wollongong

# CAMPUS NEWS

A MAGAZINE FOR THE UNIVERSITY

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# PROFESSOR APPOINTED DEPUTY VICE-CHANCELLOR

PROFESSOR Alex Clarke

**The University of Wollongong Council has appointed the Chairman of the Department of Psychology, Professor Alex M. Clarke, as Deputy Vice-Chancellor (Academic Affairs).**

The Council endorsed the establishment of a second position of Deputy Vice-Chancellor at its recent meeting. Chairman of the Department of Mathematics, Professor A. Keane, who holds the other position of Deputy Vice-Chancellor (Staff), left this month for six months study leave at the Univerisity of the South Pacific in Fiji.

"It is going to be a challenging job in this period of economic constraints on university development as a result of current Government policies," Professor Clarke said today. "However, I am looking forward to working with Professor Birt, Professor Keane and the other members of the academic staff in the development and consolidation of the University."

Professor Clarke came to the University of Wollongong in 1973 as Chairman of the Department of Psychology. His previous appointments include Senior Lecturer and, later, Associate Professor in Psychology at Macquarie University and honorary Senior Lecturer in Psychology at The University of Newcastle. Professor Clarke also has been a part-time lecturer in the Department of Mechanical Engineering at The University of Newcastle.

Professor Clarke has played an active role in academic affairs at The University of Wollongong. He has been a member of the Interim Academic Senate, Interim Resources Committee, Chairman of the Senate's Working Party on Medical and Health Education, and Chairman of the Senate's Buildings and Site Committee.

His contributions to research include some forty journal publications in the areas of physiological psychology, neurophysiology, medical and biological engineering, educational psychology, the role of the psychologist in health care, human learning, including cross-cultural studies in Papua-New Guinea, and the psychology of punishment. He has been the recipient of research grants from the Australian Research Grants Committee and the Nuffield Foundation (London).

Professor Clarke is a Fellow of The Australian Psychological Society (A.P.S.) of which he has been President (1974) and Vice-President, Chairman of the Division of Educational Psychologists, Chairman of the A.P.S. Training Committee, and Convenor of the A.P.S. Working Parties on the Role of the Psychologist in Health Care, and the Psychology of Corrective Institutions.

He is also a member of the International Neurophysiological Society, and the Australian New Zealand Association for the Advancement of Science (ANZAAS). He is a member of the Council of the Riverina College of Advanced Education at Wagga Wagga, and is the alternate member of the committee to deal with Australian applications for scholarships offered under the Commonwealth Scholarship and Fellowship Plan.

Professor Clarke's wife, Dr. Linda Viney, is also a psychologist. She is a Senior Lecturer in the School of Behavioural Sciences at Macquarie University.

# University Day theme is teacher training

**N.S.W. Higher Education Board Chairman, Mr. R.E. Parry, will give the University Day address at the Wollongong University Day Seminar on August 12.**

**The theme of the seminar to be held in the Pentagon Lecture Theatre is: "Teacher Training in Universities".**

**The format of this year's proceedings will differ from previous years. Groups covering the following interest areas will meet from 1.30 to 3.30 p.m.: Academics, Practising School Teachers, Students, Community Representatives, and Administrative Services.**

**The groups will then come together for a public session at 3.45 p.m. in which a panel will respond to the comments of the groups and the members of the public.**

**Members of the panel will include Dr. G.R. Meyer, Director of the Centre for the Advancement of Learning, at Macquarie University; Professor I. Wallace, Dean of Education, Deakin University, Geelong; Mrs. V. Fell, Combined Parents' and Citizens' Association president; and Mr. M. Halls, Students' Representative Council president.**

**University Day, the second Friday in August, marks the day that the first elected Council met for the first time (August 8, 1975) and elected the Chancellor, and the Deputy Chancellor of the University.**

**University Education lecturer, Dr. Tony Fielding, said that University Day provided an ideal opportunity for the University to raise matters of community concern.**

**"This year's topic should be of particular interest to the community," he said. "Teachers have an extended impact on everyone, as most people go to school for at least ten years."**

**"Problems such as what is a good teacher, who is suitable and what sort of problems face universities and other institutions in their attempts to produce better programmes of teacher education have a great effect on the community."**

Continued Page 2

# American economist explains different teaching methods

**Professor Lawrence Senesh, of the University of Colorado, has set himself the task of making economics meaningful, not only to university economists but, also to elementary and secondary school pupils.**

He is a visiting professor at the Institute of Education.

On July 5, as guest speaker at a seminar in the Economics Department of the University, Professor Senesh explained his methods to economists and educators from the University, the Institute, and the Regional Office of Education.

He was not only meaningful but was also very entertaining. The keen discussion that began in the seminar has not stopped.

An emigrant from Hungary, Professor Senesh was the first American ever to be appointed as a professor of economics education.

His book on Our Working World has given him an international reputation. Since its publication he has collaborated with Kenneth Boulding and Alfred Kuhn on a new book to be called The World as a System.

Boulding and Kuhn are working on the frontiers of thinking in economics - and are eminently "economists' economists". What Professor Senesh is doing is making this frontier thinking communicable - particularly in his lectures and workshops for student teachers - to bridge the gap between new thinking and the economics curriculum in schools and universities.

In a wide-ranging discussion with Wollongong economists Professor Senesh referred also to his work in small American communities (including a steel town and a mining town) in which he set out to "give some tools to the communities".

He worked on economic, political, and cultural profiles of these small communities. He induced their members to examine the community as a system, and to study also the nature of other neighbouring community systems.

In particular the young people in these communities were persuaded to think about the nature of larger urban communities to which they would probably migrate. This work has led to the development of social profiles to be used to study urban migration in Mexico, and a similar project for the Blackfoot Indians of Great Falls, Montana.

The focus of this discussion of educational aims in the teaching of economics was the problems approach developed by Professor Senesh.

He rejects the method of teaching principles first and then proceeding to apply them.

He begins with problems and issues, and within a problem-solving framework he calls upon analytical tools and develops principles as the problem solving proceeds.

Professor Senesh strongly attacked the isolation of the individual social sciences in the organisation of university studies, and demonstrated possibilities of educational achievement through multidisciplinary studies of social problems. He referred in particular to a set of environmental problems confronting social scientists:

- the collision course between "material standards of living" and the quality of life.
- Veblen's question whether "... this senseless consumption without any real contentment is the best of all possible worlds".
- the common assumption that substitution (for instance) among different sources of energy is unlimited, when in fact each step of substitution may lead to increasing deterioration of the environment.

In thanking Professor Senesh on behalf of the University, Professor Blakey referred to the timeliness of his visit, and the scope in Wollongong for the use of problem solving techniques on a multidisciplinary basis.

He agreed with the broad criticism of economists who isolated themselves from knowledge availabe from other social scientists; and he said that in Wollongong, both in the University and the Institute, a promising start had been made by the economists in collaborating with other social scientists in community problem solving studies.

He thought some initiatives involving the natural scientists and engineers in applied economics would also be productive.

Professor Blakey referred in particular to:

- courses on Women in Society, and Technological change
- migrant studies
- the study of Illawarra Lake published last year by the City Council and the University in which the natural scientists of the Institute had also been involved
- a book now in final draft, edited by Tony Fielding, on Teacher Training: Anti-climax to education, to which the economists had contributed, which also explored some issues raised by Professor Senesh.

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## TEACHER TRAINING

**Coincidentally, Dr. Fielding, Education lecturer, Dr. Daryl Cavanagh, and postgraduate student and part-time tutor, Miss Rie Widdowson, have currently completed editing a book entitled: "Teacher Training: Anti-Climax to Education?".**

**The book is an inter-disciplinary inquiry into the problems and issues of training and educating a teacher.**

**More than thirty academics, students and administrative staff of the University have made contributions to the book. The editors hope to have copies of their book available at the seminar.**

EDUCATION LINK

MR. Tom Moore

# SCHOOLS LIAISON OFFICER APPOINTED

**Mr. Tom Moore has been appointed Schools Liaison Officer at the University**

Mr. Moore, who has worked for four years in the Secretariat, replaces Mrs. Dorothy Schneid, who left Wollongong to live in Melbourne.

In a letter to high school principals and careers advisers, the Registrar, Mr. Ron Stewart, said Mr. Moore would further develop close links already forged between the University and the wider community.

"He has an overall knowledge of the current state of tertiary education in the country and an intimate understanding of the workings of the University," he said.

Mr. Moore's activities in the Secretariat included personal responsibility for ceremonial matters, including Graduation. He has acted as secretary to several bodies, including the Research Committee.

Mr. Moore said that he approached the new position with enthusiasm.

"I believe that the foundations for the school liaison position have been well laid by Dorothy Schneid and many opportunities exist to extend the liaison function to both schools and the general community."

Mr. Moore, who is a graduate of the University, is currently completing a Diploma of Tertiary Education with the University of New England.

# Symbols help children communicate

**A set of symbols once devised as an international language may help speechless children at Greenacres Special School to communicate. Wollongong Soroptomists have provided Greenacres with more than $1600 to allow Mrs. Beth Facer teach the Bliss symbol method of communication at the school.**

The experiment, initially with two primary school age, children is part of Mrs. Facer's research for her Bachelor of Education degree at the University of Wollongong, and for subsequent research.

She said she discovered the method while her husband, Dr. Richard Facer, a senior lecturer in geology at the University, was on study leave in Canada.

"They were using the Bliss method at the Ontario Crippled Children's Centre," she said.

"It was extremely successful. These children were mostly physically handicapped and not mentally handicapped as are the children at Greenacres."

Mrs. Facer said that she was teaching the symbols to two children, aged ten and eleven, who at present could not communicate.

The method involves about thirty very basic symbol elements, which can be combined to make sentences.

"It could be very helpful to mentally retarded children, as they generally cannot communicate and they get very frustrated.

"In some cases in Canada, the symbol method of communication relieved the strain and frustration of trying to speak and, consequently, the children's speech improved."

Mrs. Facer said Charles Bliss, the inventor of the symbol language, was now living in Sydney.

"I have discussed the symbol system with him on several occasions and although he is disappointed it is not being used as an international language, he is pleased something positive is being done with the symbols," she said.

Mrs. Facer started her experiment at Greenacres in June. She said she would know how successful the programme was going to be later this year.

**MRS. Beth Facer teaches Troy the Bliss symbol language to help him communicate. Troy is one of two pupils at Greenacres Special School to whom Mrs. Facer is teaching the symbol method of communication as part of her research for her Bachelor of Education at the University.**

# Union hall Graduation venue choice

**Almost twice as many people indicated in a survey they would prefer next year's Graduation Ceremony held in the University Union Hall rather than Wollongong Town Hall.**

This was one of the results of a survey conducted by the Registrar, Mr. Ron Stewart, through Campus News.

In an enclosure in Campus News in June, Mr. Stewart asked readers to record their views on what venue should be chosen for the 1978 Graduation.

Readers were asked to consider where the graduation should be held; to suggest variations to arrangements and to state whether they were a student, member of the academic staff, member of the administrative staff or a friend.

Forty-one people preferred to hold the Graduation Ceremony in the Union hall, including four students, eighteen academic staff, sixteen administrative staff and three friends.

Twenty-three chose to hold it in the Town Hall, comprising of seven students, seven academic staff, seven administrative staff and two friends.

Three suggested the Graduation should be held outdoors.

Suggested variations to arrangements included more participation by academic staff; provision of a buffet/barbecue lunch for graduands and guests; improved morning and afternoon tea; one ceremony only; attendance of both Chancellor and Vice-Chancellor and more tradition, dignity and organization needed.

It is estimated there will be 300 graduands next year, including 275 gaining bachelor degrees, fifteen masters and ten Doctors of Philosophy.

# EX-TEACHER ON COUNCIL

**A former teacher, Mr. Leo Tobin, has been elected a convocation member to the University Council.**

He replaces Mr. Bill Burgess, the former Port Kembla general manager of Australian Iron and Steel, who recently was transferred to Melbourne.

Mr. Tobin was elected unopposed.

He is a foundation member of the Wollongong Graduates' Association Board of Management.

After attending Wollongong High School, he studied at Wagga Teachers' College as a part-time Arts student.

• He obtained his B.A. and continued his studies at the University of New South Wales and graduated with a Master of Education in 1974.

In sport, Mr. Tobin has represented Illawarra Rugby Union at Country Week and was a member of three Illawarra Rugby Union premiership sides.

He was selected to represent World Life Saving and toured Peru introducing Australian methods of surf life saving.

His community activities include being a member of the Wollongong A.H. and I. Society, the Australian Museum Society, the Australian Opera and the Friends of Australian Opera.

He will hold the position on the Council until August, 1978.

There also are two student vacancies on Council. Murrary Robinson, Michael Halls and Robyn Rowland have been nominated to fill the positions.

The result of this election will be known on August 12.

# Australasian philosophy conferences

**The Australasian Association for the History and Philosophy of Science (A.A.H.P.S.) will celebrate the tenth anniversary of its founding with a birthday cake and champagne at the 1977 Annual Conference of the Association to be held at the University of Wollongong from August 26 to 29.**

A.A.H.P.S. was founded in 1967 following on the first ever Australian Conference on History and Philosophy of Science held at the University of New South Wales in 1966.

Since that time, the association has flourished, steadily increasing its membership, convening a sequence of successful annual conferences, and publishing a yearly newsletter.

Apart from these activities, the Council of A.A.H.P.S. acts as the academic body for the History and Philosophy of Science in Australasia (including New Zealand and Papua New Guinea); is represented on the National Committee for the History and Philosophy of Science of the Australian Academy of Science; and maintains close links with the Australian and New Zealand Association for the Advancement of Science (ANZAAS).

The Association originated as an offshoot of the much larger and older established Australian Association of Philosophy (A.A.P.), and members of the two associations still retain some common interests.

The A.A.H.P.S. Conference has always been held in association with the A.A.P. Conference, and usually one day of each conference is devoted to joint sessions of mutual interest, as will be the case for the 1977 Conferences.

Despite this close tie, A.A.H.P.S. is a fully autonomous body and has wider interests and activities than the philosophy of science.

Over the years, the interests of A.A.H.P.S. have expanded with its membership, from an initial, fairly traditional approach to the history and philosophy of science, to one that gives ever increasing emphasis to the social and cultural dimensions of science —— seeking to relate science to its social context.

This is partly a reflection of growing world-wide concern with the social and political implications of science and technology, partly because H.P.S. itself has developed considerably as a discipline in Australia during the last decade.

There are currently three fully independent departments of H.P.S. in Australia (at the Universities of Melbourne, N.S.W. and Wollongong); three well-staffed sub-departments (at the Griffith University, Swinburne College of Technology and the N.S.W. Institute of Technology); and all major Australian Universities and Cs.A.E. have at least one academic involved in the full-time teaching of H.P.S.

As in Europe and America, H.P.S. has become an established discipline in Australia with a recognized and clearly definable content of its own.

It is a discipline which is not merely of interest to historians, philosophers and scientists, but to all members of society who are concerned with the nature of modern science and its crucial role in society.

The growing significance of H.P.S. in Australia is underlined by the theme of this year's ANZAAS Congress: *Science for Society*.

The choice of such a theme is an indication of the importance of studies in this field to which H.P.S. practitioners are uniquely qualified to contribute, and of the social relevance of such studies.

At the forthcoming A.A.H.P.S. Conference, papers will range across the whole spectrum of H.P.S., and it promises to be one of the most interesting and best-attended conferences yet —— with members travelling from all parts of Australia and New Zealand to confer and celebrate.

However, Conference attendance and activities are by no means restricted to members of the Association, and all comers are welcome.

The Conference represents a unique opportunity for members of the University to acquaint themselves with H.P.S. in all its aspects, and to meet most of its leading Australian and New Zealand practitioners.

This is the first time that an A.A.H.P.S. Conference has been held at the University of Wollongong, and it is an event of some significance for the Wollongong Department of History and Philosophy of Science, currently the third largest, and one of the earliest established departments in the discipline in Australia, yet still lacking a chair.

Members of the Department have been active in the Association since its foundation, and certain of the courses developed by the department have stimulated a considerable degree of interest among Association members, through their innovativeness and academic possibilities.

At the 1976 Annual General Meeting of A.A.H.P.S., members voted unanimously in support of the establishment of a Chair in History and Philosophy of Science at Wollongong, and the Executive of the Association subsequently wrote to the Vice-Chancellor, congratulating him on the moves the University had made in this direction and arguing the filling of the Chair as a matter of importance for the development of the discipline, not only at Wollongong, but in Australia.

It is fitting that the Association should celebrate its tenth birthday here, and it is to be hoped that, if not on this occasion, then by the time members gather together again in 1978, we will be able to welcome the Wollongong University Foundation Professor of H.P.S. to the Association.

Dr. Evelleen Richards,
Department of History and
Philosophy of Science.

# PROFESSOR TO GIVE PAPER ON PRIVACY

**Can two people have love, trust, and friendship without private information for them to share? Do people need privacy?**

These are two questions which will be discussed at the Australasian Association of Philosophy Annual Conference at the University of Wollongong from August 29 to September 3.

Professor Les Holborow, from the University of Queensland, will speak on *Rights and Privacy* in his presidential address on the first day of the conference.

He is one of forty-five philosophers, representing eighteen universities in three countries, who will deliver papers at the conference.

It is the largest number of papers given at the Association's conference since its inception more than thirty years ago.

On the first day of the conference there will be joint sessions with the History and Philosophy of Science Australasian Association annual conference, which will be held at the University from August 26-29.

Professor B.R. Tilghman, from Kansas State University, will speak on Tuesday, August 30, at 4.30 p.m. and comment on a paper given by Mr. Stewart Candlish, from Western Australia.

Another speaker expected to arouse particular attention will be Mr. Richard Routley, from the Australian National University.

He will deliver a paper on *Nuclear Energy and Obligations of the Future*.

Three philosophers will travel from New Zealand for the conference.

Politics lecturer, Professor Preston King, from the University of New South Wales, will be the only speaker who is not a specialist philosopher.

Professor Holborow said that in his presidential address he would discuss the theoretical issues lying behind the recent proposals by the Australian Law Reform Society.

"I believe American philosopher, Charles Fried, is mistaken in his belief that you cannot have love, trust or friendship without the guarantee of private information for people to share."

Some of the papers are expected to be published in the world-class journal, the Australasian Journal of Philosophy.

It is one of the few times the conference has been held outside a capital city.

Conference organisers, University of Wollongong Department of Philosophy chairman, Professor Lauchlan Chipman, and lecturers, Dr. Harry Beran and Ms. Suzanne Uniacke, anticipate about 120 people will attend each day of the conference, including sixty who will be accommodated at International House, North Wollongong.

# NEW ENGLAND APPOINTS VICE-CHANCELLOR

**The Chancellor of the University of New England, Sir Frank Kitto, has announced in Armidale that the University Council has appointed Professor Ronald C. Gates as its new Vice-Chancellor.**

Professor Gates is a Professor of Economics in the University of Queensland, and is currently President of the Professorial Board in that University.

Professor Gates will succeed Professor Alec Lazenby who is leaving the University this week to take up the position of Director of the Grassland Research Institute at Hurley in the United Kingdom.

Professor Gates, who is 54 years old, married and has three children, graduated from the University of Tasmania in 1946 with the degree of Bachelor of Commerce.

He then attended Oxford University as a Rhodes Scholar, graduating as Bachelor of Arts in 1948 and as Master of Arts in 1952. He held a Rockefeller Fellowship in the Social Sciences in 1954. He was awarded a Carnegie Travel Grant in 1959.

**READER Education librarian, Margaret Whetton, adjusts the video cassette recorder for second year arts student, John Wren. The recorder was part of the recent display on migrants in the Library.**

# Migrant display in Library

**A display on Migrants in Australia created considerable interest when it was exhibited in the library foyer from July 4-15.**

**The display was the third in a series presented by the library, throughout the year, arranged in co-operation with local groups.**

**Material on migrants was supplied by the Good Neighbour Council, Wollongong Technical College and governmental agencies.**

**It included a video cassette of Monday Conference on migrants and various segments of the English teaching television series, "You Say The Word".**

**The next display planned will be on philosophy, to coincide with the forthcoming Philosophy Conference.**

# FIRST FEMALE FACULTY CHAIRMAN

**A senior lecturer who became interested in women's issues after she helped found a Women in Society course at the University of Wollongong has been appointed the first female faculty chairman.**

Ms. Dorothy Jones hopes her appointment as Faculty Chairman of Humanities is an indication to both men and women that these senior positions can be filled by women.

The Faculty of Humanities consists of the departments of English, European Languages, History, History and Philosophy of Science, and Philosophy.

Her appointment comes 21 years after her first job as a tutor in English at the University of Adelaide.

Ms. Jones gained her B.A. (Hons) at the University of Otago, New Zealand, her M.A. at the University of Adelaide and her B.Litt. at Oxford University, England.

She describes herself as a feminist but said the only active role she has played in women's issues was her part in founding the Women in Society course at the University.

"It has not been my long standing aim to become a faculty chairman," she said.

"I did not really become conscious of the idea until I started lecturing in the Women in Society course and became involved in the politics of the University.

"The position of faculty chairman has always been held by men, but there is no reason why it should be considered a man's job." Ms. Jones said it was important that women should hold such positions. "Although there is a predominance of female students doing English courses, there is only one female professor and very few women associate professors or senior lecturers in English at any university in Australia," she said.

Ms. Jones is currently writing a book about the ideals of feminine beauty as seen through sixteenth century poetry.

She has been a lecturer and senior lecturer at the University of Wollongong since 1971.

**MS. Dorothy Jones**

# Forty attend educational administrators' meeting

**Forty people attended the inaugural meeting of the Illawarra Association of Educational Administrators held recently at the University.**

Those attending were drawn from public and private schools, tertiary education institutions, government departments and instrumentalities, and private industry.

In addition, more than forty people had expressed interest in the association but were unable to attend.

The meeting was chaired by Mr. Brian Gillett, Director of Education, South Coast Region.

The opening address was delivered by Professor L. Michael Birt, Vice-Chancellor of the University of Wollongong, who welcomed the establishment of the association.

Professor Birt said that the administrator had a key role to play in providing an environment that is supportive of the central purpose of teaching and learning.

He also welcomed the involvement of persons concerned with on-the-job training and those concerned with education within the formal educational system.

The meeting established a Steering Committee to prepare a draft constitution and a programme of activities for the coming year.

# SIDING SPRING EARNS FOUR STARS

**Siding Spring Observatory which was founded in 1964 as a field station of Mount Stromlo Observatory, has rapidly outstripped its parent observatory in importance.**

It is situated in the lovely Warrumbungle Ranges, some five hours driving distance north of Sydney.

The observatory mountain rises some 2,000 feet above the surrounding plane placing the telescopes at an altitude of about 4,000 feet, above the most dense parts of the earth's atmosphere and above the smoke and haze of the plain.

The sky is darker than at Mount Stromlo Observatory, near Canberra, and the percentage of cloudless nights is higher (about 60%).

The observatory boasts three telescopes of its own (40", 24" and 16") and on the same mountain are the 40" Schmidt of the English Science Research Council and the 150" Anglo-Australian Telescope.

This concentration of telescopes is one of the few major observatories in the southern hemisphere.

"The good Lord saw fit "goes the astronomical joke "to put all the stars in the southern hemisphere and all the telescopes in the northern hemisphere".

For many years, Mount Stromlo Observatory and The Cape Observatory in South Africa were the only major observatories.

Now, Siding Spring has to compete with major new installations in Chile, constructed both by the Americans and by the Europeans.

Within a small area of the South American Andes, are no fewer than three 150" telescopes.

Why are the southern skies so important? Basically because the sun and the solar system lie in the outer suburbs of our Galaxy, about 33,000 light years from the centre.

The part of the sky where the centre lies is in the constellation of Sagittarius, at a sky-latitude of -37°.

That means that it barely rises over the horizon for most of the northern observatories. . .

The centre itself, we cannot in fact see, because it is hidden by a thick blanket of dust along the plane of the Galaxy (the Milky Way).

However, there are many associated objects, the globular clusters, for example, which hang in a spherical cloud around the centre, and these we can see.

The other speciality of the southern skies are the Magellanic Clouds, so named after Magellan who noted them on one of his voyages and described them as looking like bits of the Milky Way come adrift.

There are two Magellanic Clouds, the 'Large' and the 'Small'. They are separate Galaxies, lying at a distance of 180,000 light years from the nucleus of our Galaxy, and are our closest neighbours.

A 15" telescope can collect as much light from stars in the Magellanic Clouds as a 150" telescope in the north can collect from stars in the next nearest Galaxy, the Andromeda Nebula.

They lie very far south, forming a nearly equilateral triangle with the south pole, an otherwise very empty region of sky.

With the naked eye, you can just make out, at the eastern end of the Large the Cloud, the mightly gaseous nebulae called 30 Doradus.

This monstrous cloud of ionised gas is shining like a neon light —— but the gas is mostly hydrogen.

The energy comes ultimately from dozens of very hot, massive stars —— 20 to 50 times more massive, and 10,000 times more luminous than our sun.

In the southern hemisphere, there is lots of astronomy to be done.

All telescopes, from the mighty 150" Anglo-Australian telescope to the 16" telescope of the Siding Spring Observatory and the 18" telescope of the University of Wollongong, have important things to contribute to the advance of knowledge in this rapidly expanding field.

**Lindsey Smith**
**Glen Moore**
**Physics Department**

**UNIVERSITY senior tutor Glen Moore sits in the operating console of the 150" telescope.**

**DR. Lindsey Smith**

# LECTURER PRAISES UNI. COURSE

**The University of Wollongong has the best developed undergraduate astronomy course in Australia, a new senior lecturer in the Department of Physics at the University said recently.**

Dr. Lindsey Smith, who arrived in Australia last week after ten years astonomy research in America, Belgium and Germany, said that the course at Wollongong was among the best in the world.

Dr. Smith came to Wollongong after more than four years as a scientific staff member at the Max Planck Institute for Radio-Astronomy, Bonn, where she studied the formation of stars.

Her studies there revealed that the equivalent of four stars, of the mass of the sun, were added to the galaxy each year.

She previously worked at NASA Space Flight Centre, Greenbelt, Md., where she was involved in the planning of the scientific programme for the second astronomical observatory in space.

Dr. Smith said she would like to introduce students at the University of Wollongong to radio-astronomy, in addition to optical astronomy which is already well developed.

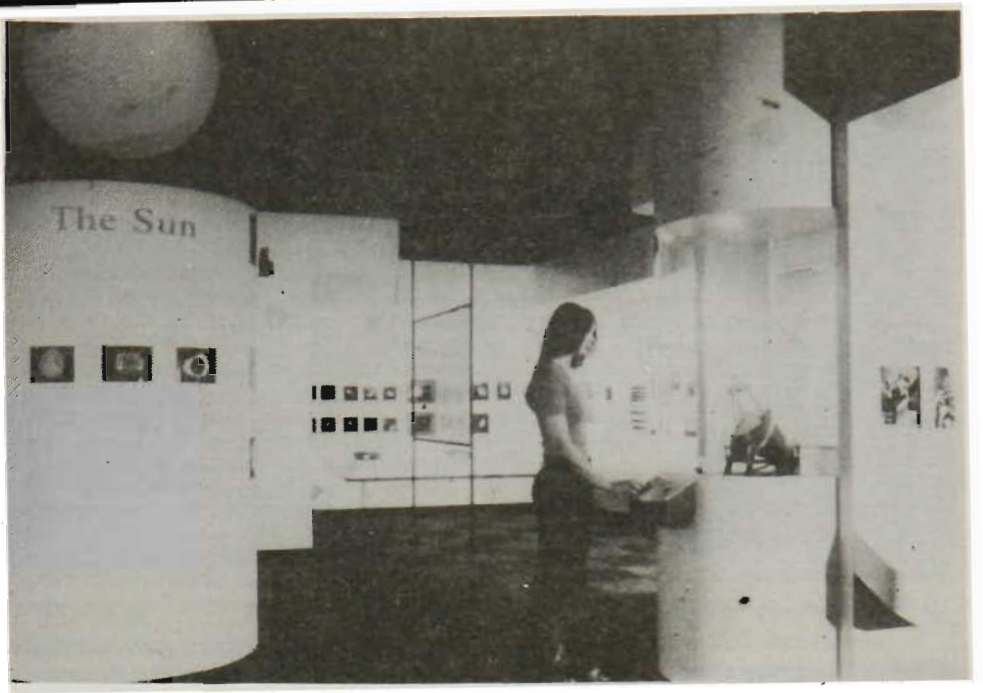
She said that Australian people were quite aware of astronomy. "I attribute their awareness to Australia's clear skies, which enable them to watch such things as eclipses and comets," she said.

"Wollongong also has a very active amateur astronomy society."

Dr. Smith gained her Bachelor of Science in Physics at the University of Sydney in 1961 and her Ph.D. in Astronomy at the Australian National University in 1966.

She will start lecturing in astronomy in second session.

# A GLIMPSE AT ASTRONOMY

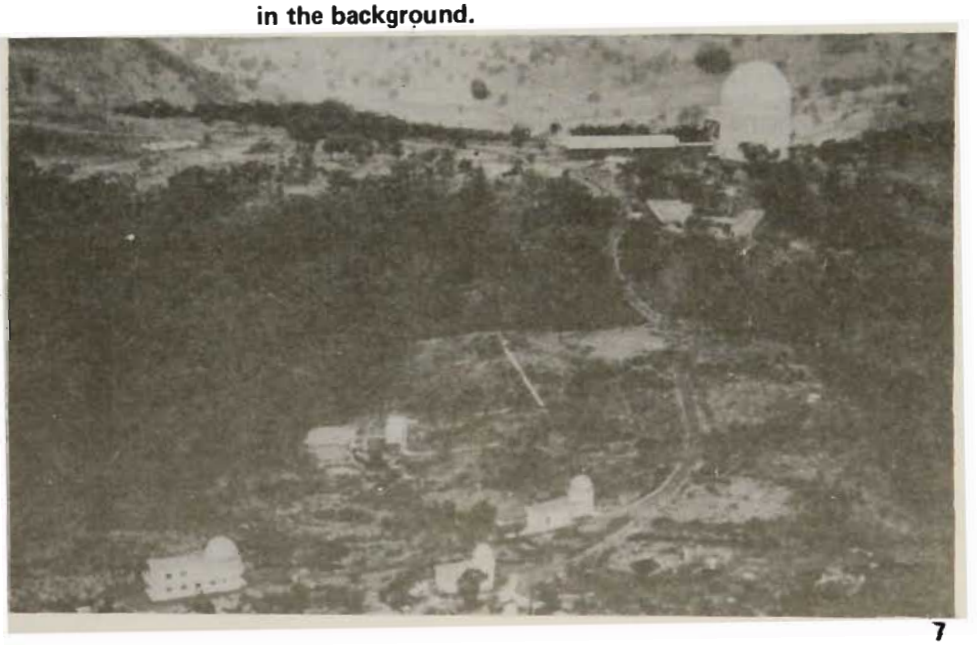



THE public exhibition hall at Siding Spring. The observatory is near Coonabarabran, in the beautiful Warrumbungle Mountains.

30 DORUDUS —— one of the most important objects in the Southern Hemisphere. A seven minute photograph taken with the Wollongong 18" reflector.

# N.S.W. observatory rates with world's best

A VIEW of Siding Spring mountain with the 150" telescope building in the background.



SIR Philip Baxter

# Sir Philip guest at graduates' dinner

**The former chairman of the Australian Atomic Energy Commission, Sir Philip Baxter, was guest speaker at the Wollongong University Graduates' Association dinner on July 15.**

**Sir Philip, who also is a former Vice-Chancellor of the University of New South Wales, spoke on the future prospects of the world. His speech was entitled: "Through a glass darkly".**

**More than seventy people attended the dinner in the University Union Hall at 7.30 p.m.**

**Other official guests at the dinner, which was the association's first major function, include the University of Wollongong Vice-Chancellor, Professor L.M. Birt; Deputy Vice-Chancellor, Professor A.M. Clarke; Senate Chairman, Professor G. Brinson and Illawarra Women Graduates' Association secretary, Mrs. Margaret Colvin.**

**The association was formed last December with the assistance of a University grant to foster communication and participation between past graduates.**

**It now has about 300 members scattered throughout Australia.**

# ITALIAN STUDENTS FORM SOCIAL CLUB

**Italian students at the University have formed a club to sponsor and engage in social and cultural activities that will supplement their Italian studies program.**

One of the main objectives of the club, Circolo Italiano dell'Università di Wollongong, is to serve as a cultural bridge between the University and the community, inviting whenever possible the general public to share planned events with its membership.

The club was formed midway through the first session by the Italian students after some advice and suggestions by Dr. Vincent J. Cincotta, lecturer in Italian, who thought it would be most beneficial to form an extra-curricular club.

After several preliminary meetings for nominations, voting and the establishment of an agenda, the club was officially established and is now in the process of being affiliated with the Student Representative Council.

Miss Enrichetta Parolin was elected President; Mr. George Porteous, Vice-President; Miss Angela Chan, Secretary-Treasurer; Miss Deegan, information and public relations and Dr. Vincent J. Cincotta, adviser.

So far the Circolo has sponsored a full-length feature film on Michelangelo and the Italian Renaissance and a very successful inaugural dinner-dance at the Fairy Meadow Fraternity Club.

On the agenda for second session is a series of lectures on Italian topics by various authorities.

The series will be inaugurated with a lecture on the Philosophy of Benedetto Croce by Professor L. Chipman.

On August 6, the Circolo Italiano is sponsoring, along with Wollongong's Italian Community CoAsIt, a recital by the internationally famous Australian pianist Sonya Hanke.

## ACTIVITIES PLANNED

Among the other activities planned are: a thorough study of an Italian opera with a follow-up viewing of the opera; a series of Italian films; a round table discussion session with representatives of the Italian community; readings in the Italian theatre with perhaps a club performance of one of the plays; a workshop demonstration on Italian cooking and for early October, an evening of Italian music performed by members of the Italian classes and club and members of the community.

The club members plan to compile an annual yearbook which will record its activities and also allow for the publication of creative articles, poetry, observations and artwork by its members.

It is not necessary to be a student of Italian to join the Circolo.

Its meetings are planned for every other Tuesday, with its next meeting on August 9, in the A.C.S. Annex, room G05, at 12.30 p.m.

# FRENCH CLUB PROMOTES CULTURE

**A French club has been formed on campus to provide a framework for students, staff and community members to learn about French culture.**

Club Français plans to present films, organise trips to French operas and entertainment, and have a crêpe party.

It will also co-operate with French organisations in the Wollongong community and help establish an avenue of communication between the University and the community.

The club is open to anyone interested in joining. Two types of memberships are available; student membership and associate memberships. Members need not be from the University.

Anyone interested in joining the club should contact the secretary, European Languages, ext. 235.

# New security deal for TEAS cheques

**TEAS cheques can now be directly paid into bank accounts, as cheques to the value of $150,000 have been stolen, lost or accidentally destroyed before students were able to cash them this year.**

About half the cheques on which payment had to be stopped in 1977 were reported to be stolen.

These cheques tend to be for the larger amounts because students who are on the independent rate or live away from home often have no way of making sure their mail is not stolen from letter boxes during the day.

It does take some time to replace a lost cheque and if the cheque is stolen and fraudulently negotiated things are even more difficult.

Having the cheques sent directly to bank accounts also avoids any delay if there are postal strikes.

Students wishing to arrange payment of their TEAS allowances into bank accounts should contact the Department on Sydney 2188800 for further details.

The Department also reminds students that TEAS beneficiaries should remember that they must advise the Department, in writing, of any changes in their programmes for second session.

A student is no longer eligible for benefits if his study load falls to less than 75 per cent of the normal workload for any part of the course.

# STUDY LEAVE

**Staff who left in July for six months study leave**

**Professor A.D. Brown** (Biology), U.S.A.
**Professor R.B. Leal** (European Languages), Europe, U.S.A.
**Professor A. Keane** (Mathematics), Fiji
**Assoc. Professor R.W. Upfold** (Civil Engineering), Malaya, Singapore, U.K., U.S.A.
**Assoc. Professor W. Charlton** (Electrical Engineering), Canada, U.K.
**Assoc. Professor P. Bolton** (Chemistry), U.K.
**Mr. K. Tognetti** (Mathematics). U.K.
**Dr. G. Doherty** (Mathematics) U.K.
**Dr. D. Pearson-Kirk** (Civil Engineering) U.K., Europe
**Dr. D. Dunne** (Metallurgy), U.K.
**Mr. J. Montagner** (Mechanical Engineering), U.K.
**Ms J. Jones** (Education), U.S.A., U.K.
**Dr. F.S. Piggin** (History), U.K.
**Mr. R.K. Wilson** (Accountancy), U.K.
**Dr. R. Rudzats** (Chemistry), Europe
**Ms D.L.M. Jones** (English), Australia
**Mr. A.J.S. Partridge** (Economics) Canada

**Those who are still absent after having left at start of 1977 -**

**Assoc. Professor C. Kiernan** (History)
**Dr. R. Young** (Geography)
**Mr. A. Segal** (Physics)

**Those who have returned, or are soon to return -**

**Assoc. Professor S.E. Bonamy** (Mechanical Engineering)
**Dr. F. Hall** (Chemistry)
**Mr. A. McGregor** (Economics)
**Mr. M. Lowrey** (Civil Engineering)
**Professor A. Cook** (Geology)
**Mr. M. Boyd** (Civil Engineering)
**Professor R. Southall** (English)
**Dr. P. de Lacey** (Education)
**Dr. P. Burton** (Chemistry)
**Ms L. Crossley** (H.P.S.)
**Dr. P. Laird** (Mathematics)
**Professor M. Wilson** (Geography)

# SIR ZELMAN RESIGNS AS CHAIRMAN

**The Australian Vice-Chancellors' Committee executive has accepted the resignation of Professor Sir Zelman Cowen as Chairman of the Committee.**

**Sir Zelman's resignation follows the announcement of his appointment as Governor-General of Australia from December this year.**

**The executive has appointed Professor Rupert H. Myers, Vice-Chancellor of the University of New South Wales, as Chairman of the AVCC and Sir George Cartland, Vice-Chancellor of the University of Tasmania, as Deputy Chairman, for the remainder of 1977.**

**The AVCC will elect its Chairman and Deputy Chairman for 1978 later in the year.**

# COMPUTER LINKS CITY WITH UNI

**Electoral rolls for Wollongong City Council's September election will be printed by the city's new link with the University's Univac 1106 computer.**

The task of listing names and addresses of the city's 105,000 voters will take less than a day and require no further checking.

The mini-computer controlling a key to disc data entry system and a line printer is now linked by Telecom line to the University of Wollongong computer centre.

The equipment, costing $68,000, will enable data to be transmitted by telephone line to the University for processing and return to the council's office.

University Computer manager, Mr. Geoff Hamer said the installation comprises an Interdata computer with disc storage and a high-speed line printer. "Four visual display units, supplied by Andersons of Melbourne, are connected to the mini-computer for fast and efficient data entry," he said.

"The computer is programmed to edit several types of input data simultaneously and to reject the most common errors.

"For example, if an operator forgets the shift key and enters a letter instead of a number, the computer points out her mistake immediately and waits for it to be corrected before it will accept more data from that operator.

"This is a "state of the art" technique for computer data collection and means that the City Council will be able to terminate the lease on its expensive card punches."

The City Council's work has been processed on the University computer since the beginning of 1976. Until now input and output have been delivered by car between the Town Hall and the University.

Mr. Hamer said that in April 1976 the City Council installed a UNIVAC terminal to the computer for "on-line" development of applications programs. "Since then new systems, for example stock control and electoral rolls, have developed rapidly using the superior programmer aids available with the UNIVAC," he said.

"In line with the recent recommendations of the consultants to the City Council (Ray Dalgleish and Associates), Council's next developments will be in the areas of financial reporting and cost control."

PICTURE

**WOLLONGONG City Council accountant, Mr. Jack Black (right) and council systems analyst, Mr. Bruce McKay (centre), discuss the link up between the council chambers and the University with its assistant systems programmer Mr. Jim McKee.**

# Research grants offered

**Professor Peter Fisher, Chairman, of the Research Committee, has announced that applications for special research grants in 1978 are invited from all full-time academic staff.**

**In keeping with the requirements of the Universities Commission, research funds may be allocated for maintenance, salaries for research assistance, travel within Australasia and computing.**

**Funds may not be used for the purchase of equipment nor for the stipends of research students.**

**Application forms which are of two kinds - Form I. New Applications, Form 2. Continuation Applications - are available from Secretary, Research Committee, Student Inquiries Section, Administration Building.**

**The closing date for applications is Friday, September 2, 1977.**

# PHILOSOPHY EXAMS MARKED EXTERNALLY

**All 200-level 1st session Philosophy subjects were marked by an outside examiner, as well as a member of the Philosophy Department.**

The external examiners were Professor H.J. McCloskey (La Trobe) in Ethnics, Mr. D.J. Robinson (Melbourne) in History of Logic, and Dr. Mary McCloskey (Melbourne) in Classical Philosophy.

Departmental Chairman, Professor Lauchlan Chipman said that the external examiners teach a corresponding subject in a well-established department, and are asked to mark Wollongong papers at that department's standards.

"This ensures recognition for our qualifications," Professor Chipman said.

Last year, all 100-level Philosophy papers were marked by Dr. Brian Scarlett of Melbourne University. Professor Chipman said that only in one case was there a discrepancy between examiners of more than four percent.

The Philosophy Department is the University's youngest, being only in its second year.

It plans to have each new subject externally examined as it is introduced as evidence of equivalent standards.

ERRATUM

In Campus News Vol. 3 No. 6 under the heading of Academic Senate, Professor J. Reinfelds was listed as Faculty Chairman of Mathematics, Department of Computing Science. This should have read Department of Mathematics.

MRS. Madeleine Cincotta.

# Madeleine receives research award

**Research student in the University's Department of Philosophy, Madeleine Cincotta, has been selected for a University Postgraduate Award.**

**She is one of ten students to receive the award, which includes an annual $4000 stipend.**

**Mrs Cincotta received the last of four awards which were available this year.**

**The subject of her Ph.D. thesis will be "Contemporary Aspects of Thomistic Thought."**

**She gained her B.A. in Modern Languages at Fordham University, in America, and her M.A. in Italian at Middlebury Language School.**

# STUDENTS URGED TO GO ON STUDY TOURS

**Australians Studying Abroad director, Mr. Christopher Wood, recently visited the University of Wollongong to encourage students to go on study tours in Europe at the end of the year.**

Mr. Wood said that he established Australians Studying Abroad to provide facilities for Australians who wished to study foreign countries.

This year his group has organised four 7½ week European study tours which leave in November and December, 1977, and return in January and February, 1978.

The tours are also open to non-students.

Mr. Wood said A.S.A. had three major functions.

They are:-

- to run tours built around study sessions in Greece, Rome, Florence, Venice and Paris. These study sessions involve an examination of each centre through its monuments, museums and its social and artistic traditions. The keynote of the programme is to foster an understanding of the totality of a city's life, its intellectual, religious, social, political, and artistic traditions.
- to act as co-ordinator and consultant for groups and institutions who wish to run their own study programmes.
- to work towards the founding of at least one centre in a major European city in the near future.

Mr. Wood said his organisation hoped to avoid the regimentation of traditional tours, with as much free time as possible, and open air tickets so students could remain in Europe after the end of the tours.

Brochures on this year's tours are available at the Information Office.

# BOOKSHOP CALLS FOR CO-OPERATION

**The University Co-operative Bookshop Limited general manager, Mr. W.A. Kricker, has written to all heads of University departments asking them to complete and return textbook ordering forms before August 19.**

Mr. Kricker said that last year the Co-operative received only 45 per cent of its lists by the deadline date.

"In 1976, the Co-operative Bookshop Ltd. introduced a number of new systems designed to improve the supply of textbooks to students," he said.

"We enlisted your assistance in obtaining early, accurate text information from academic staff.

"The results of our efforts varied considerably from department to department, with some having all their lists in by the cut-off date and others supplying none at all by that date."

Mr. Kricker said that the bookshop had also instituted new procedures for ordering, expediting and receiving.

"Our combined efforts resulted in a situation which is a vast improvement on previous years, but still far from perfect," he said.

"We therefore ask for assistance once more in ensuring that we receive textbook information on time."

Mr. Kricker said the manager of the Co-operative in Wollongong, Mrs. J. Southern would be happy to assist with any queries.

He also said that he would welcome any constructive ideas and criticism of his operation and would be pleased to discuss any aspect of the Co-operative at any time.

# GEOL. SOC. PLANS CAMPING TRIP

**The Geological Society will hold a 24-day camping coach trip through Victoria, South Australia and Western Australia during January, 1978.**

The cost is $250 per person. This figure may be appreciably lowered by Union subsidy and by Geological Society raised monies.

The cost includes all travel, food and accommodation.

It is expected that a maximum of 35 people will be touring. A deposit of $75 will be due by August 31 and the balance by the end of October. If you are interested contact the Geology Department by ringing extension 275 or 484 and asking for Leonie Campbell, Avis Depers or John Pemberton.

# Review

### GENERAL STAFF

Following the review of general staff salaries and classifications, the Vice-Chancellor has approved the following changes with effect from 1st July 1977.

| | |
|---|---|
| **MR. U. BONACINA** | To Laboratory Craftsman, grade 2. |
| **MISS J. CORREY** | To Clerk, general scale. |
| **MR. G.E. DUNN** | To Clerk, grade 2. |
| **MISS L. EDWARDS** | To Graduate Assistant, grade 2. |
| **MRS. J. GILCHRIST** | To Typist, grade 2. |
| **MR. F. GROVES** | To Senior Technical Officer, grade 1. |
| **MRS. E.A. HILTON** | To Clerk, grade 1. |
| **MR. I.J. KIRBY** | To Senior Technical Officer, grade 1. |
| **MISS W.C. LEUNG** | To Systems Analyst, grade 1. |
| **MS. F. McGREGOR** | To Senior Librarian, grade 1. |
| **MRS. P. MIRABITO** | To Graduate Assistant, grade 2. |
| **MR. R. NOTH** | To Leading Hand Electrician. |
| **MR. C.S.D. SYMONS** | To Technical Officer grade 1. |
| **MR. M.D. THOMAS** | To Technical Officer grade 2. |
| **MR. E. YOUNG** | To Senior Mechanical Craftsman. |

Staff granted accelerated incremental progression within their current salary ranges:

**MISS M.D. ALLEN**
**MR. P.J. AKERS**
**MISS L.J. BROWNE**
**MRS. V.T. COALL**
**MR. P. CLARKE**
**MRS. D. ENDICOTT**
**MR. L. FULLER**
**MISS M. FRYER**
**MRS. J. GRIGG**
**MR. J. LANGRIDGE**
**MR. P. PAVLIK**
**MR. W. TRUEMAN**
**MR. J. TUULAS**
**MR, P.G. WOOD**
**MR. J.F. WILLIS**
**MR. W. YEOMANS**
**MR. W.M. YOUNG**


## CAMPUS NEWS

**Published regularly throughout the academic year by the Information Office for The University of Wollongong, Northfields Avenue, Wollongong, N.S.W. 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, Admin. Building. Deadline next issue: Wednesday, July 20. Editorial matter may be reprinted freely; credit would be appreciated.**

**Janine Cullen . . . . . .Acting Editor**
**Beatrice Henderson . . Production Assistant**


# EDUCATION FINANCE CHANGES STUDIED

**Commonwealth and State Education Ministers meeting in Sydney recently set up a working party to examine submissions from the Commonwealth or any State for changing existing methods of financing and administering education in Australia.**

The working party will be composed of two representatives from each State and the Commonwealth.

The proposal for a meeting of Ministers was suggested by the Prime Minister to the Premiers in February and agreed to by the Premiers at the Premiers Conference in Canberra in April.

The working party will report to the Australian Education Council in time for its meeting in Canberra in November.

The meeting recognised that there was no unanimity among the States on whether existing financial arrangements should be disturbed.

# HPS to present Swedenborg lecturer here

**The Department of History and Philosophy of Science is presenting a public lecture on Thursday, August 4, on Swedenborg (1688-1772): Scientist and Philosopher Extraordinary.**

**The guest speaker is Dr. Michael Stanley, Principal, New Church College, Manchester, whose visit to Australia in July and August is being organised by the Australian branch of the Swedenborg Church.**

**Dr. Stanley is a graduate of London University and has taught physics at Cornell University, where he carried out research on point defects in the atomic lattice of niobium and $\alpha$-quartz.**

**The lecture should be of special interest to those interested in history of science, crystallography, and visionary forms of religious experience.**

**It will be held at 12.30 p.m. in Room G14, Social Science Building.**

# Staff changes

### APPOINTMENTS

| | | |
|---|---|---|
| **MR. B. GRANT** | | |
| Attendant Patrol | Central Services | 20.6.77 |
| **MR. R. GALVIN** | | |
| Attendant Cleaning | Central Services | 20.6.77 |
| **DR. R.G. DROMEY** | | |
| Lecturer | Mathematics (Comp. Science) | 1.7.77 |
| **MISS D. DROMARD** | | |
| Tutor | European Languages | 1.7.77 |
| **MR. T. JAGTENBERG** | | |
| Lecturer | Sociology | 1.7.77 |
| **MRS. E. CLARKE** | | |
| Stenographer | Estate Division | 22.6.77 |
| **MRS. U.L. STEELE** | | |
| Library Assistant | Reader Services | 1.7.77 |
| **MRS. S.E. DAKERS** | | |
| Clerk | Finance Office | 11.7.77 |
| **MISS. U.A. RENTZ** | | |
| Office Assistant | Technical Services | 12.7.77 |
| **MR. S.R. COOPER** | | |
| Laboratory Craftsman | Science Faculty Workshops | 18.7.77 |

### RESIGNATIONS

| | | |
|---|---|---|
| **MRS. G.R. HILDEBRANDT** | | |
| Finance Office | | 1.7.77 |

SPORT

# Lecturer former star sportsman

**A new lecturer in the University's Department of Electrical Engineering, Dr. Tony Ng, is a former Hong Kong University sportsman of the year.**

Dr Ng, who has lived in Australia for four years, hopes to continue some of his sporting interests in Wollongong.

Dr. Ng received the B.Sc. degree in Electrical Engineering from the Hong Kong University in 1972, the M.Eng.Sc. and the Ph.D. degrees from the University of Newcastle in 1973 and 1977 respectively, both in Electrical Engineering.

His Ph.D. thesis was entitled "Design of Optimal Experiments for Parameter Estimation in Linear Dynamic Systems".

He said that he hopes to continue his research work in other time series problems and also in distributed parameter systems at Wollongong.

He is also interested in computer systems and the application of microprocessors.

From 1972 to 1974, Dr. Ng was employed by the B.H.P. Newcastle Iron and Steelworks as an Electrical Engineer.

He also worked part-time as a tutor and programmer during his research towards the Ph.D. degree under the Newcastle University Research Scholarship.

Dr. Ng's extra curriculum activities have included holding the positions of class representative on the Hong Kong University Faculty Board, president of the H.K.U. Badminton Club, treasurer of the H.K.U. Engineering Society, and, at Newcastle, he was Overseas Student Service Director, member of the co-ordinating committee, president of the Badminton Club and secretary of the Merewether Apex Club.

He assumed duties at the University on 20th June.

DR. Tony Ng

# OUTSTANDING PERFORMANCES

**In the Illawarra closed championship for 1977 Remi Adra and Mohammed Iqbal, who play for University 5 in Division 3 of the Winter Competition put on an outstanding performance in winning both Division 2 and Division 3 doubles titles.**

**Remi Adra, who defeated Mohammed Iqbal in the semi-final of the Division 3 singles, is to play in the final at a later date.**

**Steve Tomlinson (University 4) is to play in the Division 2 singles final.**

**The University Championships will be held in the Union hall on Tuesday, September 27, from 7.30 p.m.**

## Table Tennis

## Club results

**For an entry fee of $1, players can play in the men's or women's singles and doubles, mixed doubles and handicap singles. All members of University teams and all other members of the University are eligible to enter.**

# ANU URGES PERSONAL CAPACITIES EMPHASISED

**The Australian National University has urged that the development of personal capacities be emphasised more in education.**

As part of its wide-ranging submission to the Federal Government's committee of inquiry into education and training, the university said that such capacities included perception, resourcefulness and adaptability.

These capacities - rather than initial training for an unchanging lifetime job - would be required more in society, the university said.

It said that while the national education system should provide imaginative and flexible arrangements for vocational training, it should also "place a heavy emphasis on the development of the fundamental personal capacities".

It said the "university sector" should be kept relatively small, "in the long term interest of sustaining centres for academic excellence".

But there was a need for a highly diversified system of post-secondary education with universities and other institutions offering courses in "different fields, at different levels and with different orientations".

The A.N.U. submission also argues for a "sorting out" of the colleges of advanced education sector.

It recommends that smaller colleges, which might be judged non-viable, could amalgamate with their local technical and further education colleges to form community institutions.

"Our experience shows that amalgamation does not necessarily mean total unification.

"Separate academic boards ensure that two distinct entities can co-exist within a single, larger institution," the submission said.

"We can see no reason why the possibility of amalgamating of other institutions, so as to secure a 'critical mass', a stronger academic base and long-run administrative economies should not be actively explored.