The University: "In my beginning is my end"

This year marks the birth of the 18th Australian University, the University of Wollongong.

One of the first and most significant acts of the University was to define for itself, in its "degree regulations", the way in which it wished to organise its teaching programme, both undergraduate and postgraduate.

In giving this matter such a prominent place at its beginning, the University was, I believe, making an important statement about its end — recalling Eliot's inversion of the motto of Mary, Queen of Scots: "In my beginning is my end."

In defining the "end" of a university, each member may play a part if he chooses to do so, so that very many different views can emerge. But there are, I think, three strands of thought about the purpose of a university which are common.

The first sees the university as a collection of scholars, insulated from the world outside by an immersion in activities which are sustained by their own internal momentum and significance and which are affected little by current events in that world.

The second is the university in a dynamic relation with its environment. One sees the university primarily as the servant of society, producing graduates with the skills that society values highly at the time; the other asks the university to assume the role of critic and critic of society, wishing it to become a conscious instrument of social change.

For my own part, I find something to agree with and something to disagree with in each of these views. I think that each is wrong in assuming that a university has a unity of purpose, of action, of interest, of commitment, which in fact it rarely, if ever, possesses.

It is, I suggest, more realistic to say that a university has as its primary task the job of training students to acquire, extend and interpret man's rational knowledge of himself and his world, so that they may then serve society in ways of their own choosing: by adding to our store of such knowledge (the way of the "scholar"); or by contributing to the present essential activities of society (as a "servant" of society) or to social change and development (as "innovator" and "critic").

Thus, the work of a university includes elements of all the three views I have mentioned above; but it cannot be defined adequately by any one statement alone.

It would indeed be destructive of the very nature of a university to attempt to make its activities fit any one such narrow definition; universities are not dedicated to the pursuit of truth for its own sake; they are not organisations charged either to preserve the present state of things or to lead the way in social and political changes. Their task is to train their students to use rational knowledge; and the purposes to which that knowledge is put are a matter for each individual student to decide for himself — and he will do this in the light of his own view of the world, in which his rational knowledge is but one element among many.

"In my beginning is my end" — we have, I think, made an important profession of the primacy of our teaching programme by this early action of the university.

None of us believes that this first programme will suffice indefinitely, and perhaps it will not serve for very long at all. We all know that it must be modified and adapted to changing circumstances.

And we will, I believe, continue to undertake that task with full commitment to its value; for our "end" is to help those who wish to learn; that is the university's primary, permanent and significant function.

Council chairman gives welcome to delegates

Mr. D. E. Parry (right), chairman of the University Council, welcomed more than 250 delegates to the three-day Australian Black Coal Symposium at the University in February.

The symposium was the sixth in the series of annual meetings organised by The Australian Institute of Mining and Metallurgy (Illawarra Branch) and held at the University.

Mr. Parry said: "Now that we have matured into the University of Wollongong and have to stand on our own feet, we will need all the support we can get from such bodies as yours to ensure that we not only produce graduates but also play a vital role in the community."

By the Vice-Chancellor, Prof. L. Michael Birt

Professor L. Michael Birt (above) automatically became Vice-Chancellor of the University of Wollongong when, on January 1 this year, Wollongong University College severed its collegiate ties with the University of New South Wales and became a university in its own right.

At 42, he is the youngest Vice-Chancellor in Australian universities. Born in Melbourne, he attended Melbourne Boys' High School (1945-48) and the University of Melbourne (1949-57).

He completed his Bachelor of Agricultural Science degree in 1953 and his Bachelor of Science degree in 1954.

He then undertook postgraduate study, in the Department of Biochemistry. At the end of his Ph.D. work, he was awarded a research scholarship which enabled him to study biochemistry at the University of Oxford with Nobel laureate, Sir Hans Krebs.

Professor Birt obtained his Doctorate of Philosophy from Oxford in 1959 and in 1960 assumed a position as Lecturer in biochemistry at the University of Melbourne. In 1964 he was appointed Senior Lecturer. Between 1964 and 1967 he was Senior Lecturer in Biochemistry at the University of Sheffield.

In 1967 he was appointed Foundation Professor of Biochemistry at The Australian National University. He assumed duties at Wollongong late in 1973.
Counselling changes its face in universities

The formal provision of counselling services within universities originated in North America.

In the United Kingdom, until quite recently, any provision of help for the distressed student was within the purely medical framework of a student health service. The growth of formal counselling services in North American universities seems to have been mainly due to the change in the nature of university study after World War II: massive increases in student enrolment; increased curriculum complexity; and widening of vocational choices consequent on graduation (1).

A recent discussion of university counselling services differentiated three areas of student needs: academic programme planning; molecular difficulties — housing, finance, sport, recreation, transport; and complex personal problems. We see counselling as being relevant to the third area of need, encompassing as it does a student's total situation: "It may emphasise different areas in the process of counselling, such as social-emotional, educational or vocational, but its primary function is to help the student learn and apply knowledge about himself in the total context of daily living." (2).

Despite these impressive claims, the actual operation of counselling centres drew heavy criticism from some sources in the late 1960s. "They were seen as passive and unassessive or remedial agencies to which specific problem cases were referred... playing an adjusting, reparative, reactive role." (3).

UNIT ENGAGED IN SELF-SCRUTINY

Fortunately, changes in the operation of counselling centres have begun to take place, principally because of a long overdue self-scrutiny on the part of many well-established university counselling units. The unit here at Wollongong is now entering the second year of operation and recently has been engaged in its own self-scrutiny which should lead to some major changes in style of operation.

Towards the end of 1974, the unit probably came perilously close to being guilty as charged above! This was simply because so much of the Counsellor's time went into talking to people in his office. In 1975 the presence of two counsellors should enable us to become an "adjustive, reparative, reactive agent".

The way we want to move in 1975 is to shift our emphasis from remediation to one of providing developmental programmes so that members of the university community can acquire necessary skills to reduce the likelihood of their failing to handle the demands of the university experience.

STUDENT "FAILURES" ARE AVOIDABLE

While there will always be a need to provide traditional guidance counselling or psychotherapy for the uncertain, confused, distressed or disturbed student, we believe that it is wasteful of resources to provide only that function on the campus.

The accumulated evidence suggests very strongly that a large proportion of student "failures" are avoidable (including failure to achieve potential). These avoidable failure sources cluster into five groups: (i) disruption of study due to lack of social/emotional skills; (ii) poor decision-making in the area of vocational choice; (iii) inefficient reading skills; (iv) inefficient communication skills — both oral and written; and (v) ineffective study methods.

We have a number of programmes, developed for use in these areas, both individually oriented and group-oriented, their emphasis being one of "skill-acquisition" rather than "therapy."

OPPORTUNITY TO EVALUATE SKILLS IN FOUR AREAS

An essential part of the scheme is an opportunity for students to evaluate their present skills in four areas: reading efficiency, study effectiveness, vocational preferences and psycho-social functioning.

Self-testing sessions are available in the early weeks of each session and students who seem to be "at risk" on the basis of the tests will be advised of this and encouraged to take part in the appropriate programmes to improve their effectiveness.

These tests are, of course, not compulsory and the results will be released only to the individual student concerned.

We hope that these notes will give some idea of how we want to try to operate this year. We would welcome enquiries and feedback.

REFERENCES


University Medal to Wollongong student

A University of Wollongong student is to be awarded the University of New South Wales Medal in Mechanical Engineering for his achievements in the Bachelor of Engineering degree.

He is Mr. Arnold McLean, 23, of Figtree, who last year at Wollongong University College completed his Bachelor of Engineering degree with First Class Honours.

Mr. McLean’s is a joint Medal with Mr. John Baxter of the University of New South Wales.

Of the 44 subjects he completed during his course, which he began in 1970, Mr. McLean gained grades of A in 39, of B in three, and of C in two.

Departmental Chairman of Mechanical Engineering, Associate Professor S. E. Bonamy, said: “Mr. McLean is one of the most outstanding students I have encountered in my 27 years of university teaching.

“The grades he obtained for subjects taken gave him an overall grade-point average of 3.95 out of a possible 4.00 for the complete course.

“Mr. McLean scored all A grade passes in his final year and presented an outstanding thesis, much of which is considered suitable for publication in professional journals.


Professor Bonamy said that the University Medal was awarded to the student who had the best overall performance in his course, with particular emphasis being placed on the latter years.

It was not necessarily awarded each year and was awarded only to an outstanding student.

The reason two Medals were being offered this year was that the courses offered at Wollongong were different to those at Kensington Medals, therefore, could not be offered on a “shared basis.”

He said that Mr. McLean had also been offered a Commonwealth postgraduate scholarship and had decided to undertake postgraduate studies, leading to a doctorate at the University of Wollongong, in the field of materials handling. Mr. McLean will receive his Medal at the Graduation Ceremony on May 2.

Research equipment installed in Chemistry

Research equipment valued at more than $70,000 has recently been acquired by the Department of Chemistry.

A $50,000 Du Pont gas chromatograph-mass spectrometer system and a Cary 17 spectrophotometer (valued at more than $20,000) now supplement the Department’s other large pieces of spectroscopic equipment, an E.A.I. Quad 300D mass spectrometer and a Perkin-Elmer R24 nuclear magnetic resonance spectrometer.

The new equipment will enable the Department to collect mass spectroscopic data more completely and quickly than previously.

Initially, the new mass spectrometer will be used in conjunction with the other spectrometers in three main research areas:

- The investigation of constituents of biological fluids and the primary structure of peptides and proteins;
- The investigation of the structure of new synthetic drugs and of pharmacologically and physiologically active compounds isolated from natural sources; and,
- The investigation of catalytic exchange processes of industrial importance.

The Department’s mass spectrometers are used for the study of human metabolism in normal as well as pathological cases.

The equipment separates and identifies the metabolites present in the patient’s body fluids. It can detect about forty of the known inborn errors of metabolism and it was used to diagnose a new metabolic disorder “genticaric aciduria.”

Another promising application is in the mapping of the metabolite profiles in other diseases, such as Kebabodiosis, hepatic disorders and some types of cancer.

The changes in the metabolic pattern in the latter cases are smaller and considerably more difficult to detect than the very large changes usually observed in typical metabolic disorders, such as phenylketonuria.

Study on Shellharbour recreational demand

Existing and future problems needed to be quantified before recreational study plans were drawn up for Shellharbour Municipality Civil Engineering lecturer, Dr. Donald Pearson-Kirk said recently.

Dr. Pearson-Kirk is undertaking research into recreational demand in the Shellharbour area.

He said: “Concern has been expressed both by Shellharbour Council and the N.S.W. Department of Sports and Recreation about the significant lack of recreational facilities in the area.

“Shellharbour is one of the most rapidly-developing urban areas in New South Wales. Between 1966 and 1971, the population grew from 22,000 to 31,000, and the total is expected to reach 80,000 by the end of the mid-1980s.

“Throughout the study, particular attention will be paid to the problems of those groups with the greatest need for the provision of recreational facilities and with the least opportunity to participate in recreation.”

The study is being funded by the University and supported by Shellharbour Council.

Dr. Pearson-Kirk has supervised recreational research contracts in the United Kingdom.

The contracts were funded by the Scottish Development Department and the Science Research Council, and were supported by local City and County Councils.

Dr. Donald Pearson-Kirk
Campus undergoes major building expansion

By John Bell, Estate Manager

At the start of the first session this year, the Wollongong campus was undergoing more building activity than ever before.

Apart from site works, the University has five major buildings under concurrent construction. Cost of the current building programme is more than $6 million.

All the major buildings are scheduled for completion this year, and the University should start the 1976 academic year with much better facilities than are presently available to staff and students.

If it is to fulfil its functions properly, a new and growing University requires a continuous building programme.

There is a lead time of about six years, from the time when estimates of future needs become the basis for preparation of our case for capital funds to the time when the buildings are used.

At any time, what exists tends to reflect the foresight the University exercised some six years before.

This imposes on us a responsibility to try and improve the quality of our planning, if the quality of the University environment is to meet expectations of better environment and facilities.

In an endeavour to meet this responsibility, the University Council has called for a development plan to 1990, to provide a frame within which our more detailed planning should fit.

The Draft Development Plan is now available to University members and to outside organisations for constructive criticism.

Only in this way can the Council proceed with confidence that the ideas included represent the best available predictions and have widespread support from University members.

It is also important that plans have a degree of flexibility to accommodate the inevitable changes which arise during the long lead time and which result in different requirements when buildings are occupied from those envisaged when they were conceived.

As an example, one of the major buildings now under construction, the Social Science Building, will, when completed, accommodate several different departments from those envisaged when the briefs were prepared for the architects in 1973.

This change results from new offerings, for example Sociology, and a changing pattern of student enrolments with consequential changes in staff numbers.

The five major new buildings are outlined below.

The Social Science Building will be a three-storey brick building providing some specialized laboratories and offices for academic staff and a limited number of common teaching rooms for seminars and tutorial instruction.

The Lecture Theatre Block will be a conspicuous feature of the site. It lies midway between the old buildings of the University and those of the Wollongong Institute of Education.

It is a five-sided building, with a lecture theatre in each of the five segments. It will be clad externally in ribbed metal and will be ochre in colour.

The building will be air-conditioned and does not need windows. It will stand out as a block of solid colour near the centre of the campus and will seat a total of 800 students.

Provision is made in all the theatres for use of a variety of audio and visual teaching aids.

The Library is being extended to more than twice its previous size and will have a much more balanced appearance when completed.

It will have a main entrance, with a balcony above it looking east into a future "square" which will surround the clump of well-developed fig trees west of the Union.

The Union Building is also being extended to provide more than twice the present accommodation. It will have new kitchens and dining rooms, and application is being made for a liquor licence for two bars designed for the upper floor.

It will also have two squash courts, and a balcony has already been built in the existing hall to provide much more suitable facilities for film screenings and like activities.

The existing Science Building had only three sides around a central courtyard. The extensions will enclose the fourth side and provide, on the first and second floors, laboratories and offices, to extend the research facilities of the Departments of Physics and Chemistry.

The ground floor will be largely workshop and storage area with appropriate loading docks.

Both the Library and the Social Science Building will house new electricity substations in their basements.

Cables for computer and closed-circuit television services have been laid in newly established easements to enable these new buildings to have these services as well as the normal gas, water, and electric power supplies.

Tenders have been called for a new Sports Pavilion which will overlook the main oval. It is planned to enlarge and resurface this area of playing fields in the 1975/76 recess.

A new car park is under construction and, in the 1976/78 programme, a major effort will be devoted to an improved internal road system with adequate parking areas.

Finally, a landscaping programme will begin this year for areas adjacent to completed buildings. There will be mass tree plantings in other areas of the campus.
The Wollongong Community of Scholars and its Government

By Associate Professor Jim Hagan

One of my colleagues used to say: “To think I travelled to West Africa to work at a university on the edges of civilization when Wollongong was here all the time.”

An extravagant way of putting it, perhaps. But there is some point in the comparison between Wollongong University College and the colonial dependency.

We were remote from the seat of government, and our resources were scarce. As a result, the various departments were in a chronic and sometimes bitter state of competition for them.

A large number of us still present are to some extent and inevitably prisoners of that history — albeit now ticket-of-leave men.

The decision of the Transition Advisory Committee to make the fundamental unit of university government the academic department was an outcome of interdepartmental tensions.

Not entirely, however. The members of that Committee were well aware of the preoccupations of academic staff. But no delegation of authority to the academic staff in itself could create the necessary conditions for the formation of a community.

They had in mind the representation of students, the closer adaption of courses offered to the immediate needs, and the identification of staff members with decisions made.

But they also recognised that a system that maximized decision-making by departments would encourage staff members to think of themselves only secondarily as members of a community, and primarily as members of Department X or Department Y.

Therefore, the committee recommended that the supreme academic governing body — the Senate — be composed of only members who represented departments as such. And it has taken that form.

The Senate elected for 1974 faced many serious problems. Some of them were only mechanical, but none-the-less formidable for that.

Despite the best efforts of the Staff Association, the Government of New South Wales refused to make a decision on the autonomy of the College until fairly late in 1972.

When it did, it set independence Day at January 1, 1974. This period of transition was simply too short, and the volume of decisions was too great. The Senate came close to being overwhelmed by the sheer volume of its own business.

Moreover, it had to feel its way. There is no reason to assume, a priori, that a group of academics in a university college should possess the skills of self-government in any greater degree than a similar number of bus conductors or ballet dancers.

Again, the colonial analogy is apt. If power is not ceded over time, then sufficient numbers of the colonials cannot learn how to use it for the necessary skills of bargaining, debate, negotiation, procedure and electioneering.

Given the pressure of need to get things done to deadlines, the procedure of the Senate seemed at times akin to lining up a heat of blind men to attack the world record for a hundred metres on a twisting track.

Nor were these the only problems. Despite the theoretical non-representative nature of the Supreme Senate, its members still did, on more than one occasion, find it difficult to stop thinking of themselves as the member for Department X or Department Y.

The same phenomenon appeared at the Academic Assembly, the gathering of all members of the Academic Staff. In an attempt to establish broader communities of interest, Senate created the establishment of Faculties; and the five so-established had operated since September.

The Faculties do seem to have at least partly fulfilled that task — if only, on occasion, to unite members in common complaint about Senate’s decisions.

The structure of government that now exists has scarcely had time to operate, and time is on its side.

It should, however, be thought of as largely experimental, and capable of adaptation after a reasonable trial period — during which, hopefully, teaching and research become more evident, and the normal preoccupations of academic staff. But no governmental structure can of itself create what does not exist.

If we are to function as a University — and not as an aggregation of competing departments or compelling faculties — it is necessary for us to have some general clear ideas and find some general agreement about what this university is for. So far we have shown a marked reluctance to do this. Part of our hesitation has been due to departmental parochialism, and an ignorance of and consequent intolerance towards vocational training, impelled by a growing awareness that personal enrichment through education is not a luxury but a social necessity.

The present commitment of many disciplines to the training of academic specialists will be deeply affected by the recognition that the greatest need for knowledge is in the administration of society, whether in business or the public service, and that this need will be best satisfied through the development of interdisciplinary studies. Good examples would be liberal science studies, involving a combination of science, social science and humanities courses, migrant studies, and urban studies.

Furthermore, it is likely that students with a first degree will seek graduate courses which will permit them to develop specific or new knowledge skills in response to changing work patterns and the wish to achieve new personal competences.

The University will have to be flexible and aware of social change, in order to provide relevant study opportunities when these are most needed. The University will be fulfilling its primary social function in Wollongong when its teaching and research are fully responsive to the needs and requirements of its region.

As a centre of knowledge and cultural experience, it will be most powerful and authoritative when it is recognised by its community as a constructive force for social change and individual enrichment.

• Jim Hagan is an Associate Professor in the Department of History and a member of the Academic Senate.

A view of academic development to 1990

By Dr. Brian Opie

The first consideration must be: who is to be served by the University?

Only when the actual educational requirements of people living in the Wollongong region are known, can the goals of development for the University be properly defined.

We can never hope to compete with either the Sydney metropolitan universities or the Australian National University in terms of resources for teaching and research, the diversity of subjects and courses offered, or an extensive cultural life in the host city.

It is therefore imperative that the University should develop in response to the unique character, both positive and negative, of its immediate urban and industrial environment. Several points follow. The University will not be an elite institution, engaged in esoteric research or the education of a privileged minority.

It will be committed to the application of its resources and skill to the benefitment of life in the Wollongong region, and to the provision of educational opportunities for tertiary-level students of whatever age or qualifications, according to their needs and aspirations. To this end, openness of access to tertiary education and freedom of movement between different institutions is essential.

A clear definition of the specific educational function of the University, the Institute of Education, the Technical College, and Adult Education will be necessary, so that an integrated and flexible scheme of education opportunities will be available to all who seek them. I believe that undergraduate courses will move increasingly away from a strong orientation towards vocational training, impelled by a
Institute of Metals donates sculpture

The Port Kembla Branch of the Australian Institute of Metals has donated a metal sculpture to the Department of Metallurgy to mark the attainment of full university status.

The Vice-Chancellor, Professor L. M. Bird, will unveil the sculpture on April 11. It will be fixed to the wall panel at the top of the first flight of stairs in the Department of Metallurgy foyer.

The 2.7 metre square sculpture comprises 12 copper pieces, beaten with a mallet to the desired shapes and positioned so as to appear to be floating in space.

The pieces, which have a dry-green finish, form continuous sweeping lines. The background is natural timber showing the grain.

The Port Kembla Branch commissioned local sculptor, Mr. Sanguineti, to undertake the work.

Mr. Sanguineti was born in Chiavari, Genoa, and came to Australia 23 years ago. He studied painting, ceramics and sculpture at “Instituto D’Arte”.

He has exhibited in Italy, Sydney and Wollongong with one-man shows of paintings, ceramics and sculpture and has won the Wollongong City Council first prize for painting and sculpture.

The sculpture symbolises the close link between the Port Kembla Branch and the Department of Metallurgy.

The Branch takes a keen interest in the education of metallurgists at the University.

Annual prizes are offered to students; subsidies are provided to assist students to attend the annual conference; and an annual students evening is organised to encourage students to participate in Institute activities and to provide a forum for their ideas.

Two members of the Department, Professor G. Brinson and Associate Professor N. F. Kennon, have served as Branch presidents; and Professor Brinson is currently Federal vice-president of the Institute.

University is a family affair

Members of the Department of Economics presented the following papers in Section 24 (Economics) of the 46th A.N.Z.A.A.S. Conference in Canberra from January 20 to 24.

Mr. J. F. Guest, Foreign Assistance and Economic Development in Papua-New Guinea — A Resource Gap Approach. Mr. Guest has been in Papua-New Guinea and Fiji in the course of his research.

He has also spent some time in Canberra and Adelaide in discussion with specialists in this field of study, and has been concerned with problems involved in World Bank and International Labour Office aid to undeserved territories.

Mr. M. J. Ross, Port Planning — Programming Investment Using Operation Research Techniques. Mr. Ross’s research is based on his study of the actual and potential development of Port Kembla as a component of a national port system.

His research has been sponsored by the Reserve Bank of Australia, and his study has been based partly on techniques developed by World Bank economists.

Honours in Geography

In 1974 the Department of Geography awarded three honours degrees, two first class and one at second class division I.

Mr. John Dixon (First Class Honours) has taken up an Australian Government Postgraduate Research Award in the Department of Geography at the University of Adelaide.

Miss E. Takacs (First Class) has accepted an appointment as Research Assistant in the School of Earth Sciences, Macquarie University, to postgraduate work in North America.

Mr. Alan Davidson (II) has been appointed to a Teaching Fellowship in the Department of Geography, Faculty of Military Studies, R.M.C., Duntroon.

Mr. G. Runeson, Economics of Scale in the Building Industry. Mr. Runeson’s research has been based partly on the study of housing commission and other building operations in New South Wales and Victoria, and partly on experience he had in the building industry in Sweden, before he migrated to Australia.

He has also had the advantage of access to Swedish language literature on the subject, and has related his Australian findings to results of both Swedish and American studies in the field.

Last year he was the guest of the Australian Institute of Economic and Social Research at the University of Melbourne for a month, while investigating housing commission activity in Victoria.

Mr. P. J. Wilson, A Potential Profit Surface and its Implications for Re-development. Mr. Wilson’s study is based on the Wollongong city centre, and the relationships between land values, improvements, rental values of space in city buildings, and the use of such space.

This work has opened up some new aspects of this field of study for Australian economists. It has benefited from interdisciplinary associations which Mr. Wilson has developed.

He has worked with economists, geographers and urban planners in Wollongong and the Australian National University.

These four economists all completed Honours degrees in Economics at Wollongong and are now engaged in research for higher degrees.

Mr. Ross is a member of the teaching staff, studying part-time for his M.Com. Massrs. Guest, Runeson, and Wilson are all Commonwealth Postgraduate Scholarship holders and are candidates for Ph.D. degrees.
Study leave

Benefits of a privilege

By Dr. K. J. Ausburn

Study leave is a greatly appreciated privilege in the academic community.

As one who last year enjoyed this privilege, it seems worthwhile to emphasise what I believe to be the benefits of such leave.

Firstly, there is no other way of obtaining such a quick and full understanding of one's research field as to work in laboratories among people who have made, and are making, the discoveries.

Secondly, there is the refreshment that comes from exchanging the "monotony" (a relative term) of routine academic life at home for the excitement of new and continually changing surroundings.

The only sad note in a visit to Europe (apart from the developing economic and political chaos) is the contrast between the beauty and aesthetically pleasing nature of most of Europe's towns and farm-lands and the "great Australian ugliness".

Singapore is being rebuilt

By Prof. C. A. M. Gray

Each visit to Singapore and Malaysia emphasises the rapidity with which physical developments can occur when spurred on by need.

Singapore is being rebuilt and this has been left by its University; partly because of closer Government ties and partly by great expansion in the studies offered.

At the present time the Engineering Faculty shares accommodation with the Polytechnic at the Singapore waterfront, but new buildings are being erected at the University's new site.

Inspection shows that the planners have considered all eventualities on a site that will make the University a show place and will provide sufficient space for future expansion, and that the regrettable present Maughamshish atmosphere of the Clay Road site will be lost.

Much of my stay both in Kuala Lumpur and in Singapore was taken up meeting with old graduates of the University who have established themselves in senior positions in their fields.

Without a doubt Singapore is the cleanest city in Asia and probably in the world, and if the present plans are followed it will have streets lined with trees and shrubs. That this is so is largely due to the Department of Environment which is strongly supported by the Government.

Control of street trading, drainage and all public health matters is enforced by education and heavy fines.

It is very gratifying to note that the staffing of the Department is largely from Engineering graduates of the University.

In Malaysia, on the other hand, natural resources allow for a far greater range of developments.

Drainage of swamps and control of rivers has increased the area under rice, while the opening up of the east coast has provided new areas for rubber, mining, and markets for food stuffs.

The University has greatly expanded and the number of students in the Faculty of Engineering has doubled.

Once again the registration of engineers is going forward and it is expected that all engineers in Malaysia will need to be registered. Membership of the Institution of Engineers in Malaysia will be necessary for registration.

Research in Oslo

By Prof. B. Halpern

During my four- and-a-half months in Oslo I worked in the Rikshospitalet, Department of Clinical Biochemistry, on the biochemical investigation of a new inborn error of metabolism, Pyroglutamic aciduria.

One week was spent at the Norsk Hydro works at Porsgrun, Norsk Hydro is the largest chemical company in Northern Europe and is involved in the manufacture of plastics, petrochemicals and magnesium.

During my 10-day stay in London, I visited Professor D. H. R. Barton, Nobel Laureate, at Imperial College, I also spent a few days at the Bernhard Baron Memorial Research Laboratories at the Queen Charlotte's Maternity Hospital.

In Seattle, U.S.A., several days were spent at the University of Washington with Professor B. Weinstein, a leading worker in the biosciences.

On my way home I attended the 18th annual meeting of the Western Pharmacology Society in Hawaii and gave one of the invited lectures on our work on "Inborn Errors of Metabolism".

Enrolments are up

As at March 7, the University of Wollongong had achieved an enrolment of 2090 (in Equivalent Full Time Student terms, 1682) against a planned enrolment of 1945 (E.F.T.S. of 1535).

The Registrar, Mr. R. F. Stewart, said: "The planned enrolment is a figure that the Universities Commission estimated, in its Fifth Report, that the University should achieve in 1975.

The figure of 2090 is not a final figure, as we expect further higher degree enrolments; but against this, we also expect that there will be some withdrawals from undergraduate courses.

In the past, the withdrawal figure has been between five and ten per cent of enrolments by the time of the Universities Commission audit date of April 30.

The achieved enrolment augers well for the expected growth of the University through to 1978, when an enrolment of more than 2500 is planned.

"The Universities Commission has been given our enrolment figures and is using these in determining the grants which it will recommend to the Australian Government for financing the University in the 1976-78 Triennium".

John White retires

John White (Jack to many of his friends and colleagues) officially retired on December 24.

He came to Wollongong University College from the University of New England on December 1, 1964, and joined the embryonic administrative staff. He is the first administrator to retire.

During his ten years of valuable service, he was closely involved in the College's growth. For many years he was responsible for many different functions, mainly in student administration.

He has also been a part-time lecturer in General Studies since 1957, a role he is fulfilling.

John said recently: "On retirement, I will do the things that are of interest to me. Walk the bush, and sit down and think, perhaps visit relatives, or chase fossils or rocks in the unexplored places that get fewer every year.

"Maybe I'll read a few good books, but not under pressure."
Promotions

From December 31, 1974

Dr. Willis Charlton (Senior Lecturer to Associate Professor, Department of Electrical Engineering)

Associate Professor Charlton gained his Diploma in Electrical Engineering from Sydney Technical College and his B.E. and Ph.D. from the University of New South Wales.

His background includes nine years in the electrical industry, one year as a Visiting Lecturer at Imperial College, London, and 16 years as a Lecturer, Senior Lecturer, and Associate Professor at the University of New South Wales.

Dr. D. J. Clarke (Senior Lecturer to Associate Professor, Department of Mathematics)

Associate Professor Clarke gained his B.Sc. from the University of Western Australia, his M.Sc. from the University of Adelaide, and his Ph.D. from the University of New South Wales.

Before coming to Wollongong in 1966, he was a lecturer in the Electrical Engineering Department at the University of Western Australia and has been an Associate Professor since 1968.

Mr. R. N. Chowdhury (Lecturer to Senior Lecturer, Department of Civil Engineering)

Dr. Chowdhury gained his degree in Civil Engineering from Banaras Hindu University, India, and his postgraduate Diploma in Soil Mechanics and Foundation Engineering from Roorkee University, India. He obtained his Ph.D. from the University of New South Wales in 1972.

Before coming to Wollongong in 1972, he was Lecturer at Sheffield Polytechnic.

Dr. R. I. Horner (Senior Lecturer to Lecturer, Department of Mathematics)

Mr. Horner came to Wollongong University in 1961. As the second staff member of the Department of Mathematics, he is greatly involved in the Department's organisation and development.

Dr. R. J. Wheway (Lecturer to Senior Lecturer, Department of Mechanical Engineering)

Dr. Wheway completed his B.Sc. (Tech.) in Mechanical Engineering at Wollongong University College. He gained his B.E. with First-Class Honours and University Medal at the University of New South Wales where, in 1967, he obtained his Ph.D.

Dr. Wheway has been on the Wollongong lecturing staff since 1966, and he pioneered Creative Design at Wollongong as a vehicle to coordinate involvement of the University, the community, and industry in improving student performance.

Appointments

Dr. K. D. Duff, Lecturer, Department of Physics, January 15, 1973

Dr. Duff gained his M.Sc. in experimental radio physics from the University of Queensland, and his M.A. and Ph.D. in theoretical solid state physics from the University of California, Riverside.

He is teaching Statistical Mechanics at third-year physics level, classical Mechanics and Quantum Mechanics at fourth-year level.

Mr. Ian Elliot, Temporary Lecturer, Department of Geography, from December 12, 1974, for two years.

Mr. Elliot, who completed his Ph.D. at the A.N.U. in 1973, is lecturing in Biology and Geology.

Dr. A. J. Hubbert, Lecturer, Department of Biology, January 30, 1975.

Dr. Hubbert gained his B.Sc. at the University of New South Wales, where in 1972, he completed his Ph.D. in zoology.

His main teaching responsibilities cover human population biology, animal assimilation and utilize energy, and how they adapt to the stresses of their environment.


Mr. Hyde is a member of the Australian Society of Accountants.

Dr. John Kontoleon, Lecturer, Department of Electrical Engineering, December 3, 1974.

Dr. Kontoleon completed his M.Sc. in physics at the University of Athens and his Ph.D. in electrical engineering and electronics in 1971 at the University of Liverpool.

He is teaching Electronics and Circuit Theory at Wollongong.

Mr. Ross McClelland, Lecturer, Department of Biology, February 27, 1975.

Dr. Liley holds a B.Sc. from the University of Adelaide and a B.Sc. from Flinders University, where in 1971, he was awarded a Ph.D.

His principal teaching interests concern the acquisition, transmission, and use of energy by biological organisms.

Mr. J. J. Lorenc, Technical Services Librarian, Department of Mathematics, January 2, 1975.

Mr. Lorenc was formerly an Acquisitions Librarian. The Technical Services Librarian's position is a new post, involving responsibility for both the Acquisitions and Cataloguing Departments.

Mr. Brian McCarthy, Lecturer, Department of French, January 2, 1975.

Mr. McCarthy gained his B.A. in Indonesian, German and French at the University of Sydney. In 1972, at the University of Besancon, he obtained the degree of Licence ès-littéres.

He is mainly concerned with the oral/aural aspects of teaching French and is instituting language-laboratory programmes in these fields.

Mr. D. Martin, Temporary Lecturer, Department of Electrical Engineering, from November 15, 1974, for six months.

Dr. Martin gained his B.Sc. (1967) and his Ph.D. (1970) from the University College of North Wales (Department of Electrical Engineering).

Mr. W. Noffke was appointed Acting Assistant Professor from March 3.

Study leave notes

Dr. N. L. Adams, Department of Psychology, is in the United Kingdom where he hopes to spend time at universities in all of the major English, Scottish and Welsh industrial centres.

Dr. J. Ellis, Department of Chemistry, is spending January to June at the C.S.I.R.O. Mineral Research Laboratories in July. Dr. Ellis goes to the Swiss Federal Water Research Laboratory in Zurich where he will work on chemical aspects of the formation of certain sedimentary minerals.

Dr. R. A. Facer, Department of Geology, is spending most of his study leave at the University of Toronto, but will visit other Canadian universities and universities in the United States.

He will inspect research and teaching facilities, exchange research information, and obtain teaching and research aids.

Dr. Associate Professor E. Gellert, Department of Chemistry, is visiting universities and research institutions, in the United States and Japan which are involved in pharmaceutical research, especially in the fields of leukemia and drugs affecting cancer.

Dr. A. M. Healy, Department of History, is spending four to five months in Malaysia and some time in London. He is undertaking research for a book on the post-independence history of education in Malaysia with special reference to communal problems. In London, he will pursue archival research on the 1937 period.

Mr. J. Hazel, University Librarian, is installing university and research libraries in British Columbia, Ontario, Ohio, and the United Kingdom.

Dr. J. L. Morris, Department of Psychology, is visiting European universities to examine attitudes towards the training and employment of counselors and psychologists.

He will spend the second part of his leave at the University of California, Berkeley, and at Sheffield University.

Dr. J. N. Stephens, Department of Physics, is carrying out research on amplifiers and detectors for photometry at the University of Exeter. He is also involved in practical photography at Norman Lockyer Observatory and in studies on astrophysics at the University of Sussex.

Three more editions

Three more editions of the Recorder should be published this year: in mid-June, mid-August, and mid-November.

Students and staff are invited to submit articles for possible publication.

They should be directed to Tony Barker, Information Officer, Room 116, Administration Building. Deadline, for the mid-June edition is Friday, May 25.

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