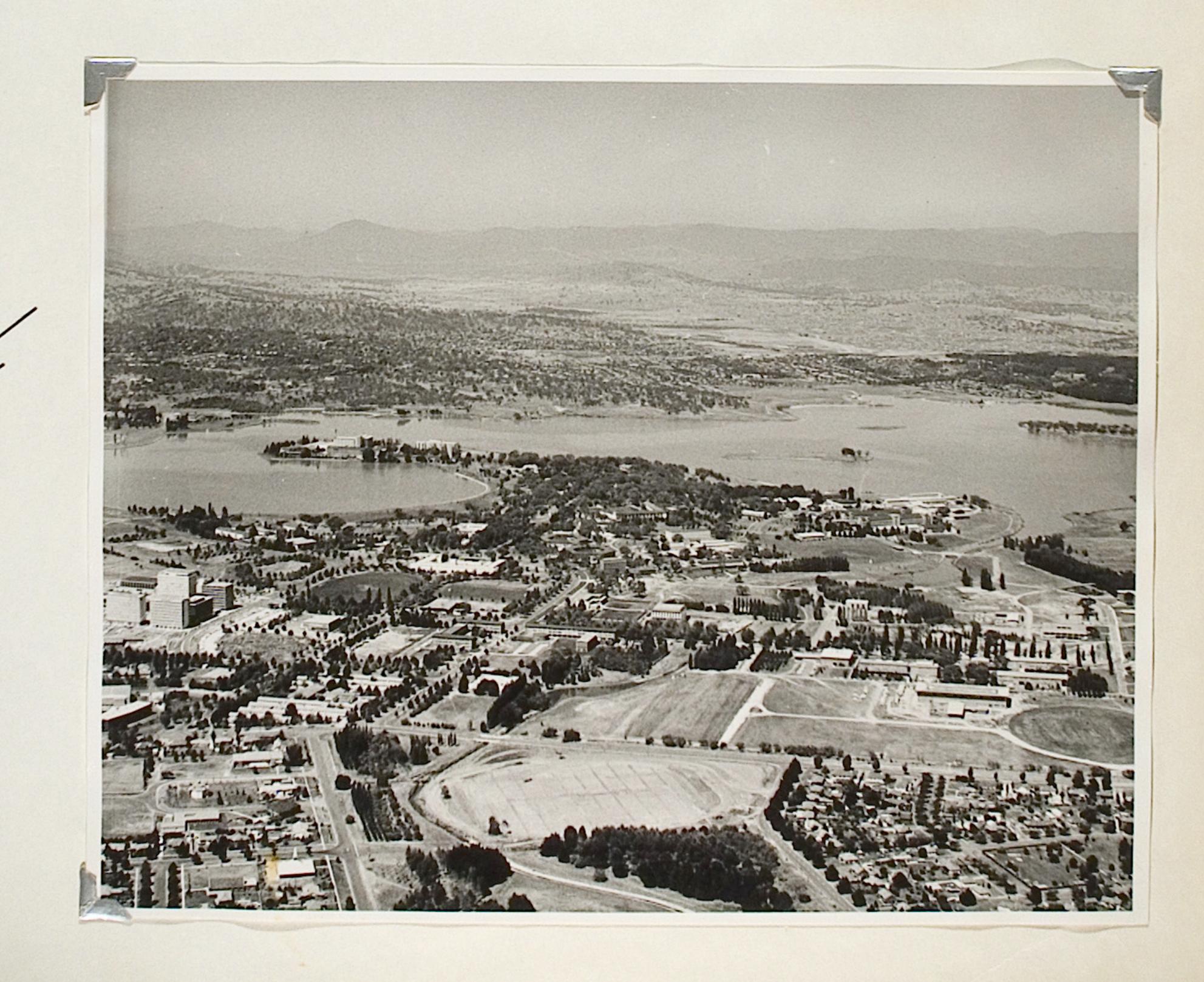
to ask about my plans". Senator Gorton said he and the Government felt that the fulfilment by Sir Hugh of a number of important lecturing commitments in Britain, Russia, Japan and America early this year would bring national prestige and also be valuable to Sir Hugh him-

Aerial Photographs of Research School of Chemistry taken February, 1967.









## Research set up industry

The basis of a new future, was being laid by scientists in the Research School of Chemistry, the Registrar of the Australian National University, Mr R. A. Hohnen, said yesterday.

A strong research group was working on one of the most interesting and challenging fronts in the whole of chemistry — organo-metallic compounds, he told students at a vacation school on Canberra - the National capital and Inland Metropolis, at Bruce Hall this week.

(Organometallic compounds are comprised of metals with organic groups of chemicals, most of them carbon-based. The subject of a great deal of basic re-search in many parts of the world, they are expected to provide new varieties of synthetic substances, per-haps including new paints, cloth and other materials.)

The Research School of Chemistry, a new school, had available equipment for mass and nuclear resonance spectrometry, coupled with computers, and infra-red, ultra-violet and electronspin resonance spectro-meters as well, Mr Hohnen said. X-ray analysis equip-ment would soon be added.

SCIENTISTS BACK HOME

An Australian professor who cause of opportunities in Auswent to Britain 11 years ago betralia has returned.

ONE of the main aims of his new job will be to try to attract scientists back to Australia.

He is Professor A. J. Birch, 52, newly-appointed Dean of the Research School of Chemistry at the Australian National University in Canberra.

"If I had had the same facilities as they have here now I never would have left," he said yesterday.

"Thing have improved out of all recognition in the past 11 years, particularly since the Australian Universities Commission was set up.

Was set up.

"One of the centre's major aims is to produce very highly trained people, both for the other universities and for the Commonweath Scientific and Industrial Research Organisation, and to attract Australian scientists back from abroad.

Hampered

"We have advertised a number of research fellow-ships and we have had a number of applications, mainly from Australians abroad.

Professor Birch said the State universities had done

State universities had done a good job with limited finances but were hampered by the big numbers of undergraduate students.

"I think there are more than 2000 students in first year chemistry at Sydney University.

"If you want to produce research results you must use more highly trained people—at present a lot of the work is done by undergraduates."

Profesor Birch is best known as the man who discovered the basic compounds for the oral contraceptive.

traceptive.
"It was not my idea to use it, but it was the first in the sex hormone series and is still being made in this way," he said.

" THE DAIGINALS

JULY 1967



A. SAMESON

A MEMURAY

A RICKARDS

B MERZ

T HUSH

L. MEMILLAN

A. CAMPISI

N. SHIELDS

M WRIGHT

G MEINTYNE

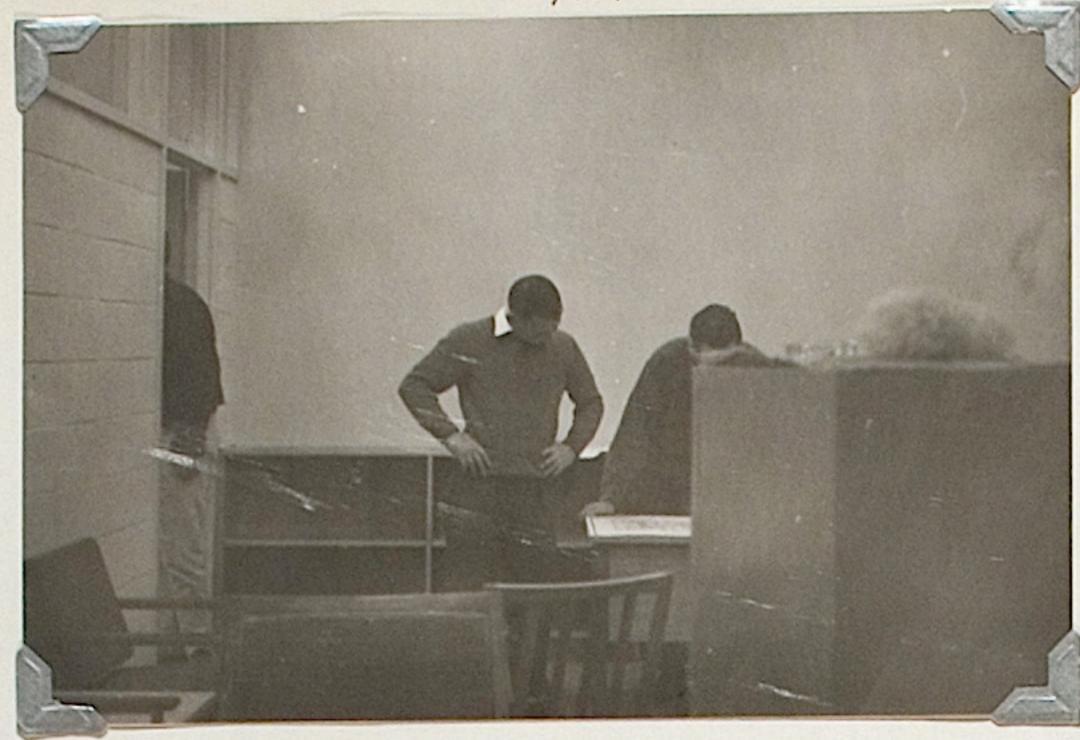
B. FENNING R SMITH

5 LIND

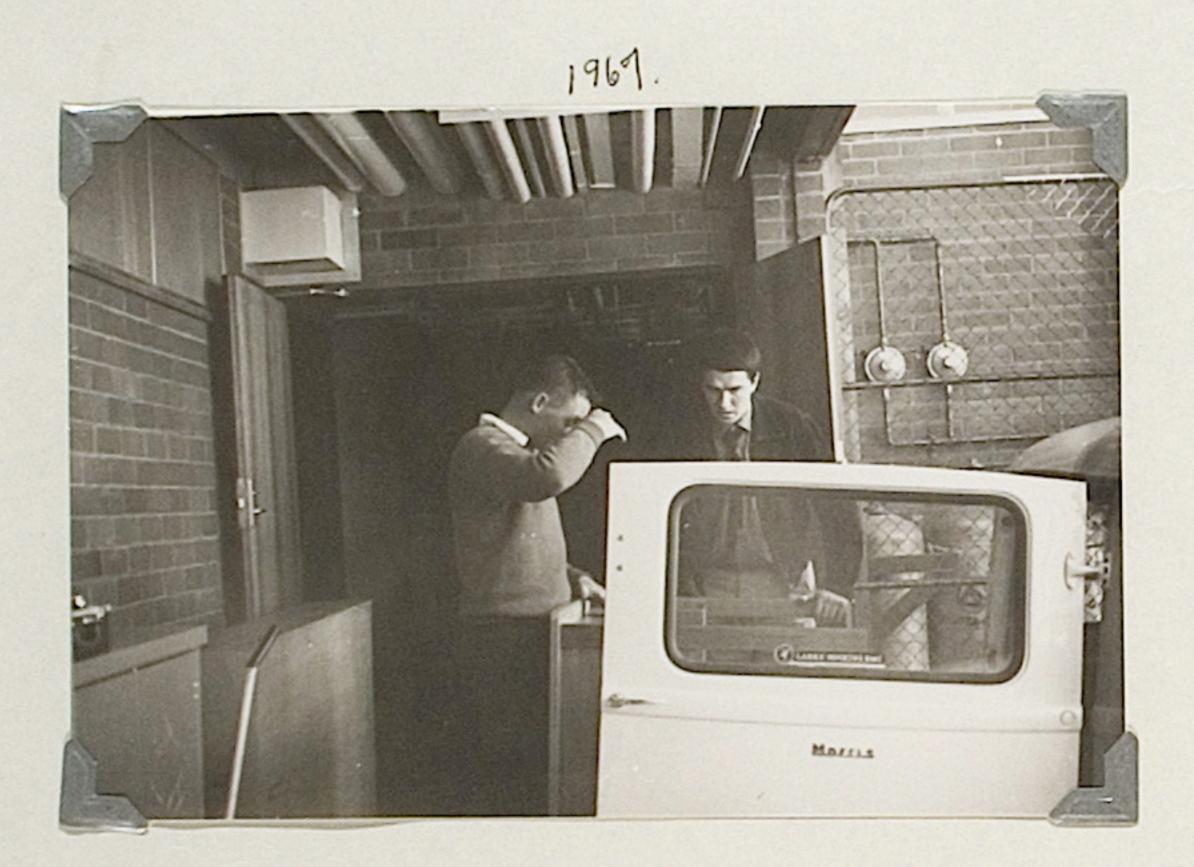
C Lammas

D MONNEAING

B Toomos J HARPER







## Traffic adviser

A Canberra man has been studies from which he will seconded to the United Nations to advise the Government on motor-traffic legislation and administration. He will also carry out surveys in Jedda and Damman.

The former Registrar of Motor Vehicles in the ACT, Mr J. C. Mitchell, of Duffy Street, Ainslie, will leave late next month for Riyadh, where he will undertake six months.



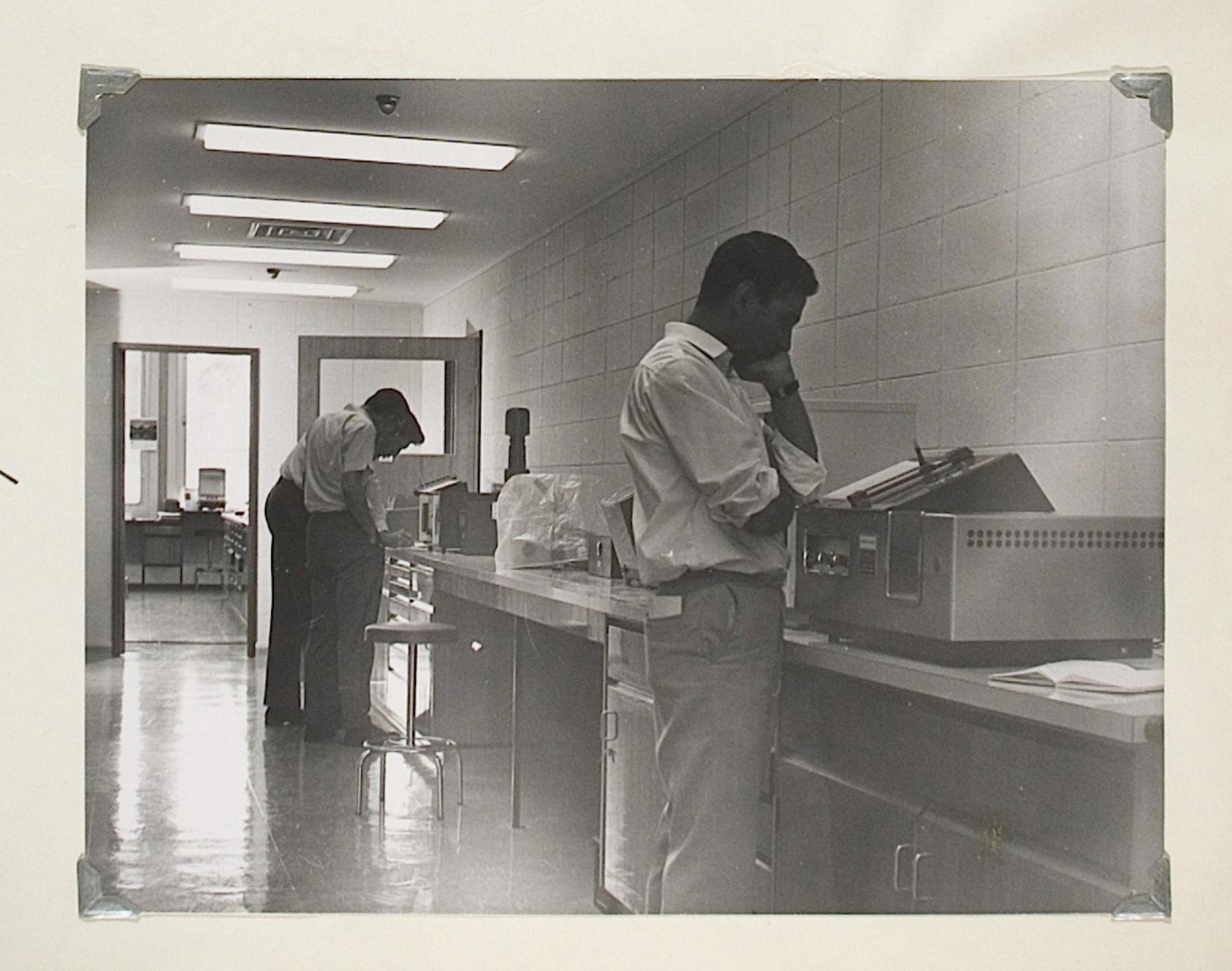
Dr Ross

## **SCIENTIST** NAMED FOR ANU

A Sydney scientist who has gained an international reputation for his work in physical and theoretical chemistry has been appointed a Professor of Chemistry at the Australian National University.

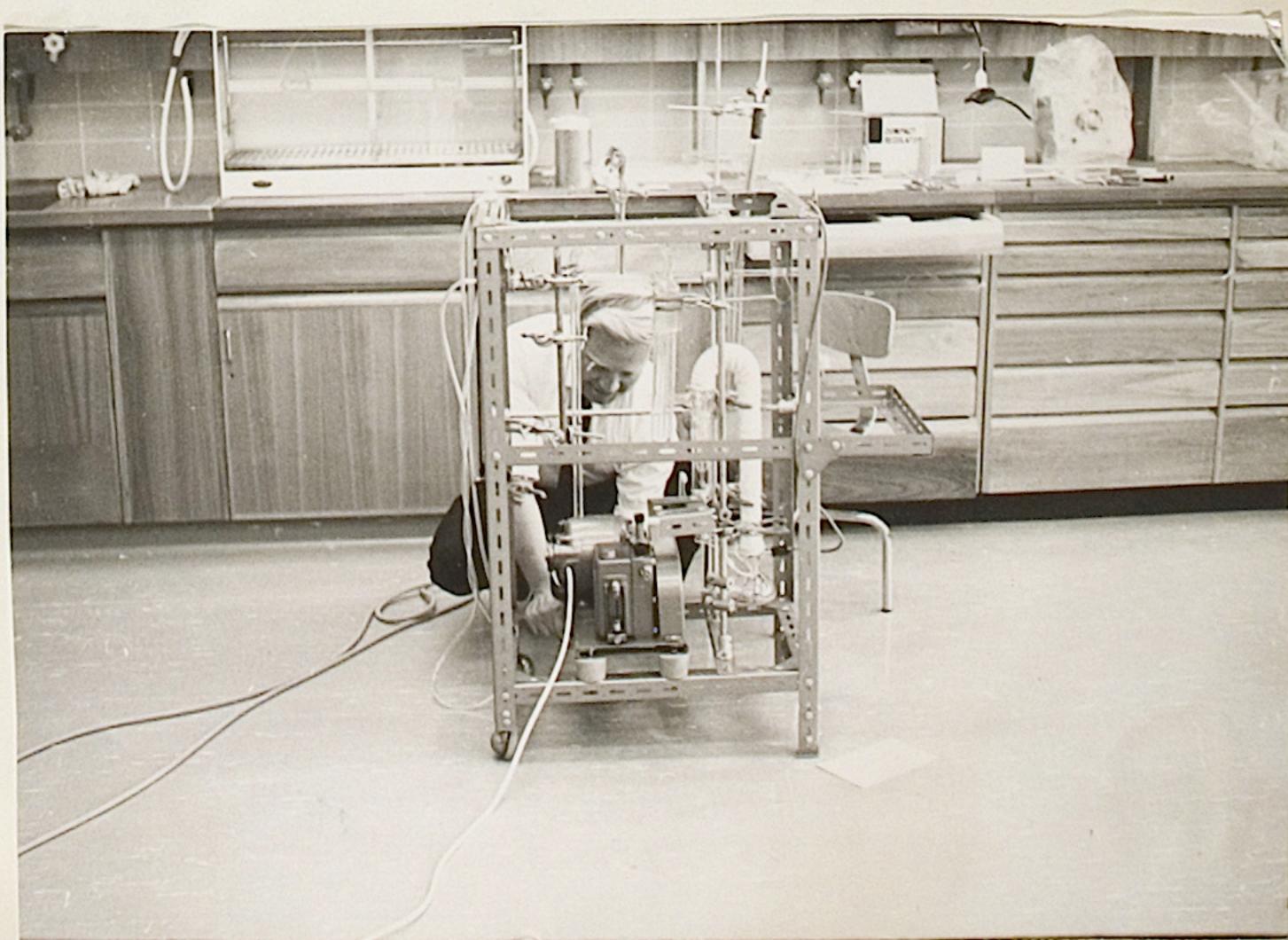
He is Dr I. G. Ross, a reader in physical chemistry at the University of Sydney. The ANU announced yesterday that he would take up his new appointments to a second chair of chemistry in the university's Faculty of Science in February.

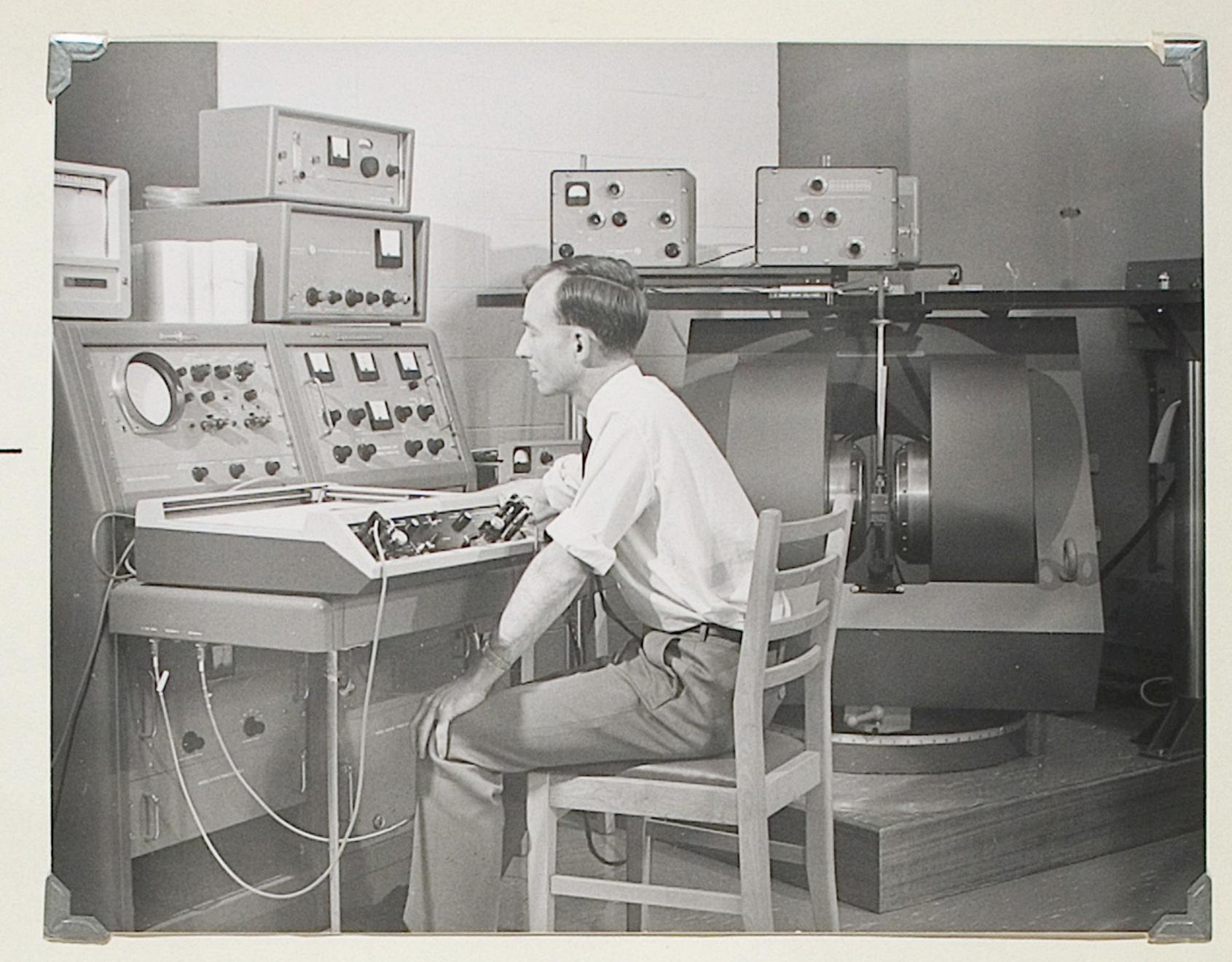




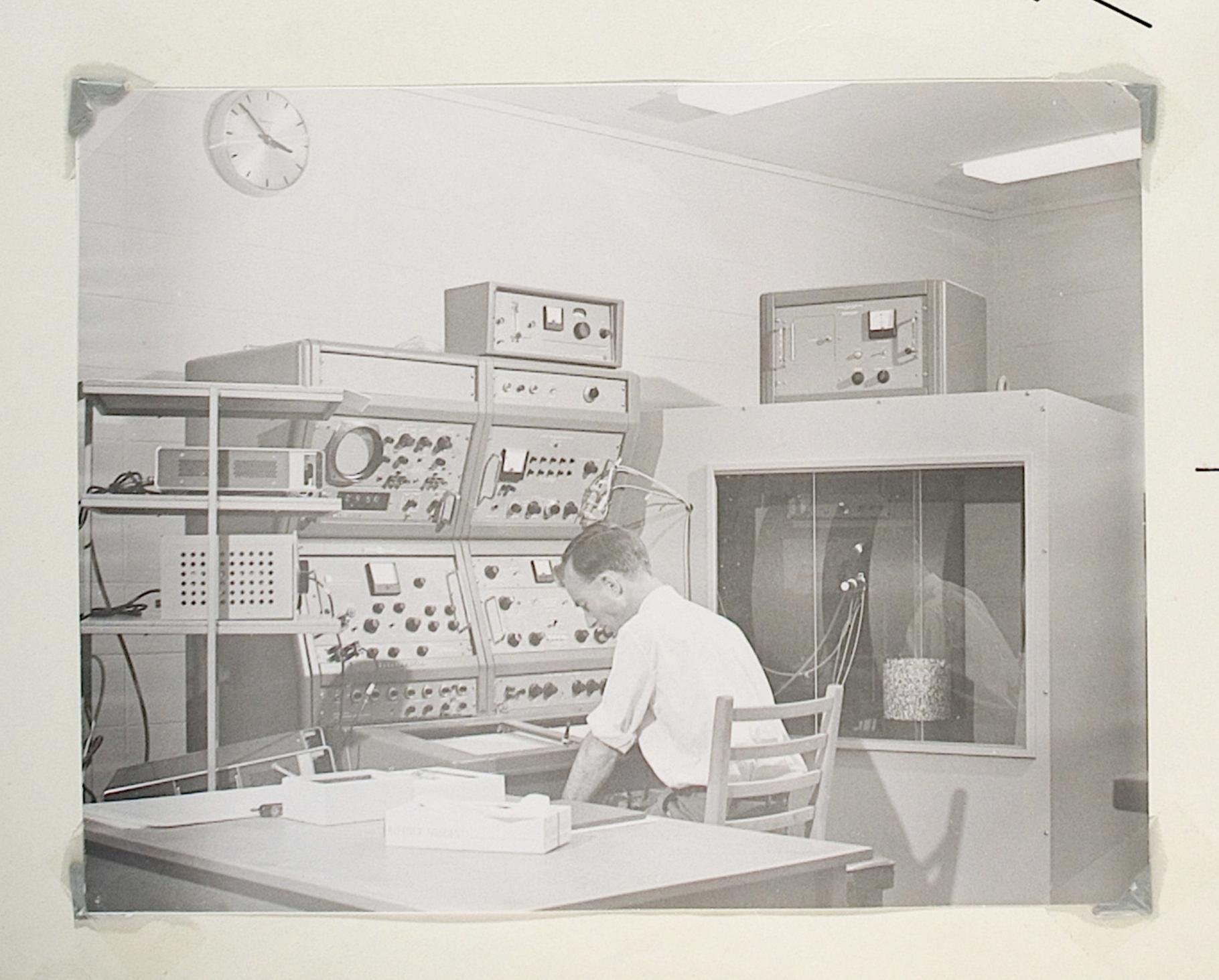








RICHARD BRAMLEY,

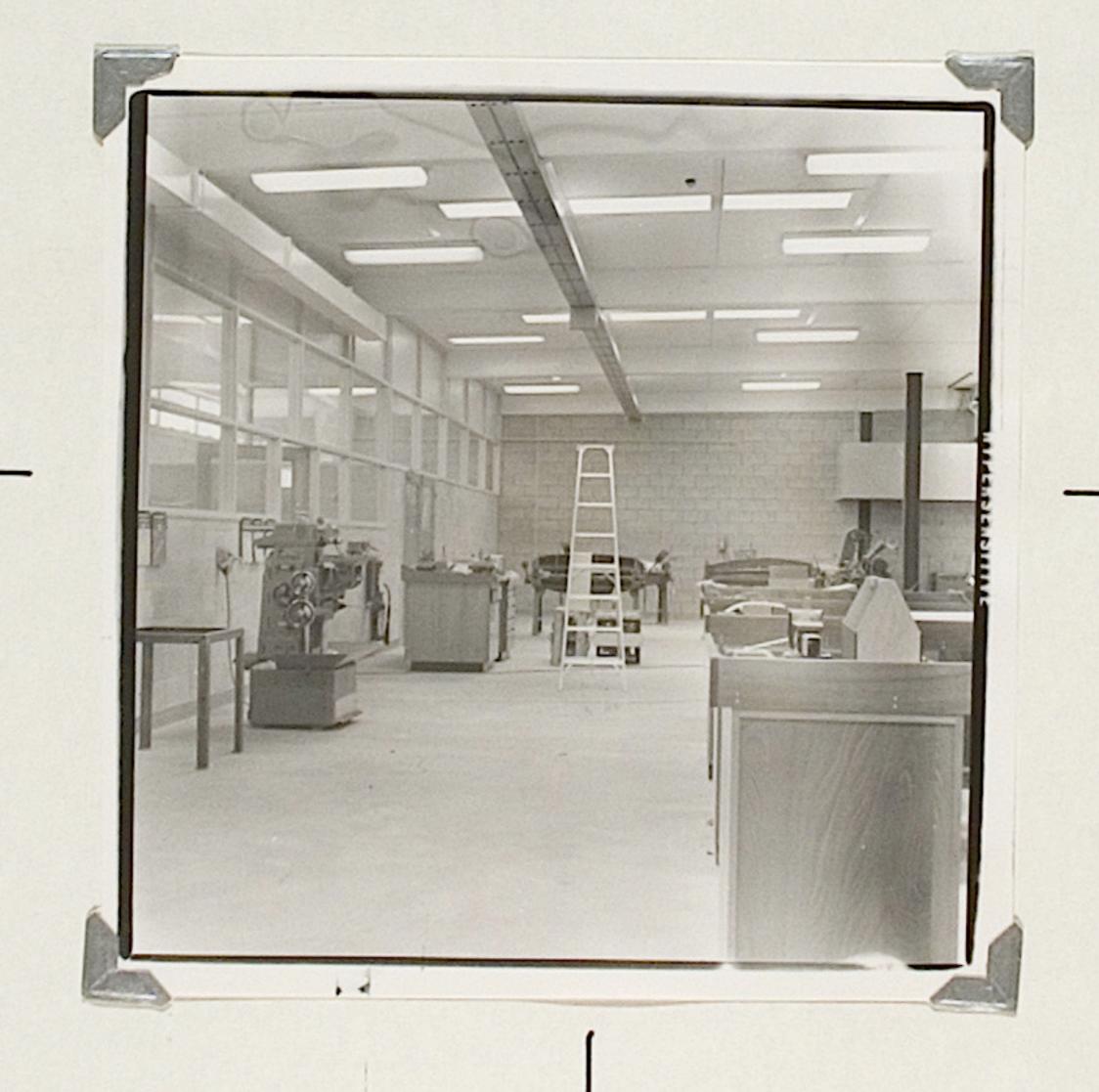






Brenda Stevenson



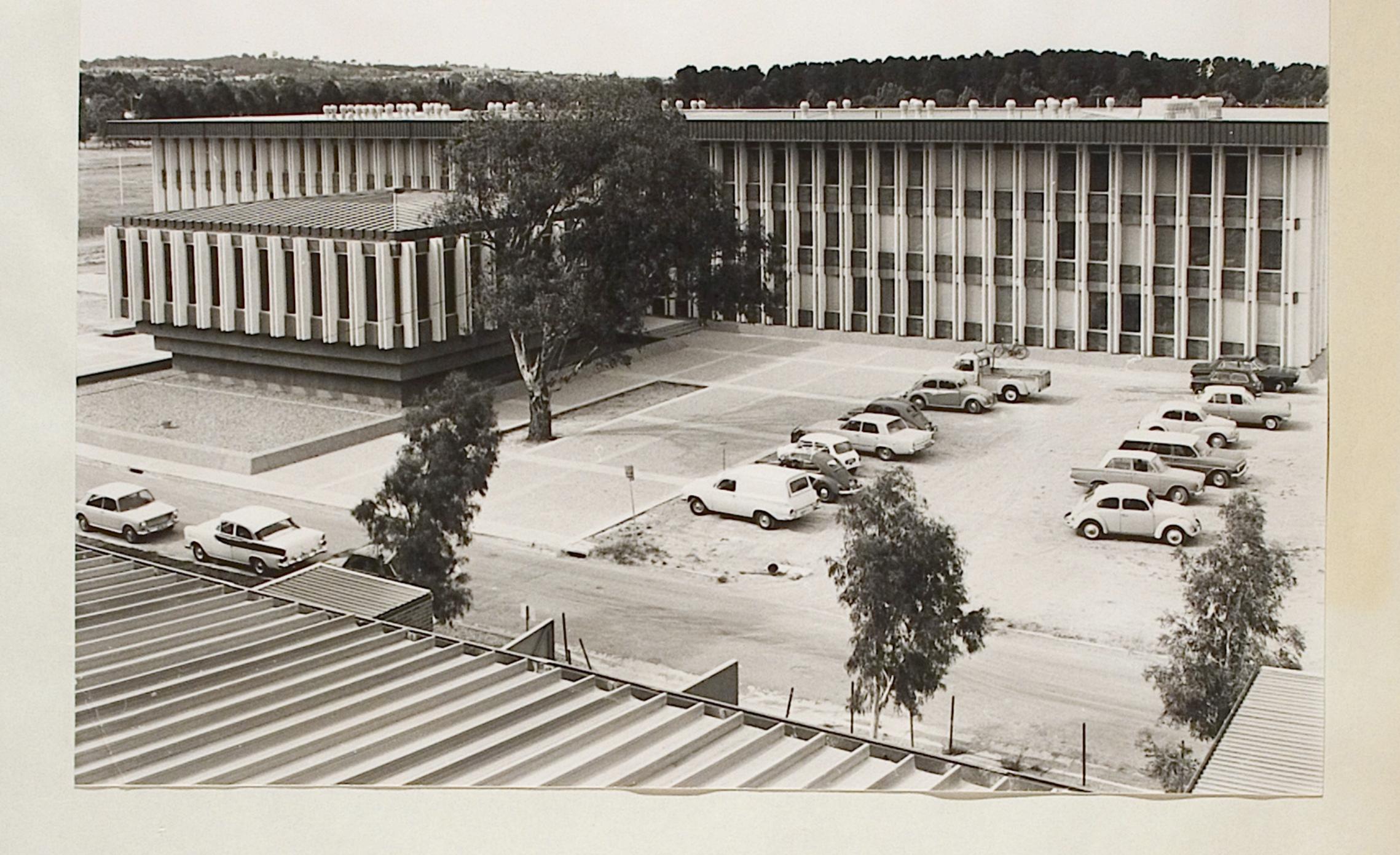




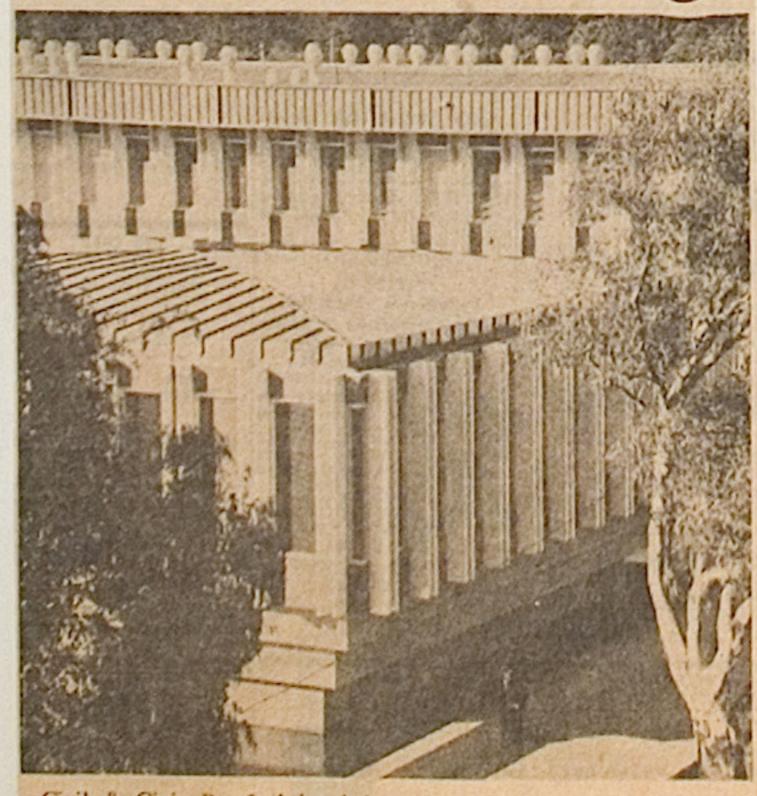




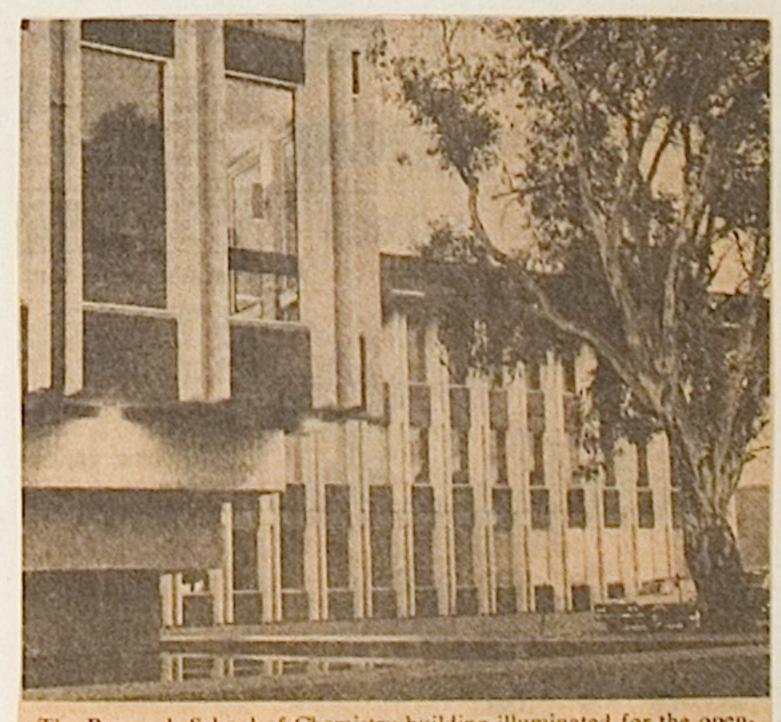




# Addition to ANU buildings



Civil & Civic Pty Ltd handed over the new Research School of Chemistry building at a completion ceremony at the Australian National University last night. This view shows part of the library with its moat which runs partly around the building.



The Research School of Chemistry building illuminated for the opening at dusk last night. The S2 million building was completed ahead of schedule.

#### ANZIAS CONGRESS

Approximately ninety members of the University attended the 40th Congress of the Australian and New Zealand Association for the Advancement of Science at Christchurch, New Zealand from 24 - 31 January.

The Vice-Chancellor, Professor Sir John Crawford, delivered the Presidential Address, "The Halthusian Spectre in India". Five staff members presided over sections: Professor Titterton, Hathematics, Physics and Astronomy; Professor Craig, Chemistry; Professor Brown, Geology; Professor Gibson, Microbiology, Epidemiology and Experimental Hedicine, and Dr Horris, Veterinary Science.

Eight staff members chaired sessions, and eighty-one papers were contributed, or contributed in collaboration with others, by members of the University.

## RESEARCH SCHOOL OF CHEMISTRY

The Research School of Chemistry last month moved into its permanent building and became fully operational with the arrival of its first two professors - Professor A.J. Birch, who occupies the Foundation Chair of Organic Chemistry and is first Dean of the School, and Professor D.P. Craig, who occupies the Foundation Chair of Physical and Theoretical Chemistry.

The Research School is organised on an integrated basis, with a minimum of emphasis on traditional departments. Its policy is to pursue a wide range of chemical studies within the most flexible possible structure in order to promote cross-fertilisation of ideas and techniques. Specifically, the methods of achieving this cross-fertilisation will be by making it possible for staff to work in a variety of fields, and by encouraging experimentation

/3 ...

full use of the equipment and on techniques concerned with major instruments.

Postgraduate teaching is likely to play an important part in the activities of the staff. Most staff members will be temporary, and teaching experience is likely to be as necessary as research experience in their subsequent posts at other universities. Both Professor Birch and Professor Craig have strong convictions about teaching. Professor Birch believes it is important that all research staff should spend some time teaching because it forces them not only to go back to the grass roots of their own field but to keep in touch with a wider range of interests. Also, they benefit from what Professor Birch believes is the valuable stimulus of student contact. He sees teaching as a stimulating and creative experience for both student and teacher. The best scientists, he maintains, are men of creativity whose ways of thinking and working and expressing themselves are closely allied with those of the artist. He himself has had wide experience in teaching at all levels, from undergraduate to postgraduate, and he hopes to undertake some undergraduate as well as postgraduate teaching within the University.

Professor Craig shares Professor Birch's attitude to teaching. He attaches importance to series of formal lectures for postgraduate students and research workers. He believes that further formal instruction at postgraduate level is necessary because it is impossible for undergraduates to learn all the methods and to collect the factual material they need for advanced research. Future plans for the School aim at about a 50-50 proportion of postgraduate students and postdoctoral workers, with a small nucleus of permanent staff.

Both Professor Birch and Professor Craig will be involved in their own research projects as well as being associated with the work of the School generally. Projects in the field of Organic Chemistry research will be concerned especially with topics of long-term interest in the Australian environment. These include aspects of inorganic chemistry and organometallic chemistry connected with developments in minerals, and biologically active compounds connected potentially with plant and insect control. Preparative photochemistry is another area of both scientific and Australian interest. Professor Birch will continue his work in total synthesis in the sex hormone field: hormonal research carried out by Professor Birch after the war culminated in 1948 in the first total synthesis of a male sex hormone by a process now used extensively in industry, in the production of oral contraceptives and in related fields. Hormone control is extensively used in animal as well as in human medicine. In Physical and Theoretical Chemistry, physical chemists and theoretical chemists will work closely on two or three projects. One of the main fields of study by both the theoretical and physical groups will be the crystalline solid state, particularly aspects which have not yet been greatly studied in Australia although they have been intensively worked on in the United States and Britain (transistors are perhaps the best known product of solid state technology). Professor Craig was one of those responsible for developing methods which are now generally accepted for the interpretation of the spectra of crystals. These methods have helped in the understanding of the forces holding together the molecules in solids. He will continue his studies in solid state photochemistry and will study the processes in which light is absorbed by and emitted from a solid, using spectroscopic methods.

The School's new building has been carefully planned to allow for future development and expansion. All interior walls are non-structural so that rooms and laboratories can easily be enlarged or altered if necessary. Careful design has been extended to many small details. For example, even the taps have been designed to eliminate any difficulties due to variations

AUSTRALIAN National University people will deliver 45 of the 250 or so papers at the 40th Congress of the Australian and New Zealand Asociation for the Advancement of Science in Christchurch between January 24 and 31.

President of the Congress will be the Vice-Chancellor elect of the ANU, Professor Sir John Crawford, currently Deputy Vice-Chancellor, Director of the Research School of Pacific Studies, and Professor of Economics.

Sir John's presidential address,
The Malthusian Spectre in India, is
expected to arouse world-wide interest. His eight trips to India to advise
the Indian Government and the
World Bank on agricultural and food
policies have given him an insight
into the problem which is probably
unique.

And poor old Malthus might be in for another battering. Sir John told us that the difference he had noticed in India even in the past two years had been phenomenal. High-yield grains and the application of modern methods had had a marked effect.

The president of the mathematics, physics, and astronomy section will be Professor E. W. Titterton, of Forrest, who will deal with Matter and Energy.

Even this does not exhaust the ANU star cast at the congress. President of the chemistry section will be Professor D. P. Craig, of O'Connor, whose address will be New Themes in Theoretical Chemistry, while Professor D. A. Brown, of Yarralumla, will preside over the geology section and will discuss Some Problems of Terrestrial Vertebrate Distribution during Permian-Triassic Times.

The microbiology, epidemiology and experimental section will be presided over by Professor F W. E. Gibson, of Forrest, who will talk on Microbiology and Biological Research.

Professor B. Morris, of Yarralumila, has been appointed president of the veterinary science section. His paper will be on the Lymphatic System and the Immune Response.

-Helping to keep Canberra in the folk will be Dr F. H. W. Morley, of Hughes, deputy chief of the Division of Plant Industry of the CSIRO. As president of the agriculture, forestry and horticulture section he will give an address on Computers and Decisions, Calories and Designs.

# Lord Florey of Adelaide



Lord Florey

ORD Florey, who shared the Nobel Prize for medicine in 1945 for his discovery of the uses of the neglected antibiotic, penicillin, and in whose Oxford rooms plans for the Australian National University were drawn up, died on Wednesday at Oxford. He was 69.

His title, a life peerage, bestowed in 1965, Baron Florey of Adeaide, Commonwealth of Australia and of Marston, City of Oxford, was itself evidence of a career shared between this country and Britain, where he lived most of his life.

Since 1965 he had served as Chancellor of the Australian National University. Lord Florey regularly visited Canberra in this role, most recently in March and April last year when he presided over both the annual graduation ceremony and the selection by the University Council of a new Vice-Chancellor, Sir John Crawford, to succeed Sir Dr Florey began his study of Leonard Huxley. At the same time he served in the more arduous role of Provost of the Queen's College, Oxford, a post which he had held since

Howard Florey was born in Adelaide on September 24, 1898. A brilliant student, he graduated as Bachelor of Medicine and Bachelor of Surgery from Adelaide University and, in 1921, won a Rhodes Scholarship to Oxford.

At Magdalan College he added to his laurels the degrees of Master of Arts and Bachelor of Science.

In 1925 Dr Florey, as he was, was awarded a Rockefeller Travelling Fellowship to the USA. Returning, he married another brilliant doctor, Mary Reed, in 1926. A year later at Cambridge, he gained his Ph D.

In the years following he occupied the positions successively of Freedom Research Fellow at London Hospital, Joseph Hunter Professor of Pathology at Sheffield University and Professor of Pathology at Oxford from 1935 until 1962.

It was his work in developing practical uses for the drug Pennicillium notatum, however, that secured Lord Florey's reputation. Penicillin, - as it is universally known today - a chemical substance able to destroy many strains of bacteria, had been discovered in 1929 by the eminent scientist Sir Alexander Fleming, but had been put aside as of little practical value because it was thought too difficult to extract and refine.

ONE group, however did not put it aside. In late 1940 the substance with a team that included his wife and, as his chief assistant, Dr E. B. Chain. In 1941 the first dose of penicillin was injected into a human being. Lady Florey, who died in late 1966, pioneered clinical applications of the new drug.

In later years Lord Florey headed a team which developed the newly discovered

family of antibiotics, the cephalsporins.

In 1945 Howard Florey was knighted for his work and a year later he shared with Sir Alexander Fleming and Dr Chain the Nobel Prize. Other honours followed - the Lister Medal in the same year, the Albert Gold Medal of the Royal Society of Arts the next, the USA Medal of Merit in 1948, the Royal Medal of the Royal Society in 1951 being only a few. In 1960 he became the first Australian to be elected president of the Royal Society, a post he retained until 1965, when he was elevated to the peerage and awarded the Order of Merit.

FOR Australia, and especially Canberra, Lord Florey made an important contribution during the middle and late war years, when he made his rooms in Oxford available for meetings of four Australian scholars, who had been asked by the Australian wartime Government to prepare recommendations for a postgraduate university in Canberra. They were Sir Keith Hancock, Sir Mark Oliphant, Professor Raymond Firth and himself. Lord Florey's particular recommendations saw fruit in the establishment of the John Curtin School of Medical Research; he retained a close connection with the school and its lecture hall was named for him before he became Chancellor of the university.

In 1965 Lord Florey succeeded Sir John Cockcroft as Chancellor, or formal head, of the ANU.

Lord Florey is survived by his second wife, whom he married last year, and a son and daughter by his first wife.

#### LORD FLOREY

Professor Partridge will be representing the University at the memorial service for Lord Florey to be held in Oxford this month. The Vice-Chancellor has sent a message of sympathy to Lady Florey on behalf of Council.

Lord Florey, Chanceller of the Australian National University since 1965 and Provost of Queen's College, Oxford, was closely associated with the foundation of the University and, in particular, the John Curtin School of Medical Research.

In 1944 he visited Australia at the invitation of the then Prime Minister Mr Curtin, and reported to him on the development of medical science in this country. Florey's initial proposals in 1944 envisaged the establishment of a "Mational Institute for Medical Research", to be located in Sydney, and the disbursement of a sum of money equal to the annual grant to the Institute amongst other Australian universities and medical research institutes. This proposal was modified by the men who had a vision of a unique research university in Canberra and Florey was attracted by this concept and thereafter the School of Medical Research became a focus for the development of the Australian National

He served on the Academic Advisory Committee to the Interim Council and later as an advisor to Council. Under his guidance, senior appointments to the new School were made, and he advised on the design of the School's laboratory accommodation. The academic plan of the School, as a group of investigators engaged in different aspects of the basic medical sciences, housed in one building and served by a single central administration, store, library and workshop was

Lord Florey was elected Chancellor of the Australian National University in 1965 and re-elected for a further two year period in 1967. He last visited the University in April 1967 when he conferred degrees, including an honorary degree on Professor R.D. Wright with whom he was closely associated in the establishment of the John Curtin School. He had been planning to visit the University in August this year to preside over a major university conference on medical practice and to attend the Quinquennial Congress of the universities of the

He won international fame for his work on the clinical applications of penicillin, work for which he shared the Nobel Prize for Medicine in 1945 with Dr E.B. Chain and Sir Alexander Fleming.

Lord Florey was elected Fellow of the Royal Society in 1941 and was President from 1960-65. He was knighted in 1944. He was created a life peer in the New Year Honours list of 1965 and was awarded the Order of Merit in the following June. He was associated with many scientific and medical societies throughout the world and received many university honours. He has also been awarded numerous prizes and medals, including the Royal Medal and the Copley Medal of the Royal Society, and the United States Medal of Merit.

#### Research School of Chemistry

Professor Craig, Professor of Physical and Theoretical Chemistry, has been made a Fellow of the Royal Society. He was one of thirty-two Fellows announced in London recently. He was appointed to his present Chair at the foundation of the Research School of Chemistry in 1967. Since 1956 he had been Professor of Theoretical Chemistry at University College, London.

Professor Craig's research is in the quantum mechanics of complex molecules. Working closely with experimentalists, he is seeking to explain the properties of matter through an understanding of the way in which they depend on the electrons and nuclei of which matter is made. A potential development from his work is the better understanding of chemical changes taking place in the solid state, especially those energised by light absorption. Many chemists believe that fundamental work in this field will prepare the way for new methods of synthesis of materials of value in technology.

## Professor now an FRS

Professor David Parker Craig, of the Australian National University, has been made a Fellow of the Royal Society.

This was announced in London when 32 new fellows were named, taking the total number of fellows to 782 — the highest in the society's 308 years. Professor Craig is professor of physical chemistry in the research school of chemistry at the ANU.

# Honour for scientist

Professor D. P. Craig, Professor of Physical and Theoretical Chemistry in the Australian National University's Research School of Chemistry, has been elected a Fellow of the Royal Society, the seventh at the ANU.

Professor Craig joined the recently established Research School of Chemistry in October last year. His research has concentrated on the structure of molecules, especially in crystalline materials, and his theoretical contributions have been the basis of considerable advances in this field

JULY 1968

THE AUSTRALIAN NATIONAL UNIVERSITY NEWS

# Research School of Chemistry now in permanent building

The University's Research School of Chemistry moved into its permanent building in September 1967 and at the same time became fully operational with the arrival of its first two professors — Professor A. J. Birch, who occupies the Foundation Chair of Organic Chemistry and is first Dean of the School, and Professor D. P. Craig, who occupies the Foundation Chair of Physical and Theoretical Chemistry.

The Research School is organised on an integrated basis, with a minimum of emphasis on traditional departments. Its policy is to pursue a wide range of chemical studies within the most flexible possible structure in order to promote crossfertilisation of ideas and techniques. This cross-fertilisation will be achieved by making it possible for staff to work in a variety of fields, and by encouraging experimentation in applying techniques from one field to another. Research workers are appointed primarily on grounds of ability — particularly creative ability — rather than because their research interests fall narrowly into preconceived fields.

An important part of the School's policy concerns equipment. Since one of the major grounds for the establishment of the School was the tackling of problems beyond the range of other Australian universities, the policy has been to concentrate on obtaining the most sophisticated equipment available, even when this has meant doing without some more "bread and butter" equipment. Research will concentrate both on projects which make full use of the equipment and on techniques concerned with the usage of major instruments.

Postgraduate teaching is likely to play an important part in the activities of the staff. Most staff members will be temporary, and teaching experience is likely to be as necessary as research experience in their subsequent posts at other universities. Both Professor Birch and Professor Craig have strong convictions about teaching. Professor Birch believes it is important that all research staff should spend some time teaching because it forces them not only to go back to the grass roots of their own field but to keep in touch with a wider range of interests. Also, they benefit from what Professor Birch believes is the valuable stimulus of student contact. He sees teaching as a stimulating and creative experience for both student and teacher. The best scientists, he maintains, are men of creativity whose ways of thinking and working and expressing themselves are closely allied with those of the artist. He himself has had wide experience in teaching at all levels, from undergraduate to postgraduate, and he hopes to undertake some undergraduate as well as postgraduate teaching within the University.

Professor Craig shares Professor Birch's attitude to teaching. He attaches importance to series of formal lectures for postgraduate students and research workers. He believes that formal instruction at postgraduate level is necessary because it is impossible for undergraduates to learn all the methods and collect all the factual material they need for advanced research. Future plans for the School aim at about a 50-50 proportion of postgraduate students and post-doctoral workers, with a small nucleus of permanent staff.

Ceremonial and Naming Committee: Professor Craig, Research School of Chemistry, has been appointed as a member of the Ceremonial and Naming Committee.

### Research School of Chemistry

Dr D.A. Buckingham, Fellow in the School, was an invited speaker at the 1968 Gordon Research Conference on "Metals and Metal Binding in Biology" in the United States during August. Dr Buckingham also visited a number of universities to discuss the results of recent studies by members of the Inorganic Section of the School.

Annual Report, Research School of Chemistry: Professor A.J. Birch, Dean of the School, presented the report. He pointed out that the School is organised on an integrated basis with a minimal emphasis on traditional divisions of the subject. This allows for the cross-fertilisation of ideas between the basic sections of inorganic chemistry, physical and theoretical chemistry, and organic chemistry.

Prospects for recruitment of staff and students are good, and contacts with industry have indicated that industrial firms will seek more highly trained graduates.

Computers are becoming increasingly important to the School's work. Research in X-ray Crystallography is being established.



BACK ROW: I. Maxwell M. Dwyer, C. Campbell, S. Kagal, S. De Vries, W. Orr, V Powell,

M. Wein, A. McMurray, S. Lind, P. McDonald, J. Harper, J. Daniel, J. Hush,

B. Toombes, B. Merz, J. Ball, L. McMillan, B. Fenning, G. Small, R. Bramley,

J. Christie, M. Chick, Subba Rao, R. Body, J. Wright.

SECOND ROW: P. Marzilli, G. Wills-Johnson, G. Fischer, J. Dickson, A. Arandjelovic,

D. Williamson, R. Smith, R. Rickards, G. Wyllie, T. McDermott, C. Lammas,

C. Dahl, A. McDonald, N. Shiels, J. Macleod, J. Reid, D. Manwaring, M. Haas,

R. Lehrer, P. Schmidt, L. Dessardo, R. Watt, J. Sharp, M. McKague, D. Milner,

M. Bennett.

FRONT ROW: J. Peck, S. Thomas, O. Paxton, I. Duncan, M. Hill, J. Serjeant, M. Wright,

G. Kearney, L. Murray, M. Sky, J. Harding, Professor A.J. Birch, Professor

D.P. Craig, B. Stevenson, J. Craft, M. Langley, M. Peake, P. Sherrington.





## INSTALLATION - CONFERRING - OPENING

A full schedule of events is being planned in the University for Friday, 6 September. It includes:

Installation of Dr H.C. Coombs as Chancellor of the University. Conferring of Degrees.

Opening of the Research School of Chemistry.

The installation of the Chancellor will be the first activity of the day. Immediately after the installation Dr Coombs will confer honorary degrees on three men who have made significant contributions to their fields. Lord Todd, Baron of Trumpington and Professor Organic Chemistry in Cambridge, will receive an Honorary Degree of Doctor of Science; Emeritus Professor Sir Mark Oliphant, first Director of the Research School of Physical Sciences, will also receive an Honorary Degree of Doctor of Science, and the Australian artist Sidney Nolan, Creative Arts Fellow in 1965, will receive the Honorary Degree of Doctor of Doctor of Laws.

On the afternoon of 6 September Lord Todd will open the Research School of Chemistry. Lord Todd was awarded the Nobel Prize for Chemistry in 1957 for his work on the chemical structure of the nuclei acids, the basic material of genes and important biological organisers. The work made possible, among other things, the synthesis of the units forming nucleic acids, and Lord Todd himself developed most of the synthetic methods used.

# Chancellor to be installed

The new Chancellor of the Australian National University, Dr H. C. Coombs, will be formally installed by the pro-chancellor, Mr Justice R. M. Eggleston, at a ceremony at the Canberra Theatre beginning at 10am on September 6.

After he has been installed, Dr Coombs will confer honorary degrees on an artist, Mr Sidney Nolan, a physicist, Sir Mark Oliphant, and a chemist, Lord Todd of Trumpington.

In the afternoon, Lord Todd, professor of organic chemistry at the University of Cambridge and winner of a Nobel Prize for his work on the chemical structure of nucleic acids, will open the ANU's new Research School of Chemistry.

Twelve doctor of philosophy graduands and two master of science graduands will receive their degrees at the ceremony.

Mr Nolan, a former ANU creative arts fellow, will become an honorary doctor of laws "for his contribution to Australia through his art".

Sir Mark, who was the first director of the ANU's Research School of Physical Sciences, and Lord Todd will become honorary doctors of science.

## THE AUSTRALIAN NATIONAL UNIVERSITY

The Chancellor and members of Council invite

to be present at the opening of

## THE RESEARCH SCHOOL OF CHEMISTRY

by

## THE RIGHT HONOURABLE LORD TODD, F.R.S., F.R.I.C.,

on Friday 6 September 1968 at 3.00 p.m.

Please reply on the enclosed card by Friday 16 August

#### OPENING OF RESEARCH SCHOOL OF CHEMISTRY

Research School of Chemistry at a caronony starting at 3 p.m. on Friday, 6 September, at the School.

Lord Todd is Professor of Organic Chemistry in the University of Cambridge and is Master of Christ's College, Cambridge. He is also Chancellor of Strathclyde University.

Lord Todd's work on the basic chemical structure of nucleic acids, which earned him the Nobel Prize in 1957, has been of basic importance in the whole recent development of genetics at the chemical level. In addition to leading to the understanding of the genetic code, it also made possible the synthesis of the units forming nucleic acids and later the biochemical synthesis of new nucleic acids.

Chemists began moving into the new building for the Research School of Chemistry a year ago, when Professor A.J. Birch took up the Foundation Chair of Organic Chemistry and became the first Dean of the School, and Professor D.P. Craig took up the Foundation Chair of Physical and Theoretical Chemistry.

The present academic staff numbers twenty-eight, and sixteen Research Scholars are enrolled. The facilities of the building will allow for considerable expansion of staff.