



Government's identification proposals come under fire

Australia card is a threat to the basis of our society

An ANU information systems specialist, Mr Roger Clarke, has published a comprehensive attack on the Federal Government's proposed National Identification Scheme, arguing that it would 'threaten the very basis of Australian society' for a annual saving of a mere \$50 per taxpayer.

Mr Clarke, a Reader in Information Systems in the Faculty of Economics and Commerce, says the scheme would have vast social implications, including significant constraints on individuality and social diversity, and increased power of information-rich public servants over the public.

He believes the system would bring about a 'significant shift' in the relationship between the individual and the state by greatly increasing the capacity for mass surveillance and the suppression of dissident opinion.

'These are particularly grave matters in a country which lacks overriding constitutional protection for human rights,' he writes in the paper, titled *A National Identification Scheme for Australia*.

Mr Clarke's criticisms include:

- criminals would easily circumvent the scheme because it was so full of loopholes
- much of the professional tax evasion industry conducted its business through companies and trusts and would be untouched by the proposal, and
- the identification card and register would tend to legitimise a false identity, thereby entrenching the fraud.

He says that one of the social implications would be that several thousands of clerks throughout the country would have unrestricted access to the information of every individual, and this would work to the disadvantage of everyone.

Further, the scheme would destroy the existing dispersal of power among many government agencies and concentrate power of the administrative arm of government against the individual.

'The multiplicity of organs in our society acts to the individual's advantage, since they operate as checks and balances against one another,' Mr Clarke argues. 'The merging of different bodies therefore has the effect of increasing the ease with which repression can come about. Similarly, the merging of information originally collected by distinct organisations for distinct purposes also threatens the freedom of dissent.'

He said that information about an individual contained in different government databases was inconsistent. There were good reasons for most of the inconsistencies, such as different purposes underlying the data's collection, different dates of collection, and different times or periods to which the data related.

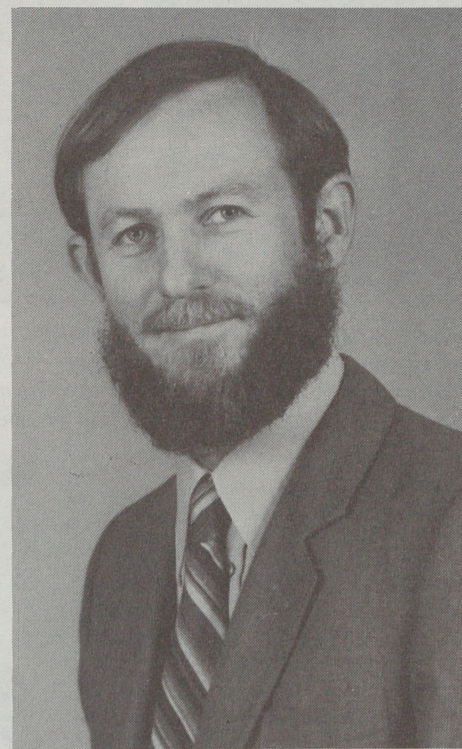
Nonetheless bureaucrats would presume that inconsistencies were evidence of wrongdoing or dishonesty on the part of the data subject, he said.

Mr Clarke said that there had been insufficient time for the scheme to be properly assessed having been floated for the first time only a few months ago, and with IDC reports having been prepared in a very rushed manner and having very limited circulation.

He suggests that the scheme was cobbled together to bolster the Government's tax reform package, that it would not work, nor save money, and would cost a great deal more than the Government's published estimates.

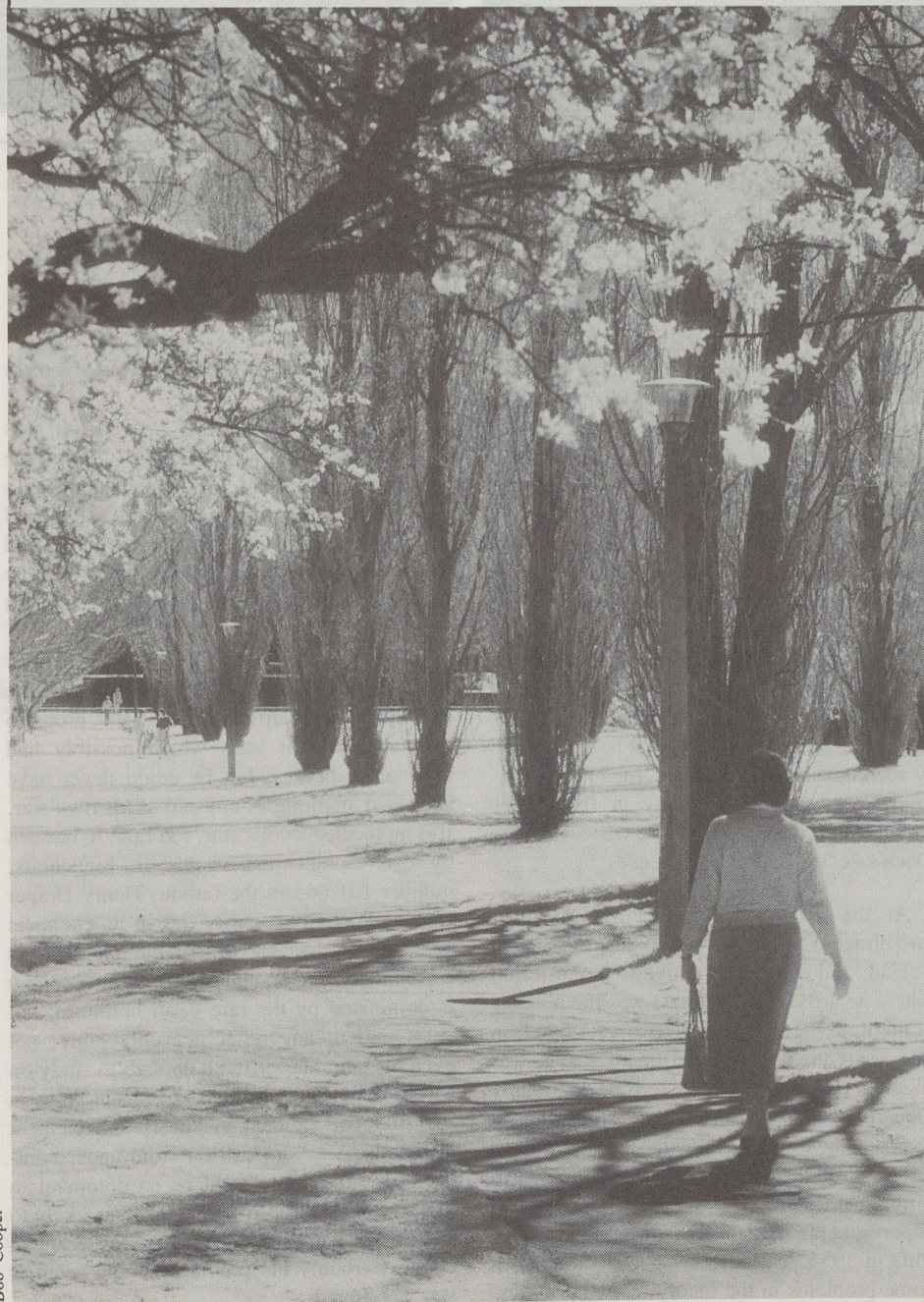
There were effective alternatives available, he said, and these included compulsory provision of taxation file-numbers to employers and to financial institutions, tighter identification requirements on employer benefit-paying organisations and financial institutions, implementation of the succession of Auditor-General recommendations relating to administration of the Tax Office and investment in additional investigative staff for the Tax Office.

Mr Clark has had 15 years' experience in the development of computer software for commercial and administrative applications, and has contributed to the development and application of modern software development



Mr Roger Clarke

Spring on campus



techniques. He has also been active in the privacy, freedom of information and software copyright debates.

He says that he is 'concerned that in seeking the benefits made possible by applying modern information technology, society successfully negotiates the dangers that arise'.

Australia and Italy collaborate on SYNROC

Australian and Italy have signed a joint research agreement to examine ways of disposing of high-level radioactive waste using SYNROC — developed at the ANU by Professor Ted Ringwood — and Sol-Gel, an Italian process which could simplify SYNROC manufacture.

This is the third bilateral agreement which Australia has made involving SYNROC. Co-operative research has already begun with the United Kingdom and Japan.

The latest agreement between Italy and Australia was signed by Professor Max Brennan, Chairman of the Australian Atomic Energy Commission, and Professor Umberto Colombo, President of the *Ente Nazionale Energie Alternativa*.

The Australian Government has allocated over \$4.6 million to the research and development of SYNROC. This includes \$2.75 million for the construction of a non-radioactive pilot plant developed by the Australian Atomic Energy Commission at Lucas Heights. The pilot plant will be used to demonstrate the feasibility of manufacturing full-sized blocks of SYNROC.

Big events in ANU sports calendar



The University's annual Fun Run (above) got away to a good start in brilliant sunshine last week with competitors from a wide range of schools, faculties, centres and services. The winner Andrew Kirk (below) completed the eight kilometres in 24 min. 40 sec. Andrew, a Computing Sciences student, is a member of the ANU Athletics Club.



A moment of high drama during the Purple Shin final when Coombs beat Administration 3-1. Caught in a guarded moment, team members below are concentrating on something. Any of our readers who might care to provide us with a suitable caption within the bounds of decency can come to lunch with us in our garden.

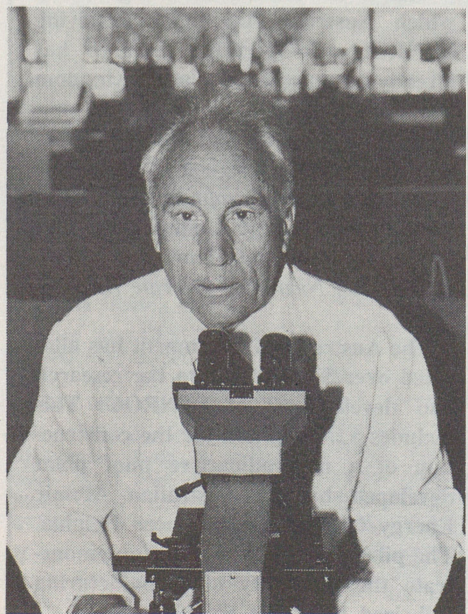


Photos by Dave Patterson

OBITUARY

Dr Antoni Przybylski

Dr Antoni Przybylski, a staff member of Mt Stromlo Observatory for 28 years, died suddenly in Queanbeyan on September 21. A deeply committed astronomer, he possessed two unusual distinctions: his PhD was the first degree to be awarded by ANU, and he was a member of the very small and select group of astronomers who have had stars named after them.



Dr Przybylski

He was born in Rogozno, Poland, in 1913, and attended the University of Poznan, where he gained his first degrees and became a Research Assistant at the University Observatory. When the war broke out he served as an artillery officer at the defence of Warsaw. Taken prisoner by the Germans, he was sent to a POW camp in Mecklenberg in West Germany, but in 1941 he managed to escape and returned to his parents' home in Poland. The risk of arrest by the Gestapo was great, and he decided to make for Switzerland. This meant crossing the whole of Germany in wartime, but by travelling mostly at night he successfully accomplished this feat. Interned in Switzerland, he was able to study at the Zurich Polytechnic, where in 1949 he was awarded a Doctorate in Technical Sciences.

At the end of the war Przybylski was unwilling to return to communist-dominated Poland, and decided to emigrate to Australia, where he arrived in 1950. As was the practice at the time, he was under a two-year bond, in his case to the PMG's Department, and he was digging trenches for cables when a friendly Departmental officer brought his credentials to the notice of Dr Richard Woolley, then Director of the Observatory. Woolley gave him a position, then a scholarship, and supervised the thesis for which he obtained his PhD in 1954. The thesis was concerned with some problems in the theory of stellar atmos-

pheres, and attracted a good deal of overseas interest.

On the day Przybylski arrived he was introduced around the Observatory. When the workshop staff heard his name there was a pause, following which someone announced that all those consonants were a bit much, and they were going to call him 'Bill'. From that time on 'Bill' he was, at any rate on Mt Stromlo.

In 1957 Woolley was succeeded as Director by Bart Bok, and with Bok's persuasion Przybylski took up observing. His program was made up of stars which possibly had unusual properties, but he could never have imagined anything as unusual as his own star. It is an inconspicuous star, too faint to be seen by eye though just visible in binoculars, number 101,065 in the famous Henry Draper Catalogue. Its peculiarity lies in its chemical composition. Iron and other common elements seem totally absent, and instead its atmosphere is dominated by the rare earth holmium, not yet found in any other heavenly body, not even the sun, and difficult enough to study on earth. With all the progress of recent years in the study of element synthesis and element abundances, we are still far from understanding why holmium should be so dominant in this star of Przybylski's, and it seems likely to remain an astrophysical enigma for years to come. Certainly his star is the most peculiar star yet found.

Przybylski contributed of course to other branches of astronomy. He did some of the very first work on satellite orbits, found other most interesting stars, and was a pioneer in determining element abundances in individual stars in the Magellanic Clouds. This was in addition to his work on stellar atmospheres, comets, and variable stars. His work has stood the test of time well, and he leaves behind him an enduring reputation.

After retirement he lived in John XXIII College, where he proceeded to a second BSc, granted in 1984, this time in the natural sciences — botany, zoology and geology. He tutored the undergraduates in mathematics and physics, and was a popular and well-loved figure.

Przybylski was a warm-hearted, generous man without an ounce of malice, deeply religious, though not conspicuously so, and Polish to the core. His friends will remember little idiosyncrasies of speech and manner with great affection. He was a staunch supporter of the Catholic Church and a highly respected member of the Polish community in Canberra, where he made in particular an outstanding contribution to the Polish Ex-Servicemen's Association. He will be remembered too for his most generous support of many educational and charitable organisations both in Australia and abroad.

Ben Gascoigne
MSSSO

Carwash research provides clues to seed dispersal

Next time you find paspalum or couch invading your fine-leaved, well-manicured lawn you might blame your car for bringing in the seeds.

That advice comes from Dr Nigel Wace, Senior Fellow in the Department of Biogeography and Geomorphology, Research School of Pacific Studies, who undertook a research program at a Braddon carwash — once a month for 27 months, at 6am in winter and summer alike. This routine was necessary to cover the seasonally-adjusted behaviour of 'the botany of the motor car'.

That was the title of a recent seminar paper at the ANU, which Dr Wace also presented earlier this year at the annual meeting of the Association of American Geographers in Detroit, Michigan, where 'the automobile as an ecological agent' was discussed. One speaker in this great car-making city warned that the Trans-Amazon Highway was introducing weeds into Brazil's tropical rainforest on a mammoth scale.

Dr Wace, more modestly, has introduced to his own garden in Barton seedlings grown from sludge collected at the Braddon carwash. They comprise a strawberry plant, several river oaks (*Casuarina cunninghamiana*), a silky oak (*Grevillia robusta*) and a native clematis. He also gave seedlings from the same source to Mrs Helen Cumpston, an Assistant Registrar at the ANU until 1975, whose garden in Aranda now has a small forest of carwash trees, including eucalypts and casuarinas.

Dr Wace says his original research was 'a first attempt in Australia to discover which species are involuntarily transported by cars in and around one inland city'.

His recent paper brings his research up to date. For example, the number of cars and station wagons in Australia has increased from 5.6 million to 6.6 million, and they still travel an average distance of some 15,000km a year. He concludes: 'The carrying potential of the average motor car in Australia must be greater than 30 billion seed-kilometres a year . . . The motor car not only dominates our lives and rearranges our cities, it may also be rather important in rearranging some of the plant world too.'

'Some 10 per cent of the carwash seedlings are the street trees, garden shrubs and hedge plants of Canberra. Some of these, such as the firethorns (*Pyracantha*) and cotoneaster, are also common in the woodlands and grasslands

near Canberra, where native plants are dominant. A PhD scholar, Michael Mulvaney, is studying the invasion of these woodlands and grasslands by gardens plants.

'We may well be cultivating now in our own gardens potentially troublesome pasture weeds, and the motor car is probably the most efficient agent for their spread,' Dr Wace added.

'The abundance of carwash seedlings which are street trees, garden shrubs and hedge plants probably reflects the driving habits of the carwash clientele rather than the total car-borne flora, because carwashing is essentially an urban habit, nurtured in the tidy world of garden suburbia and office-centred nine-to-five city life.'

Plainly, there are easier ways to come by seedlings for Canberra gardens than Dr Wace's carwash method. But Dr Wace is serious about the impact of the motor vehicle on society, and he sees his research at the Braddon carwash as a small, indirect contribution to what should be an important debate: 'Are we in charge of the motor car or is it in charge of us?'

Dr Wace has described his research on the ABC Science Show and his talk was included in *The Best of the Science Show*, edited by Robyn Williams.

Dr Wace believes that 'the large numbers of seedlings in the carwash flora, and the range of species involved, indicates that attempts to limit the spread of unwanted, aggressive weedy species by car are unlikely to be successful unless all vehicles can be excluded from an uninfested area. Given the ubiquity of motor vehicles and the dependence of rural communities upon them, such exclusions are usually impracticable.'

'Compulsory washing of vehicles by normal carwashing procedures is not likely to be totally effective either, because normal carwashing does not remove much of the mud and other debris on the undersides of cars and is largely a cosmetic operation. Thorough steam-cleaning may be the most effective means of ensuring that used cars imported from overseas do not carry noxious weed seed.'

Dr Wace points out that 'the motor car dominates the lives of citizens from the cradle to the grave. Many of us make our first journey in life in a car, from maternity hospital to home. Cars occupy a most important place in our sexual display, in our courtship and in



Dr Nigel Wace in his garden with one of the carwash *Casuarinas*.

our mating activities. Every day, 10 people are killed on Australian roads. And, however we die, many of us make our last journey in a hearse.

Dr Wace described his work at the Canberra Superwash (Shell Co. of Australia Ltd) in Lonsdale St, Braddon, where the muddy, oily water from cars was too dirty to be acceptable in city drains. It was carried into settling tanks, where its 'skungy sediment' was extracted and became the key to the botany of the motor car. By analysing this sediment it was possible to estimate the car as an agent of plant dispersal.

Dr Wace washed his sediment samples with tapwater over fine sieves, and mixed what was left with sterile potting mixture, putting the result into germination trays in a Botany Department glasshouse. 'I knew that I would only get seedlings of those plants whose seeds germinated within six months, which was the longest time we could keep the trays in the glasshouse . . . we were bound to miss any species whose seeds would be killed by up to a month of submergence in the settling tanks between the monthly pump-outs,' he says.

Identification took some time, because different amounts of growth were necessary. But, finally, 18,566 seedlings were counted during the 27 months.

Over 40 per cent of the seedlings were grasses of some 50 different species, of which goosegrass, winter grass, phalaris and couch were the most common. Of the plants which were not grasses, wireweed and birch seedlings were the most common, and there were plenty of clovers. 'In all we identified more than 250 species with some degree of certainty, but since we couldn't be sure of the identity of about 12 per cent of the seedlings, the total number of species was probably 300 or more.'

Dr Wace said that a third of the species and half the seedlings were common in and around Canberra, growing along roadsides and in unkempt places, 'herbaceous plants that lead an undisciplined, vagrant life. These have an ally to their chosen life style in the motor car.' Almost all had been introduced to Australia.

A fifth of both the species and the seedlings came from more stable plant communities, such as pastures on the tablelands. These were perennial native grasses and sedges, and they included some noxious weeds, such as serrated tussock, thistles and Yorkshire fog.

'Perhaps the most surprising of the carwash plants were a few native trees and shrubs which dominate some of the woodlands and the riversides near Canberra — eucalypts, wattles and casuarinas. They probably hitch-hike around on cars.'

John Curtin Memorial Lecture

The John Curtin Memorial Lecture for 1985 will be given by Mr Bruce Grant, a distinguished journalist, academic and former Australian High Commissioner to India.

The lecture will be on 23 October at 8.15pm in the Coombs Theatre on 'Australia in the 21st Century'.

Exploring the lecture's subject theme, Mr Grant will suggest that Australia has failed to fulfil in the 20th century its expectations in the 19th century — and it could easily fail again in the 21st century.

A product of Perth Modern School and Melbourne University — a combination not uncommon among several other distinguished Australians — Mr

Grant served in the RAN during the war and after becoming a journalist, worked for the *Sydney Morning Herald* and *The Age* at various times in S.E. Asia and Washington. He was appointed High Commissioner to India and Nepal in 1973 by the then Prime Minister, Mr Gough Whitlam.

In recent years Mr Grant has published several books, including a novel *Cherry Bloom* (1980). His short stories have been published in all major Australian literary magazines and also abroad. He has been advisor on arts policy to the Victorian Government since 1982 and this year is chairman on the Premier's Literary Award Committee.

ANU Reporter

ANU Reporter is published on the second and fourth Friday of each month by University Information, 28 Balmain Crescent, Canberra 2601 and printed by Canberra Publishing and Printing Co., Fyshwick.

As compensation costs soar —

University gets to grips with RSI

A number of measures have been introduced by the University in an effort to control the incidence of Repetition Strain Injury which, just over a year ago, was described by the Secretary as having reached 'alarming proportions'.

The condition, which has affected as many as 90 per cent of keyboard staff in one Research School with an overall average throughout the University of 30 per cent, now, at least, does not appear to be increasing in the number of cases reported.

This fact alone is good news for the University, whose workers' compensation cover for RSI comes to \$600,000 out of a total insurance premium of \$1.5 million.

This contrasts with the premium paid by a much larger Sydney university which is approximately half that of ANU.

Among measures introduced at the ANU to combat the problem are close scrutiny of keyboards and office furniture, recommendations on periods spent at the keyboard and work practices, counselling, and, not least, the appointment of two key people to study the problem: Dr Gabrielle Bammer, in the Research School of Social Sciences, and Ms Melody Kemp, the University's first Occupational Health and Safety Officer who began work in May this year.

By June 1985, the ANU had received 171 Workers' Compensation claims relating to RSI covering the years 1982 to 1984, and the first period of 1985. Of those, 97 staff were still at work, 35 were off-work and 39 had left the University.

Those at work included some who had lost no time, those who had returned to their original number of hours, and staff who previously had worked full-time and were now working part-time. A proportion had been moved to different duties.

Staff off-work included those on sick leave, with and without full compensation. Among those who had left the university were people who had retired because of age, on medical grounds (12), staff who had resigned, as well as those who had been on limited term contracts.

A report to Council by the ANU Secretary, Mr Warwick Williams, states that the rate of new claims each month in 1985 had dropped compared to the second half of 1984, but he thought it debatable whether this reflected a fall in RSI incidence or reluctance on the part of staff to claim.

He said a particular concern was that the proportion of people with RSI who were able to remain at work had not improved in recent months. The proportion of those still at work but making a claim was 57 per cent.

The number of staff diagnosed as having RSI at July 1985 was 303, compared with 234 in February. There was also a growing number of students with RSI, including public servants

who had contracted RSI in their employment and were now studying.

The total number of people employed by the ANU is currently 4068, of whom 786 are in positions such as computer programmers, data processors, keyboard operators, clerks and office assistants. A total of 55 keyboard operators are employed in a relief pool on a casual basis; some have been hired to replace staff affected by RSI. ANU employees include 2095 men and 1873 women.

The report states that activities to assist staff with RSI and to prevent further problems included the assessment of furniture and equipment, training, and rehabilitation and redeployment. Inspections of work stations to rectify and advise on ergonomic problems were not yet completed.

Occupational health and safety

Need for new work methods and attitudes

If an organisation does not come to terms with the necessity — and expense — of providing a healthy and safe environment, the management has to pay for it in the long run, according to the ANU's first Occupational Health and Safety Officer, Ms Melody Kemp.

Unsafe environments produced poor work performance, personal injuries, low morale, compensation payments and high insurance premiums, she told the *ANU Reporter*.

Ms Kemp, who was appointed in May, is the first female safety officer on the staff of an Australian university.

Ms Kemp said there appeared to be an attitude that the ANU had a healthy campus, but that assumption was not borne out by the ANU's insurance premium.

Ms Kemp endorses that RSI problems have been around a long time. 'In the past when people complained of pain, it was regarded as arthritis — or if they were women, doctors just dismissed them as neurotic and advised them to take some time off and watch *Days of Our Lives*,' she said. Now there was a new awareness among health professionals of the relationship between people's symptoms and the type of work they did.

Ms Kemp said she was waiting for the Standards Association of Australia's code on recording accidents and ailments. The universal application of this code could help to introduce cohesion as far as the ANU was concerned.

At present, compensation statistics were the only source of data and the completion of a compensation form by an employee not only benefited that person but also indicated areas of problems from a safety point of view, she said.

With the support of management and staff associations, she sees her major task as marketing the idea of occupational safety. She wants to persuade all levels of the University to adopt new attitudes, new work methods and eventually new behaviour.

She believes, for example, that new behaviour patterns could solve some of the problems associated with repetition strain injuries or 'occupational over-use injuries', as she prefers to term them.

Rehabilitation was a slow process and many of those who had returned to work still had difficulties. Where staff were unable to perform their previous duties, efforts were being made for them to be redeployed.

The report also comments that there was growing belief and some evidence that the RSI problem was in some degree related to the structure and variety of work, with the particular problem that where variety is reduced, the incidence of RSI is greater.

The ANU's Occupational Health and Safety Committee has recommended that the number of hours operators are permitted to use word processors should be limited; similarly, for operators of electronic typewriters and similar equipment.



Ms Kemp

The ANU had not yet developed a comprehensive approach to a healthy and safe environment. Through the University's safety committees she planned to encourage a greater awareness about the management of safety.

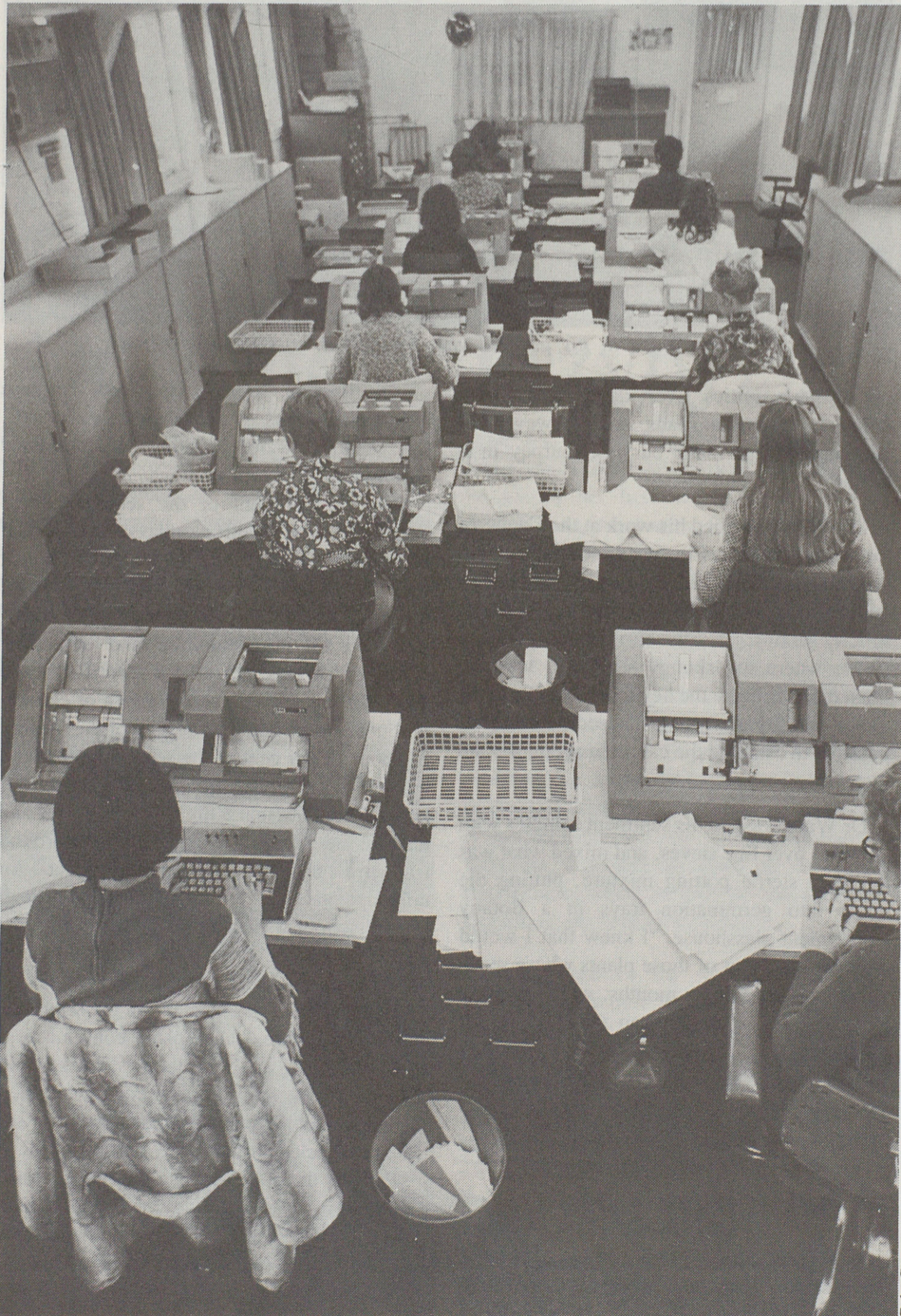
She believed a comprehensive incident-reporting and investigation system was necessary.

'I don't see my role as catching people out. Rather, I see myself as working with people to develop strategies to increase the levels of safety and health of workers.'

As part of her marketing exercise, Ms Kemp is setting up an information centre, which in addition to the latest literature on safety matters will be linked to the most up-to-date computerised hazard information, covering both Australian and overseas data.

She plans a 'library' of protective gear and equipment which university people will be able to test — for example, dust masks, gloves resistant to organic solvents, and protective eye equipment.

With responsibility for the occupational health and safety of more than 4000 people, her philosophy is 'to introduce a level of science and sensible management and to avoid worry and misinformation'.



Wordprocessor operators . . . keyboard hours to be limited.



Dr Bammer

Women of Third World demanding basic rights

The women's movement has grown so vast and spread so far it was now unstoppable, Ms Julia Ryan, a member of ANU Council, commented on her return from Forum '85 the non-governmental Conference, which overlapped with the U.N. Decade of Women Conference in Nairobi.

Ms Ryan, who was an accredited member from the Australian Teachers' Federation, said that a new consciousness about women's issues had penetrated to the far corners of the Third World.

Feminism had not spread from Western countries, she said. It was emerging in other countries of its own volition, which had been brought out by the vehicle of expression provided by the United Nations.

Luxury

'The conference proved that feminism is not a Western world luxury. For instance, African women are talking about access to birth control and having control over their own fertility,' she said.

'Women in emergency situations, like the Middle East, regard political issues as women's issues and women's issues as political issues.'



Ms Hill

'Western countries try to create a split between women's issues and political issues. You could not have come away from the conference with the idea that women's issues were separate.'

'The conference expressed the commonality of women — which must have always been there, but new ideas are being expressed with a common identity.'

Ms Ryan and Ms Helen Hill, an ANU PhD student at the Centre for Continuing Education, who also attended the Forum, said the UN conference produced a document entitled *Forward Looking Strategies* to take women up to the year 2000. Ms Hill said this would prove a valuable document which women would be able to use to obtain government support.

Ms Hill said the forum consisted of many workshops and discussions on a wide range of topics, which were uninhibited by the restraints of the official Conference.'

Famine

Ms Hill gave Africa as an instance of the practical effects of women being excluded from important economic and political decisions. In Africa, a continent subject to famine, food production was largely women's work. This had been largely ignored by planners and the projects they had set up imposed even more work on the women.

Because of the push for cash crops for export, women had been forced to neglect their own crops and internal food production, which combined with drought, had resulted in famine.

'They don't have enough hours in the day to do all the things it is assumed they will do,' she said. 'Economic planners ignored the work women do and regarded family food production as part of their spare time activities.' Appointing women economic planners would help.

She said there was now more awareness on the part of Western women of the role of women in Third World countries in basic production, and she believed Western feminism had been changed as a result of contacts and discussions with women from other than Western countries.



Julia Ryan

RSI had been around a long time among blue collar workers working on production lines. She said if it had been taken seriously, 'we would never have turned the office into a production line.'

Three causes of RSI were repetitive movement, undue force and static loading (using muscles to hold a position for a long time).

'Evidence indicates that RSI causes are often many and varied and the importance of the different factors vary from individual to individual.'

'There are very few people for whom there is one clear cause. For most it is a combination of things. In terms of prevention you have to tackle the problem on a variety of fronts.' This was sometimes hard for people to accept, she added.

Dr Bammer, whose research will take two years, is assisted by the ANU's RSI Steering Committee. She can be contacted at the Research School of Social Sciences on ext. 3564.

Research indicates causes can vary with individuals

... but supervisors still have a few things to learn

'No one should operate a keyboard for more than half their working day and times of operation should be spread throughout the day', Dr Gabriele Bammer, the ANU's recently appointed researcher into RSI, told the *ANU Reporter*.

Dr Bammer, formerly a visiting fellow in the Department of Behavioural Biology, Research School of Biological Sciences, is conducting a three year study on the condition.

She said restricted and spaced operation would contribute to the reduction of RSI and would also lead to a fundamental re-thinking of secretarial staff functions.

'It would lead to job re-design which would, if done with sensitivity and imagination, increase job satisfaction and career prospects which would also help reduce RSI,' she said. She estimated that 30 per cent of university keyboard staff had been affected by RSI in 1984 and that in one research school 90 per cent of keyboard staff had been affected.

'The university has done a good job of looking at furniture, instituting training programs and providing classes like relaxation training, but there is still more to be done,' she said.

An investigation of work practises was necessary, involving consideration of the speed of keying, time spent at the keyboard, pressure of work, ratio of total staff to keyboard staff, job satisfaction, how much control people had over how they worked, and, among other factors, how staff relate to each other.

'I am appalled to hear that secretaries are still subjected to deadline pressure where they are expected not to take tea and lunch breaks, let alone 15 minute breaks each hour, and then to work overtime on top of that,' she said. 'No deadline is worth the price of RSI.'

She believed the University of New South Wales limited an operator's use of a keyboard to 3½ hours a day, spaced out, and that that university had minimal RSI problems.

Dr Bammer, who was basing her comments on preliminary findings, said over-use injuries were acknowledged in other countries but RSI had received prominence in Australia because of strong trade union involvement and media exposure.

It was important to determine the extent to which there was a real difference in incidence or whether there were other factors which made reporting more frequent here.

If there were a difference in incidence, it was vital to find out why. For these reasons, it was necessary to carry out comparative studies between Australia and overseas countries, she said.

Ivan Fox

Mature students perform well

Mature-age students were often highly motivated and this counterbalanced any initial academic rustiness they may have, according to Mr Geoff Mortimore, senior counsellor in the ANU Counselling Centre.

He told the *ANU Reporter* that experience over the past seven years had shown that adult entrants had performed well and there had been some outstanding examples of success, with several university medallists.

Some mature-age students were inclined to stretch themselves to the limit, driving themselves to achieve the very highest standards. They sometimes had a sense of urgency because of what they regarded as their advanced age. The greatest challenge for them was to reconcile the demands of study with family and professional commitments.

Applications for the Special Adult Entry Scheme closed on October 1 for the 1986 academic year. Applicants will be tested on an essay and scholastic aptitude test during October. In December, enrolments will commence for the 1986 studies in the University Preparation Scheme, an alternative method of adult admission.

Mr Mortimore said that mature-age entrants might encounter three challenges when they returned to study — an initial lack of confidence, the need to develop basic study skills, and the need to fit study into an already crowded life.

The Counselling Centre saw many prospective mature-age students and provided information and advice about ways of returning to study and about the adjustments, academic and personal, that would be necessary.

It was particularly important to reassure those who were lacking in confidence that others like them had been successful, given suitable preparation.

Mature-age people took up tertiary studies for a number of reasons. Some had reached retirement; some had a particular interest in a subject; some had a specific goal — like a woman in her forties who wanted to become a lawyer now that her children had grown up; some people wanted to change their occupation or find a more challenging job; some sought greater esteem. He said many people felt they had missed an opportunity when they left school.

Mr Mortimore added that most mature-age students were in their thirties and forties and some change of circumstances in their lives had usually triggered their decision to return to study. For example, when children grew-up and left home, parents had more time for self-development.

The head of the Study Skills Unit, Mr John Clanchy, said that about 80 mature-age students take up places each year, usually in the Arts Faculty. 'Invariably they were people who had failed to complete a formal secondary education, but they do extremely well and usually better than students who have come in through the ordinary procedures,' he said. 'They are strongly motivated, socially mature and clear about what they want. They are settled in their approach to study. They overcome deficiencies in scholastic and linguistic capacity very quickly. The university is happy to have them because the scheme brings in such a good standard of student.'

Overseas students face difficulties

Study Skills Unit gives a helping hand

The major problem confronting overseas and second language students at the ANU is their initial uncertainty about the University's academic requirements, according to Ms Joanna Buckingham of the Studies Skills Unit.

Students who arrived from overseas tended to come with fairly open minds, she said. They were generally highly motivated, both in terms of their desire to seek knowledge and to live up to parental expectations.

'But it's quite difficult to realise how little overseas students know of what's expected of them,' she added.

'They've been to a very different school system that emphasised different skills and rewarded different strategies. They have frequently studied in a way foreign to the Australian system.

Learning by heart and multiple-choice exams had often been preferred to the more analytical skills expected at the ANU. Some students had little experience in extended essay writing or the practice of continuous assessment. Although direct analysis of questions was often a problem for all students, second-language students — those whose mother tongue was not English — were at a particular disadvantage when coming from a cultural background which preferred to approach questions from a broader perspective.

Ms Brigid Ballard, senior counsellor at the Unit, added: 'It comes as a shock when, as is very common, their first piece of written work or their first attempts to talk in a tutorial are not successful. But once they get their eye in, they're there.'

In response to the increased number of second-language students within the overseas contingent since 1975, the University had recognised the need to provide special study and linguistic assistance, especially at the undergraduate level. In February 1984 Ms Buckingham was appointed to the Unit as a half-time staff member with special responsibilities for second language students.

During 1984, some 84 undergraduate and 56 postgraduate overseas students consulted with the Unit. Though figures are not yet available for 1985, these numbers are expected to have increased significantly, Ms Buckingham said.

In order to help second-language students confront the problems of studying in Australia, the Unit had moved away from simply

providing language assistance, Ms Ballard said. In this way the Unit had been achieving improved results. 'We are able to help much more efficiently and much more quickly.'

The University's academic staff have also become increasingly aware of the need to revise and restructure first-year courses especially.

'I think the overseas students are very valuable; they contribute a lot to the University and in some ways they have also obliged the University to experiment with better teaching methods,' Ms Ballard said. The Science faculty in particular had undergone a remarkable shift in the structuring of courses over the last four or five years. Lecturers were taking on more responsibility for the assistance of students. Courses were being structured more clearly, the requirements for set assignments were being more fully explained, and feedback on students' performance was being improved.

Although it involved a gradual process of change, constructive criticism from students could be picked up by academic staff, Ms Ballard said. Reciprocal concern was often expressed by 'an individual member of staff, someone who's really interested in trying to get a good course of high quality going,' she said. Co-operation between staff and the Unit was therefore critical.

'The work we do is very delicate. We are not tutors, but we are in fact assisting students



Joanna Buckingham

to think about what it is that they think affects them in their departments. If we don't have support from staff, then we can't really do a decent job for the students.'

Apart from bringing changes from which all students benefitted, the impact of second-language students had also been influential in changing the attitude of students in general to the Unit, Ms Buckingham added. 'The perceptions among the students of the mid-seventies was that you went to the Studies Skills Unit if you were a flop. Now, students of all types and standards come for advice. Basically, it's anyone who sees that there's room for improvement.'

Aboriginal school visitors



Bob Dowhy



Huw Davies

Professor John Mulvaney (left, above) of the Department of Prehistory and Anthropology, The Faculties, with a group of Aboriginal students from Tamworth Technical College. The photographer for the Department of Prehistory, Research School of Pacific Studies, Dragi Markovic, recently held an exhibition of photographs at the Playhouse Gallery at the Canberra Theatre Centre. Dragi Markovic who has been with Prehistory RSPaS for fifteen years, has put on four exhibitions of creative photography in the past few years. The photographs are examples of how scientific techniques can be adapted to achieve creative artistic results. Dragi says that while his work for the Prehistory Department is of a highly technical nature, everyday experience of this helps him with the creative photography he does in his spare time. Pictured with Dragi at the opening of the exhibition is Betsy-Jane Osborne, also of the Department of Prehistory.

