

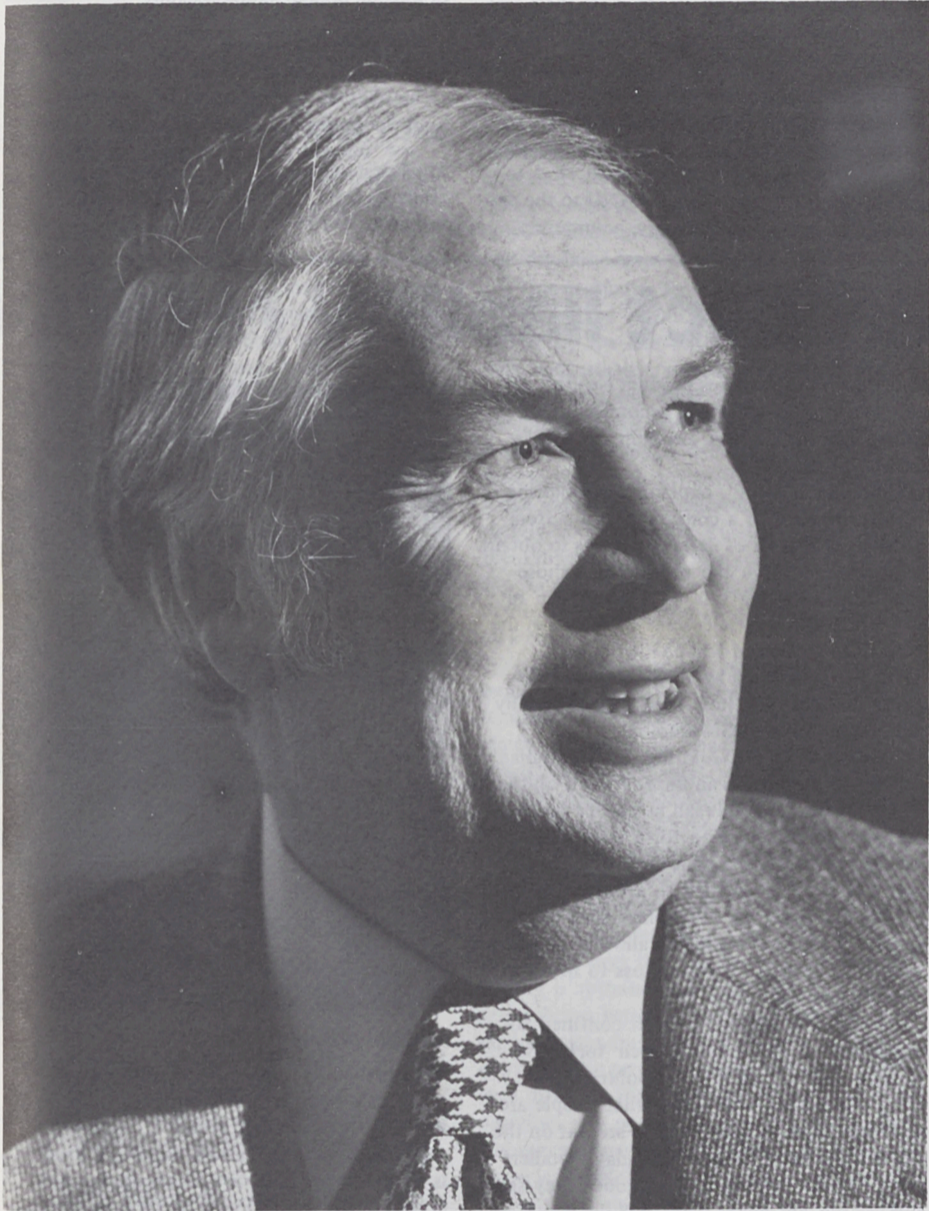
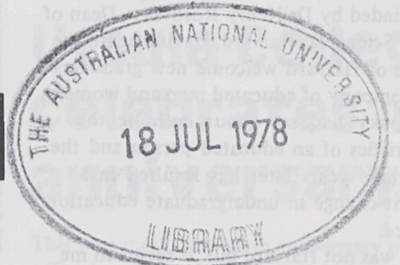
ANU Reporter



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The Direction Ahead



Professor Low

'Let me recall that the original ANU came out of the Department of Post-War Reconstruction. The intervening years have been spent on the immense task of creating a university of consequence. That I venture to suggest, has been done. Might we now square up rather more directly to the injunction in our Act that we would in part at least work on subjects of national importance to Australia, and look again at what some of the further implications of this for us might be? The other question I have been concerned to raise this afternoon is, could we not still substantially improve the total educational experience of our interestingly variegated student body? Let me, at all events, report to the University that those are two of the chief questions upon its Vice-Chancellor's mind, and say as well that I shall be glad to hear from anyone in the University upon either or both of them.'

The Vice-Chancellor, Professor Anthony Low, yesterday gave his second Report to the University when he spoke on a number of matters. In particular he drew attention to Section 6 of the ANU Act which states that the University shall 'encourage and provide facilities for, postgraduate research and study, both generally and in relation to subjects of

national importance to Australia'.

Professor Low pointed out that research on subjects of national importance, directly and indirectly, was already being conducted at ANU. Such research, however, was not sufficiently widely known and needed, also, an institutional framework to make a greater impact.

'My thoughts here were lately crystallised when on a single afternoon I received copies of the published proceedings of a conference organised by Professor Mathews on *Local Government in Transition*; of another one on *Recent Changes in Asia* organised by the Centre for Continuing Education; and a book edited by Dr O'Neill called *Insecurity! The Spread of Weapons in the Indian and Pacific Oceans*', Professor Low said.

'In their own arenas each of these items has been energetically publicised. My query is whether they should not be more widely known still'. He also pointed to considerable areas of scholarly and scientific inquiry where lack of work on the University's part would be against the national interest—for example, despite the general importance of mathematics, there were fields of mathematical inquiry not adequately represented in Australia. There were several other such instances.

'Few, I think, will imagine that the major breakthrough in fusion research is likely to be made in the relatively small establishments we can mount here', Professor Low said. 'Nevertheless some work by our newly established Plasma Research Laboratory, using the long-built Homopolar Generator, seems to be warranted, so that we can have some people in this country who are contributing to this global enterprise, and can thus be knowledgeable about worldwide developments in it.' (See separate story p3).

Professor Low emphasised at the same time that research in the University was not to be conducted simply because it was thought to be of national importance but there were more than enough such subjects from which to choose. These were not getting adequate public expression and so he proposed that the University Information Office should be responsible for issuing to a circulation list of 2000 to 3000 individuals and institutions an ANU public issues bulletin providing specific information about ANU publications, conferences, lectures and so on.

Setting up of public issues bureau under consideration

'Whether we should go further than this and create in the Chancery (from existing resources!) what, for the time being, I would call a public issues bureau is now for consideration', Professor Low said. Such a bureau would be responsible for policy bulletins, organising conferences and gathering together people from the University and elsewhere for consideration of topics of national importance.

Professor Low questioned whether it would be desirable to develop at ANU a study on the 'Future of Australia'. Pak-Poy Associates, supported by half a dozen of Australia's larger companies, has lately signed up the futurologist, Herman Kahn, to do just that. Work emanating from ANU, such as Professor Borrie's National Population Inquiry, suggests that such investigations could now be conducted here speedily.

Speaking from his own experience, Professor Low said that his thinking on this and related subjects took a quantum leap when some months ago a distinguished visitor wanted to talk to him about the future of Australia. Professor Low was able to organise for him a meeting with a small group of ANU people with

a variety of interests. This led to exploratory meetings and formation of a number of small groups.

One such group has been composed of senior scientists, the other of people with an interest in Pacific and Asian affairs while a third group is concerned with social policy issues. Professor Low said that there was great scope not only for such groups to interact with each other but for greater interaction within each group. Apart from these groups there were those involved with research into overseas markets; Australia-Japan, Australia-ASEAN commercial connections; Northern Australia development and so on. He suggested that perhaps more attention could be given to the University's more specific orientation to work on subjects of national importance to Australia.

Student lifestyles, progress and performance

Professor Low expressed concern that even in some halls and colleges, students could be very lonely and he hoped that the quality of what the University was offering outside the classroom could be substantially improved. ANU was an admixture of residential and non-residential students, part-timers and whole-timers, which made for more variations in students' lifestyles than was perhaps appreciated.

'One key point here, however, remains. Our health, counselling, careers, and study skills arrangements seem to be working very well', Professor Low said. 'In smaller Faculties, like Law, students have a sense of "belonging". But one hears—in my view all too often—that many students do not know the names of others in the same tutorial, and that the sea of unknown faces in the Union can be inhibiting. These things must limit the scientific and intellectual discourse between students that should be characteristic of a university, and I would like us to give more attention to them.'

Professor Low pointed to the dramatic change in the proportion of part-timers this year: after dropping over the past 10 years by 10 per cent to about 33.5 per cent of the student numbers, it shot back to 38.5 per cent. The Progress and Performance Study has been monitoring the shifts in student population as well as cancellations. In the latter category, about half the students found ANU inhibiting while the other half of the cancellations was owing to personal circumstances. Public servants formed 70 per cent of the part-timers and about one-third of these withdrew last year because of the heavy workloads.

Housewives top distinctions among part-time students

A significant feature was that the number of 'housewives' enrolling had been increasing steadily. For the two years, 1974 and 1977, for which full figures were available, 'housewives' passed all the units they attempted. They have been known moreover to get a higher percentage of distinctions than any other identifiable category. 'Since only some 20 per cent of them have completed tertiary education before', Professor Low said, 'there are, it seems, important numbers of women who, having "missed out" on tertiary education in

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Vice-Chancellor's Report

From page 1

their late teens, are taking the opportunity we provide to "catch up".

Professor Low referred to two major statements about undergraduate education that stood out in his mind in the last 20 years. One of these was in a lecture at ANU by Professor Asa Briggs in which he made the point that some of the most important intellectual and scientific areas lie across the boundaries of traditional disciplines and thus the 'map of learning' needed redrawing.

The second major statement was lately masterminded by Dr Henry Rosovsky, Dean of Arts and Science at Harvard. Having heard the President of Harvard welcome new graduates 'to the company of educated men and women', Dr Rosovsky had set about defining the characteristics of an educated person and the answer three years later has resulted in a significant change in undergraduate education at Harvard.

ANU was not Harvard but 'it seems to me that if we are now committed to addressing ourselves to the educational goals of the School of General Studies and the methods by which they might be attained, it will ill behave us to treat the issues any less critically and creatively than Harvard has done', Professor Low said.

'We can, I trust, be more alert to the quality of the ambience we provide. We now have a better idea of how our varied student populations are composed, and how they are progressing. In due course, I hope we may be clearer about "what should the ANU be offering them" than perhaps we have been. I say "in due course" because one clear lesson from the Harvard experience is that if one is wise one does not catapult oneself into change, but quite steadily debates one's way through to it. I hope we shall do this too.'

REPORTER PUBLICATION DATES

ANU Reporter is published on the second and fourth Fridays of each month. The next issue will be published on Friday 28 July for which the copy closing date is Wednesday 19 July. Inquiries Madan Nagrath ext.2106/2229.

Letters to the Editor

ANU SHOULD BE SEEKING NEW APPROACHES TO PARKING

The Parking and Traffic Committee has at last grasped the nettle in trying to equip the University with the means of regulating parking on campus, and therefore the amount of space used as parking lots. After years of shilly-shallying, we may perhaps see a halt to the process by which more and more of the campus is turned into car parks. But the approach of the Committee is merely to keep our own backyard tidy: it lacks any sense of social responsibility to the City of which we are a part, and it misses any opportunity to try some ideas which could be useful in Canberra and elsewhere in relieving inner city congestion by commuters' cars. Instead of merely tagging along behind the City authorities with an inflexible pay-permit system, we should be seeking new approaches to the social problems of parking and traffic in Central Canberra. Here are a few ideas which they might consider.

Link private cars and public transport. Inner city congestion generally and parking problems on our own campus arise because more people insist upon exercising their individual right to use their own cars to commute to work than can be accommodated in parking lots. If more people used public transport, the problem would disappear. If we have to control parking on campus by issuing permits to hunt for space in which to park private cars, then such permits should be given free (or more cheaply) in exchange for used bus tickets.

ACTION already sell tickets in books of 10. Why should we not, as an experiment, give free (or reduced fee) permits to people who turn in, say, 10 or 20 books of used ticket stubs? Such a scheme linking car parking with bus use would encourage unthinking car-commuters to travel by bus, and thus catch the habit. It would favour what the transport pundits call the 'modal split' between cars and buses, in favour of the latter. It would also introduce a flexible system in which the parking value of used bus tickets could be altered as conditions

demand. And it is a system which could be extended to the city boom-gate type car parks, and large public institutions.

Time-sharing of parking space. The Committee's proposals for the issue of permits to park on campus do little to encourage people to use public transport, or even to share cars. If we are running short of space to park cars on campus, or if we have to ration access to the most desirable parking spaces near buildings, then we should issue permits which are valid for four, three or two working days in the week. Individuals would be free to choose which days they would not park their cars on campus: 'never on Monday' or 'never on Tuesday' permits could be distinguished by different colours and the policing of such a system would be no more difficult than that proposed by the Committee.

Such a time-sharing system could be linked to a scale of payments such that those people who park their cars more frequently pay the most. It would thus avoid penalizing the occasional parker who otherwise uses public transport, or bicycles or walks to work. And it would encourage neighbours to share their cars, by choosing different days on which they would not park on campus.

Unlike the proposed permit system, these ideas give us more flexibility in the sharing of parking space. They are also socially responsible because their adoption would tend to reduce the contribution of the ANU to the congestion of inner Canberra by commuters'

cars. Schemes based on these ideas could be adopted at other large public institutions and in Civic; and they would reduce petrol consumption and atmospheric pollution. The ANU is part of Canberra. Surely we should use our own parking problems to experiment with ideas which could assist the city, as well as keeping our own backyard tidy?

Nigel Wace

MONEY FOR ARTS CENTRE

I was dismayed to read in the 9 June issue of the *Reporter* that the ANU Arts Centre was forced into debt by the amount of \$200 000 in order to complete the Centre, especially in light of the fact that the Staff Amenities Fund is apparently still bulging with money. Some months ago the caretakers of this fund conducted a survey to ascertain the most popular project for using the money and aiding the Arts Centre was one of the proposed projects. To the best of my knowledge the results of that survey were never released and the sizable fund still lies dormant while important and worthwhile projects like the Arts Centre are forced to borrow money commercially!

Larry Thibos

ANU CALENDAR 1978/79

The latest edition of *ANU Calendar* is now available from University Information Office. Inquiries: ext.2633/2229.

Product liability reforms

New Australian laws on product liability are part of a world-wide trend, according to Mr John Goldring, Senior Lecturer in ANU's Faculty of Law, SGS.

'Product liability', explains Mr Goldring, 'means the right of a consumer who suffers damages as a result of defective goods to obtain compensation from the producer of those goods'. Laws giving this right have been in effect in South Australia since 1974 and in the ACT since 1977, and will be introduced throughout Australia by amendments to the Trade Practices Act now being considered by the Commonwealth Government.

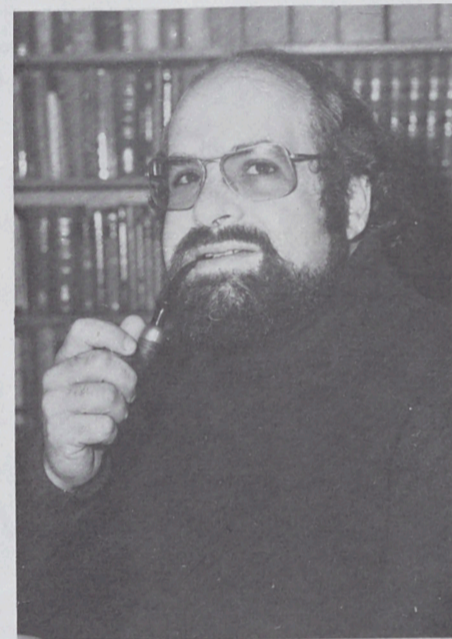
According to Mr Goldring, the Australian laws are in some ways an improvement on those which are being introduced in Europe because they allow compensation for a wide range of loss. However, only a consumer who enters into a contract is entitled to succeed against a producer under the Australian laws, while American and European laws allow *any* person who suffers certain types of loss to make a claim against the producer.

'Australian lawyers are too confined by common law divisions between tort (civil wrongs) and contract', Mr Goldring says. 'They do not seem to realise that people are suffering because shoddy goods are put on the market and cause injury. Nowadays retailers cannot control the quality of goods they sell and yet the law makes them, not the manufacturer, responsible for the damage. To some extent the new laws change this but another opportunity for legal creativity has been missed'.

Mr Goldring and a Melbourne solicitor, Mr Laurence Maher, have written the first comprehensive text on consumer protection law in Australia which will be published later this year. This book examines the question of product liability in detail. Mr Goldring has also published a number of articles on product liability law and he has some pertinent observations to make on this subject.

All consumer protection laws do involve extra costs, Mr Goldring points out. The question is always how to make these costs as low as possible and how to ensure they are met by those best able to insure against them: in the case of consumer goods, the manufacturer is almost always in the best position to bear the insurance premiums at the lowest cost for these are invariably passed onto the community. It stands to reason that if fewer people are required to insure against liability to consumers, the total insurance costs will be lower because of economies of scale.

Mr Goldring understands that there has been considerable opposition to the amendments to the Trade Practices Act from Australian



Mr Goldring

businessmen. He thinks this opposition is misplaced. Most businessmen take great pride in the quality of their products. However, if someone does suffer a loss because a product is dangerous or defective, the manufacturer, economically, is in a much better position than the consumer to bear the cost.

He points out that the Swanson Committee, which reviewed the Trade Practices Act in 1976, and the Senate Standing Committee on Legal and Constitutional Affairs, which reviewed the ACT legislation in the same year, both recommended laws to make producers of defective goods liable for loss or injury caused by those goods. The fact that similar laws have been introduced or are being considered by most developed countries which do not have such laws is also a strong reason why Australia should have such laws.

Mr Goldring points out that France has had such laws since the time of Napoleon and the USA for 50 or more years. The difficulties for manufacturers in those countries have been minimal and consumers have been much better protected.

The United Nations Commission on International Trade Law is also considering the question of product liability in international trade, Mr Goldring says. UNIDROIT (the International Institute for the Unification of Private Law) is involved in this work which may lead to a standardisation of rules. This could be important in the light of the large quantities of potentially dangerous goods that are sold from one country to another.

It is Sir Keith's 80th birthday



Birthdays celebrations recently for Sir Keith Hancock were organised by a committee comprising the Vice-Chancellor, Professor Low, and Professor Noel Butlin and Dr Dan Coward of RSSS. The function attended by some 100 persons, including Sir Keith's family members, friends, colleagues and former students. Pictured above are: top, Sir Keith joins in a song written for the occasion; bottom left, Sir Keith cuts the cake while Professor Low looks on; and bottom right, Sir Keith ... Both Sir Keith and Lady Hancock said they enjoyed the party very much.

Is fusion the answer

'If we cannot make fusion work satisfactorily, there is no alternative major source of energy for next century apart from a proliferation of fast breeder nuclear reactors', says Dr Sydney Hamberger, the recently appointed Head of the Plasma Research Laboratory at ANU.

Dr Hamberger hopes and expects that other forms of renewable energy sources, such as solar, wind and tidal, will be developed but he asserts that all proper studies show that these put together will be able to supply only a fraction of the world's needs. Fusion, he says, can in principle supply clean, safe energy in abundance. Already billions of dollars are being spent overseas on fusion research aimed at making thermonuclear power man's principal energy source in the 21st century.

Formerly Head of the Stellarator and Plasma Physics Groups at Culham Laboratory, in the United Kingdom, Dr Hamberger joined ANU as a Professorial Fellow in December last year to lead the plasma physics work at Canberra. The Plasma Research Laboratory with departmental status in the Research School of Physical Sciences, was established by Council earlier this year. A graduate of the University of London, Dr Hamberger was associated with Culham Laboratory from its formation in 1962, having worked in the same field at Harwell since 1958.

He concedes that ANU, or Australia for that matter, does not have the resources to compete with USA, USSR, EEC and Japan in developing fusion processes. 'Nevertheless we can do very useful research on the fundamental properties of high temperature plasma to help solve outstanding problems, devise new measurement methods, and influence progress by adding to the general pool of international knowledge on the subject', Dr Hamberger says.

'The Australian Atomic Energy Commission is now interested in fusion and has set up a Fusion Advisory Group including heads of university plasma research groups. There is increasing collaboration between universities and Lucas Heights. Two members of the Lucas Heights staff are now attached to ANU as Visiting Fellows and one or two more are expected to follow.'

Having come from a large laboratory, Dr Hamberger regards it as a challenge to help build up a small but influential one at ANU. However, he adds, the laboratory has an enormous asset in having the large homopolar generator which is uniquely capable of generating vast amounts of electrical power—an essential requirement for experiments on magnetic confinement of plasma.

Dr Hamberger is keen to bring home several Australian plasma physicists who are working overseas because of lack of facilities in Australia—he believes the laboratory has the potential of becoming a major national facility and will help to keep Australian talent here.

Australia's relatively insignificant position in the fusion race today is somewhat ironic

because the hydrogen isotope reactions which are the basis of all fusion research were discovered by Lord Rutherford, a New Zealander, and Sir Mark Oliphant, an Australian, working in the Cavendish Laboratory at Cambridge in the early 1930s.

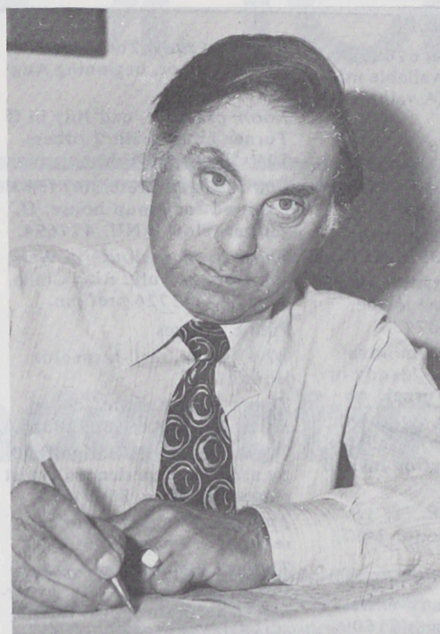
Australia played a pioneering role in plasma research from about 1960 but its efforts have remained almost static compared with enormous expansion throughout the rest of the world. In fact, the only tokamak, currently the most favoured basis for a fusion reactor, working outside USSR was here in the Research School of Physical Sciences during the 1960s.

In a tokamak a large current is passed through low pressure hydrogen gas in a toroidal vacuum chamber which sits inside a strong toroidal magnetic field. The current ionizes the gas (i.e. turns it into plasma), heats it up (typical temperatures in present experiments are about 10 million degrees; a reactor will operate at a 100 million degrees) and at the same time provides an additional magnetic field which helps to keep the hot plasma and its energy content insulated from the walls of the chamber.

This particular form of toroidal discharge was pioneered by the Russians during the late 1950s: by the late 1960s they were claiming very encouraging results concerning high temperatures and good heat insulation which were treated with some scepticism in the West. However, in 1969, a team from Culham was sent to the Kurchatov Institute in Moscow to make independent measurements which completely confirmed the Russian claims. This breakthrough led to a new spirit of optimism in the world fusion community, and to an explosive proliferation of tokamak devices of all sizes around the world.

At present there are four giant tokamaks being built in USA (Princeton), Europe (Culham), USSR (Moscow), and Japan; all are aimed at achieving reactor-like plasma conditions in the next few years. 'Such experiments are necessary not only to complete our understanding of the detailed behaviour of plasma at reactor temperatures, but to enable the vitally important technologies of fusion reactors to be developed', Dr Hamberger says.

Much work remains to be done but Dr Hamberger says that the world fusion community is optimistic. He describes the present research as a period of cautious optimism based on understanding of how plasma can be controlled by proper equipment design. This is very different from the late 1950s which he describes as a period of optimism based on ignorance. Once the technological development phase is completed, which experts predict will take at least another 20 years, the world can be assured of plentiful supplies of energy



Dr Hamberger

because there are almost inexhaustible quantities of raw materials.

Two types of hydrogen isotopes—deuterium and tritium—are required for the simplest fusion reactions. Deuterium comes from ordinary water and is readily available. Tritium does not occur naturally but can be produced in a secondary reaction from lithium, which is abundant in the crust of the earth.

Dr Hamberger says that the creation of a Plasma Research Laboratory as an independent group is significant in that it is a step in the right direction to put Australia back on the world fusion scene. The work at ANU was started by Dr A.H. Morton in about 1960 under Sir Mark Oliphant. It continued on a modest scale until 1964, when it was augmented by the introduction of the tokamak program (rather ahead of its time!) by Dr B.S. Lilley. On his departure in 1969, the plasma work would have closed down but for the enthusiastic support of Professor S. Kanefff who continued to fund it from the Department of Engineering Physics budget.

By 1972-73 it was belatedly realised that the work had actually been ahead of most other laboratories outside Russia, and the work was again considered sufficiently important to be funded modestly. The Review of the School in 1976 recommended the expansion of plasma physics research and its constitution as an independent group.

Although fusion remains the strongest motivation for the work at ANU, Dr Hamberger hopes to expand the activities of the Laboratory to include more fundamental studies of plasma physics and to plasma phenomena of astrophysical interest. 'After all', he says, 'almost all the matter in the Universe is in the plasma state, so it does make sense to study it properly.'

CONFERENCE ON ADULT EDUCATION

ANU's Centre for Continuing Education and the Asian-South Pacific Bureau of Adult Education have organised a one-day seminar on Monday 31 July on Adult Education and Development.

The Seminar will have as resource people eight adult educators from the Asian region who have come to Australia to participate in an Australian Association of Adult Education Conference.

Further information is available from Brendan O'Dwyer, ext.4754.

Ursula College celebrates 10th anniversary

This year marks the tenth anniversary of the official opening of Ursula College by Mr Malcolm Fraser who was then Minister for Education and Science, and two functions are planned to celebrate the occasion.

The first function is the Anniversary Ball to be held on 4 August at ANU Union and ex-residents are invited to contact the College before 28 July to reserve tickets. The second function is a reunion weekend in October, including a dinner at the College on 30 September.

Sister Angela Cooney, Principal of the College, says that since the College opened in 1968 some 1000 residents have passed through its gates . . . many of them quite literally.

'Whether the iron gates at the entrances to the courtyard were originally designed by some optimistic architect to keep young ladies in at night, they turned out to be a challenge to ladies both within and without to keep their waists slim and to "beat the system" which required them to be "home" by midnight', Sister Angela says.

'Change has characterised the past decade. From an Oxbridge-style College with formal dinners, academic gowns and domestic staff to clean rooms, Ursula has changed this year to a voluntary 2-hour work scheme designed to offset rise in fees caused by spiralling costs of labour. Formality has been reduced. In 1972 young men were officially admitted, and the gates have stayed open ever since.

'Despite the changes, the College life which past students remember with pleasure continues in essentially the same form as of yore.'

AUSTRALIA-CHINA TEACHER EXCHANGE

A vacancy for an Australian teacher of English as a foreign language will be available in China from August 1979 to July 1980. Applicants should be Australian citizens, qualified and experienced in the teaching of English as a foreign language, preferably at tertiary level. Applications close on 8 September.

Further information may be obtained from Ms J. Andersen on ext.4206.

Dr Rodgers (left) and Mr Hart examining some of the mirror mountings which are supported by 36 tonnes of the moving telescope structure.



Major renovations to the University's largest telescope — the 74-inch aperture telescope at Mt Stromlo — have almost doubled its life and greatly enhanced its astronomical observation capabilities at little extra cost.

The renovations were carried out by the Observatory's own engineering team consisting of Dr A.W. Rodgers, Professorial Fellow; Mr J. Hart, Chief Engineer; and Mr D. Irons, Draftsman. The group designed and manufactured various components in the mechanical workshop at Mt Stromlo over a period of two years and the change over to the new system was effected last month.

Dr Rodgers says that over the lifetime of the telescope of some 25 years, there has been an enormous increase in the efficiency of auxiliary instruments and the old design of the 74-inch telescope failed to meet modern requirements. In its original form, the telescope could be pointed at a given direction in the sky with an accuracy of five arc minutes which is equivalent to about one-sixth of the diameter of the moon.

Modern needs, Dr Rodgers says, are for a telescope to point with an error of only a few seconds and that is like aiming at and hitting a

2-cent coin from a distance of one mile. To achieve this in the case of the 74-inch telescope meant manufacturing new mountings for the auxiliary mirrors and aligning these with the 74-inch mirror and other smaller but more critical mirrors.

It is expected that the efficiency of the telescope will now increase by about a factor of two. Astronomers will no longer have to hunt around the area of the star they wish to observe to ensure its identification by comparison with star charts—they could zero on the star in minimal time for measurements to be taken.

'The limiting factors will now be the faintness of the star itself and the brightness of the night sky pollution produced by the Canberra city lights', warns Dr Rodgers. 'It is to be hoped that with the adoption of the street light filtering proposals made by the Observatory to the National Capital Development Commission and the improvements to the telescope, the scientific output will continue unabated.'

Classified

Next closing date: Thursday 20 July, publication date Friday 28 July.

For Sale

3 bar heater \$20, 6' double ss sink \$35. Davey 2283.

Beauty Mist rollers \$25. Orange crib \$18. High chair \$7. Bouncinette \$4. 2114.

Child's desk and chair \$20, large cot \$20, small heater \$8. Davey 2283.

Dimplex heater, 1500 watts, \$70. 319112.

Ercol armchair covers, red, \$10ea. Slazenger Challenge tennis racket, \$20. 4435/887154.

Guy's bike 27" and girl's bike 24" exc cond. 4078/543421ah

Kitchen setting, white table, 4 orange chairs. \$65. 2182.

Lambswool coat, lady's size 12-14, \$100. 478667.

Oil heater, flue, copper pipes and 100gal tank. \$50. 2307.

Oxford Junior Encyclopaedia, 12 vols, geographic encyclopaedia for children (Hamlyn), chess set. 816126.

Pentax Spotmatic SPf 1.4 camera, 135, 35mm lenses, electronic flash, filters, extension tube, bag. \$320ono. 2497/511100.

Raleigh folding bicycle \$130, Sanyo dolbie tape deck \$140, movie projector \$40. 4435/887154.

2 Safe n Sound seats with lambswool covers, yellow carry basket. 2114/491748.

Table, Namco, teak veneer, 4'x2½', 2 drawers. 4 Namco chairs. Best offer. 3514.

Cortina 1600, 71, 12 months' reg, exc cond, new radial tyres, \$1800ono. 888728.

Datsun sedan 1600 72, exc cond, \$1850. 4790.

Ford Fairmont, 70, 62000mls, radio, roof rack, available mid-July, \$1410(NRMA valuation) ono. 478703.

Ford Falcon XP 66, ACT reg to Sept 78, \$400ono. Owner going overseas. 4661/474110.

Holden Kingswood 68, s/wagon, 6 cyl, auto, 12 months' reg, new tyres. 2435/814576ah.

Mazda 808 auto, radio, long reg, 28000mls, one owner, logbooks, \$3500. 3743.

Mazda 1300 70, 8 months' reg, exc cond. 3626 Mandy or 36/24 Moore St, Turner.

Morris Marina, 73, 32000mls, one owner (woman), available late August. Inspection invited 816126.

Toyota Corona SE 71, 1st class cond, \$2400ono. 2497/511100.

Toyota Crown 69 14 months' reg, exc cond, many extras, owner going overseas \$1500. 3291.

Valiant s/wagon 67 white, exc cond, \$800ono. 492028.

House, Kambah, established colonial, 3br, ensuite, sep dining, family room. \$37000. 492028.

House, Kambah, 3br, 2bathroom, Willemsen designed contemporary, \$55000. 814993 bh/317506ah.

House, Melba, 4br, 2bathroom central heating, sundeck, carport, established. \$56000. 2177/582491.

250 acres bush Bredbo. Half or third share \$6000-4000. 2215 after 17 July.

Accommodation Available House, Aranda, 4br, furn, from Aug 30. 511100.

House, Curtin, modern furnished, suit couple. Aug for 6 months. 462585 9-1pm, 815431 evenings.

House, Hawker, available Aug and Sept, 3-4br, ducted heating, \$70pw. 4572/546729.

Person to share 2br university flat O'Connor, beginning August. Jim 3374.

Room available, end July in ff Turner house with 2 others. \$21. Jim 465354bh.

Third person, preferably female required for group house, ff, Turner, close ANU. 477694.

Third to share house in Watson from 24 July. Ring Chilla (female) 412726 pef pm.

Public Notices

Who is the real Inspector Hound?

Thesis typing done, cheap rates. Gai Carter, 887203ah.

Typing done on IBM golfball by accurate experienced typist reasonable rates. 886711.

Typing, efficient service, reasonable rates. 863302.

Typing, IBM golfball, essays, theses, manuscripts, etc, experienced accurate typist, reasonable rates. 473511.

Typing, IBM golfball, self-correcting machine. Theses, essays etc. 881376.

Typing, IBM Selectric, efficient service, theses, essays, etc. 477882.

Typing services, theses, essays, reports, etc, IBM golfball, A1 service, discounts. Mrs Bacon, 885524.

Typing, theses, essays, etc, IBM golfball. Mrs Walsh 497577.

Visiting Fellow mid-August-December requires 3br house south side to \$100/wk. 813474.

Above Fellow from Adelaide has 2 school children and 1 infant. Local references. 813474.

Dr Richard Davis, formerly of the RSPacS and Dept of Prehistory and Anthropology, has moved to the Dept of General Studies, University of New South Wales. He wishes to thank the ANU for a very pleasant four years.

September, main interests — anarche-capitalism, public choice, ecomorphology of nations, Coombs Bldg rm 3023, ext.3198.

Dr W. Hudson, Department of Foreign Affairs, Visiting Fellow in International Relations to September.

Professor J.N. Rosenau, University of Southern California, Visiting Fellow in International Relations to 5 August.

Dr A.J. Robson, University of Western Ontario, Visiting Fellow in Economics, SGS, until 12 August, main interests — theoretical urban economics, uncertain depletable resources, Copland Bldg rm 1049, ext. 3366.

Dr D.E. Roper, University of Utah, Visiting Fellow in Economics, SGS, during second semester, main interest — multi-currency monetary economics, Copland Bldg rm 1058, ext. 4376.

Mr P. Quartermaine, University of Exeter, UK, Visiting Fellow in Humanities Research Centre until September, main interest — Australian literature and the visual arts, A.D. Hope Bldg ext.2744.

Professor K. Athreya, Indian Institute of Science, Visiting Fellow in Statistics, IAS, until 31 July, Math Sciences Bldg ext.4460.

Dr W.T.M. Dunsmuir, Massachusetts Institute of Technology, Visiting Fellow in Statistics, IAS, until end August, Math Sciences Bldg ext.3753.

Dr D. Pollard, Yale University, Visiting Fellow in Statistics, IAS, until mid-August, Math Sciences Bldg ext.3394.

Professor D. Vere-Jones, Victoria University of Wellington, New Zealand, Visiting Fellow in Statistics, IAS, Math Sciences Bldg ext.4502.

search in Austria which do not necessarily have to be carried out at universities. Further information from Mrs J. Bergin, ext.4739.

Visitors in the University

Professor B. Glassburner, University of California, Visiting Fellow in Dept of Economics, RSPacS, until mid-December; main interests — developing countries, South and South East Asia especially Indonesia, rm 7101 Coombs Bldg, ext.3099.

Professor J.V. Bony, University of California, Visiting Fellow in Humanities Research Centre until mid-September, main interest — medieval architecture and sculpture, A.D. Hope Bldg, ext.2223.

Mr E.P.M. Dronke, University of Cambridge, Visiting Fellow in Humanities Research Centre until mid-September, main interest — medieval Latin literature in relation to the vernacular literatures, A.D. Hope Bldg, ext.3447.

Mrs U.M. Dronke, University of Oxford, Visiting Fellow in Humanities Research Centre until mid-September, main interest — ancient Scandinavian poetry, prose and mythology, A.D. Hope Bldg, ext.3447.

Professor D.H. Green, University of Cambridge, Visiting Fellow in Humanities Research Centre until end-September, main interests — medieval German and comparative literature, Germanic philology, A.D. Hope Bldg, ext.2063.

Professor D. Friedman, Virginia Polytechnic and State University, Visiting Fellow in Economic History RSSS on public-private sector interaction until

Diary of events

The closing date for diary notices is the Thursday week before publication, 20 July for the next issue which covers the period 31 July — 13 August.

Monday 17 July

Humanities Research Centre sem, Mr G. Watson — George Orwell and the language of politics, 12.30pm HRC reading rm, A.D. Hope Bldg.

Chemistry SGS sem, Professor A.N. Hambly — Swan song and other stories, 1pm, LT-L2.

Mathematics SGS sem, Professor S. Lang — title to be announced, 2pm Copland Bldg rm G3.

Psychology SGS Academic staff meeting, 3.30pm, Physics Bldg rm 206.

School of Applied Science CCAE, Van der Heide — Behavioural approaches in the treatment of alcohol abuse, 8pm staff rm, donation 50 cents.

Tuesday 18 July

Far Eastern History RSPacS sem, J. Jorgenson — The philosophy of early Ch'an, 11am, Coombs Bldg sem rm E.

Biochemistry JCSMR sem, Ms L. Langman — The structure of replicating T7 DNA, 1pm, sem rm 1.

Economics RSPacS sem, Dr R. Garnaut — Trade pressures from ASEAN countries, 2pm, Coombs Bldg sem rm B.

Philosophy RSSS sem, R. Brady — Two completeness proofs for RM3, 2pm, sem rm E Coombs Bldg.

Demography RSSS sem, Dr H. Ware and Dr D. Lucas — Use and abuse of public data, 3.45pm, sm rm A Coombs Bldg.

Humanities Research Centre sem, Professor M. Bloomfield — The function of poetry in early societies, 4pm, HRC reading rm A.D. Hope Bldg.

Wednesday 19 July Anthropology RSPacS sem, Mr P. Guinness — Unbanization and social relations in Yogyakarta (Indonesia) kampung, 9.30am, Nadel rm Coombs Bldg.

Medical Chemistry Group JCSMR sem, Dr G.B. Barlin — Synthesis, properties and reactions of Alkyl Pyrazines and N-Oxides, 11am, sem rm 1.

History of Ideas sem, Mr S.L. Goldberg — The moral elements in literary criticism: Matthew Arnold and the English critical tradition, 11am, sem rm A Coombs Bldg.

Friday 21 July Experimental Pathology JCSMR sem, Dr N.H. Hunt — Patho-physiology of renal carcinoma, 1pm, sem rm 1.

Philosophy RSSS sem, Professor P. Suppes — Qualitative axioms for space and time, 2pm, sem rm E. RSSS.

Monday 24 July Chemistry SGS sem, Dr T. Caine — ASTEC and Australian Science policy, 1pm, LT-L2.

Mathematics sem, Professor K. Ribet — title to be announced, 2pm, sem rm 105 Mathematical Sciences Bldg.

Behavioural Biology, RSBS, sem, Dr G. Bell — Interhemispheric interactions and memory in the domestic chick, 3.30pm, Physics Bldg rm 210.

Tuesday 25 July Physical and Theoretical Chemistry RSC sem, Dr J.H. Bradbury — NMR Spectroscopy of Biological Systems, 11am, rm 57 RSC.

Philosophy RSSS sem, Professor Z. Vendler — Factive performances, 11am, sem rm F. Coombs Bldg.

Far Eastern History RSPacS sem, J. Wong — The governmental schools in T'ang China and Nara and Heian Japan: a comparative study, 11am, sem rm E Coombs Bldg.

Economics RSPacS sem, Mr E.K. Fisk — Recent structural changes in the Malaysian rural economy, 2pm, sem rm B Coombs Bldg.

Demography RSSS sem, Dr L. Ruzicka — Marriage and divorce in Bangladesh, 3.45pm,

Inorganic Chemistry RSC sem, Dr A. Bos — Chemistry in Conservation, 11am, rm 134 RSC. Pacific and S-E Asian History sem, Dr A. Kumar — Mosque and palace connections in Java in the 1880s, 2pm, sem rm F Coombs Bldg.

History SGS sem, Dr H. Kinloch — What was so funny about 1968?, 2pm, rm 1133 Hayden-Allen Bldg.

Forestry SGS sem, postgraduate students describe their work, 7.30pm, inquiries ext 2579.

Thursday 20 July History RSSS sem, Keith Farrer — Food technology in nineteenth century Australia, 11am, rm 3004 Coombs Bldg.

Centre for Research on Federal Financial Relations sem, Professor W.H.N. Hull — Provincial federalism: an analysis of regional government in Ontario, 12.30pm, rm 2071 Copland Bldg.

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Demography RSSS sem, Dr L. Ruzicka — Marriage and divorce in Bangladesh, 3.45pm,

sem rm A Coombs Bldg. Humanities Research Centre sem, Mrs E. Jeffreys — Some questions concerning 12th century romances in Byzantium and France, 4pm, HRC reading rm, A.D. Hope Bldg.

Wednesday 26 July Anthropology RSPacS sem, Professor R. Keesing — Decision models revisited, 9.30am, Nadel rm Coombs Bldg.

History of Ideas sem, Mr Harry Redner — Nietzsche's conception of Nihilism, 11am, sem rm A Coombs Bldg.

Inorganic Chemistry RSC sem, Dr L. R. Gahan — Catalytic oxygenation of terminal olefins, 11am, rm 134 RSC.

Pacific and S-E Asian History, Dr H. Nelson — Another war book, 2pm, sem rm F Coombs Bldg.

History SGS sem, Ms L. Heath — Aspects of control in the female factories, 2pm, sem rm 1133, Hayden-Allen Bldg.

Classics Dept sem, Professor Charles Segal — The Myth of Orpheus and the Magic of Language: Plato, Virgil, Ovid, Milton, Rilke, 8pm, rm G51 A.D. Hope Bldg.

Thursday 27 July History RSSS sem, Alan Mayne — Smallpox in Sydney 1881, 11am, rm 3004 Coombs Bldg.

International Relations RSPacS sem, Professor J.N. Rosenau — The tourist and the terrorist: two extremes on a transnational continuum. Sem rm B Coombs Bldg.

Joint Organic Chemistry RSC sem, Dr L. Lombarde — Bicyclic anti-aromaticity, 11am, rm 134 RSC.

AFUW-ACT General Meeting, Ms Anneliese Stucki will speak on Afghanistan, 8pm, Common Rm Research School of Chemistry, inquiries ext.2322.

Friday 28 July Development Studies Centre sem, Professor R.G. Ward, Dr D.W. Drakakis-Smith and Dr T.G. McGee — Some thoughts on development in the New Hebrides, 12.30pm, sem rm I Block.

Experimental Pathology JCSMR sem, Dr G.I. Schoeffl — Vascular supply of Peyer's Patches in mice, 1pm, sem rm 1.

Saturday 29 July Biogeography and Geomorphology RSPacS symposium, Aeolian materials, forms and processes in Australia, 9.30am, sem rm Life Sciences Bldg, notify ext.4361.

Awards and Fellowships

Hungarian Scholarships: closing date 14 July.

Harkness Fellowships for study in the US: closing date 21 July.

E.H.C.D. Fellowships: closing date 28 July.

University of Queensland, Ernest Singer Scholarship: closing date 15 July.

Nestle Paediatric Travelling Fellowships: closing date 17 July.

The Adult Spivakovsky Scholarship for the Composition of Music, 1978: closing date 19 August.

Further information from the Careers and Appointments Office, Chancelry Annex, ext. 3593.

Conferences Meetings Seminars

The University has received notice about the following conferences, meetings, seminars etc:

Computers in Engineering conference, Parkroyal Motor Inn, Canberra, 23-25 August.

Contest of Medical Films, 4th international contest from 22 to 26 November in Marburg/Lahn, Germany.

Personnel Management Practices, national conference and workshop at Massey University, Palmerston North, New Zealand, 7-11 August.

Some further information about the above may be available from University Information, ext.2106/2229.

The Austrian Federal Ministry for Science and Research is offering short term studies or re-

Briefly...

WORONI. A collective of eight people has taken over the editorship of *Woroni*, the ANU Students' Association newspaper, from Phil Dickie. They are Sally Blackwell, David Browne, Steve Doyle, Suze McKenzie, Drew Meek, Virginia Murray, Beth Patterson and Meg Rodgers. The collective plans to keep *Woroni* accessible to a wide range of student contributions. The next issue of *Woroni* will be published on 19 July for which the copy deadline is 12 July.

NATIONAL LIBRARY. The Australian National Scientific and Technological Library (ANSTEL), a branch of the National Library of Australia, is offering a wide range of services based on computerised information retrieval systems to improve Australian access to the world's scientific and technological literature. The National Library can also access data bases on economics, finance, education and other subjects by direct dialling into American computers. Further information: (062) 621548.

WAITERED LUNCH. The recently introduced 'waitered' lunch time service in the Union's Bistro Extension will continue to be provided Monday to Friday, from 12 noon to 2pm. Tables may be booked by telephoning the Union on ext.2446. The service is open to all members of the University.

SCHOOL ROAD. The School Road access between Ellery Crescent and Childers Street has been reopened. To assist traffic flow on this route 'No Parking' signs will be erected on the western kerb of Ellery Crescent opposite the junction with School Road.

US RESEARCHER. The National Multiple Sclerosis Society of the USA has awarded a two-year postdoctoral fellowship grant to Dr Mark L. Berger to work at ANU. He is a resident in neurology at the Johns Hopkins Hospital, Baltimore. Dr Berger, under the supervision of Dr G.L. Ada, Professor of Microbiology in the John Curtin School of Medical Research, will study techniques needed to elucidate the interrelationship between viral pathogenesis and cellular components of the immune system.

FIRST UNIVERSITY SERMON

The first University Sermon will be preached in John XXIII Chapel on Sunday 23 July during an ecumenical service beginning at 7pm. The preacher will be Father Eric d'Arcy, Chairman of the Department of Philosophy, University of Melbourne, who will speak on the life of Sir Thomas More. The ANU Choral Society will sing. Everyone is welcome. Tea and coffee will be served after the service.

Donations to the sermon fund, to meet the costs of visiting preachers, may be sent to Mr Alan Bunsell, c/- Menzies Library.