

**Joint venture with YMCA:**

# MONASH PLANS SEASIDE CAMP

MONASH University is planning to develop its own year-round camp at Shoreham on the Marn-ington Peninsula, 46 miles from the campus.

The property covers about 26 acres at Shoreham and is situated about 400 yards from a sheltered beach and 900 yards from Point Leo Surf Beach.

The camp is owned by the Y.M.C.A. of Melbourne and has been temporarily closed this year.

Subject to the finalising of present negotiations the camp will be re-opened and named the W. H. Buxton Education and Recreational Centre after the man who originally donated the property to the Y.M.C.A.

It is planned to open the camp on February 1 next year and it is hoped its first use will be a university "Freshers' Camp" for first-year intake students.

The camp will be available for use by any member or group of Monash and the Y.M.C.A. Outside organisations may also hire the camp and it is anticipated many schools will do so.

Bookings may be made through the Sports and Recreations Association, ext. 3103.

The Monash Union and the Y.M.C.A. are planning a joint project for the camp on a two-year trial basis.

Mr. Doug Ellis, Deputy Warden of the Union, who has actively promoted the idea of a camp site for the last six years — at one stage he even proposed purchasing an entire township in Gippsland — told the Reporter; "The Union is taking a punt and hoping that all members of the University will realise the potential of the camp and make full use of the opportunity.

"The planning committee hopes that disciplines other than those incorporating field studies will also find ways to use the site," Mr. Ellis said.

"The area might be developed as an extension of the Monash campus to provide a more relaxed atmosphere



than that of the normal institutional environment."

In conjunction with Mr. Davies of the Y.M.C.A. a proposal was submitted to both the Union Board and the Y.M.C.A. Committee of Management and a decision is anticipated this month on the two year agreement.

If at the end of two years the joint project has been successful then a long term agreement may be entered into or else Monash will be given the option to lease or purchase the camp if the Y.M.C.A. decide not to continue using the site.

Mr. Ellis said that the Monash Union would be paying \$4000 over two years to re-open and maintain the camp. The Union was also underwriting the cost of providing a resident caretaker. The total guaranteed outlay would be \$14000 but it was anticipated that some of this outlay would be recouped from hiring charges.

The camp consists of bunk type

accommodation for 72 people. There is one dormitory for 24 people and six huts each taking eight people. One hundred persons can also be accommodated under canvas.

A brochure is to be prepared giving details of hiring charges and booking arrangements as well as listing full details of the facilities available.

The amenities include a large recreation hall, table tennis tables, a football and cricket oval, a volleyball and basketball court. For recreation people can play various sports, swim, fish or walk. There is also a small reef nearby which is suitable for marine biology excursions.

The planned cost for the camp is \$7 per head for weekends and \$2.80 per head during the week — this includes three meals a day. A lower rate will apply for accommodation only.

Besides use as a camp for freshers other proposed uses are:

- Special camp for young people with social, physical or educational handicaps. These could be run in close association with various university groups.

- Off-peak use by persons seeking a quiet place to write up a thesis, or for undergraduates during examination periods.

- Camps for primary and secondary school pupils.

- Field study camps for university departments such as zoology, botany, engineering and geography.

The interim planning committee comprising Professor Swan, Doug Ellis and Peter McGinley of Monash and Vern Davies and Barry Young of the Y.M.C.A. invite suggestions as to other uses for the camp.

RECREATION hall at the camp Monash proposes to develop in partnership with the YMCA. Below left is a view of one of the nearby beaches.

## The Reporter

This is the last issue of Monash Reporter for 1971, and the Information Office would like to thank all those members of the university — staff and students — who have generously contributed their time and talent to it during the year.

When we first produced it in its present format in March 1971, we undertook to make The Reporter a medium for news from all sections of the university, open to all who had anything constructive, intelligent and helpful to contribute.

We aim to pursue that same objective in 1972 — possibly in fewer pages per issue, but at more frequent intervals.

The first issue for 1972 will appear in late February, or the first week of March, and contributions are now invited. Copy should reach the editor, Ian Anderson, in the Information Office, University Offices, by mid-February.

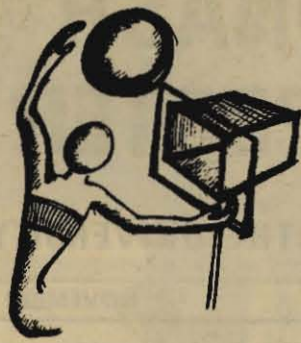
**"WHAT is man's chief end?  
"Man's chief end is to cherish  
his home, the earth, that he may  
enjoy its bounty for ever."**

— Sir Macfarlane Burnet's revised version of the first question of the catechism. He quoted it during his inaugural Oscar Mendelsohn Lecture, delivered at Monash on October 6. A report of the lecture appears in this issue.

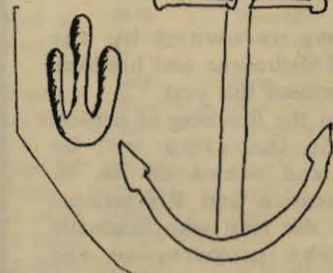
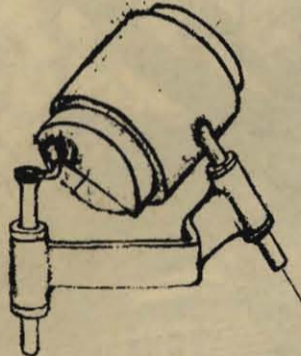
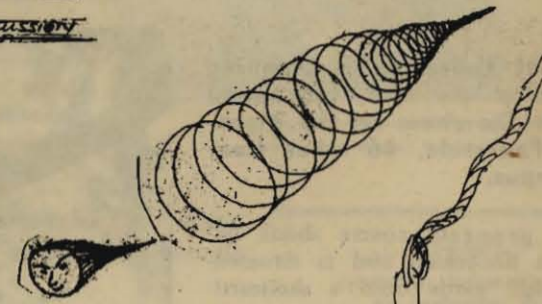


# THE REPORTER COLLECTION

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## LEARNING ABOUT NATIVE LIFE

Whites could too easily overstress the primitive aspects of native societies, according to a visiting anthropologist from New Zealand.

He is Dutch-born Professor Jan Pouwer, head of the anthropology department at the University of Wellington, who has been lecturing at Monash during third term.

Prof. Pouwer, who has spent a good deal of his life in the rough, almost inaccessible parts of New Guinea, says that the natives are "very pragmatic and show a good deal of common sense."

The way the highlanders let off steam at war time is probably a good example - there is no indiscriminate killing, and sometimes nobody ever gets killed.

One village does not inflict heavy casualties on another village because it would upset the balance of power.

"Their way of waging war is incredible," Prof. Pouwer said. "It could be literally - 'Let's have a war tomorrow - providing it doesn't rain'."

"The war could just be shouting of verbal abuse, although sometimes they use spears, or bows and arrows."

"I can remember two brothers in a village. One had a friend in village A and the other had a friend in village B."

"They left their village in the morning, one went off to village A and the other to village B. They took part in the war during the day and then came back home together at night."

Prof. Pouwer was in West New Guinea, now West Irian, during the 1950s and early 1960s. He was with the Dutch government's department of native affairs.

A highlight of his job was an expedition to the Star Mountains, near Fly River, not far from the border West New Guinea and Papua and New Guinea.

The natives had had only one previous contact with white men.

Prof. Pouwer recalls how the natives took a lot of convincing that white men were not immortal. The only white people they had seen had been young and it was hard for them to conceive of an elderly white person.

The village set-up was simple but intriguing. There was a central village made up of a sacred house, only entered by old men, a club for the men, for social not religious use, and a hut for the women where they gave birth to their babies and went to during the menstrual cycle.

Around this area were separate huts for each family.

The tasks of the men included hunting, building fences and digging and for the women, weeding, looking after the children and digging up potatoes.

### Free women

Prof. Pouwer said the women had an independent position. "For example they were free to communicate with us. We suggested they should not talk to us but they virtually replied - 'To hell with our husbands, we do what we like'."

(The expedition had an interpreter from a hill tribe who spoke Malay).

In the mid-sixties, Prof. Pouwer was a professor of anthropology at Amsterdam University. He left Holland for New Zealand because "I was fed up with the overcrowding and wanted a bit more space."

He went back to New Guinea last year and spent most of the time in Port Moresby. He felt there was noticeable tension between the native people, especially the Papuan elite, and the Australian administrators.



● Professor Jan Pouwer

"However the situation was better than in the early 1960s as the Papuans now have more responsibility," he said.

Prof. Pouwer sounded a word of warning about conditions in his new country. He expects more tension between the Maoris and non-Maoris especially in the urban areas.

"In the cities there is competition with the whites, and the more skilled the Maoris become the more competition there will be."

"In the rural areas the Maoris and the whites are face to face but in the urban areas the Maoris stay together quite literally - up to 20 or 25 in a house at times."

"Overall the Maoris don't want to be assimilated; they want to have their own identity and stick to their own language."

"The Maoris, by the way, seem to be far better educated than the aborigines in your society."

## PLANNING A NEW GUINEA SEMINAR

Planning has begun for the Sixth Waigani Seminar which will be held at the University of Papua and New Guinea from April 30 to May 5 next year.

The Seminar will be divided into five sections: Education; Health nutrition and community services; Industrialisation, and the rural - urban development conflict; Political development; Self-respect and national identity.

A number of papers from scholars, administrators and others, inside and outside Melanesia, will be commissioned. Interested people are also invited to suggest topics and speakers, or to submit offers of papers themselves for possible inclusion in the programme.

Enquiries and other correspondence may be directed to either:- ● Dr. Marion W. Ward, New Guinea Research Unit, Australian National University, P.O. Box 1238, Boroko, Papua New Guinea.

● Professor Anthony Clunies Ross, Economics Department, University of Papua & New Guinea, P.O. Box 1144, Boroko, Papua New Guinea.

The seminar is sponsored jointly by: The University of Papua and New Guinea, The Australian National University, The Council on New Guinea Affairs, The Papua New Guinea Society, and The Administrative College of Papua and New Guinea.

## HAWAIIAN SCHOLARSHIPS

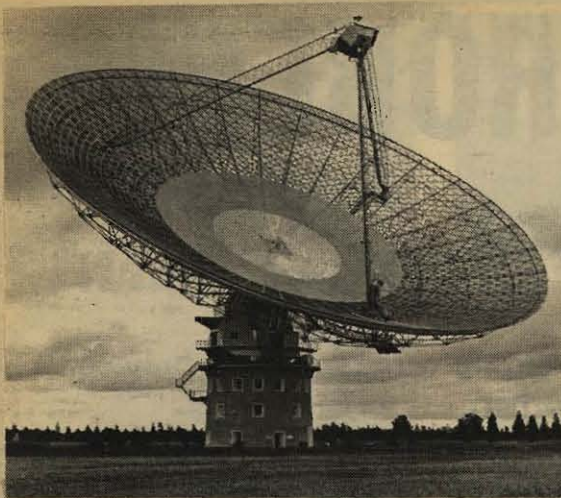
The East West centre at the University of Hawaii is offering scholarships for the 1972/73 American academic year to students from East, South and South-East Asia, Australia, New Zealand and Islands of the Pacific.

The centre will be making most of its grants in the following fields:- 1: Population - anthropology, economics, geography, public health and sociology; 2:

Communication; 3: Food - agricultural and marine sciences and social sciences.

Application forms may be obtained from: The Secretary, Department of Education and Science, (East West Centre Awards), P.O. Box 826, Canberra City, A.C.T. 2601.

Completed application forms must be returned to the above address by December 31.



CSIRO's 210ft. radiotelescope at Parkes, NSW, used in the discovery of the new molecule in the Milky Way.

# Chemistry in outer space

Professor R. D. Brown, head of the Monash department of chemistry, wrote this special article for *The Reporter* describing the recent Monash-CSIRO discovery of a new molecule in space.



Professor Brown (left) and Dr Peter Godfrey, who carried out the laboratory work involved in the project.

**THE newest branch of chemistry — galactochemistry — may be said to have started in November 1968, when a group of scientists at Berkeley used a radiotelescope to detect the presence of ammonia (NH<sub>3</sub>) in the Milky Way.**

Previously astronomers had regarded the universe (now known to consist of about 1000 million galaxies, each galaxy comprising perhaps 100,000 million stars) as consisting almost entirely of atoms and atomic fragments (the so-called "plasma" state of matter that exists in the interiors of the visible stars).

Thus, chemistry — the study of the way in which atoms combine to form molecules — seemed to have no place in astronomy other than on planets. This "earthy" role for chemistry has now blossomed forth to the *interstellar* regions where molecules like ammonia have been found\*.

Each molecule transmits a characteristic signal, rather like a radio station, and astronomers detect these very faint signals with radiotelescopes (the signals are in the radio and microwave regions of the electromagnetic spectrum).

But to identify the molecules, or indeed to "tune in" the telescope well enough to detect a signal, each substance first has to be studied in the laboratory — its microwave spectrum has to be thoroughly studied — and this is where Monash entered the scene.

Since 1968 some other chemically interesting molecules have been found (see Table 1) — all but the most recent, in fact, by American astronomers using one of the radiotelescopes at Hat Creek, Calif., Green Bank, Va., and Kitt Peak, Ariz. But for some interesting molecules the laboratory studies of the microwave spectrum had not been completed.

Early this year astronomers at Harvard and Columbia contacted the chemistry department at Monash because they needed measurements that only our microwave group here was able to provide for them. We agreed to join forces with them to search for cyclic molecules in space and the first joint experiment was done on the Greenbank, Va. 140 ft. radiotelescope, using data from the Monash laboratories.

The experiment — a search for *imidazole* — was unsuccessful. It led,

however, to further work, this time in collaboration with the CSIRO Division of Radiophysics. The splendid 210 ft. radiotelescope at Parkes, NSW, has been used in this more recent work.

The siting of the Parkes telescope is ideal for this work. The main part of the Milky Way in which molecules have been found is in huge gas clouds in the direction of the centre of our galaxy. This is situated in the constellation of Sagittarius at a declination of -28° 55'. This means that the galactic centre passes overhead at a latitude of 29° — i.e., about the border of NSW and Queensland; and it is virtually overhead at Parkes (33°S). However, the northern telescopes, like the Greenbank, Va. dish (38°N) see the galactic centre only low above the southern horizon and have only about 2 hours viewing per 24 hours while Parkes has 10 hours viewing per 24 hours.

Australia thus has a great natural geographic advantage in radio astronomical research.

The first modest success for the Monash/CSIRO group was the thorough confirmation of a slightly earlier tentative detection of *formamide* (HCONH<sub>2</sub>).

The greatest success so far is the detection of *thioformaldehyde* (H<sub>2</sub>CS) early in the morning of Tuesday, September 28, by a group at Parkes that included Dr. Peter Godfrey (Senior teaching fellow in chemistry).

This was the first detection of an *interstellar* molecule by scientists outside the USA.

The great interest aroused by these discoveries stems from the fact that several of the molecules are the fundamental building blocks from which biologically important molecules — sugars, amino acids and proteins etc. — can be formed chemically.

There is much speculation that the gas clouds in the interstellar medium could be the origin of biological molecules on planetary systems. This is rendered the more plausible because the gas clouds in

which molecules have been identified are part of the galaxy in which new stars are forming.

Current thinking is that planetary systems tend to be created at the same time and so the planets have the opportunity to "inherit" biologically significant molecules from the gas cloud.

It seems quite probable that more complex molecules like amino acids await detection in the gas clouds. However, there are considerable difficulties in determining the "call sign" of molecules like *glycine* (the simplest amino in the laboratory). The Monash group is among others in wrestling with this problem.

Other amino acids could well occur. For example, one reason for great interest in the discovery of *thioformaldehyde* is that it could react with *glycine* to produce the very important amino acid *cysteine*.

These and many other problems make the new field of galactochemistry of great interest to biochemists and biologists as well as chemists and astronomers.

The Monash chemistry department is pursuing some of these problems as actively as the rather limited resources allow, but there is one "fly in the ointment" on a national scale: The Parkes telescope cannot receive signals of wavelengths shorter than about 1 cm., and some of the most interesting molecules give signals only a shorter wavelength than this — in the millimetre region. Millimetre wave telescopes have already been constructed in the USA and Russia and are nearing completion in Japan and other countries.

Until Australia is able to raise the 2½ million dollars needed for a new telescope, this kind of work cannot be pursued here where the viewing is best!

(\* The first cosmic molecule (CH, CH<sup>+</sup> and CN) were detected in the late 1930's in the vicinity of hot stars like Ophiuchi and subsequently (1963) the OH molecule was found in interstellar space by radio astronomers. These molecules, however, did not excite chemical interest in the way that larger molecules like ammonia have.)

TABLE 1

Interstellar Polyatomic Molecules (to September 30, 1971)			
NH <sub>3</sub>	November, 1968	12.6 mm	
H <sub>2</sub> O	January, 1969	13.5 mm†	
H <sub>2</sub> CO	March, 1969	6.21 cm*	
		2.07*, 1.03 cm*	2 mm
HCN	June, 1970	3.38 mm	
NC-C=CH	July, 1970	3.30 cm	
HCOOH	November, 1970	18.3 cm	
CH <sub>3</sub> OH	November, 1970	35 cm	
HCONH <sub>2</sub>	April, 1971	6 cm	
CH <sub>3</sub> CN	April, 1971	2.7 mm	
OCS	April, 1971	2.7 mm	
CH <sub>3</sub> -C=CH	May, 1971	3.5 mm	
HNCO	May, 1971	3.4 mm	
HNC	May, 1971	4 mm	
CH <sub>3</sub> CHO	August, 1971	28 cm	
H <sub>2</sub> CS	September, 1971	9 cm*	

† maser emission  
\* absorption

## Halls: Book now

Applications are now being received from prospective residents in the Halls of Residence next year.

The Halls provide an environment which is advantageous for many students. The experience of living in a community made up of a cross-section of students, both men and women, from all years and faculties, together with a number of members of academic staff can be most valuable. In addition there is the time-saving convenience of living on the campus and having meals provided.

In the past there have been about 200 vacancies at the beginning of each year — and there have been many more applicants. Next year, due to the completion of a fourth Hall (Roberts Hall) there should be over 300 vacancies.

Country and overseas students will continue to have high priority for available places. But students from the metropolitan area who would enjoy the benefit from the experience of living in a Hall will clearly have a much better chance of obtaining a place next year than they have had in the past.

A single application covers all four Halls — Deakin, Farrer, Howitt and Roberts. Further information and application forms may be obtained from: The Halls Admission Office, Roberts Hall, Monash University, Clayton, 3168.

## Dr. Sawrey Honored

Dr. C.E. Sawrey, director of the university health service, has been admitted to Fellowship of the Royal Australasian College of Physicians. He had been a member of the College since 1945.

## CORRECTION

A report of Mr. J.A.C. Mackie's paper on the future of Indonesia (October Reporter, p10) contained the sentence: "An underground Communist Party . . . would be capable of challenging the government . . ." This should have read: ". . . incapable of challenging the government."

## EXAMINERS BY COMPUTER

VICTORIA'S 6790 Higher School Certificate biology students sitting for their exams on November 26 will have the comfort of knowing that they will have the best team of examiners a computer can choose.

Dr. E. H. M. Ealey, senior lecturer in zoology at Monash and chairman of examiners for HSC Biology, faced the problem of selecting 50 examiners out of a list of 150 applicants.

He turned to the Monash Computer Centre for help.

The aim was to select those examiners who were the most consistent and accurate. These were discovered by presenting each prospective examiner with

a trial set of 20 papers handed in by students at last year's examination and asking him to mark them according to a prepared set of objectives.

A "consensus" mark was then calculated from all the marks given by all of the candidates for every question in the 20 examination papers.

In an operation that would normally take several years of clerical work, Monash's CDC3200 computer produced — in 40 minutes — a print-out sheet giving an average mark for all questions in the trial exam papers, with each examiner's performance tabulated in relation to the average. It also produced four graphs for each prospective examiner's performance.

The results revealed wide variations in the marks given for individual answers (some examiners gave double — even treble — the average for some answers). However, it became a simple matter for Dr. Ealey and his panel to select examiners who marked close to the average, thus ensuring a uniform pattern of marking — particularly important in essay-type answers, where there may be no "right" and "wrong" ways of marking, only "different" ways.

The computer will be used again AFTER the examination — first to assess certain of the exam papers handed in by students (principally the true/false and multiple-choice type questions, which will be answered by the students directly on to computer sheets) and finally to process the examiners' assessments which, again, will be marked on computer sheets.

# THE GRADUATE PROBLEM

## A UNIVERSITY VIEW: Warren Mann

In the real world in which we live, universities find themselves negotiating a razor's edge between being seen as anachronisms on the one hand, and as "degree shops" on the other.

They must preserve many delicate balances between interests often conflicting—needs, and the money available to meet the needs; academic standards, and social justice in admissions; student interests and concerns, and the achievement of academic objectives; the academic, and the industrial worlds; the beliefs and values of the academic community, and those of the citizens whose money supports it, and so on.

At all costs they must avoid any militant polarization of forces that would separate rich from poor, men from women, old from young, town from town, students, faculty and administration, and the like.

With higher education becoming more and more the goal for all, the problems multiply: problems of finance, of management, of internal and external relations.

Students are more varied in their backgrounds, better informed, more articulate, and less submissive than their predecessors, and in every respect will become more so.

Even as they grow in number, each becomes more individual in his needs and his aspirations. It is also increasingly difficult to retrieve the mistakes and misdirections that threaten the destiny of the individual.

Politicians are prone to self-justification on grounds of growth in money spent, buildings erected, enrolments achieved and similar statistics.

We have all been subjected to many recitals of this kind, and there is some danger that we may come to accept such criteria as indicators of educational success. Money is important, but attitudes, objectives and effectiveness are crucial.

Similarly, the adequacy of a university cannot be judged in terms of such factors as staff/student ratios, pass rates, degrees awarded, academic eminence of staff, numbers of books in libraries and the like.

Ultimately, the criterion of its value will be what happens to its graduates.

It will not be just the demonstrable successes of a few outstanding graduates, who probably would have succeeded anyway, that establish and maintain the name of a great university.

Rather will it depend on what happens to every student, including those who are unable to cope with the process and drop out. And the accepted measures of academic quality correlate poorly with success as a person or as a citizen, though they may be reasonably reliable as indicators of professional expertise.

### Joint responsibility

It is pleasing to be able to report that one particular type of academic staff member is becoming less common.

He is the person who says, self-indulgently: "We prepare students and check that they have reached an adequate level of performance in our discipline, but what happens to them then is not our business or responsibility; we have a careers and appointments office to handle that".

Most are now aware that the effective career development of a student is the joint responsibility of all who are concerned with him: professors, lecturers, administrative staff and specialists in vocational and other counselling. All exert influence, whether intended or not, on his performance, his attitudes and eventually

his career, and each must accept an obligation to provide positive help in his development.

This sort of work has an important side-benefit.

### Clear awareness

Though it is done primarily to serve the interests of students and graduates, it provides one of the best possible opportunities for developing genuine understanding with the professions, industry, government and all the complex world of work. It leads to a clearer awareness, both within the University and outside it, of the part that a modern university must play in a developing society.

The most excellent academic training can represent failure as a university to the student who does not get the help he needs in working out his career plans. Any inadequacy in providing this help reflects on the institution's name and standing.

Are we doing enough? I am afraid not. In fact, I believe that we have so far penetrated no further than gives a glimpse of what could and probably should be done.

In any large university there are literally hundreds of young people who, for lack of career goals, are without purpose in their studies, who do not have the motivation to develop a serious interest in learning nor desire for its outcome—a disciplined mind. We have them here, to remind us of our inadequacies.

Many of these might be saved from becoming academic derelicts by giving them a greater knowledge of personal career opportunities.

They must be given a genuine chance to become inspired, to be challenged by the vast panorama of problems that forms the future, before they are consigned by the system to the academic scrap-heap.

Counselling to this end must begin very early. It must be seen to be the responsibility of educationists and educational institutions at all levels. It must reach something of a crescendo at tertiary level.

Involvement must go further still. A realistic understanding of career implications must be inherent in the planning of curricula, especially those relating to postgraduate and continuing education.

Employers must be helped to understand their own operations so that they can comprehend the qualities and knowledge needed for their organizations. Much greater efforts must be made to collect and disseminate information, and to discern, interpret and publicize trends.

No longer can we afford the tragic personal frustration, the loss or under-utilization of talent, that is the present result of our haphazard system in which chance plays the dominant role in the choice of a career.

To maintain high standards of academic excellence is not enough; the University—indeed all universities—must accept far greater responsibility for the career achievement of students than has been the custom.

● Mr. Mann is Careers and Appointments Officer at Monash.

## AN INDUSTRIALISTS VIEW: R. W. Brack

A "considerable proportion" of graduates who take jobs in industry are likely to become divorced from their original disciplines within five to ten years after graduation according to Mr. R. W. Brack.

"Even in the first few years of employment, few graduates will directly apply more than a relatively small amount of the academic knowledge which they acquired at university," he said.

Mr. Brack, general manager of ACI Ltd., was addressing the third annual general meeting of the Graduate Careers Council.

He said that, looking to the top management positions in his own company, there were really only two or three which required a continued specialisation for professional reasons and, even in these, the management rather than the technical operating functions tended to become of greater significance.

Mr. Brack went on:

"While all of this might be quite well appreciated by members of the staff of universities, it often fails to get through to the students who can find a degree of frustration when they discover that life in the outside world is not an automatic extension of the academic environment. It is necessary to recognise that there is a communications problem and to do something about it in order to help young people to prepare for careers in industry and commerce. This is a task which the Graduate Careers Council has to undertake.

"We as a community ought to ensure that educational resources and the time and effort of students are not wasted but

are directed to equipping students for their life outside the university and this includes the need to obtain gainful employment.

"At the tertiary level there is not so much a problem to identify potential and stimulate interest in professions such as medicine, law and architecture. The problem is to equip a large percentage of university students for careers in industry, commerce and government and this gives rise to a need to decide on a balance between technical knowledge, management knowledge and a broad general education which should enable the student to obtain personal enjoyment out of life.

"In industry and commerce the need is for people with technical knowledge and skills who can both apply their technology and also continue to develop their abilities in the work situation so as to get work done effectively through other people.

"In other words, the development of managerial talents as well as technical skills can become important at a relatively early stage in a graduate's career in industry."

Earlier in his address, Mr. Brack said that too high a proportion of university graduates tended to gravitate to jobs which permitted them to act as consultants, specialists or advisers. They seemed to seek out the staff position in head office rather than the line job in the field or factory.

"Too few seem willing to take the steps

needed to learn management from the bottom up," he said. "They hope to reach the top from staff positions where they analyse and advise but do not have real responsibility for results. Their aspirations are high but their desire to accept responsibilities is often not of the same order.

### Missing goals

"Many become disillusioned when they fail to reach the goals to which they aspire, but the failure is sometimes due to a lack of understanding of the need for personal education and development as an essential supplement to their academic training.

"We need to know more about what makes students seek to follow the career paths that appear popular today and to understand how present attitudes are formed and whether they contribute to the long term interests of the students themselves and of the society into which they move from academic institutions.

"In order to gain a better understanding of the student problem we will, I suggest, need to look more closely at academic attitudes to the framing of university courses and to the problems of graduate employment in a changing business and social environment."

## U.S. Travel Grants

The Australian - American Educational Foundation announces that travel grants are available to Australian citizens to go to the United States for study, research or lecturing at American universities and other institutions of higher learning between May 1972 and 30th April, 1973.

Applications are accepted in the following categories:

- Senior Scholars: For scholars who possess a senior degree and have achieved some professional standing. The closing date for the receipt of applications is 7th January, 1972.
  - Post Doctoral Fellows: In general candidates should not be older than 35 years on the closing date set for the competition, but in exceptional cases, applications from older candidates will be considered. Applicants must have recently received a senior degree or anticipate completing the requirements for one prior to departing for the United States. Closing date is December 10.
  - Postgraduate Students: For graduates under 30 years of age planning a regular course of study at a pre-doctoral level at an approved American university. Medical candidates planning to take up residences, internships or postgraduate studies should enter this competition. Closing date February 11.
- Further information and application forms may be obtained from: Department of Education and Science, The Secretary, A.A.E.F. Travel Grants, P.O. Box 826, Canberra City, A.C.T., 2601.



## DR. HYNES AND THE STONE-FLY

English-born Dr. Noel Hynes has come to Monash to study one of the lesser-known insect varieties in the Southern Hemisphere - the stone fly.

Dr. Hynes, from the Biology Department at the University of Waterloo in Southern Ontario, Canada, is on a year's sabbatical leave and is with the Monash Zoology Department.

He and his wife will spend a good deal of that time touring Victorian freshwater streams looking for stone fly.

Why the interest in stone flies? "I guess they're just me," Dr. Hynes said simply. "I'm interested in them and that's it. They're a special sort of fly that breed in water, help destroy deadwater material and provide a source of food for fish.

"My PhD thesis was on stone flies because some people asked me to study them. I became fascinated and that was it.

"I came here to discover if the Southern Hemisphere stone fly was all that different to those in the north."

Dr. Hynes was a man who foresaw the current pollution problem and he wrote books and articles about the dangers. For many years, while studying streams and insects, Dr. Hynes realised the dangers inherent in our pattern of industrial life.

His views on pollution are definite - "we can have a clear environment if we're willing to pay for it. The problem is no longer one of science, but politics.

"We know what has to be done, it is just a matter of the people in charge acting upon the knowledge at hand."

He believes that there is some hope as gradually people's attitudes towards nature are changing for the better and the damage may be able to be curbed.

# MONASH AND ECOLOGY

## Environmental lessons

More than 150 science and geography teachers will attend a five-day course on ecology at Monash in December.

The aim of the course, which is being organised by the Zoology Department, is to present the teachers with "the unemotional facts" on the environment so they can introduce discussions and lessons in schools on the problem.

Dr. E. H. M. Ealey, senior lecturer in zoology, said it was the first time the course had been held at Monash.

He said it would be held in lecture theatre S7 and teachers would pay a fee of \$16 to attend.

A limited number of places in the course are still available and anyone interested in attending should contact Dr. Ealey on ext. 2631.

The course will begin on Monday, December 6 and end on Friday, December 10. The topics include - the environment, management of natural resources, problems of poisons and wastes, control of pest species and co-ordination and education.

Besides Dr. Ealey, the Monash people taking part are Dr. W. D. Williams reader in zoology, Dr. J. N. O'Neil, lecturer in physiology, Dr. G. A. Holder, senior lecturer in engineering.

Other speakers will be from Melbourne

University. Fisheries and Wildlife, the Forests Commission, Burnley Agricultural College, the Lands Department, the Soil Conservation Authority and the Environmental Protection Authority.

Zoology honors students will conduct tutorial discussions with the teachers at the end of each day.

Dr. Ealey said that through the course it was hoped to reach up to 15,000 schoolchildren. The teachers would be able to put the environmental question in its proper factual context.

The course also includes film and a trip to a sewage treatment works.

## Languages and maths.

• In the same week as the ecology course there are two other courses for secondary teachers at Monash organised by the Curriculum and Research Branch of the Education Department.

In RI on December 6 and 7 there will be a meeting on modern languages and on December 9 and 10 in HI to H6 there will be a seminar for about 1200 mathematics teachers.



## "New" engineers

Monash this year developed a programme aimed at producing a new, aware race of engineers.

Sixty-two third and fourth year students in civil, mechanical, electrical and chemical engineering completed optional courses in conservation and applied ecology conducted by the zoology department.

Two parallel courses were held during the first two terms. One, on Resource Management, was designed by Dr. E. H. M. Ealey and Dr. D. F. Dorward, for 27 civil engineering students. The other, on Environmental Ecology, was supervised by Dr. Ealey and Dr. W. D. Williams, for students from the other engineering departments.

Dr. Ealey had high praise for the engineers' performance. All but two passed the course, and many earned high distinctions and credits.

Each course consisted of 17 seminars, with speakers drawn from organisations outside the university. Another five seminars were given by representatives of Esso, BHP, ICI, GMH and Lysaght on the role of industry in environmental control.

Subjects covered in the Resource Management course included: The biosphere - ecological systems and human population pressures; studies of the land and their application; forestry management; theory and practice of wildlife management; marine fisheries; weed control; application of biological principles to control of mammal and bird populations; terrestrial and aquatic pollution; chemical and biological control of arthropods.

Speakers for this course were specialists from the Soil Conservation Authority, State Forests Commission, Fisheries and Wildlife Department, Lands Department and Department of Agriculture.

The course on environmental ecology was similarly wide-ranging. The subjects included: Properties of the atmosphere - weather systems; carbon dioxide and world ecology; air pollutants - monitoring and control; catchment management and erosion control; river management; sewage disposal; ecological effects of aquatic pollution - changes in river ecology; hydraulics of coastal waters; problems with pesticides and poisons; radioactive wastes and fallout; economic and legal aspects of environmental control.

Speakers were drawn from the Soil Conservation Authority, State Rivers and Water Supply Commission, Department of Agriculture, Fisheries and Wildlife, the departments of botany and industrial science at Melbourne University, and the zoology, geography, mechanical engineering and physiology departments of Monash.

Dr. Ealey told the Reporter that on one field trip, organised by the department of civil engineering, the engineering students visited the Snowy Mountains Hydro-Electric Authority - and, because of what they had learned in the course, took the SMH engineers to task over the effect the Snowy scheme had had on life in the Murray River.

Dr. Ealey commented: "Maybe the engineers WILL have to turn the Murray into a drain one day - but at least they'll know the ecological systems they've destroyed in the process and will have assessed all the values involved.

"And they won't be slapping their steel and concrete all over the place with no conception of what they're doing. They are now aware of the philosophy that all projects must be designed for the maximum social benefit, but with the least overall cost to society and the environment."

## BOTANY COURSE

The Botany Department will offer a course of 13 lectures and four practicals entitled "The Wheat Plant: Development, Structure and Function" from January 31 to February 4 next year.

The course, designed chiefly for the staffs of agricultural research stations and for members of industries that deal in cereal products, will be given by Professor M. J. P. Canny, head of the department, Dr. T. P. O'Brien, reader of botany, and Mr. P. F. Lumley, lecturer in botany. It is intended to provide an up-to-date account of the structure, physiology and development of the wheat plant.

## SEATO FELLOWSHIPS

As part of its Cultural Programme, the South-East Asia Treaty Organization offers a number of Fellowships each year to established scholars of SEATO countries. These Fellowships are intended for research, teaching or training.

Copies of the regulations and application form may be obtained from: The Secretary, Department of Education and Science, SEATO Fellowships, P.O. Box 826, Canberra City, A.C.T. 2601. Applications close on December 31. Awards are normally announced in July.

The SEATO countries are: Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom and the United States of America.

## CHRISTIAN GROUP

Following a letter in the last Reporter a number of academic and administrative staff have shown an interest in forming a Staff Christian Group. The first function of the group will be to invite all University staff to a Christmas service in the Religious Centre towards the end of December. Graham Dean in the Building Branch has the details.

# THE UNIVERSITY CHALLENGE

On October 10 the Vice-Chancellor, Dr. J. A. L. Matheson, spoke on "The University Challenge" at the Sunday Forum of Wesley Church. The Reporter publishes the full text of his talk.

Some years ago my son and I built a canoe and then set off in it to navigate the Goulburn River from Eildon to Seymour. Ifs I had known in advance what we subsequently discovered about the hazards of that journey I might have hesitated before embarking upon it but at the time the voyage was exciting and interesting and not particularly alarming.

It occurred to me afterwards that the reason why I was not alarmed was because sailing a canoe down a swiftly flowing river is very similar to being a university vice-chancellor, an occupation to which I have now become accustomed if not yet fully reconciled.

One has the same sense of being hurried along by events over which one has little or no control; the same knowledge that once embarked one is committed to a voyage which cannot be halted; the same feeling of navigating perilously between hazards to left and right.

Above all, canoeist and vice-chancellor alike often find themselves rounding a bend and being confronted with a parting of the ways: in a few brief moments a choice has to be made upon woefully inadequate information and then one is committed to a route from which there can be no turning back. How often does one wish, having made one choice, that the other was still available?

This afternoon it is my aim to try to tell you something of the voyage that is my life, of the river down which I am journeying, of the perils between which I am trying to navigate.

## University success

My title is an attempt to epitomise the rapids through which the university world is presently passing, hopefully into smoother waters ahead.

The word "challenge" refers to the assault from within by those who seek to use academic tolerance for political purposes; it refers to the reaction from outside observers who think that universities are inefficiently managed; and it also describes the attitude of many people who believe that they work harder, more effectively and to the greater benefit of mankind than most of their critics.

Let me begin with the last of these and issue my challenge which can be stated briefly; it is that of all the organisations, institutions, societies, and the like which human beings have invented for the purpose of conducting their affairs universities are among the most successful.

Mind you, this is not to claim very much; at the present time the economic affairs of the country are obviously in a sad state; humiliating revelations about conduct on the stock market have been made to a Senate Committee; public opinion is disturbed by the extent to which American and other foreign interests are obtaining ownership and control of Australian natural assets; at any moment public services and private industry alike may be brought to a standstill by militant trade union action; the Victorian school system gives little satisfaction, to put it mildly, and has recently been disfigured by a series of strikes which can only have harmed the alleged beneficiaries - the pupils; the hospitals are in debt while the medical profession prospers; the railways

are insolvent, the roads inadequate and the accident rate would be profoundly shocking if we had not got used to it.

I do not catalogue these inadequacies of our arrangements in order to point the finger of scorn at those responsible if, indeed, they could be identified; my aim is simply to show that human affairs are difficult to organise successfully. Whether by reason of his greed, his aggressiveness, his stupidity or his laziness homo sapiens is difficult to handle and his affairs are always managed far from sapiently.

In this imperfect world I contend that the universities stand out as a brilliant exception: their business arrangements are impeccable; students are enrolled, taught and examined with unfailing regularity; the academic staff enjoy an independence to teach and to research as they think best; they work in an atmosphere of trust and tolerance; and they contribute notably to the knowledge and wisdom of mankind.

Many universities in Australia are now larger than all but the capital cities and yet for the most part they enjoy an orderliness of behaviour and a freedom from crime and violence - and this without the benefit of a police force - which should be the envy of every municipality.

## Maturing minds

I do not claim, of course, that universities are faultless and that errors of judgment and of execution do not occur. But I do claim that judged by the standards of normal human competence they come off pretty well; and, moreover, the academic's capacity for criticising his own and other's work being unlimited, the status quo is always under scrutiny and reform is ever in the air.

You may think that in proclaiming the competence of the universities in comparison with other human activities I have allowed by prejudices to run away with my judgment. I do not think that I have but let me first invite your attention to what universities are trying to do: their task is to bring to intellectual maturity the most promising young minds of each generation.

This is their central responsibility and centuries of experience confirm that the best way to do this is to assemble a staff of talented and diligent academics and then to give them as much freedom to pursue their thoughts and ideas as is compatible with the orderly running of a complex organisation and a not unlimited budget.

It will be found that most academics, in the right environment, work hard and creatively to discover new knowledge, to re-interpret old, to criticise, to write, to study and, above all, to hand on to their students the products of their absorption in the scholarly life.

This last is a process that is inherently imperfect for it involves the response of the student no less than the effort of the master. Nor is it at all easy to discharge that other important responsibility - to certify to the world that the young graduate has achieved an adequate competence in his chosen subject or profession.

This is a difficult task to which it is hard to apply objective tests of efficiency.



One test that can be used is to try to find out what the international academic community thinks of one's products and here there are some grounds for satisfaction: Australian students going abroad for further study are usually able to hold their own in the great universities of the world and they not infrequently do exceptionally well.

So all in all there are good grounds for the belief that the universities give good value for money, and here I readily acknowledge that being in receipt of large amounts of public money the universities are in duty bound to render as good a return for this public investment as they possibly can.

## Public criticism

Nevertheless, in spite of a pretty good performance - and here I turn to the public challenge to the universities - they are more criticised by press and public at present than at any time in the more than forty years since I was a first-year student.

The reason for this is not far to seek: universities all over the world have in recent years been subject to violent upheavals which in some countries have resulted in serious material damage, injury and even death.

Here in Australia there have been a number of confrontations, sit-ins and the like, a lot of abusive writing and speech-making, some rather hysterically pornographic student publications; but no deaths, no injuries, and easily the worst damage was caused by the Commonwealth police in a recent raid on Melbourne University Union. The universities have continued to teach and to examine and, as a colleague of mine wrote recently, "research of international standing continues to be done, salaries are paid, group certificates are issued on time (compare the Education Department), 12,000 people are fed daily and visitors from all over the world continue to come".

The incidents which have occurred have elicited a response from the media which, to my perhaps over-sensitive mind, far exceeds the importance of the events reported.

For instance on Saturday of last week the Age devoted a whole page to certain events at Melbourne and La Trobe Universities. It so happened that on the previous day one of my scientific colleagues had announced the discovery in space of a certain molecule which is of profound importance in theories of the origin of life; this discovery, which will certainly attract world-wide scientific attention, did not rate a mention!

## Political Capital

Perhaps partly as a result of the press over-reaction to student activism the universities, and those responsible for them, have been severely criticised by newspaper correspondents, by politicians and, more dangerously, by party propagandists.

Attempts are being made to manufacture political capital out of the universities' difficulties and at least one political commentator has spoken of

dismissing the vice-chancellors of universities which suffer some disturbance. Knowing the author of these suggestions I recognise that he is as aware as I that this is good clean political fun which is about as relevant as blaming the Lord Mayor of Melbourne when a murder takes place in his City.

But this involvement of the universities in politics, this challenge to their integrity, this preoccupation with their deficiencies at the expense of their achievements is extremely harmful if only because it diverts the attention of academics and administrators from the phenomenon itself to the propaganda which it generates.

More seriously, it encourages those who are politically motivated to indulge in spectacular demonstrations in order to gain the free publicity that press and television can be relied upon to give them and which they would not otherwise afford. Who can doubt that if the draft resisters who recently figured prominently in the news had known that they would be ignored they would have bothered to hole up in Melbourne University Union?

However, it must be acknowledged that if the press, the public and the politicians are reacting rather naively they are reacting to a real situation - the challenge to the university by radical students and their supporters who profess to be Maoists and who are certainly hostile to many aspects of present day society. These people constitute the main challenge to the university way of life; they are to be resisted not because they are critical of the evils that disfigure our so-called civilisation but because of the methods they employ to further their cause.

I do not pretend to understand the motives that drive these people but I do understand why they get some support.

It is certain that most young people today are appalled by the aspect of the world into which they are growing up; and who can blame them?

War, famine, pestilence, economic instability, pollution afflict our world; the shadow of nuclear disaster, whether deliberately or accidentally caused, darkens the future; and we are now told that if civilisation is not choked by over-population it will collapse because the supply of essential raw materials is exhausted, and this no longer in the remote future but within the lifetime of many now living.

## Balancing power

In this dreadful situation it might be hoped that the world's leaders would be preoccupied with planning to avoid disaster or, if that is too much to expect, would at least show some signs of recognising that time is running out.

But not a bit of it: in the big league the old game of trying to balance power still fascinates presidents and prime ministers alike; smaller countries still indulge in fratricidal strife as in Ireland and Pakistan and recently in the Congo and Nigeria; and on the local scale cities continue to grow inexorably at the expense of the small towns and villages, while life in them becomes more and more unpleasant or even unsafe.

Modern methods of communication ensure that all this is widely known, and the numbers of those who will be affected by it in the future are increasing rapidly; it is therefore only to be expected that many of the younger generation, staggered by the incompetence of those at present in positions of authority, seek to make some contribution to our salvation rather than to our possible destruction.

Here then is the generation gap: on the one hand the wrinklies, preoccupied with irrelevant and out-of-date trivialities and, on the other, the newly-bearded adolescents impatient to do something to prevent disaster.

The effects of this generation gap are felt most sharply in the universities because here are concentrated, now in very large numbers, intelligent young people, not yet restrained by the responsibilities of family and career, who are being trained by devoted professors in the methods of critical analysis. It is not surprising that the university itself and its immediate

social and political environment should be the first subject of attention by apprentice reformers.

We need look no further for the source of student unrest. We need not be surprised by it, indeed we might well hope that from it might come the salvation of mankind were it not that the activist students themselves have made stupid mistakes in their eagerness to find an instant solution.

I can identify three profound errors of judgment: The first is to think that one political system is any better than another; the second that violence is efficient either tactically or strategically; and the third that the universities are the mere agents of a corrupt society and must therefore be attacked as a prime target.

Let me comment on these schoolboy howlers in reverse order: it will already be apparent that I believe that the universities, far from being in any sense responsible - whether actively or by passive neglect - for our present ills, offer the best hope for the identification of intelligent courses of action. I do not think that the universities are the only source of such ideas but they are good enough to make it very short-sighted indeed to denigrate them, much less to attempt to destroy them.

I now turn to violence, a term which I take to include the passive use of or threat of superior strength no less than the active employment of force. It is surely now unnecessary to argue that the long agony of mankind demonstrates beyond doubt that whatever the short-term advantages of aggression the long-term results are invariably harmful.

In our present limited context it is also true that while it may be possible to force concessions by violent means there is yet a price to be paid. In the universities that price is internally the loss of morale and of dedication to scholarship and externally the encouragement to hostile public reaction. Those who seek to politicise the universities are taking a fearful risk as a glance at the present American scene will show.

Finally I come to the barren wasteland of political theory which within my lifetime has been shown to hold no promise whatever for mankind.

When I was a boy, after the first world war, there were many who thought that the application of Marxist theory in Russia would at last enable man to avoid the disadvantages of industrialisation. As time has gone by it has become obvious that this was a vain hope and that although the communist states are in some respects

superior to the capitalist in others they are woefully inferior.

This is especially so in the area of man's treatment of his fellow-men in which our young Maoists impudently assert their superiority. A few years ago, in support of the Brezhnev doctrine of solidarity of the Warsaw states, Russia and Poland invaded Czechoslovakia. Today the growing importance of the European Economic Community and the growing political and military strength of China force that same Brezhnev to repudiate his former doctrine is now humiliatingly exposed as mere political opportunism.

Generalising from this disappointing experience I assert that Maoism also will prove to be defective and that a future generation of radical students, recognising that the little red thoughts are mere platitudes, will turn elsewhere for their inspiration.

In the meantime there are disturbing signs that just as university instability provokes external hostility so it may give rise to internal reaction unpleasantly reminiscent of what was seen in the Europe of the thirties. I profoundly hope that these incipient symptoms do not develop into a disease.

I have now outlined my thoughts on the university challenge, both by and to the

universities but, lest you conclude that I believe the outlook to be quite hopeless may I before ending indicate where mankind may hope to find some relief from its troubled state.

You will not be surprised when I suggest that since man has come to dominate the other mammals because of his brains he had better be quick and use them to ensure his survival. It is now certain that just as man has accomplished the apparently impossible task of getting to the moon, and back, no physical problem is really insoluble if enough brain power and resources are applied.

But you may not expect my second assertion, which is that unless men show more respect for the great moral principles, both in private and in public action, their brains are likely to be of little avail.

These moral principles are neither numerous nor complex; they have been taught by the great philosophers and the great religious leaders alike; perhaps the trouble is that they are so disarmingly simple that they are not convincing to the sophisticated youth of today.

Here then is the last and greatest challenge to the universities and, indeed, to the whole educational system; how to unite morality and intelligence for the salvation of mankind.



Prof. Hetzel, Boyer Lecturer, says:

## EDUCATION IS URGENT NEED

EDUCATION in health matters was a much neglected area in Australia, Professor Basil Hetzel said in his final Boyer Lecture on the ABC, broadcast last Thursday.

"Education in the field of men-women relationships is urgently required in the light of the evidence of widespread ignorance, and the social harm resulting from hasty marriages and illegitimacy," Prof. Hetzel said.

Prof. Hetzel, foundation professor of Social and Preventive Medicine at Monash, presented a series of five lectures on the ABC radio during October. The title was "Life and Health in Australia."

In the final lecture Prof. Hetzel said some effort was being made in health education at primary school level but academic pressure at the secondary level had largely prevented the development of broader subjects in the health and social field.

There was a need for community activity to supplement the existing defects in school and family life. Much was being done by organisations like the Marriage Guidance Council, and the Family Life Movement.

"Why can't we use television to more creative purpose in this field?" Prof. Hetzel asked.

"Certainly there is plenty of effort made by special groups on television to advertise their products which are inimical to health.

"It is one of the disadvantages of a society believing in individual enterprise that the activities of certain groups go unchecked in spite of the damage that is done to the health of the young with future heavy personal and economic cost to the community.

"In the face of present television commercials, we can hardly be surprised at the results of the survey of the smoking habits in 26,000 children carried out in 1968 by the National Health and Medical Research Council. This revealed that by the age of 15, 26% of boys and 16% of girls were smoking 3-5 cigarettes per day.

"In its report to the government in 1969, the National Health and Medical Research Council has drawn up a

comprehensive programme for action, including education, yet no decisions have yet been made on this report and certainly little has been done to control television commercials. "This inaction contrasts with recent initiatives of the Canadian Government which has banned all cigarette advertisements on T.V., radio and in newspapers from January, 1972," Prof. Hetzel said.

Prof. Hetzel suggested that besides control of advertising legislation favouring low tar content cigarettes could be introduced.

"It is not possible to prohibit smoking in Australia today, but there is every reason to believe a safer cigarette could be produced.

"The tar content of the various brands of cigarette varies widely from 5 mg. to 26 mg. per cigarette. There has been a reduction in tar content of various brands in the last two years following the announcement of the result of the analyses being carried out by the Victorian Anti-Cancer Council.

"I believe suitable legislation favouring low tar content cigarettes, for example by taxation benefits, would quickly accelerate this tendency to the considerable benefit of the smoker, whose increased health hazard from cancer of the lung is in direct proportion to the tar content of cigarettes."

Prof. Hetzel also suggested adequate legislation on matters affecting the physical environment - reduction of the carbon monoxide content of car exhausts; the preservation of recreational areas and safety measures in car design.

"Today, in a society which regards man as free of the old paternalisms of church and state, legislative action tends to be unpopular, but the beneficial effects are apparent as, for example, in the use of breathalyser tests.

"Inaction seems scarcely credible when faced with indisputable evidence of personal tragedies and mounting costs for medical care for avoidable disease.

"The fall in lung cancer in British doctors following curtailment of smoking of cigarettes and a similar fall in heart disease provides conclusive evidence of a causal relationship."

Prof. Hetzel said there were other more difficult areas where legislative amendment was probably necessary, such as children at risk from maltreatment or neglect by their parents, the apprehension of sexual deviants, and those attempting suicide.

The legal framework needs to take account of medical advance - the importance of social and psychological factors, the unsatisfactory effects of penalties, and the need for a therapeutic approach.

"New methods of therapy require properly organized research studies so that maximum benefit can be obtained. The question of compulsion to undergo therapy has to be considered in the case of some of the more serious situations, such as the young chronic alcoholic driver."

Prof. Hetzel said one finding of the Nimmo Committee of Enquiry into Health Insurance concerned the evidence of hardship to the poorer groups in the community resulting from a contributory system in which income levels were not taken into account.

"I believe an alternative system whereby health costs could be met by a compulsory contribution with Income Tax deductions in proportion to tax paid - would be a much more equitable and preferable method of financing health care. Such a plan could be introduced without affecting the present system of private practice."

One serious disadvantage of the subsidy of private practice by health insurance in Australia had been its effect on medical education.

"The teaching hospitals can no longer attract as many patients because of the preference for private care. This has caused a dearth of patients in the public wards and outpatient clinics, which have in general much less attractive amenities.

"Unfortunately, most private patients in Australia receive treatment in separate private hospitals even though the technological facilities available are much less developed than in public teaching hospitals.

"There is widespread concern in universities and medical schools about this problem which is seriously hampering teaching at both under-graduate and postgraduate level.

Many of the relatively few private patients in teaching hospitals have agreed to assist teaching when required to do so.

"Modified arrangements are going to be necessary so that many more private patients can have this opportunity otherwise training of future medical students and specialists is going to be severely jeopardized."

It was clear that adequate delivery of health care to a rapidly increasing and culturally diverse Australian population would require much more effective organization and a consensus between

different arms of the health services as to what needed to be done together with full involvement of the general practitioner.

Prof. Hetzel said: "I believe that we could secure a much higher return for the investment of our health dollar than we do at present.

"By international standards, the expenditure on health services in Australia is above that of the United Kingdom and Sweden, but below that of Canada and the U.S.A. We are not niggardly in our expenditure on health, but we are careless in the way we spend the money without any effective coordination and planning of the services which it finances."

### EARLIER LECTURES

Some of the points made by Prof. Hetzel in the other Boyer lectures included -

**Suicide:** Research by the Department of Social and Preventive Medicine had showed the suicide rate for women had doubled in ten years, putting Australia third only to Sweden and Austria as having the world's highest suicide rate for men and women.

**Pain relievers:** The incidence of kidney disease associated with the taking of analgesics was 50 times as common in Australia as in the U.S.

**Alcohol:** In a recent comparative study of drinking patterns of Sydney and San Francisco, it was clear the Australians were drinking much more heavily than the Americans.

"We are quite unfair in our attitude to the alcoholic in this country. As a nation we esteem and applaud heavy drinking and yet despise and condemn the alcoholic."

**Aboriginals:** The high rate of tuberculosis among Aborigines was a national scandal... despite the success of the Commonwealth-backed anti-tuberculosis scheme the Northern Territory notified four times the national average of TB cases during 1970.

**The aged:** The problem of treating the geriatric patient was unsuited to private practice. The time had come for Commonwealth subsidy of State geriatric units on the model of the Commonwealth-State tuberculosis agreement.

• Early in November the ABC will have available the full transcript of Prof. Hetzel's lectures. It will cost 35 cents (42 cents posted) and is available from ABC offices in all capital cities, at the Melbourne Government bookshop and by mail to The Cashier, ABC, G.P.O. Box 487, Sydney, 2001.



# SOUTH-EAST ASIA: INSTABILITY FOR 25 YEARS

George McTurnan Kahin is an expert on South-East Asia. He first made his name with a 500-page volume on "Nationalism and Revolution in Indonesia", written in the early 50s just after Indonesian independence. He has long been a critic of the US involvement in Vietnam.

Professor Kahin is Professor of Government, Cornell University, and Director of the Cornell Modern Indonesia Project. He was interviewed for the Reporter by David Jenkins, a part-time politics student at Monash who spent 18 months in Indonesia as a correspondent for The Herald.

Professor Kahin wasn't very optimistic. "South-East Asia is bound to remain an area of great instability for at least another 25 years," he said.

"Instability is built into the region."

Professor Kahin was a visiting professor at Monash during third term and during his stay gave a number of lectures about post-revolutionary Indonesian history in the History Department.

He spent six months in Indonesia researching a book before coming to Monash and planned to spend several weeks in South Vietnam on his way back to the United States.

Prof. Kahin has devoted the bulk of his time during the last six years to a study of Vietnam. One of the earliest critics of American participation in the war, he joined with Professor John Lewis of Stanford University to write a 540 page book about the errors which had led to the U.S. build up in Vietnam.

Although initially dismissed by Administration spokesmen in Washington as an overly critical account of American goals and tactics in Vietnam, the book has since been buttressed in its conclusions by the publication of the secret Pentagon Papers. The authors of these 'papers' reach almost identical conclusions about the origins of the war as those set out in "The United States in Vietnam" by Kahin and Lewis.

Was this heartening?

"Well, I suppose it was in a way," Prof. Kahin said. "But it is a great tragedy that this sort of work wasn't done before we got involved."

Professor Kahin, now 53, and still an outspoken critic of the Saigon regime, had these observations about Vietnam after the US withdrawal.

"For some time I think you will have a transitional situation - a situation which is perceived as transitional by all parties."

The NLF may be prepared to allow

## MONASH WILL HAVE AN INDONESIAN ORCHESTRA



Students and a gamelan orchestra in Bandung, Indonesia.

The Monash Music Department will have its own Indonesian orchestra for six months next year. The 30 instruments of the orchestra will be on loan to the university from the Indonesian Embassy in Canberra.

The department will hold regular classes so university staff and students can learn to play the instruments.

Dr. Margaret Kartomi, a lecturer in music, leaves for Indonesia this week and one of her tasks will be to arrange for a guruan Indonesian music teacher - to come to Monash next year to run the classes.

The Indonesian orchestra from Central Java, consists mainly of percussion-type instruments - gongs, xylophones and drums. The orchestra's Indonesian name is gamelan.

Any Monash people interested in learning to play the instruments should contact the Music Department secretary or Dr. Kartomi when she returns from Indonesia in March.

The department hopes to have groups of 20 in the classes and plans some at lunchtime.

Dr. Kartomi, who lectures on Indonesian theatre music, will be visiting

two academics in Indonesia who recently paid a visit to Monash and lectured in Balinese and Central Javanese music - Dr. Ig B. N. Pandji, head of the Conservatorium of Music in Den Pasar, Bali, and Mr. Frans Harjadi, dean of the Academy of Music, Djakarta Cultural Centre.

Another Music Department member off overseas is Mr. Laughton Harris, senior lecturer in music, who leaves next month for Europe. While away he will visit Dr. Andres Jurres, president of the International Society for Contemporary Music, in Amsterdam.

Dr. Jurres was one of several academic visitors to have visited Monash recently. The others included a specialist in Japanese music, Professor William P. Malm, from the University of Michigan, a specialist in Korean music, Prof. Man-Young Hahn, from the College of Music, Seoul and the well-known English folklorist and ethnomusicologist, A. L. Lloyd.

JUNE VERRIER, a senior teaching fellow in politics, reviews two recent books on Asian and Pacific affairs by two Monash staff members and finds it a question of . . .

Problems of Australian Defence, ed. H. G. Gelber, Oxford University Press. Price: Cloth \$12.50, Paper \$7.50.

Powers and Policies, Alignments and Realignments in the Indo-Pacific Region, ed. Max Teichmann, Cassell. Price: \$3.50.

## PICKING THE TURNING POINTS

The results of Henry Kissinger's visit to Peking early in July have generally been held to be dramatic and to herald a turning point in the international politics of Asia, if not the world.

For more than twenty years, the United States has refused to grant de jure recognition to the de facto existence of mainland China, in spite of that provision of International Law which lays down her obligation to do so.

In consequence, the Government of one quarter of the world's population has been excluded from the concourse of international relations.

China's exclusion has, nevertheless, hardly affected her impact as an influence nor her significance as a consideration in the calculations of others and in particular the U.S.

Moreover, this calculation has been made the more hazardous by the absence of channels of communication with China which could offer a minimum opportunity to look and listen, a greater opportunity to

comprehend, and a maximum opportunity to influence if not China's intentions themselves, then China's perception of western American intentions.

Mainland China, officially, has not existed. Thereby, China has been deprived of a vested interest in the "system" (such as membership of the United Nations and a seat on its Security Council as a great power—a vested interest the U.S.S.R. was carefully encouraged to adopt by the framers of the Charter, in particular by President Roosevelt, on the assumption that membership would be less catastrophic than its opposite, in the same way that dissent is less disastrous than anarchy).

In this light, America's recent initiative is sensational and it does represent a turning-point; whether it demonstrates a *volte face*, too, remains to be seen.



someone like General Minh take power because they recognise that post-war Vietnam will need enormous infusions of aid money and that they would be unlikely to receive this from non-Communist countries.

"The People's Revolutionary Party [a Communist component of the National Liberation Front] is a lot stronger than it has been represented. Time is on its side. It's got quite a bit of popular support and quite a bit of reserve military force which is not actually deployed now.

"In the long term, the political potential of the NLF is pretty formidable. All the more so because of the mismanagement of the present Saigon Government, its continuing alienation of people it might win the support of if it were a little bit more enlightened.

"You can't speak in absolutes, but if you look ahead five years the probability of the PRG having, if not a dominant role in government, then a very big voice in government, is very strong indeed."

### Dual settlement

The future of Laos, says Professor Kahin, is closely interwoven with the future of Vietnam. "It would be enormously difficult to reach a settlement in Laos without a settlement in Vietnam," he said.

"One of the problems of the war in Laos has been that the whole balance of ethnic groups has been terribly disrupted. You used to have a situation where the valley Lao were the ascendant political group and I think very symptomatic of the situation was their collective term for all highland dwelling people as "Kha" a Lao word which means "slave".

"In the course of the war two things have happened. One is that the group that had been low on the totem pole and high in altitude before would gravitate towards the Pathet Lao leadership — partly this is because of the North Vietnamese experience of the North Vietnamese in dealing with the same groups.

"From my reading of the record in continental South East Asia the only government which has been successful in dealing with the minorities is North Vietnam. It's had really quite enlightened policies. It has enlisted their support. It had

to. Ho Chi Minh's first base was inhabited by these people.

"These groups spill over the border into Laos and the Pathet Lao, benefitting from the experience of Hanoi, has developed a very enlightened policy in dealing with them.

### Vientiane worried

"The second point is that amongst those who don't adhere to that group — the Meo whom the Americans have been dealing with — they could, if there was a settlement tomorrow, have a political weight enormously greater than their numbers. In fact the Vientiane Government is worried about a movement amongst these Meo for their own autonomous state. They are armed, they are a martial people, they are well trained."

It was clear then that there were now new dynamics in Laos, Professor Kahin said, and if left alone the country would almost certainly be torn apart.

"I would expect that what will happen will be that there is some kind of de facto border running down the centre of Laos much as there was after the 1962 Geneva Agreement.

"But I don't think it is utopian to expect some sort of neutralisation."

Prof. Kahin said he had spoken to the Laotian Prime Minister, Prince Souvanna Phouma about this and "he thinks it is in Peking's interest to ensure that there is a genuine neutralisation in Laos."

On to Indonesia, the recent Indonesian general elections were, he thinks, managed "heavy-handedly".

"They were more heavy handed than they need have been. For there had been genuine, widespread revulsion about the political processes represented by the party system and of course, if the government had held completely honest elections and won them its mandate would have been much more genuine."

The Indonesian Government had gained less legitimacy than it could if the elections had been fairer. But it could take some comfort from the knowledge that people of some stature in Indonesia recognised that it was important to have the kind of stability that only the army could at this stage provide.

and apart from the Commonwealth, sending military advisers and communications materials to assist the American and South Vietnamese effort at the latter Government's request.

As Dean Acheson had said, Britain had indeed lost an Empire and not yet found a role, and neither had her former dependencies and associates.

In South East Asia, there emerged a more assertive and aggressive Indonesia prepared to procure for West New Guinea its rightful place as the seventeenth province of the Indonesian Republic by force if necessary, and prepared to confront a declaredly hostile Malaysia with these same means and others.

However, undoubtedly the most important in this conglomeration of events making for this turning point was the emergence of China as an independent super-power-seeking state.

A split with the Soviet Union had itself been long in the making; indeed their treaty of friendship and co-operation of 1950 was an exception to the time-honoured rule of hostility and suspicion between the bordering giants.

Khrushchev's denunciation of Stalin at the 20th meeting of the CPSU in 1956, the Korean War before that, and even the Soviet Union's frequent indifference and occasional mismanagement of the struggling Communist movement in China from the '20s through to its successful usurpation of Chiang Kai-shek's Kuomintang in 1949, had all been points of friction for different reasons.

Hence, through the crack in the myth of the monolith in 1962 seeped a stream of change. We may now be witnessing its full flood.

By implication, both 'Problems of Australian Defence', edited by H. G. Gelber, and 'Powers and Policies: Alignments and Realignments in the



The appeal of Soekarno. Inside the house — a million-dollar-plus mansion he built for his Japanese-born wife, Dewi — Soekarno's body lies in state. Army officers are hard pressed to control the crowd that wants to file past. David Jenkins took the photo.

Most disturbing was the way the government had "manipulated" the parties it did let run.

"The P.M.I. — the Indonesian Muslim Party — was turned inside out by the government during the campaign."

Professor Kahin said he could not expect to see a meaningful party system in Indonesia — one where the parties really had a chance to secure significant power — for at least 10 years.

He hoped to write a book about the 1958 rebellion in Sumatra and Sulawesi (Celebes) but this would not be completed for about two more years.

"This seems to me to be one of the most important periods in modern Indonesian history," he said. "Yet it has had precious little coverage by anyone other than journalists."

"It was an important watershed and many events since can only be understood in terms of what happened then."

"The rebellion had a very profound influence on Soekarno both in terms of domestic politics and internationally as well and I think the latter is not well enough known."

"He was convinced that the U.S. was out to get him and we know enough about Dulles' policies now to know it was."

When you were writing a book like this

there was always a lot of luck about your timing.

"This kind of research depends a great deal for its effectiveness on catching people at the right point of their lives, at a time at which they would like to talk about these matters. If I had talked to some of the military people a few years ago they wouldn't have told me anything . . ."

On the other hand, Dr. Sumitro, a one time rebel who is now Indonesia's highly-regarded Trade Minister, refused to see Professor Kahin. "His position is still delicate in the government and he feels he cannot talk about those events. And yet in the old days he was one of those I knew best of all."

The book would reveal that there was a lot more outside help for the rebels than has previously been realised, Prof. Kahin said.

Prof. Kahin closed on a complimentary note. He said: "There is no Indonesian centre that surpasses Monash anywhere, as far as I'm concerned. I see it as an at least equal rival of Cornell in Indonesian Studies. You have three really first-class people here — John Legge, Herb Feith and Jamie Mackie, as well as good people in language and literature — and really important field research is being done by your graduate students in Indonesia." Coming from Prof. Kahin that's praise indeed.

Indo-Pacific Region', edited by Max Teichmann, prepare their readers for the contemporary turning-point, the first from a particularly Australian perspective, the second from a South Asian or Indo-Pacific one.

The former includes influences upon defence policies to date and suggests the criteria upon which future decisions, in changing circumstances, should be based.

The latter is more concerned to trace varieties of change among significant Indo-Pacific actors and to develop their consequences.

### Vietnam changes

For his part, Max Teichmann in the epilogue to his collection of essays, sees the Vietnam War as the centre-point of change;

"As we enter the seventies, the area which has engaged our attention presents a picture of utter confusion — doubtless the product of sweeping changes, but also a confusion symptomatic of deep divisions within many of the societies themselves . . . There is not much doubt that the Vietnam War has been a catalyst." (p.204)

Certainly—for the Lilliputians had mastered Gulliver to everyone's surprise. Many of the changes which may be described as contributing to the current state of flux, may be connected, directly or indirectly, to the Vietnam War; a number of others may not.

In the former category could be included the Nixon Guam Doctrine, increasing recognition of mainland China, and the Soviet resumption of old diplomacy in South Asia. In the latter may be included U.K. withdrawal from East of Suez, the pre-eminence of Japan and some

increased flexing of independent muscles among old allies such as the Philippines, Malaysia and Singapore, and even Australia.

The 1969 Nixon/Guam Doctrine, popularly received as a declaration of retrenchment and of disenchantment and a return to isolationism, is no such thing.

As H. G. Gelber puts it in his essay on 'The U.S.A. and Australia' in his collection, the doctrine is:

" . . . necessarily an exercise in ambiguity, designed to reflect a mood without needlessly narrowing operational possibilities. Its main thrust, developed over several years, is a reversion to an offshore policy in Asia, smaller U.S. responsibilities in the region, and greater security efforts by local powers. In mood, it is a response to the contemporary intolerance of far-off, difficult and ambiguous problems. But it also reflects a line of thought that goes back to George Washington . . ." (p.80)

The Doctrine has certainly not hindered an American rapprochement initiative towards China; indeed it may well have paved the way for that initiative by making concession to China's long-standing objective to rid Asia of Americans and American influence.

The U.S. has, moreover, paved the way gradually for better relations with China by debating such better relations as well as by relaxing the strict embargo on China trade.

Nevertheless, with or without America, a 'normalisation' of China's relations with the world is underway as more and more states, from Canada to San Marino, grant China recognition, or make moves in that direction.

Continued overleaf

# TURNING POINTS IN ASIA

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It is possible that the Vietnam War has played a part in this trend, illustrating as it has, the absurdity, as well as the danger, of pretending to ignore so vital a party or a provocateur of that war.

It could be a product, too, of China's success in consolidating her revolution, a success demonstrated convincingly by C. P. Fitzgerald in his essay "China and Asia" in the Teichmann collection.

He points out that the Great Proletarian Cultural Revolution, declared by Mao Tse-tung in 1966, was a struggle within the Communist Party of China. Thereby:

"... the fact that the Communist movement could indulge itself with this passionate debate and fierce political conflict without endangering the whole revolutionary system and opening the road to reactionary forces is the most striking evidence of the deep roots which the revolution has grown and the poor prospect which any opposing movement, such as the remnants of the Nationalists on Taiwan, have of regaining or obtaining support" (p.64)

By this reckoning, Mao's China is here to stay, even if Mao is not.

The current and latest of a series of claims of his political or physical demise, the eagerness of its reporting and the extent of the speculation, testify to the perception, at least, that the system and the man are synonymous.

A threat to the man thus becomes a threat to the system and a turning point; if Fitzgerald is correct, that turning point will be negative. However, neither Stalinism without Stalin, nor Gaullism without de Gaulle survived the man in anything like their former glory.

Changes in the Soviet Union's Indo-Pacific strategy have been seen in no small part a response to the challenge presented by China and symbolised by the ideological and methodological mileage China derived from the Vietnam War, that is, ideologically, as the loudest supporter of the cause of a revolutionary people and methodologically as a successful exporter of her home-grown revolutionary peoples' war.

Yet, the diplomacy of the Soviet Union has a momentum of its own as well. The Soviet Union is seeking to limit the expansion of Chinese influence in Asia; she is also seeking to substitute her own, as would any great power who could afford to do so.

For both these ends then a pre-emptive old-style diplomacy is being pursued; friends and allies are courted through the more effective trade and aid rather than through the less effective and more troublesome local communist parties.

Moreover, reciprocation of these initiatives is clearly in the interests of many small and middle powers which make up the region.

## Soviet presence

Lee Kuan Yew of Singapore, for example, has declared he wants as many friends and supporters as possible. He welcomes Soviet initiatives and interests in Singapore for these give him a greater degree of flexibility overall, and particularly in his relations with China. For him, and others, then, a modicum of independence and security can be achieved by balancing the influences of several great powers.

Soviet development of an increased naval presence in the Indian Ocean is double-barrelled too.

Firstly, the U.S.S.R. roams the Indian Ocean for the simple reason that she now possesses the wherewithal with which to roam. Secondly, an Indian Ocean patrol could be seen to assist in the containment of China, a China which has access to that ocean along its roads through West Pakistan.

Britain's Defence White Paper of July, 1967, which gave the timetable for the withdrawal of Britain from Aden, Malaysia and Singapore in the mid-70s, followed by Harold Wilson's modification of it in January, 1968, announcing that Britain would withdraw completely from everywhere East of Suez, except Hong-Kong, by December, 1971, may be seen as a logical extension of the implications of the fall of Singapore in February, 1942.

Britain's bluff was called and her inadequate perception of the possible demonstrated she was incapable of defending herself and her Far Eastern interests simultaneously. Thereafter, her global responsibilities receded - and yet the 1967 announcement still caused dismay on the part of the Commonwealth members most affected.

It was hardly unusual that Britain's actions were dictated by her own particular interests and requirements, (America's were to be too when she finally moved towards China). Moreover, despite a significant section of public opinion which holds the contrary, this interest transcends party difference in Britain (as it is likely to do elsewhere).

Peter Lyon aptly describes the degree of bipartisanship in his chapter, 'Great Britain and Australia' in 'Problems of Australian Defence':

"The real difference between the Labour and Conservative military policies East of Suez is between an intermittent presence mounted from general capability and only serviced locally, and a small permanent combat-ready presence which can be reinforced from general capability. But the important difference between the two positions is that the first was called, and widely, believed to be withdrawal, and the second is not." (p.74)

A presence, of sorts, remains but so does an emphasis on greater self-reliance, at first within the framework of 5-power Commonwealth arrangements. An assumption that Australia would fill the British breach in Malaysia and Singapore, for example, has not been realised, perhaps in part because of the far-reaching consequences of such an Australian responsibility, both for relations with Indonesia and for intentions beyond Australia's near North.

## Japanese role

Robert O'Neill points these out, and describes the bases of joint interests between Australia and Malaysia and Singapore, in 'Malaysia and Singapore - their Strategic Implications for Australia', chapter seven in 'Problems of Australian Defence'.

Both Dr. Gelber and Mr. Teichmann include a chapter on another major actor and factor for change in the Asian environment, Japan.

In the former's volume, Makoto Mamoie, presenting a Japanese perspective, lulls his reader into a benign sense of comfort by describing the quantity of faith Japan has in Australia's stability, by suggesting that Japan is more dependent on Australia than vice-versa, and by declaring that Japan's major interest is in the protection of her shipping routes presumably to secure the splendid trade with Australia.

The mood is destroyed as he passes the nuclear buck to Australia to protect the Pacific, and by implication to save Japan the job of undertaking the risky business with her high density of population.

In a provocative article on Japan, Max Teichmann, on the other hand, suggests in his volume that there are no threats to Japanese sea routes since Japan has not alienated the Communist powers.

In addition, Teichmann usefully draws attention to that contradiction in western attitudes which both urges a greater defence role for Japan in Asia as well as

non-proliferation, that is, essentially great power burdens without great power tools, deterrents or status.

Teichmann argues further that there is no need for Japan to take up a military role for she is already a great power through economic prowess. She is certainly a great economic power. But would a great power per se be dependent for its military security on another as Japan now is?

The last feature in this catalogue of cumulative change accompanying the American initiative, is the increasing desire on the part of many South Asian states to play an increasingly independent role, perhaps by playing off the great powers the one against the other.

The Philippines is increasingly disenchanted with America, Malaysia and Singapore are in the process of reassessment in the face of British withdrawal and Indonesia is beginning to play more of a regional role as a subsidiary to its domestic reconstruction.

## Changing Asia

The two volumes under review have been generally introduced through the theme of Asian change. Each illuminates a different aspect of this theme. Beyond this, the two can be said to be quite distinct and even to serve separate purposes.

Firstly, Dr. Gelber's collection of essays is concerned with one particular aspect of foreign policy, defence. Mr. Teichmann's encompasses every aspect of foreign policy in the broader context of overall Asian international relations.

The former is specific and perhaps geared for the specialist—or at least for those acquainted with the field—who could make best use of the extensive notes, index and annexes.

The latter is more of an introduction to students and as such provides some useful bibliographies.

The two volumes differ, too, in that one is an interdisciplinary approach to a consideration of defence in which regional specialists, military strategists, economists, and technologists present their separate cases. At first glance, the consequent diversity may be somewhat bewildering, but it does not persist. The common denominator is defence, and this is difficult to discover in only one essay; that on 'Australian Capabilities - Telecommunications and Space'. The reader is here presented largely with an empirical treatise on progress in the field to date, and is left to draw his own conclusions on the defence implications of this doubtlessly crucial field of technology. As guide, the reader is offered little more than:

"Both because of its physical isolation and its involvement in international trade and politics, first grade international communications capabilities have played and will continue to play a vital role in Australia's national development." (p.232)

## Australian defence

Dr. Gelber's book, then, startles us out of our one-dimensional view of defence.

It is novel in bringing together particularly Australian perspectives on regional defence and traditional influences on defence. It covers the strategic problems and possibilities and the economic and technical factors of Australia's vulnerability and strengths.

It is novel too in its first and regional section, the theme of which is how "the writers" see Australia and Australia's intentions, and the results are surprising, not least because it is an unusual excursion out of our cultural bondage and its accompanying perceptions.

Here and elsewhere, the essays are grand myth dispellers—H. H. Lindbeck reports that Australia is not important to China (p.16); Alex Hunter suggests that no matter to what troubles the oil fields supplying Australia are subjected, "the international oil companies can always count on a number of dissident or commercially opportunistic producer-countries to supply" (p.182) and

Harry Gelber reports that there are "remarkable similarities" between Australians and Americans (p.87).

I could not agree with one point raised by Arthur Burns in the Gelber collection when he asks why Australia could not:

"... while remaining in ANZUS, withdraw from conventional military co-operation with the USA in the way that France remains in NATO" (p.16).

The answer is quite obvious. Australia does not enjoy France's favourable geographic position. France could afford to opt out, knowing full well that she would achieve nuclear protection in any case, for by defending the rest of Europe, the US could not fail to defend France, that is if any part of her nuclear guarantee to Europe were fulfilled at all. Australia has no such geographical advantages, and no such certainty; there is therefore no analogy to be drawn.

"Problems of Australian Defence" includes some fascinating accounts, such as Arleigh Burke's 'Anti-Submarine Warfare'. This raises perhaps one of the major strategic issues of our time. To date it is one we have been insufficiently acquainted with.

Bellamy and Richardson's account of Australian Defence Procurement is another subject which has previously won scant attention. Here Government decision-making comes in for a fair amount of criticism.

The book falls into four sections, 'Relationships', 'Alliances', 'Some Area Problems', and 'Some Economic and Technical Considerations'. In just one section, the first, there seems to be an omission; the exclusion of Malaysia and Singapore from area relations. Would not the later chapter on 'Malaysia and Singapore - Their Strategic Implications for Australia' better fall under 'Relationships' than under 'Area Problems', especially when the latter centres on weapons systems rather than on state systems?

## Chinese affairs

The Teichmann collection of essays does not purport to be interdisciplinary but rather to gather the (different) opinions of a group of specialists (all but one of whom is a Monash product).

One result is a fair cross section of opinions. All give the Korean War a central place in their analysis and describe it as a turning point in the international relations of the post-war world, though that war, for each may have been composed of different elements, and been subject to different influences.

The volume opens with an introduction to the mechanics of the international system by J. A. Camilleri. He briefly and succinctly guides the reader through a maze of complexities with simplicity and clarity, and the result is an organic approach to an approach.

This is a valuable introduction to some stimulating reading. C. P. Fitzgerald, as usual is a delight to read. His analysis of Chinese affairs never ceases to be novel, in this case particularly in his interpretation of the Cultural Revolution and the state of border conflict between Russia and China.

Ian Cummins and Max Teichmann provide a thorough grounding in the history of Soviet and American involvement in Asia and suggest what contemporary and future consequences could derive from the historical association.

Astri Suhrke introduces the post-war politics of four SE-Asian states and Max Teichmann concludes with some brief and provocative comments on Japan, Pakistan and India, the latter presented in a new light of inefficiency.

This chapter is worth comparing with Sisir K. Gupta's article in the Gelber collection. It adds to Mr. Teichmann's deduction for its talks in the parlance and through the imagery of a decade ago, through neutralism and that moral posture which was associated with it and leaves the impression that India seems to have missed the bus.

This is one indication that 'Problems of Australian Defence' and 'Powers and Policies' could usefully be treated as complementary.

# 10 NATIONAL GOALS

A new tradition was born at Monash on October 6 when Sir Macfarlane Burnet, world-renowned biologist, delivered the inaugural Oscar Mendelsohn Lecture on "Personal and national objectives in a sceptical age."

In it, he named two imperatives aimed at assuring the "good life" (defined by Bertrand Russell as "one inspired by love and guided by knowledge") and the development of a balanced environment for future generations.

He then went on to list 10 national goals which Australians might aim at in pursuit of these ideals.

Of the "good life", Sir Macfarlane said: "As long as family affection survives we shall need to include as a first imperative for human behaviour compassion in the broadest sense toward every human being who can respond to it. That is the necessary background to everything else."

"The second imperative is for the development of a balanced and viable global environment and its maintenance for future generations."

"More comprehensively, one may state this by asking for a style of life which fosters the ideal of an indefinitely continuing human occupation of the earth, with our descendants not inferior on the average to ourselves in health, intelligence or happiness, and with the earth maintained so that it will always provide what is needed for that health, intelligence and happiness to be possible."

"That applies at all levels - personal, national and global. Health, intelligence and happiness (or job satisfaction) are all objectively recognisable and can be quantitatively assessed. Every normal human being agrees that a balanced possession of all three is desirable."

"To act to maintain a stable or improving level of that balance in succeeding generations will require positive action of many sorts. It has the quality of a directive and challenging ethic, much of which is compatible with the actions and aspirations of liberal-minded men in every community."

## Partly utopian

In proposing his "10 national goals", Sir Macfarlane admitted that all were, to some extent, "utopian" - but all were in the process of approaching some likelihood of politically-based action.

These were the goals:

1. In the light of global demographic considerations and of local studies, to define a population policy for Australia and the means of achieving it. Australia may be almost the only country in the world for which it is practicable still to nominate an optimal population which can be reached and maintained with a minimum of social disruption.
2. To co-operate with and help initiate international efforts to eliminate war progressively - To maintain national defence forces appropriate to the current situation but with an unbreakable commitment to use military action only in so far as it is necessary to resist aggression on or over Australian territory and the adjacent seas and oceans - To provide an equitable contribution to any genuinely global organisation needed to maintain peace.
3. To assess the mineral resources of Australia and produce the best reasoned estimate of how much of each mineral may be mined annually. The crucial consideration will be to ensure that there will be no serious exhaustion of resources before

technology has been developed to allow effectively complete recirculation of all the elements that are critical for industry.

4. To concentrate agricultural and pastoral activities in areas which it is practicable to maintain indefinitely in production. To convert the rest to national parks, wilderness reserves, etc. for recreational use and scientific study. As a purely personal suggestion, the control and maintenance of the very large areas involved should progressively become the responsibility of people of aboriginal descent.

5. As I indicated earlier, I can see no alternative to a steady egalitarian trend in wages and salaries on the Swedish model. A flexible approach often governed by expediency will be needed to ensure that too rapid reduction of differentials does not result in a real reduction of standards of living. An intensive study of Swedish and other advanced countries and a concomitant programme of education in Australia will be needed. The general approach will be to provide incentives for skilled and responsible work in the form of fringe benefits, status, prestige awards, etc., outside of salary and wages, and to use differential, positive and negative income tax to diminish margins in the amount of income under individual control.

6. The progressive elimination of advertising as responsible for most of the demand for antisocial products of technology.

7. A continuing programme of research, development and action to foster recycling of used material wherever this is called for and to provide non-polluting equivalents of agents or activities that damage the environment.

Finally, there will need to be developed a series of scientifically based public organisations whose function is to monitor those potential and actual changes in the environment that may lead to its degeneration - organisations with sufficient influence to press effectively for any necessary legislative action. Their main functions could be:

## Potential harm

8. To examine the potential harm to the environment of new technological processes or products with the necessary powers to prohibit or demand modification.
9. To maintain continuous monitoring of pollution in air, rivers, etc. and direct a programme of rehabilitation of damaged regions.
10. To establish and maintain a continuing biological survey of Australia. This is something pressed for by the Australian Academy of Science, which is basic to any understanding of the biosphere.

Sir Macfarlane Burnet said that, as a professional scientist and scholar, he wanted to see similar facilities to those he had enjoyed made available in increasing abundance for all who could make use of them.

"I am speaking within the precincts of a university, in the company of people who ask for at least some better sources of satisfaction than money and what money can buy," he said.



Sir Macfarlane Burnet

## THE MENDELSON LECTURES

The Oscar Mendelsohn Lectures are financed by a gift to the university by Oscar Mendelsohn, leading Melbourne chemist, author, musician, and wine and food authority.

The object of the series is to "promote the study of humanism, materialism, positivism, and other effects of the application of the scientific attitude to human affairs and thought generally."

The university committee administering the lecture fund proposes to publish the full text of Sir Macfarlane Burnet's address in booklet form. Copies will be available to all interested persons at a nominal charge.

Orders may now be placed with Mr. A. D. Finch, in the Academic Registrar's office, University Offices, ext. 2091.

"Civilization has developed out of barbarism by the activities of men with creative ability in arts and letters, in the understanding and control of men in the natural sciences. In the modern world such men and women are products of the universities and in large part work within them."

"If we should be fortunate and be able to break out of the current crisis in human affairs, the major danger to a world community with stable numbers and flourishing non-polluting technology will spring from too much leisure. It may be that the most important of all the goals we should keep in view is the increasing provision of opportunity for creative work which is its own intrinsic justification and which is often the only effective source of job satisfaction to the individual."

"For me academic work in biological science is the prototype of creative work, but the potentialities of men and women are infinitely diverse and many more people than we imagine can find the same sort of satisfaction in a thousand different forms of activity."

"Everything we can do to foster scholarship in science or the humanities, to support artistic endeavour of all sorts and to foster the higher levels of craftsmanship will work toward the good life and help to bring into existence that indefinitely viable human ecosystem that will comprise the whole earth."

## "Pinocchio" at Monash

After the success of "Peter Pan" last vacation the Alexander Theatre Guild will be putting on another pantomime this year - "Pinocchio".

It will run from January 6 to 29 with two performances daily at 10 a.m. and 2 p.m. (Saturdays at 2 p.m.). Admission is adults \$2 and children 80 cents.

Also lined up at the Alexander Theatre for early next year is a show being put on by the Elizabethan Theatre Trust called "Courtship and Marriage." It is basically a one-person show revolving around Mrs. Barbara Jefford, but her husband plays a minor role.

It will play at the Festival of Perth before coming to Monash and will be at the Alexander Theatre from February 15 to 19 at 8 p.m. with one afternoon session.

## What they are saying

About 80% of evening students at Queensland University discontinue their courses without graduating. From a survey by the Commonwealth Department of Education and Science and the Australian Vice-Chancellors' Committee.

"A complete revision of the outmoded methods of financing Australian universities is essential". The president of the Tasmanian University Union, Mr. K. Scott, in a Press interview.

During the football season a sign went up outside a church in Hawthorn: "What would you do if God came to Hawthorn?" A graffiti expert wrote underneath: "Play Peter Hudson at centre half forward." An anecdote from the 5th annual Ron Barassi Memorial Lecture delivered at Monash by Associate Professor Ian Turner.

Outside Hawthorn one might conceivably ask: "Who is Peter Hudson?" Inside Hawthorn they would ask: "Who is God?" The rest of the anecdote.

"The community has a right to expect university staff to refrain from inciting students to defy the system of law and order." The Queensland Education Minister, Mr. Fletcher, at a Country Party meeting.

"Those who believe a higher degree will improve their career prospects should be aware that many employers in both industry and government are reluctant to employ people with higher degrees in general administration or management - why should they, when honors graduates are cheaper?" From a statement of seven committee members of the Adelaide University Postgraduate Students Association.

"To-day, universities are news, and less responsible members of the university community have been quick to capitalise on this in the knowledge that the press is willing to print sensational stories about universities." Professor J. J. Auchmuty, chairman of the Australian Vice-Chancellors' Committee.

Some comments on the police raid at the Melbourne University Union - "Universities are not havens or sanctuaries which can be used to protect students or people who frequent universities." The Attorney-General, Senator Greenwood.

"Thursday's Federal police raid at Melbourne University was an orgy of destruction." The president of the University Liberal Club, M. G. L. Clark. "The damage caused at Union House was excessive and unnecessary, seeing that keys were offered to the Commonwealth police soon after they entered the building." The university's Acting Vice-Chancellor, Prof. John Andrews.

"Why did the Government attempt to enforce the law in this particular institution at this particular moment, and in a manner which looked as if it were calculated to fail and produce the minimum effect with the maximum amounts of noise?" Frank Knopfmacher, senior lecturer in psychology.

## EDUCATION CHAIR

Professor G. T. Evans has been appointed to the second chair of education at La Trobe University. Professor Evans is at present Associate Professor of Education at the Ontario Institute for Studies in Education at the University of Toronto, Canada.

He will take up appointment early in 1972.

# DYING BY ACCIDENT

By Dr. G. A. RYAN, Department of Social and Preventive Medicine, Alfred Hospital

**ACCIDENTAL death and injury is a social and economic problem of some magnitude. Figures show that only heart disease, cancer and stroke kill more people each year in Australia than accidents.**

In Victoria in 1968 heart disease killed 10,531 people; cancer, 4,597; stroke, 3,599 and accidents 1,680.

The first three are primarily diseases of old age whereas accidental injury is a disease of the young.

The relatively small number of deaths due to accidents are the cause of the loss of a large number of potential years of life, ranking behind only heart disease and cancer.

Nearly half of the deaths due to accidental injury occur in those aged less than thirty years, making them doubly important since these lost years are the most productive years of life. It is worth noting that slightly more than half of the deaths from accidents are due to use of motor vehicles.

A further measure of the ubiquity of accidental injury is found in the tabulation of bed-days occupied in Victorian hospitals in 1967 — accidents, poisonings and violence is the cause of the largest single group of bed-days of hospital occupancy.

## Community attitudes

Death and disability from accidents are therefore a common cause of suffering and economic loss to the community, on a par with other diseases of the human condition — yet there is no "National Accident Foundation" encouraging research in the subject with hopes of improving treatment or preventive measures.

This lack is perhaps symptomatic of the way in which society has until recently viewed accidents.

Community attention has been focussed on the unexpectedness of the event, rather than on an objective appraisal of the circumstances surrounding the event.

There is a tendency to view "accidents" in terms tinged with superstition and magic, to seek for causes in terms solely of human behaviour. There is a feeling that supernatural forces are at work wreaking vengeance on persons whose behaviour is "bad" or "unsafe".

These notions of causation are simplistic and pre-scientific and generally do not lead to effective countermeasures. There is often no attempt at all made to measure the effect of whatever is done.

Fortunately it has been found that when accidental injury is considered as a public health problem, and not a problem of human behaviour, then the methods of measurement and analysis developed in the treatment of infectious diseases can be utilised, and the epidemiologic method applied to the study of injury producing events.

Using epidemiologic methods of analysis particular groups of persons who seem to have a disproportionate involvement in accidents can be identified.

Although analysis of data by age and sex, for instance will show which age and sex groups are most numerous, this information

alone gives no insight into the causes of this disproportion, although it may provide grounds for speculation.

Much more evidence is required of the circumstances surrounding the involvement of these particular age and sex groups in accidents, particularly in regard to measurements of exposure to risk, before any causative factors can be identified.

The table below shows the causes of accidental deaths by age group for Victoria in 1968.

There is a characteristic profile of causes of accidental death for each age group, presumably corresponding to changes in exposure to particular risks or hazards in each stage of life.

Motor vehicle accidents account for the largest single group of deaths in each age group except for the very old — perhaps a reflection of the ubiquity of the automobile in our environment.

In an analysis of the three leading causes of accidental death it can be seen that there are marked sex differences, motor vehicle injury being primarily a disease of young males, while falls affect elderly females.

Among the very old and females, a fall is the most common cause of death, whereas drowning is more frequent in the young of both sexes. One may speculate as to the relative exposure of different age groups to situations of risk with regard to drowning and falls to account for the observed age and sex incidence.

But much more detailed knowledge of the circumstances surrounding these deaths, in each age group, would be required before any definitive statements can be made, which may have a bearing on the prevention of death by drowning, for instance.

As an example of such an investigation, a study of 500 falls in old people suggested that physiologic changes in the neuromuscular system which maintains balance and posture, tend to give old people a very limited capacity to recover from unexpected alterations in balance or posture, i.e. they fall where a younger person would recover his balance.

This makes old people very susceptible to environmental hazards, for example, missing the last step on stairs. Also there is an interaction between failing vision and poor illumination, particularly on stairs.

Another factor accounting for the large number of deaths in old age is the fact that old people have a lessened capacity to recover from injury and succumb to an injury that a younger person may survive. Also, after menopause and due to hormonal changes, the bony skeleton of females tends to become more fragile, leading to an increased susceptibility to fractures.

## Injury mechanisms

Bodily injury is due to an exchange of energy between the body and its environment, at levels beyond the injury threshold of the tissues concerned.

The energy can be of any kind — mechanical, thermal, ionizing, chemical, electrical. Each type of energy produces its own characteristic type of injury, the severity of which depends on the intensity of the energy exchange.

Unfortunately the study of human tissue as an engineering material is still in its infancy. Even with the limited knowledge of human injury thresholds now available it is possible to determine approximate limits for human survival in car crashes and institute design standards for collapsing steering columns, crash padding, and seat belts.

In developing measures to deal with accidental injury, attention should be directed to the energy exchange which causes the injury, as previously mentioned, rather than by particularly trying to prevent the accident.

There are various avenues open to prevent the injury occurring:

1. The energy involved can be eliminated and an alternative source used, e.g. electric motors instead of shafts and belts, in powering machinery.
2. The amount of energy used can be reduced, e.g. reducing the temperature of the hot water system reduces the danger of scalds to children.
3. The energy and persons at risk can be separated in time or space, e.g. the large "quarantine" area in nuclear weapons tests, or pedestrian crossings.

4. An impermeable barrier can be interposed between the energy and the persons at risk, e.g. the median barrier on freeways, the insulation on electric cables.
5. The energy exchange itself can be modified, e.g. the use of seat belts in car crashes, motor cyclists' helmets, and the packaging of fragile articles for shipment.
6. The effects of the energy exchange can be minimized by the speedy provision of the appropriate emergency medical services and the provision of adequate reconstructive and rehabilitative services to obtain maximum possible return of function.

## Countermeasures

Not all of these avenues of attack will be appropriate in all cases, but one or more will provide alternative means of reducing the effects of a particular "accident" or energy exchange. The particular measures chosen should be selected on a cost-effectiveness basis, which implies that there must be sufficient data available concerning the "accidents" in question and the proposed countermeasure for such analysis to be performed.

It is essential that these analyses be performed, otherwise resources will be invested in measures which are not effective in reducing injuries.

I see no reason why the methods of cost and quality control used in industry should not be applied to the safety field with equal success.

• This article is based on a paper presented by Dr. Ryan at the recent ANZAAS conference in Brisbane.

# BOOKS Conscription: Hysteria and abuse

Conscription: The Australian Debate 1901-1970. J. M. Main, Cassell Australia; \$3.50.

This selection ranges from the Commonwealth Defence Act of 1901 to the later stages of the Vietnam Conscription Debates. As with all brief selections, there are many items missing which one would like to have seen included — but on the other hand there are some rare and juicy items which will delight all old campaigners.

For sheer hysteria and wild abuse, the antagonists of the First War make latter day controversies seem tame, almost rational.

Just consider the Melbourne Argus of October 24, 1916, discussing the arguments of Dr. Mannix: "Should Germany win the war, the Kaiser will certainly be dead to all sense of gratitude if he fails to decorate the Archbishop with an iron cross." The closest I used to get to that was the dramatic question at meetings: "How long have you been working for the Vietcong?"

Religion played a prominent role in the First War conscription controversies, and at a far more dogmatic, not to say acrid, pitch than over the last few years. We have the Anglican General Synod of Australia voting unanimously for a motion to wholeheartedly support the Commonwealth Government at the forthcoming Conscription Referendum. As the Dean of Ballarat put it, "it would be a crime for the church to remain silent. We should think empirically, and in terms of corporate life, and not individually."

By the time the 1917 Referendum was under way, the Presbyterian General Assembly was being pressed to make formal protests against Dr. Mannix and the priesthood. As the Rev. Professor Rentoul told the Assembly, it would be a cowardly thing if the assembly "was represented as divided in its feelings as to the diabolic, dastardly, disloyal utterances of Dr. Mannix and the representatives of the priesthood . . ."

Disloyal or not, Mannix, more than any man, must be credited with defeating Hughes and his referenda. And had the 1916 referendum approved conscription, and Hughes obtained his

16,500 men a month, there is little doubt, considering casualty rates in 1917 that Australia would have finished like France — a whole generation decimated. Hughes must have realised this; after all, Sir George Cook, introducing amendments to the Defence Act in 1909, told the House that his advice was that the immediate wastage of war amounted to 80% of the original forces in the first six months of the war.

By comparison the Vietnam debate seems almost pussy footed. There were the usual charges of treason and disloyalty; the friends of the Kaiser have become friends of the N.L.F., and the Communist Party replaced the I.W.W. as *deus ex machina*. No contemporary Government supporter of the War has been able to rival Hughes in his trickery and demagoguery, perhaps because the "clientele" is no longer there in sufficient numbers. On the other hand, the very selective nature of the draft has pacified a lot of non-participants; whereas Hughes was literally asking people to vote for their own conscription. This situation was described by the Australian Worker as "reducing citizens to the level of cannibals drawing lots for an obscene feast." The old Worker would probably regard us as a society of cannibal-voyeurs, supporting children's wars against children. Sometimes I miss the old rhetoric.

## CHILDREN'S SKILLS

Children's Classification Skills is the title of a recently published book by Dr. Mary Nixon, senior lecturer in psychology in the Monash faculty of education.

Dr. Nixon began writing the book as a project for the Australian Council of Educational Research.

In it, she examines the way children perform selected classification tasks and the progress made by children between the ages of five and ten. The book is published by ACER as part of a series.

Deaths by type of accident by age, Victoria 1968.

Age (Years)	Type of Accident (Percentages)						Total
	Motor Vehicle	Falls	Drowning	Fire	Poison	Other	
-5	28	11	21	5	4	31	95
5-14	55	4	19	3	2	17	100
15-24	81	3	5	1	1	9	349
25-44	71	4	5	2	2	15	295
45-64	61	11	4	5	5	15	311
65-74	48	27	1	7	5	12	175
75+	16	73	1	4	3	5	355
Percentages:	54	23	5	4	3	12	1680

# For "mature" students

# SUMMER SCHOOL '72

By CARINA HACK



ARCHITECTS Daryl Jackson and Evan Walker have designed a complex of inter-connecting units to harmonise with the bush setting.

**TENEDEN** - a new "higher secondary" school to be built on a timbered site at Belgrave Heights - is expected to open its doors to students for the first time in 1973.

It will differ from other modern or progressive schools in that it will accept only students at fourth form level or above. This, the organisers say, recognises the fact that 15-year-olds are much more mature than is generally conceded in the conventional education system and thus need a markedly different type of education from that of younger secondary school pupils.

Planning of the new venture is in the hands of a co-operative, on which Monash is strongly represented.

Manager-secretary is Mr. John Crook, a former teacher and now a fourth year honors student in sociology at Monash. Other Monash representatives include Mr. Norman Blaikie, lecturer in sociology, Mrs. Pam Kightley, research assistant in English, Miss Frances Lutman, lecturer in Spanish.

Student-staff ratio at Teneden will be 12:1 (the original aim was 10:1, but economic considerations forced a revision).

This will enable classes to be conducted on a university tutorial basis, with greater rapport and a more cohesive learning relationship between teacher and student.

The school will also be largely library-centred, in the manner of a university. Since the aim is to develop a "community" centre of learning, with full adult participation - in academic studies, as well as art and craft courses - the library will remain open until 9 p.m. nightly.

A restaurant to be built on the "campus" will also remain open at night.

Local organisations will be encouraged to make full use of the school's facilities to widen and strengthen the adolescent-adult contact.

Initial student intake in February, 1973, is expected to be about 60. Fees will be \$230 a term, with a reservation fee of \$25. Parents will also be expected to take out an interest-free \$200 debenture, repayable when the student leaves the school.

Enrolments or inquiries can be directed by mail to: The Administrator, Teneden, Belgrave Heights, 3160, or by phone to Mrs. Lorner Morrison, 754-3046.

TEN new courses involving a variety of interests from interior design to contemporary socialist societies are included in the 1972 Monash Summer School programme.

A total of 38 courses are offered - the widest range of any summer school in Australia.

Enrolments have opened for students, staff and the public and enrolment cards and brochures are available from the Activities Officer, Monash University Union, ext. 3180 or 3144.

In the last two summer schools at Monash all courses were filled with waiting lists so it is advisable to enrol as soon as possible.

The following is an outline of the ten new courses:-

- The *Interior Design* course is for those planning or building a new home, as well as those who intend to renovate. It is an evening course which will cover planning the building, space design, materials and finishes, floors (treatment and surfacings) heating and air conditioning, lighting for practical and aesthetic purposes, soft furnishings, furniture and accessories. Although the lectures will be aimed at a practical level, consideration will be given throughout to the aesthetic qualities including contrast, harmony, colour, form and texture.

- *Silk screen printing* has gained in popularity in the last few years. The technique is fairly simply learned, and beautiful results can be achieved through working on a simple screen at home. A new daytime course in silk screen printing is offered in January, and students will learn methods of printing such things as cards, posters, wall hangings, table mats, cushion covers, dress lengths and curtains. The tutor, Ada Culpin, has exhibited in Victoria, and had her first solo exhibition in New South Wales last month.

- An *advanced course in still photography* has been added to the programme this year. The tutor, Peter Hunter, ran a successful course at Monash this year for the Monash Photographic Society. Those who are really keen can enrol in both the beginners course in January, and follow it up with the advanced photography course in February. (Both are night courses.)

- As a change from the 16 mm film-making course offered in the last Summer School, this year it was decided to offer a *Super 8 mm course*. The tutor, Tony Evans, is a lecturer in film-making at the Swinburne College of Technology. He has been a television producer for ABV-2 and GTV-9, a professional documentary film producer, and has studied film production in America. This course is aimed at amateur film-makers who have some 8 mm equipment, but would like to further develop their technical and creative skills in this medium. The course involves film crew activity, (planning, photography and editing) plus discussion and demonstration of films and film segments to illustrate particular cinematic techniques. Participants will work in small film crews of only 3 or 4 people - coming together with the larger group for screenings and discussion.

- For those who would like to learn more about *Contemporary Art*, a new evening course will help develop their appreciation. The course will be presented by Eric Westbrook and members of his staff from the National Gallery. Lectures will cover aspects such as "Culture in Art", "The History and Development of Australian Art from Colonial to Contemporary" and "Contemporary Art - Australian, European and American." Two of the sessions will be held at the National Gallery and the rest at Monash.

- In the past two years there have been repeated requests for a *Creative Embroidery course*. This year it has been possible to include the course, as "Bernina" have offered to lend sewing



JENNY KINDER, 19, a first-year Arts student has enrolled for an advance course in contemporary dance, to be conducted by Ronne Arnold at the coming Summer School.

machines. The tutor, Mrs. Bonnie Hurry, is in charge of the Craft Department at Ivanhoe Girls' Grammar School, which is a training ground for craft teachers. She has also taught at RMIT.

- "*Computers and Computer Programming*" is an introductory course in the evenings, designed to provide a basic understanding of computers and their role in commerce and industry. It will involve lectures, inspection of equipment and practical work in programming. The Monash Computer Centre facilities are ideal for this course.

- The *Macrame* fashion is big overseas, and is beginning to catch on in Melbourne. This is the ancient art of creative and decorative knotting - a basically simple technique which can be adapted to making free forms, wall hangings, mobiles, bags, belts, braids, necklaces and jewellery - in fact an amazing variety of articles. Val Marks, the tutor, has exhibited for the National Trust, and is featured in a book on Macrame soon to be published in America.

- Two members of the Monash staff will be taking new courses in the School. Dr. Ian Ward (senior lecturer in Economics) will be giving an evening course on "*Socialist Societies*". It will cover certain aspects of contemporary socialist societies - particularly China, the Soviet Union, Yugoslavia, Czechoslovakia and Cuba. Dr. Maurice Balson (senior lecturer in Education) will take an evening course in "*Understanding Children's Behaviour*". Designed for parents to assist them in the understanding of their children's behaviour. It will cover the following areas: psychological principles for guiding children, the reasons why children behave as they do, appropriate parent reaction to misbehaviour, and ways of improving parent-child relationships at home. The emphasis will be on the discussion of practical examples and case studies.

*Subjects not covered above include:-* Drama, Dressmaking, Folk Guitar, Italian, Jewellery, Learning to Study at University Level, Life Drawing & Painting, Modern Dance, Experimental Painting, Poetry Writing, Pottery, Sculpture, Japanese Painting, Typing, Weaving & Spinning.

## OBITUARY: ERNEST HAYDEN CLARK

Ernest Clark, Monash Librarian since the university's inception, died on October 3 after a lengthy illness. He was aged 52.

Mr. Clark was one of the first senior officers appointed to the university and began his duties as Librarian in the middle of 1960. There were no buildings at the time and he began to assemble the book collection in part of the Volkswagen factory in Dandenong Road.

An honors graduate in philosophy of the University of Melbourne, Mr. Clark was appointed acting deputy librarian at Melbourne while still in his early twenties.

From 1945 to 1948, he was Librarian at the University of Tasmania. He then spent a period in London as representative of the Australian National University and in 1952 was appointed to the University of Malaya, Singapore. He virtually founded the University of Singapore Library, building it up from a small teaching collection to a major research library of 250,000 volumes.

Professorial Board on October 27 recorded the following tribute to Mr. Clark's work at Monash from 1960 until his death:

"The Monash Library is largely his creation, the product of his vision, knowledge and determination. Experience and travel in many parts of the world had made him familiar with modern developments in library science; he was unusually well-informed and far-seeing. He knew what a university library ought to be and fought tenaciously and with remarkable success to establish such a library from scratch in this university. As a result the growth and quality of the library has matched the growth and quality of the

university which it serves. The achievement is without parallel in this country. He was equally concerned with the status and salaries of library staff; with the size of the library budget; with the computerising of library services; with providing works of art in the library. In these and many other matters of library policy, his influence was felt far beyond Monash. It is fitting that he was elected in 1967 as President of the University and College Library Section of the Library Association of Australia on whose General Council he also served."

### Mrs. Irene Eastick

Members of the university were shocked to learn of the sudden death on October 18 of Mrs. Irene Eastick, the university's supervising telephonist.

Mrs. Eastick was one of Monash's longest-serving and best-known identities.

She took up her duties in November 1960, operating a temporary switchboard in the Vice-Chancellor's house where the University offices were located while the first academic buildings were under construction.

A large number of staff members attended a Requiem Mass, conducted by Rev. Father P. Knowles, O.P., in the university's Religious Centre on October 20.

Mrs. Eastick, who lived close to the university in Marshall Avenue, leaves a husband, three sons and a daughter.

The Vice-Chancellor, Dr. Matheson, said that the high reputation for courtesy and efficiency enjoyed by the university's telephone service was to a large extent due to Mrs. Eastick.



# UNIVERSITY SELECTION and ACADEMIC FREEDOM

by P. J. FENSHAM, Professor of Education

*In July 1970 I suggested, as a follow up to a recommendation of the Monash Commission on University Affairs, that the Professional Board approve in principle that it favoured some changes in university selection procedures to take account of earlier inequalities in education.*

At that time this proposal found almost no favour in the Board.

It is therefore interesting to return after a year's leave to find the whole matter again very much on the surface.

An ad hoc committee is sitting on the topic and a vigorous airing within the MAS early in Term 3 has brought the issues before many more members of the University.

However, the recent announcement of La Trobe's concrete proposal to admit a small group of non-matriculated, early school-leavers has broken through all the debate and legalism and shown that unilateral action is after all possible.

The La Trobe decision is also important because it implies an element in university education which has been sadly absent in the Australian scene and the Victorian one in particular.

Ever since the general imposition of quotas in Victoria in the early sixties, the universities have become, more and more, simply an end receptacle on the line - mechanically receiving the "achievers" or the academic survivors of a primary and secondary scene that is shot through with blatant inequalities and impossible handicaps for great numbers of pupils.

As the number of pupils moving along the earlier stages of this production line has increased, the size of the university bin has not kept pace and the meritocracy slot in its lid has been narrowed to dimensions that are entirely obtained from the Anderson or some other formula's juggling of the student's results in three or more subjects at the Higher Schools Certificate examination.

In other words, the universities have not developed an educational role that is independent of the strengths and weaknesses of what has gone before in education.

The La Trobe decision - small though it may be - is a reversal of this subjugation of the university.

Firstly, the university is now saying that it believes that it has an initial and independent contribution to make to these students who had got lost somehow in the earlier processes. It may also be saying a second thing, namely it is not content to be the sort of "end-bin" university that Melbourne and Monash have become with their set of students, automatically selected from a drab hierarchically graded meritocracy.

In the last year, observations of the English scene reminded me of these two features of an autonomous university and brought home to me how our selection procedures in the last few years spell out a sense in which we have lost academic freedom.

## Special grounds

Many universities in the U.K. have their own special offering of the La Trobe type.

Sussex since 1964 has admitted a small group of early school-leavers who are unqualified alongside the main group of entrants with their 2 or 3 "A" level passes and suitable grades. One third of these had left school before 16 and half had not been educated in academic grammar schools. Ten per cent of the students wished to do science but they soon withdrew or were

unsuccessful. The remaining 90% read arts and graduated with results that were more or less indistinguishable from those selected under the conventional entrance requirements. Within the group the students from the secondary modern did as well as those from grammar schools.

Most of the early leavers were in need of special assistance to help with their transition to university studies, but so do many conventional students at Sussex.

Selection of the early leavers was a combination of essays, interviews and a battery of psychometric and reasoning tests. Somewhat greater weight was placed on the essays and interviews than on the tests. This emphasis enabled the programme to move the social composition of the university slightly further towards a "better social mix".

Bradford in 1970 also announced plans for a similar intake of students less qualified than usual, following encouraging analyses of the background of their recent graduates.

Surrey has a quite different contribution to unusual selection. This university provides an opportunity for students who have not had the usual science/maths preparation in secondary school to take up science studies in the university.

It also sees this programme as a contribution to redressing the serious handicaps vis a vis science that English secondary education still imposes on many girls.

The course is one year longer than the usual science degree and students in it join the ordinary students in some subjects after one special year and in others after two such years. With the first group of students graduating in mid-1971, the university reports that drop out is no higher than for the students who had always done science subjects.

## Academic criteria

However, there is another much more general and significant way in which the universities in England show academic independence. This is the flexibility of entrance requirements even when academic achievement is the major criterion.

University X will offer a particular course to candidates who reach a certain grade in two "A" level subjects on top of a broad set of fifth form subjects. University Y offers its course in the same area to students with three suitable "A" levels, etc. The differences in background of the intake students are taken care of in the university after selection if necessary.

An example of this is to be found at Bristol where the Dean of Medicine is promoting two alternative beginnings to the medical course. One will be based on the social sciences and the other on physical and biological sciences.

These alternatives enable the university to offer selection to students whose emphases at higher school certificate, have been in almost any combination of humanities, social or natural sciences. Most other medical schools will be still requiring higher school certificate work in the natural sciences.

It is very interesting to see the effect this sort of unilateral action by universities and

by polytechnics and teachers' colleges is having on senior secondary education.

There has been a liberating and relaxing effect on schools and secondary pupils as they approach the higher school certificate year. Because there is a variety of academic selection criteria among tertiary institutions offering similar courses, students are able to take an increasing variety of subject combinations in their sixth and seventh years of secondary schooling without closing the door to their possible continuation into tertiary studies.

Subject combinations at both "A" (6th form), "O" (5th form) and non-examined levels are now making up the sixth year diet of many senior students in England. In the same school two students aiming for a tertiary course were taking 3 "A" level subjects and 2 "A" and a further "O" level subject as well as a non-examined programme.

This is possible because the latter students has chosen to seek selection in a more limited range of universities and polytechnics than the former.

These actions by British universities and other tertiary institutions have a liberating and relaxing effect on the schools, whereas our own history over recent years, despite the same burgeoning of tertiary institutions, has led to senior secondary and tertiary education being locked together in an increasingly tense and rigid matriculation year.

Thus we find teachers' colleges and C.A.E.s in Victoria using essentially the same selection criteria as do the three universities - a basic 4-subject H.S.C. with actual discrimination then on a "best three subjects" total score. Even the student not aiming for more than one type of institution has no choice but to do this standard course.

Now that these institutions like the universities can select students who have had a full six years of secondary education, it might be expected that at least some teachers' colleges would be interested in both the depth and breadth of subjects studied by their incoming students.

Translation of the new situation in Britain to the Australian context could mean something like the following.

Melbourne University and several C.A.E.s may select students for science (or any other faculty) on some sort of best three H.S.C. subjects as at present.

Monash, and some other C.A.E.s and teachers' colleges may select on a basis of 2 H.S.C. subjects plus accredited subjects at fifth form level beyond the customary six.

La Trobe and other institutions may define yet a third set of academic criteria for selection of their main group of students. Most students would still take 3 H.S.C. subjects but others could begin to choose other programmes.

## Flexible prerequisites

Another important contribution by English universities in the last few years has been the willingness of at least some of them to accept as a suitable basis for entry sixth form work in subjects which have a content widely differing from that which was the standard prerequisite fare a few years ago.

In science alone there are also now available at the H.S.C. level courses in physical science, materials science, technology, environmental science, and all of these are acknowledged by at least some universities and other tertiary institutions as acceptable entry bases for further science studies.

No counterpart variety of science programmes has yet appeared in Australia, despite our much higher percentages of students engaged in sixth form studies. The absolute numbers sitting for many H.S.C. subjects in Victoria also far exceed the numbers being catered for by a number of the examination boards in the U.K.

Furthermore, we now have in senior secondary education a cross section of the community's children which is quite different from that of even only 10 years ago, and we are still trying to squeeze them through a H.S.C. range of courses which shows remarkably little change since 1944 when the current pattern of six years secondary education was introduced.

Twelve more subjects have appeared in that period, but there have been no new mathematics or science subjects and most of the increase has been made up by additional foreign languages.

## Freedom for all

The present mood in Victoria seems to be to seek freedom for the secondary schools by severing the relation between secondary and tertiary education.

This has now legally been achieved to the fifth year level, but what non-terminal student can afford to do other than the VUSEB-prescribed fare in maths, sciences or foreign languages?

Completing the legal severance to the H.S.C. level may be as illusory a source of freedom for secondary students and their teachers, if the tertiary institutions remain in lock step as at present.

Real freedom to provide responsibly the whole education of students may be more nearly approached if secondary and tertiary institutions remain in a relationship where initiative and give and take is encouraged and possible on both sides.

The scholarship question is also closely related to selection as a similar basis is used for both purposes. As more varied bases appear for selection, so scholarship schemes would need to move towards the English basis, which is essentially that a scholarship is awarded if a university place is obtained.

It is to be hoped that both the ad hoc committee and the wider debate of the selection issue in Monash will consider the wider problems of academic freedom in education as well as the immediate one of how the present meritocratic procedures can be leavened by the inclusion of appropriate social dimensions.

## EXCHANGE OF HOUSES

Last month the Reporter mentioned that all university staff could take part in an exchange of houses scheme with staff members from other universities. The following is a list of contacts at the various universities who arrange the exchange of houses.

Queensland: Mrs. Kay Holland, 60 Duke Street, Toowoong, 4066.

Australian National University: Mrs. J. Ovington, 18 Downes Place, Canberra, 2605.

Sydney: Mrs. S. T. Butler, 6 The Grove, Mosman, 2088.

New England, The Publications Office, University of New England, Armidale, 2351.

Tasmania: Mrs. Joan Middleton, 122 Nelson Road, Sandy Bay, 7005.

New South Wales: Mrs. Sybil Gabriel, 51 Tunstall Avenue, Kingsford, 2032.

Western Australia: Mrs. R. Sachs, c/- Department of Civil Engineering, University of Western Australia, Nedlands, 6009.

Adelaide: Mrs. P. M. Pak Poy, 5 Fisher Street, Tasmore, 5065.

Papua and New Guinea: Mrs. Marjorie Roe, University of Papua New Guinea, Box 1144, P.O., Boroko, T.P.N.G.

Flinders: Mrs. Janet McCarthy, 2 The Avenue, Medindie, 5081.

• A house is available in Lae from December 20 to January 12 if anyone from Melbourne would like to swap with Michael Deakin, from the Department of Mathematics, Papua and New Guinea Institute of Technology. The institute's postal address is P.O. Box 793, Lae, New Guinea.

# \$589,000 in grants for Monash

SEVENTY-FIVE research grants, totalling \$589,490, have been awarded to members of Monash staff for 1972. The awards were announced by the Minister for Education and Science on the recommendation of the Australian Research Grants Committee late last month.

Twenty of the grants were earmarked for new projects, the balance for continuing work. The largest individual grant was \$59,800 to Dr. A. C. McLaren (physics) to continue his work on the direct observation and identification of crystal defects and their role in mechanisms of crystallisation and deformation of minerals and rocks.

The full list of grants is as follows:

HUMANITIES AND SOCIAL SCIENCES		
<b>New Projects:</b>		
Dr. B.E. Kennedy	A social history of Broken Hill, 1883 to the present	\$748
Mr. B. A. Knox	The political life and colonial policy of the fourth Earl of Carnarvon (1831-1890)	\$1000
Mr. L. Li	The place of the military in the politics of modern Japan 1868-1945	\$3800
Professor M. I. Logan	Organisational change and interregional contacts	\$800
Professor C. Skinner	A critical edition of Ahmad Rijaluddin's "Illikayat Perintah Negeri Benggala" (An account of the condition of Bengal)	\$3167
Dr. D. B. Waterson	The life and times of Sir Thomas Mcllwraith	\$1097
<b>Continuing Projects:</b>		
Dr. J. L. Bradshaw	Human information processing: determinates and correlates of performance	\$6676
Dr. C. S. Chen	A comparative study of the learning ability and memory of different strains of rats in a temporal maze	\$1975
Dr. M. G. Clyne	Migrant German and migrant Dutch in Australia	\$1960
Dr. D. E. Edgar	Socialization for conformity	\$1788
Dr. E. M. Eggleston	Aborigines and the administration of justice. A critical analysis of the application of the civil and criminal law to aborigines (in Victoria, S.A. and W.A.)	\$3150
Dr. K. I. Forster	The perception of sentence structure under conditions of rapid visual presentation	\$2676
Dr. H. G. Gelber	Australia, the United States alliance and power relationships in the Pacific	\$5311
Professor F.H.G. Gruen	Econometric analysis of protection	\$32858
Dr. T. Hore and Professor R. Taft	Teacher/pupil interaction with Australian and non-British immigrant children	\$4218
Mrs. E. Preston	A study of trade between Japan and Australia	\$4870
Dr. J. C. Saunders and Dr. W.R. Webster	Single unit activity in sensory systems of unanesthetized animals	\$5385
Dr. A. G. Serie	History of Victoria 1851-1900	\$1940

PHYSICAL SCIENCES		
<b>New Projects:</b>		
Dr. G. C. Fletcher	Theoretical investigation of electronic and particularly magnetic properties of transition metals and their alloys	\$7276
Professor B. R. Morton	Dynamics of convective clouds	\$13314
<b>Continuing Projects:</b>		
Professor R. Street	Studies of solids at low temperatures in high magnetic fields	\$31485
Dr. J.D. Cashion and Dr. J.A. Barclay	Electron spin resonance, nuclear magnetic resonance and anti ferro magnetic resonance in compounds and crystals	\$15459
Mr. G.J.F. Troup and Dr. J.R. Pilbrow	Measurement of thermal properties of magnetically ordered materials in the temperature range 0.3 to 350°K and in magnetic fields up to 60 Kg	\$7281

CHEMICAL SCIENCES		
<b>New Projects:</b>		
Dr. F. W. Eastwood	Synthesis of potentially biologically active molecules	\$1500
Dr. J.E. Kent, Dr. L. Dubicki and Professor R.D. Brown	Single crystal electronic spectroscopy of transition metal ions in polynuclear complexes	\$26950
Professor B.O. West	Perfluorosilyl and siliconyl derivatives of the elements	\$4669
<b>Continuing Projects:</b>		
Dr. D. St.C. Black	Metal template rearrangements	\$5047
Professor R.D. Brown and Dr. F.V. Bruden and Dr. F.V. Burden	Molecular orbital studies of electronic structures of molecules	\$25000

Professor R.D. Brown and Dr. F.R. Burden	The study of short lived molecular species by microwave spectroscopy	\$15436
	Pyrolysis and mass spectrometry of organic compounds	\$4929
Dr. R.F.C. Brown	Synthesis and structure of organometallic compounds	\$7186 *
Dr. G. B. Deacon	Substituent effects in organometallic chemistry	\$500
Dr. R. S. Dickson	Synthesis of sporidesmin	\$5741
Dr. F.W. Eastwood and Dr. I. D. Rae	The effects of ionizing radiation on some common organic polymer materials, studied at the electronic level	\$2590
Dr. R. J. Fleming	Crystal chemistry of the solid state	\$4914
Dr. B.M.K. Gatehouse	The determination of the thermodynamic properties of simple fluids	\$1248
Dr. I. R. McKinnon	The reactions of cyclic arsines and phosphines	\$8139 *
Professor B.O. West	Quantitative studies of oxidation reactions	\$550
Dr. I. R. Wilson		

BIOLOGICAL SCIENCES		
<b>New Projects:</b>		
Dr. L. Austin and Dr. P. L. Jeffrey	Synaptosomal protein synthesis	\$1500
Dr. W.R. Gibson	Endocrine factors which influence lipid deposition in chickens	\$2109
Dr. R. F. Mark	The function of regenerated synaptic connections in the nervous system	\$7934
Dr. G.A.M. Scott	A taxonomic investigation and revision of the mosses of temperate Australia	\$6596
<b>Continuing Projects:</b>		
Dr. L. M. Aitkin	Central nervous mechanisms in sound 3450	
Dr. L. Austin	The origin of axonal protein	3450
Dr. L.M. Aitkin	Central nervous mechanisms in sound localization	3450
Dr. L. Austin	The origin of axonal protein	8080
Dr. I.A.E. Bayly	Studies on osmotic and ionic regulation of animals in highly saline inland waters	800
Dr. R. C. Bayly	Regulation of the enzymes of the "meta-fission" pathway of Pseudomonas	4221
Professor J.P. Canny	Physiological and structural studies of phloem	5000
Dr. D. J. Collins	Studies of the relation between stereochemistry and biological activity of oestrogens: synthesis of 6, 7 - bisnor - 1, 11 - ethanoestradiol	6547
Mr. G. F. Cross	Mycoplasma - cell interaction	4521
Dr. L.B. Geffen and Dr. J.M. Haslam and Professor A.W. Linnane	Molecular basis of synaptic plasticity	10044
Dr. B. Jarrott	The effects of altered biochemical composition on the structure and function of mitochondrial membranes	6433
Professor B.W. Hollaway and Dr. V. Krishnapillai	Genetic control of enzyme regulation in Pseudomonas Aeruginosa	11708
Professor D.G. Lampard and Dr. S.J. Redman	Information processing in the nervous system using stochastic techniques	4681
Professor A.W. Linnane and Associate Professor G.M. Kellerman	Effect of antibiotics on mammalian tissues and on human cells in tissue culture	6547
Professor A.W. Linnane and Dr. H.B. Lukins	Biogenesis of mitochondria	15454
Professor D.A. Lowther and Dr. H.C. Robinson	Structural studies of connective tissues including factors involved in the maintenance of cartilage	7197
Dr. I.R. McDonald	Adrenal function in the Australian monotremes and marsupials	7681
Dr. R. F. Mark	The mechanism of vision and memory in lower vertebrates	500
Professor R.C. Nairn and Professor E.P.G. Guli	Immunological studies of biological specificity	5700
Dr. T.P. O'Brien	Cell biology of grasses with special emphasis on cereals	26807
Dr. B.N. Preston	Physico-chemical and mechanical studies on model connective tissue systems	4300
Dr. R.A. Westerman	Communication between cells in the nervous system	4345
Dr. J.B. Youatt	Organic chemical aspects of cell differentiation	1200

EARTH SCIENCES		
<b>New Projects:</b>		
Continuing Projects:	Nil	
Dr. A.C. McLaren	Direct observation and identification of crystal defects and their role in mechanisms of crystallization and deformation of minerals and rocks	\$59800

ENGINEERING AND APPLIED SCIENCES		
<b>New Projects:</b>		
Dr. C.J. Bellamy and Mr. L.G. Whitehouse	Research into compiler techniques for small computers aimed at a low cost computer system for teaching computer programming	\$4723
Dr. P. Grundy and Professor N.W. Murray	Behaviour of structures under variable repeated load	9585
Mr. I.H. Lehrer	Mixing studies: (i) influence of various parameters (ii) investigation of the properties of 2-phase jets	3900
Professor K. Morsztyn	Modelling, control and optimisation of large dynamic power systems (power system simulator studies)	17730
Professor O.E. Potter	Fluidized bed reactors - behaviour and design	4237
<b>Continuing Projects:</b>		
Dr. J.B. Agnew	Dynamics of packed tubular reactors for exothermic chemical reactions	1730
Dr. G.A. Holder	Mechanism of crystal growth poisoning by polymers	600
Associate Professor R. McPherson	Ultra fine dispersed phase ceramics produced by precipitation from metastable solutions prepared by plasma methods	4431
Dr. W.H. Melbourne	Model scaling of wind effect on structures	4969
Professor I.J. Polmear and Dr. B.M. Parker	Studies of age hardening phenomena in alloys with special reference to the role of trace element additions	8547
Dr. C. Tiu and Dr. D.V. Boger	Accelerating and decelerating flows of viscoelastic fluids in conduits of arbitrary cross section	3450
(*Combination of two previous projects)		

## CHRISTMAS LUNCH

The annual University Christmas lunch will be held on Wednesday, December 22, in the Union. The meal, which is \$1.25 a head, is as follows - mandarin cocktail, roast turkey and ham with peas, tomatoes and roast potato, plum pudding and brandy sauce and coffee.

Final numbers are to be lodged with the Catering Office by Friday, December 17. For further details phone Miss Julie Robinson on ext. 3170 or 3171.

## Engineering Award

Mr. G. Arndt, a lecturer in mechanical engineering, has been awarded the Institution Medal of the Institution of Production Engineers, London, for the best paper presented to a section of the institution. The paper, "The Development of Higher Machining Speeds", was presented to the Melbourne section of the institute.

## WANTED: READERS FOR THE BLIND

The Royal Victorian Institute for the Blind is looking for people to read educational material on to tape so it can be used by blind people. Anyone who could help should contact Mrs. Margaret Fialides on 51-1381. The Vice-Chancellors' wife, Mrs. Matheson, spends a good deal of time on this work.

## Physics Summer School

The Australian Institute of Physics will hold a summer school in physics at Monash from February 14-18.

Lecturers from interstate universities will participate in the three concurrent courses of the school. The courses are magnetism and its applications, phase transitions and advanced materials.

The school is open to members of the Institute and to students.



## CHILD WELFARE

The first national conference on child welfare in Australia will be held at Monash from February 20-25 next year.

The conference, which is being sponsored by the Children's Welfare Association of Victoria, aims at shaping a national policy on child welfare. Academics and leading workers in the field of child welfare will participate.

Topics to be discussed include - disadvantaged children and the nature of social vulnerability, goals and guide lines in child welfare, planning, co-ordination and integration of services, and the objectives, value and organisation of a national association.

The executive director of the Child Welfare League of America, Mr. Joseph H. Reid, will be among the speakers at the conference.

Study groups will be set up and participants will be limited to invitees. The conference will also be open to delegates who will be required to pay a registration fee.

As part of the programme participants will visit child welfare institutions in Victoria.

Professor W. H. Scott, professor of sociology ext. 2961, has more details. Professor Scott will present a paper at the conference on "Disadvantaged Children and the nature of Social Vulnerability."

He would like to hear from post-graduate students who would like to act as rapporteurs at the conference study groups. They will not be paid but will have free access to the conference and its publications.

## Monash on display

MODEL Lucy Kiraly, a Monash graduate, was on hand to answer questions when the university held a three-week display in the head office of the State Savings Bank, Elizabeth St., last month.

It's estimated that more than 30,000 bank customers and passers-by inspected the exhibits - photographs, models, relics and literature illustrating a wide range of university activities.

The exhibition was arranged to mark the 40th anniversary of the death of Sir John Monash.

Several of the exhibits are now on a tour of the bank's branches.

### SKYDIVING COURSE

For those who have the courage there's a course available after the examinations that should prove the highlight of the vacation - skydiving.

The Monash Skydiving Club is running courses at lower than normal rates. It will cost about \$20 for the basic jump course and the first jump, the next 10 jumps will be about \$2.50 each and after that up to \$1.50.

The club has 35 Monash students and staff as members. Those interested in doing the vacation course should contact Labertouche 516 or ring 792-2181.

## WANTED: TUTORS AND STUDENTS

Mannix College, a residential college for men situated on Wellington Rd., opposite the main entrance to Monash, has places available next year for students and tutors.

It has accommodation for 225 students and 24 tutors. Regular tutorials are given in College in all subjects taken by a sufficient number of students.

Applications from students for admission to the College should be made by November 30 to The Master, Mannix College, Wellington Rd., Clayton, 3168. Late applications will receive consideration.

The College is offering resident tutorships for 1972 in a variety of subjects

in Arts, Science, Medicine, Law, Engineering, Economics and Politics.

Tutors will be required to give 2-3 tutorials per week and be available for 1-2 hours for private consultation.

For their services, they will have free board and residence for 48 weeks of the year. All tutor's rooms are centrally-heated, with wall-to-wall carpet and hot and cold water. Each has a small kitchenette and refrigerator, and some have also a private balcony.

Application forms for tutorship may be obtained from: The Dean, Mannix College, Wellington Rd., Clayton, 3168.

# MAKING MOOT POINTS

MOOTING will become a separate subject in the Monash Faculty of Law next year.

Previously mootings were incorporated in other fourth and fifth year subjects.

Next year it will become a compulsory subject for fourth and fifth year law students who will be allotted marks for two moots in which they will be required to participate.

Simply a moot is a mock trial. Technically - according to a law lecturer - it is a simulated appeal to a court in which arguments are advanced on matters of law which arise from a complex fact situation supplied to the participants.

Parties are represented by a senior and junior counsel who present the argument in court and a solicitor who prepares a brief on the legal issues involved. The moot gives the student experience in diagnosing legal issues, researching the law and presenting well reasoned arguments.

The Monash mootings programme is conducted by Mr. W. T. Charles, a former Justice of the High Courts of Western Nigeria and Zambia.

Monash did very well in the annual inter-varsity mootings competition held this year in Auckland. Teams from each of the Law Schools in Australia and New Zealand compete.

Monash got through to the final against the Canterbury Law School and had an average series score of 94% but lost the final by one point. Team member, Julian Burnside won the Blackstone Shield - the trophy awarded for the most out-standing individual mooter.

The other team members were Brian Candler, Phillip Dinning and Bill Wallace. Colin O'Hare, lecturer in law, went with the team.

The IV competition will be held in Perth next year and Monash in 1973.

### TIMELY LECTURE

"CAN a National Paper Work?" is the title of this year's Arthur Norman Smith Memorial Lecture in journalism.

The speaker will be Mr. Adrian Deamer, former editor of The Australian.

And the date: November 11 - Remembrance Day.

The lecture will be given in the Latham Theatre, Redmond Barry Building, University of Melbourne, at 8.15 p.m.

The Arthur Norman Smith Lectureship was established in 1936 in honor of a distinguished Australian political journalist who, in 1910, was one of the founding members of the Australian Journalists' Association.

### WHO'S WHERE?

Each month the Reporter lists academic visitors arriving during that particular month at Australian Universities. The following list is the overseas arrivals during November. It is not an exhaustive guide as it depends on the information that comes from other universities.

**AUSTRALIAN NATIONAL UNIVERSITY**  
Genetics: Professor M. Aleksluk, University of Manitoba, as Visiting Fellow from 15th-December 15.

Linguistics: Dr. K. Franklin, Summer Institute of Linguistics, TPNG, as Visiting Fellow, from 5th - December 6.

Nuclear Physics: Dr. S. M. Ferguson, Kansas State University, from November 1.

#### MONASH

Electrical Engineering: Professor P. Hammond, Head Electrical Engineering Department, and Professor of Electrical Power Engineering, University of South Hampton from 2nd for approximately six weeks.

Enquiries about the precise dates of visits to Monash should be directed in the first instance to the Chairman of the appropriate department. Chairmen are requested to keep the Personal Assistant to the Vice-Chancellor informed about new senior academic visitors to their Departments.

### CHEMICAL ENGINEERING

A summary of the AUC submission on the Centre of Environmental Studies in last month's Reporter was not meant to imply that the chemical engineering department has not been active in environmental research. The department has been working on biological treatment of waste for some years.

## Order Christmas cards now

The Monash University Parents' Group still has supplies of three Christmas cards, introduced last month. Profits from their sale will be used to finance the board at the Halls of Residence of two country students who would otherwise be unable to attend university.

The Christmas cards are printed in bright attractive colours and are very reasonably priced. The cards are supplied with envelopes in packages of ten.

Cards may be personalised by adding your name and address. In addition to the cost of the cards, the charge for personalising ranges from \$2.75 for 50 cards, to \$3.30 for 100 and \$4.40 for 200.

### ORDER FORM

Detach and place in the Parents' Group Box in the Union.

Card No.	Description	Size	Price each	Quantity	Value	
					\$	c
1	Mary and Joseph	5" x 7"	12c			
2	Season's Greetings	4" x 8"	12c			
3	Bethlehem	3" x 7½"	6c			

Please tick relevant box:

Post Order  Will collect order\*

If order is to be posted please add 20c postage.

Deliver through University mail (if member of staff)

\* Cards can be collected from the Union Reception Desk one week after ordering: two weeks for personalised cards.

PERSONALISING DETAILS (to be printed on cards)

Name..... (Block Letters)

Address.....

Post Code.....

Order placed by:

Name..... (Block Letters)

Address.....

Post Code.....

Make cheques payable to Monash University Parents' Group and send with order to: Mrs. H. A. Strickland, 47 Draper St., Ormond, 3204 (or place in Parents' Group Box in the Union). Cards are also available in the University Bookshop and at the Halls of Residence.