Banksias: A gift fit for a Queen

Monash University Artist, Celia Rosser, was at Government House, Canberra, last month when the Prime Minister, Mr Fraser, presented the Queen with a copy of the first volume of her monumental work, "The Banksias" on behalf of the people of Australia.

Here, Mrs Rosser discusses some of the illustrations with the Queen and the Duke of Edinburgh.

Also at the ceremony were Alex George, Executive Editor of 'Flora of Australia', the taxonomist responsible for the scientific text accompanying Celia's paintings, and the Vice-Chancellor of Monash, Professor Martin, and Mrs Martin.

The presentation volume — one of only 730 printed — is the first of three planned books in which all 70 or more of the unique Australian plant will be illustrated and described. It has been described as one of the world's finest collections of botanical watercolour drawings. "The Banksias" was published by Academic Press (London) in association with Monash University to coincide with the XIII International Botanical Congress held in Australia late last year.

The "devioursness" of the capture strategies employed by such plants would fill the Marquis de Sade with envy.

Monash botanists Dr Neil Hallam, a senior lecturer, and David Parkes, an M.Sc. graduate, have studied these strategies using the scanning electron microscope housed in the Botany department.

They have also studied the cytochemistry of insectivorous plants — that is, the biochemical processes involved in their digestion of insects such as flies, mosquitoes and midges.

The researchers have come to understand how cells in the plants produce enzymes which break down the bodies and extract from them the nutrients required. They have also gained an insight on how these enzymes are packaged and released in such a way that plant cells themselves are not damaged.

Little research

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Such plants are found worldwide (several species grow in Australia, one endemic) in soils which are low in nitrogen and phosphates. Dr Hallam says that the plants have evolved in response to these conditions: the nutrients lacking in the soil have been extracted from the bodies of insects - the nitrogen from amino acids and phosphates from the breakdown of tissue.

There are two main types of traps employed by different species of insectivorous plants, one with a more "active" mechanism than the other.

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Continued overleaf

Keeping in touch

We hope we're welcome! As has happened for the last few years, this last issue of Reporter for the year is being mailed to all Monash graduates in a bid to keep them informed of University activities. In the centre you'll find a four-page Year in Review supplement. And elsewhere there's news on —

- Guardianship law reform proposals ............... 3
- Graduate destinations, summer jobs .................. 5
- Bioethics: its vital role; how YOU can help ........ 8 & 11
The leaves of Drosera (left) have hair-like tentacles that produce drops of shiny liquid (seen in close-up above) which are fatally attractive to insects.

**Fan-vaulted ceiling** has deadly purpose

Continued from page 1

More opportunistic than "active" are the "pitcher" plants which have static traps, embedded nevertheless with obstacles to prevent the prey's escape.

The behaviour of the second type more closely resembles that of animals—parts of the plant move when stimulated by the insect so that it actually "holds" its prey to ensure entrapment.

The pitcher plants, in common, attract insects to the trap (a pitcher-shaped part of the plant, hence the name) by producing "bait"—alluring liquids and smells—from glands at its lip.

The nature of the obstacle within the pitcher, to prevent the prey escaping once it has been lured, varies among the species. The principle, however, is the same: in repeated encounters with the obstacle the insect becomes exhausted and finally falls to the floor of the pitcher which is lined with cells which produce digesting fluid.

In this group there is, for example, Nepenthes which is found south from the Malaysian peninsula to Cape York. The inside walls of this plant's pitcher are lined with plates of wax. Once the insect has been enticed inside, its foot pads become blocked with wax. The more it struggles the more clogged the pads become. Finally the insect falls into the "vat" where the digesting fluid completes its work in about a week, leaving nothing but the exo-skeleton.

(There is a species of spider "one up" on Nepenthes. It leads a devilish life by nimbly spinning a web just inside the mouth of the pitcher and parasitically using the plant's alluring strategy to attract its prey.)

In Sarracenia, the pitcher's design is akin to a fan-vaulted ceiling. Once inside the receptacle the insect faces the rather horrific prospect of negotiating a bed of downward pointing spikes. This plant is found in Central America.

Also found in this region is Darlingtonia or the cobra plant so named because of the trapping mechanism's remarkable similarity in appearance to the cobra, tongue protruding, poised to strike.

**Deceptive 'skylight'**

The "tongue" is the lure, leading the insect up into the "head" of the plant. This head is dotted with "skylights" where the plant wall is thinner, admitting light. The insect attempts to fly off, vertically, in the direction of the light source. The plant wall thwarts its attempts. Eventually the insect falls into the adjoining tubular section of the plant to be digested.

There is one pitcher plant with a narrowly localised distribution. It is Cephalotus which is found only around Albany in Western Australia. Whereas other pitcher plants grow, on average, to a height of from one to two feet, Cephalotus is a thumb-sized plant.

Drosera is often a rosette-shaped plant with a central flower stalk found world-wide. It adopts a more active strategy of entrapment.

Its leaves are covered with hair-like tentacles. Red-coloured cells at the end of these tentacles produce drops of shiny liquid attractive to insects. In German this digesting liquid is termed fang-schleim, so onomatopoeic that English-speaking botanists seem not to bother with a translation.

When an insect contacts a tentacle, surrounding tentacles undergo rapid movement in direction of the prey. They throw on to it globsules of fang-schleim.

The other major strategy is the active snap trap, employed by Dionaea, a plant more commonly known as the Venus fly trap. It is a native of Central America and the south of the U.S. The clam-shaped plant has sensitive hairs which line the middle of its "man-trap" like leaf. When these are triggered the trap snaps shut in less than a second.

Two or more hairs have to be stimulated before the trap operates, ensuring that it is an insect walking through that is captured and not an object such as a twig which can fall in by chance.

There are also species of aquatic plants which feed on small living organisms. Among them are Utricularia or the "lobster pot" plant.

The Information Office has released a set of "all-occasion" cards featuring some of Celia Rosser's Bankia paintings.

At present, three species are available: Bankia aemula (shown here), Bankia occidentals, and Bankia serrata. All have been beautifully printed in full color on matt Alabaster Ivory board, and measure approx. 155mm x 115mm. The illustrations were taken from Volume 1 of Celia Rosser and Alex George's "The Bankias", and reproduced from transparencies supplied by "Your Garden" magazine.

The cards bear no inscription (other than an identifying caption), but are ideal for Christmas—as for any other occasion. They cost (with envelope) only 40 cents each, and may be ordered through the Information Office, or bought over-the-counter at the Inquiry Desk, ground floor, University Offices.

Next year is the Year of International Communication.

Some believe that the teaching of Esperanto, the "international language", is the quickest, easiest and most democratic way of removing the barrier between people imposed by language differences.

An exhibition highlighting the history and aims of Esperanto opens in the Monash Main Library this month and will remain on show until January.

MONASH REPORTER
‘New deal’ proposals for the handicapped

The Victorian Government is about to receive reform proposals on guardianship for intellectually handicapped people which, if enacted, should rank this State’s provisions among the best in the world.

Preparing an initial discussion paper and subsequent draft legislation on the issue has been the task of a Working Party set up by the Minister for Health. Chaired by Dr Errol Cocks, that body has had among its members Dr Terry Carney, senior lecturer in Law at Monash.

In an article in the latest issue of the Monash University Law Review and in an interview with Monash Reporter, Dr Carney has discussed guardianship — where certain powers and responsibilities normally entrusted to the citizen as an inherent right of adulthood are transferred to another party to be exercised on his behalf — and the philosophy behind reform of existing laws.

"Guardianship," Dr Carney says, "remains one of the very few legal relationships capable of being reformed and transformed into an institution serving as a vehicle for the recognition and protection of the human rights of intellectually handicapped people."

A "guiding light" behind reform is the 1971 United Nations Declaration of the Rights of Mentally Retarded Persons. This Declaration opens with the assertion that "the mentally retarded person has, to the maximum degree of feasibility, the same rights as other human beings."

It goes on: "The mentally retarded person has a right to a qualified guardian when this is required to protect his personal well-being and interests (and) ... a right to protection from exploitation, abuse and degrading treatment."

The emphasis of specific entitlements for the intellectually handicapped put forward by the UN is on their social and civil rights to participate to the maximum degree in the ordinary community. It embodies the concept of "normalisation."

Starting point

In seeking to secure those (currently neglected) rights in Victoria the reform proposals adopt as their starting point two associated principles — that of "the least restrictive alternative" and "the presumption of competence."

The least restrictive alternative aims to ensure that the intellectually handicapped are accorded maximum autonomy of action and control over their own affairs. Dr Carney says it is a "bulwark" against well-meaning but over-protective legislation or the tendency to assume general incompetence from evidence of incapacity in a narrow area of personal decision.

This is at the heart of the reform: breaking the link between guardianship and general incompetency. The fact of guardianship should not in itself automatically affect civil rights such as the right to vote, drive a car or enter a contract, or indeed the range of life decisions such as place of residence, participation in social activities, and aspects of diet, dress and the like.

"The presumption of competence serves to protect each and every element of the bundle of normal life decisions from being unnecessarily taken out of the control of the individual by virtue of a guardianship order," says Dr Carney.

"These twin principles dictate that guardianship orders should be 'tailor-made' to the individual assets and liabilities of the person concerned. In short, that guardianship be parsimonious, flexible and individual."

The reform proposals introduce the concept of partial guardianship as a step towards achieving these aims. Victorian law as it stands falls well short of satisfying UN standards, according to Dr Carney.

Three alternatives

There are three ways by which guardianship may be extended under existing law:

• Any person below the age of 18 is under the guardianship of his parents. If this guardianship cannot be discharged the child may be admitted as a ward of the State.

• A person may designate power of attorney so that another person is authorised to exercise specific powers over his affairs. There is, however, a hurdle to the intellectually handicapped adult appointing his own attorney/guardian: the person transferring powers is obliged to have sufficient understanding of their nature and effect as a demonstration of his legal capacity to delegate.

• Guardianship may be extended under the provisions of the Public Trustee Act and associated provisions of the Mental Health Act.

Dr Carney says that a major deficiency in these last provisions lies in their concentration on property and financial matters, to the neglect of social and civil rights.

"This bias may have been appropriate to the social conditions of the 19th century but it is something of an anachronism in this day and age. Few handicapped persons have any fortune."

A second set of defects can be described as structural weaknesses or barriers to access to the existing law.

The terminology employed in the present guardianship procedure creates stigma for the retarded person in need of help and pain for the parents seeking to ensure he will get it. The procedures are cumbersome, there is inadequate pro-

Dust off those treasures

Want to know whether that vase gathering dust in the spare room cupboard is really as valuable as Aunt Jemima fondly believed?

For $2 you’ll be able to find out — at Monash’s first ‘Antique Assessment Day’, to be held at Chadstone Shopping Centre on Friday, November 26.

The ‘Day’ has been organised by the Monash Advisory Committee, a small group convened by Mrs Rena Martin, the Vice-Chancellor’s wife, to act as advisers and co-ordinators for special projects not covered by University funding.

The proceeds from this enterprise will go to the Monash Art Fund. Mrs Martin (pictured at right with committee member Mrs Margaret Endersee) says that experts in a number of fields will be available at the Chadstone Community Centre between 11a.m. and 3p.m. to give on-the-spot assessments of family treasures.

Among them will be representatives of: Leonard Joel (Auctioneers), Classic Gems Pty. Ltd., Joshua McClelland Antiques, Yately Galleries, Kenneth Hince (old and fine books), and Mrs June Stringer, president of the Australian Lacomakers’ Association.

Monash Arts and Crafts Centre will also be represented by members displaying their talents in painting, pottery, stained-glass window making, silver-smithing, weaving and other pursuits. Tea and coffee will be served.

Mrs Martin stresses that assessments (limited to 10 per person), will be given NOT for insurance purposes, but rather for personal information.

Dr Terry Carney

The emphasis of specific entitlements for the intellectually handicapped put forward by the UN is on their social and civil rights to participate to the maximum degree in the ordinary community. It embodies the concept of "normalisation."

Continued overleaf
Female students scooped the prize pool in the 1982 Goethe Poetry Competition for secondary school students of German which was organised this year by Monash's German department.

Last month the Consul-General in Melbourne of the Federal Republic of Germany, Dr Karl-Heinz Scholtyssek, presented prizes and certificates to the 20 place-getters (including only one male) and some 50 other finalists in a ceremony in Robert Blackwood Hall.

The competition is sponsored by the German Consulate, the Goethe Society, the Goethe Institute and German universities. These departments take it in turns to organise the event.

The first prize winners were: Year 10, Fiona Peacock (St Leonard's College); Year 11, Annabella Johnson (Presbyterian Ladies College); and Year 12, Janet Watson (Penleigh and Noone Girls' High School).

Our picture shows Janet Watson receiving her prize from Dr Scholtyssek. In the background are Mrs Gisela Tiemann-Kaplan and Professor Leslie Bodt of the department of German. (Photo: Rick Crompton)

Big cuts in energy

The University's Energy Conservation Committee is more than just a body with a pious hope in its heart.

The Committee's work is paying dividends by making a dent on Monash's huge energy bill.

Take, for instance, recommended modifications to plant in the Main Library.

Early in 1981 work started on modernising controls to give more efficient use of the compressors which provide heating and cooling. New filters were installed to provide better air movement. At appropriate times, outside air is introduced. The work cost $24,600. Only 18 months later the modifications had paid for themselves in savings on the electricity bill. It has been straight saving since August.

A second "sitting duck" for savings has been areas of the campus that are brightly lit for longer than is strictly necessary.

The Committee's "weapon" in this campaign has been a detecting device akin to those which open doors when people approach.

In this application they monitor movement or the lack of it in, say, lecture theatres or library areas. When all is still for a number of minutes the device triggers the "off" switch on the air-conditioning.

The movement of someone entering the area automatically triggers the "on" switch.

The testing ground for the "silent watchers" was in the Biomedical Library.

Four of the detectors have been installed to give comprehensive coverage of the large games hall in the Sports and Recreation Centre.

The network system is the result of five years of research and development and will eventually link several hundred terminals on campus and at the teaching hospitals to the University's computers.

The Centre's Director, Dr Cliff Bellamy, says the system is at present being installed and has about 100 terminals connected to it.

The network system is the work of a team which includes Dr Bellamy, Mr Barry Treloar, Mr Neil Clarke, Mr Keith Hade and Mr Patrick Miller.

Research represents only a part of the Computer Centre's activities. One of its main roles is to provide expert advice and facilities and consultative services for staff and students. It is also heavily involved in teaching.

The Centre collaborated with the department of Computer Science which provided specialist teaching computer courses for students. A similar relationship exists with the department of Electrical Engineering, the Computer Centre's staff teaching a number of subjects for the highly successful Electrical and Computer Systems Engineering course which was introduced four years ago.

The first batch of students from this second year graduate this year.

Dr Bellamy says the Computer Centre teaches computer programming at an introductory level to about 1000 students each year in the Science and Engineering Faculties.

But the dramatic increase in the number of students using computers as part of their course, he says, the total number of students requiring access to computers in any one year is now of the order of 3080. The number of areas in future is expected to be in accounting and other areas of "commercial" computing.

The huge increase in the number of students has led us to a pretty substantial investment for equipment." Dr Bellamy says. "We now have a dual processor B8700 computer, seven VAX computers, 12 MONUECS computers and a range of printers and graph plotting devices. There is also a VAX computer run by Computer Sciences and another by Electrical Engineering.

"The facilities for students and the standard of teaching at Monash is thought to be as good as any in Australia.

"The equipment has cost more than $3 million. Among the facilities, the 600 computer terminals housed in different parts of the University. Students have access to about 300 of them."

The network system which the Computer Centre has developed and is now installing has been designed to meet the University's particular needs. Dr Bellamy believes that it is an economic solution to the computer needs of many other Australian universities.

The network system is basically a shared communication system which runs around the University. Information is transmitted at the relatively high speed of 1 1/2 million bits of information per second along a single cable, which contains two pairs of wires.

The information from various users is intermixed as it flows into the system and is unscrambled at the other end by a complicated device which directs the information into the appropriate computer.

The network system has been designed to minimise the cost of cabling and to allocate channels in a controlled manner. A good deal of expertise also has gone into controlling access to the different computer systems, so that it is not possible to "jam" the system as it is with normal telephone data transmission.

New deal for handicapped?

visions for legal representation and review, and there is no mechanism for "tailor made" orders. Guardianship under the Public Trustee Act is an "all or nothing" state which is ameliorated only to some degree by the administrative practice.

Personal guardianship provisions relating to the person as distinct from his or her property in Victoria are, Dr Carney concludes. "a dead letter."

This accepted practice raises the question of the sensitivity with which reform to the law must be handled, says Dr Carney.

"Many aged parents view it as their inalienable right to be able to continue to exercise de jure the absolute powers of guardianship and control which they have assumed in respect of their adult intellectually handicapped children."

The majority could — and should — become wise and sensitive holders of partial guardianship powers under new legislation. But they must be attracted to, and won over by, an administration which they will be tempted to characterise as bureaucratic meddling with matters properly the preserve of the family unit.

"It is imperative that they be won over, for the dangers of any carte blanche or un supervised guardianship are well documented. It would be immoral for the State to wash its hands of this matter and allow the civil rights of intellectually handicapped adults to be suppressed by well-meaning, overprotective parents."

"What is required, daunting though the prescription appears, is a law which will win that support and confidence."

In making recommendations on such a law the Working Party has been able to consider a substantial body of legislation enacted in several North American and Australian States. It has also been able to assess the shortcomings of some of that legislation.

Dr Carney says that the essence of the scheme being proposed for Victoria can be drawn from elements of legislation existing in Alberta (Canada) and South Australia.

In devising institutions and procedures for determining guardianship which are widely accessible, just fair and accurate in their decisions, the Working Party's discussion paper prefers low-key "coffee table" justice to judicial forms of decision-making.

Preference has also been expressed for guardianship legislation which exhorts labels and offers its services to everyone whether aged, accident victim or the intellectually handicapped.

As with the Alberta Act (but unlike that in South Australia), Dr Carney proposes that provision should be made for guardianship to be delegable to members of the community who would be approved by a body with adjudicative powers. The South Australian style of adjudication by an administrative body or tribunal is preferred to Alberta's reliance on a superior court.

Recommendations on the type of guardianship orders endorse Alberta practice. They should be individually tailored and preferably partial.

The innovative features in the Victorian discussion paper lie mainly in the area of the distribution of powers among the persons for whom he is responsible and the bodies to whom he is accountable.

"Dr Carney says that the Working Party has taken a rather "jaundiced view" of the South Australian procedure of entrusting to the administrative body alone questions of sterilisation, abortion and tissue donation.

The Victorian paper also advocates improvements which should ensure that guardians would be less likely to acquire powers over the person to the values and lifestyle of the person affected, would receive orders which were rather more specific and detailed than their overseas counterparts, and would be encouraged to act more in the role of advocates for their charges.

November 1982
Monash aids Indonesian University

Monash staff members are playing a major role in a project to relocate and upgrade facilities at an Indonesian university.

The institution is Universitas Hasanuddin (UNHAS), located in Ujung Pandang, Sulawesi.

The relocation, the US$44.5m. cost of which is being funded by the Asian Development Bank, is receiving technical assistance from the Australian Universities International Development Program.

Construction started in January. As well as new buildings, the project involves an upgrading of equipment and improvement of the skills of staff.

Current project

Monash has had a long involvement in assistance to Indonesian universities pioneered by Professor Bill Rachinger, of Physics, and Associate Professor Arthur Williams, of Mechanical Engineering.

In the current project, tender documents for new equipment are being prepared by three Monash teams headed by Professor Rachinger (advising in the area of science and technology), Professor Colin Johnston (medicine) and Dr Terry Hore (teaching methodology). In addition, a University of Melbourne team is advising on agriculture and one from the University of New South Wales on the library system.

The teaching methodology team — Dr Hore, Mr Ian Thomas, Mr Neil Paget and Mr Ted Snell, all of the Higher Education Advisory and Research Unit — spent three weeks at UNHAS recently conducting an intensive workshop on topics requested by the University’s staff.

Workshop topics

The workshop was built around six topics: planning for instruction; assessment of student performance; large group teaching; audio-visual media; evaluation of teaching; and program review and evaluation.

Dr Hore says that the final part of the workshop consisted of a personal project which provided an opportunity for participants to complete a unit of work which could be written in Indonesian and used in their teaching.

He says that the principles of contract learning were used: participants specified what project they would undertake and signed a contract with the team agreeing to complete the requirements by a certain date.

Dr Hore says: “This method proved popular and successful in getting participants to work both in the workshop and in their own time on their project. The projects varied from an analysis of pre-requisites to detailed lecture preparation, multiple choice test item writing and test analysis.”

Chinese scientists visit Monash

Leading members of China’s top scientific body, Academia Sinica, who were in Melbourne last month for the opening of the Chinese dinosaur exhibition at the National Museum, visited Monash to check on progress of a project involving Chinese and Monash vertebrate palaeontologists.

Chinese scientists have been working with Dr Pat Rich, of Earth Sciences, and Mr Ron Savage, of the Japan Department, on a computer-based system for the translation of Chinese palaeontological literature into English (and vice versa) and the production of the first Chinese-English/English-Chinese dictionary in the subject.

Pictured above (from left to right) are Professor Minchen Chow, a visiting researcher in the Earth Sciences Department, Mr Ron Savage, Dr Ting Hao, Bureau Director of Academia Sinica and Mrs Yu-Ping Zhang, a visiting researcher in the Earth Sciences Department.

Monash host to Japanese editor

Coverage of Australian affairs in the Japanese press could improve following the visit last month of Mr Kensaku Shirai, foreign editor of Asahi Shim bun, a Tokyo daily with (at seven million copies) the second largest circulation in Japan.

Mr Shirai was attempting to get a “feel” for Australia during his visit and met with politicians, business leaders, fellow journalists and academics. He visited the Japanese department at Monash for talks with Associate Professor Harold Bolitho.

One of the stereotypes notions that the Japanese hold about Australia, says Mr Shirai, is that the country still pursues a “whites only” policy.

“I find that that is far from the case,” he says, “and am impressed with the way in which this country has shaped a multicultural society.”

Mr Shirai has served as correspondent for Asahi Shim bun, which publishes editions around the clock, in London, Washington and the Middle East.

NOVEMBER 1982
Most medical graduates aim to work in general practice

In conjunction with the Australian Graduate Careers Council's annual survey of graduate destinations, the Monash Careers and Appointments Service undertook a survey of Monash medical students who graduated in 1981.

The aim of the survey was to obtain a profile of medical graduates and ascertain their long-term goals with a view to conducting a further survey in about five years' time.

Sixty-three male graduates and thirty-one female graduates responded to the questionnaire—a response rate of 70 per cent.

The respondents to the survey were young compared with the general university population, taking into account that their ages were taken at the end of a six-year course.

Twenty-one per cent were under 24, 44 per cent were aged 24-33 per cent were aged 25-29 and two per cent were aged 30 and over.

All graduates who responded except two expected to be practising medicine in five years' time. Sixty-three per cent hoped to enter general practice. Twelve per cent hoped to become surgeons and ten per cent hoped to become physicians.

Among other specialties, sports medicine attracted 30 per cent of males but no females. Paediatrics, obstetrics and gynaecology were preferred by females. Anaesthetics, psychiatry, neurology and the Flying Doctor Service attracted male aspirants.

Among those not expecting to stay in medicine, one expected to be un-employed and another to enter another profession.

The Careers and Appointments Service says in its survey report that the prospect of accommodating family demands was mentioned by only one graduate, who expected to work part-time in general practice while raising a family.

"This seemed a small number considering that most of the respondents will be aged about 30, five years after graduating," the survey says.

It got

Computer scientists have few problems

A survey by the Monash University Careers and Appointments Service indicates that the 1981 stream of Monash science graduates with major studies in computer science had no difficulties in gaining employment.

The survey was conducted concurrently with the annual survey by the Graduate Careers Council of Australia of the destinations of all students who graduated from tertiary institutions in the previous year.

Statistics for those graduates with major studies in computer science were surveyed in the Monash study. The general figure was 45.

The survey found that 34 of these 45 graduates took up employment on completion of their degrees. In all but one case the job was directly associated with computing. The odd one out took a job as a laboratory technician.

Twelve graduates took jobs with computer suppliers and consultants, four with large manufacturing organisations, two in banking, two in insurance, eight in the public sector, two with oil companies and three with other finance organisations.

The average salary was $15,000 with a range of $10,000 to $19,000.

The survey says the success of Monash graduates in gaining employment is best explained by the fact that one of the world's largest computer manufacturers employed five of them.

"The attractiveness of the graduates to employers is not in doubt," the study says. "What is perhaps of more interest is that the graduates themselves tend to be conservative in their identification of potential employers. The employers to whom the graduates applied were generally the larger, more obvious, organisations."

Of particular interest in the survey, the report says, was the high proportion of graduates who included physics, chemistry, and at least one branch of mathematics in their degree.

As to the perceived benefits of the course, most graduates tended to view it as instrumental in obtaining a job. It got them a job. There were few comments in their replies regarding the benefits of tertiary study in general.

The report comments: "This instrumental view is reflected in the feeling of most students that the course was not practical enough or commercially oriented—perhaps in later years after some 'incubation' the overall benefits of tertiary study will become more apparent, particularly with comparisons made for those who move into areas involving more scientific applications."

City meeting place for graduates

The University Club at 100 Collins St, Melbourne, regularly, is open for light lunches between noon and 2.30 pm, Monday to Friday, and from 5 till midnight and beyond Thursday-Saturday. Bookings are still being accepted on a strict first-in basis. Inquiries about reservations, or for further details should be directed to Margaret Sloss on 631607.
The role of personnel consultants and private employment agencies in student employment is questioned in a paper which Mr Lionel H. Parrott, officer-in-charge of the Monash Careers and Appointments Service will deliver this month.

Mr Parrott will present the paper at the National Conference of Careers Ad­visers’ Services at Bowral in NSW.

"There is a trend in the careers and appointments services to adopt personnel consultants either collectively or individually to supplement the present practice of getting a job simply because of the types of people that consultants stand to gain by sur­rounding this process with mystery."

Mr Parrott, who reviewed the activities of private personnel consultants, was critical of the deterioration in the professional performance of university careers services makes them vulnerable.

"The areas of our general activities are extremely attractive for their profit potential," he says, referring to the private personnel consultants.

"In essence, our attitude must be determined by what is best for our clients," he says. "Have we the right to refuse assistance to a student simply because a job is being handled by a personnel consultant?"

He adds: "Despite the personal feel­ings many of us may have about the ser­vices provided by consultants, and the prices charged for them, our objectives have surely always been to encourage students to make career decisions for themselves and to accept responsibility for them. To use a personnel consultant is their decision rather than ours."

"Moreover, the reasons many of our clients have sought the assistance of computers in an effort to unravel some of the major problems of socialist economies in Eastern Europe."

"Asked why there was an almost perennial meat shortage in Poland, the Polish computer hesitated for a moment and then replied: 'Do not understand the term 'meat'. '

"To the same question, the American computer responded: 'Do not understand the term 'shortage'. '

"The economists then fed the problem to the Soviet computer which, after taking a while to digest it, replied: 'Do not understand the word 'why'. '

"This report from the mythical Radio Armenia, the source of so many Soviet anecdotes, highlights some of the issues examined by Ron Breth and Ian Ward in The Soviet Discontent."

"It was of little immediate value to beleaguered economic planners and managers seeking to keep the fragile Soviet ship of state aloft in the turbulent seas of growing working class and peasant discontent as well as a fratricidal civil war in the years immediately after 1917.

"With many of Marx and Engels' expectations mis­placed and Lenin having largely to improvise, it was not until Stalin's rise to power that it became possible to devise and impose an ambitious and full scale model of economic organisation and planning upon the Soviet people."

"This is the Stalinist model, with its highly centralised decision-making machinery as well as its inefficiencies and social inequities, that looms large in Ron Breth and Ian Ward's book."

"Ranging as it does over the economies of sixteen countries occupying approximately one-third of the earth's surface and accounting for almost 40% of its population, their study is an ambitious one. Its scope, indeed, more or less makes their early treatment of the concepts of an economic system, capitalism, socialism and communism almost unavoidably general.

"Yet even here, and to a much greater extent in their later chapters, they succeed in establishing clear distinction between the various systems discussed."

"The various modifications of, and more outspoken departures from, the original Stalinist prototype are examined in much fuller detail in subsequent chapters and dealing with such problems as the morphology of and incentives offered to, the work force; notions of workers' control and management of economic enter­prises; the forms of property obtaining and the amount of latitude given to workers' control and management of economic enterprises; the forms of property obtaining and the amount of latitude given to workers' control and management of economic enterprises; and other issues.

"In terms of levels of economic development, Breth and Ward's book ranges from poor agricultural societies such as those of Cuba and Laos to such industrialised ones as the German Democratic Republic and Czechoslovakia. A useful appendix setting out models of selected socialist economic systems outlines the Stalinist, Maoist and Castro­Guerrist models together with the more 'revisionist' ones associated with such figures as Tito and Olo Sk"
In 1980, Monash University established Australia’s first Centre for Human Bioethics. Its purpose was to define and research the daunting challenges — legal, moral and social — thrown up by the revolutionary scientific advances of the latter half of the 20th century. Here, Dr Cora Singer, a research officer of the Centre, reviews some of the achievements to date, and looks at some of its current and future activities.

Science doesn’t have all the answers

The pace of recent scientific development in the medical and biological sciences has far outstripped our ability to achieve consensus on the proper use of its findings. Many of the implications of medical research affect the quality of our lives and will affect the lives of future generations. The answers to these problems have to be found. As Professor Kluckhohn, the eminent anthropologist, recognised: “Science provides only a car and a chauffeur for us; it cannot, as science, tell us where to drive.”

The first Australian bioethics centre was founded in 1980 — the Monash Centre for Human Bioethics. The broad aims of the Centre are:

- To carry out research on issues in human bioethics and to promote study of the ethical, social and legal problems arising out of medical biological research.
- To provide an advisory and resource centre for government, professional, educational, and community groups.
- To stimulate the development of educational programs in human bioethics for professionals and the general public.

The Centre for Human Bioethics has held a number of conferences, the first, “Medical Science and the Preservation of Life: Ethical and Legal Dilemmas” was held at Lincoln College, Melbourne in November last year. Speakers were Dr. Erica Bates, from the University of New South Wales, Professor D. B. Albroek, Melbourne University, and Mr. Justice Kirby, Chairman of the Law Reform Commission of Australia.

One of the more intriguing events of the Bioethics Centre’s year was the visit in August of His Holiness, the Dalai Lama, to a seminar in the University Offices. The seminar focused on three burning issues of the 1980s — in vitro fertilisation, the rights of defective newborn children, and euthanasia. Papers on each of these topics were presented by acknowledged authorities in their fields, and Mr. Alan Rassaby, Associate Professor W. A. Walters and Professor P. Singer, has just been published by Oxford University Press.

On IVF, Professor Annas said he could see few problems in the straightforward situation where the genetic material came from the couple involved, but, in the future, surrogate motherhood and embryo donations and freezing would raise all the issues needing careful examination.

The Monash Centre for Human Bioethics is currently working on two major research programs, one concerning the treatment of severely defective babies and the other on IVF and its implications.

The Centre is now arranging for Professor Clifford Groebstein to visit Melbourne for two weeks; he is Professor of Biological Science and Public Policy at the University of California in San Diego.

Professor Groebstein will give two public lectures at the Royal Society of Victoria: “In Vitro Fertilisation: The Present Climate,” on November 19 at 5.30 p.m., and “In Vitro Fertilisation: Implications for the Future” on December 6, also at 5.30 p.m.

He will also be a guest speaker at a seminar on “Ethics and the Future of Health Promotion” at Lincoln College, Melbourne, on November 30 at 2.15 p.m.

Other speakers will include Dr. Bill Hart from Lincoln College, and Dr. Nigel Gray, Director of the Anti-Cancer Council of Victoria.

Private meetings with interested groups are also being arranged. A book, Test Tube Babies: A Guide to Moral Questions, Present Techniques and Future Possibilities, edited by two members of the committee of the Centre for Human Bioethics, Associate Professor W. A. Walters and Professor P. Singer, has just been published by Oxford University Press.

The Centre is building an Association of interested members of the community, both inside and outside the University. The Centre produces a newsletter which is circulated to all Associates, to keep them up-to-date with the work of the Centre as well as general news about the field of human bioethics. Associates receive notification of all lectures, seminars and other activities organised by the Centre and have access to resources such as bibliographies and reports.

We believe that a Centre devoted to the study of bioethical and legal problems raised by the medical and biological sciences is vitally needed if we are to use our new knowledge wisely.

University funds were provided to establish the Centre. However, its growth and development depend on other regular sources of income from the wider community. We welcome donations, and invite those interested in making larger gifts or bequests to contact us for further information.

All donations to the Centre are allowable deductions for income tax purposes, and bequests are not subject to Probate and Federal Estate duties.

Turn to page 11 for an application form for associate membership of the Monash Centre for Human Bioethics.
Computer design increases productivity

The computer is revolutionising the design, manufacture and assembly of components in the aircraft, automobile and other industries.

In Monash's Mechanical Engineering department, Dr Sarath Gunasekera, a senior lecturer, has pioneered leaching and manufacturing (CAD/CAM) in recent years.

Dr Gunasekera returned in June from an outside studies program conducted at the Wright-Patterson Air Force Base in Dayton, Ohio. There he worked on the CAD/CAM of dies for the production of wing parts from a new aluminium alloy which holds the promise of lighter, more fuel-efficient aircraft.

He will be returning to Wright-Patterson, one of the US's largest air bases, during the long vacation for final testing of the dies he designed.

CAD/CAM, says Dr Gunasekera, has the potential to boost Australia's competitiveness in manufacturing. Currently we are at a handicap in this field. Innovation in computer-aided design and, at Australian wage rates, expensive.

Dr Gunasekera was invited to join the US Air Force Materials Laboratory's research program following his work at Monash on the analysis of non-axisymmetric extrusion and CAD/CAM of dies. This work has also involved Susumu Hashino who came to Monash from the Defence Academy, Tokyo, in 1978 and this year gained his Ph.D.

At Dayton, Dr Gunasekera worked on the design of a complex extrusion die for a wing spar cap.

This part is to be made from a new aluminium alloy (Al. 2024 with 20% SiC whiskers) developed by Exxon. The material has twice the stiffness of conventional aluminium alloy, a quality which enables the design of lightweight wings with less drag and reduced weight. The result is a more fuel-efficient aircraft.

Analytical modelling

The process of trial and error plays a larger part in conventional design. The computer holds the key to the elimination of much of this time-consuming procedure, says Dr Gunasekera.

Analytical modelling takes place in the computer: the engineer gets optimum results in the conceptual stage, long before the first die is produced.

Dr Gunasekera says that the computer cannot provide all the answers on the design of a component to the finest detail. But it does allow the engineer to converge on a much smaller area where trial and error testing of design options will be necessary. Computer graphics help the designer to understand and visualise complex three-dimensional geometries of components and dies.

The benefits are increased productivity and a reduced lead time in the production of components.

Dr Gunasekera says that the lead time (the time from concept to production) of, say, aircraft landing gear is, on average, two years, CAD/CAM has the ability to reduce that to six months.

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The problem, however, has been to manufacture complex shapes of this material without breaking up the whiskers and thus ruining its superior mechanical properties.

In place of the conventional shear (or flat faced) die, Dr Gunasekera proposed the use of streamlined dies for the extrusion of the material. He completed the design of the die and the procedure for its manufacture using the sophisticated CAD/CAM hardware and software at Dayton.

Dr Gunasekera returned from the US impressed with that country's approach to defence research and development.

The US Defence Department, unlike its Australian or British counterparts, contracts out most R&D work. The government scientists act as project managers, directing and monitoring the work.

The US Defence system is more effective because the bulk of the work is carried out by outside firms on a very highly competitive basis away from the usual government red tape and bureaucracy.

While defence research is being well funded, Dr Gunasekera found "severe hardship" in US universities in general.

Dr Gunasekera is Sri Lankan born.

He took his Ph.D from Imperial College, University of London, and has worked at Monash since 1977. He has also acted as consultant to many firms and bodies, including BHP, Pilkington-ACI and the MMBW, in recent years.

Currently he is supervising another Ph.D. student, Ho Sian, an experimental officer with the newly established CSIRO Division of Manufacturing Technology. He is investigating CAD/CAM's application in the pressure die casting industry.

Understanding the disabled

This symposium was held in response to a recommendation in 1980 that the Monash University Vice-Chancellor's Advisory Committee for People with Handicaps (VCAP/CHP) should in some way mark the UN's Declaration of 1981 as the International Year of Disabled Persons.

In an unusually informative and perceptive report, Dr Pierre Gorman, Associate of the Education Faculty, Monash University, clearly points out that the capabilities of disabled people are largely determined by the circumstances of their lives and the attitudes of others. 

A perspective projection produced by a computer of an electrode used to electro discharge machine a die for a complex aircraft structural part.

Dr Sarath Gunasekera examines the experimental extrusion rig at the Wright-Patterson Air Force Base in Dayton, Ohio. The rig is used to check the validity of computer models.

Dr Pierre Gorman Associate of the Education Faculty, Monash University. NOVEMBER 1982

by reading this report. In addition, the report contains many practical hints which would facilitate the successful organisation of comparable symposia, either in Australia or overseas.

Dr Pierre Gorman Associate of the Education Faculty, Monash University.
Vapours “not a hazard”

An article appeared recently in an overseas publication in which it was stated that the vapours released by correcting fluids and their solvents could be injurious to the health of users.

Monash Safety Officer Alan Wilson says checks with Victorian health authorities have shown there is no local evidence of health problems arising from the use of these products.

The University Safety Committee has had tests done on fluids and solvents available from the Central Stationery Store.

And from these tests and following reference to authoritative sources of information, the Committee concludes that when the products are used sensibly and in accordance with the manufacturer’s instructions, there should not be any injurious side-effects.

Mr Wilson says the following precautions should be observed during use:

- Read and follow the manufacturer’s instructions.
- Use in a well ventilated area.
- Replace the cap on the bottle immediately after use.
- Avoid splashes or other eye contact with the fluids or solvents.
- Do not smoke while using the fluids or solvents.
- Some people may be particularly susceptible to the fluid or solvent vapours. These people should use the products sparingly or avoid using them altogether.

The products tested were Liquid Retype, Correctext, Tippex Correcting Fluid, Tippex Thinners and Liquid Paper.

Mr. Wilson says other similar products may have characteristics that differ from those that were tested.

ARGC grants: New projects

Monash has been awarded $1,614,924 in research funds from the Australian Research Grants Committee for 1983 — 8.35% of the total national payout.

Of the Monash allocation, $551,676 goes to fund 43 new projects — a gratifying increase over the "new project" allocation of $309,562 in 1982.

The new projects funded are listed below:

**ARTS**

**Anthropology & Sociology**

Dr. D. Ryan

Rural-urban interaction in Papua New Guinea

6,280

**German**

Assoc. Prof. M. Olyn

Cross-cultural comparison of academic discourse

8,000

**History**

Dr. J. D. Pickard

Australian leisure activities in 1938

3,000

**Linguistics**

Dr. G. Mallinson

The Anumanian language of Northern Greece

3,380

**Music**

Dr. M. J. Kantomi

Sumatran music cultures

16,173

**ECONOMICS & POLITICS**

**Economometrics & Operations Research**

Dr. M. King

Specification error in econometric models

8,739

Dr. K. McLaren

Financial modelling in continuous time

7,200

**Politics**

Dr. A. Davidson

The creation of consensus in the modern state

4,232

**ENGINEERING**

**Chemical Engineering**

Assoc. Prof. F. Lawson Dr. G. Trigub

Application of laser spectroscopy to mineral processing investigations

11,890

**Civil Engineering**

Dr. G. Rozvany

Optimisation of structural layouts by analytical methods

20,292

**Materials Engineering**

Assoc. Prof. B. W. Cherry Dr. G. H. Edward

The structural basis of polymer friction

11,500

**Mechanical Engineering**

Dr. G. Leonart

Wave energy transfer mechanisms

16,275

Dr. D. R. Blackman

Assoc. Prof. J. B. Hinwood Dr. T. T. Nguyen Assoc. Prof. J. B. Hinwood

Kinematic properties of breaking waves

7,155

**LAW**

Mr. A. Ferran

Legal problems concerning Australia and the GATT

11,750

**PHYSICS**

**Anatomy**

Dr. M. B. Rentfrew

Pregnancy and parturition in the marsupial Monodelphis domesticus

23,216

Dr. R. V. Short

Biochemistry

Dr. S. Marszuk

Structure and function of mitochondrial membranes

45,167

Dr. A. Larrian

Pathology & Immunology

Dr. H. Ward

Diferentiation of chicken lymphocytes and reticular epithelial cells studied by monoclonal antibodies to cell membrane antigens

15,000

**Physiology**

Dr. L. Atkinson

Brain mechanisms and binaural hearing

15,710

Dr. U. Prossie

Developmental reflex responses and central actions

16,000

**Genetics**

Dr. M. Weiss

Biogenesis of adrenal steroids in postnatal Thylorhynchus vulpaceus with specific reference to the "special" zone of the female

11,600

**SCIENCE**

**Botany**

Dr. M. N. Clayston

Studies on the reproductive biology of brown algae

13,848

**Chemistry**

Prof. R. D. Brown

Theoretical galacto-chemistry

12,800

Dr. B. A. W. Collins

Molecular structures in electrically excited states

2,150

Dr. P. D. Godfrey

Prof. W. R. Wilson

Synthesies of biologically important molecules involving metal catalysis

9,000

**Earth Sciences**

Prof. B. Hobbs

The use of high pressures to determine the rate controlling process in diline plasticity

12,890

**Mathematics**

Dr. P. V. Rich

Dr. M. Rowley

Dr. T. H. Rich

Recursive model theory

5,000

**Genetics**

Assoc. Prof. V. Krishnapillai

Molecular genetics of transfer of pseudomonas aeruginosa R plasmids

10,600

Dr. M. J. Kartomi

Australian leisure activities in 1938

17,250

**Computer Science & Information Processing**

Dr. C. Ash

Factorization of operators from Banach spaces into spaces of measurable functions

5,000

**Psychology**

Dr. J. Monaghan

Numerical simulation of star formation in the presence of rotation and magnetic fields

4,200

**Radiophysics**

Dr. A. Bowing

Spatio-temporal interactions in human vision

6,635

**Language**

Dr. D. R. Blackman

Dr. R. V. Short

Biochemistry

Dr. S. Marszuk

Structure and function of mitochondrial membranes

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MONASH REPORTER service page

The events listed below are open to the public. "RBH" throughout stands for Robert Blendell Hall. There are BAS ticketing outlet on campus at the Alexander Theatre.


EXHIBITION: "Directions Now!": The Mitchelton Print Exhibition 1982, featuring works by 14 contemporary printmakers. Open 10 a.m. to 6 p.m. weekdays in Exhibition Gallery, Menzies Building. For further information, inquiries: ext. 2117.

SEMINAR — "Court appearances, Court reports": a seminar for clergy, medical practitioners, psychologists, social workers, teachers. 4-6.30 p.m. Registration $26.50. Inquiries: Centre for Continuing Education, ext. 3717, 3711.

SEMINAR — Recent developments in Taxation — Series B: "Taxation implications of corporate takeovers", Att. by Taxation Institute of Australia and faculty of Law, Law Institute of Victoria, 470 Bourke St., 6-7 p.m. Other seminars in series: "The taxation and company law implications of arrangements and amalgamations" (November 10), "Stamp duty implications and schemes of arrangements" (November 17). Inquiries: 63 7036.


8: SEMINAR — "Deadlock in your company: What can you salvage?", Law Institute of Victoria, 4.30-9.30 p.m. Registration $90. Inquiries: Continuing Legal Education, ext. 3307.

11: SEMINAR — "Practical off-shore taxation: Double tax and Australian domestic tax problems", Law Institute of Victoria, 4.30-9.30 p.m. Registration $95. Inquiries: ext. 3307.

MEDICINE FACULTY LECTURE — "The Syndromes of Asphasia", by Dr. Harold Goodglass, Boston University. 5 p.m. Medical School Lecture Theatre, Alfred Hospital. Admission free. Inquiries: 520 2601.


26: ANTIQUE ASSESSMENT DAY — Authorities on jewellery and antiques will give on-the-spot assessments of family treasures at Chadstone Community Centre, Chadstone Mall, between 11 a.m. and 3 p.m. Proceeds in aid of Monash Art Fund. Inquiries: ext. 2002.

Dec. 3: SEMINAR — "Science and scientists in relation to public policy", Prof. Clifford Grobstein. 4.15 p.m. RBH. Inquiries: est. 3266.

4: CONCERT — Family day of fine music featuring performers from the Melbourne Youth Music Council, 4 p.m. and 7.30 p.m. RBH. Admission: adults $4; students and pensioners $2.


11: CONCERT — St Gregorius Dutch Male Choir Christmas concert, featuring Lownawa Singers, Victorian boy's Choir, Victorian State Youth Band, Tony Fenelon (organ), Peter Thomas (compere). 7.45 p.m. RBH. Admission: adults $6; concession $3. Tickets — RBH or 762 1326.


30: SEMINAR — "Ethical issues in health care: practice and post amateurs", Prof. Clifford Grobstein, 2.15 p.m. Lincoln Institute. Inquiries: est. 3266.


THE ASSOCIATION OF THE MONASH CENTRE FOR HUMAN BIOETHICS

APPLICATION FORM

All interested people and institutions are invited to become Associates. The minimum annual donation is $25. (A special rate of a minimum of $5 per annum applies to full-time students and pensioners). Institutional Associate is a minimum of $100 per annum. Donations for Associate are tax deductible and fall due on 1 July each year. For further details contact the Centre.

Surnamem.................Given Names..........
Address.....................Postcode..............
Telephone : Business....Home..............
Occupation.................Occupation..............

* I wish to register as an Associate of the Monash Centre for Human Bioethics in the following category. (Please tick appropriate box).  
   Institutional:  
   (i) Minimum donation of $25 per annum  
   (ii) Minimum donation of $5 per annum (pensioner and full-time student rate)

* I would like to participate in a research project and/or seminar on
   (Please specify subject area of most interest to you)

* I would like to be advised of suitable wording for the inclusion of the Centre as a beneficiary in my will

* I enclose a cheque/money order for the sum of $.

Cheques should be made payable to: "Centre for Human Bioethics Appeal Fund". This form plus remittance should be forwarded to:

The Secretary,  
Centre for Human Bioethics,  
Monash University, Clayton, Victoria, 3168.  
Phone: (03) 541 0811, extension 3266.

MONASH REPORTER

This is the last issue of Monash Reporter for 1982.

The next will be published in the first special, March 1983.

Contributions (letters, articles, photos) and suggestions should be addressed to the editor (ext. 2003) c/- the information office, ground floor, University Offices.

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SCHOLARSHIPS

The Registrar's department has been advised of the following scholarships. The Reporter presents a précis of the details. More information can be obtained from the Graduate Scholarship Office, ground floor, University Office, extension 3055.

AMLS Scholarship

Open to graduates for research (full-time or part-time) in the field of medical laboratory science, including administration and data processing. Valued at $3,000 and tenable for one year in the first instance. Applications close on January 15, 1983.


Japan travel opportunity

Graduate Student Exchange Scheme

Inquiries are invited from graduate students who would be interested in continuing their studies, for a time, at Rikkyo University, Tokyo.

Under the terms of an exchange agreement Monash and Rikkyo may nominate a limited number of graduate students to the other. Tuition will be paid for Monash students accepted by Rikkyo but the students will be responsible for all other expenses. Rikkyo University has six faculties: Arts, Economics, Science, Law and Politics, Social Relations, and General Education.

Important dates

The Registrar advises the following important dates for students in November.

6: Third term ends for Master of Librarian-ship and Master of Engineering Science by coursework.

12: Final Examinations commence for Medicine IV.

17: Publication of results, Medicine VI.

19: Applications close for Dip.Ed.

22: Second term commences — faculty of Law.

26: Applications close for B.Ed. summer term.

29: Publication of results, Science IV.

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Monash University

SUMMER DIARY

JANUARY

3: University新鲜ness

5: AFRICAN ARTS & CRAFTS CO repetitive exhibition (Jan 3 - Feb 28)

8: COMMUNITY MEETING: Gavin Macartney, University of Melbourne, will address a meeting in Memo Hall, 7 p.m.

15: MONASH UNIVERSITY OPEN DAY: from 9 a.m. to 2 p.m.

22: RESEARCH FORUM: Dr. J. R. Wilson, University of Melbourne, "The Detection of Neuronal Activity using Magnetoencephalography" (Memo Hall).

29: MONASH UNIVERSITY ANNUAL REPORTER SERVICE PAGE 11
His aim is to keep languages alive

Emeritus Professor Einar Haugen, a world authority on bilingualism, talks of the "ecology" of language. Just as there are endangered species of animals and plants so too are there languages at risk of disappearing from a community or, more drastically, from the world altogether (as is happening from the world altogether (as is happening to the world altogether (as is happening to the world altogether (as is happening to the world altogether (as is happening...)

Professor Haugen, who has been president of the Linguistic Society of America and the International Congress of Linguists among other bodies, was invited to Monash by Associate Professor Michael Clyne, of the German Department.

He gave several public lectures here, including one on linguistic pluralism as a goal of national policy and another on personal reflections of growing up bilingually (he was born in the US, of Norwegian parents). He also participated in a workshop on language policy in Australia.

This is Professor Haugen's first visit to Australia and completes a globetrotting year. From his home in Belmont, Massachusetts, he travelled to Norway in the northern Spring. He attended the 13th Congress of Linguists in Tokyo before coming on to Australia.

Professor Haugen's teaching and research have been in Scandinavian languages (particularly in Norwegian and Icelandic), general linguistics and social aspects of language. A comprehensive study he completed on the Norwegian language in North America has provided the framework within which other studies on bilingualism have been undertaken.

While in Canberra recently Professor Haugen was invited to put his views on bilingualism to the Senate Standing Committee on Education and the Arts which is inquiring into the need for a national language policy.

There are two issues that have to be considered in relation to this, he says. Needs and rights.

What the community has a responsibility to meet is the need of immigrants in a country such as Australia or the US to learn the dominant language, English. Bilingual programs in the US historically have been designed to meet this need. They have been part, then, of the policy of assimilation.

But what also has to be considered are the rights of members of an immigrant community to have the opportunity to maintain the language of their country of origin and, further, have it taught to their children.

Professor Haugen says that no one would deny immigrant communities the right to establish their own schools to do this. But a crucial issue that has to be decided is what right these groups have to government support for their programs.

Professor Haugen personally supports the role of government in achieving bilingualism nationally.

He believes that the opportunity should be provided within every community for people to develop skills in a second language. The choice of that language he sees as being determined by the community.

Professor Haugen rules out any threat to a country such as Australia from the encouragement of bilingualism.

No one group is large enough to produce any sort of political danger, he says.

It's all a long way in outlook from periods of hysteria in relatively recent history.

Take the years of World War I for example. In the US, Professor Haugen says, speaking in a foreign language in a public place was illegal. It became equated with spying.

As in Australia, foreign terms or place names (especially German) were Anglicised: Sauerkraut overnight became liberty cabbage!

...a 'new' bank is born