

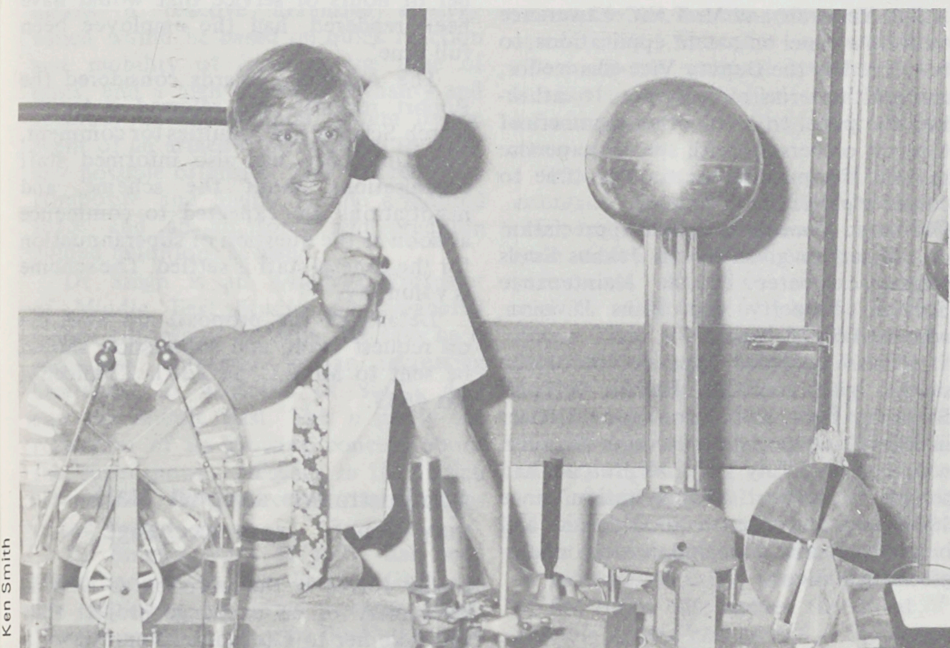


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New dimension to study of science



Dr Gore lecturing to ACT secondary college students during the Science Faculty's Information Day.

A new dimension will be added over the next two years to the educational facilities available to ACT school students. This will be the establishment of the Questacon, a project which began on the ANU campus and which is aimed at stimulating an interest in science by presenting scientific and technological concepts in a simple but imaginative manner.

Initially, the Questacon will be for the exclusive use of school children but the man behind its inception, Dr Michael Gore, Senior Lecturer in ANU's Department of Physics, hopes that it will eventually be a community-wide asset.

The idea of the project developed as a natural extension of Dr Gore's dynamic interest in teaching. He put the project to the Australian Schools Commission and was awarded a grant under its Innovations Program to get it launched. Since then other ANU departments and many organisations outside the University have offered assistance to help get the project established.

Support has already come from the Canberra College of Advanced Education, the Bruce and Canberra TAFE Colleges, the Faculty of Military Studies at Duntroon, CSIRO and the Bureau of Mineral Resources. Dr Gore has also been canvassing both industry and business firms in Canberra and further afield in a quest for equipment and materials to build the exhibits. In some cases he has also sought specialist exhibits associated with a firm's particular area of expertise.

In setting up the Questacon, he is aiming at the widest possible community involvement. This he believes will benefit not just the project itself, but also the University. 'In these days when more and more people are questioning the traditional role of universities in society it is essential that ANU should identify more closely with the needs of the community', he comments.

'There are many ways in which this objective is being met but the special

merit of the Questacon is that it will carry aspects of the work of the University to the individual in the community. It will show interested people, on a personal basis, what it is that scientists are involved in and as well it will give people the immense satisfaction of discovering things for themselves.'

Exhibits fulfill inborn curiosity

For several years now there has been discussion on ways of developing a science centre in the national capital. Evidence of potential support has been provided by the enthusiastic response from the public given to the 'Australia 75' science festival and more recently to the 'Science in the Round' exhibition staged at the Australian Academy of Science.

In recent years overseas science centres and museums which have incorporated exhibits of a similar participatory nature to those envisaged for the Questacon have proved extremely popular. They appear to provide people with a way of fulfilling an inborn curiosity about the different branches of science which have an ever increasing impact on their daily lives.

This participatory philosophy will be used in the design and construction of exhibits for the Questacon and in most cases will require the visitor to do more than simply push a button. However, the relative ease with which this philosophy can be applied varies considerably from

one discipline to another. Dr Gore wants a balance in the topics covered but admits that while there is no real problem to dream up countless ideas for exhibits based on the physical sciences, it is not quite so easy for him to come up with those relating to other disciplines.

'To overcome any possible imbalance, I have been seeking suggestions from colleagues working in other fields,' he says. 'I see the project as being a creative one in which the imagination of individuals will provide many exciting concepts for the community. There is a wealth of talent, creativity and originality on this campus. I hope at least some will be prepared to share it with the children — and later the public — who will come to the Questacon.'

'Some of the exhibits will simply give students a practical demonstration of scientific principles; some will provide explanations of natural phenomena; others, I hope, will give them a greater insight into the world they live in and the universe which surrounds them.'

The Questacon will be born and nurtured, initially at least, on a shoe-string budget. Its administration and staffing present certain difficulties, but one way of overcoming such considerations, would be to implement an overseas technique — that of using science students from the high schools, colleges and tertiary institutions in Canberra to act as 'explainers'.

Not only could the students be on hand to offer help and advice, but they could also safeguard the exhibits from the inevitable but hopefully few destructively inclined visitors. The scheme would have the advantage that in return students would develop their own understanding and skills.

Retired people could share skills

Another possible source of assistance might come from the band of retired people in Canberra who have worked in scientific or technological fields. During their careers these people developed particular skills which they could share with the community in an entirely different way. Dr Gore says that many of them still have a great deal they could contribute and he believes that it could be a satisfying experience for them if they could be encouraged to act as custodians at the Questacon, perhaps on a half day once a week basis.

Dr Gore recognises that even at this early stage of the project, steps must be taken to find ways of ensuring that the Questacon remains a permanent feature of the Canberra scene. 'The Schools Commission funding is only a very temporary measure of two years', he says. 'After that the venture must either stand alone with support from government or industry or perhaps become part of a more extensive and comprehensive enterprise such as the proposed National Science Centre'.

Either way Dr Gore visualises that eventually there will be a wider role for the Questacon, for participatory exhibits are only one aspect of such a centre. Other facets could include displays of items of scientific and technological historic importance in the traditional acquisitional role of a museum, and another would be to act as a public forum.

The forum aspect of a science centre is of particular value today and the Canberra public has in the past responded readily to the opportunity to question and discuss the impact of scientific and technological changes, Dr Gore says. He points to the success of some ANU and Academy-sponsored programs such as those on lunar and Mars exploration. There could be several other subjects such as the development of alternative sources of energy, the impact of social and moral issues associated with genetic engineering, the exploitation of Antarctic resources, and the potential loss of privacy as more governments and other agencies made wider use of data supplied by satellites orbiting the earth.

Need for centrally located site

Another function of the Questacon could be to act as a 'shop window' for organisations such as the Bureau of Meteorology and the National Biological Standards Laboratory and CSIRO. If aspects of the implications of their research result and daily work could be displayed, people would have a much wider insight into the importance of continued support for such groups.

A lot of thought had been given to finding a distinctive and unique name. The idea, he says, had come from Dr Chris Bryant of the Department of Zoology and is a combination of the words quest 'to seek' and con 'to study'. Dr Gore is now investigating several possible sites to provide the necessary 'maternity quarters' for the Questacon. He believes that it must be located centrally in Canberra so as to be convenient for both ACT students and also the many interstate school parties which annually visit the national capital. He has been discussing the matter with ANU, the Department of the Capital Territory and the ACT Schools Authority.

Dr Gore is well aware that an ideal permanent site will not be found until the Questacon has proved itself but he is determined to secure the best temporary quarters that are available. 'As far as I am aware', he says 'this is the first time that any Australian Government agency has provided funds for a long awaited science centre, and its initial location will have much to do with its success'.

Conferring

The Chancellor, Sir John Crawford, will preside at conferring ceremonies to be held on Thursday 13 September and Friday 14 September. The ceremonies will be held in the Hall of University House, starting at 4 pm.

On Thursday 13 September, degrees will be conferred on candidates in the Faculties of Arts, Asian Studies, Economics and Law; and on Friday 14 September, on candidates in the Faculty of Science and all Research Schools.

At the Friday ceremony the Chancellor will confer the honorary degree of Doctor of Science on Emeritus Professor Sir Rutherford Robertson.

Council

Items considered by the Council of the Australian National University on Friday 13 July 1979 included those mentioned below.

Membership of committees. Council appointed Mr A.C. Copeman and Mr W.A. Park to Standing Committee and Finance Committee of Council respectively.

Honorary Degrees Committee. Council approved appointments to the Honorary Degrees Committee, with effect from 13 July 1979, of Senator P.E. Rae as Member and Mrs M.E. Reid as Alternate Member in place of Mr P.M. Ruddock, whose term expired, and Sir William Vines, who resigned.

Queen's Birthday Honours. Professor A.J. Birch, Professor of Organic Chemistry, Research School of Chemistry, has been made a Companion of the Most Distinguished Order of Saint Michael and St George (CMG). Emeritus Professor W.D. Borrie, Visiting Fellow in Sociology and former Professor of Demography and Director of the Research School of Social Sciences, has been made a Commander of the Most Excellent Order of the British Empire (CBE).

Vice-Chancellor's report. Council noted the Vice-Chancellor's report on his recent visit to Japan, together with two other Vice-Chancellors, Professor R.H. Myers of the University of New South Wales, and Professor R.L. Martin of Monash University.

Professor Low emphasised that over the next decade there should be developed as close a connection between Australian universities and Japanese universities

as presently exists between Australian universities and North American and European universities.

The Australian and Japanese university systems had some particular characteristics in common, the Vice-Chancellor said. These turn on their shared position within the eastern hemisphere. Traditionally they had each seen the great centres of learning as lying half a world away; they each had to be cautious that they were not overbearing in their relations with the universities of Southeast Asia; and they were each currently exploring the new situation in China.

The Australian and Japanese universities had therefore much more in common than either party had generally realised and over the coming years this commonality should provide a very good basis for far more interaction between them than had existed hitherto.

General Services Fee. Council approved the allocation of the 1979 General Services Fee moneys to each of the recognised student organisations on a pro-rata basis with the size of their membership fees as previously approved by the Council, and with the number of students eligible for membership or association with the organisations.

The Vice-Chancellor was given the authority to approve payments to the organisations subject to the ANU Students' Association or the ANU Research Students' Association Incorporated being informed that they should not pay affiliation or membership fees to the Australian Union of Students until the matter of payments by student organisations to the Australian Union of Students had been determined by the Council.

The Vice-Chancellor was invited to seek the advice of the Presidents of the Students' Association and the Research Students' Association Incorporated and of the Council's General Services Fee

Advisory Committee, and to bring to Council recommendations relating to the payment of General Services Fee moneys to the Australian Union of Students.

ORAM to continue. Council received the Report of the Review Committee of the Office for Research in Academic Methods. It approved the Committee's recommendation that ORAM should continue.

Budget cuts in SGS. Council noted a resolution by the Board of the School of General Studies about budget cuts in ANU, and therefore the School, and agreed to take it into special account when considering the 1982-84 triennial submission.

Far Eastern History. Council appointed Dr E.S. Crawcour, Professorial Fellow in the Department of Far Eastern History, RSPacS, Acting Head of that Department until 30 June 1981.

Patents Committee. Council approved the disestablishment of the Patents Committee. It invited Professor A.J. Birch, Mr A.J.R. Yencken, and Mr T.F.C. Lawrence to form a panel on patent applications, to be chaired by the Deputy Vice-Chancellor, and set the terms of reference. It authorised the panel to invite other members of Council or persons with special expertise to join the panel from time to time to consider particular inventions.

Obituary. Council recorded appreciation of the service given by Mr Jakabs Emils Lapsa, carpenter in the Maintenance Section, Property and Plans Division, who died on 13 June 1979.

It also recorded appreciation of the service given by Mr Frank Anthony Butcher, Fees and Enrolments Officer in the Student Administration Section, who died on 5 July 1979. Mr Butcher had served in student administration since 1964 and had been a good friend and helper to many past and present undergraduate students.

Views sought on fractional full time staff appointments

The University is inviting views from academic and general staff on fractional full-time staff appointments with tenure, superannuation and long service leave entitlements.

The proposal to consider the feasibility of fractional appointments originally arose from the Bramley-Ward Report on 'The Role of Women in The Australian National University' and Council established a Working Party to investigate it.

In its Report to Council, the Working Party has defined fractional full-time employment as 'a type of employment where the salary payable, the qualifying period of service to accrue long service leave, recreation leave, sick leave, superannuation and all other benefits are assessed on the proportion which the total number of hours of service rendered by the employee bears on the total number of hours of service that would have been rendered, had the employee been full time'.

The Academic Boards considered the Report recently and referred it to Research Schools and Faculties for comment. The University has also informed staff organisations about the scheme, and negotiations are expected to commence as soon as the question of superannuation for the general staff is settled. The scheme is voluntary.

Details of the proposal are available on request from, and submission should be sent to Mr E.C. de Toth, Chancery, ext 4643.

Administrative support staff may benefit from exchange

Lesley Hayes is the initiator as well as beneficiary of an exchange project that will take her to Canada next month for a year. Her opposite number, Bari Hall, at Carleton University, Ottawa, will take her place at ANU for a similar period.

If the project proves successful, it could pave the way for future exchanges of administrative support staff between the two universities. Departmental Secretary in Sociology, SGS, Ms Hayes is looking forward not only to working in a different environment, but studying different secretarial and administrative procedures as well.

Ms Hayes is particularly hopeful the exchange will be successful as she is interested in university administration and continuing her career within the university. She finds her present job most satisfying and says she is deeply interested in the areas of research the Department pursues. 'I find the job interesting because the work I am doing brings me into contact with research into areas ranging from migration issues to community health and support. The work is varied and the research of the Department is about important issues in contemporary society', she says.

'It is not surprising that an innovation of this sort has originated in Sociology, SGS, as in that Department the administrative support staff are actively involved on departmental committees and encouraged to give their views on a wide range of issues'.

It is through academic visitors to the Department that Ms Hayes developed the idea of such an exchange scheme. Professor Frank Vallee, Professor of Anthropology and Sociology at Carleton University, who was visiting ANU in 1978, showed great enthusiasm for Ms Hayes' idea and whilst here initiated correspondence and on his return to Carleton organised the project from that end. At ANU the idea had the full support of the Head of the Sociology Department, Professor George Zubrzycki. The project, no doubt, will be watched with interest by both universities, and Ms Hayes has been asked to submit a report to the University on her return.



Vladimir Stojanovic

Left: Professor S. Nurul Hassan (left), Professor of History at Delhi University and a former Education Minister in the Government of India, recently visited ANU as a guest of the Department of Asian Civilizations. Professor Hassan lectured at several major centres in Australia and gave seminars at ANU. He is pictured here with Dr Mohammed Ayoob, Senior Research Fellow in the Department of International Relations.

Letters

Qantas to bring overseas speaker

I should like to have it noted that Professor H. Becker, the distinguished overseas speaker at the University House Silver Jubilee Wine Symposium, is being brought to Australia not by Lufthansa, but by Qantas. University House is grateful to Qantas for supporting Professor Becker's visit, which is being widely welcomed throughout Australia.

Ralph Elliott
University House

University still trying to be all things to all people

There has been a clear change in undergraduate approaches to study since 1977. The previous pervasive idea of maintaining 'pass' level results has been altered by the increasing difficulty and competition in achieving a job after graduation. Social change appears to have had beneficial effects on the academic aspirations of students at ANU.

Unfortunately, this concern with learning has apparently been marred in some areas with a gradual lack of concern by staff to prevent a decline in rigour of education. This is reflected in the faculty reviews by the Board of the School of General Studies and the debate on

standards in several departmental committees last year.

An incremental change in attitude towards students by some departments, perhaps partly stimulated by the concern with Weighted Student Units (WSUs), has resulted in the ready granting of deadline extensions, essay choices resting wholly with the student and in cases compulsory consultation with students on assessment procedures. The following statement is typical: a lecturer stated that whilst he had a 'concern for academic excellence', he would recognise that pushing too much for academic excellence meant losing too many students...

The University, as was once possible, is still trying to be all things to all people. The two percent cut in education spending will mean that in the region of \$70 million will be removed from the tertiary sector's budget. New financial constraints will necessitate that the University should clearly define its role in society. Heads of expenditure will have to be carefully planned to follow the University's policy on role maintenance.

If the University's integrity as an undergraduate and research centre of learning is to be maintained or improved, non-academic and non-essential expenditure could well suffer. But where must expenditure and reductions be made? This will prove to be a tough if not

insoluble problem but one which soon has to be addressed at all levels of administration.

I see the University as having a complex role but with one strong central theme. This theme is of the vigorous pursuit of knowledge and academic development. It is the problem of reconciling this with society's needs and expectations that will prove to be difficult to solve.

Philip Eliason
Undergraduate Member
on University Council



Ms Hayes

Chi Chi Beaton

Quick reaction capacity vital for defence

There are some similarities between the defence and strategic problems faced by Australia and the Persian Gulf countries, says Dr K. R. Singh, Visiting Fellow in ANU's Strategic and Defence Studies Centre. Both areas are characterised by sparse populations and large areas of land, most of which is not productive.

Australia, Dr Singh says, has the advantage of being technologically advanced and hence it has a much greater capacity to fit into the Western defence system. But Australia's limited human resources impose on it the same limitations as those faced by the Gulf countries. And, so, like Gulf countries, Australia too needs to develop a quick reaction capacity.

By quick reaction capacity Dr Singh means a reactive defensive strategy which would be based on quick reaction and mobility of force at the time of crisis, and a high degree of lethality and accuracy of the weapon system in the event of an armed confrontation to blunt any possible offensive. This will require a composite and highly mobile armoured force and an air force and precision guided munitions as well.

Dr Singh is an Associate Professor of Middle East Studies at Jawaharlal Nehru University in India. He says he is pleasantly surprised by an increasing awareness in Australia of South Asia and the Middle East. This is partly the reflection of its growing concern about the super power presence in the Indian Ocean and the impact of the oil crisis in the West.

Dr Singh's work at ANU has been based largely on the Persian Gulf and the problems of arms control there. 'There are too many arms floating around in that area, both in terms of quality and quantity', Dr Singh says. But the Iranian revolution, he feels, may help to promote arms control in the area. The situation clearly shows that without an indigenous technological base even a comparatively advanced country like Iran cannot service modern weapon systems.

The events in Iran may also have a restraining influence on the flow of arms to the Gulf from other countries.

Dr Singh looks at the question of arms control in the Gulf region from four main angles: the surplus arms theory, the question of systemic and national security, the role of precision guided munitions and other weapon systems in a reactive defensive strategy, and finally the interaction of arms control and the machinery of crisis management and conflict resolution in the area.

The level of forces estimated to provide military security depends very much on the appreciation of the ruling elite of a country and its allies and advisers. Dr Singh argues that often the real or potential threat is magnified to justify and rationalise the massive inflow of sophisticated arms. This has a destabilising effect on the recipient country if it is lacking in technological and industrial infrastructure and adequately trained manpower.

This gap, as in the case of the Gulf countries, can only be bridged by importation of foreign personnel on a large scale which has social and political repercussions. Moreover such personnel may be withdrawn or leave in an emergency. There were about 20,000 American personnel directly connected with the Iranian military program. Most of them left during and after the revolution, thereby leaving a big gap in the Iranian military capability.

Dr Singh says that unlike the developed countries, most of the less developed countries are concerned with the question of systemic security, that is the survival of the ruling elite against the threat of a possible *coup d'etat* as well as the dangers of insurgency. Military operations conducted to neutralise these threats are of low level and most of the Gulf states have adequate capability to contain such threats until a political settlement is reached. Additional arms to these countries cannot be justified on that account.

While most of the Gulf states have



Mike Finn

Mr Singh

adequate weapons and military training for anti-insurgency operation, not all of them have sufficient strength to halt a determined and sustained military attack by a more powerful country, Dr Singh argues. They will have to rely more on a reactive defensive strategy, as mentioned earlier, rather than on a conventional defensive strategy, till the crisis management mechanism has a chance to play its role.

However, Dr Singh says that suggestions for arms control are meaningless in the absence of a viable mechanism for crisis management and conflict resolution. Such a mechanism can be at the level of the United Nations, the Arab League or even within the framework of the Gulf sub-system. Such organisations, with all their limitations, have played a useful role from time to time. The question of creating an effective mechanism rests essentially with the Arab states of the region.

Given the will, it should not be too difficult to create even a permanent Gulf secretariat and a standby Gulf defence force on the pattern of the United Nations Emergency Force (like in Sinai) to act as a buffer between the conflicting states.

Briefly ...

Conference on Indochina refugees. A senior member of the Hong Kong Government is to put the colony's point of view on the Indochina refugee situation at a public conference at ANU on 30-31 July (see *ANU Reporter* 13 July 1979). Sir Jack Cater, Chief Secretary of the Hong Kong Government, is coming to Australia specially to take part in the two-day conference which is being organised by the Department of International Relations, ANU.

Senate committee invites submissions. The Secretary of the Standing Committee on Education and the Arts, Australian Senate, is inviting submissions from members of the University on an inquiry into the effectiveness of Australian schools in preparing young people for the workforce, with particular emphasis on literacy and numeracy. Submissions should be forwarded to reach the Secretary's Office, Parliament House, by 31 August 1979.

J.G. Crawford Prizes. The winners of the 1978 J.G. Crawford Prizes are Dr Adrienne Ruth Hardham of the Department of Developmental Biology, RSBS, for her PhD thesis 'Microtubules and morphogenesis in *Azolla pinnata* roots', and Dr Howard Morphy of the Department of Prehistory and Anthropology, SGS, for his thesis 'Too many meanings: an analysis of the artistic system of the Yolngu of northeast Arnhem Land'.

Listening and helping skills. A two-day workshop for students — to improve communication skills, focussing particularly on listening and responding to others — will be held in the Counselling Service Group Room on 28-29 August. The leaders will be Margaret Evans and Geoff Mortimore. If you want to find out more about the group, ring Margaret on 49 2442 or Geoff on 49 3661. There will be a registration fee of \$1. Numbers will be limited. Closing date 15 August.

School Holiday Program. ANU School Holiday Program, catering for school-age children of University staff and students, will run as usual at 20 Balmain Crescent from 27 August to 7 September. The closing date for enrolments is 15 August. Inquiries: S. O'Neill ext 4365 (am) or A. Dargan ext 3616.

Lunchtime chamber concert. Musica da Camera, a baroque chamber group conducted by John Stinson, will give a lunchtime concert in the Arts Centre on Thursday 2 August at 1pm. The programme includes concertos by Handel, Vivaldi and Corelli, as well as Bach's Violin Concerto in A Minor with soloist Margaret Anderson. Inquiries Arts Centre 4787.

Intervarsity squash. The 1979 intervarsity squash competition is being held in Adelaide from 25 August until 1 September. It is envisaged that ANU will send two teams, one male and one female, with 6 players each. Further information is available from Jenni Eason, ext 3434 or 3445.

Fun run reminder. The Sports Union will be conducting a 6kms fun run around the campus grounds on Friday 10 August at 4pm (see previous notice and map in *ANU Reporter* of 22 June 1979). Those interested in joining may collect entry forms from the University Sports Centre. Further information is available from Robert McMurtrie, ext 2860.

Reporter publication details

ANU Reporter is published on the second and fourth Fridays of each month. The next issue will be published on Friday 10 August, for which the copy closing date is Thursday 2 August, am. Inquiries: Madan Nagrath, ext. 4170/2229.

Educators find program unique

Sumalee Sungsi, currently attending a Fellowship Program in continuing adult education at ANU's Centre for Continuing Education (CCE), finds it a very worthwhile experience to meet people from different cultural and socio-economic backgrounds, to find out how they organise non-formal education in their own countries, how they formulate programs for adults and how they co-ordinate their efforts with other related institutions.

Represented at the program have been adult educators from Australia, Fiji, Hong Kong, South Korea, New Zealand, Papua New Guinea, Western Samoa, Sri Lanka and Thailand. The program is the first of a series of four yearly programs being organised by CCE with substantial financial assistance from the W.K. Kellogg Foundation of the United States.

Ms Sungsi, who has been attending the program for the last four months, is from the Non-formal Education Department in Thailand. A Kellogg Fellowship enabled her to come to Australia and she has already visited several adult education centres in this country. She feels that although the problems of non-formal education in Thailand are different and more rural oriented, many of the methods applied here will be useful when she returns home later this year, particularly in program planning and methodology.



David Fetherston

Some of the participants in the 1979 Kellogg Fellowship Program being run by CCE are from l to r: Miss Sumalee Sungsi (Thailand), Mr Wong Shiu-gun (Hong Kong) and Mr Edward Bare (Papua New Guinea).

Another participant in the program, Dr W.M.K. Wijetunga from Sri Lanka, described the program as 'a unique experience in cross-cultural study and exchanges'. He adds, 'What may have created the most abiding impression on most participants could be the innovative and participatory approach of CCE towards the planning and organisation of the workshop and the entire program; the program could also lead to the forging of closer and more intimate links between the Asian-Pacific region and CCE'.

The program coordinator, Ms Roslyn Engledow, says the program is providing learning opportunities for fourteen overseas persons — eight on a short term and six on a long term basis. The program

includes workshops in the major areas of continuing education, field studies and practical projects, and work on a major subject relating to the Fellow's own working situation at home.

CCE, with its close association with the Asian-South Pacific Bureau of Adult Education, has liaison with adult educators and allied institutions in most parts of Asia. Overall, it aims to enhance the practical performance of those who are in or moving into key roles in adult or non-formal education in their respective countries. It is expected that such programs will help to strengthen the regional network of Asian and Pacific adult educators.

Diary of events

Next closing date for diary items is Thursday, am, 2 August, which covers the period 16 to 29 August. Items must be submitted on printed forms which are available on request.

Wednesday 1 August

Research School of Chemistry Inorganic Chemistry sem, Dr B.N. Noller — Metals in the atmospheric environment, 11 am, rm 134 RSC.

Botany SGS sem, Ms P.K. Barker — Growth physiology of multiple bud cuttings in Eucalyptus ficifolia, 1pm, sem rm Botany.

History SGS sem, Mr Keven Fewster — Censorship and conscription in Australia, 1916-17, 2pm, rm 1113 Haydon-Allen.

South Asian History RSPacS sem, M. Waffon — The socialist in India: the establishment of the Bombay base, 3.30pm, sem rm A Coombs.

Research School of Chemistry graduate lecture series, Dr J. Singh — The theory of radiationless transitions, 3.30pm, rm 57 RSC.

ANU Public Lecture, Australia's forests series, Dr L.T. Carron — Forestry in the Australian environment: the background, 8.15pm, Coombs LT.

Thursday 2 August

Human Geography/Development Studies Centre special sem, Prof John Friedman (Univ of California) — Readings from *The Good Society*: a personal account of its struggle with the world of social planning and a dialectical inquiry into the roots of radical practice, 10.30am, sem rm C Coombs.

Research School of Chemistry Joint RSC, SGS and CSIRO sem, Mr A. Hinde — Theoretical studies on the birch reduction, 11am, rm 134 RSC.

International Relations RSPacS sem, Prof W. Fox — The Salt II debate and American public opinion, 11am, sem rm B Coombs.

Chinese Dept and Contemporary China Centre — Film in Chinese: *Special express train*, 1pm, Coombs LT.

History RSCS sem, Dr C. Cunneen — Rugby football in NSW, 11am, sem rm D Coombs.

AFUW-ACT general meeting, Mrs Bev Cains — My role in the House of Assembly, 7.45pm, com.rm RSC. Visitors welcome, inquiries ext 2322.

Friday 3 August

Political Science SGS sem, R. N. Berki — Political necessity, 11am, rm 1004 Arts III.

Forestry sem, Prof D.M. Griffin — Forestry in Bangladesh, 1pm, rm 103 Forestry.

Research School of Chemistry graduate lecture series, Dr J. Singh — The theory of radiationless transitions, 3.30pm, rm 57 RSC.

Japanese film evening, Films in Japanese with English subtitles — Japan in the news, 1978 and Castle of sand, 7.30 pm, Coombs LT.

Sunday 5 August

Burgmann College, Burgfilms — Summer of '42, 8pm, dining rm Burgmann College.

Japanese Asian Studies, The 10th Annual Japanese Language Speech Contest, 9.30am, Hall of University House.

Monday 6 August

Chinese Dept and Contemporary China Centre, Film in Chinese — *Special express train*, 7.30pm, Coombs LT.

Tuesday 7 August

Germanic Languages sem, Dr Michael Butler (Birmingham Uni) — Reflections on mortality: Max Frisch's last play *Triptychon*, 10am, rm 2143 John Dedman.

Pacific & SEAsian History RSPacS sem, Dr Ives Manquin — New light from Portuguese sources on Southeast Asian History, 2pm, sem rm F Coombs.

Demography RSCS sem, Dr Peter McDonald — A report on the population program in Indonesia, 3.45pm, sem rm A Coombs.

Political Science RSCS sem, Dr D.W. Rawson — Unions in politics — the working class movement or the new corporatism, 4pm, sem rm D Coombs.

Wednesday 8 August

Botany SGS sem, Mr D.J. Coates — Cytoevolution in the scale leaved trigger plants, 1pm, sem rm Botany.

History SGS sem, Dr Pierre-Yves Manguin (Ecole Francaise D'Extreme-Orient, Jakarta) — French scholarship on Southeast Asia, 2pm, rm 1113 Haydon-Allen.

South Asian History RSPacS sem, Dr John McGuire — An approach to quantification and the study of South Asian Social History, 3.30pm, sem rm A Coombs.

Research School of Chemistry graduate lecture series, Dr J. Singh — The theory of radiationless transitions, 3.30 pm, rm 57 RSC.

University House dinner, The regular dinner will be followed at 8pm by a Bush Dance, free to members, each of whom may bring a companion, 6.30 pm, Hall of University House.

ANU Public Lecture, Australia's forests series, Dr K.R. Shepherd — Managing the forested environment, 8.15pm, Coombs LT.

Thursday 9 August

International Relations RSPacS sem, Mr J. Fitzpatrick — State system in transition, 11am, sem rm B Coombs.

Friday 10 August

Political Science SGS sem, Allan Megill — The aesthetic irrationalism of Nietzsche, 11 am, rm 1004 Arts III.

Chinese Dept and Contemporary China Centre, Film in Chinese — *Flying across the Yellow River*, 1pm, Coombs LT.

Research School of Chemistry graduate lecture series, Dr J. Singh — The theory of radiationless transitions, 3.30pm, rm 57 RSC.

Pharmacology JCSMR sem, Prof T.H. Waterman (Yale Univ) — Crustacean compound eyes and arthropod evolution, 3.45pm, sem rm 1 JCSMR.

Japanese film evening, Films in Japanese with English subtitles Mind and Body — Judo worldwide and The Yellow Handkerchief, 7.30pm, Coombs LT.

Sunday 12 August

Burgfilms, Percy, 8pm, dining rm Burgmann College.

Monday 13 August

Experimental Pathology JCSMR sem, Dr F. Stewart — Biological functions and receptor binding properties of equine chorionic gonadotrophins, 1pm, sem rm 1 JCSMR.

Demography RSCS sem, Mr J. C. Ingram — Report on Conference on Population and Health held at Bellagio; Dr L.T. Ruzicka and Prof J.C. Caldwell — Report on Workshop on the Social and Economic Determinants of Mortality held at Mexico City, 3.45pm, sem rm A Coombs.

Chinese Dept and Contemporary China Centre, Film in Chinese — *Flying across the Yellow River*, 7.30pm, Coombs LT.

Tuesday 14 August

Pacific & SEAsian History RSPacS sem, Prof O.H.K. Spate — Ethnopolitics on the Spanish Main: Indians, Buccaneers, and some others mainly in the 17th century, 2pm, sem rm F Coombs.

Demography RSCS sem, Dr Stefania Siedlecky (Dept of Health) — Pre-marital sex and contraception: a study of the attitudes and experience of young, never married adults in Melbourne, 3.45pm, sem rm A Coombs.

Political Science RSCS sem, Dr J. Warhurst — The 1974 Australian passenger motor vehicle plan: The politics of industry policy, 4pm, sem rm D Coombs.

Wednesday 15 August

History RSCS sem, Prof John Saville (Hull) — The State and the Chartist Movement 1848, 11am, sem rm A Coombs.

Botany SGS sem, Dr J.V. Jacobsen — Molecular aspects of enzyme induction in barley aleurone tissue, 1pm, sem rm Botany.

History SGS sem, Prof John Saville (Hull) — The political economy of women in Victorian England (title to be confirmed), 3pm, rm 1113 Haydon-Allen.

ANU Public Lectures, Australia's forests series, Dr R.G. Florence — Pathways of planning, 8.15pm, Coombs LT.

Classified

Next closing date: Thursday am, 2 August, publication date 10 August. Advertisements should be lodged on prescribed forms in the Accounts Section of the Chancelry Building. Advertising is restricted to ANU staff, students and members of Convocation.

For Sale

Amplifier, Pioneer SA-500A, silicon turntable, in attractive wooden deck, vgd cond, \$250, James Ma, 2839.

Bicycle, slightly defective, \$100, See, G101, Toad Hall.

Organ, electric, Thomas Troubadour 181, with colour glo keyboard, as new, \$1250, 883903.

Sewing machine, Elna TSP, as new, \$350; *Kayaks*: VW1300; 887711 ext 3066.

Skiis, Rossiquol SM competitions, 190cm, Tyrolia 350 diagonal bindings, nearly new, \$190 ono, 473384 ah.

Stole, Russian fitch fur, with detachable squirrel tails, immaculate, valued at \$700, sell \$450; *Collar*, silver fox, valued at \$120, sell \$70; \$500 for both, 2066/489949.

House, Ainslie, d/brick, tile roof, large living room with open fireplace, 3-bdrms, sun-

room, eat-in kitchen, rear deck, carpeted throughout, d/ garage, pergola, well-established garden, quiet tree-lined street ten mins from ANU, possession September 1979 if wished, \$42,000, Bell 2408/485150 ah.

House, Bungendore, 2/3-bdrms, National Trust, fully restored, sandstone, \$75,000, 2197.

Volvo 122S, 4-door, exceptional cond, rego June 1980, radio/cassette, d/lights, etc, \$2600 negotiable, 2375.

Accommodation available

House, attractive spacious centrally located house to let, 1 Sept to 24 Feb, all mod cons, 952316.

House, Downer, furnished, cosy, lovely garden, Sept to Jan, \$56/weekly, 474981 after 4.30pm.

House, Lyneham, person, preferably female, to share furnished house, \$25/weekly, 4376/480529 ah.

Accommodation wanted

Near campus, 27 Aug to 7 Sept 1979, for Peggy Kernaghan, 4365, Mrs O'Neill.

House exchange

Cambridge/Canberra, visitor to ANU throughout 1980 wishes to exchange flat with ANU

staff member on leave in Cambridge for the same period. Can offer either 3-bdrm semi or 2-bdrm flat, both 15 mins from Cambridge city centre, 3040, Prehistory, RSPacS.

Secretarial

Typing done at home on IBM golfball, experienced, accurate, 884695.

Typing done at home, IBM Selectric, fast, accurate service, reas rates, 973409.

Typing fast and accurate typing for all assignments, reas rates, call Margaret on 473472.

Typing, fast accurate service, letters/theses, legal/scientific, competitive rates, 484589 (ask for Bill).

Typing, IBM golfball, fast, accurate, reas rates, 883892.

Typing, IBM golfball, experienced, accurate typist, reas rates, 886711.

Work wanted

ANU students urgently require part-time and casual work. If you have a job to offer please phone Pam Montgomery, Student Employment Officer, 493674.

Public Notice

Watch, man's, found recently at Sports Centre, see J. Grieve (HRC), 4357.

Centre until October 1979, main interest: French theatre in 19th and 20th centuries, ext 4786.

Dr Mark Dwyer, University of Adelaide, Visiting Fellow in Research School of Chemistry until January 1980 — main interest: extension of conformational analysis to include environments, ext 4236.

Dr Bernard Briat, Laboratoire d'Optique Physique Ecole de Physique et Chimie, Paris, Visiting Fellow in Research School of Chemistry until October 1979 — main interests: spectroscopy, inorganic chemistry, solid state chemistry and physics; oil painting, ext 4328.

Michael Gregory Butler, University of Birmingham, Visiting Fellow in Humanities Research Centre until September 1979 — main interest: Twentieth Century German literature, ext 3447.

Europe in relation to their historical background from c. 1830, ext 3438.

Professor Nariaki Takahashi, Osaka University, Visiting Fellow in Nuclear Physics until September 1979 — main interest: mechanism of heavy ion reactions and nuclear spectroscopy, ext 2085.

Dr G.H. Kingston, University of Western Ontario, Visiting Fellow in Economics, RSPacS until August 1979 — main interest: international and monetary economics, ext 3387.

Professor H.D. Jocelyn, University of Manchester, Visiting Fellow in Humanities Research Centre until September 1979 — main interest: Latin language and literature (in particular the comedies) Plautus, ext 3438.

Mr S. Beynon John, University of Sussex, Visiting Fellow in Humanities Research



Dr Bernard Comrie, University of Southern California, Visiting Fellow in Linguistics, SGS, until December 1979 — main interest: language universals and typology including description of non-European languages, ext 2899.

Dr R.S. White, University of Newcastle-upon-Tyne, Visiting Fellow in Humanities Research Centre until December 1979 — main interest: Keats as a reader of Shakespeare, ext 4786.

Professor Peter Wiles, University of London, Visiting Fellow in Economics, RSPacS, until 18 Sept 1979 — main interests: communist economics, income distribution everywhere, cost inflation, ext 3102.

Mr John Willett, Visiting Fellow in Humanities Research Centre until 23 July 1979 — main interest: the arts in

Employment prospects

A warning that the employment prospects in universities for outstanding new graduates in the foreseeable future could be 'very grim' is contained in an analysis of university staffing in a static situation, published recently by the Australian Vice-Chancellors' Committee.

The report was prepared by Mr David Myers, former Vice-Chancellor of La Trobe University. The AVCC requested Dr Myers to examine the implications on a variety of staffing issues of the transition of Australian universities from a period of rapid growth to their present steady state condition.

In his analysis of the effect of zero growth on university staffing, Dr Myers pointed out that the reduction in turnover of staff due to a drop in job opportunities would have a substantial effect on recruitment. He estimated that if turnover was reduced by just half, the rate of recruitment to the lecturing staff would fall by 70 per cent. 'It is clear that the rate of turnover will have a dominant bearing on the career prospects of lecturing staff and of those hoping to embark on an academic career', he said.

Referring to the controversy that had developed over whether staff should have tenure or should be appointed for limited terms, Dr Myers said that there had been a tendency to overlook the fact that the more tenured appointments there were, the fewer opportunities graduates would have to enter academic life. He said, 'While respecting the reasonable aspirations of existing staff, it is necessary to strike a balance so that the reasonable expectations of aspirants for academic appointments can be met. Unless more rigid criteria are adopted than at present for transfer from probation to tenure, or limited term appointments became more common, the prospects for employment of outstanding new graduates in the foreseeable future are very grim'.

In his paper, Dr Myers also examined the effect of no-growth on the increasing top-heaviness of staff positions and the way this would affect salaries and the age structure of university teachers. He discussed a series of options open to universities including the early retirement of staff, part-time employment, more use of limited, fixed-term appointments and the interchange of staff.

Conferences Meetings Seminars



Australian Conference on Computer Graphics and Spatial Analysis, 13-15 August 1979, Adelaide, inquiries (062) 733633.

3rd International Community Education Conference, 19-24 August 1979, Melbourne, inquiries (03) 651-0545.

IYC conference, 23-25 August 1979, Monash University, inquiries (03) 541-0811.

20th Biennial Conference of the Library Association of

Australia, 26-30 August 1979, ANU Canberra, inquiries (02) 357-6862.

4th National Political Economy conference, 24-26 August, University of Sydney.

14th Annual Conference of the Australian Psychological Society, 26-31 August 1979, University of Tasmania, inquiries (002) 230561, ext. 393.

Symposium on Concrete — Cases and Concepts 1979, 28 August 1979, Canberra Rex Hotel, Canberra, inquiries (062-733633).

Awards and Fellowships

Vacation Scholarships: National Heart Foundation of Australia, closing date 1 October 1979 at the Foundation's Canberra Office.

Pig Industry Post Graduate Awards, closing date 31 August 1979.

Further information about the above two awards from Ms J. Bruce, Chancelry Annex ext. 3557.