It was indeed an honour to have been elected and installed as the first Chancellor of the University of Wollongong.

Mr. Justice Hope said this after his installation by the State Governor, Sir Roden Cutler, at the first University of Wollongong Graduation Ceremony in the Wollongong Town Hall on June 11.

He said: "I have spent many years of my life in association, in some way or another, with universities, and I know how absorbing, how pleasant, although at times how worrying, that association can be.

"I have already been able to meet and get to know many people who teach or work or study here. I hope to meet and get to know many more.

"I have had their complete cooperation and help, and I would like to thank them all. I would like particularly to express my thanks to the Vice-Chancellor, Professor Birt, who has led me, almost by the hand, along the path that Chancellors have to walk.

"I know I speak for all of us when I say how fortunate the University is to have him as its first Vice-Chancellor. I look forward to a very happy and rewarding association with the University in the future; I hope that its trust in me will be confirmed.

"The installation of the first Chancellor of a university is in truth an occasion for the celebration of its foundation, and that is what this celebration is.

"We celebrate the foundation of a university in and for this City and Region, and we celebrate also the addition of this University to that association of universities which has been so invaluable to Australia.

"A notable Englishman, on returning to England from his visit here, recently wrote that what he had seen reminded him, if he needed a reminder, that Australia is now one of the great repositories of Western civilization.

"That this is so is due to many factors, but I take it to be unarguable that a key factor has been its universities, and the dedication and the inspiration of the people who have worked and studied there. We are proud and honoured to join that association.

"We have come here also to honour people who have been associated with the University. Although the University was founded only last year, its origins were in the Wollongong University College which was founded 14 years ago in 1962; and before that much work had been done by many people.

"What you can see on the University campus now is the result of the work of many people indeed. We would like to honour them all.

"That being impossible, we have chosen a small number of persons on whom the University will confer honorary degrees in recognition of their labours for the University. Their recognition is also symbolic of the University's recognition of the labours of all those others.

"The University will also today confer degrees on its first graduates. No doubt much of their work was done before the University was founded, but the conferring upon them of their degrees is the culmination of that work, and demonstrates one of the main achievements for which the University was founded.

Continued Page 9.
The Joint Admissions Scheme (JAS) was linking regions and helping universities and their administrative staffs to get to know each other.

Assistant Registrar, Student Administration, Mr. Kevin Turnbull, said this recently when discussing the 1977 admissions scheme involving the Universities of Wollongong, Newcastle and New England.

He said that the implementation of the scheme had meant the breaking down of communication barriers and an increased understanding at a personal level between the admissions staff of the three universities.

The scheme had originated earlier this year on an informal basis, and later along formal lines, from meetings between representatives of the three universities.

Mr. Turnbull said that the scheme's great advantage was the assistance it gave to students.

He said: "Students will receive one information package instead of three and one application form instead of three.

"This simplification will help reduce the anxiety students feel when filling in forms.

"Moreover, it means that in total students applying to universities this year will receive only two sets of information and application forms — one set from the JAS universities and one set from the Metropolitan Universities Admissions Centre (MUAC) universities.

"This will mean a big saving in time and effort for students.

"At the same time, students under the JAS system will get the full benefit of free choice of university and course.

"Under the present MUAC system, the choice is made at the time of application in October.

"Under the JAS system, although the closing date for applications is October 1, students will not have to make their decisions until they receive their offers in early February next year.

"Students then will receive three independent offers and/or rejections. This is going a long way to meeting the needs of students."

In announcing the scheme to the June meetings of the Academic Senate and the University Council, the Vice-Chancellor, Professor L. M. Birt, said the JAS scheme was based on the principle that applicants would be assisted by a reduction in the number of application forms to be completed and a rationalisation of the dissemination of information.

Professor Birt said: "The proposal is also based on the principle that each university will process its own applications and make its own offers. Applicants qualified for, and who show an interest in, each of the three universities will receive independent offers. Their real choice will therefore be made at the time of receiving offers.

"The proposal calls for the use of a single application form for all three universities. Applicants will state preferences for courses at each university, as they have done previously, but they need not show preferences between the universities.

"The form may be lodged by the applicant with any one of the universities. It will then be copied and sent to the other universities for which the applicant has stated a preference.

"From the time of their receipt, the applications will be treated in exactly the same way as they were during the last admissions period. They will not be centrally processed.

"The proposal also provides for the circulation of one handout for all three universities. The handout is a folded envelope, of the same style used by the School Liaison Unit at Wollongong. It has the names of the three universities on the cover along with the title, "Admissions 1977". A statement outlining the extent of the scheme is printed on the inside of the cover.

"The envelope contains three information brochures, one for each university, prepared independently by them, an application form, and an acknowledgement card.

"The information handouts will be distributed to schools along with the MUAC information booklets and forms.

"A letter will be sent soon to all school principals advising them of the co-ordinated proposal. School's liaison officers at each of the universities will also ensure that the scheme is understood by intending applicants.

"The Higher Education Board has been successful in having all tertiary education institutions agree to the one common closing date for entry in 1977, i.e. October 1, 1976. Provision has been made for late applications."

THE BISTRO in the Union Stage III building provides a convivial atmosphere for pre-dinner drinks and for wining and dining. Photo: Kevin Donegan
"No growth" for campus is likely in 1980, says Vice-Chancellor

The possibility was that the University of Wollongong would move into a "no-growth" situation in 1980, the Vice-Chancellor, Professor L.M. Birt, said in a report late last month to the Academic Senate and the University Council.

The purpose of the report was to inform members about the development prospects of the Australian university system and, in particular, of the University of Wollongong.

Professor Birt said: "At the outset, I must make it clear that, although the general framework within which we will develop is now established, many of the details are provisional."

"The Universities Commission has not yet submitted its recommendations to the Federal Government and the Government has not yet given any indication of its likely response to the recommendations."

"That response will not be available until after the budget session of the Federal Parliament in August."

"Consequently, I set down here my understanding of possibilities for the effective development of the University of Wollongong."

Professor Birt said that the suggested "no-growth" situation in 1980 would mean that the annual undergraduate intake would be steady at 750; the enrolment of miscellaneous, diploma and masters qualifying students would be about 120; and higher-degree enrolments would be about 40.

The total student load in the University in 1980... the 'steady-state' student load... would be 2200, with enrolments totalling about 2700 students.

(STUDENT LOAD: To assess the financial requirements of universities, the Universities Commission expresses the number of students in terms of a standard unit since, in a given year, individual students may undertake varying proportions of the normal course requirement for a fulltime student. This measure is termed the student load; the unit used by the Commission is the number of equivalent fulltime students or EFTS.)

Prospects dim for new developments

Professor Birt said that there was little prospect of special support for new developments.

He said: "Specifically, I understand that no special research grants will be provided and, therefore, that we will not be able to apply for ear-marked funds, for example, for the establishment of a Centre for Migrant Studies, a Centre for Continuing Education, or for the other new projects specifically identified in our recent submissions to the Commission."

"Similarly, as there is unlikely to be any provision for a Performing Arts Centre, our proposals for drama, fine arts, and music will have to be held in abeyance."

"On the other hand, I believe that we should consider very carefully whether we can begin some new developments within the limit of our general recurrent funding."

"In this regard, I draw attention to those developments which may make a significant contribution to the activities of the region... particularly the Centre for Migrant Studies and the Centre for Continuing Education."

Professor Birt said that the universities could expect to continue to receive special grants -- in line with the recommendations made by the Universities Commission in its Sixth Report -- during 1977 and 1978 for:

1. the purchase of monographs and periodicals for the Library (at something like the present rate of $170,000 a year);
2. the purchase of equipment;
3. "rejuvenation", through recurrent funding, including an element of "baby-bonus";
4. a building programme (in 1978 and 1979) which might include buildings for general teaching pur-
poses, social sciences and humanities, science, engineering and administration; and
5. an allocation for site and minor works in the three years 1977 to 1979.

Professor Birt said: "We should anticipate a decline in the number of students entering universities for training as teachers. I draw attention to this possibility because it has important implications for our future enrolments in the humanities and sciences and for the activities of our own University Department of Education."

"For the time being, we will, I think, be asked to hold the total student load in that Department steady, though diversification of the courses offered by the Department is not only possible but also desirable."

Shape of University can be seen

Professor Birt said that he drew a number of general conclusions from this information.

He said: "We can see the 'shape' of the University of Wollongong until the beginning of the 1980's, and must plan for the University to move into a 'steady state' at about that time with a student load of 2200 and probably no greater range of activities than are represented by our present twenty departments."

The effective growth of our newly established departments and the maintenance of the activities of our older departments seem to be possible within the limits imposed by the expected provision of resources until 1979.

"However, it is essential for us to begin now the formulation of a blueprint for academic development into this 'steady state' condition, dealing especially with the number, size and inter-relationship of individual departments, and the practices we adopt in appointing academic staff."

"I would like to emphasise that we have moved into an entirely new situation. This University had expected to grow during the 1980's towards a size of between 3000 and 4000 student load, and to expand the range of its academic activities."

"We must now anticipate a smaller total size [2 200 student load] with [probably] no more than our present range of academic activities."

"Indeed, we had previously been part of an Australia-wide university system which anticipated continued growth, and with funds provided by Government in response to that growth."

"We now move to a situation where the funds are more or less fixed, the entire system has been asked to move to a no-growth phase, and our enrolments must be a response to a defined level of resources and capacity to teach, rather than the converse."

Tight quotas may be necessary

"It may be necessary for us, when we have fixed the staffing pattern for the 'steady-state' conditions, to consider a relatively tight quota system of enrolments. We may even need to fix quotas [with suitable tolerances] department by department."

"If we do not do this, the University must be prepared to accept quite marked differences in the student-staff ratios in different departments, which may vary in the short-term without any real possibility of providing additional resources to deal with these fluctuations."

"It may be necessary for us to adopt a different approach to filling established staff positions. The new 'rolling triennial system' combines some elements of tentative forward planning with both annual and longer-term reviews of university activities and funding, in the light of Government policies and economic circumstances."

Continued next Page.
Libraries expensive items—Sir Roden

Libraries these days were very expensive items in the education programme, the State Governor Sir Roden Cutler, said when opening the University Library on June 11.

Sir Roden said: “This library, together with its contents, is no exception, being valued at $5 million.

“ITS maintenance expenditures involve not only salaries and incidentals but also the purchase of extra books to expand the library to meet the needs of the university.

“Previously, the requirement was for a college library. Now that the Wollongong University College has become the University of Wollongong the demands on the library’s facilities are obviously much greater.

“It is planned to provide $½ million this year to cover these running costs.”

Sir Roden said he was attracted by the plan to use the ground floor foyer, with its attractive Tasmanian oak, to hold exhibitions and displays.

He said: “These arrangements, I think, are useful and imaginativeextensions of the purposes of the library, and will no doubt be used by students.

“The audio-visual facilities on the second floor, and the two seminar rooms, two group study rooms, and ten small study rooms on the first floor should provide larger areas and better opportunities for research and study.

“Together with Macquarie University, you have a programme to automate library cataloguing, so that centrally-available, computer-based data is secured.

“This system will permit an increase in cataloguing to 30,000 volumes a year without staff increases.”

Sir Roden said that he was sure the library staff was enthusiastically looking forward to building up the library to provide for the needs of staff and students.

“It is the focal point of a university, and its valuable possession is books,” he said.

In replying to Sir Roden, the university Librarian, Mr. J.C. Hazell, said it was important to stress that the whole of the Library’s staff and resources were now under the one roof for the first time in the last five years — in a building dedicated entirely for library purposes.

He said: Understandably, this has meant considerable advantages in intra-library communication and will provide the opportunity for general streamlining of library operations.

“There is now a building in which to grow, and to provide the collections and services so obviously lacking at the present time.

“So the point I want to make is that prospects are excellent for the future in providing a library resource worthy of the staff and students who will use it.

“There are other overtones, too, one being the community benefit which accrues from the provision of a large library facility.

“I have always taken the view that all the community is free to use the collection while the library is open, subject, of course to limitations of lending being available only to students and staff of the university.”

“NO GROWTH” FOR CAMPUS IN 1980

Continued from Page 3.

“Because so much of our recurrent funding is in academic salaries (about forty-five percent of the total), we will need to develop flexibility so as to meet unanticipated changes in the level of our funding by relying more heavily than at present on part-time, contract and fixed-term appointments.”

Professor Birt said that there was likelihood that the University would receive sufficient support to permit the continued development of its present relatively wide range of teaching and research activities, but not specifically for the new developments which had been proposed to the Universities Commission.

He said: “We will, of necessity, have to concentrate almost all our effort on strengthening our present teaching and research work.

“I suggest that such a concentration of effort may in fact be beneficial to the University in its present stage of development.

“If we are wise, I believe it will help to ‘concentrate our minds’ quite remarkably!

“I am, therefore, confident that with careful thought about our future and a sense of both the urgency and importance of the planning decisions that must be made now, the Council, staff and students of this University will be able to ensure that the University of Wollongong can realise the high hopes held by its founders and which, as its present members, we have every reason to share.

“In doing so, we will be carrying out the responsibility given to us in the University of Wollongong Act 1972, namely:

‘The functions of the University shall, within the limits of its resources and subject to this Act and the by-laws, include - - -

(a) the provision at Wollongong or elsewhere of educational facilities at university standard for any persons enrolled therein;

(b) the dissemination and increase of knowledge and the promotion of scholarship; and

(c) the conferring and awarding of degrees and diplomas’ “
Mr. Wran opens the Pentagon

The Premier, Mr. Wran, officially opened the Pentagon on June 25. The building, which mainly comprises five lecture theatres arranged around a central foyer, takes its name from its design.

It is one of the most easily distinguishable buildings on the campus, not only because of its shape but also because of the colour of its external sloping walls and roof.

These are covered with a vinyl, old gold in colour.

The building is immediately discernable from Mount Ousley Road above the University and from Mount Keira Lookout.

The central foyer actually comprises two distinct areas, each area pentagonal, one within the other.

The central of the two, which coincides with the centre of the building, can be used for exhibitions and displays, having a lower, more intimate ceiling than the surrounding space.

There are three theatre sizes. Theatre 1 seats about 250. Theatres 2, 3 and 4 each seat 150. Theatre 5 has about 100 seats arranged in a “horseshoe”.

Eventually, a comprehensive audio-visual system will be installed in the building.

However, initially, the installation is limited by funds to two overhead projection screens and one vertical projection screen in each theatre, and closed-circuit colour television in Theatre 3.

The official opening took place in the central foyer where Mr. Wran unveiled a plaque. The Chancellor, Mr. Justice Hope, introduced the Premier.

Among the guests were the architect, Mr. John Scott, and the builder, Mr. Dick Collins.
"The University Degree: Training for Vocation or for Life?" will be the theme of a public seminar to be held on August 13 at the University.

The seminar, which arose from an Academic Senate decision earlier this year, will mark University Day 1976. It will be held in one of the Pentagon lecture theatres beginning at 7 p.m.

The Chancellor, Mr. Justice Hope, will chair the proceedings. The Vice-Chancellor, Professor L.M. Birt, will introduce the seminar topic.

Professor Birt will be followed by the main speakers, each of whom will speak for twenty-five minutes.

The N.S.W. Minister for Education, Mr. Eric Bedford, will speak on "The Education System".

Mr. J.K. Doherty, Marketing Manager, Kembla Coal & Coke Pty., Ltd., will speak on "Training for Industry".

Professor A.H. Willis, Pro-Vice-Chancellor, University of New South Wales, will speak on "The University Degree: Vocational".

Professor F.J. Willett, Vice-Chancellor, Griffith University, will speak on "The University Degree: Generalist".

Each of the speakers will be introduced by a member of the University's academic staff. Professor Ron King will introduce Mr. Bedford; Professor Geoff Brinson will introduce Mr. Doherty; Professor John Ryan will introduce Professor Willis; and Professor Chipman will introduce Professor Willett.

Supper will be served at 9.15 p.m. followed at 9.30 p.m. by a one-hour forum, chaired by Mr. Justice Hope.

Admission to the seminar will be by ticket (no charge). Tickets are available from the Information Office.

The swing to the humanities

The spark for the seminar was struck in February this year by Professor Willett's breakdown of figures from a survey conducted by the Graduate Careers Council of Australia.

The survey, covering all students who graduated in 1974 from Australian universities, showed humanities graduates not only were more employable than specialist students but also were employed in more satisfying jobs. (Medicine, with its closely-related technologies, was the exception.)

Professor Willett's breakdown shows the percentage of students in each field who were unemployed last year and who had graduated in 1974.

BELOW AVERAGE UNEMPLOYMENT: medicine 0.0 percent; dentistry 1.2 percent; education 1.8 percent; veterinary science 1.8 percent; economics & commerce 2.7 percent; humanities (arts) 3.3 percent; psychology 3.6 percent; mathematics 4.4 percent; physical science 4.7 percent.

ABOVE AVERAGE UNEMPLOYMENT: social work 5.6 percent; behavioural sciences 5.8 percent; law 6.1 percent; biological sciences 6.9 percent; pharmacy 7.3 percent; earth sciences 7.7 percent; agricultural science 10.1 percent; architecture 10.3 percent; applied science 14.0 percent; engineering 14.5 percent; para-medical 28.6 percent.

In an article in The Australian on February 20 this year, Professor Willett said: "The important suggestion from this data is that, with the exception of the health technologies and education, the graduates in generalist fields have fewer employment problems than those in professional and technological fields."

He said that the trend toward employing liberal arts graduates had been evident since 1973. He had been surprised how slow the community had been to realise this.

Professor Willett said: "The myth of the unemployable generalist takes time to go."

"As the economy comes under pressure, the first thing firms stop recruiting is specialists."

"As they stop producing new products, they stop taking on new technologists; but they still use generalists of some sort or another."

In the same article, Professor Willett quoted figures on graduates who said they were seeking different jobs from those they had first taken.

He said that if this percentage was taken, "pretty dubiously, as a crude measure of job satisfaction or dissatisfaction", then graduate satisfaction could be ranked by fields of study.

HIGHEST JOB SATISFACTION: medicine 1.3 percent; paramedicine 3.8 percent; mathematics 4.0 percent; pharmacy 4.8 percent; dentistry 5.4 percent; humanities 5.7 percent; biological sciences 5.8 percent; physical sciences 6.1 percent.

LOWEST JOB SATISFACTION: education 0.3 percent; applied science 10.6 percent; architecture 10.7 percent; agricultural science 10.9 percent; economics & commerce 11.0 percent; law 12.9 percent; engineering 13.4 percent.

Professor Willett said that the two sets of figures taken together suggested that, except for health sciences, generalists not only were more employable but also were employed in more satisfying jobs.

In the article, Professor Willett went on to say that he felt the figures contained two lessons for Australian universities:

1. keep students generalised: high levels of specialisation in a changing world are not necessarily good; and
2. at the same time, keep university courses related to demands of the outside world.

The problem is to keep the generalised courses focused on the real-world problems while still keeping them general.

"The problem is to keep the generalised courses focused on the real-world problems while still keeping them general." he said.

Engineers — "open, shining intellects"

The following extract, supplied by Professor Brian Smith, chairman, Department of Electrical Engineering, is from Solzhenitsyn's The Gulag Archipelago. It reflects on the status of engineers in the Soviet Union in the 1920's.

I had grown up among engineers and I could remember the engineers of the twenties very well indeed: their open shining intellects, their free and gentle humour, their agility and breadth of thought, the ease with which they shifted from one engineering field to another, and, for that matter, from technology to social concerns and art. Then, too, they personified good manners and delicacy of taste; well-bred speech that flowed evenly and was free of uncultured words; one of them might play a musical instrument, another dabble in painting; and their faces always bore a spiritual imprint.

Visitors to Dept. of Metallurgy

Distinguished visitors to the Department of Metallurgy earlier this year were:

Professor M. Cohen, Institute Professor, (formerly Ford Foundation Professor of Materials Science), Massachusetts Institute of Technology, U.S.A.

Professor R.W. Cahn, Dean of School of Applied Sciences, Sussex University, England, who gave a colloquium entitled, "Splat Cooling".

Dr. D. Harrison, Department of Chemical Engineering, University of Cambridge, England.
A university not only was a provider of higher education but also was concerned with people and with ideals.

The State Governor and Visitor of the University of Wollongong, Sir Roden Cutler, said this when installing Mr. Justice Hope as first Chancellor at the University's first Graduation Ceremony at the Town Hall on June 11.

Sir Roden said: “Within the bounds of matriculation standards, a university should not close its doors to any, nor close its ears and mind to new ideas. It must encourage the basic essentials for an educated man as laid down by Bacon when he said: ‘Reading maketh a full man; conference a ready man; and writing an exact man.’

“Beyond this, a university looks to academic achievement, inquiring and lively minds, and above all to independence of thought and autonomy of being.

“A university is not, and never should be, a degree factory or a medium for indoctrination of any kind.”

Sir Roden said that a university’s independence was valuable.

He knew that Mr. Justice Hope, as Chancellor, would continue to insist on complete independence, and strive with the whole university to establish the highest levels of teaching and learning, and the acquisition of a tradition and a status in the community.

“This university will be no different to others, and members of the student and academic body will have individual and varying opinions on a wide range of subjects.

“These different views, discussed sensibly with an inquiring mind, should bring better understanding of, and insight into, matters of public interest. This is essentially the purpose of a university.

“It should be, as Disraeli proclaimed in the House of Commons on one occasion, ‘A place of light, of liberty, and of learning.’

“It is a ‘universitatem’, which in Latin was the whole, and by implication the whole world, hence the respected term university, where students gathered to listen to the wisdom of teachers, and in their own turn became learned men and women discussing, arguing, and evaluating, every possible interest of man.”

Sir Roden said that the University of Wollongong, the 18th in Australia, would doubtless specialise in some faculties, but its origins and the needs which it must fulfill were, and would be, both based on the requirements and aspirations of people.

He said: “You commence as a university with the support of the Commonwealth and State Governments, the goodwill of the University of New South Wales, of which you were once a part, and the involvement of the people of the Wollongong District.

“Placed between escarpment and sea, there is considerable industry and population on the South Coast, and this population especially the young people - look to this university to provide tertiary education of a high standard, fulfilling their needs, and fitting them for the occupations which they will follow, and for leadership in the community which they will no doubt assume.”
Hard work set up the University

Looking at the organisation as it now was, autonomous and working smoothly, the onlooker could have little conception of the work involved in the setting up of a College, its establishment as a working organisation, and the transfer of complete control from the University of New South Wales to the University of Wollongong.

Sir Robert Webster, former Chancellor of the University of New South Wales, said this at the first University of Wollongong Graduation Ceremony at the Town Hall on June 11.

He was responding on behalf of the first recipients of University of Wollongong honorary degrees, the others being Professor C. A. M. Gray, Professor Rupert Myers, and Mr. D. E. Parry.

Sir Robert said: "While we have been honoured in this way in recognition of our special contribution to the creation of the University, we recognise that there were many other persons who, by their imagination and industry, played substantial roles in its establishment.

"Accordingly, we not only hold ourselves to be especially privileged, but also see these awards as a public statement of gratitude to all those who have been involved in the formation of the University of Wollongong.

"It is, of course, a matter of particular satisfaction to me as the former Chancellor of the parent body, the University of New South Wales, to see the dream of many years come to fruition.

"In an academic institution such as this with so many creative thinkers and strong-minded individuals with definite and different views many difficulties have had to be overcome. I think you will appreciate this.

"It is a great satisfaction to all concerned that the change has worked without friction of any kind.

"I believe, Chancellor (Mr. Justice Hope), that you and the members of your Council are to be congratulated on the foundation of the University, on the progress it has already made in its brief period of existence, and on this ceremony which it has conducted today.

"Ceremonies for the conferral of degrees are always happy occasions but none more so than that at which the first Chancellor is installed and the first graduates receive their degrees.

"I hope, Chancellor, that over the years many more graduates will experience ceremonies such as this in the presence of their families and friends, and that the graduates of the University of Wollongong will become known for their scholarship and ability in Australia and beyond."

All four recipients received honorary Doctor of Science degrees.

Professor Gray is Professor of Civil Engineering at the University of Wollongong. His association with the University began in 1962 when he took up appointment as the first Professor of Engineering and Warden of Wollongong University College.

At that time the College consisted of a few buildings on a small property. Academic staff totalled less than twenty and enrolments totalled 280.

However, during his term as Warden the College grew apace. Professor Gray strove tirelessly for its academic and physical development. He sponsored a diversification of courses and fostered the growth of research.

Owing largely to his efforts, diligence, energy and perception, the College, under his guidance, developed into the present independent institution - the University of Wollongong.

Professor Myers is Vice-Chancellor and Principal of the University of New South Wales.

He not only held these positions at the time that the Univers-

THE UNIVERSITY awarded its first honorary Doctor of Science degrees to (from left): Professor C. A. M. Gray, Sir Robert Webster, Mr. D. E. Parry, and Professor R. H. Myers.
Ceremony marks fulfilment of community role: Lord Mayor

The Graduation Ceremony marked the fulfilment of the interest, energy, and financial participation of this community over a period of years, the Lord Mayor of Wollongong, Alderman Frank Arkell, said during the ceremony.

It was particularly pleasing to watch the formal installation of the University’s first Chancellor and to watch the first graduands have degrees conferred upon them.

Alderman Arkell said: “The increasing population of this district - a young population, aware of the need for advanced training coupled with a cultural education - soon strained the facilities of the University of New South Wales to provide for tertiary educational needs.

“In 1959, the then Mayor, Alderman Albert Squires, organised an appeal fund to raise money for the establishment of a University College to provide the Illawarra Region with adequate tertiary facilities.

“The assistance and financial support of the local community was sought and its response was most gratifying.

“Many of the local citizens, industries and commercial concerns contributed generously and a sum in excess of $376,000 was raised for the establishment of the University College.

“It is indeed pleasing to know that the University, in gratitude, has invited to this ceremony as many as it could contact of the individuals and representatives of the commercial and industrial concerns who raised or provided funds for the University of Wollongong.

“I know that I speak for the citizens of the City of Wollongong in wishing the University continued growth under the Chancellorship of Mr. Justice Hope.

“I express the wish that the University will, in the planning and development of its future, place special emphasis on the needs and aspirations of this community which formed an integral part in its development and transition from a University College of the University of New South Wales to its present status.”

AN HONOUR TO BE FIRST CHANCELLOR

Continued from Page 1

“The University was, as you know, a College of the University of New South Wales, and some students have elected to take their degrees in that University. Some are present here today. The Chancellor of the University of New South Wales, Mr. Justice Samuels, is here today. He will later present them to you, and in that way associate their graduation with this University.

“I have mentioned the large amount of work which has culminated in today’s ceremonies.

“Although much of that achievement is due to the efforts of people working for or associated with universities, it is essentially the result of the determination of the people of Wollongong and of the Illawarra Region that they should have their own university, and the translation of that determination into action, and in particular into the provision of substantial funds.

“The University expresses its gratitude to all of them, and hopes that it will be able to provide for the City and Region the educational and cultural centre that they were seeking.

“I must also, for the University, express its gratitude to the University of New South Wales, the University which responded to the needs of this region, established the College, and brought it to the stage where it could become a University.

“Without that assistance and guidance, the University would not exist today. We shall always remain grateful for that help and, I trust, will continue to retain our close association.

“We are very honoured that Your Excellency (Sir Roden Cutler), has joined us in this celebration. Your Excellency is the Visitor of the University, and we appreciate very much indeed that you have come to join us in what to us is a most important formal occasion.

“We are also honoured by the presence of Chancellors and representatives of universities from many parts of Australia. Their presence here symbolizes for us the comity and unity of purpose of Australian universities, and I myself am most honoured that they should attend my installation.

“We are also honoured by the presence of Alderman Arkell, the Lord Mayor of Wollongong. Our ceremony may not always take place in the Town Hall, but we believe and hope that there will continue to be that cooperation between the University and the City which is marked by your presence here today.”

THE University’s first Doctor of Philosophy, Dr. Kenneth Maher, with his wife, Elizabeth, and his supervisor, Professor Austin Keane (Professor of Mathematics and Deputy Vice-Chancellor).

In 1967, he completed a part-time M.Sc. degree in the School of Mathematics, Wollongong University College, working under Professor Keane’s supervision.

In 1970, he began an attempt to provide a neutron diffusion theory to explain the results emerging from the neutron wave experiments being carried out at the Australian Atomic Energy Commission Research Establishment, Lucas Heights.

This work, again under Professor Keane’s supervision, culminated last year in the presentation, to the University of Wollongong, of his Ph.D. thesis.

UNIVERSITY Medallists, Mr. Tran Dinh Phu (second from left) and Mr. Geoffrey Medlow (second from right), were awarded their medals for outstanding performance in Bachelor of Engineering degrees.

Mr. Robert Nightingale, was also awarded a University Medal for outstanding performance in his Bachelor of Engineering degree. All three medallists completed their degrees with Honours Class 1.
CHANCELLOR, Mr. Justice Hope, greets Mrs. Julie Blatch, the first graduate to be presented to him. She graduated with a Bachelor of Arts degree.

PROUD moment for Mr. Eric Ramsay, M.L.A., as he looks at the testamurs of graduates, Mrs. Yvonne Benjamin, of Mt. Keira (left), and Mrs. Hazel Brown, of Dapto.

Through Mr. Ramsay’s representations, both obtained scholarships to study at the University. They graduated with Bachelor of Arts Degrees with Honours Class I. Mrs. Benjamin’s daughter, Kim, graduated with a Bachelor of Arts degree with Honours Class II.

A FAMILY AFFAIR... Mrs. Julie Batch, of Waverley, Sydney, with her children Andrew, 11, Sarah, 10, and Rupert, 7.

Mrs. Batch was the first University of Wollongong graduate presented to the Chancellor, Mr. Justice Hope. She graduated Bachelor of Arts.
LEADING the recession from the Town Hall after the Graduation Ceremony are the State Governor, Sir Roden Cutler (left), and the University's first Chancellor, Mr. Justice Hope. (Photo: Kevin Donegan).

ORGANIST for the Graduation Ceremony, Associate Professor, Howard Pollard, of the University of New South Wales School of Physics. (Photo: Kevin Donegan).

SOME of the graduands during the Graduation Ceremony.
The design of a working library has evolved over thousands of years. Since the dramatic growth in universities after the early 1960s, however, university libraries saw a major planning change.

Large enrolments, the extent and variety of curriculum offered, emphasis on research, departments served, as well as preservation and multiple copies of documents, resulted in a need for flexibility.

With the "open stack" principle widely accepted, individual places, called carrels, were developed for student study, as well as small reading areas, divided from each other by bookstacks which also acted as acoustic baffles.

Multiple-tier stacking and sets of steps gave way to modular shelving and planning became more linear.

With the perfection of low-glare lighting, the fluorescent tube, ventilation and air conditioning, dependence on exterior lighting was eliminated and solid-wall libraries became practical and provided extra storage potential.

Modern library design appears simple, has basic form and seems to have generous foyer, display and reference areas. Nevertheless it is necessary to study, especially in a university library, present and future needs, design flexibility, open and closed reference areas, together with new teaching systems, such as group study, individual research and associated requirements.

The success of a library design is usually a combination of an adequate brief and a close understanding by the Architect of the limitations of the design caused by such things as finance, site location, building regulations and vertical transportation.

I suppose once a commission is invited for a library that every architect pre-conceives an underground complex, protecting ancient manuscripts in a constant temperature and humidity-controlled environment.

Many ancient libraries and museums were, in fact, constructed this way, or were located in inner rooms within magnificent villas.

My involvement in library planning has caused me to research their history and one can go back to Karl Weber’s excavation of the ancient city of Herculaneum where in the “Villa of the Papyri” he discovered the first complete ancient library preserved by the hot mud from the Vesuvius eruption in A.D. 79.

One becomes excited by such historical events, which of course on reflection are available to us through a library complex anyway.

You will excuse me for quoting from “Herculaneum” by Joseph Jay Deiss, published 1968, but it does indicate that the collection and cataloguing order of books has not effectively changed since the fifth century B.C.

...a tunnel reached a small room with an elegant marble floor, clearly a study. Close by was another small room; but this had wooden shelves, carbonised, stacked with what appeared to be cylindrical brickettes of charcoal. In the centre of the room was a stand, with the brickettes stacked on both sides. The brickettes, when examined, proved to be rolls of papyrus badly scorched by the hot mud. A count showed a total of 1787 volumes. After four years of trial and error and much damage, 3 scrolls were unwound and scholars read fragments of the “Treatise on Music” by the Greek philosopher, Philodemus.

It was with this sense of preservation that we evolved the design of the almost windowless library at the University of Newcastle. Accepting the need for air-conditioning the collection, such a design reduces heat load and provides a more constant temperature control.

It was however part of our brief from the University of New South Wales for the Wollongong design to provide some areas of glass to relate the people inside the building to the site.

In order to provide a useful library area in Stage 1, related to available funds, natural ventilation had to be used. Provision also had to be made for air conditioning in Stage 2.

A preliminary plan had been prepared by the University Architect of the University of New South Wales, using the long facade to define the western limits of a proposed central open space.

The siting would locate the building in the centre of the project's total development and be adjacent to the proposed extensions to the Union.

The author of this article is G. Gordon Fuller, M.Arch, F.R.A.I.A., Director of Laurie and Heath Pty. Ltd., architects for Stages 1 and 2 of the Library.

This firm was also architects for the Science Building and the Arts Complex as well as Consultant Planners in the original concept of the new Campus.

Mr. Fuller was also Project Architect for both stages of the University of Newcastle and is involved in the Campus planning of the Universities of Newcastle and Tasmania.

Stage 1, built in 1971, required the maximum free area with all facilities located relative to the total design. The total construction of Stage 2 and its integration of Stage 1 without major loss of library reference is a credit to the builders, George Martin Builders Pty. Ltd. and to the librarian and his staff.

The building is planned on three levels, with a large basement housing air conditioning equipment and an electricity substation. The plant room is large enough to accept equipment for Stage 3. This plant room is located under Stage 2 and a concrete tunnel 2.4 metres wide and 2.7 metres high connects all ductwork and services to Stage 1.

The structure of the building is totally concrete, with internal and external wall panels in London-tan face bricks from Bowral brickworks. The building grid of six metres square and the internal column size allow for the greatest flexibility in the location of standard shelving. An acoustic ceiling is provided on the first floor (general reading area), but has been eliminated from the top floor to reduce costs.

The precast external concrete panels were developed in Stage 1. The same form was used in Stage 2, but the finish and detailing were improved.

The large air space between this form and the internal walls acts as an insulator to control temperature variations. The roof is finished with Novolite, a fully welded rubberised bitumen sheeting, giving a waterproof guarantee of fifteen years. The floors are carpeted throughout with Heuga carpet tiles.

A concrete roof was selected, in preference to the metal-clad roof of Newcastle University Library, as it eliminates rain noise and does not require long-term maintenance. Variations in temperature and solar failure are eliminated as potential problems.

Timber used internally is Tasmanian oak, finished with a natural polyurethane.

The entrance portico, covered by the balcony above, serves as a good congregating space, especially in wet weather and on a hot summer’s day. On entering the main foyer, the circulation desk can be seen on the right, controlling the foyer and the catalogues located directly ahead. To the right is an open-stack reading room with carrels (old Stage 1) and to the left the Librarian’s office, and the Acquisitions and Cataloguing Department serviced by a receiving dock.

The access stair and lift lead to the first floor. This floor is a complete reading room with open access shelving. It has two seminar rooms, two group study rooms, and ten individual enclosed carrels. It is proposed to fully sound-insulate the ceiling of this area when funds permit.

This floor also provides lunch facilities for staff.

An open balcony twenty-five metres long and five metres wide is accessible for special functions. This balcony faces east and, as proved by the success of the afternoon tea at the official opening, is an excellent entertaining area.

Continued next Page.
It is unfortunate that the area cannot be made available for casual relaxation and reading. Security requirements of the library require that this area be locked to minimise book loss.

Similar security controls have been built into the fire stair doors. These are normally locked but automatically unlock if a fire alarm sounds. The building is fully wired for a thermal alarm system. The toilets are located on Level 1.

Level 2 was originally designed for temporary use by the School of Education and Languages. During construction this was changed back to library use. Extra toilets have been built on this floor. A ceiling will be installed when funds permit; consequently the volume to be air conditioned is greater in the initial stages and will therefore be less efficient than the other levels in the short term.

Provision has been made in future stages for the construction of an open roof garden for reading and smoking. This will provide a necessary relief from the enclosed, air-conditioned environment of the lower floors, as well as giving an excellent viewing area from which to appreciate the whole campus and its setting below Mt. Keira.

Some provision for handicapped persons has been made in the building. Access by wheelchair is easy as no steps are constructed at the entrance. The lift allows access to all floors. Stage 3 will provide special toilet facilities. It is hoped that all future building briefs will draw attention to the basic needs of such people.

The library now has a total floor area of about 6,600 square metres, and provision for 600 reader places and more than 250,000 volumes. Space is available for audio-visual studios, microprint reading areas, and reader education programmes.

It is a building of great flexibility providing all the basic requirements for proper interfiling and easy accessibility.

The main foyer has been designed with space for exhibitions, and it is encouraging to see that Wollongong City Council has offered part of its art collection, now being hung in the library on a rotation basis.

The official opening of Stage 2 of the library ends a triennium building programme which has moulded the future planning for the University.

Construction of the buildings had been delayed substantially by weather conditions, strikes, and a scarcity of materials. The resultant increase in costs has been staggering and the library has been no exception.

Two major delays affected the building programme: the change in utilization of the top floor resulting in a need for the whole building to conform to Ordinance 70 instead of 71 and the financial collapse of the firm accepted to supply and erect the precast concrete panels.

It is to the builder's credit that he has finished the building to such a good standard. This has been mainly due to the high degree of confidence and cooperation on site between the builder’s foreman and the Architect’s representative.

The library is the hub of the educational process, being the seat of learning. It should have a special quality that is distinct from the lecture room and the laboratory.

As its Architects we hope we have established it as the academic heart of the campus.
Research team will investigate leachate formation problems

A research team working under the direction of Dr. J. Ellis (Chemistry) and Dr. R.N. Chowdhury (Civil Engineering) will investigate problems associated with leachate formation at the Russell Vale Waste Disposal Depot.

The project is being funded by a $9,500-grant from Wollongong City Council.

Leachate is the solution produced by the interaction of rainwater and groundwater with decomposing material in sanitary landfills.

The purpose of the study is to characterise the leachate chemically and bacteriologically and to determine groundwater flow rates and directions.

From this data, techniques will be recommended for the most economical control of the amount of leachate produced and for treating and disposing of leachate so as to eliminate any risk of polluting natural watercourses.

Dr. Ellis's research group has been working on water-pollution problems for the last five years.

This work has included a three-year survey of water quality in Lake Illawarra (S. Kanamori, Ph.D. project) and an examination of physical and chemical parameters controlling the distribution of dominant weed species in the lake (M. Harris, M.Sc. project).

Mr. R. Whitton's M.Sc. project is concerned with improving the recovery of tin from spent electro-plating liquors at Australian Iron and Steel. Dramatic improvements in the speed and completeness of tin recovery have resulted and will save the company many tens of thousands of dollars per annum.

In collaboration with Dr. R.T. Wheway (Mechanical Engineering), Dr. Ellis has investigated a number of other problems in the coal and steel industries. Their research at South Coast Coal Washeries has identified those parameters which are crucial for dewatering coal tailings, thus facilitating water re-use and tailings disposal (A.M. Holland, Ph.D. project).

With Mr. P. Rowley (Ph.D. project), they have developed a two-stage treatment process for removing cyanide from coke ovens and blast-furnace gas scrubber effluent.

The process is based on using waste pickle liquor and is currently being evaluated in a small pilot plant constructed on the campus. A further area of wastewater research is the use of peroxides for the treatment of industrial wastewater.

DR. JOHN ELLIS using the Department of Chemistry's Varian AA6D Atomic Absorption Spectrophotometer for analysis of the metal ions in leachate.

Applied research of this nature not only has proved to be scientifically challenging, but also produces substantial benefits to the local community in terms of alleviating industrial pollution and improving the profitability and efficiency of industrial processes and resource usage.

Reserve Bank officer visits

DR. DON STAMMER Deputy Manager, Research Department, Reserve Bank of Australia, visited the Department of Economics last month.

He lectured Economics undergraduates on recent economic events and policy (unemployment, inflation, monetary and fiscal policy) and gave a seminar to Economics staff and senior students on exchange rate theory.

In 1958, Dr. Stammer was a student of Economics Department Chairman, Professor Ken Blakey, when Professor Blakey was a senior lecturer at the University of New England.

Dr. Stammer has a B.A. and an M.A. from New England and a Ph.D. from the Australian National University, where formerly he was a senior lecturer and sub-dean of Economics in the School of General Studies.

His publications include two books: The Australian Trading Banks with H. W. Arndt (Cheshire) and Inflation and Unemployment with J. W. Nevile (Pelican).
New-style General Studies and part-time teaching funds

At its meeting of June 18, the Academic Assembly passed the following resolution (76/8):
(i) that the Academic Assembly deplores the recommendation of the Resources Committee denying part-time teaching funds to new-style General Studies subjects;
(ii) requests the Academic Senate to reconsider policy on this matter and to recommend through its Resources Committee that funds be made available.

In the debate on the resolution, two main arguments were put forward opposing the allocation of part-time teaching funds to new-style General Studies courses. One was that the academic standard of such a course would be lowered if any part of it, no matter how small, were to be given by part-time tutors or lecturers. The other argument was that, since the EFTS accruing from any new-style General Studies courses are allocated to the individual departments which release lecturers or tutors to teach them, those departments should take responsibility for staffing such courses.

It is only possible to argue that the use of part-time teaching staff lowers academic standards if this rule is applied to all courses given in the University. At its February meeting, the Resources Committee recommended that $19,000 be allocated for the provision of part-time teaching staff for 1976 to ten different departments. Presumably, at least one course offered in each of these departments is taught with the aid of part-time tutors or lecturers. So, if the argument that part-time teaching lowers academic standards is maintained, then half the departments in this University are offering at least one sub-standard course.

The argument concerning EFTS is, on the face of it, more convincing, since a department's staffing establishment, its recurrent grant, and part of its library funding are determined on the basis of its EFTS. But because the EFTS accruing from new-style General Studies courses, for the most part, inter-disciplinary, the EFTS accruing from any one of them may have to be divided among several different departments. A new-style General Studies course offered at 200-level, with an enrolment of thirty-six students, is worth twelve EFTS, but each of the six departments participating in its teaching receives only two EFTS.

In real terms this represents only a minimal gain to each of the departments concerned. If a department is on the borderline in terms of its staffing formula, two extra EFTS gained through the participation of a staff member in a new-style General Studies course might tip the balance sufficiently to enable it to claim the establishment of a new staff position. In most other respects, however, an increase of two EFTS per department is so small as to be negligible. According to the Bursar's division, it might not even be worth the bother of assigning to individual departments the EFTS accruing from the new-style course General Studies is offering this year.

It has been argued that if participating departments receive the EFTS accruing from new-style General Studies courses and a grant is simultaneously made to the General Studies Department for part-time teaching funds for those courses, then the University is paying twice over for the same lot of EFTS. But if the number of EFTS concerned is so minimal that it is not really worth all the paper-work involved in assigning them to the various departments, then the University is receiving funding from the Australian Universities Commission for a group of EFTS on which it is spending very much less than all its other EFTS which are paid for through the various grants made to individual departments.

Might it not be possible to share the EFTS benefits arising from new-style General Studies courses between departments participating in a course and the Department of General Studies? Participating departments could count their share of General Studies EFTS for the formula calculation on which the establishment of new staff positions is based, and the Department of General Studies could receive the funding which EFTS attract to a department in the form of housekeeping and part-time teaching money. Such funding would be more usefully deployed in this way than if it were scattered in tiny fragments throughout several departments.

If the University accepts and runs a new-style General Studies course, then students enrolled in it are surely entitled to the same support, provided by the University, on the basis of EFTS figures, as that received by students enrolled in courses offered by individual departments.

Dorothy Jones,
Department of English,

Valuable donations to Library

Several valuable books have been donated to the Library to commemorate the installation of the University’s first Chancellor, Mr. Justice Hope.

The Australian National University has donated Ancient Tahitian Society, a set of three volumes.

Ethel Hoskins Hayton, a Wollongong journalist, has donated The Art of Illumination: an anthology of manuscripts from the sixth to the sixteenth century.

Another interesting donation has been received from the Consul General of Switzerland, with compliments from the "Pro Helvetia“ Foundation in Zurich. This is Schweizer Malerei von Mittelalter bis 1900 (Swiss painting from the Middle Ages until 1900).

Philosophy Society first meeting

The inaugural meeting of the Philosophy Society will be held on July 29 in the Pentagon Lecture Theatre No. 2 at 12.30 p.m.

The speaker will be Miss Suzanne Uniacke whose topic will be, “Have we a right to privacy?” A general discussion will follow.

The society is being formed as an interest not only for students of Philosophy but also for all thinking students. It is hoped to present speakers, films, discussions and debates on topics of general philosophical interest such as “Does God exist?”

Feynman on film: physics

The 1964 Cornell University Lectures under the title of "The Character of Physical Law", delivered by Professor Richard Feynman, will be screened by the Department of Physics as a weekly series beginning on the second Tuesday of Second Session.

Professor Feynman, a Nobel Prize Winner, is noted world-wide, not only for his contributions to physics, but also for his wit and warmth as a lecturer.

In presenting his topics, he presumes no prior knowledge of physics from his audience.

The lectures are not intended to teach the subject matter of physics but rather to explore the broad philosophical dimensions of the subject, the character of physical law.

Both non-specialist and specialist will enjoy this series as a succinct presentation of the successes and failures, of the universality and limitations, and of the possible future of this basic science.

Staff and students are invited to attend these lunch-time (12.30 p.m.) presentations in the Physics Lecture Theatre, Room 118 of the Science Building. Each lecture lasts for about one hour.

The seven lectures and the dates of their presentation are: 27 July, The Law of Gravitation, an example of Physical Law; 3 August, The Relation of Mathematics to Physics; 10 August, The Great Conservation Principles; 17 August, Symmetry in Physical Law; 31 August, The Distinction of Past and Future; 7 September, Probability and Uncertainty; 14 September, Seeking New Laws.

Talk on "Devil's City of Angels"

Dr. Larry Sternstein, of the School of General Studies, Australian National University, will speak on "Exercising in the Devil's City of Angels" (subtitled "Environment in Bangkok") on July 27 in Room G3, Social Science Building, at 8.00 p.m.

Dr. Sternstein will speak on behalf of the University's Geographic Society. He has travelled extensively through Thailand and is the author of Thailand: the Environment of Modernization.
Sabbatical: nine in a campervan

From our first morning off the ferry, when we were "adopted" in the market square of the village of Grandvilliere in France by an old cripple in a wheel chair, who shepherded us around various stalls until we met a lovely French lass who invited us home for drinks, until our last evening in Trondheim, Norway, when we farewell ed a delightful young archer who had given us the run of her flat for four days, our touring was full of contacts with beauty people - the majority of whom used English that was as halting as our French, Spanish and German were (and that's bad).

Perhaps the classic was the Spanish military cop, a member of the dreaded "Guardia Civil", who pulled us up one night at about 11.30 (although we rarely travelled at night) and demanded to see our "Passa Paseo".

Now, that day we had travelled through an absolutely beautiful Spanish town - real fairy-tale style with the white painted houses clustered around a cathedral on a real mountain top - and had fallen in love with it.

(The fact that I had decided to buy a bottle of Vino in a local cantina there; had been offered a litre for 25 pesetas [about 40 C]; and had expressed doubt about its gustatory qualities ["Es bieno por beber?" I asked - "Is it good to drink?"] I doubted which were allayed by the proprietor pouring two middies full [one for me, and one for him] from a freshly opened companion bottle - it was delicious and unbelievably smooth - and then was only charged the original 25 pesetas for a fresh bottle: this probably added to the favourable impression of the village.)

To get back to our policeman - after I had lifted two sleeping babies to get at our passports, he asked where we had come from.

I couldn't remember the name of the place, but could tell him we'd come through this beautiful town, Olvira, and in my limited Spanish (vocabulary of 13½ words) rhapsodised about it in telling him. Would you believe that it was his home town?

I thought he was going to offer to escort us personally through the rest of Spain, and we spent some time and intensive labour with our Spanish dictionary discussing relative merits of housing in Spain and Australia before his partner, obviously eager to find someone to fine, dragged him away.

Then there was the night at a little beach on the north-west coast of Spain where we were the only non-locals at a Sardinian barbecue - sardines grilled over coals, with a delicious sauce based on, and eaten with broken fresh bread and red wine, served by a shy little Spanish girl who obviously thought Australians came from somewhere near the moon.

There are just so many of these incidents and places (I haven't really talked about any of the places - how often in Australia are you likely to see a herd of reindeer cross a mountain road by a frozen waterfall, with a backdrop of snow-covered mountains against a clear blue autumn sky?) that it would bore you to tears (if you're not already there) if I recounted them.

Let me finish with some comments about our own behaviour that I believe helped make our journeys so enjoyable.

We tried to keep off the tourist routes; we always stopped where the locals stopped (in Acupulco I queued up with a line of Mexicans to buy half a kilo of tortillas, and got about 20 times the value I would have got in a tourist trap two streets away); we tried to talk in the local language (although this was almost impossible in Scandinavia, but the little phrase books were a great help).

Invariably, people appreciated our intention if not the results, and we followed local advice about places and about food.

On the practical side of travelling, we tried to plan itineraries with no more than five hours of driving, of which I would generally do at least two hours before breakfast while the tribe finished sleeping and organised the bus for breakfast. This pattern left a big slice of the day for out-of-vehicle activities.

I can't close without a final recommendation for what we now feel to be the third best of our four sabbaticals - South Wales. Those who say it's a珞y, over-industrialised, uninteresting area must be seeing the world through thick lenses.

It's a country of warm, generous people, who will gladly give up whatever they're doing to yarn for an hour or two to help a friend; a country of beautiful, grey, misty valleys with crowded rows of miners' cottages perched on and along the spines of hills, of beautiful checker-patterned farms and hedgerows, and of grey stone farmhouses we lived in a sixteenth-century stone farmhouse for the latter part of our year in Wales). And the singing is all they say it is.

Crickey, I'm homesick for the place. Roll on, next sabbatical . . . .
School to university transition

DR. J. P. POWELL, Assistant Director, Tertiary Education Research Centre, University of New South Wales.

The pace of social change in Australia exceeds our capacity to make intelligent plans to cope with its consequences. This is certainly true of education: both the quantity and quality of public debate on educational policy are grotesquely inadequate.

I hope today that we shall be able to make a modest contribution to this discussion by considering some of the factors which will inevitably bring about major changes in our schools and tertiary institutions so that we can plan for change instead of simply being overtaken by events.

Later I shall focus upon some questions about selection and admission to higher education and the problems which students encounter when they move from school to university, but first I shall sketch on a broader canvas so that our discussion can be located within a wider context.

Demand

The Borrie Report on population trends shows that the growth in the tertiary client population will slow down from now on and then begin to decrease, in absolute numbers, in the early 1990s. This decreasing growth needs to be viewed against the very rapid expansion of recent years. (Tertiary enrolments in 1951: 27,000; in 1961: 57,000; in 1971: 123,000; in 1975: 148,000.)

This decrease may also be influenced by other factors, notably the flattening out of the holding power of high schools. There is already evidence of this in Britain and Australia.

In Victoria, the retention rate has even begun to show a slight decline in absolute numbers thus decreasing the size of the population available for entry to higher education.

There is already an over-supply of graduates in many fields: architecture, law, engineering, science. In Victoria from 1969 to 1973, there was a 38 per cent increase in the number of graduates and a 165 per cent increase in science graduates.

Until now, the effects of this over-supply have been cushioned by the capacity of the education system itself to absorb graduates: about 30 per cent have been taken back into the system.

But now, with a greatly reduced growth rate, this cannot continue on anything like the same scale. The demand for teachers is expected to be fully satisfied within five years — even for teachers of Maths and English.

This means that we are already fast approaching a situation in which about one-third of all graduates will either be unemployed or forced to take up work inappropriate to their qualifications.

This is already a major problem in Britain and the U.S.A. Last week 20,000 student teachers in Britain demonstrated against further reductions in the intake and the imminent closure of some 30 colleges of education.

At the end of this year, it has been predicted that, of 40,000 new teachers, about 15,000 will be unable to obtain jobs.

In Australia, the government has now prohibited any further growth in the number of places for student teachers, but this action has probably been taken several years too late.

It seems likely that the reduction of job opportunities will reduce the attractiveness of higher education for school leavers and so further reduce the absolute number likely to be seeking a place.

Some faculties are already experiencing difficulties in filling their quotas: the University of New South Wales was forced to make three rounds of offers this year in order to maintain numbers.

In 1974, the Victorian system was left with 3,000 vacant places, and there are almost certainly more this year. The response to this has been to lower entry standards, but this obviously cannot be a long-term solution.

We can also predict a shift of emphasis away from heavily vocational courses: this is already evident in the course patterns of mature students.

Advanced study may increasingly be viewed as something valuable in itself, a consumer good, rather than a stepping stone to specialized employment opportunities. This will involve major changes in curricula, teaching methods, and enrolment patterns.

There is also likely to be a marked increase in demand for higher education from adults who will be seeking both education for its own sake and re-training in vocational skills.

Finally, the situation will be further complicated by changes within the school system as individual schools and the system as a whole struggle to increase their freedom from the constraints previously imposed by the tertiary sector's admission requirements. So much for background.

Selection

The present situation is one of unprecedented flux, and a number of major changes are taking place throughout Australia and in many other countries.

Change in New South Wales is long overdue, since many features of the present system are widely recognised as being highly undesirable.

The use of HSC aggregates as the sole criterion of selection is indefensible given the poor correlation between these and degree performance. It has also severely constrained attempts by the schools to provide a meaningful education for the great majority who do not proceed to higher education.

Students lack both time and information when trying to decide where they will go and what they will study. Important decisions have to be made in a crisis atmosphere, sometimes days before enrolment.

Someone pointed out recently that the computer is allowed more time in which to produce offers of places than applicants are allowed to decide which offer to accept.

Victorian teachers have already said that they will no longer support HSC as a selection device.

In Norway, Sweden and Germany, schemes are being introduced which encourage deferred entry, give points for work experience, and allow for balloting where there is an excess of demand.

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School to university transition

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Given that there is already a considerable excess of places available throughout Australia, the whole problem of selection is fast disappearing of its own accord.

As one British writer recently pointed out with respect to exams: When on either side of the school leaving age insufficient consideration is given to the relationship of work in schools and post school education; when increasing numbers of students enter post school education without formal qualifications; when as a predictor of later success they are unreliable; it becomes increasingly difficult to see why examinations are used at all as a measure of acceptability for post school education. (Pratt, HER, B(1), p. 79, 1975)

It is becoming clear that the decision to enter higher education is not always an either-or affair that many of us have supposed. Beswick’s follow-up study of five thousand 1973 matriculants (ANZAAS 1976) reveals a very much more complex situation as young adults drop in and out of the system.

Fifty per cent of the 1973 matriculants said that they would prefer to defer entry for a year after HSC. In 1975, 30 per cent of those who had taken a year off had enrolled; and of those who said that they would defer 60 per cent has enrolled.

Yet universities have been extremely reluctant to agree to deferred entry. Data from the University of Melbourne indicate that about 40 per cent of those who are granted deferment do not subsequently take up the place offered to them. A rather similar pattern is emerging at the University of New South Wales.

Student aspirations

One consequence of the poor quantity and quality of information available to prospective students is the unrealistic character of many of their ideas about higher education.

Recent studies at the University of New South Wales have highlighted this. In both 1969 and 1974, 40 per cent of entering students said that they anticipated going on to do honors but only 15 per cent actually did so.

Twenty-seven per cent said that they expected to study for a high degree later, whereas only 12 per cent did so.

Most of them expected their courses to be intellectually stimulating, although it is alarming that 12 per cent (335) did not expect this to be the case.

One wonders why they are there. Not in faculty of first choice, parental pressure, vocational reasons, etc. Perhaps they have heard from their friends that this is a realistic expectation.

However, 93 per cent said that they expected to enjoy university life and 50 per cent anticipated that they would not experience any difficulty in passing.

There are good reasons for supposing that for many of these students these expectations are not likely to be matched by reality.

Adjustment difficulties

Very few of the students entering the University of New South Wales in 1974 expected that they would have much trouble in adjusting to university life.

But of the 1969 entry, 78 per cent said they were aiming at credit or better in all their courses. However, at the end of that year only 49 per cent had passed in all subjects and, of all students enrolled, only 7 per cent gained a credit or better in all of their subjects.

It is thus clear that many students enter with very unrealistic academic expectations.

Only about 57 per cent graduate in minimum time, and it is likely that this figure has not changed very much over the last 20 years, although it is extremely difficult to obtain accurate data on this.

The high failure rate suggests that many students are unable to cope with the demands made upon them or to make a reasonably smooth transition from school to university where they are subjected to very different teaching methods, receive much less individual attention, and tend to feel lost in large impersonal institutions.

In 1974, 2,427 sought help from the New South Wales Counselling Unit, and there were presumably many more who were in need of help but did not seek it.

Many quietly drop out during the year or decide not to re-enrol; even though they have been academically successful. In 1975 there were about 1,000 in the latter category.

We managed to contact 200 of these in order to find out why they left: about half of them said they were not satisfied with various aspects of university life.

Since about 50 per cent of those entering in 1974 had claimed that they would put up with just about anything in order to gain a degree, it can be assumed that many of those who continue with their studies are not satisfied with the experiences they are having but choose to endure them as best they can.

Many students find university life dull and impersonal; they rush from one class to another often for 2 hours a week.

They force themselves to learn by heart masses of material in which they can find little to interest them simply in order to pass exams.

What can be done?

1. A good deal lies in the hands of the universities and colleges of advanced education. They must look to their teaching methods, curricula, staff-student relations, and institutional environments.

Many of the universities have been allowed to become far too large to be able to provide any sense of community.

First-year lecture classes of over 1,000 students are more often the mockery of educational values: both staff and students are dehumanised in such an environment.

There is a tremendous task ahead of us in attempting to undo the anti-educational consequences of headline expansion in higher education.

2. Students need far more help in attempting to determine their future. Above all they need accurate information and sympathetic, but non-directive, guidance when considering what to do after leaving school. There is, at present, a desperate need for more information relating to career prospects, courses, entry requirements, and the characteristics of particular institutions and departments.

In a report in 1975 on the feasibility of a joint admission system for New South Wales, we recommended the allocation of resources for this purpose in order to assist those in the schools who were responsible for advising school leavers.

Unfortunately this has not been implemented.

3. We should encourage school leavers to defer entry to higher education so that they can gain some work experience and give more thought to what they really want to do with their lives.

All students should be offered deferred places which could be taken up at any time during their lives.

There is no doubt that many would not choose to return to full-time study, and this would be a very good thing: our universities already have far too many students who are uncertain about the nature of their intellectual and vocational interests as to constitute a major obstacle to those institutions continuing as viable centres of educational excellence.

Also, it can scarcely be in the interests of young people for them to spend several years in the so-called study of material in which they have only a marginal or non-existent interest.

Higher education is not like air and water, a necessity of life; it is only for those who wish to and are capable of gaining real benefit from it.

4. We must break away from reliance upon the HSC for selection purposes. Not only does this impose intolerable restraints upon the educational efforts of the schools but also is responsible for many of the defects in the present admission system, in particular, creating a traumatic decision-making period for students during the few weeks before the start of lectures.

But, above all, we need to free our thinking, to disregard those things that will be administratively convenient, that suit the whims

Continued next Page.
Canadian in one-man show

A Canadian actor, singer, comedian and poet impersonator, Charles Hayter, will perform in the Union Hall on July 22 at 12.45 p.m.

His performance, "A Taste of Robert Service", is a biographical birth-death sequence of excerpts connected by narration, often humorous, on the life and times of the Canadian poet Robert Service.

It contains an in-depth account of Service's life in the Canadian North, the days of gold fever and tall tales.

And Robert Service was fascinated and inspired by it all...the scenery, the gold-rush characters, and the wild magnificence of the Yukon Territories.

The result was such ballads as "The Shooting of Dan McGrew", "The Cremation of Sam McGee", "Ballad of the Ice-Worm Cocktail", and "The Ballad of Betsy's Boil".

Speaking with Scottish and Southern American accents and putting the words into action with his face and body, Mr. Hayter brings the verses to life.

Robert Service was born in England in 1876 and raised in Scotland.

He arrived in Canada as a young man to seek his fortune; worked on farms across Canada; roughed it in the best spirit of his poems;

He arrived in Canada as a young man to seek his fortune; worked on farms across Canada; roughed it in the best spirit of his poems; got employment as a bank teller in a British Columbia bank; was transferred by his bank to Dawson City in 1904, the centre of the gold-rush fever of 1898 and the fever still running high.

Catching the fever in a literary sense, Service began writing his rugged northern ballads for which he is universally famous.

Mr. Hayter was born in Lancashire, England, not twenty-one kilometres from Service's birthplace.

His interest in the poet was sparked by his participation in a high-school musical, set in the Yukon, into which lines of the poet's poems were woven.

After this experience, Mr. Hayter read everything on the poet he could find; and when he arrived in Canada in the early fifties, visited the Yukon so he could see firsthand the land that had inspired some of Service's best work.

Mr. Hayter entered professional theatre in 1955 after completing a fulltime three-year course at the Canadian Theatre School, Toronto.

Judith Wright to speak here

Judith Wright, distinguished Australian poet and conservationist, will read and speak on "Australian and New Zealand Poets Today" at an evening sponsored by Convocation members of The Australian National University in Wollongong on Thursday, August 5.

The occasion will be in the Common Room of the University of Wollongong Union at 7.45 p.m.

The members of the academic staff listed below have returned or shortly will return from study leave: Dr. D. D. Diespecker (Psychology) Associate Professor N. F. Kenyon (Metallurgy); Dr. K. J. McLean (Electrical Engineering); Dr. G. M. Mockler (Chemistry); Mrs. E. Richards (History and Philosophy of Science); Dr. P. Van Werf (Mechanical Engineering); and Dr. A. J. Wright (Geology).

SCHOOL TO UNIVERSITY TRANSITION

of politicians, that satisfy the status cravings of indulgent parents, or which make life easier for ourselves.

Instead, we should be seeking ways in which we can increase the educational value of what we do in schools and universities by taking every opportunity to expand the imaginative powers, to strengthen the intellect, and to deepen the moral commitment of our pupils and students.

These are the things that matter, yet these are also the things which we most frequently neglect.
Geolsoc. members at Tumut

During the first week of the May break, fifteen Geolsoc. members and their friends were led through the Tumut area by Dr. Bryan Chenhall (Department of Geology).

Base camp was at Camp Hudson near Tumut. Facilities there include showes, bunks, and eating facilties. However, as usual, Tumut was cold and fires were maintained to keep warm.

Other areas visited included Blowering Dam Mountain, a trout hatchery at Blowering, Adelong, Batlow, Tumbarumba, Tooma, Khancoban, and Cooma.

The geology of the Tumut area was the main reason for the visit. Around Tumut, the serpentinite belt and intrusives were investigated. Various copper, chromium, and gold mines, as well as Tertiary basalts, granites, and Quaternary deep leads provided Geolsoc. members with unusual examples of geology.

The trip was eventful, with a few members having troubles with their cars. Members were subsidised for petrol expenses.

For events on the Geolsoc. calendar, members should refer to Take Note, which is published by the Information Office every fortnight.

Members are also urged to check notice boards for additional information and change of plans. All activities will be advertised in advance. If in doubt, see John Pemberton, Avis Depers, or Phil McKenzie in the Department of Geology (ext. 327).

Unlucky soccer Intervarsity

The University Soccer Club visited Macquarie University for the Intervarsity competition from May 9 to 14.

We took 18 players, but many were carrying injuries, so we did not expect to do well against the fitter teams.

However, the team played well and was unlucky to be beaten by Melbourne and LaTrobe Universities and to hand held by Queensland.

We were completely outclassed and beaten by the strong University of Sydney and the University of New South Wales teams.

The highlight was the final night when the presentations were made and the Australian Universities squad waived to our New Zealand aural.

We hope that the rest of the University will join the Soccer Club in congratulating Tony Rossi on his selection in this squad.

He has been playing First Grade with University for the last two seasons, having previously played for Balgownie, and has been one of our most consistent players.

He played well at Intervarsity and his selection was well deserved against some strong opposition.

Phil Woodlett

Table Tennis Club news

At the end of round nine of the Illawarra table tennis Winter Competition, University 1 was lying fifth in Division One.

In Division Two, University 2 was second on the ladder and University 3 fifth. In Division Three, University 4 was second on the ladder and University 7 sixth. In Division Four, University 6 was second on the ladder and University 8 third.

This year's table tennis Intervarsity was held at the University of Melbourne in May.

Unfortunately, the University of Wollongong Table Tennis Club was unable to participate owing to the lack of support of a few members.

It was disappointing after a highly successful Intervarsity effort last year, the club could not proceed with its potential to dominate the Intervarsity in Melbourne this year.

Club officials are looking forward to the cooperation and support from members and non-members for next year's Intervarsity in Newcastle.

A University Division One player, N. O. Thoi, was selected to join the Illawarra A Grade team which played the Country Week competition at Summer Hill during the Queen's Birthday weekend.

Due to examination commitments, only five University players participated in the Illawarra Closed Championships on June 30.

They were N. O. Thoi, J. Ryan, J. Luang, L. Hunt and R. Lin.

The most successful one was Joe Leung, who is still in the final of the special singles and will play a First Division player on July 7 at the Agricultural Hall.

Joe plays for University 2, Second Division.

The University of Wollongong

CAMPUS NEWS

Vol. 2 No. 7 Wed., July 17, 1976

Published regularly throughout the academic year by the Information Office for The University of Wollongong, Northfields Avenue, Wollongong, 2500. Distributed to students and staff, and to local regional, state and national individuals and organisations.


Campus News strives to provide objective coverage of matters of interest to the University community. Letters and submissions are welcome. Send to the Information Office, Administration Building, Deadline next issue: Tuesday, July 27, 1976. Editorial matter may be reprinted; credit would be appreciated.

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