

Reality rolls in for wave energy

Wave energy could realistically provide between 10 per cent and 15 per cent of Britain's present energy needs, according to visiting mathematician Dr David Evans.

By the year 1985, or perhaps a little later, he predicted, we could see the prototypes of devices to harness the energy of ocean waves.

The use of wave energy, he says, could give Britain the breathing space it needs to "sort out its fossil fuel and nuclear energy options."

Dr Evans, who is at Monash as visiting lecturer in the department of Mathematics, is from Bristol University, where he is engaged in wave energy research.

Theoretically, Britain could obtain all of its present electricity needs by tapping wave energy, he says. But there are practical problems which make total reliance on this source of energy unlikely.

For example, to meet Britain's present electricity needs, he says, you would need at least 1200 km of underwater wave energy absorbers. This extensive chain of devices could interfere with shipping and would also involve a massive transfer of economic resources to the wave energy program. There might also be environmental and ecological problems.

"There are also days when there are no waves in certain locations," he says. "That's one reason why we could not allow ourselves to be totally dependent on wave energy. Parts of the country could be cut off from energy supplies in calm weather."

Dr Evans says wave energy in Britain is regarded as the major alternative renewable energy source, largely because of Britain's "prime position as far as waves are concerned."

"The mean annual energy density is between 30 and 70 kilowatts per metre wave crest coming to shore," he says.

Wave energy also has a special appeal because it is most abundantly available in stormy winter months when energy demands are greatest and solar energy is most meagre.

Dr Evans says the British Government is supporting several ideas for harnessing wave energy in its large-scale program, which has now been running since April, 1976.

"The idea is to tap the long swell waves," he says.

"Basically, the idea is to build a large structure in the sea usually parallel to the incoming wave crests which will cause it to move and react against some fixed structure.

"As a result the wave energy is converted into mechanical energy which is then transferred either into hydraulics (fluid flow) or some other way to drive a turbine and generate electricity.

"The electricity is then fed back to shore by sea cable."

Dr Evans' interest in wave energy is both theoretical and experimental.

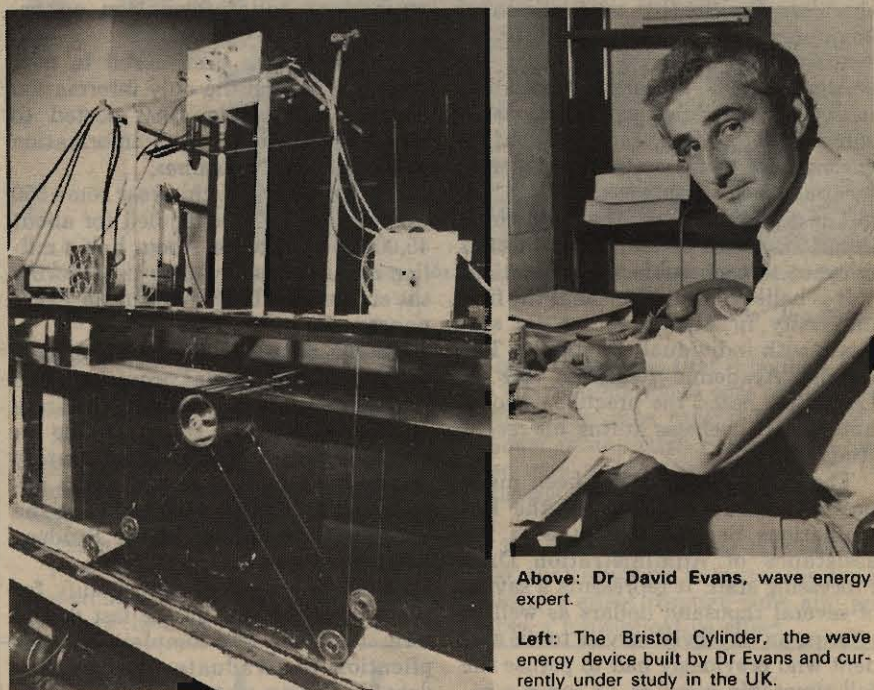
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Above: Dr David Evans, wave energy expert.

Left: The Bristol Cylinder, the wave energy device built by Dr Evans and currently under study in the UK.

The AVCC on academic staff relations

The Australian Vice-Chancellors' Committee last month released a statement setting out its position on academic staff relations. It is published on page 6 of this issue.

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Egg sucking kit's historic yolk

More than 100 years ago the grand old man of British ornithology, Alfred Newton, was in full flight in his study of the world's birds.

Part of that study involved building an extensive birds' eggs collection — also a fashionable field sport and private hobby of the 19th century.

Monash University last month was presented with a bird's egg sucking kit owned and used by Newton, a founding member of the British Ornithologists' Union and first professor of zoology and comparative anatomy at Cambridge University.

The kit, used to remove the contents from eggs, is currently in the Zoology department.

It comes to Monash from Mr J. S. P. Ramsay of Woolwich in New South Wales. Mr Ramsay, now in his 90s, is the last surviving member of the family of Edward P. Ramsay, curator of the Australian Museum in Sydney from 1874 to 1894.

A few years ago the late Jock Marshall, then professor of Zoology at Monash, secured for the University several of Edward Ramsay's books. Among these was the rare and valuable 1868 volume, *A Manual of Australian Land Shells* by James Cox — a field guide containing hand-coloured plates.

It is thought likely that Jock Marshall became acquainted with the Ramsay family — if not with Edward himself if he kept association with the Museum after retirement — when he

worked at the Australian Museum where his interest in natural history was fostered.

Newton's kit is incomplete. But remaining in its small, flat velvet-lined case are several instruments including two drills and two glass suckers. With the kit Mr Ramsay has also sent a reprint of a monograph by Newton titled *Suggestions for Forming Collection of Birds' Eggs*. Dated 1860 the monograph was reprinted with additions from the Circular of the Smithsonian Institute of Washington. Evidently Newton's reputation was established on both sides of the Atlantic by then.

An offence today

The art of egg sucking is not widely practised today. In many countries, including Australia, many birds are protected by legislation and private collecting of their eggs is an offence.

Curator of Birds at the National Museum in Melbourne, Mr Allan McEvey, is familiar with the technique.

The "professionally" blown egg, he says, is one in which the contents have been removed through a single hole in the side of the egg. The "schoolboy" approach is to make a hole at either

end and blow the yolk through.

In the "professional" way, the egg is punctured with a needle to break it.

Then, with the pierced side facing downwards, the egg has air blown through a pipe across its surface.

After the contents begin to pour out water is injected to facilitate the yolk's exit and clean the shell inside.

Alfred Newton was born in 1829 and died in 1907.

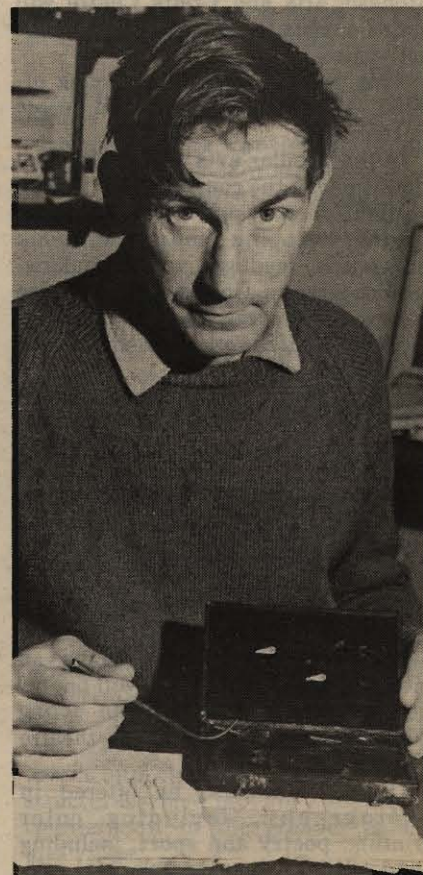
Perhaps his most enduring scholarly contribution was a *Dictionary of Birds*, published in 1896, and now considered a classic of ornithological literature. Four years later the Royal Society, of which Newton was elected a member in 1870, awarded him a Royal Medal. In the same year he received a Gold Medal from the Linnaean Society.

At age 25 Newton was elected to the Drury travelling fellowship of Magdalene College, Cambridge, and spent until 1863 touring the world.

In 1866 he was appointed professor of zoology and comparative anatomy at Cambridge, a position he held until his death.

He edited several zoological journals, and contributed articles to the *Encyclopaedia Britannica* in addition to publishing several major works including his dictionary and *Zoology of Ancient Europe*.

The ornithological library at Cambridge is named after him.



● Professor J. M. Cullen, of Zoology, examines the egg sucking kit and related monograph. Photo: Herve Alleaume.

First, academe's sober Spring

The academic year enters its most testing time this month when the annual examination period begins on Friday, October 26. It ends on Friday, November 23.

Monash students will be well guided in the when and where of their exams this year. For the first time individual computer-printed timetables will be sent to them.

About 11,000 separate timetables listing all scheduled examinations in subjects for which each student is enrolled are being posted to students' term addresses this week.

The timetables list the day, time, duration, location and other details relevant to each subject examination.

It is believed that Monash is the first university in Australia to issue students with individual timetables. The Deputy Academic Registrar, Mr J. Leicester, noted the practice at some universities overseas during his recent study leave.

The new procedure has been made possible by development of the Examinations Section system with the assistance of Administration Data Processing staff. It represents a saving of several thousand dollars as well as offering an improved service to the student who previously had to peruse the full timetable.

Copies of the full timetable will be displayed in the Union and at Student Records in the University Offices but copies will not be available generally.

Posted with the individual timetables this week will be a notice to students regarding the conduct of examinations and information on re-enrolment procedures.

Students have been asked to note that this will be the only information on re-enrolment in 1980 posted to them. In previous years information was posted in November.

On the timetable this year some 550 examinations are scheduled for about 45,000 candidatures. About half a million A4 size sheets will be used during the six weeks it takes to print the exam papers.

People with handicaps have been reminded that special provisions can be made for them. Students requiring additional writing time, Braille or enlarged papers, special rooms, seating or similar facilities should make application by Friday, October 12 to the Examinations Officer in the Student Records section.

Students who expect to qualify for their degree should by the last day of term (October 20) complete an Application to Graduate form at Student Records.

Then, some Summer ideas

While gold is being used as a hedge against inflation, Monash's Summer School is this year offering a wide range of courses as a hedge against vacation lethargy.

Enrolments for the 12th Summer School open for Monash students and staff on October 15 and for members of the general public on October 25.

For the first time the newly opened Monash Arts and Crafts Centre will act as a focus for many of the school's activities.

This year 74 courses are being offered. All are taught by skilled people in their field.

In the popular arts and crafts section, some of the courses which will be available include pottery, leatherwork, sewing, weaving, macrame, book restoration, leadlight windowmaking, cartoonography, Chinese and Japanese painting, life drawing and painting, tapestry, patchwork, jewellery and silverwork.

Those keen on acquiring a second language can choose from French, Japanese, German, Italian and Spanish.

In the music field, classes will be offered in flute, folk guitar, basic fiddling, tin whistle, classical guitar and jazz.

A wide variety of dance skills will be taught, from traditional Greek to Australian folk, with disco making an introduction as well. There will be tuition in drama, too, with an acting skills course and a beginner's theatre workshop.

Courses will also be offered in photography, including color printing, poetry and sport, including aikido, Wing Chun, archery and self-defence for women.

In the practical section, some 16 courses covering a wide field of

endeavour are listed. These include: accounting for small businesses, bridge for beginners, an introduction to computer programming, beekeeping, gardening, Australian native plants, first aid, typing, interior decorating and motor maintenance. For those with an eye to the 1980 academic year there is a course on learning to study at tertiary level and for those turning an eye away from the 1979 academic year and toward relaxation there are courses on yoga and sensitive massage.

A Summer School brochure is now available from the Clubs and Societies Office on the first floor of the Union (ext. 3144/3180).

A rational approach to hospitals needed

Hospital planning in Victoria needs to be carried out in a rational and apolitical manner, according to the president of the Queen Victoria Medical Centre, Mrs A. W. Hamer.

Speaking at the annual general meeting of contributors to the Centre last week, Mrs Hamer was critical of changes and delays in plans to relocate the Centre and amalgamate with McCulloch House on the Clayton site near Monash.

She said: "I cannot begin to describe the effect on morale and purpose when, after four years' intensive work, a planning brief carefully prepared to Health Commission specifications, and accepted in principle, is discarded overnight to conform with political and financial expediency."

"To add insult to injury the reason for the 1977 amalgamation — McCulloch House's future — is now in limbo, the commissioned brief also having been summarily tossed out."

Mrs Hamer, who is also a member of Monash University Council, went on:

"No one can achieve anything of value in such a morass of ad hocery, and it is devoutly hoped that the new Health Commission, with its new Minister of Health, has the courage to plan in a rational and apolitical manner."

"Since August last year, when planning for the 753-bed acute hospital and the 290-bed new McCulloch House ceased, we have modified the brief to provide 380 beds on the Clayton site only."

"Even this is still under dispute, particularly the medical and surgical bed numbers to back up the services provided."

"It was for this reason that, with University backing, investigations were carried out into proposals to complement the revised brief with a new Jessie McPherson Hospital."

"I am deeply grateful to all those who have battled, and loyally supported me in navigating those stormy seas."

"To the Dean of Medicine, the faculty of Medicine, the senior medical staff, and to the Project Team, bloody but unbowed from disappointment, my deepest appreciation and thanks..."

Chinese Minister visits



The Chinese Minister of Public Health, Mr Qian Xinzhong, headed a group of Chinese scientists and health workers which visited Monash last month.

The Minister, on a tightly scheduled visit to the University, met with the Dean of the faculty of Medicine, Professor G. Schofield, who took the visitors on a tour of departments. They visited laboratories in Anatomy, Physiology and Pharmacology and a community practice display organised by the department of Social and Preventive Medicine.

The group was photographed in Physiology where the work of Dr G. Taylor on Hirschsprung's disease was explained to them. In this condition, which occurs in man, severe constipation leads to the necessity for surgical removal of the colon.

Using mice, Dr Taylor has been investigating various aspects of movements of the alimentary tract in health and disease.

Dr Taylor outlines his study to an interpreter who translates it for Mr Qian Xinzhong, centre. Professor Schofield is at rear.

Focus on China's human face

"In no century have such changes taken place in China," says the catalogue note for a photographic exhibition which opens at Monash later this month.

"Yet there is a persisting backdrop of ancient customs, ancient ways of thought."

It is the aim of the exhibition — which features the work of Education faculty photographer Claude Sironi captioned by senior lecturer in Education, John Fyfield — to depict this blend of the impact of 20th century



Simply titled 'Cautiously curious'.

revolution with tradition in China.

The exhibition opens in the Visual Arts exhibition gallery, on the seventh floor of the Menzies Building, on October 22 and runs until November 16. The gallery is open weekdays from 10 a.m. to 5 p.m.

The exhibition consists of 59 photographs which depict the life — at home, work and school — of ordinary Chinese people. Mr Sironi says he has not photographed the great buildings and monuments as much as the people themselves in their daily pursuits.

The exhibition photographs have been selected from a larger collection of 175 prints and 135 slides which will be available for teacher use from the Educational Services Centre in the faculty.

The photographs were taken during an 18 day visit to China by an Education faculty-sponsored group led by John Fyfield last year. The group visited Peking, Canton, Foshan, Taiyuan, Datong, Dazhai and Xi'an.

A photographic exhibition of the buildings of Melbourne titled *Visions of a City: Melbourne* continues at the gallery until October 12.

Study probes mutagenic activity in Bay

A Monash Master of Environmental Science student is mapping the distribution of mutagenic activity in Port Phillip Bay.

Results from tests conducted by **Zena Helman**, who holds a Bachelor of Science degree with honours in genetics, show evidence of mutagens — agents which cause damage to the genetic material in cells, the complex biological molecule, deoxyribonucleic acid (DNA) — in mussels collected from the Bay. Her work is being carried out in the Genetics department under the supervision of senior lecturer, **Dr V. Krishnapillai**.

A second part of the Monash study, to be conducted by fellow Master student **Mr Tong Schui**, an engineering graduate, will attempt to trace the mutagenic activity in the Bay to its likely sources of industrial pollution.

Damage to DNA in humans appears to be a cause of cancer and genetic birth defects and may contribute to ageing and heart disease as well.

Humans are exposed to mutagenic agents which are both naturally occurring and synthetic. In the former category are natural chemicals in our diet, radiation, and combustion products such as soot. In the latter are industrial chemicals, pesticides, drugs such as DES, hair dyes, aerosol propellants, food colorings, additives and preservatives. In addition to those chemicals which have been identified as mutagenic agents there are tens of thousands which have been introduced into commerce without adequate testing.

Effect on cell

Ms. Helman explains the effect of a mutagen on a cell: "The first point is that the cell has a good defence mechanism which can prohibit access of the mutagenic agent to the cell's DNA. In addition it has an extensive system to repair any damage to its DNA.

"But if the damage is not repaired, then it becomes heritable (that is, it can be passed to the next generation of cells), and a mutation has occurred.

"An alteration in cell functioning can have a number of effects. The vast majority of mutations are lethal — the cell dies.

"Other mutations may result in a 'sick' cell — one that grows abnormally or requires extra nutrients to survive.

"If a mutation occurs in a germ line cell (an egg or a sperm) there is a chance that any individual derived from that cell will be abnormal.

"If a mutation occurs in a body cell there is also a possibility of a cancer developing."

Ms Helman says: "The purpose of my study is to ascertain whether the Bay is a source of mutagenic activity to which people are exposed. It comes at a time when, with greater awareness of the effect of mutagens, calls have been made for priorities to be set and human exposure to be minimised."

Ms Helman has been collecting mussels, "weather and tides permitting", from scattered sites around the Bay.

She collects mussels of the species **Mytilus**. Mussels make good probe organisms for pollutants as they con-

centrate chemicals in their environment.

Back in the laboratory she prepares an alcohol extract of the mussel — using its fleshy section — for analysis.

This is done by two methods — the Ames plate test and the more sensitive fluctuation test. Both are bacterial test systems.

The extract is combined with **Salmonella** bacteria genetically designed to be sensitive to mutagenesis and put in special nutrient media which allow the bacteria to grow. The more bacteria that grow the stronger the mutagen in the extract.

Ms Helman says that she has found the incidence of mutagenic activity to be greater in mussels collected from areas of the Bay (particularly Corio Bay) adjacent to industrial activity and shipping lanes. The incidence of positive results tapers off markedly in the section east of Brighton.

She says the results have not surprised her: a large number of man-



● Student Zena Helman (left) and supervisor Dr V. Krishnapillai examine bacterial growth in a test to detect mutagenic activity.

Photo: Jim Sinclair.

made chemicals, to be found in industrial discharge, have been demonstrated to be mutagenic agents.

Ms Helman cautions against drawing conclusions about the risk to humans, say, swimming in the Bay based on the results of her tests with mussels.

But she points to the work of researchers such as **Professor Bruce Ames** of the University of California at

Berkeley who say that it is likely there is no completely safe dose of mutagens and carcinogens (agents which cause cancer in animals). Some of the tests she uses to identify mutagens in the mussels were developed by Ames.

Ms Helman says that it is believed, too, that exposure to mutagens has an additive effect through time and possibly a multiplicative effect.

Palladio still stands supreme

Four hundred years ago next year the Italian Renaissance architect **Andrea Palladio** died, ending a productive 72-year lifetime during which he designed a series of villas and palaces which transformed the character of his native **Vicenza** and the surrounding countryside, inland from **Venice**.

Lecturer in Visual Arts at Monash, **Dr John Gregory**, last month joined 120 architects, environmentalists, restorers, art historians and interested "amateurs" from around the world for the 21st annual course conducted on Palladio in **Vicenza** by the **Centro Internazionale di Studi di Architettura** under the direction of **Professor Renate Cevese** of the University of Padua. Dr Gregory was among the first group of Australians to attend the course.

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Wave device works

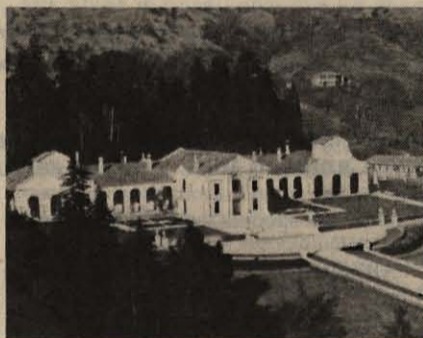
In 1976 he devised a set of equations which enabled workers in the field to predict in a simple way the efficiencies of particular wave energy absorbing devices.

Subsequently he built his own wave energy device which he is working on at present at the University of Bristol.

The "Bristol Cylinder", as the device is called, owes its existence to a curious discovery by an American Naval Architect, **Professor T. F. Ogilvie**.

He proved theoretically that "if you take a submerged circular cylinder, such as a rolling pin, and cause it to make small circular oscillations just below the surface of the water, it will make waves that travel only in one direction — away from the rolling pin."

"This peculiar result seemed to me to be an attractive proposition for wave energy if one could do it in reverse — in



● Palladio's Villa di Maser

He teaches Renaissance and Baroque Art and Architecture at Monash and describes the course and associated visits to Italian cities such as Rome, Florence, Venice and Mantua as offering a valuable insight into the subject.

Palladio's architecture, he explains,

other words send the waves back into the cylinder.

"The energy of the waves would disappear into the cylinder."

Dr Evans says he has tested the device both theoretically and in the laboratory and has shown that it works.

"The cylinder has now caught on, and we have quite a large program ahead of us," he says.

Dr Evans says his team, which is working in conjunction with a large British civil engineering firm, is "half-way through a feasibility study of a full-scale device."

"We hope to report on that by the end of October or sometime in November," he says.

"By then we should have a better idea of where we are going."

● Mathematical meteorologists, p7.

is of special significance in that it is both "modern" and classical.

He says: "Palladio was a Renaissance man who looked back to classical antiquity and used it as a mainspring for his ideas. But his villas in particular were revolutionary in their functional design and their close relationship to the surrounding landscape."

Dr Gregory says that Palladio is also noteworthy for his drawing methods, often working from sketches of classical buildings and evolving his ideas as he drew. His practice of perfecting his designs through a series of alternative solutions and details was forward-looking, anticipating the procedures of modern architects.

The course consisted of lectures and seminars and visits to Palladio's buildings some of which are rarely opened to the public. Among these was **Villa Foscari** (evocatively called the "Malcontenta") on a canal site near Venice and the **Villa Barbaro**, lavishly decorated inside with frescoes by Palladio's Venetian collaborator **Veronese**.

The keynote speaker was **Professor Howard Burns** of London's Courtauld Institute who spoke on Palladio's "minor" works, pointing out their importance in providing insights and information into his early development and working processes.

Dr Gregory says that Burns ended with a plea for even greater vigor in the preservation and restoration of all **Vicenza's Renaissance buildings**, emphasising the significance to the town's total character of even its minor structures which provide a supporting counterpoint to the grander palaces and villas.

Dr Gregory's trip to Italy was sponsored by the Italian airline, **Alitalia**, the **Vaccari Foundation** and the Arts faculty.

Move control of administrative powers to judiciary, judge urges

A Federal Court Judge has suggested a constitutional shift in power to give the judiciary control of the exercise of some administrative powers.

Mr Justice F. G. Brennan, who is President of the Administrative Appeals Tribunal, said the warrant for conferring such power to the courts lay in the safeguarding of the individual as he dealt with the anonymous complexity of the modern bureaucracy, and the assistance to the bureaucracy which external judicial review could provide.

Mr Justice Brennan was delivering the 1979 Wilfred Fullager Memorial Lecture organised by Monash's Law faculty. His topic was "New growth in the law — the judicial contribution".

He said that the importance and growth of administrative powers had stimulated the sentiment that control of many administrative powers should be committed to the judiciary.

He said: "The rights and liabilities of citizens — whether natural or corporate — are made increasingly to depend upon the exercise of administrative power.

"Entitlement to a social security benefit, assessments of various taxes, permission to drive a car or build a house, the payment of bounties, acquisition of citizenship, licensing of professions or trades, quotas, permits and licences granted in respect of importing and exporting — the list of administrative controls and activities is large and expanding."

Mr Justice Brennan said that, at the moment, the exercise of administrative power was subject to Ministerial control, except for independent administrative boards.

"In theory, a chain of responsibility exists: administrator to Minister of Parliament," he said.

"But, in fact, the Minister leaves the day to day exercise of the powers to administrators who frequently develop a familiarity with administrative problems exceeding that of their Minister."

He said that circumstances had conspired against Ministers using their power except when the pressures of politics or the anguish of a particular plea promoted its exercise.

Immune from scrutiny

He continued: "The reality is that a large concentration of power affecting a broad spectrum of activities is vested in administrators who are largely immune from scrutiny in the particular exercise of that power.

"It is not surprising that there have been calls for judicial intervention, for the experience of man is that the exercise of power in camera and without effective external review is at risk of miscarriage and doing injustice to those affected by its exercise."

Mr Justice Brennan said that some administrative power was precisely defined and legal issues arising from its exercise were indistinguishable

from the issues a court would determine. For example, questions which the Administrative Appeals Tribunal now determined as to the classification of imports and the application of the customs tariff were once litigated before the High Court.

"Clearly enough, the judicial techniques of law-making are applicable to cases of this kind," he said.

But often there were thickets of administrative practice which had overgrown the statute beneath, he said.

"Large areas of administration await the exercise of the familiar judicial skills of statutory interpretation: defining the nature and the extent of powers, spelling out the conditions which attend their exercise."

Mr Justice Brennan said that it had been argued that control over the exercise of administrative powers would expose the very institution of the judiciary to risk.

This was because it would be required to make its judgments by political rather than legal criteria, by political or economic sentiment rather than by the high technique and strict logic which had been the hallmark of judicial activity and the foundation of public confidence.

"It seems to me that these warnings appear to diminish the true genius of the judicial method and, in some degree, mistake the nature of the task which would be confided to the judiciary if it be assigned the duty of controlling the exercise of discretionary administrative power," he said.

Science and the media — a bridge needs building from both sides

With a few exceptions the standard of science reporting in the Australian Press left a great deal to be desired, Monash science editor Frank Campbell told a recent seminar at La Trobe University.

And the situation would not improve, he said, until newspapers made a practice of employing specialist science writers, and scientists, for their part, took the task of communication more seriously.

Mr Campbell was speaking at a seminar "Bridging the Gap Between Science and the Media", organised by La Trobe University as part of the University's Community Week.

There were notable exceptions to the charge that science was handled badly by the press, Mr Campbell said.

But for the most part when a scientist had anything to do with the Press, he said, he spoke to a general reporter who lacked the specialist knowledge needed in science reporting.

Mr Campbell said some of the problems in press coverage of science could be overcome if scientists attending seminars gave copies of their papers to the Press and reporters adopted the practice, wherever possible, of reading back copy.

But scientists must realise when a reporter reads back copy that the scientist's concern is simply with fact and emphasis, he said.

Many reporters were reluctant to read back copy because they feared the scientist would insert so many qualifications that the story would become unreadable.

"That is an underlying problem in science reporting," Mr Campbell said. "The story has to compete with other news, and it has to be readable.

"As the late Dr Bronowski pointed out in one of his books, every person

outside his specialised field is a general reader."

Although the Press was largely to blame for the poor state of science reporting, Mr Campbell said, the scientist could not escape responsibility. Scientists, often, gave too little thought to the problem of communication. They should attempt to anticipate the sorts of problems that could arise.

"This is what usually happens when a reporter interviews a scientist on a controversial issue such as pesticides or nuclear energy", Mr Campbell said.

"The scientist does not give the reporter an overview of the problem. He simply gives him his own opinion and the grounds for his view.

"He does not discuss the experimental problems involved in the research. He does not discuss the statistical problems.

"He does not say to the reporter. 'This is my view. There are others who do not agree with me. This is their view. I do not agree with them for these reasons'."

As a result the reporter files a highly biased story. The newspaper, in an attempt to get a balanced view, may send the reporter out to interview someone with an opposing view. The same sort of thing happens.

The public is presented with two opposing and biased views. There are no grounds for either view. The newspapers usually "cut out the becauses". As a result of this, the public is unable to make any sort of informed judgment on the issue.

Mr Campbell said there were some scientists who think that science is too complex for treatment in the Press.

Although he did not agree with this view himself, he said there was some justification for it. In some areas of science, it was not possible, because of the inherent difficulties, to give more than an impression of what was going on.

There was some justification for the belief that the Press at times creates a climate of anxiety, he said. And because of complexity of science and the nature of scientific method, a good deal of what was published in the Press turned out, ultimately, to be misinformation.

But no one liked a negative story, he said. And scientists were not keen on publishing their mistakes.

There was also the danger, he said, that the controversial opinions of an outspoken scientist could be wrongly accepted by the public as representing the opinion of scientists in the particular field.

Although superficially there might appear to be strong arguments against the use of the media for the dissemination of scientific information, he said there were strong arguments in favour of it.

One was accountability. The other was education.

"If you agree that education is a good thing, I think you have to be prepared to tell the people what you are doing, and try to help them understand what you are doing," he said.

Migrant Studies diploma

Monash University's Centre for Migrant Studies is offering a (Graduate) Diploma course in Migrant Studies next year for people working with migrants.

The course is intended for librarians, social workers, clergy, lecturers, teachers, members of government departments, and others who may wish to acquire the special skills needed for work with migrants in a multi-cultural society.

It may be taken in one full-time or over two or three years part-time.

Associate Professor Michael Clyne, who is directing the course, said that there were few professions that could ignore the fact that Australia was a multi-cultural country.

"Forty-eight per cent of Melbourne's population in 1976 were migrants or the children of migrants," he pointed out.

He said the Diploma course was first established in 1976 but had since been revised.

People enrolling for it could develop their own course from the various components to meet their own particular needs, he said.

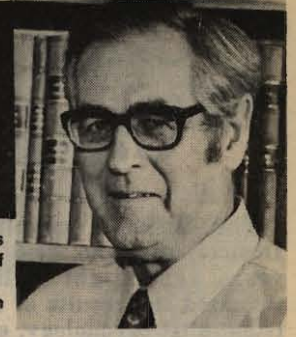
For example, teachers who took the Diploma course could include a practicum in teaching English to migrants. This will be offered in 1981. The course also includes studies in cultural pluralism and religion designed especially for the clergy.

Application forms are available from Mrs M. I. Sturgess, Faculty of Arts, and should be submitted no later than February 1, 1980.



The value of scholarship

An open letter to the Chancellor



Early in July, Monash's Chancellor, Sir Richard Eggleston, addressed a meeting of representatives of university governing bodies held in Canberra. The meeting discussed the future of Australian universities over the next 20 years. Sir Richard spoke on the role of governing bodies; a report on his address appeared in August Reporter.

Here, Professor John Crossley (pictured left), of Mathematics, takes issue with several points raised by the Chancellor (right), in the form of an open letter . . .

Dear Sir Richard,

When I first read your paper "The Role of University Governing Bodies", which was an address given by you to the Australian Vice-Chancellors' Committee on July 5, 1979, I felt uneasy and I was puzzled at first as to why I should have felt that way.

Of course your paper was taken out of context and since it was distributed without any real introduction it is not, perhaps, too surprising that it should not have struck me in perhaps the way it was intended.

I have re-read your paper a couple of times since then and the one thing that strikes me first of all is when you are quoting from the Williams Report. In your checklist, item (a) is "What are the objectives of the institution?" and your comment: "The first question on this checklist may seem to be too simple to warrant investigation . . ."

This gave me the clue as to what was missing and it is one very simple point, namely there is no mention in the paper of scholarship or learning. I therefore find the paper to be one-sided: looking at the Universities as teaching and training institutions. I asked myself why you should have overlooked this point and why it should have seemed such an important one to me.

Let me briefly go through some points in the paper. You start, as a true lawyer, with the legal approach, looking at the constitutional framework and move on, on page 2, to considering constraints on policy-making. You spend some time on the nature of the Council and then turn, on page 5, to the scope for policy-making. "Future developments", on page 8, again looks at policy-making, quotes extensively from a recent book and paraphrases the Williams Report. On page 12 you turn to the question of the role of the university in the community (your phrase) and in the last section you return to the question of Council involvement in decisions of Academic Boards and end, quoting with apparent approval, remarks of Senator Carrick, "We are all under public scrutiny, as to the relevance of our work and its basic quality" and Fielden and Lockwood's remarks on the questioning of the assumptions and values on which universities depend.

There are certain areas in the running of a University in which policy-making is vitally important — the number of students, their distribution across the faculties, the number of research students, etc. But a most important aspect of the development of universities is the unplanned, uncoordinated and vital force exerted by the development of the academic disciplines themselves. This is not an area which is of so much concern in the professional schools like law, but is having tremendous effect on the areas in the sciences where traditional barriers are rapidly being broken down at the present time. The force and vitality of academic disciplines themselves produce "internal constraints" which are difficult to accommodate but very powerful and very real. It is for this reason that many academics view with alarm the thought of a Council which is only partly academically oriented making decisions on purely academic matters.

As the main areas for policy-making you start off listing the organisational framework and see, or at least report, the making of University Statutes, etc. and its origins as the most fundamental academic policy. Certainly it is foundational in the sense of the foundations for a building, but indeed this is one of the big problems which seems to be facing Monash at the present time and has been doing for a few years now. That is to say, having produced a University founded on a fairly autocratic system with Faculties and Deans, it is now very difficult to move from that dynamic

foundational stage to a steady state where any expansion of interests must take place at the expense and contraction of other interests.

I do not pretend to have any solution to this very difficult problem, but I think that it is a problem which Monash is not facing adequately at the present time.

As I said before, the matters of instruction are readily fitted into an organisational framework which provides relatively clear-cut problems. This is the question of teaching; it has nothing to do with the development of academic life, it has nothing to do with learning and scholarship. Under (c) Students, there seems to me to be a vital omission, namely, what are the students really here for? Are they here just to learn techniques? Certainly they are here to learn techniques and that is vitally important: it is a matter of life and death in the case of medical students. But much more important to students is learning how to learn, becoming aware of our cultural heritage and the rewards and demands of scholarship. (I do not for one moment deny that the majority of our students are not going to turn out to be scholars, but this is the only time in their lives when many of them will be exposed to such influences.)

Under (d) you comment on "the relative freedom of academics from the tyranny of the clock". It is a pity that, immediately after this quotation, your main point gets lost in a single brief sentence. You simply say: "I am very much in favour of the theory that if great work in universities is to be done, that sort of freedom must be preserved." This freedom seems to be less at Monash than in many places I have been and I view with alarm the constant encroachment of organisational matters into the summer vacation.

Certainly teaching must be governed by the clock for the convenience of all, but unless the academic is afforded long periods of time in which to embed himself in his research or his scholarship, then he might just as well become a pure hack teacher, regurgitating courses he has given many times before. My son commented the other day: "Daddy never does any work in his of-

fice; he is just talking to people", and how right he was! If I am actually to do any serious work then I have to be either at home, or in a library or, at the very least, out of my office.

Of course the most dramatic demonstration of the usefulness of uninterrupted time for study is when one goes away on sabbatical leave, but there has been much discussion on that topic recently and I shall not add to it here. Just let me note that at the bottom of page 7 you talk about Council being concerned with the problems of the calendar. I really do feel that it would be tremendous if Council could influence policy-making so that the summer was left almost entirely free of formal commitments. Monash's reputation could but improve thereby.

Your comments on future developments seemed to be entirely concerned with teaching. It is not surprising if academics are disturbed when their living standards are eroded while they see comparable and less highly trained and less industrious people getting ever higher rewards in financial terms. But academics have one thing to be thankful for and that is that the non-financial rewards of scholarship, and also of teaching, do provide sufficient motivation and incentive so that financial rewards are secondary. Of course this is a point which has often been traded on in the past and will doubtless continue to be traded on in the future.

I find it puzzling when on page 10 you talk about it being impossible for universities to set their own standards and expect the public to accept their decisions and then talk about the efficiency of tertiary institutions. These must surely be in terms of "production" of graduates.

There are two aspects to the standards of universities as opposed to other tertiary teaching institutions. One is the technical qualifications of the graduates and the other is the somewhat more important matter of the value of the university's contribution to the world of learning. Is it the efficiency rate in turning out graduates which makes Oxford, Cambridge, Harvard, Stanford, Berkeley better than some other ter-

tiary institutions? On my recent visit to Oxford the one thing that really stood out was the dedication to scholarship and the attractiveness of scholars to students. The questions of relevance which you seem to allude to when quoting Senator Carrick seem to be very shortsighted and very superficial compared with the continuance of scholarship and the search for truth.

And then, on page 12, you talk about "the role of the university in the community" (my emphasis). The examples you quote are, interestingly, of professional schools again — Library School, Department of Architecture, College of Communications. Here for once you draw attention to the fact that there are questions as to whether such institutions really belong in the university or not. Obviously it depends on the particular schools and what they are doing, but we have accepted that certain schools, for example law, do normally fit into a university, though their aims and methods are somewhat different from some of the more traditional disciplines. Surely we ought to be aware what we are doing and to be aware that we are not just a teaching institution and we do have responsibilities to the future and the past for this heritage of learning which is presently in our charge. We have a responsibility here and not just in terms of the number of students that we turn out and the number of staff that are required to do that. Relevance is such an ephemeral value; ought we not to be considering values which are somewhat more persistent?

So perhaps now I can answer the question I raised at the beginning, simply by pointing out that you are trained as a lawyer and have experienced all that that means in terms of training in a professional school, which is one aspect of the university, and I trained as a mathematician in an atmosphere where scholarship to this day is most highly valued. So perhaps when you next consider the role of university governing bodies, you might also like to add a section on the pursuit of scholarship and its persistent values.

Yours sincerely,
J. N. Crossley

Professor of Mathematics

. . . And the Chancellor replies

Dear Professor Crossley,

I have read your letter with great interest, and find little in the substance of what you say to which I would take exception. Indeed, many of your observations seem to me to reinforce my own comments. But insofar as you appear to make certain assumptions about my own attitude I think I should try to clarify my position.

On the broad criticism, that the paper makes "no mention of scholarship or learning", there is a simple explanation. I was endeavouring to spell out the role of governing bodies in universities, and not the role of academics. I see the role of the Council as one which interferes as little as possible with the freedom of academics in the field of scholarship, being concerned rather to ensure that the conditions which promote scholarship and research are not unduly prejudiced by other demands.

Had I suggested (to go to the other extreme) that Council should exercise a supervisory role over the nature and quality of research done in individual cases I imagine your letter would have been couched in far less friendly terms. On the other hand, I was concerned to make the point that the atmosphere in which universities operate is changing, whether we like it or not.

When I quoted Senator Carrick, I was adopting his statement of fact, viz., that "we are all under public scrutiny", but I did not intend to imply that I approved, for example, of enquiries by Parliamentary Committees as to how universities spend their money, or what "practical" benefits flow from the expenditure.

With regard to "freedom from the tyranny of the clock", I share your inability to do useful work in my "office"; any original work I have done since I came to Monash has been almost entirely written at night or during the weekends. But in discussion with people who do not understand the needs of academics, one of the most frequent complaints is that they are never there when you ring them up, and the point I was trying to make was that a fairly obvious reaction to

attempts to obtain "industrial" prescriptions is the suggestion that academics should be required to conform to the conditions obtaining in industry. I thought I had made it clear that I do not agree with this view, but on the contrary was strongly of the opinion that academics should be free to pursue their objectives in their own way and free of such restrictions.

My reference to the assessment of the efficiency of tertiary institutions was made in the context of discussion of this subject in the Williams Report in which the emphasis (as shown by the checklist) is very much concentrated on the teaching side. I certainly did not intend to imply that efficiency is to be measured solely in terms of "production" of graduates, nor do I think that what I said was susceptible to that interpretation. It is possible to evaluate some aspects of the efficiency of the teaching process; it seems to me to be virtually impossible to make any significant evaluation of the efficiency of research. Nevertheless, I am sure that members of Council are far more interested in the quality of the research done at Monash than in the numbers that graduate.

Finally, may I register a mild protest at the implication that seems to be contained in your letter that lawyers somehow do not engage in scholarship in the same way as scientists. It is of the nature of the law that scholars in that field rarely make anything that could be called a discovery in the scientific sense. We are not in a position to predict phenomena like the extra ring of Saturn. But the intellectual effort demanded of lawyers is, I think, equally entitled to the designation of scholarship. They too need the kind of freedom we have been talking about, and perhaps also rather more credit for the difficulties under which they labour than they get in universities as at present constituted.

Yours sincerely,
R. M. Eggleston
Chancellor

Today's studies throw new light on Russian master's writings

The Russian novelist, F. M. Dostoevsky, who died nearly 100 years ago, might well have anticipated the results of modern Existentialist psychology, according to participants in a recent interdisciplinary seminar in the department of Russian.

The seminar, led by Dr Bobba Vladiv, attracted contributions from the departments of Psychological Medicine and German and the faculty of Law.

It centred on the enigmatic novel *The Idiot* (1867), but also drew on material from Dostoevsky's other major novels, *Crime and Punishment* (1866) and *The Brothers Karamazov* (1880).

Dr Vladiv says that two major complex themes in these works were explored: psychoanalysis, and circumstantial evidence in relation to the question of truth or proof.

Because the central character of *The Idiot*, Prince Myshkin, is alleged to have been an epileptic, Dr Graham Smith, of Psychological Medicine, was invited to talk on clinical epilepsy in relation to the symptoms apparent in Dostoevsky's character.

Backed up by an extensive apparatus of psychiatric studies on Myshkin, this led to a re-appraisal of the traditional view of Myshkin as the Christ-like figure of the holy fool, and

opened up a new framework of reference for the interpretation of the novel — Existentialist psychology.

Legal view

Because of Dostoevsky's great preoccupation with crime (murder, parricide, child abuse) and detection, the seminar then sought corroboration of his views on the relationship between factual evidence and proof.

Dr Vladiv says this corroboration was found in current legal writings — in particular, in Sir Richard Eggleston's recent book, *Evidence, Proof and Probability*.

Findings supported

Reviewing the book, Mr Neville Turner (Law) said that some "startling and revolutionary insights" of the former judge were found to lend support to the artistic findings of the Russian author, particularly on the question of the unreliability of evidence of eye-witnesses and the inconclusiveness of circumstantial, material evidence.

The German department's contribution was invited because, Dr Vladiv says, the artistic vehicle that Dostoevsky used to express his ideas on the nature of "truth" and "witnessing"

was adapted from the European, and particularly, German Romantic tradition of the Gothic novel or horror story.

To determine the Russian's position vis-a-vis this Romantic tradition, Mr Marko Pavlyshin, who is currently writing a Ph. D. thesis in the department of German, drew parallels between Dostoevsky and the German Romantic writer of fantastic and horror tales, E.T.A. Hoffmann.

Dr Vladiv says the interdisciplinary approach to the study of Dostoevsky had proved fruitful. She hopes that in a future continuation of the seminar she will be able to draw upon work done in the areas of psycholinguistics and child psychology.

Meanwhile, Dr Vladiv is planning for a special session dedicated to a Dostoevsky theme to be incorporated in the 20th Congress of the Australian Universities Languages and Literature Association, to be held at the University of Newcastle from January 30 to February 5, 1980.

Dr Vladiv, who is Australian representative of the International Dostoevsky Society, would like to hear from anyone involved in other disciplines who might wish to contribute to the session.

(* A review of a new book by Dr Vladiv — *Narrative Principles in Dostoevskij's Besi* — appears on page 7).

SCHOLARSHIPS

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

NH & MRC Fellowships in Applied Health Sciences (and Dermatology).

For graduates. Tenable for two years overseas and one further year in Australia. \$15,000-21,000 p.a. plus other allowances. Applications close at Monash October 24.

Frank Knox Memorial Fellowships 1980-81.

Open to recent graduates who are British subjects and Australian citizens. Tenable at Harvard University, renewable for two years, and available in most fields of study. The award includes tuition fees and a stipend of \$4000 p.a. Applications close with the Graduate Scholarships Officer on October 26.

Strong response to Turner fund

A total of \$1925 has been raised to date to fund the Ian Turner Memorial Prize.

There have been 70 donors in what has been described as a "heartening response" to the appeal to establish a prize in memory of the late Associate Professor of History who died in December last year. Donors have included Monash staff and students, past students of Dr Turner and his colleagues in other institutions.

The fund is still open. Donations (payable to Monash University) should be sent to Professor A.G.L. Shaw, chairman of the department.

THE AVCC ON ACADEMIC STAFF RELATIONS

1. The AVCC is committed to the preservation of Australian universities in a national university system. Within that system, it is vital that each university's essential autonomy should be upheld in such a way as to permit the institution to develop its teaching and research opportunities in its own way. Policies or actions which would further circumscribe universities' autonomy or fragment the national system would be contrary to the best interests of the universities and of Australia.

2. For some years, the Australian universities have been involved in negotiations with a number of unions concerned with universities' non-teaching staff. Those negotiations have been related to proceedings in State jurisdictions and in the federal Conciliation and Arbitration Commission. In respect of these staff this way of arriving at terms and conditions of employment seems appropriate.

3. The AVCC is deeply concerned, however, by recent moves by academic staff organizations to invoke State jurisdictions and by the move to register a federal union of academics apparently to seek wage determinations in the Conciliation and Arbitration Commission.

4. The AVCC believes that the Academic Salaries Tribunal is the most appropriate instrument for considering academic salaries.

The establishment of a national system of academic salaries has conferred important advantages on universities, and recent moves to deal with some salary matters in State jurisdictions are, in the opinion of the AVCC, retrogressive. There were defects in the legislation which constituted the Tribunal and the AVCC has supported moves to improve the enabling legislation. Nevertheless the views of the AVCC on the character and procedures of the Tribunal are controlled by the basic principle that the Tribunal should be maintained as a body which conducts enquiries in accordance with procedures adopted at its discretion, and that it should not become a body established to deal with disputes between parties whether by conciliation or arbitration; nor should it proceed in a way which would invite or require the identification of adversary relations in universities. Subject to the maintenance of that principle, the AVCC supports the following propositions about the Tribunal's procedures.

- So far as possible, the Tribunal's inquiries should be conducted in an informal manner, with the co-operation of all concerned, and should not be subjected to procedures which would invite interested bodies or persons to rely upon legal representations.
- The arrangements made by the Tribunal for the 1976 Review by which certain bodies were recognized as 'Prime Parties' for the purposes of the Inquiry, were satisfactory and should be continued.

The Australian Vice-Chancellors' Committee last month offered to negotiate directly with the Federation of Australian University Staff Associations (FAUSA) to produce guidelines relating to some employment conditions. At the same time, the AVCC expressed concern at recent moves by academic staff organisations to invoke State arbitration jurisdictions and to move to register a federal union of academics.

This is the full text of an associated document prepared by the AVCC on academic staff relations . . .

- The use of assessors to assist the Tribunal enhanced the authority of the Tribunal and should be continued.
- Interested persons and bodies, as in the 1976 Review, should have access to all submissions made to the Tribunal; and 'Prime Parties' should have an opportunity to comment upon or to answer such submissions.
- 5. If the public and governments can be assured that the Tribunal has assessed submissions in a rigorous and equitable manner, then there are good grounds for believing that the Commonwealth Government, which established the Tribunal, will continue to adjust financial grants for university support in response to recommendations from the Tribunal. It cannot be assumed, however, that the Commonwealth Government, having established the Tribunal to make recommendations on academic salaries, will provide supplementary funds to universities if salary awards were made by the Conciliation and Arbitration Commission. If the costs of legally binding awards, made by such an industrial tribunal, were not covered by supplementary grants, the universities would have to find the moneys to meet their obligations from within existing grants. It might become necessary to reduce the total number of persons employed within the universities.
- 6. Recent moves to seek the determination of some salary matters in State industrial commissions or tribunals are even more hazardous for universities. These moves put at risk a national system of academic salaries. Financial recompense from a Commonwealth government for salary rises awarded in a State jurisdiction is even less likely than recompense for binding awards in a federal jurisdiction. Furthermore, moves for State salary awards for university staff could encourage political moves for shared Commonwealth-State funding with a return to the previous inadequacies and uncertainties of that arrangement. The AVCC recognizes, however, that in a particular jurisdiction some academic staff associations might seek registration with a view to reserving their position.

7. The conditions of service of academic staff have hitherto largely been determined by each university's governing body. The governing bodies, with their broadly based membership, recognize that the teaching and research functions of academic staff are interwoven with conditions of service, and they also recognize their unique responsibility for the management, good government and discipline of their universities. Above all, the protection of the autonomy of universities rests with each governing body. Recourse to State or federal industrial arbitration systems to settle conditions of employment for academic staff diminishes the role of governing bodies and may well place existing conditions under greater external threat. State governments, for example, are likely to intervene in State hearings to resist precedents being established with potential application to staff in various post-secondary institutions and even schools. There is a real danger that such external hearings will blur the important distinctions between the academic responsibilities of staff in universities and in other institutions. Already some college staff have hours of work recognized in some State industrial agreements. In an open arbitral hearing it is likely, for example, that parties other than universities or their staff associations will argue that a whole range of conditions of service for academics in universities should be specified to the detriment of their teaching and research functions.

8. The AVCC is concerned that it would be better for the universities and their academic staffs if traditional methods for dealing with these matters could be used and adapted to changing circumstances. Thus, direct discussions between AVCC and FAUSA might now produce national guidelines acceptable to the governing bodies of universities and their academic staffs. By such means, many of the questions which otherwise might be taken as disputes before some kind of outside tribunal could be resolved. The AVCC believes that the possibility of developing such guidelines should now be explored.

9. One of the inherent strengths of universities is the unusually wide consultative procedures used to determine policies within universities. The AVCC is not yet persuaded that the majority of academic staff realize the changed circumstances and increased financial costs to all concerned which would arise if external industrial arbitration systems were invoked. The arbitration system expects an independent 'employer' submission on matters to be arbitrated and the formulation of this 'employer' policy could well mean a much reduced involvement of academic staff in the management of staff affairs at governing body level.

10. The AVCC commends to its academic colleagues and others concerned a careful consideration of the issues involved in these matters.

Clearing the skies on thunderstorms

Whether as something to be terrified by or as something to reinforce one's dry security, that violent manifestation of nature, the thunderstorm, leaves few people unmoved.

For the less fortunate the term "moved" can be taken literally with the ability of storms, with their strong winds, hail or associated flash flooding, to cut a swathe of destruction across half a State in a matter of hours.

Despite the well-documented place in our literature of the effects of storms — all but Noah and his kin were annihilated by one, a demented Lear wandered the heath in one and countless popular heroes have flown headlong into one — until recently little was known about the way they are formed and their properties.

A pioneer in the study of the dynamics of thunderstorms is meteorologist Dr Martin Miller, of Imperial College, London. Dr Miller is currently visiting the Monash Mathematics department, working with the active group in geophysical fluid dynamics.

The computer is the tool with which Dr Miller has worked in unlocking the mysteries of storms. The associated problems are so complex, he says, that it is only in the last 10 or so years with the advent of big computers that they have been able to be tackled.

In fact Dr Miller began working in the area before the computers had been developed which could solve the tens of millions of equations relating air flow, temperature and moisture which make up the mathematical model of a thunderstorm. He anticipated the computers' development by the time his work had reached the stage they would be required.

He says that the theoretical model is the most feasible way of studying thunderstorms. Their very nature endangers measurement of their properties "in the field" and there are many difficulties too in the alternative approach of simulating a storm in a laboratory.

In the computer simulation a chunk of the atmosphere is recreated with equations set up to describe all the winds, including updraughts and downdraughts, temperature, moisture and rainfall. Subtle combinations of the variation of temperature, moisture and wind velocity with height determine a storm's behaviour.

From the computer simulation of the structure of a storm, Dr Miller says it has been possible to examine such aspects as how and why storms move, their length of life and why some are more severe than others — forming tornadoes and hailstorms, for example.

He says that it is "on the horizon" that mathematical models of storms will be able to be used as a forecasting tool to enhance the accuracy of weather predictions.

At the moment, he says, weather forecasters can only consider the activity of large scale atmospheric phenomena such as the "highs" and "lows" which extend across thousands of kilometres. Thunderstorms, however, occur in regions of the atmosphere only about 50 km across and will require much more refined forecasting methods.

Dr Miller describes the thunderstorm as a region of intense updraughts and downdraughts with currents of air ascending at speeds of up to 50 m. a second. These rising towers of air can reach a height of 10-15 km, taller than any mountain on earth.



● Dr Rinne (left) and Dr Miller work on the mathematical approach to meteorology.

Reputation 'unfair'

In Melbourne or Helsinki, weather forecasters around the world, it seems, face a similar problem: a reputation for unreliability in their predictions.

Dr Y. Rinne, acting director of the weather forecasting department of the Finnish Meteorological Institute, believes it is an unfair reputation. All aspects of what makes up weather considered, including precipitation, winds, humidity as well as temperature, he considers his Institute has about an 80 per cent success rate in its predictions.

Dr Rinne, who also works at the University of Helsinki, is at Monash for six weeks working with the geophysical fluid dynamics group in the Mathematics department on the numerical approach to forecasting.

He hints at a trace of hypocrisy on the part of the critics of forecasters.

He cites the example of a Finnish fisherman who was a vocal critic of the

Meteorological Institute's forecasts. Yet, when his radio broke down, he was known to row daily some distance to a neighboring island to listen to the forecast.

But Dr Rinne believes that just as the accuracy of weather forecasts has improved over the last 10 years there is room for improvement in the future.

"The atmosphere is complex in nature. As our knowledge of it increases so will our ability to forecast its behaviour," he says.

Satellites, better observation facilities on land and sea to give "advance notice" of the approaching weather, and mathematical models will all play a role in improved forecasting.

Dr Rinne is impressed by the use of satellite data by the Bureau of Meteorology in Australia.

He hopes that an important boost to better observation will come from the new UN-backed global atmospheric research program.

Slobodanka B. Vladiv, *Narrative Principles in Dostoevskij's Besy*, Berne, Peter Lang, European University Papers, 1979.

● Dr Vladiv is a senior tutor in Russian at Monash.

Review

A 'welcome contribution' to understanding of Dostoevsky

Many scholars are still sceptical about the benefits of a structuralist approach to literary analysis and inclined to believe that structuralism is actually nothing but an awkward phase literary scholarship is passing through, a kind of Parisian fad which has unaccountably caught on in certain circles in Europe and America.

Dr Vladiv's book, *Narrative Principles in Dostoevskij's Besy*, illustrates just how productive of meaning a structuralist reading of a text can be.

In her analysis of *The Devils*, one of Dostoevsky's most complex novels, Dr Vladiv is basically applying a narrative model derived from the work of the Formalist Bakhtin and later scholars, particularly German ones, who have elaborated on his insights.

Traditional critical methods have provided a wealth of information on the socio-historical themes of *The Devils*. The present work, through an analysis of the function of the narrator, brings to light another thematic level, which Dr Vladiv contends encompasses the traditionally recognized themes, concerned with the individual's relation to "truth" and the problem of the communication of "truth".

Once the distinction has been drawn between the

"implied author" (that is, the nexus of ideas and attitudes which governs the structuring of the narrative) and the fictional narrator, Dr Vladiv goes on to analyse the information apparatus of both the "implied author" and the narrator figure in the novel, with its elements of rumor, allusion, ambivalence and reconstruction of past events, bringing out the discrepancy between them.

Illustration of theory

She demonstrates very clearly that the information apparatus is itself a model of the structure of meaning portrayed in the novel. In other words, it is an illustration of a theory of knowledge and communication.

Many critics have been content to see in *The Devils* a rather rambling and confused tale told by an unreliable and artless narrator. The reader, according to this view, must pick his way rather hesitantly through a maze of dubious and conflicting information, searching desperately for "solid facts" on which to pin his interpretation of events.

The present work, however, suggests that the

central theme of *The Devils* is in fact expressed through the very narrative structure of the novel, inviting a much more profound reading of the work.

One of Dr Vladiv's achievements is to make available to an English-speaking public the approaches of certain German and Czech scholars (Wolf Schmid in particular). However, the author does presuppose a sound knowledge of Russian and a close familiarity with the text of Dostoevsky's novel. The terminology employed is complex, as is often the case with texts in the field of semiotic theory, and obviously aimed at the specialist.

The appearance of *Narrative Principles in Dostoevskij's Besy* is to be welcomed not only for the contribution it makes to our understanding of *The Devils*, one of the great 19th century Russian novels, but also for the evidence it provides of the vitality and fruitfulness of the formalist-structuralist tradition in literary scholarship.

Dr Robert Dessaix
Lecturer,
School of Russian,
University of New South Wales,
Sydney.



BOOKS

Music and dance

Leading Indian artists perform

Two of India's most eminent artists — a dancer and a sitar player — will perform at Robert Blackwood Hall on October 12 and 13.

They are Miss Padma Subrahmanyam, an internationally famous dancer from South India, and Professor Manilal Nag, a member of a well-known family of musicians in Bengal.

Their visit is under the auspices of the Indian Government, and the Indian High Commissioner in Australia, Mr J. C. Ajmani.

The concerts, in which they will be accompanied by a group of five musicians, are being sponsored jointly by the Australia India Society of Victoria and the Monash department of Music.

Mr Reis Flora, lecturer in Music at Monash, said that the group's visit, following their appearance at the Indian Ocean Arts Festival in Perth, represented a rare opportunity for Victorians interested in Indian music and dance.

Professor Manilal Nag, he said, had performed extensively in music festivals and on Indian radio and television. He had played before King Mahendra of Nepal, and had toured Europe and North America.

Mr Flora said that an unusual feature of the concerts would be the variety of dance and instrumental music presented on the one program.

There would be music from the two main artistic traditions of Indian music: Karnatic (South Indian) and Hindusthani (North Indian) — traditions which were similar in many



● Miss Padma Subrahmanyam

respects, but also distinctly and noticeably different.

(Further information may be obtained from Mr Flora, ext. 3224 or 531 6257 after hours, or from Mr Arvind Shrivastava, secretary of the Australia India Society of Victoria and lecturer in mechanical engineering, Caulfield Institute of Technology, phone 573 2458 or 232 5195 after hours.)

Color, tradition in Sri Lankan dances

The Sri Lankan State Dance Ensemble will give one performance at Robert Blackwood Hall on Sunday, October 14 at 7.30 p.m.

The Ensemble performs traditional Sri Lankan dances. It has toured the world and its visit to Australia is being sponsored by the Sri Lanka High Commission.

There are 18 dancers in the troupe who perform dances some of which are more than 2000 years old.

Their Monash program promises

colorful variety: from the lavish costumes and virility of Kandyan dancing to the exotic masked dances of Ruhunu and the exquisite court dances of Sinhalese royalty.

There will also be dance sequences from the Ratnapura District (famous for gems), harvest dances, dances of exorcism and marital dances.

Tickets cost \$5 and are available from the RBH box office (544 5448) or Palm Court Receptions, 102 Whitehorse Road, Blackburn (878 8170 or 560 1603).

Important dates

The Academic Registrar advises the following important dates for students for October, 1979:

1: Fourth term begins for Medicine V. Last day for discontinuance of a subject or unit taught and assessed in the second half year or over the whole of the teaching year in Dip.Ed.Psych., B.Ed., B.Sp.Ed., M.Ed. and M.Ed.Stud. for it to be classified as discontinued. If a subject or unit is not discontinued by this date, and the examination is not attempted or assignment work is not completed, it will be classified as **FAILED**. In exceptional circumstances the dean may approve the classification of a subject or unit as discontinued between October 1 and the end of the appropriate teaching period.
5: Third teaching round ends, Dip. Ed.
6: Third term ends for Medicine VI.
8: Last day for discontinuance of a subject or unit taught and assessed in Dip. Ed. for it to be

classified as discontinued. If a subject or unit is not discontinued by this date, and the examination is not attempted or assignment work is not completed, it will be classified as **FAILED**. In exceptional circumstances the dean may approve the classification of a subject or unit as discontinued between October 8 and the end of the appropriate teaching period.
12: Applications close for entry to Bachelor of Social Work course in 1980.
20: Third term ends.
25: Examinations commence for Medicine VI.
26: Annual Examinations commence. Second half-year ends for B.Ed., Dip.Ed.Psych. and M.Ed.Stud. Third term ends for B.Sp.Ed.
27: Second semester concludes for LL.M. by coursework.
31: Closing date for applications for Monash Graduate Scholarships and Commonwealth Postgraduate Research Awards.



Kiwi cultural contribution

The Rotorua Maori Cultural Theatre will give its only Melbourne performance in Robert Blackwood Hall on Wednesday, October 10 at 8 p.m.

The Theatre was formed in 1973 to foster the language, music, dance, arts and crafts of Maori culture. It has formulated a program of traditional and

modern Maori music and dance which it tours.

Most members of the Theatre have a link with Rotorua and are direct descendants of Hinemoa and Tutanekai, about whom there is a renowned love story.

Tickets for the RBH performance cost \$5.50 for adults and \$4.50 for students and are available from BASS agencies.

OCTOBER DIARY

- 3-5: **PLAY** — "The Two Gentlemen of Verona", directed by Dennis Davison, presented by Monash Department of English. 8 p.m. Ground Floor Theatre, Menzies Building. Admission: \$2. Inquiries: ext. 2140.
- 3-6: **LIGHT OPERA** — "Iolanthe", by Gilbert and Sullivan, presented by the Babirra Players. 8 p.m. Alex. Theatre. Admission: adults \$4; pensioners and students \$3. Bookings: 836 8665 or BASS agencies.
- 3-12: **PHOTOGRAPHIC EXHIBITION** — "Visions of a City: Melbourne", pres. by Monash Department of Visual Arts. 10 a.m.-5 p.m. Exhibition Gallery, Menzies Building. Admission free. Inquiries: ext. 2117.
- 3-14: **EXHIBITION** of Polish book-plates and books, presented by Monash Centre for Migrant Studies and the Monash University Library. First floor, Main Library. Admission free. Inquiries: ext. 2689.
- 3: **ORGAN RECITAL** by Harold Fabrikant. Pres. by Victoria Society of Organists and Victorian Ministry for the Arts. 1.15 p.m. Religious Centre. Admission free.
- 5: **LECTURE** — "Where in the World is God?", by Thomas A. McClain, Chicago. Pres. by The First Church of Christ Scientist, Waverley. 8.15 p.m. RBH. Admission free.
- 6: **SATURDAY CLUB (Blue Series)** — "Peregrine Hunters", from the Australian Council for Children's Film and Television. 2.30 p.m. Alex. Theatre. Admission: adults \$3.75, children \$2.75, Saturday Club members \$2.
- 7: **CONCERT** — The Melbourne Symphony Orchestra and Associate Artists. Works by Mozart, Handel, Spohr. 2.30 p.m. RBH. Admission free.
- 8-19: **RED CROSS MOBILE BLOOD BANK** will be visiting Monash University. 9.15 a.m.-3.45 p.m. Arts Assembly Rooms SG01-4. Appointments can be made at the Union Desk.
- 10: **TWILIGHT SEMINAR** — "What Shape are Trusts in after the Tax Changes? A Considered Assessment", pres. by Monash Faculty of Law. 4.15 p.m. Lecture Theatre R5. Fee: \$54 (including dinner and papers). Inquiries: exts. 3377, 3329.
- 10: **CONCERT** — "The Migration of the Maori", program of traditional and modern Maori music and dance presented by the Rotorua Maori Cultural Theatre. 8 p.m. RBH. Admission: adults \$5.50; students and children \$4.50. Tickets available at all BASS agencies.
- 12-13: **CONCERT** — Indian dancer Miss Padma Subrahmanyam, Sitar player Professor Manilal Nag, accompanied by Indian musicians. Co-sponsored by the Australia India Society and Monash Department of Music. 8 p.m. RBH. Admission: adults \$7; students and pensioners \$5. Tickets available at all BASS agencies.
- 12-13: **COMEDY** — "Come Blow Your Horn", by Neil Simon. Pres. by Mulgrave Players. Sher-

ries at 7.30 p.m., performance followed by wine and chicken supper. Union Theatre. Admission: \$5. Bookings, inquiries: Mr N. Simpson. 615 1217 (B.H.), 277 3801 (A.H.).

12-27: **MUSICAL COMEDY** — "Gypsy", presented by the Cheltenham Light Opera Company. 8 p.m. Alex. Theatre. Admission: adults \$4, pensioners and students \$2. Bookings: 95 3289.

14: **CONCERT** — Sri Lanka State Dance Ensemble presented by the Sri Lanka High Commission. Program of traditional dancing. 7.30 p.m. RBH. Admission \$5.

16: **MONASH PARENTS GROUP** — Fashion parade and luncheon. 10.30 a.m. RBH. Admission: \$3.50. For further information contact Mrs M. Smith, 561 1229.

19: **CONCERT** — French String Trio presented by Musica Viva Australia. Works by Beethoven, Francaix, Mozart. 8.15 p.m. RBH. Tickets available at all BASS agencies.

20: **CONCERT** — Waverley Chamber Orchestra conducted by Hugh McKelvey, Scotsglen Singers, Highmount Chorus, Glenaires, Waverley Singers, New Perspective, Good News Singers, St Leonard's Church Choir and the Glen Waverley Uniting Church Choir. Presented by the Waverley Music Festival. 8 p.m. RBH. Admission: adults \$2.50; pensioners and children \$1. For further information, tickets, contact Cr Pederick, 232 0309; Mrs Mudgway, 560 1575.

24: **TWILIGHT SEMINAR** — "The New Public Law for the 80s: A Revolution in Judicial Review of Public Decision-making", pres. by Monash Faculty of Law. 4 p.m. Law Lecture Theatre 3. Fee: \$50 (including dinner and papers). Inquiries: exts. 3377, 3329.

25: **ENROLMENTS OPEN FOR MONASH SUMMER SCHOOL** — 74 courses available including drama/dance (inc. disco), music, sport, arts & crafts, photography, languages, poetry, yoga, and practical courses covering native plants, typing, beekeeping, bridge, interior decorating, motor maintenance, etc. For further information write to Summer School, Monash University, or ring ext. 3180.

27: **SATURDAY CLUB (Red Series)** — "Sammy's Wonderful T-Shirt", from the Australian Council for Children's Film and Television. 2.30 p.m. Alex. Theatre. Admission: adults \$3.75; children \$2.75, Saturday Club members \$2.

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