

## ANZAAS AT MONASH

# Science comes down from its lofty summit

As the setting for the 55th annual congress of ANZAAS, Monash is attaching its name to one of the great events in the history of science education in Australia.

The congress, from August 26 to 30, is not only important in itself . . . it is the core event of a Festival of Science unmatched for its imagination, range and potential impact.

Sir Edmund Hillary, conqueror of Everest, will deliver his address as president of ANZAAS in Robert Blackwood Hall on Monday night, August 26.

The address will be part of Victoria's 150th anniversary lecture series, entitled *Forum 150*.

During the evening, the ANZAAS, Mueller and Mackie Medals, the Michael Daley Award and the ANZAAS Ezzo Energy Award will be presented.



26-30 August 1985

The major events of the festival are to be the congress itself, the ASEAN interaction, Youth ANZAAS, and the Community Science and Technology program.

Of these, the congress, with its 130 individual sessions, will be the dominant affair.

But all three other events will make their contributions to the festival's success.

• The ASEAN interaction will be a one-day event for top scientists from Australia, New Zealand and the six ASEAN countries (Indonesia, Singapore, Malaysia, Thailand, the Philippines and Brunei).

• Youth ANZAAS will be for 1500 girls and boys chosen from year 11 classes in every secondary school in Victoria, together with 100 from other states and nearby countries.

• For the Community Science and Technology program, more than 100 events are to be staged throughout the metropolitan area by government and private organisations, to show some of the countless applications of science in everyday life.

These events will be free, and the public is invited.

You can get a ticket by clipping the coupon which will be printed daily in *The Sun News Pictorial*, filling it out, and posting it to this address:

Sun-ANZAAS Community Science, P.O. Bag 750, Monash University, Clayton. 3168.

Interesting as the community program will be, it will be minor compared with the riches of the congress itself, with 130 half-day sessions of lectures, demonstrations, discussions and general give-and-take between about 700 scientists of every kind and their audiences.

No one with any kind of lively interest in our society and its problems, and in the problems and needs of today's intelligent citizens of all ages, will fail to find enrichment at the congress if they choose their sessions carefully.

Just as the public will gain new insights into the immense continuing role of science in our material life, scientists will be refreshed and encouraged by feed-back from intelligent non-scientists.

Considerable care has been taken to make the ticket system effective so no one need be disappointed.

For all sessions of the congress, booking is at BASS outlets everywhere, at \$8 for each session (\$5 for students).

Credit card bookings can be made by telephoning 11500 (Melbourne) or (008) 13 6036 toll free (for Victorian country callers).



• Detail from *Battle of the Plate*, a Barry Humphries original from the Irreverent Sculpture exhibition, Visual Arts Gallery, Monash. See story, photos p.3.



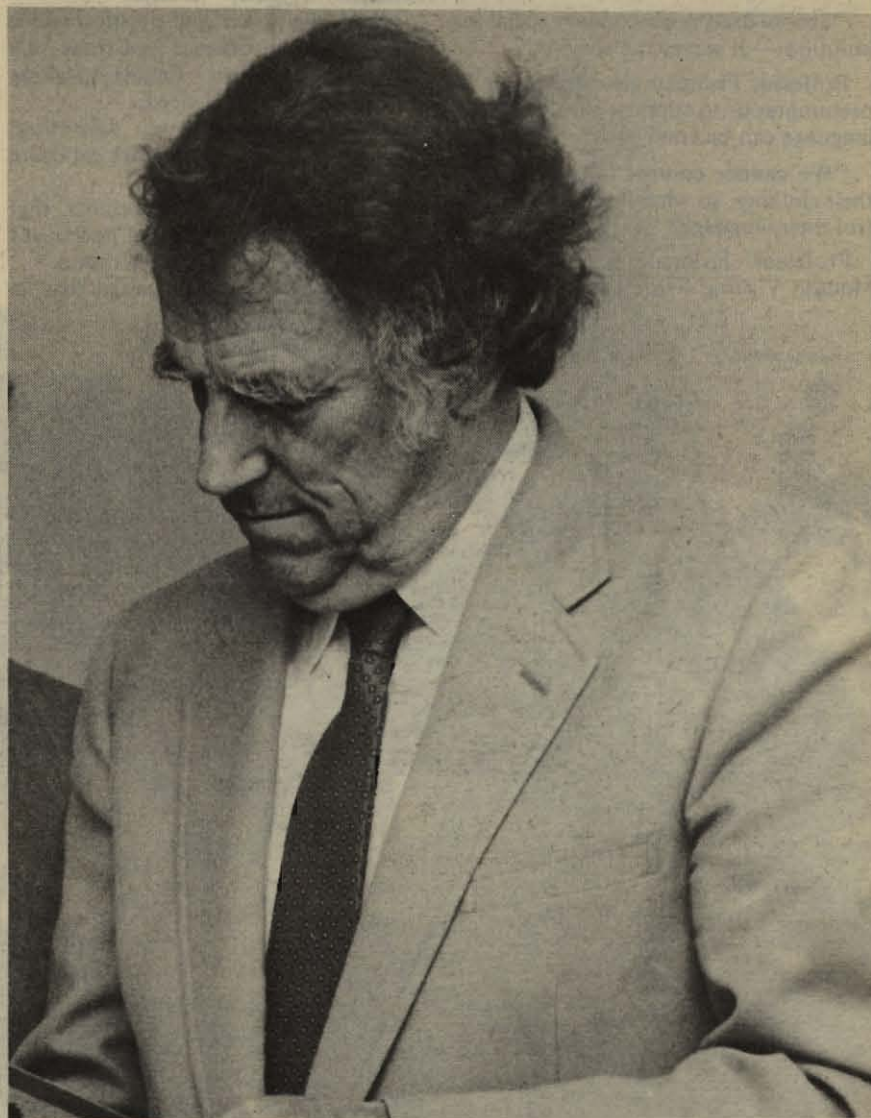
## MONASH REPORTER

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• Sir Edmund Hillary, president of the Festival of Science.

Or you may write for tickets to GPO Box 762G, Melbourne, 3001.

Two free displays will also be an interesting part of the Festival.

One is the Questacon travelling Science Circus in the Monash Sports Centre on Monday, August 26, Tuesday August 27, and Thursday August 29, from 2.15 p.m. to 4.15 p.m. This is an exciting do-it-yourself show for all.

The other is the unique SPACE show in the First Year physics laboratory at Monash from Monday to Thursday, 9 a.m. to 5 p.m.

The Minister for Science, Barry Jones, will officially "launch" the SPACE show at 10.35 a.m. on Tuesday, August 27.

• ANZAAS supplement begins p.5

## Monash goes to town

Why the *Monash Reporter* in the City Square and why so much about science?

The explanation is simple. A Festival of Science will begin at Monash University on August 26 — next Monday — and continue to Friday, August 30.

It does not deal with the science that concerns only scientists, but the kind that, although of high quality in its expertise, relates to the needs, interests and problems of ordinary people.

The program for this brilliant and wide-ranging festival (the 55th Congress of the Australian and New Zealand Association for the Advancement of Science) is in this, your copy of the *Monash Reporter*, a magazine published by the university nine times a year.

Members of the public are welcome to attend any of the congress's 130 individual sessions for \$8 a session — the prize paid by ANZAAS members — and tickets can be bought through BASS.

To acquaint you with some of the practical applications of science, and as a preliminary to the festival, the City Square has become a meeting place.

The ANZAAS City Square program will run from 10.30 a.m. to 2.30 p.m. from August 19 to August 23 inclusive, with special events between noon and 2 p.m.

# Language standards are gone for good: US expert

There is little likelihood of restoring the standards of formal language and reversing the trend towards Americanisation of Australian English, according to a visiting language expert from New York.

Professor Joshua Fishman, Distinguished Research Professor at Yeshiva University, says schooling alone cannot turn the tide.

"No society should leave important things to the schools and expect they will be done.

"School itself is a secondary social institution — it serves the society."

Professor Fishman also suggests it is presumptuous to suppose that students' language can be controlled.

"We cannot control their sex lives, their clothing, so why think we can control their language?"

Professor Fishman was the 1985 Monash Visiting Professor attached to

the Centre for Migrant and Intercultural Studies.

He is a leading international sociologist of language and has pioneered the study of language maintenance among ethnic minorities.

"The whole world is influenced by American English," he says.

"With the power and position which America has in defence and trade, it's very hard for the English-speaking world not to be influenced.

"We share literature, television, movies — all these exacerbate exposure to American English.

"And you have to remember that what schools teach and what people say are two completely different things."

Professor Fishman suggested that an

educated group with a strong Australian identity might become the guardians of Australian English.

(Phillip Adams, who recently railed against television's *Sesame Street* for teaching Australian children to say "cookies" and "trash" for "biscuits" and "garbage", may be a strong contender.)

"Language has a symbolic function and if you cannot control the language you feel you cannot control the culture.

"If mainstream Anglo-Australian culture feels that it is being buffeted long-distance from America, the minorities in your midst are far more buffeted," he said.

"Minority cultures are in the position

of not being able to regulate their lives."

Commenting on recent recommendations in Australia that less English should be taught at HSC level, Professor Fishman said there was a lot of concern in America about the standard of English.

Many teachers felt that the formal variety of written English should be added to the children's vernacular English.

"In a sense English is getting worse — it's more acceptable to depart from the standard, more acceptable for students to write as they speak to each other.

"So there is conflict, with various levels of society holding out for a standard which young people can no longer meet.

"That's come about because of social change — children are not exposed to the best written variety of the language as much as they were years ago.

"It's impossible for children to master that variety of English if it's only coming from the schools.

"Television always uses the spoken informal language," he says.

"I don't know if the language will ever be what it was before, with everybody acquiring a formal language — even home life has become more informal."

But Professor Fishman had great praise for a different form of linguistic excellence.

He said Monash should be proud of the work being done by post-graduate students in the German and Linguistics departments.

"It was very exciting to meet with them.

"They are planning innovative things — work that is going to be important to everybody."



• The crush did not let up at Careers Day on August 4. Organisers had to cope with twice the usual number of potential students seeking information. Although the advertised starting time was 1 p.m., people were arriving from 10 a.m. — Photo—Richard Crompton.

## First Rhodes fellow is a woman

A Monash graduate, whose university experience led to an interest in "black holes" has become the first Australian to win the prestigious Rhodes post-doctoral fellowship.

Susan Scott, a mathematical physicist working in the field of general relativity, will spend two years at Oxford University with a research group headed by Dr Roger Penrose.

They will look at new theories to unify the fundamental forces of the universe.

The \$40,000 fellowship will pay her fares, accommodation and research expenses. Only one such fellowship is awarded each year worldwide.

But Susan Scott has a few loose ends to tie up before she heads off to Britain in January.

She is still to complete her Ph.D at the University of Adelaide, and in October she will marry her Belgian computer

scientist fiancé in the Monash Religious Centre.

The Rhodes fellowship is not the first award she has won.

Part of her doctoral studies was financed by an Amelia Earhart Fellowship from Zonta International, and she won an Australian Federation of University Women's scholarship in honor of the centenary of Victoria's first woman graduate.

Susan Scott says eventually she wants to end up back in Australia.

"It's not the best place to work, but it's the place I like best.

"I just want to get enough good experience so that I can be independent in my work when I get back."



• Susan Scott

## Solar heating project a winner

Monash scooped the pool at this year's Australian Institute of Energy student forum.

Of the 12 awards for student projects, Monash took eight.

Winners came from the departments of Chemistry, Chemical Engineering and Physics.

The institute's prize for the best overall presentation went to Dr Don Hutton of the Department of Physics for a study on using attics as a sunspace to supplement home heating.

The project, which was partially financed by the Springvale City Council, found that even in mid-winter the air temperature between ceiling and roof in an average Melbourne suburban home typically reached about 25 degrees Celsius by early afternoon.

This heated air could be circulated through the house space below using a simple fan system.

Another winner, Brian Giesner of Physics, submitted a study on how plastics used in solar collectors withstand the environment.

The \$50 and \$100 prizes were put up by an array of 14 companies, government departments and agencies.

# Just walking the log ...

Art is what is made, what is displayed to be looked at, says Professor Margaret Plant, in defence of the many pieces in the Irreverent Sculpture exhibition "which will instantly appear juvenile or primitive".

The works are alternative art from Australia of the 1950s and '60s.

Though in the Dada mould, they are a witty response to local conditions and Australian urban situations, says Professor Plant, chairman of the Visual Arts department at Monash.

"The art exhibited here side-steps self-expression, delights in collaboration, parodies earnestness and sincerity as contrived efforts, favors irony, subterfuge, sacrilege, jokes," she writes in the exhibition catalogue.

It begins with works from Barry Humphries' *First Pan-Australasian Dada Exhibition*, held at the University of Melbourne in 1952.

Humphries, whose visual art activity came to a halt with his Sydney and Melbourne "retrospectives" of 1968, was a "phenomenon in the Dada annals in the southern hemisphere".

Irreverent Sculpture reaches its

chronological conclusion with the works of Les Kossatz and Aleksander Danko.

It was opened by Melbourne art identity, Georges Mora, on August 1, in the Visual Arts Gallery, 7th floor, Menzies Building.

The exhibition can be seen from 10-5 weekdays, except Wednesday, when it will be open from 11-6. It will continue until August 30.



• Margaret Plant walking Danko's *Log Dog*, a dachshund of sawn-log body, castor-rolling legs, collar and chain, which made his first appearance at Danko's one-man show, Uck, at the Llewellyn Gallery, Adelaide, in 1970. *Log Dog* is fully recognised in his existence by council registration. Above left: Barry Humphries' *Siamese Shoe*, 1985 edition. Above, Les Kossatz's *Spent Heap/Segment*, an artful pile of beer cans shown previously in 1969 at Strines Gallery, Melbourne, as "a tier of discarded VFL beercans". Right: Design for the proposed Cultural Centre by Humphries, Humphries and Humphries (1985 edition). Photos: Tony Miller.



# When pregnancy is seen as a selfish choice

"Have children but don't have children," is the contradictory message received by female academics, according to Dr Gabrielle Baldwin, who has just published a report on women at Monash.

Dr Baldwin, the University's first Equal Opportunity Research Fellow, says few people could dispute that women with children have been severely disadvantaged in their academic careers.

"The several successful ones with children consider themselves very lucky; certainly they have worked hard to fulfil their dual roles, but they were also in the right place at the right time and had supportive patrons.

"I met no women who argued that having children did not represent a problem in career terms," she said.

"Many senior men do not seem to feel that the University shares the general responsibility of the society to deal with the question of how women can have children without being penalised for it.

"I'm sure they would be emphatic in agreeing that having children is a socially desirable, indeed essential, function.

"Yet when it comes close to home, they are inclined to see it as a purely personal, even selfish, decision of the woman concerned."

On the general staff side, prejudice seemed to have operated principally in terms of fixed ideas about appropriate male and female careers, Dr Baldwin said.

"A career in administration, for instance, has been an option for only a handful of women and there seems to have been a clear sense of their not being able to progress beyond a certain

middle-range point.

"I have been told by people in administration that there was also a general understanding that secretarial experience was not an appropriate background for an administrative position."

Women made up 50.5% of the general staff, but were overwhelmingly in lower-paid and lower-status positions, Dr Baldwin said.

Even in the traditional female occupations (domestic, catering, janitorial), the senior positions were generally held by men who were employed as full-time workers while the women were casuals.

"This pattern of part-time and casual work seems to suit many women, but it's possible some individuals are suffering from the general application of a principle," she said.

Dr Baldwin's recommendations for equal opportunity structures at Monash, included that:

- The University establish an equal opportunity committee as a standing committee of council, with a membership broadly representative of the University community;

- An equal opportunity officer be appointed at senior level, with direct access to the Vice-Chancellor, to work closely with the Pro-Vice-Chancellor under the general direction of the Equal Opportunity Committee;

- The University establish pro-

cedures to deal with complaints of sexual harassment from both staff and students;

- The University adopt a policy of removing sexist terminology from its publications;

- A complete review of selection procedures be undertaken, with a view to establishing a system which had much clearer and more specific requirements about the composition of selection committees, drawing-up of short lists, interviewing of candidates and recording of decisions;

- Workshops be run regularly for the members of selection committees, to acquaint them with the requirements of anti-discrimination legislation and to discuss the kinds of assumptions and preconceptions that might work against members of disadvantaged groups.

Dr Baldwin's recommendations on child care included that a submission be made for a CTEC grant to build a child-care centre on campus; that a scheme be established to offer employees fractional options for the purposes of child-care for specific periods, with the right to revert to full-time; that 12 weeks' paid maternity leave be available to all eligible female staff and that one week's paid paternity leave be reintroduced for eligible male staff members; that unpaid parental leave and special paid leave for the care of sick children be made available; and that child-care responsibilities be accepted as a legitimate reason for suspension or extension of candidature for higher degrees, or for conversion to part-time enrolment.



• Gay Baldwin

Dr Baldwin also recommended that the composition of all committees in the university be reviewed, and steps taken to establish a gender balance in their membership; that the staff branch (in conjunction with equal opportunity personnel) investigate ways of opening up careers paths for secretaries; and that the Careers and Appointments Service introduce an equal opportunity component into their liaison programs with schools.

Dr Baldwin's fixed-term appointment ended in May, and she has taken up a two-year lectureship in literature at Rusden College.

## Microeconomics suffers from neglect

Microeconomics is a much neglected field of study in Australia, according to the former chairman of the National Companies and Securities Commission, Mr Leigh Masel.

Mr Masel retired in March after five years as the NCSC's first chairman and ECOPS graduate students are benefiting from his decision to have a "breathing space" before returning to a private career.

Mr Masel, who has a commercial law background, currently holds a visiting appointment to the faculty and is teaching a post-graduate course in Securities Regulations.

"When I went to the commission, I did not know an awful lot about securities and my learning was very rapid.

"It seems highly desirable to pass on these things I learned the hard way."

Mr Masel said that in a retirement interview from the commission, he had commented that there was little interest in Australia in the field of microeconomics and a lack of knowledge about securities regulations.

"Within three days I had a call from

the 'home of microeconomics' (Monash) inviting me here.

"My primary responsibility as spokesman for the NCSC was policy, and I had a fair amount of information that I wanted to systematise.

"I feel it's better to do it while it's fresh in your mind."

Mr Masel said he was anxious to point out to students the wealth of Australian research material available.

"I have used quite a lot within the

course, even papers given by Honors students.

"The NCSC is a very fertile field for information if you know how to use it.

"Microeconomics is a neglected field; there is great potentiality here for teaching more about public institutions, and I suppose I have a unique position, having been head of such an organisation right from its beginning."

Mr Masel said the NCSC had been remarkably successful in that its role had been generally understood and accepted in such a short time.

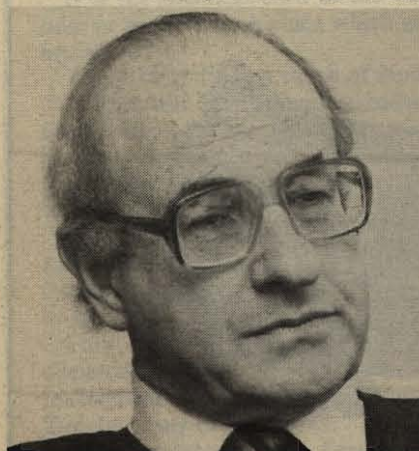
"The commission is unique because it has been to the forefront of monitoring

securities markets and is, in effect, what the economists call governments-in-miniature.

"It has very wide policy powers and it wanted to make certain that as a new agency its ideology was understood — the theory being that if somebody obtained a ruling from the NCSC, and if the ruling was applied generically, then the market was entitled to know."

Mr Masel said he saw little point in the commission making a lot of regulations which gave it a "policeman" role.

Ensuring the market was informed about policy led to a more efficient system, he said.



•Leigh Masel

## Breath of French air across campus



The enterprising French Club staged two events for Multicultural Week at Monash. Right: Le Yellowglen Tour de Monash was no place for pikers. Winner, Brendan Boyce, 2nd year Science student, and runner-up, Peter Starkie, Ph.D. candidate in Computer Science, shake hands after the gruelling finish. And, left, in the forum, out front of the union, the Great Balloon Challenge got under way. The peculiar angle of the photograph can be attributed to the fact that photographer, Richard Crompton, poked the camera over the side of the unprotected roof of the nearby Menzies Building as he lay flat to avoid joining the balloons in the very high winds.

# FESTIVAL OF SCIENCE

The ANZAAS Congress program at Monash lists 130 individual sessions on a wide variety of topics from the obviously scientific to the frankly borderline. They include Gender Bias in Research; Black Australia and the Law; Computer Music; Schizophrenia; New Astronomy and Bushfire Research. In these pages, *Monash Reporter* looks at some of the other topics that will be explored in this trail-blazing, scientific extravaganza . . .

## New mind-bending drugs a cause for concern

**Urgent public discussion is needed on the imminent development of drugs which can change brain function without side effects, according to Professor Peter Andrews of the Victorian College of Pharmacy.**

Professor Andrews, head of the college's chemistry school, will convene an ANZAAS session on Thursday, August 29, on the *Shape of things to come: designing new drugs, vaccines, plants and animals.*

He says computer technology and recent advances in the knowledge of body chemistry amount to a pharmacological revolution, and for the first time it is possible to develop drugs which exactly hit target areas in the body, including the brain.

This will mean not only more economical drug development programs requiring less random research, but also drugs which do not have adverse side effects.

Professor Andrews says the new drugs which influence brain function are being

developed primarily to treat mental problems.

"But they could also be used to dramatically enhance concentration, the ability to learn, and memory.

"Given that these drugs will also be free of adverse side effects, it will be difficult to enforce constraints upon their use after they are developed.

"It's obvious from past experience that once these things are created, it's too late to stop them being used."

The title of the ANZAAS session has been taken from H.G. Wells' 1933 book, *The Shape of Things to Come*, which predicted that "the artificial evolution of new creatures" would be possible by 2050.

Science may have beaten Wells by 70

years, but community understanding and awareness of the developments are lagging behind.

Professor Andrews believes that while Wells' predictive ability is appreciated, the second point of his book is not.

"We have not even started to do what Wells suggested back in 1930 — which is thinking about the implications.

"We need to answer these questions now: Should research directed towards the development of these brain drugs continue?"

"Is the use of a drug to raise productivity or performance above normal levels acceptable or desirable?"

"Does it constitute an unfair advantage in business, education or research?"

Other speakers at the session will be Dr Ian Gust, Director of the Fairfield Hospital Virus Laboratory, Dr Adrienne Clark, director of Melbourne University's Plant Cell Biology Research

Centre and Dr Mal Brandon from Melbourne's Veterinary Science department.

Dr Brandon, who will speak on designing new animals (already a reality with reports of giant mice and transgenic rabbits, sheep and pigs), says the potential of the gene revolution should do far more than conjure up images of fear in the public.

"Frankly, I believe the gene revolution offers a world, hungry for high-quality protein, the opportunity for self-sufficiency."

It could increase the efficiency of production of animal goods such as milk, wool, meat and eggs, and control animal diseases which limit or prevent farming in some highly fertile areas.

"Although the Western world is at present preoccupied with a muesli-style diet, the rest of the world looks forward to a kilogram of meat once a week," he says.

## Driving skills taken too much for granted

**When we reach home after hours on the road, thankful that we have survived yet again, we little realise how remarkable our survival really is.**

We make uncounted judgments of speed and distance in rapidly changing conditions — interpreting signs, lights and markings, and exercising driving skills as best we can within the demands of safety and the law.

Losers join the casualty list.

The complexity of the system, and of the human behaviors within it, becomes almost fantastic when its scope is considered.

Understanding what happens in driver performance, with all the other factors involved, becomes a task of immense importance to our society in terms of human life and limb.

One Monash man involved in such a study is Dr Tom Triggs, senior lecturer in Psychology.

He is convener of the session on *Vehicles, Roads and Psychology*, to be held as part of ANZAAS on Thursday afternoon, August 29.

Taking part will be Dr John Metcalf, acting director of the Australian Road Research Board; Dr Ian Johnston of the Road Safety Division of the Victorian Road Traffic Authority; Professor Barry Cole of the College of Optometry at Melbourne University; Dr Peter Cairney of the Australian Road Research Board and Mr Brian Fildes, senior research officer of the RACV and a graduate student in the Monash Department of Psychology.

Dr Triggs explains driver psychology and performance as part of the study of "human factors".

This is a major discipline in its own right, and Monash's Human Factors Group has been putting out valuable

reports now for a decade.

The work is painstaking, and driver research is carried out on the roads as well as in the laboratory.

What may seem ordinary and excessively detailed to the outsider is often a wide-open new world to the researcher.

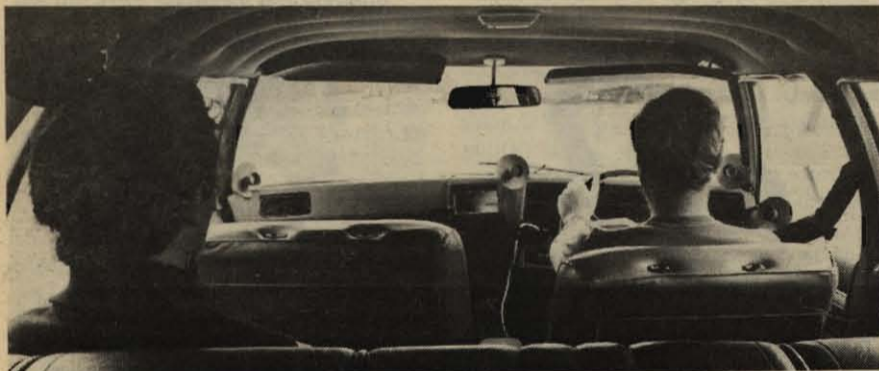
We take for granted our behavior on curves and crests, and in moving towards the centre line on the road.

We are confident in our ability to judge reaction times, and to adjust speed.

We see no particular problem in using a rear-vision mirror, or obeying traffic lights.

Dr Triggs and his fellow researchers know well that nothing is so simple.

And already their work has had valuable practical results for society at large, as well as for science, in studies done for the State Transport Ministry on the reform of traffic laws and practices.



• Dr Triggs and team-mate in their research vehicle.

## From Bhopal to Footscray — and beyond

**Society tends to have an ignore-or-hate relationship with chemicals — it's only when something goes wrong that many people even think of their existence.**

It is the chemical used at the wrong time or in the wrong place which grabs attention.

Yet without the vast range of modern chemicals, the quality and quantity of food produced would be inadequate, infectious diseases would be rife and modern building and domestic materials would not exist.

Both the benefits and dangers will be fully canvassed at one of the major ANZAAS symposiums, *Chemicals in Society*.

Four sessions covering deliberate dispersal of chemicals, the effects and the controls will be held on Monday and Tuesday, August 26 and 27.

The symposium has been jointly organised by the Applied Science Facul-

ty of Victoria College and the Australian Institute of Agricultural Science.

The last session is titled *From Bhopal to Footscray* and will be addressed by Footscray resident, Geoff Wescott.

Mr Wescott, who works at the Rusden campus of Victoria College, lives 250 metres from Butler's Transport, where a fire in April caused a potentially lethal chemical cocktail.

"There was a lot of luck attached to that one," he says.

"It was an unusually hot night and the wind took the gasses over the bay.

"A normal wind would have taken the gasses over the city — and this was at 8 o'clock on a Friday night."

The Dean of Applied Science at Victoria College, Dr David Stokes, says the

whole design of the symposium has been experimental with a mixture of scientists, companies in the chemicals industry and government authorities.

"We hope the result will be scientific, political and controversial.

"We've tried to be adventurous without being sensational," he says.

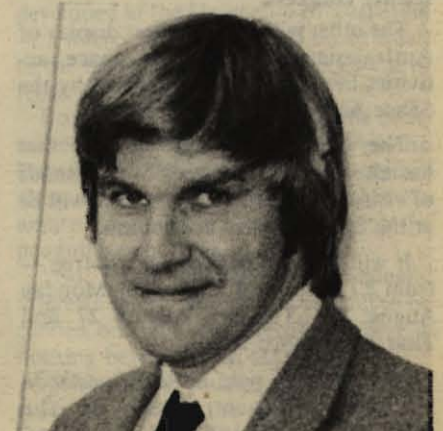
"The symposium covers a huge area and we believe it's timely, with legislation on the disposal of hazardous goods and on occupational health in State Parliament."

The University of New South Wales Press has already offered to publish the papers from the symposium which, Dr Stokes says, will aim for a balanced approach.

"It's definitely not just all negative; we'll be looking at the benefits and the costs.

"We'll be delighted if the public turns

up and we'll be delighted if the institutional bodies — private and government — get together and use it as a forum of discussion."



• David Stokes

# FESTIVAL OF SCIENCE

## What's science got to do with good English?

This plea to scientists — for precision and freedom from jargon in their use of the English language — was made to science graduates at the University of Auckland by Professor Don Smith, Auckland's Deputy Vice-Chancellor. It seems particularly appropriate to the theme of the Festival of Science at Monash, which is emphasising a popular and de-mystifying approach.

'When I learnt that I was to give this address to the graduates in Science, I was a little taken aback.

I am, after all, a Professor of English. Was this, I wondered, an attempt to prepare students for a confusing world by confusing them prior to leaving the University, with remote material from an irrelevant subject?

Or was it a last-minute effort to produce a well-rounded graduate by giving the scientists a lightning dose of humanities?

Surely, I mused, our administration is above such tricks.

In any case, what I should like to do is briefly consider the area where our two disciplines meet — science and the English language.

The initial effect of science upon English prose was to drive it towards plainness, clarity and purpose away from the splendid verbal flourishes of the Age of Shakespeare, with what one of his contemporaries referred to as its "rakehellly rout of ragged rhymers".

This is most apparent in Bishop Sprat's *History of the Royal Society* of 1667 where he attacks "this vicious abundance of *Phrase*, this *Trick of Metaphors*, this *Volubility of Tongue*" and suggests that the only remedy for the *Extravagance* is for the members of the Society to "reject all the Amplifications, Digressions and Swellings of Style; to return back to the primitive Purity and Shortness, when Men deliver'd so many *Things* almost in an equal number of *Words*".

This influence has continued to our own day where the best scientific writing has a strength, simplicity and precision which would satisfy even a Bishop Sprat.

Not that all scientists are models of the exactness which is thought to be a necessary part of their work.

Like many researchers they occasionally give their findings an air of impersonal authority that turns out after examination to be rather bogus.

As Kemble Widmer points out in *A Glossary of Research Language* we can translate some of these phrases into their real meaning:

"It has long been known" translates as "I have not bothered to look up the reference".

"Three of the samples were chosen for detailed study" equals "The results of the others did not make sense".

"Typical results are shown". Translation, "The best results are shown".

"The most reliable results are those of Jones (1967)" = "He was a student of mine".

### Precision

But there is another tendency in the language of science that carries more dangers with it than the urge to plainness, and is a natural outcome of the need for exactness — that is the development and use of technical vocabulary or jargon.

Because of the rapid rate of change in science and technology, thousands of new terms have entered the language in the past 50 years.

And this is entirely proper. Such terms are necessary to designate things or processes which have no name in English or to secure greater precision in naming.

Moreover, they save time and space since it is much more economical to name a process than describe it.

The procedure has been somewhat paradoxical from the classicist's point of view; as one rather dryly observed, "the tendency of modern science has been to discourage classical study but at the same time to ransack the classical vocabulary".

To a fellow expert, the use of jargon in technical discussion is meaningful and exact but to move outside the circle of intelligibility (and it may only entail movement from one small area of a discipline to another area of the same discipline) immediately raises problems.

It is not difficult to find absurd examples of technical jargon.

Here for example is an engineer's description of an interesting contrivance:

"By means of a pedal attachment a fulcrumed lever converts a vertical reciprocating motion into a circular movement.

"The principal part of the machine is a large disk that revolves in a vertical plane.

"Power is applied through the axis of the disk, and work is done on the periphery, and the hardest steel by mere impact may be reduced to any shape."

And that, as all of you will have realized, is a grindstone.

But it is not, to use the jargon of English studies, the periphrastic or circumlocutory use of jargon that is worrying, so much as its *exclusiveness*.

The user proclaims membership of a select group — it is one way, if I may include those present, of asserting that you have the degree and that you have learnt something in your years at the University.

Jargon, in fact, tends to develop in proportion to the extent to which it excludes, and also in proportion to the difficulty experienced in learning it.

It is not simply science that encourages jargon of course: all professions fortify their borders and consolidate their economic and social positions by refining their special languages — and you can immediately think of lawyers.

But the language of science is intimidating and, as Leo Braudy points out, can be worn as a kind of armor in which personal inadequacies are concealed: "The intimidation is enhanced by the extent to which the professional views this special language as a kind of super-self, an authority beyond the frailties of

the immediate, a costume of eternity the otherwise inadequate individual can don and thereby escape his unpremeditated and merely personal vocabulary". (I hasten to point out that Braudy here is writing of the jargon of literary criticism, not of science.)

The distinguished writer on scientific matters, Lord Ritchie-Calder, has argued that scientists have an obligation *not* to conceal their discoveries in jargon:

### Mislead

"Cryptic, that is the word for so many scientific terms nowadays. Sometimes one feels that like the code names for military operations they are deliberately designed to mislead or, like the sign-language of the medieval crafts, to preserve a mystery. More generously, they are like index-cards which convey to the specialist a whole filing cabinet full of knowledge; but scientists forget that others have no access to that cabinet. They ought to explain. They are entitled to their language of convenience. I have mine too; I write shorthand but I do not expect others to read my shorthand. I not only translate it, I interpret it."

Now I am sure that you who are graduating today and who will I trust go on to write theses, reports, notes, articles, books and no doubt more exams, are sufficiently aware of both the delights and dangers of scientific jargon.

Can I suggest to you finally that what is needed above all is to be conscious of your audience and conscious of language, and in this way you will both communicate and perhaps achieve Jonathan Swift's ideal style — "the proper words in the proper places".



• The ANZAAS taskforce, above, from left, Professor Ian Ross, chairman, Mrs Thais Bassett, secretary, Mr Frank Moloney, editor, Festival of Science News, Mr Bill Charles, co-ordinator, Community Science and Technology program, and Professor John Swan, congress director. Below: Mr John Thompson, executive secretary.

## Perform in the travelling circus

A science show for children and the young of all ages, where no one ever says "Hands off!" and everyone is encouraged to experiment, will be one of two special events at the ANZAAS science congress.

The other will be the largest display of Australasian and overseas space activities ever seen here, organised by the Space Association of Australia.

The travelling Science Circus that has already delighted tens of thousands of visitors in Canberra and NSW will be at the Sports Centre at Monash.

It will be open to everyone — free — from 2.15 p.m. to 4.15 p.m. on Monday August 26, Tuesday August 27 and Thursday August 29.

The circus is part of the Questacon hands-on science centre of the Australian National University, Canberra.

Questacon has been called a Disneyland of science, and the aim of the circus is to give all kinds of non-scientists quality instruction with a maximum of pleasure.

Questacon's creator, Dr Michael Gore, never tires of seeing visitors approach experiments cautiously, and then become engrossed and show their excitement as astonishing things happen.

On the Monday morning, Dr Gore will participate in a session of the ANZAAS congress on *Science to the People — the Case for Scientific Awareness*.

The SPACE display, in the first year physics laboratory at Monash (Building 26) — also free — will feature Australian expertise in satellite communications, earth monitoring from space, space science and astronomy and spacecraft components.

Large exhibits will be presented by Aussat, Telecom, Australian Landsat

Station, CSIRO, Hawker de Havilland and more than a dozen other organisations.

The display has two objectives.

Overall the Space Association of Australia is working to raise public awareness of the need for Australia's own federal Space and Technology and Research Authority.

As an event in its own right, the display relates to four sessions of the ANZAAS congress.

They are:

• Space Opportunities for Australia and New Zealand — all day (two sessions) on Tuesday August 27, from 9 a.m. to 5 p.m.

• Satellite Technology for Communications and Education — 9 a.m. to noon on Wednesday, August 28, and

• Star Wars Science (Strategic Defence Initiative) — 2 p.m. to 5 p.m. on Wednesday, August 29.



# FESTIVAL OF SCIENCE

## Back to nature with childbirth and deer farmers

Professor Roger Short admitted he hadn't really thought about what natural childbirth and deer farming have in common.

But since he is organising ANZAAS sessions on the two topics, he obliged.

"Well, in a way they have both got the theme of getting back to nature — we have overmedicalised birth and we have overdomesticated our pigs and poultry and cattle, so venison is a way of getting away from fat meat," he said.

The *Natural birth — home or hospital?* session on August 27 will look at ways of optimising the birth environment while ensuring obstetrical safety.

"I think the quality of the birth experience is enormously important," Professor Short said.

Among the speakers will be Dr Mary Houston, a PhD in nursing and now a professor at Lethbridge University, Canada, who has made a study of the Canadian Hutterite people, a strict, back-to-nature, Anabaptist sect, and Dr Judith Lumley, from the Queen Victoria Hospital, who will present comparative statistics from the hospital's birthing centre and conventional birth sections.

Professor Jeffrey Robinson, professor of obstetrics at Newcastle Univer-

sity, will discuss how natural birth ideas can best be put into practice with premature babies.

A less formal session in the afternoon will be organised by the Nursing Mothers' Association.

"The NMA has about 30,000 members and I think it's one of the most fantastic self-help groups I've come across," Professor Short said.

"The members have a wealth of practical experience which they can feed back to the medical profession.

"I think they have been unnecessarily in awe of the profession in the past."

Professor Short hopes the session will also generate interest in the shaping of the birthing centre in the new Queen Victoria Hospital, being built in Clayton.

"We have the chance for a natural childbirth-breastfeeding clinic to try to give mothers an environment where we can do it all," he said.

He envisages the clinic having a community arm to follow up breastfeeding and infant health concerns and a research program to document the dif-

ferences between breastfed and bottle-fed babies.

The deer farming sessions will be held at Monash on Thursday, August 29, and will include a venison sausage barbecue at lunchtime and a demonstration of deer catching from a helicopter.

The helicopter has been provided by Mr Tim Wallis, a New Zealander credited with owning the world's largest private helicopter fleet, who has developed a technique for catching deer by firing a rocket net.

Professor Short said the need to deal with New Zealand's huge deer population has coincided with the move to healthier fat-free diets.

"There was a realisation that most of our grazing animals are too fat.

"What we really want is lean meat, and our domesticated animals can no longer produce it.

"There is no marbling of deer meat at all — all the fat can be trimmed off."

Speakers will include Dr Graeme Caughey of the CSIRO Wildlife division of Canberra, who has recently published a history *The Deer Wars*, and Dr Ken Drew, of the Invermay Research Laboratories near Dunedin, who will discuss the food value of venison.



The ANZAAS organising committee is hoping that this year's event will be one of the most widely reported yet.

Certainly, there'll be very considerable radio coverage — particularly by the ABC's Science Show.

Presenter Robyn Williams (above) and members of his team — Peter Hunt, Halina Szweczyk, Brigitte Seega and Jan Forrester — will be here throughout the Festival and will be broadcasting daily bulletins from the Media Centre.

Special features on the Festival will also take up the team's regular programs — *Technology Report*, on the Wednesday evening, and *The Science Show* on the Saturday afternoon.

By a happy coincidence, this edition of *The Science Show* goes to air on the program's tenth anniversary — the first broadcast took place on August 31, 1975.

## Surrogacy beset with problems

Dr Jocelyne Scutt bites her lip when she discusses surrogate motherhood.

"It's a very difficult area — there are some similarities to adoption, but in that field there is little possibility of the mother changing her mind or the parents not expecting that particular child.

"It is one area where the criminal law controls women's bodies."

Dr Scutt, deputy chairperson of the Victorian Law Reform Commission, has organised two ANZAAS sessions on *Women's bodies and the law*, covering prostitution and surrogate motherhood.

Speakers at the surrogate motherhood session will include a New South Wales woman, Teresa McFadden, who undertook a surrogate pregnancy then decided to keep the child, Dr Robyn Rowland of Deakin University who will put the feminist perspective, and June Factor from the Victorian Council for Civil Liberties.

Dr Scutt believes it is important to look behind the surrogate motherhood question to the causes of infertility.

"Often it's technological problems — some women are infertile because of rough operative techniques or environmental factors such as pesticides which can inhibit fertility.

"It seems important to study these questions so we don't have such a need for surrogate motherhood.

"We should be examining why women think they need to have children — even if it means a surrogate pregnancy — or men feel they need to be biologically related to their children."

Speakers at the prostitution session will include Cheryl Overs from the Prostitutes' Collective and Jude McCulloch from the St Kilda Legal Service.

**Motherhood is good, Shakespeare was a literary genius and exercise is beneficial — and to disagree would be downright dangerous according to Professor Hiram Caton of Griffith University's Humanities School.**

Professor Caton says all cultures have opinions and attitudes which have a semi-sacred status, and to challenge them is to invite not just criticism, but vilification.

Hence the *Wicked opinions: who suppresses, how and why?* title of the ANZAAS session he has organised.

The session will try to identify areas in Australian national life where signifi-

cant intellectual suppression takes place and in an afternoon round-table discussion, examine the extent of suppression and possible counter-measures.

"It would be my wish to optimise free expression," Professor Caton said.

"I am concerned that people who have matters of substance to discuss can do it with dignity.

"I believe there should be an educational effort on the complex, and not

unambiguous, problems of ventilating dissent and opinions."

Professor Caton cites the Human Rights Commission and some programs underwritten by the Federal Government as indicative of the complexities.

"For instance, with the Human Rights Commission we have a law which mandates the moulding of public opinion, and how can that be squared with civil liberties?"

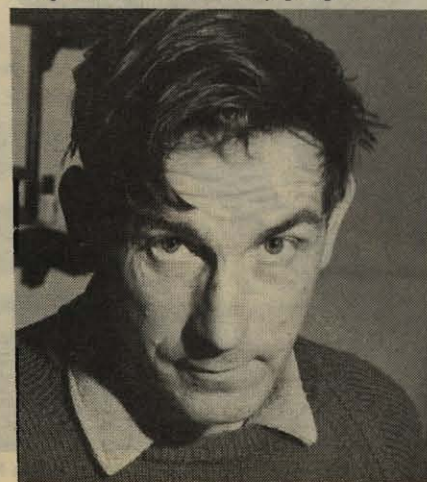
"The school classroom, with creationism, sex education and feminism, is obviously a very fertile area.

## Is that really your opinion?

## Penguins prove irresistible

**When zoologist Mike Cullen came to Monash from Oxford in 1976 he had romantic notions of working with kangaroos and koalas.**

But with a background interest in seabirds, he found himself very quickly attracted to the "peculiar little beasts" the public knows as fairy penguins.



• Mike Cullen

Professor Cullen refers to them by the more correct title of Little Penguin — and obviously with great affection.

So it seemed natural that he would be asked to organise the ANZAAS session to discuss the welfare of his favorite bird, under the title *Penguins in Australia and New Zealand*.

The session will be held on Tuesday, August 27.

The State Government recently recognised public concern about the penguins with the announcement of a \$300,000 research grant and a multi-million dollar plan to buy back private properties on the Summerland Peninsula on Phillip Island.

The birds had a disastrous season in 1983-84 with many washed up dead on the coast during winter and a poor breeding season.

"Everything seemed to point to a shortage of food and yet fishermen said there was plenty of their main food — pilchards, anchovies and squid," Professor Cullen said.

Research would be aimed at discover-

ing the factors involved in the seasonal variations. All the major colonies — Phillip Island, Gabo Island, Wilson's Promontory, Port Campbell and King Island — would be monitored to see how localised the good and bad seasons were.

Researchers were also hoping to use a "marvellous little thing" being developed at the University of Tasmania — a microchip which could be attached to the birds to show where they went to feed.

Professor Cullen, who is on the committee of management of the Penguin Parade at Phillip Island, said researchers were particularly lucky that an amateur group had been monitoring the penguins since 1968.

"So many studies of biologically interesting and unusual things tend to be carried out by PhD students so there is nothing beyond three years.

"There is no chance in a three-year study to pick up the causes of natural changes — you will see them but you won't know why they occur," he said.

# FESTIVAL OF SCIENCE

## Free holidays for vasectomy 'salesmen'

It is critically important for Australia to become involved in the population problems of Southeast Asia, according to Professor Roger Short, of Physiology.

"If areas like Southeast Asia can expect a trebling of population by the end of the century, this must put great pressure on land.

"When land hunger really gets going, Australia won't know what hit it."

Professor Short is convener of the Population symposium being held as part of the special one-day ANZAAS ASEAN Interaction program on August 28.

He believes the session has an important part to play in waking Australia up politically to the population problems of Southeast Asia.

One of the more colorful speakers will be Mr Mechai Viravada, a minister in the Thai Government who has been nicknamed "Mr Condom".

Mr Mechai is noted for having developed one of the most exciting family planning services in the world — with a lot of showmanship and marketing expertise.

He has turned Bangkok taxi drivers into a vasectomy recruiting force, by offering free holidays in Singapore and the

US to those who persuade hundreds of men to have vasectomies.

Among Mr Mechai's gimmicks are brightly-colored key-rings, containing a condom, with the slogan: "In case of emergency, break glass."

Professor Short says Mr Mechai was delighted when opponents of his contraceptive techniques nicknamed condoms "mechais".

"The publicity was exactly what he wanted — he wasn't offended at all.

"Mechai has concentrated on the male method of contraception — condoms and vasectomies — and it has worked spectacularly in Thailand.

"He will be talking about his marketing techniques."

The symposium will also be shown new contraceptives under development including a gestagen implant which is being tested in Indonesia.

The contraceptive, called Norplant, is being marketed in Finland and Sweden and offers five to seven years' protection.

It can be implanted under the skin by a paramedic.

Professor Short said the symposium would also discuss migration as a possible solution to population problems.

"Australia is faced with the immigration problem, but we'll also be asking whether emigration is any sort of answer and whether internal migration, such as Indonesia used, can be a help to control the problem."

The population symposium is one of five parallel workshops being held during the ASEAN Interaction at the Victorian Arts Centre.

The day has been planned as a special part of the ANZAAS festival, to realise the ANZAAS charter requirement that it "foster communication between scientists of all disciplines and between scien-

tists and the general public, especially in Australia, New Zealand and the neighboring countries."

The program will be opened by the Administrator of Australia and Governor of New South Wales, Air-Marshal Sir James Rowland with the concluding address being given by the Minister for Science, Mr Barry Jones.

It is hoped that a televised discussion of the issues will be held at night.

The five workshops are: Co-operative development of science and technology; economic implications of rapid industrialisation and structural change on the region; population levels; major environmental issues related to development and conserving the cultural heritage of countries in the region.

## THE ASEAN INTERACTION

## Campuses combine to exhibit rare instruments

Dong-son drums, bronze bells, plucked lutes and frame drums are among a collection of ancient and modern musical instruments from Indonesia now on display at the Gryphon Gallery, on the Carlton Campus of the Melbourne College of Advanced Education.

The exhibition, *Musical Instruments of Indonesia*, is presented by the Indonesian Arts Society and the Monash Department of Music.

It will continue until August 30, with free performances by the Monash Gamelan Orchestra on Friday, August 23 and Thursday August 29, from 6-7 p.m.

Many instruments have come from the music department's collection, and regions represented include Sumatra, Java, Bali, Kalimantan, Sulawesi, Lombok, Sumba, Flores, Pantar, Alor, Timor and Irian Jaya.

The Department of Music is also stag-

• Exhibits from the Gryphon Gallery are fully described in this new book by Margaret Kartomi. Further details on page 13.

ing the Ninth National Conference of the Musicological Society of Australia, to be held at Monash on the weekend of August 23-26, immediately preceding the ANZAAS Festival of Science.

Overseas musicologists are being brought to Australia by ANZAAS and MSA, to present papers at both

conferences.

Delegates to the conference will attend a special sesquicentennial concert at Government House on Saturday, August 24, featuring music played there 100 years ago.

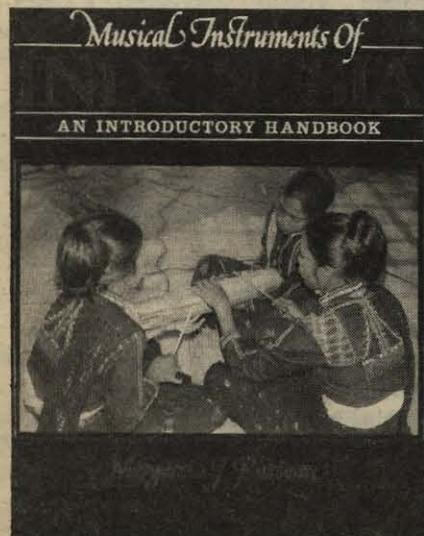
Inquiries about the exhibition or the conference can be directed to Dr

Margaret Kartomi, on ext. 3238 or Dr Carol Williams, ext. 3224.

Dr Kartomi, Reader in Music, will convene a session for ANZAAS on conserving the cultural heritage of countries in the ASEAN region, for the ASEAN Interaction, to be held on Wednesday, August 28, at the Victorian Arts Centre.



• Dr Margaret Kartomi watches as Professor Jose Maceda from the Department of Asian Music, University of the Philippines, plays a Kacapi Bambu from Sumatra, which is being exhibited in *Musical Instruments of Indonesia* at the Gryphon Gallery.





# FESTIVAL OF SCIENCE

## Windsurfing has a deeper significance

The head of the Youth ANZAAS *Space* program, Professor Peter Mason, lists windsurfing among the relevant activities on his curriculum vitae, because it is "a good example of applied polymer science".

The foundation professor of Physics at Macquarie University, he is well-practised at bringing science to the people through his books and papers on polymer science and biophysics, and his broadcasts on the ABC.

Professor Mason and his team — Dr Martha Cleary of ICI, Sue Barrell and Mary Voice of the Bureau of

Meteorology, and Ian Bryce of the Australian Skeptics Society — have taken human curiosity as the starting point for the one-day *Space* program.

They link the human urge to explore with the development of ships and navigational aids, optical astronomy and measurement of the universe, radio, Sputnik and man on the moon.

Attention then shifts from the cosmological to the atomic scale, looking at the space between materials and shifting back, finally, to the controversial question of the uses to be made of outer space.

*Space* is one of the four spectacular linked themes — *Light, Life, Space* and *Time* — to be presented to 1500 Victorian Year 11 students at Dallas Brooks Hall during ANZAAS week.

The conference president, Sir Edmund Hillary, will open the youth program on Monday, August 26, and give a

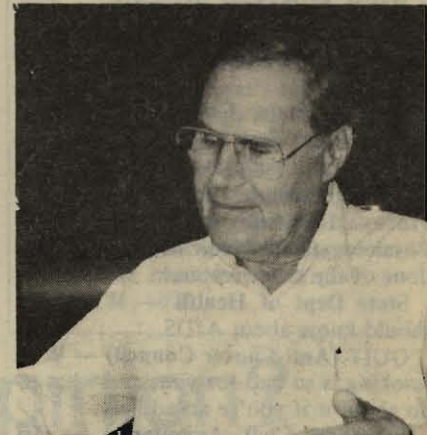
special address on the Wednesday afternoon.

The co-ordinator of the *Time* segment is Dr David Smith, senior researcher for the ABC's natural history unit and research associate in the University of Melbourne's zoology department.

Dr Margaret Brumby of Monash is responsible for the *Life* segment, and Professor Geoff Opat of the University of Melbourne's school of Physics, who is chairman of the Youth ANZAAS committee, is organising *Light*.

## YOUTH ANZAAS

• Some of the people involved in Youth ANZAAS. **Left:** Meteorologists Mary Voice (seated) and Sue Barrell examine a satellite picture on a computer graphics display. **Below left:** Channel 10 weather man, Rob Gell. **Below:** Co-ordinator of the *Time* segment, Dr David Smith, with one of his friends in the University of Melbourne's zoology department. **Right:** Professor Peter Mason, who is organising the *Space* segment.



## How you live dangerously without even trying

Many inhabitants of this country are not to be trifled with, and you can learn who they are at an ANZAAS session on *Dangerous Australian Animals* on Monday morning, August 26.

Dr Struan Sutherland, of the Commonwealth Serum Laboratories, Parkville, with colleagues, Mr Alan Coulter and Mr Bruce Wentworth as participants, will talk on Australia's problem as the home of more potentially lethal creatures than any other country in the world.

The CSL experts will explain possible dangers and make clear how we should behave towards the creatures if we come across them.

MONASH REPORTER

They will give specific advice on what we should do if we are stung or bitten.

Mr Coulter and Mr Wentworth, both biochemists, will demonstrate a major CSL achievement — a world first in the provision of snake venom detection kits.

These kits, now held in most hospitals throughout Australia, allow a doctor to determine the right type of antivenom to use.

About one in 10 of the 3000 snake bites in Australia each year calls for life-

saving antivenom.

Our good fortune is that, although Australia has the world's most venomous snakes, we have amazingly few deaths — a minuscule percentage of the 30,000 deaths each year from snake-bites in other countries.

Dr Sutherland lists the blue-ringed octopus, the Sydney funnel-web spider, stonefish, poisonous cone shells and the deadly box jellyfish of northern waters among Australia's most dangerous species.

The session audience will learn where we stand in research and discovery, and how Dr Sutherland believes the future of

research should be shaped.

It's bad news for Melbourne people, for example, that there is as yet no antivenom for the blue-ringed octopus found on our beaches.

Much needs to be done, as Dr Sutherland will explain, on methods of producing less reactive and more potent antivenoms with less use of experimental animals.

The need for a far greater investment in venom research, as Dr Sutherland sees it, extends beyond our selfish interests in Australia.

In Sri Lanka alone several hundred children are killed by snakes each year.

AUGUST 19, 1985

# FESTIVAL OF SCIENCE

## Program for City Square

In the week before ANZAAS, appetisers to the main congress fare in the form of displays of practical applications of everyday science, will be presented in the City Square.

The program will run from 10.30 a.m. to 2.30 p.m., from August 19 to August 23 inclusive, with special events between noon and 2 p.m. on some days.

The general outline of the City Square program is as follows:

### MONDAY — Health Day:

**Royal Children's Hospital** — Birth defects.

**Royal Melbourne Hospital** — Test your blood pressure.

**Lincoln Institute** — Getting your eyes right.

**Rusden State College** — Bicycle fitness clinic. Test your heart and lung capacity (in the amphitheatre).

**Baker Institute and the Howard Florey Institute of Experimental Physiology and Medicine** — Explanations of the latest research.

**State Dept of Health** — What you should know about AIDS.

**QUIT (Anti-Cancer Council)** — Why smoking is so bad for you, and what to do about it if you're an addict.

**Victorian Civil Ambulance** — To teach you life-saving techniques.

**Royal Eye and Ear Hospital** — The marvellous bionic ear developed in the otolaryngology department by Professor Graeme Clark and his team.

**Royal District Nursing Service** — The best ways of treating diabetes at home.

**National Acoustics Laboratories** — Experts from the hearing division provide valuable information on hearing care.

**National Animal Health Laboratories** — A video view of our most impenetrable animal health research centre.

### TUESDAY — Science and Technology Day:

**Chisholm Institute of Technology** —



• The City Square program team, from left, Steven Tassios, Christina Sirakoff and team leader, David Packham.

## COMMUNITY SCIENCE AND TECHNOLOGY

See the astonishing light car that can travel nearly 5000km on less than five litres of petrol.

**CSIRO** — The Scrimber invention. A new type of timber board coming into use.

**Amalgamated Photo Finish Co.** — How the photo-finish system operates so successfully at race-tracks.

**RAAF** — Achievements of the air force's quality control laboratories.

**ASTEG Pty Ltd** — See how Australian industrial robots work.

**Alternative energy** — The case for new non-atomic energy systems.

### WEDNESDAY — Environment Day:

**Port of Melbourne Authority** — Few of us know just how complex and interesting our port has become.

**Energy Victoria** — You will be surprised to learn from a computer, how your house can lose the heat you pay for.

**QUIT (Anti-Cancer Council)** — Another demonstration of why you should not smoke, and what to do about it if you have begun.

**CSIRO** — Everyone has heard of radar. This is about "lidar", a laser method of studying clouds, and dust in the air.

**Australian Glass Manufacturers Co** — Glass blowing remains a highly skilled operation.

**State Emergency Service** — A computerised disaster management system is now a vital part of this essential service.

**Rusden State College** — From noon to 2 pm, Mr Ian Dixon, demonstrates the art of stage effects.

### THURSDAY — Communications and Applied Electronics Day:

**Esperanto** — What it is and how it developed.

**Victorian Deaf Society** — Non-verbal communication.

**ACI** — The Ausinet computer.

**Hawthorn Institute of Education** — Surveying with lasers.

**Victoria Police** — See how the radar gun is used to catch speedsters.

**I.E.I. (Aust.) Pty Ltd** — Security against intruders has become an intriguing technology.

**3AW** — A display by one of our commercial radio stations.

### FRIDAY — Mind Expansion Day:

**RMIT** — See the latest sound and radio activity measuring techniques.

**ASEA Pty Ltd** — Infra-red camera techniques for temperature measurement.

**Melbourne University Science Faculty** — Physics today.

**Swinburne Institute of Technology** — From noon to 2 pm, the Travelling Science Show.

**Pharmacy College** — The state of the art.

## 'Industrial relations suffer from overkill'

The Australian industrial relations field is beset by overkill, according to Dr Breen Creighton of the Melbourne University Law School.

"In a democratic society, trade unions cannot expect to operate entirely free of legal constraints.

"But the problem in Australia is that the whole concept of legal restrictions on industrial action has been degraded by overkill

"We don't have any fair and equitable and effective legal restraints," he said.

"It's almost impossible for trade unions to take legal industrial action."

One of the major effect of this had been to raise the level of disputation.

Dr Creighton will be one of the key speakers at the ANZAAS session on *Misbehavior by Trade Unions and Corporations — What Sanctions?*

The session has been organised by Monash Professor of Administration,

Professor Allan Fels.

"We felt the issues were rather topical and we have aimed at a general audience of people with an interest in business, industrial relations and public policy issues.

"It will not be a narrow legal discussion of legal sanctions," Professor Fels said.

Professor Brent Fisse, of the Sydney University Law School, will speak on the possibility of misbehavior by corporations and the sanctions that should be applied.

There has been a recent proposal to double the maximum fine for price-fixing agreements from \$¼m to \$½m.

Dr Creighton said he did not anticipate giving many positive solutions.

"Deregistration is one of the things

that initially seems very attractive, because registration confers a lot of benefits on a union and the price they



• Alan Fels

are supposed to pay is adherence to the norms of the system.

"But the problem is that a union behaving in such a way as to warrant deregistration, would be a strong union and would seek to carry on outside the system."

He doubted that current deregistration moves against the Builders' Laborers' Federation would succeed.

He said another specifically attractive industrial relations system, based on the United States model, was agreements between employers and unions with penalties built in for breaches.

"But I have reservations about their feasibility in practice.

"There is an inbuilt contradiction in a system which requires goodwill to work and penalties when that fails.

"But we certainly should not have the extraordinary array of controls that we have at the moment," he said.

# Brighter job prospects for graduates

The picture generally is brighter for graduates seeking jobs at reasonable pay, according to the latest annual survey by the Monash Careers and Appointments Service.

In its sixth annual survey of graduate starting salaries, the service sent questionnaires to 200 employers over a broad field throughout Australia, and found 89 of them interested enough to cooperate.

The 89 had employed 1603 graduates during the year, compared to 1126 hired by the 76 employers who replied in the previous year.

Interest in arts graduates has improved significantly and their salaries are moving towards achieving par with other graduates.

There has been a greater demand for economics students, reflected particularly in better salaries for those with majors in economics and marketing.

Graduates are finding posts with chartered accountants attractive, despite salaries which are \$2000 to \$3000 a year less than those offered by other private employers.

Engineers continue to get the highest starting salaries and materials and mining engineers are doing best with salary improvement of just over 10 per cent.

Chemical and electrical engineers' starting pay has increased moderately, with civil engineers lagging behind all other engineering disciplines.

Law graduates have fared better than before in the number of jobs obtained, but starting salaries are only moderate — perhaps a sign that firms are more interested in graduates after they have

done articles, and had a few years' work experience.

Of science graduates, those with geology and computer science have got the highest salary increases in the past 12 months, with chemistry and biological science graduates, by comparison, showing very small increases.

Overall, the survey found science starting salaries are mostly higher than for arts and economics.

As in past years, the Careers and Appointments Service questionnaires have failed to obtain adequate information on starting salaries for graduates with higher degrees.

However, on average, it is estimated, masters degree graduates were paid around \$22,000 on appointment, and Ph.D graduates around \$25,000.

As an interesting and possibly helpful innovation, the service included in its

questionnaire this year a section on the qualities that employers seek in selecting the graduates they recruit.

Employers were asked to rate desirable qualities on a scale from 1 (not relevant) to 5 (very important).

Employer ratings of these desirable qualities vary greatly. There has been only one point on which most seem to agree — that political ideas are of not great concern.

Presence, maturity, intelligence, willingness to take responsibility and initiative, and ability to carry on under pressure earn good marks.

Some employers are interested in "good looks", others in a sense of humor, others again in honesty, energy and ambitiousness.

Understandably, what does seem to put employers off greatly is poor grooming and appearance.

## Clayton's . . . The cup you'd prefer not to win

Back in 1983, the Monash Association of Debaters (MAD) and the Melbourne University Debating Society (MUDS) organised a casual series of debates which developed into the Clayton's Cup. Tony Holmes, now president of MAD, says the highlight of the early debates was one with the topic *That Monash is a Clayton's University*.

As the (then) president of MAD, Elisabeth Ford sat in the audience watching Melbourne win the last debate and the series, she decided that some sort of award was called for.

In a moment of inspiration, she adorned the polystyrene coffee cup she was holding with the words **Clayton's Cup**, and university debating in Melbourne gained its equivalent of The Ashes or the America's Cup.

The Clayton's Cup is the cup we have when we are not having a cup, debating the debating society you have when you don't have a debating society (MUDS) from the university you have when you don't have a university (Melbourne).

It is symbolic of the casual nature of the competition, which Monash enters as much to give its members debating experience as it does to win.

The Clayton's Cup series was planned to go for five debates, with one at each university, and three at schools.

The first debate, *That Queensland should be asked to secede*, was held at Scotch College.

The audience (who clearly enjoy their holidays in Noosa) awarded the debate to Monash who argued the negative.

Unfortunately we were unable to arrange an adjudicator for the debate, so it was counted as a non-debate.

We also debated *That loving is a dying art*, in front of 200 students from St Pauls, Altona.

Again, the audience thought the Monash team won but the adjudicator, with a closer regard for the niceties of debating, gave the win to MUDS.

At Monash late last month, the topic was *That an older university is a better university*.

MUDS were rather worried at the prospect of arguing for an older university in front of a Monash audience, so they decided to argue the negative.

Although they were a little late arriving (mostly because Melbourne Uni is in such an obscure and remote location) the Melbourne team impressed the audience with their style as they sat down to a chicken and champagne lunch.

As a result of the compelling advantages held by younger universities, they managed to win the debate by the narrowest of margins (in the panel of three adjudicators, two awarded them the win

by one point, and the other gave a draw).

The adjudicators noticed a certain lack of conviction in the Monash team as they argued that older universities

were better because they had things like Lygon Street, quaint little libraries, lecturers who showed the benefits of being in the one institution for 40 years, and students who went there because their parents had been there.

As a consequence, Monash lost the Clayton's Cup series for 1985.

Nevertheless the debates have been a great success for gaining experience for our members.

Two of the speakers at the Monash debate (William Mooney and Greg Wheeler) were first year students.

The fight they put up was very creditable, and Melbourne Uni has been warned not to bolt down the Clayton's Cup just yet — we plan to give them a real battle in 1986.

• The MAD team — Greg Wheeler, Simone Dolista and William Mooney (with raised fist). Photo — Tony Miller.



## HSC students can't stay away

Country kids come with their sleeping bags, city ones give up their Sundays, and even the footy finals cannot keep such enthusiasts away.

But it's not a rock concert, a king-size disco or a sports meeting that draws this 1000-odd crowd of young people to Monash one Sunday each year.

It is a series of lectures for HSC students, conducted by the Department of Economics, which provides a unique opportunity for first-hand experience of economics at the tertiary level. It draws one-fifth of the State's HSC Economics students.

Organised by Monash senior lecturer, Dr Graham Richards, the Victorian

chief examiner in HSC economics for the past three years, the series is held at Robert Blackwood Hall and offers a wide range of topics.

The program for this year's event, to be held on Sunday, September 14, is as follows:

- 10 a.m. Incomes policy — the Australian experience  
Professor Allan Fels
- 11 a.m. Reasons for government intervention in the market economy  
Dr Graham Richards
- Noon Causes and consequences of economic growth in

- Australia  
Dr Martin Watts
- 1.45 p.m. Fixed and floating exchange rates — the Australian experience  
Professor Richard Snape
- 2.45 p.m. Tax reform in Australia  
Professor John Head
- 3.46 p.m. The nature and evaluation of alternative economic systems  
Dr Ian Ward

Dr Richards says the series is free and enrolments are not necessary, but it would be appreciated if those planning to attend would notify him on ext. 2308, or telephone Mrs Bergin on ext. 2318.

# Churchill award will boost children's theatre

Phil A'Vard is planning a concerted attack on the apathy shown towards live theatre by Australian schools.

During a tour of children's theatres in Belgium, France, West Germany, Czechoslovakia, Sweden and the United Kingdom next year, he will study what he describes as the "organic link" between European theatre and community, in a bid to recreate the same kind of enthusiastic atmosphere here.

Mr A'Vard, manager of the Alexander Theatre and founder of the highly successful children's Saturday Club series, has been awarded a Churchill Fellowship for the 10-week tour.

His schedule has been planned with the assistance of Dominique de Ryck, chairman of the Association Internationale du Theatre pour l'Enfant et la Jeunesse (ASSITEJ), a world-wide organisation which promotes excellence in children's theatre, and co-operative exchanges between administrators and directors.

Mr A'Vard began the Saturday Club in 1971, and since then it has had more than 10,000 child members (5-13 years) and accompanying adults.

But he is very frustrated about his inability to attract sufficient interest from schools to stage regular performances.

"If we could get 50 schools to commit themselves we could put on some of the best children's theatre in the world," he says.

He plans to hold a series of seminars on education in theatre after his return, to convince teachers that live theatre is important for young children.

"It has much the same benefits as reading," he says.

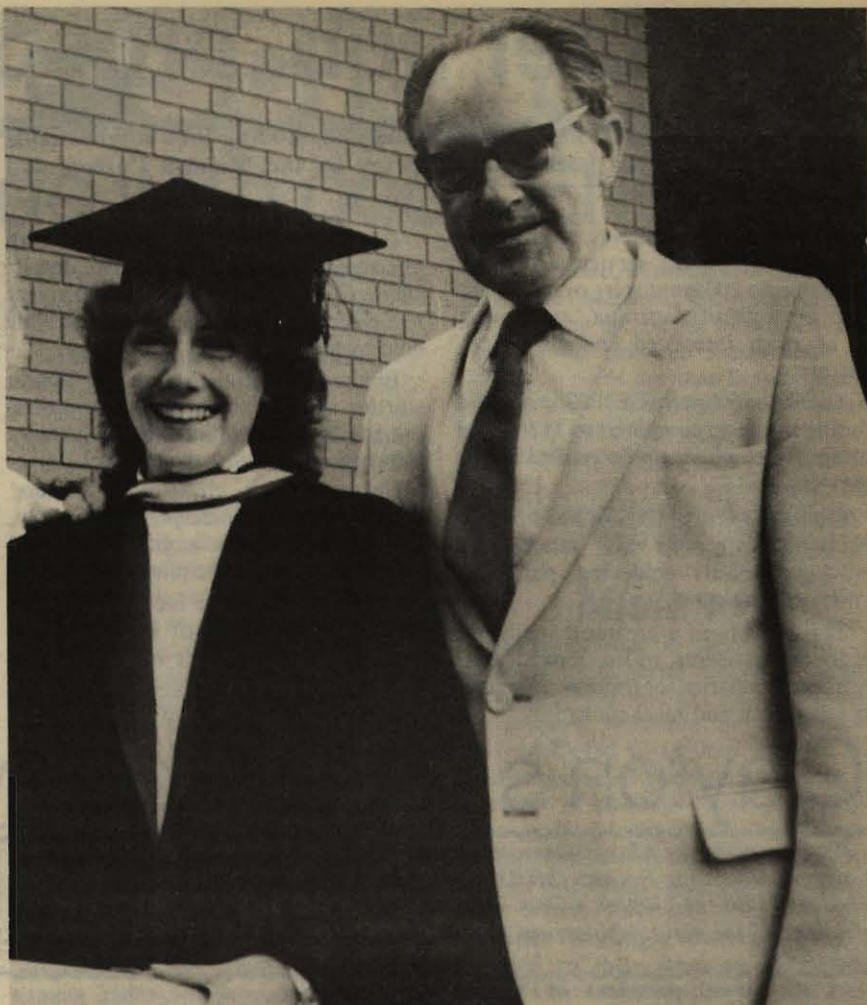
"Unlike television, which is pre-digested and stifles the imagination, the theatre develops the ability to think in pictures."

Mr A'Vard attributes the success of the Saturday Club to the efforts of his staff at the Alex.

When he returns from Europe, he will work with them to develop a preparatory kit for schools to assist with introducing pupils to the theatre.

"Teachers must be persuaded to cultivate a sense of occasion and to prepare the children for a live performance."

"This has worked well for the Saturday Club, with parents telling their children beforehand that there will be real people on stage who will be affected by their reactions."



• Phil A'Vard with his elder daughter, Kerri, when she graduated this year in Chemical Engineering. Photo — Richard Crompton.

# Great Hall plays host to young performers



## Doug marks a milestone

Monash University won't be celebrating its 25th anniversary until next year, but the Sports & Recreation Association last month jumped the gun . . .

It put on a party in the Sports Centre, to mark Doug Ellis's 25 years with the University.

Doug, now Deputy Warden of the Union and Sports Administrator, started at Monash on July 18, 1960, eight months before the University admitted its first students.

He had been plucked from his job as a glassblower at the University of Melbourne by Professor Ron Brown to help set up the fledgling Chemistry department laboratories.

It was appropriate, then, that Ron Brown, right, (who on February 1, 1960, had become the first professor appointed to Monash) should give a short speech to mark the occasion.

In reply, Doug paid generous tribute to the other 40 or so long-serving members of the University who "tottered down" to the Sports Centre for the celebrations.



• Left: Ti Oti Rakena, leader of the Auckland Youth Symphony Orchestra which presented a free concert at Robert Blackwood Hall yesterday as part of its fourth concert tour of Australia. Above: The Ketchikan Concert Band from Alaska took part in the Australian Youth Music Festival 85 at the hall. This series of six concerts to mark International Year of Youth featured local and overseas groups of vocalists and musicians. They included the Kobe Youth Choir (Japan), Groovers British Airways Steel Orchestra (London), the Stuttgart Young Chamber Orchestra (Germany) and, from Melbourne, the Blackburn High School Band, Melbourne Youth Symphonic Band, PLC Senior Choir, McKinnon Concert Band, and the Melbourne CAE Singers.



## Jobs for the girls

Keeping your options open is the theme of an all-day workshop on careers for women, to be held at the Monash Law School on Saturday, September 14.

The workshop, organised by the Australian Federation of University Women — Victoria, will cover changing patterns of employment, women in business, unconventional jobs, families and careers, and the future of work.

A panel of experts will answer questions and small group workshops will be held during the day to help participants identify goals and interests.

The workshop is aimed at young graduates, undergraduates, HSC students, careers teachers, parents and all other interested women.

It will cost \$5, or \$2 for students, pensioners and the unemployed.

For more information, contact Mrs Pat Minton on 589 4901, or Mrs Judy Pledger on 570 2488.

# BOOKS

## Practical law will no longer be just hit and miss

### Lawyers Practice Manual (Victoria)

The Law Book Company Limited  
Two Volumes. RRP \$110

Many finer points of legal practice in Victoria have been passed on by word-of-mouth, says senior lecturer, Sue Campbell.

This hit-and-miss method has many pitfalls and Mrs Campbell, of the Monash Faculty of Law, is one of a team which felt it was time to put the unwritten rules down on paper in a form accessible to both old and new practitioners.

The result is the *Lawyers Practice Manual (Victoria)*, published by the Law Book Company and launched by the Chief Justice of Victoria, Sir John Young, at the Legal Aid Commission offices.

Although the project was Monash-based, it was very much a co-operative venture, Mrs Campbell said.

It was funded primarily by the Victoria Law Foundation, with assistance from the Law Institute, a special research grant from the University, and funds from the Faculty of Law.

"The most significant aspect is that it will probably end up as an essential part of every Victorian solicitor's library," she said.

"It will assist articulated clerks, law students on clinical programs and practitioners dealing in unfamiliar areas.

"It concentrates on what you actually do in a given case.

"There are three levels in law: the law on a particular issue which states, for example, that you have the right to recover damages; then the procedure or written rules such as that you begin the claim by summons; and thirdly, the practice —

the type of summons, how the form should be filled in and how many copies are needed, how it is issued (through the court or by mail), whether a fee is payable, and if so, whether by cash or stamp duty.

"Some of these things can be tracked down, but others can't be looked up anywhere.

"They've always been learned by word-of-mouth and newcomers don't get any structured sense of what they are doing."

The manual's authors are all solicitors teaching in the Monash clinical legal education program, which enables final year Law students to work under supervision at the Springvale or Monash/Oakleigh Legal Services.

Susan Campbell and Guy Powles are both senior lecturers in Law at Monash,

Simon Smith is the co-ordinator of the Springvale Legal Service and a lecturer at Monash, and Maureen Tehan is a former member of the Springvale Legal Service staff.

They had produced practice guides and sets of sample documents for their students, covering questions not answered in statutes, reports or texts, and the *Lawyers Practice Manual* developed from these.

It emphasises the informal aspects of practice and each chapter includes examples of completed documents.

The chapters have been written by one or more lawyers experienced in the relevant field, and submitted to other experts for comments and criticisms.

The loose-leaf manual, which comes in two volumes, will be regularly updated and new chapters published.

### TWO POEMS, ONE THEME

#### VISION for Dimitris

A woman passes.  
Not just good bones, warm skin,  
But a rich nature  
Flowering in mouth and eyes.  
'Lovely,' I say, and he:  
'But that mole on the chin.'

#### THE PROPHET AND HIS OWN Mark, 6

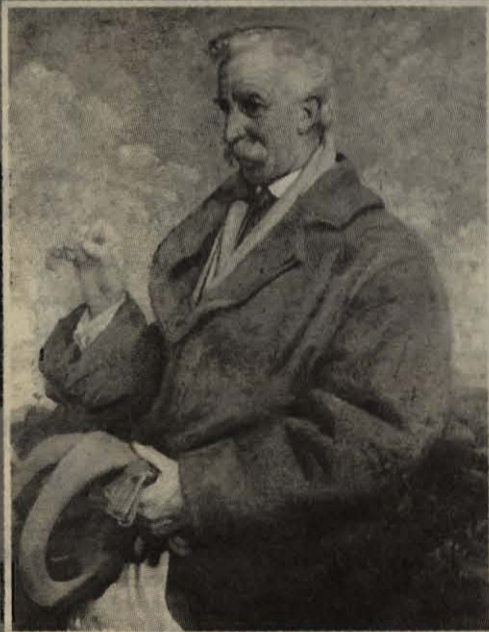
The root of his tongue withers,  
They know him in this town,  
But these new things he's saying:  
Pretend not to have noticed.  
He can work  
No miracles here.  
Only, once or twice,  
He lays on hands, and the sick  
Are healed: one woman's eyes  
Answer with belief.  
Beside the lake  
He watches the ripple gather,  
and break, and be  
Drawn back from where it came from:  
Fathering, mothering water.

Philip Martin

### 'So Much That Is New' Baldwin Spencer 1860-1929

A BIOGRAPHY

D. J. MULVANEY AND J. H. CALABY



● Baldwin Spencer, London, 1917, portrait by G.W. Lambert (Museum of Victoria).

### Publications received

#### *So much that is new: Baldwin Spencer 1860-1929*

A biography by D.J. Mulvaney and J.H. Calaby.

Melbourne University Press. RRP \$33.50  
Baldwin Spencer was a great Australian scientist and anthropologist, a writer, editor, lecturer and art collector. As one of a small group of immigrant British biologists during the 1880s, he helped establish post-Darwinian principles in the newly-formed departments of biology at Melbourne and Sydney universities. His special interests were comparative microanatomy and embryology, and he was a biologist on the Horn expedition of 1894 to the Australian central desert, where he examined little-known flora and fauna.

★ ★ ★

#### *The politics of consulting youth — techniques in search of purpose.*

P.R. Wilkinson and Anthony Kelly.  
Published by the Office of Youth Affairs, Department of the Prime Minister and Cabinet, Barton ACT 2600. Telephone (062) 72 3955.

A report on a research project done by the Social Planning Unit in the Social Work Department of the University of Queensland, commissioned by the Office of Youth Affairs.

★ ★ ★

#### *Margin Number 14, 1985*

ed. Dennis Davison

A collection of articles, essays and poems published twice a year by the Department of English. This issue contains an item by New Zealand researcher, J.S. Ryan, about the mysterious early Australian novelist, Fergus Hume. *Margin* is available on subscription from the Department of English for an annual cost of \$3.

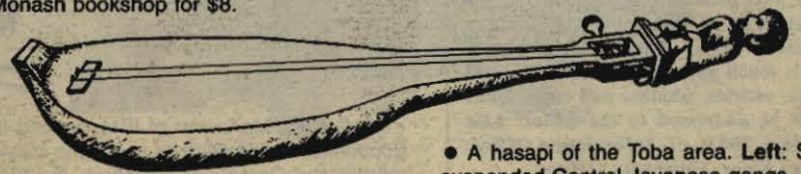
## Dogdog or Bumbung? Learn the truth



MONASH REPORTER

You have almost certainly heard of the Gamelan, but do you know what a Dogdog is, or a Gong Bumbung? You may be thrown, too, by the difference between a Kacapi-siter and a Kacaping. These are just four of the more than 150 musical instruments described in detail (and accompanied by a 16-page illustrated essay on their use) in *Musical Instruments of Indonesia — an Introductory Handbook*, by Margaret Kartomi, published by the Indonesian Arts Society.

A beautiful little book, with both color and half-tone pictures, it is available at the Monash bookshop for \$8.



● A hasapi of the Toba area. Left: Set of suspended Central Javanese gongs.

# Scientific ratbaggery may get its reward

It will never rival the Oscar, but a new award may soon be introduced for Australian science.

The Bunyip would be a reverse award for those "who had done the most to impede the advancement of science and the pursuit of knowledge and truth".

It was suggested in June on the ABC Science Show by Professor Roger Short, of the department of physiology.

Professor Short hopes the show's presenter, Robyn Williams, will administer the award.

"I think it would be rather fun — we need a bit of humor in these days of controversy," Professor Short said.

The Science Show is currently running

## Visiting fund-raisers to speak

Two distinguished overseas experts in communication, fund raising and organisation have been invited to Australia by the Australian University Graduate Conference, in conjunction with the Australian Vice-Chancellors' Committee.

The Monash Graduates' Association is a member of the AUGC.

The visitors are Ms Nancy White McCabe, from the United States, and Mr Bert Pinnington, from Canada.

Ms McCabe, a BA of St Lawrence University, New York, and an MA of Columbia, New York, has specialised in higher education finance, business administration, and non-profit management.

She is manager of the contributions program in the corporate communications department of the GTE Corporation, Stamford, Connecticut.

Mr Pinnington, a graduate of the University of Toronto, and a former Canadian army officer with wide experience in administration, is Director of Alumni Affairs at this old university.

Toronto has 210,000 living alumni, and Mr Pinnington is responsible for interpreting the university and its needs to 30 autonomous alumni associations and a wide variety of branches and committees.

Ms McCabe and Mr Pinnington will conduct a two-day workshop at Melbourne University on August 24 and 25, to be attended by office-bearers of the Monash Graduates' Association, the Monash Medical Graduates' Association, Monash Law Alumni, and officers of the Monash Vice-chancellor's Department. Places at \$50 are still available.

The visitors will also be conducting a free seminar at Monash on Thursday, August 22, in engineering lecture theatre E5, at 2 pm.

Those interested should get in touch with Mr John Browne, on 541 0811, ext. 4049 or 3079.

### MONASH REPORTER

The next issue will be published in the second week of September, 1985. Copy deadline is Friday, August 30, and early copy is much appreciated. Contributions (letters, articles, photos) and suggestions should be addressed to the editor, Lisa Kelly (ext. 2003), c/- Information Office, Ground Floor, University Offices.

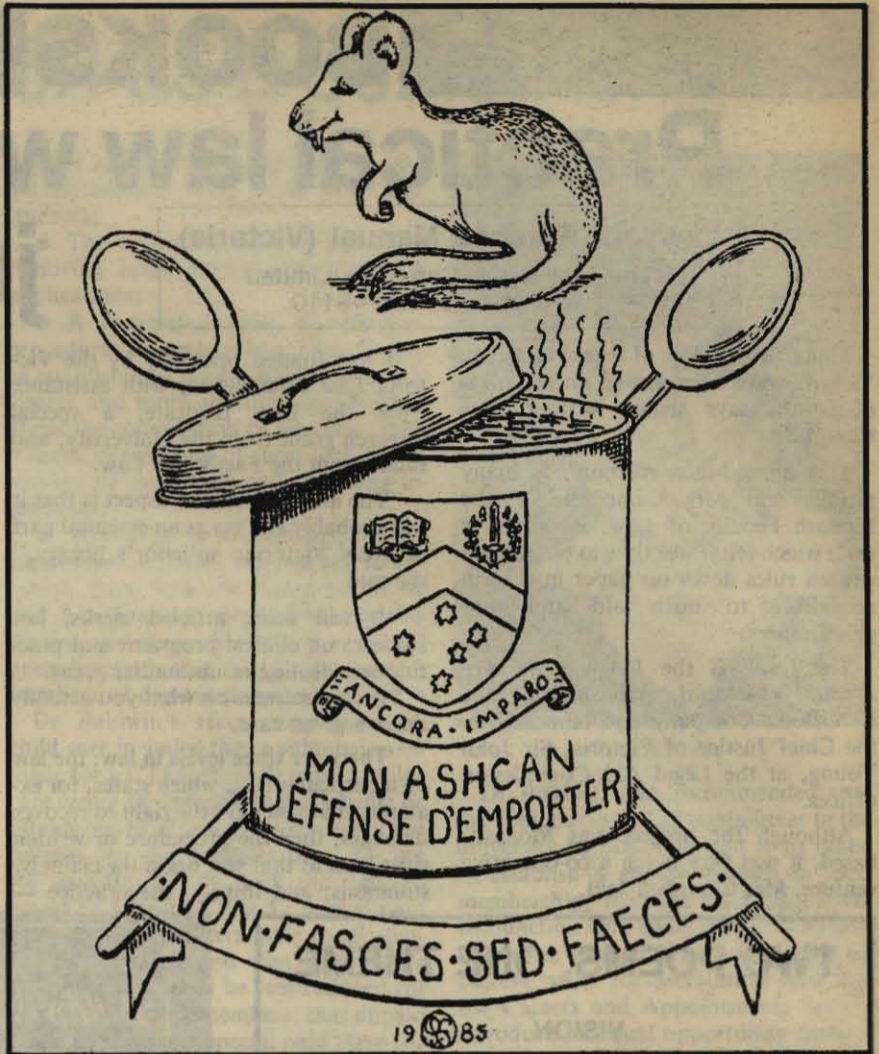
a series of talks on "Scientific ratbags" to gauge interest in scientific ratbaggery and awards for such.

The suggestion has already provoked a lot of correspondence to the ABC.

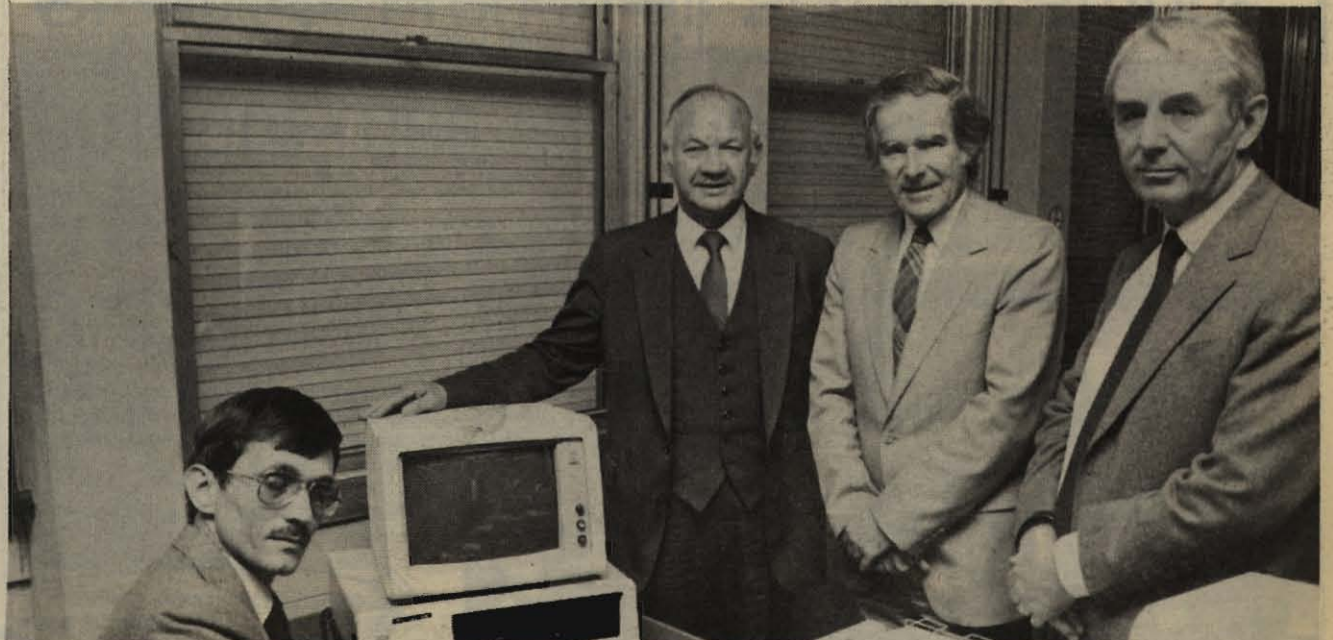
There have been several nominations: for the Queensland Minister for the Environment, Mr Martin Tenni, "for his words of wisdom on national parks and the Cape Tribulation-Bloomfield Rd"; for the Melbourne and Metropolitan Board of Works, for allegedly hiring an American woman to establish the shape of demolished buildings by sensing the force fields left behind in the air; and for a New South Wales man who nominated himself because scientists "are unable to tell us what energy is".

Whatever the future of the Bunyip Award, Professor Short hopes it would not suffer the fate of the American Golden Fleece Award, which was awarded annually by Senator William Proxmire for "the most useless piece of research" — until one humorless recipient sued.

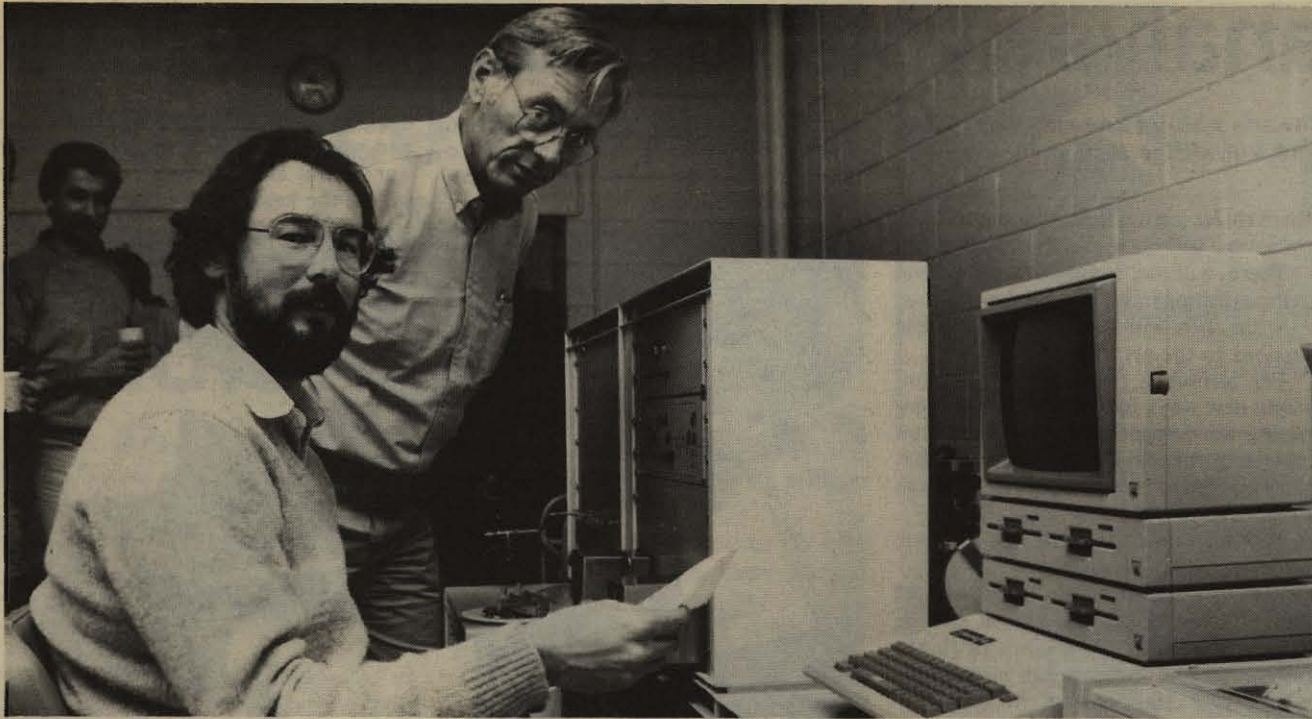
• A suggested coat-of-arms for the Bunyip Award — the Mon-ashcan — designed by ABC listener, John Gadsdon, of Campsie, New South Wales.



• Mrs Frances Maber, director of the Victorian State Office of the Commonwealth Department of Education, presents a cheque for \$50,000 to Professor John Rickard, Graduate School of Management, University of Melbourne, and Professor Peter FitzRoy, right, Department of Administrative Studies, Monash. The money will help towards the establishment of an Australian Foundation for Management Development, as recommended by the Ralph Committee of Inquiry into Management Education.



• Mr Gordon McAuslan of IBM, second from left, with one of the personal computers the company has donated to the Faculty of Economics and Politics for use in the Master of Administration program. He is pictured with Dr Rod Willis, left, senior lecturer in Econometrics and Operations Research, the Vice-Chancellor, Professor Ray Martin, and the Dean of ECOPS, Professor Gus Sinclair.



• Dr Bob Gregory of Earth Sciences is already hard at work on the \$160,000 isotope ratio mass spectrometer, which was delivered by Mr Herbert Grebe (standing), a representative of the Finigan Mat Corporation of Bremen, West Germany. The department bought the machine with the help of money from the Australian Research Grants Scheme, the National Energy Research, Development and Demonstration Council and Esso.

## Sing a song of Melbourne

If you agree that it would be a great idea to stage a huge and colorful extravaganza called *Marvellous Melbourne* to mark Monash's silver jubilee next year . . .

And if, what is more, you feel it would be pretty good to take part in it as an actor, singer, dancer, juggler, choreographer, musician, artist, builder, director, administrator, adviser, or whatever . . .

Then here is your opportunity.

Sue Thomson, of the Student Theatre committee, says all interested Monash people are invited to the next meeting on Tuesday, September 10, at 1.15 p.m. at a venue yet to be decided.

The tentative dates for the show are July 22 to 31, and scripts are already available from the Student Theatre office.

Support is wanted from clubs and societies, as well as from staff members and students "of all shapes and sizes", Sue says.

"This could be a fantastic event, and a milestone in Monash history."

For more information, phone Sue on ext. 3108.

## CONFERRING OF DEGREES 1986

Applications to Graduate are now available from the Student Records Office, University Offices for Bachelor degree candidates in their final year who expect to qualify for their degree at the 1985 annual examinations and who wish to graduate at a ceremony in 1986.

Applications should be lodged by Monday, September 2, 1985.

Students in those faculties in which honors are taken in an additional year, who intend to proceed to honors, should not complete an Application to Graduate until August in their honors year.

If the honors year is subsequently abandoned, an Application to Graduate with the pass degree should be lodged forthwith.



• Merry-makers at the Wholefoods restaurant's Reggae night included American exchange students Karen Till and Anne Haus, left. The African-theme night was organised by the Wholefoods Supporters Club for its annual dinner and dance.

## Oboe players too long idle

Wollongong City Council, in its efforts to cut down on waste and inefficiency, commissioned the University's Department of Business Policy and Operations to conduct an investigation of the City of Wollongong Symphony Orchestra.

Representatives of the department attended a performance by the orchestra of Schubert's *Unfinished Symphony*. Here are some of the extracts from their report:

- The four oboe players were idle for long periods. Work should be spread evenly over the whole orchestra to eliminate unprofitable peaks and troughs of activity.
- All 12 violins appeared to be playing exactly the same tune. This represents excessive duplication. If a loud noise is really required, it

would be more economic to employ two violins and an amplifier.

- Too much attention is given to the playing of demi-semi quavers. All notes should be rounded up to the nearest semi quaver. This would open the way for cost saving through the employment of semi-skilled musicians on a lower wage.
- There does not seem to be any obvious purpose in the repetition by the woodwinds of a tune that has just been played by the strings. The elimination of this and other wasteful practices would reduce the length of the work by at least 15 minutes and should have enabled the composer to finish the symphony without difficulty.

— Campus News, University of Wollongong

## Rhodes open to all-rounders

Applications are now open for one of the most important and widely recognised scholarships available to Australian students for overseas study — the Rhodes.

"Competition is tough and the standards very high but that should not discourage as many students as possible from striving for the Rhodes," says the honorary secretary of the Victorian selection committee, Mr Jim Potter.

"We are looking for the good all-rounder; a person who not only has high academic achievements but is also thoroughly involved in sport and community services."

Applicants should be Australian citizens who have passed their 19th but not their 25th birthday by October 1, 1986, and should be available for interview at the time of selection.

They should have achieved academic training in a recognised degree-awarding body in Australia or overseas, sufficiently advanced to ensure completion of a Bachelor's degree, preferably with honors, by October, 1986.

Applicants should not be married and the scholarship is forfeited by marriage after election or during a scholar's first year of residence in Oxford.

A Rhodes Scholar receives a personal allowance fixed by the Rhodes Trust.

In 1984-85 this allowance was 3,810 pounds a year. In addition all fees are paid by the Trust directly to the college, and successful candidates are helped with their travelling expenses to the United Kingdom.

Applications must be on the prescribed form which is available from the office of the Registrar, Mr Jim Butchart (ext. 2008).

## Plea for publications to aid Third World

The Australian Centre for Publications Acquired for Development (ACPAD), collects books, journals and other publications, preferably in English, for distribution to universities and institutions for higher education in developing countries.

Publications donated by tertiary institutions, business houses and libraries now form part of collections in university and higher education libraries in Indonesia, Malaysia, the Philippines, Thailand, Fiji and Papua New Guinea, but there is an urgent need for more donors.

Inquiries should be addressed to the Executive Officer, ACPAD, GPO Box 2006, Canberra, ACT 2601. Telephone (062) 49 7833.

## COURSES AND AWARDS

Applications are now being received for entry into the 1986 Social Work course. Forms are available from the Social Work department, 11th floor, Menzies Building, and the closing date is October 4.

The Australian Academy of Science invites applications to participate in a post-doctoral exchange program with the Japan Society for the Promotion of Science.

Applications for fellowships will be considered from biological and physical scientists who have less than five years post-doctoral experience.

Fellowships will be for visits to Japan of six to twelve months.

The academy, together with the Australian Academy of Technological Sciences, is also involved in a Scientific and Technological Exchange Program with the Royal Society of London for the interchange and collaboration of scientists and technologists from the two countries.

Applications are invited from those wishing to conduct short or long-term projects in the United Kingdom in 1986.

Proposals need to be specific, and developed in consultation with contacts in the United Kingdom.

Information and application forms for the above programs can be obtained from International Relations, Australian Academy of Science, GPO Box 783, Canberra, ACT 2601. Telephone: (062) 47 3996.

Applications close on September 30.

Sir Robert Menzies Memorial Scholarships in Law and Medicine are available to graduates under 36 years of age and tenable for up to two years at Oxford, Cambridge, St. Andrews or Edinburgh.

Benefits include monthly living allowance for scholars and dependants, return air fares, internal travel allowance, tuition, examination and other fees, books and equipment allowance and other expenses.

Applications close in Melbourne on August 31 and inquiries should be addressed to Clive Vernon, Graduate Scholarships Officer, ext. 2009.

Applications are invited for the Australian Telecommunications and Electronics Research Board Postdoctoral Fellowship for Ph.D graduates preferably those under 30 years of age.

The fellowship is tenable for up to two years and provides \$25,447-\$27,628 per annum plus allowances.

Applications close in Canberra on September 20, and Monash inquiries can be made to Clive Vernon, Graduate Scholarship Officer.

# Learn to analyse your artistic response

Most people know what they like in the arts without knowing why. Their senses, thoughts, feelings, intuitions and knowledge turn them one way rather than another — and that's it!

A lifetime can be spent without solving the mystery, and a great many art lovers, like artists themselves, come to believe that no solutions are possible anyway.

The more they try to penetrate the mystery, the more they become confused by the mumbo-jumbo, vogue words and art metaphysics of the day.

Yet there is a rewarding way to look at the arts that relatively few people have explored.

To bring it far more to public attention the ANZAAS congress has included in its five-day program two sessions called *Analysis Across the Arts*.

They will be held on the morning and afternoon of Thursday, August 29.

The convener for both is Mr Malcolm Gillies, lecturer in music craft at the Victorian College of the Arts.

The two sessions will cover not only the visual arts, but music, drama, film, dance and architecture.

A distinguished visitor will be Professor Jean-Jacques Nattiez, a celebrated musicologist from the University of Montreal, Canada.

Students from the various schools of the Victorian College of the Arts will be

there to demonstrate, and audience participation will be warmly encouraged.

There will be lectures, audio-visual demonstrations and text analyses.

What then will be the value of these sessions to the art lover?

The answer is that they will demonstrate new ways of analysing and comparing the methods of artistic creation and performance, in a practical way that must heighten understanding of each discipline.

The *how* and *why* of art become absorbing.

While there will be no claim that art and science can become one, it will be shown that the rigorous kinds of thinking that develop science can also be applied, to a high degree, in fully appreciating the arts as well.

All speakers at the sessions will be under orders to minimise technical words.

One that must come up, however, because of its importance, is "semiotics".

All it means is the study of systems of signs, or signals.

It has become so important in academia that some 50 courses at

universities around Australia — from fine arts to French and linguistics to philosophy — now take it into account.

In academia, predictably perhaps,

disputes continue about what is a sign and what isn't, and semiologists are at war — but at ANZAAS commonsense will be the keyword for everyone.



• How beauty can be found in fiddle-string and bow, when all the odds are in favor of cacophony, is one of the intriguing questions of music. Here Hubert Soudant rehearses the Melbourne Symphony Orchestra at Robert Blackwood Hall, one of Australia's great concert centres and the Great Hall of Monash.

## Finding your way around the Festival

### LEGEND

A — First Year Physics building:  
SPACE EXPOSITION

B — Eastern Science Lecture  
Theatres: S1 to S4

C — Sports Centre:  
QUESTACON TRAVELLING  
SCIENCE SHOW

D — Festival of Science Office  
and Media Centre

E — Union Theatre

F — Menzies Building:  
Lecture Theatres H1 to H6

G — Rotunda: Lecture Theatres R1  
to R7

H — Alexander Theatre

I — Robert Blackwood Hall

J — Religious Centre

