

# **`Streamlining': 500BC**

### <u>Study on how</u> <u>coin minting</u> <u>changed to</u> <u>meet demand</u>

In the hundred or so years from 545 BC to 440 BC, incuse coins (ones with an impression) were minted in Kroton — a Greek colony in the south of Italy.

Classical Studies Ph. D. student, Rick Williams, has been studying existing coins, from Kroton of this period — 'keys' to life in the ancient civilisation.

A recent aspect of his work involved joint experimentation with the Materials Engineering department.

The aim: To seek metallographic evidence to support Mr Williams' theory on how minting became streamlined — how the process of production was simplified as demand for coins as an exchange material grew.

The story Page 5

### Also inside:

Monash will receive \$1,459,517 in funds from the Australian Research Grants Committee in 1981 (see story Sound 31-80). The grants will fund 115 projects including 29 new ones. These new projects are listed Page 9.

Rosellas to spring up earlier?

Spring is with us — well some days it is and some days it isn't. Harbinger of the season of rebirth (at

- least to Monash Reporter) was Associate Professor Tony Montgomery, of Computer Science, who rang mid-September to tell us that he had spotted a pair of rosellas early one morning in native vegetation around the car park behind the Mathematics and Engineering buildings.
- It was, Tony said, the first time in about 10 years of bird watching on the campus that he had observed a rosella and the sighting was further testimony to the effectiveness of Monash's native planting scheme. One of the main aims of planting native trees and shrubs, in addition to giving the University a distinctively Australian appearance, was to encourage native birds and discourage introduced species such as sparrows and starlings.

'he presence of rosellas on campus has, in fact, been recorded before in an ongoing survey of bird life on campus by zoologists started in the early '60s. The **Facts About the University** leaflet no. 8, "Bird Life at Monash", records sightings of two types of rosellas — the easternand the crimson — but only irregularly.

- The point is, however, that Tony is the first person to report a sighting of the rosella this Spring, bringing to mind the letters page of **The Times**, London, where there is a traditional yearly "competition" for the coveted first actual (or imagined?) sighting or hearing of a cuckoo in Spring.
- Perhaps someone might advance on the mid-September date for rosellas at Monash in what will undoubtedly pass for "Spring" in Melbourne, 1981?

## Monash's Budget: 1981

Monash Council at its October meeting approved a Recurrent Funds Budget for 1981 of \$56,547,000 which is \$350,000 in excess of the grant for the year.

The 1981 grant represents a reduction of \$218,000 at common cost levels compared with the grant for 1980.

compared with the grant for 1980. The Vice-Chancellor, **Professor Ray Martin**, says in the Budget document presented to Council: "Despite this reduction the University faces increased salary costs as staff progress through the various salary scales and, subject to approval of the proposed new superannuation scheme by Council, additional superannuation costs estimated at \$850,000 in 1981." Professor Martin explained the

Professor Martin explained the Budget strategy: "The principal States Grants (Tertiary Education Assistance) Act for the current triennium permits a maximum one per cent carry-forward of the recurrent funds in each of the first two years of the triennium. The existing legislation makes no provision for a carry-forward from 1981, the last year of the triennium.

"For some years now the University has finished each financial year with a small cash surplus, albeit that most of the free funds were committed for goods not delivered by the end of the financial year.

"To avoid this situation at the end of 1981 the Budget has been prepared for the sum which exceeds the grant for the year by \$350,000. This action was taken primarily to:

• Cushion the effect of the increased superannuation costs in the first year in which these are to be met, and

in which these are to be met, and • Ensure that a sum equal to the grant for the year was actually expended in terms of the current legislation."

The Recurrent Funds Budget in full detail Page 6.



### The experiment

Split spheroid moulds of carbon (at top) were used to produce silver blobs (photo above) which were hammered flat to 24 mm. diameter, softened and struck between dies of that size. Rick Williams (left) does the striking. The coin below was minted at Monash. Comparative tests between it and a real Kroton coin (c.460BC) show that both were probably produced in the same manner. Photo left: Rick Crompton.



# War issue survives but N-S front dies

It is nearly 120 years since the Confederates lined up against the Unionists in the American Civil War.

Visiting US historian Professor Robert Durden, who has as one of his special interests the Civil War and its aftermath, says that the battle may have been won by the "free" states in 1865 but an issue at the heart of the conflict is still alive in a different form in America today.

That is the issue of minority rights and particularly the civil rights of Blacks," he says.

"The difference is that any division on this issue is no longer along a neat geographical line.'

Professor Durden dismisses suggestions that the war is still being fought in the South, that loyalty to the cause of what were the slave states is still widespread, or that there is any significant difference in approach to racial issues between the inhabitants of North and South USA.

He says: "Most Southerners' attitudes have been 'reconstructed'. As a Southerner I think my personal view of the Civil War is fairly typical - it is regrettable that the war had to be fought but I'm glad it ended as it did.

The only truly distinctive thing about the South today is its history. Professor Durden was born in the "deep" South —Georgia, Jimmy Carter country. He was educated at Emory University in Atlanta and then at Princeton where he took his Ph.D.

Since 1952 he has worked at Duke University in North Carolina (South but not "deep") and has been chairman of its History department

since 1974.

He has published widely and taught on the Civil War and its aftermath (1820 to 1900), the history of the Old and New South (1800 to 1945), and US reform and politics in the 19th Century.

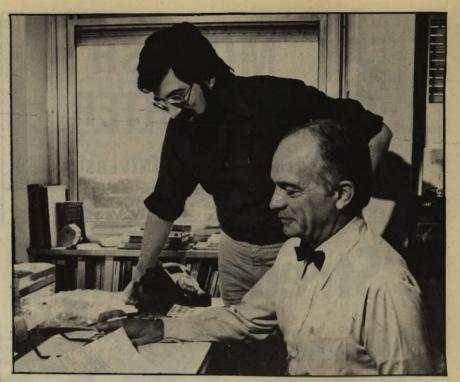
He is visiting Monash during third term under a grant from the Australian-American Educational Foundation in Canberra (the Fulbright program).

Although on his first visit to Australia, Professor Durden is no stranger to Australian students. Since the 1950s Duke University has awarded special fellowships to students in history, economics and political science from Commonwealth countries. One of those students was Tony Wood, now a lecturer in Monash's History department, with whom Professor Durden is teaching this term.

While in Australia Professor Durden will be visiting Sydney, Tasmania, Adelaide, and Perth also.

Professor Durden says that one of the interesting developments in the South after the Civil War and the abolition of slavery - euphemistically called 'the peculiar institution' (meaning, peculiar in the US to the South after 1800) — was the construction by Whites of a second peculiar institution a parallel for which can be found in South Africa.

Starting from the end of last century and extending into the first decades of



Professor Robert Durden (seated), of Duke University, North Carolina, discusses a lecture on American history with Monash history lecturer, Tony Wood, a former doctoral student at Duke.

this, States throughout the South attempted to establish a Jim Crow segregation system. The aim was to create separate "but equal" (allegedly) public facilities through an elaborate code of State and municipal laws.

The U.S. Supreme Court led the overthrow of the Jim Crow system, most notably in a decision in 1954 in a case on attendance at public schools. In the last 25 years the second 'peculiar institution' has been totally dismantled.

Professor Durden says that one of the issues running through the history of the first and second 'peculiar institutions' is that of States rights versus those of the Federal power. It is an issue, he understands, not entirely lost on an Australian audience.

South today is not only mostly reconstructed in attitude toward the Civil War but also has been trans-formed economically, largely due to industrialisation and urbanisation.

For years characterised by large pockets of poverty in a rich nation, much of the South has developed prosperously in the last few decades, acquiring for itself a new name, with more pleasant connotations, in the process - the Sun Belt.

The election of Carter as President four years ago, Professor Durden says, has been seen as a symbol of the re-entry of the South into mainstream American political life. And, as Ronald Reagan has learned, there is no applause in Dixie for applying Ku Klux Klan tags indiscriminately to Southerners.

Professor Durden says that the

## 'We need a policy to foster multilingualism'

Australia needs a policy to en-courage development of one of its most valuable natural resources multilingualism.

Associate Professor Michael Clyne, of the German department, said this at a symposium during the recent conference of the Applied Linguistics Association of Australia held at Rusden. The title of Dr Clyne's paper was "Community Languages and Language Policy: A Demographic Perspective'

Dr Clyne emphasised that flexibility and imagination would have to be used in formulating a national language policy.

He said: "Different facilities need to be made available in different languages and particular decisions on language policy have to be made for different units of planning.

"A policy on community languages other than English (CLOTEs) must therefore be a framework rather than a rigid set of rules for the allocation of facilities."

He continued: "Within a flexible and imaginative framework, a language policy for the benefit of all members of this multicultural nation may turn out to be a relatively simple operation.

"As to the cost, this will probably emerge as relatively low compared to the benefits in efficient communication in all spheres of life, a more contented population, and a national investment in human resources of international importance.

In his paper Dr Clyne considered some of the possible bases for a policy on the use of CLOTEs in public domains in the light of data gained from the language question in the 1976 census.

He examined the criteria of "needs" and "numbers" which are used in deciding how the "cake" of facilities (such as broadcasting time in CLOTEs and school CLOTE classes) will be sliced among language groups.

#### **Needs vary**

Dr Clyne said: "The actual 'needs' of different ethnolinguistic groups vary greatly and any monolithic attempt to establish 'major community languages' on the basis of 'needs' can be quite counterproductive. "For demographic reasons, some

groups will require bilingual pre-school teachers and baby health centre nurses. Others will need first language facilities for the care of the aged.

"Both young and recently arrived groups, and lower standing, ageing groups require, for instance, generous allocations of time on ethnic radio but for different reasons. "Some groups will need bilingual

education for early primary school literacy, others will require bilingual education for the continuity of educa-tion of adolescents, and still others have a particular need for maintenance-oriented community language teaching in primary and secondary schools."

Dr Clyne said that the following four criteria could be among those used for measuring "need": number and percentage of monolingual non-English speakers; recency of arrival; socioeconomic status; age structure.

Dr Clyne said that bilingual education in Australia was restricted to transitional programs to provide basic literacy in English but "maintenance" programs, for which there was also a need, were seldom available or even considered.

He said: "When most overseas countries are encouraging multilingualism among their populations, we are continuing to neglect and downgrade a valuable national asset. The latest example of this tendency is the Curriculum Development Centre's recent report on a core curriculum for Australian schools which supports the recognition of the multicultural nature of Australian society but excludes languages other than English from the practical core' of skills to be acquired by all Australian schoolchildren.

Dr Clyne urged that language teaching be stripped of its elitist connotations and that the distinction between "traditional foreign" languages and "community" languages and languages be dropped.

He said: "This distinction is both misleading and highly discriminatory. It implies one of two things: either the teaching of some languages can be justified only on the grounds that they are spoken in Australia (which is not case); or else some languages spoken by significant groups within the Australian nation have less right to existence than others merely because they were introduced into our schools at an earlier stage."

Dr Clyne said that community language education should be for everyone, "not just for children from the 'appropriate' ethnic background".

He said: "This means designing suitable curricula for non-native speakers and a modification of the strict nexus between age or year level and level in a particular subject. In particular it means expanding the offerings in languages and primary school language teaching methodology in universities and colleges.'

An area demanding immediate attention, he added, was the development of teaching strategies for the ac-tivation of passive skills among the many adolescents who had grown up hearing but not speaking a second language in the home.

## Exploring the problems of AID

The first successful human artificial in-semination was carried out by the English surgeon John Hunter in 1785 using the husband's semen. was not until 1884, however, that the first

artificial insemination by donor was achieved.

Artificial insemination by donor, or AID, has been an accepted practice in Europe and the United States for many years. But it is only in the last decade, with the declining number of adoptable

babies, that it has been widely practised in Australia.

About 600 couples are being treated each year in Australia with a success rate of between 50 per cent and 70 per cent.

between 50 per cent and 70 per cent. Just published is a book Artificial Insemination by Donor, edited by Professor Carl Wood, professor of Obstetrics and Gynaecology at Monash, which deals with the medical, genetic, social, ethical and legal aspects of AID. Each chapter is written by an expert in

the field.

the field. Contributors include Professor Wood, Associate Professor John Leeton, of Monash, Dr Ian Johnston, of Melbourne University, Mr Mahendran Mahadevan, Dr Alan Trounson and Mr Adrian O'Connor, all of Monash, Professor Douglas M. Saunders, of the University of Sydney, Dr John C. Mc Bain, of the University of Melbourne, Dr Colin D. Matthews, of the University of Adelaide, Miss Alison

McMichael, a social worker at the Royal Children's Hospital, Professor David Danks, of Melbourne Univer-sity, Associate Professor William Walters, of Monash, and Mr Justice Asshe Asche.

The following reports deal with two impor-tant aspects of AID covered by the book — the legal implications and social aspects, particularly the right of the child to know something of its origins:

## The legal problems

The legal problems arising from artificial insemination by donor semen are so far-reaching and, at present, so complicated that only present, so complicated that only clear and precise legislation can clarify the situation, Mr Justice Asche, a senior judge of the Family Court of Australia, writes in the recently published book "Artificial Insemination by Donor."

"It is too much to expect that the courts will ultimately evolve solutions through the developmental process of the common law," he says.

The most urgent need, he says, is for legislation to make it clear that a child born to a married woman by AID with the consent of the husband is the lawful child of that husband - a protection that is not accorded by law at present.

The legal position in Australia is clear enough in some areas, he says, and in those the AID child is at a disadvantage.

In other areas there is no provision at all. It is "territory uncharted by legislation or common law, but known to contain amongst other obstacles, those created by the Australian Constitution.'

### Lawful child

What is clear, Mr Justice Asche says, is that "a child proved to have been born to a married woman through AID must in the absence of legal adop-tion by the husband, be held to be not a child of the husband."

"If a couple keep to themselves the fact that the child has been conceived through AID, and present him or her always as the lawful child of their mar-riage, of course, the child will remain the child of both for purposes of maintenance, succession and claims to the husband's estate upon intestacy.

"No doubt there are many couples today who will never reveal that a child born to the wife was conceived through AID. That child will remain forever and to all the world a child with full legal rights in the family structure.

On the other hand, there may be couples whose philosophy it is to make no secret of the true situation; and there are spouses who may originally have agreed to silence but subsequently, for a variety of reasons (as for instance a marriage breakdown, or a domestic argument), will let slip the secret.

"Considerable legal problems arise once an AID situation is revealed."

Mr Justice Asche points out that if a husband dies leaving his estate by will to his "children" the expression is construed to mean legitimate children. And in states such as Victoria where Status of Children Acts have been passed, it means illegitimate children also. But an AID child, though il-legitimate at law, is not an illegitimate child of that husband.

The present legal situation also creates problems for husband and wife in a matrimonial dispute.

Under present legislation the Family Court cannot deal with disputes of custody, access or maintenance relating to children who are not the children of the husband and the wife, he points out. Cases relating to ex-nuptial children and AID children must be heard in the Supreme Court.

#### **Matrimonial disputes**

Parties to a matrimonial dispute could find themselves in the position of having to pay two sets of costs — one to the Family Court which dealt with questions of property and divorce, and the other to the Supreme Court which dealt with questions of custody or access

If the husband, in Victoria, signs the birth certificate as the father, and the child is in fact born of artificial insemination by a donor, he commits an offence and "renders himself liable to the penalties of perjury", Mr Justice Asche says.

"Similarly, the mother would be punishable if she completed the form naming the husband as the father.'

She can, of course, leave that part of the form blank, he adds, but "her revulsion against having the child registered as not having a named father might be a powerful and very "her human temptation to complete the form.

"Furthermore, social workers who wish to assist the 'bonding' of the husband to the child might encourage the husband to complete the form as the father. In such cases they may have aided and abetted the offence and become party to it." Mr Justice Asche says the Victorian Status of Children Act, which was pas-

sed in 1974 to remove the disabilities of illegitimate children, raises some problems for the donor in an AID procedure.

Proof of paternity under the Status of Children Acts would mean that the child could claim in the estate of the

3

## **Rights of the child**

Should a child who is born as a result of artificial insemination by donor semen be told that the husband is not the biological father?

Or should the nature of the birth be kept secret in the interests of all concerned?

This vexed question is discussed in Artificial Insemination By Donor" by Miss Alison McMichael, a social worker at the Royal Children's Hospital, who contributes a chapter on the social aspects of AID. In the field of adoption, she says,

professionals involved favour an open and frank approach with adoptive families. In contrast, AID is still surrounded with a degree of secrecy. "Acceptance by the community has

been a significant influence on the attitudes to adoption," she says.

"Perhaps general acceptance by the community of AID as a treatment procedure and a means to parenthood will remove the shroud of secrecy in time, as happened with adoption. Legislation will inevitably hasten this process.

Miss McMichael says that many years ago it was considered unwise to tell an adopted child of his or her adoption. Now, however, there is widespread acceptance that adopted children should be told by their parents at an early age, not only because it is impossible to maintain secrecy, but also because it is dis-honest to the child not to do so.

She quotes research which shows that children are less upset by strange and unpalatable facts than by any form of deception.

Miss McMichael says arguments put forward against telling a child include:

• It would be simpler and easier for all concerned if the child's biological

biological father on an intestacy, or where the biological father made a will leaving property to his 'children' without further specifiying them. The regrettable result would seem to be that in preventing one injustice, the law has created the possibility of another.

"If it is argued that the possibility of legal rights and duties being es-tablished between an AID father and his child is indeed remote, the answer is that the experience of the law has always been that sooner or later the unexpected happens." It is also not beyond possibility that

a mother might claim maintenance

origin were forgotten. • The identity of the biological father may not be known - if either the husband is not totally sterile, or if there is more than one donor used per insemination.

• The conception was artificially achieved, rather than by a natural sex act.

• The sperm donor has been guaranteed anonymity.

• The child has no right to know.

Rejecting these arguments, she says secrecy cannot be guaranteed and community attitudes may change. Anonymity for the donor can still be assured. Parents can be given non-identifying factual information.

"If we accept the open attitude to adoption, why not to AID?" she asks.

#### **Multiple donors**

Miss McMichael says the practice of combining the semen of multiple donors should be discontinued in view of current attitudes to right of origins. For the same reason, records need to be kept of AID donors.

When planning parenthood, she says, people have a right to the comrange of educational, medical plete and counselling services, couples have a right to informed individual services and these services need to continue to be developed.

There is the need, she says, for long term social research on AID, and also for community education.

People have a responsibility for their own actions and the professionals have a responsibility to assist people in making informed decisions.

from the biological father for her child, he says

Mr Justice Asche also draws attention to the lack of legislation for control of AID procedures, or to prohibit unskilled practitioners or regulate the supply of donors.

Since the chapter was written, he points out, the Attorneys General of the various States have announced their intention to bring forward legislation to confer legitimacy on a child born as a result of artificial insemination by donor to a wife with consent of a husband.

Such legislation, he says, would alleviate many of the problems.



### **Celebrations at 25**

With Monash, as with most in-

For example, the Monash University Act was proclaimed on April 15, 1958; the University's guiding body of development, the Interim Council, first met on June 19 of the same year; Monash was opened to students on March 11, 1961 by the then Premier of

Victoria, Henry Bolte. Everyone likes a birthday so the question arises: Which date to observe?

Everyone, too, likes a "significant" anniversary as some benchmark of achievement, so another question arises: Do we celebrate 20, 21, or 25 years?

Recork the champagne, the Univer-sity Council decided at its last meeting that Monash should celebrate the silver jubilee (25 years) of its official opening, which will fall on March 11, 1986.

The decision was taken on a proposal put forward by the Vice-Chancellor, **Professor Ray Martin**. Council noted that a committee would be established nearer the time to plan and organise specific activities.

Such activities could include visits stitutions, there is a variety of by distinguished academics, an ora-significant dates in the history of its tion, dinners and the conferring of foundation.

> In May 1983 the University of Auckland will be 100 years old. Already planning is in progress for the centennial celebrations and the University is seeking to interest as many of its graduates as possible in the event.

> The chief celebrations will be held on the weekend of May 6 to 9, 1983. The program will probably include a concert, an oration with the presentation of greetings from other univer-sities, the conferring of honorary degrees, a banquet and church service. **Professor Keith Sinclair** is writing

> a history of the university, the first on the North Island, to be published in 1983

> Faculties and departments, it is anticipated, will also organise functions. Anyone who would like further infor-

> mation or who wishes to suggest possi ble centennial events, visiting speakers or the like should contact the Registrar, University of Auckland, Private Bag, Auckland, NZ.

# What stops 'us' conserving energy?

For many of "us", vitally impor-tant energy issues involve problems for action on the large scale by "them" — the technologists, politicians, industry executives, "the authorities".

Many of us feel that, as private citizens, we can't make a contribution, other than through our taxes, to work on practical ways of using solar energy, coal-to-oil conversion research, or the like. However, there are many deci-sions we could be making daily in favour of energy conservation — in the home, in travel, in our purchasing habits, and recreational pursuits.

Yet many of us don't take the initiative. Why we don't is the subject of a study being conducted by a Research Fellow in Monash's Graduate School of Environmental Science, Mr David Crossley.

Mr Crossley aims to identify what are these "non-technical" constraints which prevent people adopting energyconserving practices. His project is be-ing funded by the National Energy Research, Development and Demonstration Council — the first grant given by NERDDC for work on rather than technological, social. aspects of energy use and conservation.

Mr Crossley's study is the first of its type in Australia. This is surprising since it would seem an elementary step to identify why people are not saving energy (and possibly money) when they could be, by taking simple measures like shutting internal doors, putting on warm clothes rather than turning up the thermostat, checking the seal on oven and refrigerator doors, keeping car tyres inflated to the correct pressure, using wood as a barbecue fuel, and purchasing items in retur-nable containers (and, what is more, actually returning them). Mr Crossley's Monash study builds

on the work he has done for his Ph.D. currently being completed for Griffith University in Brisbane.

October 1980

The thrust of the new project is to get "into the field" and work with a group of 20 people, carefully selected to represent major groups in the com-munity, to identify what constraints they encounter in carrying out a set of suggested energy-conserving practices. The survey will be over a six to eight week period and will involve regular interviews and the keeping of simple records. The suggested procedures will be of

two types: those to be actually tried by participants and those which they will be asked to investigate. In the first category are practices such as altering thermostats on room heaters/coolers and keeping driving speed below 90 km/h. Practices to be investigated might include installing roof insulation or replacing a large car with a smaller more fuel-efficient model.

### Six chief constraints

Mr Crossley will be trying to identify constraints in what he sees as six main areas.

The first is personal predisposition whèther or not a person is favourably disposed towards energy conservation. Mr Crossley sees this as the key which determines whether or not a person actually tries to save energy. A person's predisposition is influenced by constraints in all the other five areas.

One of these is the general inaccessibility of information about energy-saving devices and techniques.

Another is the economic cost to the individual of energy saving. This is not a contradiction: there is often longterm financial gain in implementing energy conservation techniques but a high initial cost might be a deterrent to the installation of an energy-saving device.

On the use of prices as an incentive/deterrent in national energy policy, Mr Crossley says that Australia's oil prices are not currently at a level to discourage unnecessary use of private motor vehicles.

"If prices were two to three times what they are and the cost of petrol became a more significant percentage of take home pay, this might be the case. But I believe that current pricing policies have not really begun to bite, except among people with low incomes who are being progressively disadvan-taged because of the lack of provision of alternative public transport."

Mr Crossley nominates social costs as another category of constraint. He cites as example of a "social" cost the fact that, for some, using public tran-sport may mean a "longer day" with an earlier departure from home and a later arrival home.

"With public transport schedules as they are now, this can be a significant deterrent to many people."

Mr Crossley says the structure and culture of organisations is another category of constraint he will be investigating. "Here I am talking about such

things as conservative attitudes and behaviour in the building industry which retard the adoption of energyconserving practices." He will be doing research on gauging

the significance, too, of existing laws and regulations, such as those of some local authorities, which discourage energy conservation practices and the installation of energy-saving devices. Mr Crossley chose Melbourne as the

location for his study because he was impressed with the pioneering work done in Victoria, particularly by the Gas and Fuel Corporation, in actively promoting energy conservation.

But he has not been so impressed with other bodies and governments throughout Australia which, as he puts it, "pay lip service" to energy saving by launching campaigns which exhort people to conserve energy but ignore the fact that it may not be possible for them to take the necessary steps.

While recommendations on the effective means of changing people's attitudes in favour of conservation are outside the range of Mr Crossley's immediate study, he believes that the important ingredients are increased availability of information, combined with exhortation and, possibly, monetary incentive.

A booklet on fuel saving for motorists distributed to households last year as part of the National Energy Conservation Program had the right blend of rhetoric backed up by practical hints, he says. But this ap-proach was only scratching the surface of a much deeper problem.

### **Public transport**

He says: "In the transport area, for example, while encouraging motorists to drive carefully to save petrol is a worthwhile short-term approach, in the long-term, people should be encouraged to use public transport, par-ticularly electric trains and trams fuelled, ultimately, by brown coal.

"The recent recommendation that certain train and tram lines in Melbourne should be closed down is a retrograde step which could not be justified in terms of the current liquid fuel situation, much less the likely future one."

Mr Crossley limited the scope of his project to "everyday" activities because, he says, it is on these that most non-technical constraints operate.

"If people could be encouraged to change their patterns of energy use in everyday situations through the removal of these constraints then they may also be motivated to carry through these changes to other situa-tions, such as their places of work," he savs.

## Study on ancient minting methods

In about 545BC the first coins were minted in Kroton — a Greek colony in the south of what is now Italy. About 1500 of the silver coins minted in the colony between that date and 440BC — which marks the end of the issue of incuse coinage — exist in some 30 collections throughout the world. Incuse coins are ones which are marked with an impression. Those from Kroton are identified by a tripod symbol and letters equivalent to the modern day KRO. For the last three and a half years, Ph. D. student in the Classical Studies depart-ment. Rick Williams, has been conducting a detailed study of these existing Kroton coins, attempting a chronological ordering. He is working from photographs of the coins and his study has also included a trip to Italy.

He is working from photographs of the coins and his study has also included a trip to Italy. He hopes that his research, which is be-ing supervised by reader in Classical Studies, **Dr Peter Bicknell**, will throw light on some of the problems that exist in scholarship on the ancient coins of the south of Italy. Coins, he says, are vital building blocks in constructing knowledge about life in an-cient civilisations. One aspect Mr Williams has explored — the refining of the method of producing coins in Kroton — made odd bedfellows recently of two Monash departments, Clas-sical Studies and Materials Engineering. Mr Williams was seeking metallographic evidence for confirmation of a theory on how the minting of coins became

"streamlined" as the demand for them

"streamlined" as the demand for them grew. The streamlining, he suggests, enabled in-reased production and a greater accuracy in minting coins of a standard weight but it was accompanied by a deterioration in the quality of the image on the coins. Mr Williams says that in the history of orins generally it seems probable that in the early stages, when they had limited use, their production was the work of skilled craftsmen, silversmiths, who were in-consuming, work of artistic merit. The says that as coins became increasing-hy popular as a usable exchange material — in commercial transactions and for the pay-ment of mercenaries, for example — more attention was paid to meeting demand than artistry.

#### **First** coins

In the case of Kroton, Mr Williams says that initial minting began in 545BC on silver blanks which were c.30mm in diameter, c.1.5 to 2mm thick, and c.8gm in weight. The early coins were roughly the size of our 50c piece. Over the history of the incuse series, he says, there was a steady reduction in blank size (down to only c.17mm by 440BC) and, as the weight remained steady at c.8gm, the blanks became thicker (c.2 to 3mm). Mr Williams says that the boom in in-cuse coin mintage in Kroton began after 510BC and reached a peak about 480 BC.

repeated hammering, softening and strik-ing. Mr Williams gives the details: "It appears that the early large diameter coins were produced by pouring c.8 gm of silver into a blob which was hammered after solidifica-tion to a c.24 mm diameter (when cracking at the edges occurs), softened in a furnace (10 minutes at 800 degrees C) and ham-mered again until a 30 mm diameter flat disc blank was achieved. Then there was softening as before, striking the blank between two hand-cut dies until 'work hardening' through the entire coin resulted. This was followed by further softening of the partially imprinted coin which was the partially imprinted coin which was relocated between the dies and completed by further striking." The Monash experiments show that if



the blank is thicker, less hammering is re-quired. This eliminates the intermediate softening stage and a two-step striking pro

process. Having produced these "experimental" coins at Monash, Mr Williams received a genuine Kroton coin from the Ashmolean Museum in Oxford for comparative tests on

Museum in Oxford for comparative tests on metallographic structure. The tests show that this coin - datable at about 460 BC, in the period of high production — has similar structural properties and, hence, was most likely produced in the simplified ham-mering/softening/striking manner. Further experiments show that the blank makers probably used split spheroid moulds of carbon to make their blanks which were then hammered flat to c.24 mm diameter, softened and struck between dies of that size.

of that size. These split moulds have produced blanks of a weight consistency comparable with Kroton coins datable at 460 BC

Workshop on

mature age

students

# Technology — is society its master or servant?

They could lead to error and, over

long periods, to loss of attention, mak-

ing the jobs less interesting and at the

same time making them "more critical in terms of setting up, and having to take over in case of malfunction".

"Such developments tend to rein-

Until recently not much attention had been paid to human factors in technological design, Mr Ron Cumming, Director of the Caulfield In-stitute of Technology, told a recent Science and Technology Media Group luncheon.

Human factors had been neglected because people were considered to be "so adaptable", he said. When errors occurred, they were put down to "human error", which was regarded as inevitable.

Human error is not inevitable, nor is the result of error necessarily dis-astrous — provided the system has been designed to recognise human capacities and limitations," he said.

Before becoming director of CIT last year, Mr Cumming was professor of Psychology at Monash for eight years and before that, reader in Mechanical Engineering at the University of Melbourne.

Stressing the need to achieve compatibility between machines and their human operators, he pointed out that as the size and complexity of technological systems increased, systems design - the matching of elements within the system — became "even more critical". The importance of information feedback increased and breakdowns became potentially more disastrous.

He said one major effect of technological development had been the mechanisation of jobs — or parts of jobs. Invariably the decision as to what to mechanise was made on economic or convenience grounds, he said. Easy parts tended to be mechanised. The human operator was left to do tasks such as overall design and programming, repetitive work and the 'monitoring of ongoing processes.

Repetitive and monitoring tasks are "the less appropriate functions for people", he said.

force the belief that if a person is involved errors or catastrophe are inevitable," he said. "Certainly, this is not so, provided we know something about human capabilities and limitations, and

design for them. "We can design systems to be less critical to some single act — or in jargon terms to 'fail-safe' or at least to 'fail-soft'. In other words our design can be forgiving — as we have done with motor accidents by having collapsible steering columns and by wearing seat belts.'

As examples of disasters with far-reaching social effects which resulted from a single error, Mr Cumming cited the Derwent Bridge disaster in Hobart and the Granville rail disaster in Sydney. In the Derwent case, he said, the disaster resulted from a single error of ship navigation. In the Granville case, the cause was a single simple malfunction, "attributable it would seem to a decision on track maintenance procedures".

"Perhaps we should be trying to find out how many potential disasters there are in our technical systems," he said. "At least we should be doing our utmost to avoid designing such hazards into new systems.

A possible threat to Melbourne, he said, was the loss of natural gas, which was brought to the city in a single "all eggs in one basket" pipeline. The pipeline on which Melbourne depends was built to US standards and American pipelines had been known to blow up.

"Clearly, we need some mechanism for looking at whole systems — not just parts, with account taken of technical, economic and social factors, both for the present and future," Mr Cumming said.

"If we cannot manage today's technology without running big community risk, can we manage tomor-row's?" he asked.

Much effort had gone into technological invention. What was needed now, he said, was social inven-tions. But there was no money available for researching this, presumably because no-one would

make money out of it. "Several years ago the Federal Government set up the Birch commit-

tee to advise it on the future develop-ment of CSIRO," he said. "It recommended against CSIRO being involved in any social or behavioural research.

"How can Australia's prime research organisation tackle the real problems of the nation with its right arm tied behind its back?"

Mr Cumming said he seriously questioned the ability of our social system to cope with the increasing rate of technological change without severe disruptions.

The quantum of time for society to adjust to technological change is 10 years," he said. "The technologists, and the politicians and financiers

behind them won't wait. "Here in Melbourne we build a freeway through Carlton at enormous social cost; we can afford to put un-derground a railway that nobody wants in order to boost property values, but apparently we couldn't afford to put the freeway underground to protect social amenity. "Have we, the community, lost con-

trol of technology?"

### A real growth phenomenon in universities in the last 10 years has been the entry of adults to normal

- undergraduate courses. Since the number of "mature age" students began to grow in the early '70s, they themselves have been the subject of numerous studies.
- One of the major such studies in Australia has been conducted by Monash's Higher Education Ad-visory and Research Unit.
- The Director of HEARU, Dr Terry Hore, and senior lecturer, Dr Leo West, are this month to convene a national workshop on mature age students which will bring together 18 invited researchers who have made recent contributions to studies in the field.
- The workshop, to be held from October 28 to 31, is being funded by the Education Research and Development Committee.
- Universities, colleges of advanced education and the technical and further education (TAFE) sector are represented in the participants from six States.
- One of the resources to be used at the workshop will be the newly published HEARU book, Mature Age Students in Australian Higher Education, edited by Dr Hore and Dr West.
- The book is the culmination of a three year study by HEARU.
- Dr Hore says that the aims of the workshop will be:
- To collect and review the research done in Australia on mature age students.

• To draw valid conclusions from this literature.To chart the course for future

research in the area based on gaps knowledge (with suggestions to ERDC about future directions).

# The 1981 Budget

Below is the 1981 Recurrent Funds Budget summary statement for Monash University.

Monash University.	and the second second	The second second
BUDGETARY AREA/UNIT	1981 (\$000)	1980 (\$000)
1. Academic Activities	The state of the second second	
1.1 Teaching and Research		SLIVIL BURN
1.1.1 Faculties' Staffing and Maintenance	38,187.7	38,337.4
1.1.2 Trainee Teacher Supervision	Welling the Martin Barrier	177.0
1.1.3 Aboriginal Research Centre	41.9	41.8
1.1.4 Outside Studies Programme, Appointment		1. 34
Costs, Repatriation, Distinguished	402.1	389.5
Visitors and Professorial Loadings	403.1 118.3	83.9
1.1.5 Supplementary Pensions	118.3	
The second second second second second second		
Total 1.1 Teaching and Research 2 Research Only — Publications Subsidy	38,751.0 10.0	39,029.6
2 Research Uniy Publications Subsidy		
OTAL 1.0 ACADEMIC ACTIVITIES	38,761.0	39,039.6
A supervision of the second second second second	Contraction of the second second	and strength
Academic Services	Child In The Providence of the	
.1 Library	4,063.2	4.080.3
.2 Computer Centre	988.5	903.4
.3 Higher Education Advisory and Research Unit	410.7	468.3
4 Animal Services	266.0 57.0	57.0
.5 Safety 6 Art Collection	10.0	10.0
7 Alexander Theatre	69.6	69.0
8 Robert Blackwood Hall	67.5	66.7
	2 3 C	10
.9 Sub-total	5,932.5	5,913.3
.10 Supplementary Pensions	10.0	6.6
and the second se	The Astrony	N.C.
OTAL 2.0 ACADEMIC SERVICES	5,942.5	5,919.9
. Student Services		all's in
3.1 Careers	134.6	135.0
3.2 Counselling	127.6	126.9
3.3 Health	183.3	183.3
3.4 Housing	39.8	39.8
3.5 Religious Centre	13.5	13.4
3.6 Warden of the Union	61.9	61.9
ter tota y a standard and and the standard of the	THER TANKS	135
3.7 Sub-total	560.7	560.
3.8 Supplementary Pensions 3.9 M.G.S. Stipends and Allowances	13.0 754.0	12.0
		704.4
TOTAL 3.0 STUDENT SERVICES	1,327.7	1,327.3
4. General University Services	But Shart Sugar	alight
		Selling .
.1 General	9,431.0	9,372.2
.2 Major Building Renovations	50.0	100.0
3 Supplementary Pensions	63.0	53.8
OTAL 4.0 GENERAL UNIVERSITY SERVICES	9,544.0	9,526.0
. Public Services — Continuing Education	71.8	71.0
The second	VILL OI DAVIDAD	- THE -
3. General Reserve:		A LEADER
Provision for extra cost of Superannuation General	850 50 900.0	450.0
7. BUDGET TOTAL	56.547.0	56.335.0
tain, the breaking had all all and	A CONTRACTOR OF THE OWNER	
Less 8. Overbudget	350.0	Suthink -
The stand of the second states and the second	a popular production	the la
A DESCRIPTION OF A DESC	(2)(3)	(1)(3)
9. RECURRENT GRANT	56,197.0	56,335.0

NOTES: (1) The 1980 budget was finalised before final supplementation in respect of 1979 cost increases was known. The supplemented grant at 1/1/80 cost levels was subsequently advised at \$56,415,000; the additional \$80,000 has been included in a supplementary distribution of funds

in June 1980. (2) The effective reduction from the 1980 grant at 1/1/80 cost levels is \$218,000, see Note (1)

(3) The budget totals do not include the Special Purposes Grant (\$225,000 for each year) for the Legal Workshop Course (Leo Cussens Institute) which is included in legislation as part of the Recurrent Funds Grant.

# **Recent events** in focus



Safety Officer, Will Barker, retired from Monash last month after 10 years service. A former Royal Navy and RAN man, Will said at a farewell presentation he would miss his University 'parish' to which he had tried to bring - with get tle persuasion and a touch of humour with genthe 'gospel' of safety. The Barkers retire to Tewantin on Queensland's Sunshine Coast.

### V-C visits departments

BELOW: For the last few months the Vice-Chancellor, Professor Ray Martin, has spent time 'on the road" visiting departments, familiarising himself with their work and meeting departmental members.

Photographed on a visit to Materials Engineering, Professor Martin, left, watches research student Russell Coade fatigue cracking a sample of aluminium casting alloy. Chairman of the department, Professor Ian Polmear, looks on.





Let's get the hard facts: There might be tar and cement on each side and over the Yarra but there was also concrete out there on the water recently in the form of cances entered in Melbourne's fourth annual concrete cance race

This year's race, or really card of II races, was watched by about 400 people, some with eyes a little hazier than others, on the fine, warm afternoon of Sunday last week. It was the first time that Monash participated in the event which was organised this year by RMIT and sponsored by the Concrete Institute of Australia.

The Monash cance was built by second year Civil Engineering students and raced in most of the day's events by some of its builders and fourth year Civil Engineering students, in two-man crews.

A most favorable construction can be put on the success of Monash's concrete cance efforts: We may not have paved the way, so to speak, to first place but did come in third (averaged over the day's events) and also took an award for having the Best Team Spirit (being the best mixers, perhaps).

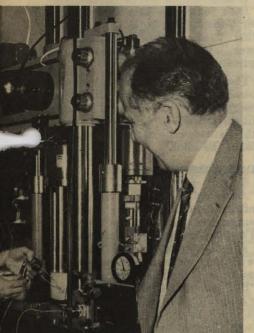
First place overall went to Adelaide University, making the only interstate team's trip over all worthwhile, and second place to Swinburne.

Other competitors were RMIT, Caulfield and Footscray institutes of technology and Ballarat CAE.

Senior tutor in Civil Engineering, Mr Allan Beasley, says that about 30 students helped in construction of the cance. The mould took about two months to prepare and two weeks were spent after the pour, in construction. He says that it was a race against the clock to have the cance ready in time and that the paint was still drying as she slipped into the Yarra.

Our photo shows Mr Beasley (right) and several of the second year Civil Engineering students with their cance under construction.





ABOVE: For 37 years secretary of the graduate school of the London School of Economics, **Dr Ann Bohm**, saw thousands of students pass through and go on to professions as diverse as politician (Pierre Trudeau, for example) and pop performer (Mick Jagger).

One of the strengths of the LSE has been its international character (up to 35 per cent of its students are from overseas). This 'mix' is now being threatened by British Government changes in education funding which has forced the LSE to impose an overseas student fee.

To offset the School's financial problems Dr Bohm, when she retired three years ago, was sent on a world fund-raising tour as 'external relations consultant'.

In Melbourne recently she lunched with Monash's roll call of former LSE students which includes **Professor Rufus Davis** (right), Chairman of Politics, **Dr Peter Riach** (left), Reader in Economics, and **Dr Barry Goss**, senior lecturer in Economics. Photo: Julie Freser



## Gift of Macedonian books

The Acting Consul-General in Melbourne of the Socialist Federal Republic of Yugoslavia, Mr Petar Lombardic, made a gift on behalf of the Macedonian Government of some 800 books in the Macedonian language to Monash last month.

Mr Lombardic is pictured right with the Chief Librarian, Mr Brian Southwell, holding one of the volumes. The collection is on the shelves in the background.

The gift arises from a goodwill visit to Macedonia by the Premier of Victoria several years ago and a visit to Melbourne (including Monash University) by the President of Macedonia in 1978.

The gift gives Monash what is believed to be the largest holding of volumes in the Macedonian language in an Australian university library.

The books are of diverse content — from fiction to history, politics and linguistics. There are even some volumes about Australia.

The presentation ceremony was attended by other members of the Yugoslavian Consulate, leaders of the Macedonian community in Melbourne, and members of the University's Russian department and Centre for Migrant Studies. Photo: **Rick Crompton**.

## Needs of 'old' jobless neglected

While much serious public concern has been ed on unemployment among young people, singular problems are being faced by men and women at the other end of the work cycle.

With increasing competition for available work, there is evidence that workers nearing retirement are

facing growing but subtle pressures to "go early". On the other side of the coin, early retirement is being viewed as a socially valued goal — part of the package which includes fewer working hours, increased holidays and the like.

The Victorian Council on the Ageing has expressed concern that the problems which can be associated with early retirement, particularly "involuntary" retirement, are, to a large extent, being overlooked.

In a bid to stimulate research into changing trends in employment and retirement in Australia and draw the community's attention to the increasing pressures and disadvantages that the present economic situation is bringing to bear on employees in their middle and late years, the VCOTA last year commissioned a study by Mrs Val Maxwell on early retirement.

Mrs Maxwell, now a tutor in Administrative Studies at Monash, produced an annotated bibliography which has been published recently. It is titled Early Retirement in Australia: Trends and Issues for the '80s.

and Issues for the '80s. Mrs Maxwell's work, supported by the Brotherhood of St Laurence, was supervised by Mr Cliff Picton (then senior lecturer in Social Work at Monash, now with VCOTA), Dr William Foddy (senior lecturer in Anthropology and Sociology at Monash), Mr John Harper (Melbourne University) and Mr Harold Souter (past secretary of the ACTU). In an introduction to the bibliography, which surveys material from diverse sources, Mrs Maxwell says: "The VCOTA believes that the concept of early retirement (retirement prior to the age of eligibility for the age pension) will come to occupy public attention, increasingly, during the 1980s, both as a desirable social goal and as a threat to living standards.

"It is this polarity of issues that lends urgency to the task of identifying the forces that are reshaping Australian labour markets and placing pressures on different sectors of the work force, pressures that are not always discernible.

### Other groups overlooked

"Because the community is preoccupied with the tragic and often overwhelming problems of the young unemployed, those of other disadvantaged groups in the labour market tend to be overlooked." Mrs Maxwell says that the needs and plight of older workers must be the subject of further

older workers must be the subject of further research. "Increasing numbers of them are now appearing

in the statistics as long-term recipients of unemployment benefits and as 'discouraged job seekers'," she says.

says. "Older workers who become unemployed may not merely experience repeated rejection in their search for work but also be aware of their reduced capacity to carry out the heavier manual tasks associated with the types of job available; that is, the less skilled

led. "How these people survive we are not able to say. The erosion of all reserves and savings at this stage of life is clearly a process likely to result in the worker risking permanent financial disaster and falling below the poverty line to join the already toolarge proportion of old people in this situation.

large proportion of old people in this situation. "VCOTA is deeply concerned at the numbers in this group, as detailed in the Henderson Poverty Report, and we do not wish to see this issue overlooked by planners." Mrs Maxwell says that the material selected for

Mrs Maxwell says that the material selected for the bibliography covers the period from the early '70s to the present and the pertinent issues that have arisen in the literature during that period — for example, the Federal Government's move to prune the public service, union moves towards lowering the retirement age, and the effects of the economic conditions on job security.

She has divided her work into three sections: Involuntary early retirement/unemployment; voluntary early retirement/superannuation; and early retirement-public service.

Cliff Picton, in a foreword, says that the annotated bibliography "not only gives the reader an overview of an important and hitherto neglected subject but also provides a solid foundation upon which further more extensive studies can be mounted."

He says: "As this society faces a growing trend from work to leisure-related activities, it is vital that we not only plan for the physical disengagement of active people from work, but also seek to anticipate the psychological and other issues this disengagement will set in train. This bibliography should help us begin the task."

Copies of "Early Retirement in Australia" can be obtained from the Victorian Council on the Ageing, 449 Swanston Street. The cost is \$6.

7

# Fresh constitutional start urged for UK

The British Museum and not the living world would be an appropriate resting place for the common law — judge-made law — in the UK unless a "fresh start" was made.

Lord Scarman, Łord of Appeal in Ordinary, said this while delivering the Wilfred Fullagar Memorial Lecture at Monash last month.

Monash last month. The "fresh start" Lord Scarman urged included a modern written Constitution for the British incorporating a Bill of Rights. The proposal would give judges, as protectors of the Constitution, a stronger role in British society — that of the review and control of the abuse of power by the executive and legislative arms of government. Lord Scarman said that, as it stood

Lord Scarman said that, as it stood in Britain today, the legislative sovereignty of Parliament (assured by the Act of Settlement) permitted abuse of human rights by a bare majority in the House of Commons. He said: "Under our unwritten Con-

He said: "Under our unwritten Constitution, dictatorship is possible at the option of the Commons without revolution. A written Constitution would, at least, save us from dictatorship, unless imposed by revolution."

### **Basis of principle**

Lord Scarman asked: "Have we not progressed too far down the slippery slope of unicameral government?" He suggested that a Bill of Rights in-

He suggested that a Bill of Rights incorporated in a written Constitution for Britain would provide a coherent basis of principle which would set standards for politicians, administrators and judges to tackle the problem of human rights.

Lord Scarman rejected any action for change in the British situation — "tinkering" with the Act of Settlement and Bill of Rights of 1689/1701 — short of the radical solution: a new constitutional settlement.

He said: "The Act of Settlement must go and be replaced by a modern Constitution which would not only declare the citizen's human rights and fundamental freedoms but entrench them against erosion by bare majorities in subsequent Parliaments. And entrenchment would inevitably have to rely for its efficacy upon a judiciary having the duty to strike down as unconstitutional legislation infringing those rights."

Lord Scarman said that Britain had a record of freedom and toleration that was a matter of national pride. But, "depressingly", it was not "exaggerated anxiety" or "academic doubt" that Britain's existing law and constitutional arrangements could not provide adequate safeguards for human rights.

Evidence that fears were justified could be found in the British experience of the right of petition to the European Commission of Human Rights.

(Britain was an original signatory of the European Convention of Human Rights and the first State to ratify it in 1953. It has acted under Article 25 of the Convention to permit individual citizens the right of petition to the Lord Scarman, Lord of Appeal in Ordinary, delivered the ninth Wilfred Fullagar Memorial Lecture at Monash last month on the topic: "The Common Law Judge and the 20th Century — Happy Marriage or Irretrievable Breakdown?" Lord Scarman was made Lord of Appeal

Lord Scarman was made Lord of Appeal in Ordinary in 1977. The position is that of a judge in the House of Lords. There are about 10 Lords of Appeal in Ordinary. Educated at Radley College and Brasenose College, Oxford, Lord Scarman was a Harmsworth Law Scholar at Middle Temple.

His career as a judge began in 1961 when he was appointed to the High Court of Justice: Probate, Divorce and Admiralty Division (later the Family Division). In 1973 he was made Lord Justice of Appeal.

QUOTE: 'Dictatorship is possible at the option of the Commons without revolution: Have we not progressed too far down the slippery slope of unicameral government?'

European Commission of Human Rights against infringements of the Convention).

Such petitions had been concerned with inadequacies or confusions in British laws and regulations in relation to such issues as the right of access to a lawyer, threats to the freedom of the press, and immigration and nationality requirements. Lord Scarman said: "The European

Lord Scarman said: "The European Convention though far from perfect and already a little old-fashioned would already give us a basis of principle upon which the judges, legislators and administrators could build. For this reason I find myself in agreement with those who would incorporate it into British Law."

Lord Scarman dismissed suggestions that judges would "not be up to" handling the new role suggested in his proposed reform.

"Judges, who have shown themselves so perceptive of the needs of their time and able, within the limitations of their constitutional position, to develop judicial review and effective remedies against the abuse of power, should not find an extension of judicial review to include the protection of constitutional rights against abuse of legislative power beyond them," he said.

"Granted the framework of a written Constitution, they should be able to tackle the job. Given the guidelines of a Bill of Rights entrenched as part of the Constitution they should be able to provide an effective safeguard amongst the several needed to ensure liberty and justice in a modern society."

Lord Scarman held up the United States and Australia as examples of societies in which the common law had been adapted to meet new conditions.

been adapted to meet new conditions. "Both Australia and the United States have, with the aid of their judges, united societies spread over a continent into a viable sovereign state. They have made federation work without submerging the identities of the federated states or endangering human rights.

"The common law now operates in a new dimension. It has shown itself to be capable of adaptation to the requirements of a written Constitution. It has emerged, through the work of the judges, as the protector of the Constitution.

"This is the new departure. A system of essentially private law has developed an effective public law."

### <u>Rights Bill</u> <u>absence a</u> <u>'defect' in</u> <u>our system</u>

The absence of a Bill of Rights was a "serious defect" in Australia's Constitution, Lord Scarman said while delivering the Wilfred Fullagar Lecture at Monash.

The absence of a Bill of Rights in Australia's Constitution and the presence of one in that of the United States partly explained the widely divergent judicial developments in the two countries, he said.

"Both judiciaries have interpreted their Constitutions so as to promote rather than diminish the federal power," he said. "But their interpretative techniques differ.

"The Australian tradition, which leaves political, social and economic consequences to be sorted out by the political process, is to be contrasted with the wide-ranging American approach," he said.

#### Consequences

"American judges have refused to confine themselves to the classical common law analysis of the words of the statute, or to the traditional search for a legal formula designed, irrespective of the consequences, to answer the question as to (the words') meaning. "But Australian judges approach the task of construing their Constitu-

"But Australian judges approach the task of construing their Constitution much as they would any other statute. They have even hesitated to apply a 'purposive construction'." Lord Scarman continued: "Indeed,

Lord Scarman continued: "Indeed, when I, an English judge, read some of the decisions of the High Court of Australia I think they are more English than the English.

"In London, no one would now dare to choose the literal rather than a purposive construction of a statute: and 'legalism' is currently a term of abuse."

### Homegrown recombinant DNA research

Selected and edited news items culled from "Science Report", newsletter of The Australian Academy of Science:

The Australian Academy of Science has published a report on recombinant DNA.

The report, **Recombinant DNA: An** Australian Perspective, prepared for an ad hoc committee under the chairmanship of **Professor F. J. Fenner**, was launched at a colloquium early in July.

It surveys the present techniques for research with recombinant DNA molecules, the potential developments of these techniques, their contributions to fundamental knowledge, and their likely practical applications to agriculture, industry and medical practice.

The report also considers and evaluates the hazards perceived by the scientific community and the public.

It reviews present arrangements for surveillance of the research, release in Australia and the possible role of the legal system in the control of research, release and development of recombinant DNA molecules.

It recommends that a surveillance committee be established by the Federal Government to supervise all work with recombinant DNA in Australia and a scientific subcommittee be established to assume the role of the Academy's Committee on Recombinant DNA molecules (ASCORD), which has provided surveillance since 1975.

The report notes that progress in recombinant DNA research and its application to industry, agriculture and medicine is likely to be rapid and recomends further review by an ad hoc committee in not more than five years.

A submission urging stronger Federal Government support for marine science research has been made by the Australian Academy of Science to the Senate Standing Committee on Science and the Environment.

The submission, drafted by a small ad hoc committee under the chairmanship of **Professor John Swan**, Dean of Science at Monash, suggested that the Commonwealth Government should play a stronger initiating and developmental role in the marine sciences in Australia.

The Academy supported the creation of the Australian Marine Sciences Technology Advisory Council (AM-STAC) and the proposed increase of financial support for the basic marine sciences.

The submission recognised that Australia had special responsibilities and opportunities to study its marine environment as an island nation and also the special emphasis on marine environment implied by the creation of the 200 mile fishing zone.

The submission also highlighted the need to encourage marine technology, expand Australia's scientific and technical manpower, develop fisheries research and monitor the disposal of wastes and other pollutants. Marine biology, particularly the studies of phytoplankton and zooplankton, and marine geo-sciences, physical and chemical oceanography and coastal and ocean engineering required special emphasis.

# Job outlook good — law survey

There is a low incidence of unemployment among law graduates despite a fairly widely held belief that the outlook is poor.

This information is contained in a report on a survey conducted among 100 graduates from Monash's Law faculty in 1979 by the Careers and Appointments Service. In the report, titled **The Articles Experience 1979**, the Careers and Appointments Service sounds a warning to the legal profession that there is a real possibility that its attractiveness to law graduates is on the wane, particularly in light of increased competition for the best graduates from employers outside the profession such as the Public Services, chartered accountants and large firms.

"The Articles Experience 1979" follows a similar report on the destinations of 1978 law graduates and, as its name suggests, seeks particularly to present a statistical profile of the search and securing by graduates of articles of clerkship — the traditional method of entry to the profession. The report has been published with the assistance of Touche Ross and Co., Chartered Accountants.

The survey identified only one graduate who was seeking full-time employment as at April 30 this year. The one graduate who indicated that he was employed part-time while seeking full-time work had articles arranged for 1981.

The survey found that 83 per cent of respondents went into "preprofessional training", with 58 per cent securing articles of clerkship and 25 per cent entering legal workshop courses (chiefly conducted by the Leo Cussen Institute). This distribution is practically identical to that of 1978 graduates.

The report says that, of those graduates who sought employment outside the profession, nearly all received offers and in some cases received more than one. The impression that there is a wide

The impression that there is a wide range of options open to law graduates was noted in the 1978 report and echoes statements in the Graduate Careers Council of Australia January 1980 report on the graduate labour market: "Despite the strong growth in the supply of law graduates the labour market has been able to accommodate the output from the training courses"; "The outlook is for an increasingly competitive labour market with a growing spill-over of law graduates into c om mercial and government employers".

### Alternatives

The Careers and Appointments Service report says that law students should, from their early days, be encouraged to consider alternatives outside the legal profession and not dismiss them as "second best". The report says that there is a

The report says that there is a number of factors which could lead to a shortage of suitable graduates applying for articles of clerkship with law firms in the future.

For a start, there appears to be a decline in the number of graduates seeking articles. According to the survey, 74 per cent of graduates would have preferred articles; of the remaining 26 per cent, the majority made a conscious choice not to seek articles.

"Presumably their future entry to the profession is suspect," the report says.

Another factor is the resentment at the length of time involved in securing articles and the haphazard nature of the search.

The report says that another factor influencing the future supply of suitable graduates for articles is the widespread belief that the legal profession is the prerogative of the "old school tie brigade" and that contacts play a vital part in securing articles.

The survey found that 31 per cent of graduates relied on contacts to gain their articles, although a number of those without articles found their contacts did not help them.

The report comments: "Those (employers) allowing contacts to influence employment decisions should ask themselves how other businesses might fare if they followed similar selection procedures."

### **Engineering** shortfall

Demand for chemical engineering graduates will "hold good" for at least 10 years, Professor Owen Potter, chairman of the Chemical Engineering department, says in the department's recently published 1979 annual report.

"If some pundits are to be believed, the shortfall could be in multiples of the number graduating in 1980," he says.

Given this possible situation, he says, it is important for industry and government to strengthen the more effective departments of chemical engineering.

"I put industry first, because industry has to learn anew its responsibilities to itself and to the community in its support for the universities," he says.

Dr

Dr Dr Dr

Pre

Dr Pro Dr As Kri

Pre

D

D

Dr Mi As "Industry and the technological departments of our universities have suffered from public moods and fancies, but universities are ultimately more vulnerable than industry.

"It is necessary to love us even when we are unlovable! We have found that our warnings to industry about their (then) coming difficulties in recruitment could not have fallen on deafer ears."

Professor Potter says second year numbers in the department have increased by 50 per cent and job opportunities appear to be very good indeed.

However, he believes faults in the secondary education system will prevent "that rapid response in enrolments which should follow the improved employment prospects."

-----

# ARGC grants: New projects

HUMANITIES AND SOCIAL SCIENCES, ECONOMICS

Prof. M. Brunt	Economic analysis of law with	10.000
Dr A. Fels	special initial reference to	
	class actions	
Dr R. Cooper	Estimation of interrelated factor	5.000
A SHALL A CONTROL	demand and investment functions	
Prof. J. R. Garagnon	Two French Utopian fictions of	5,318
Interest at a Property	the Seventeenth and Eighteenth	
	Centuries located in Australia	
Dr B. Goss	Adam Smith on risk and uncertainty	712
Prof. D. Kemp	Values policy attitudes and	16,260
Dr C. Rubenstein	political partisanship	
Dr L. Li	Whampoa and K'angta: Nationalist	5,450
	and Communist experiences in cadre	
	training 1925-1945	
Prof. G. Marvan	Slavic context of Polish inflection	5,000
Miss B. Niall	Australian children's literature:	9,823
	1841-1980	
Prof. M. Porter	Pricing policies of gas and	10,500
	electricity utilities	
Assoc. Prof. J. Platt	A crosscultural investigation of some	7,923
	basic communicative strategies	
	PHYSICAL SCIENCES	
Dr J. Pilbrow	Electron spin resonance of transition	15,000
A STATE TO A STATE OF STATE	ions in biological and model	
	systems	
	systems CHEMICAL SCIENCES	
Dr D. Black	CHEMICAL SCIENCES Synthetic utility of nitrones	1,50
North Marsh Wa	CHEMICAL SCIENCES Synthetic utility of nitrones and oxaziridines	and a second second
Dr D. Black Dr D. Black	CHEMICAL SCIENCES Synthetic utility of nitrones and oxaziridines New ligand systems containing	and a second second
Marine Manual	CHEMICAL SCIENCES Synthetic utility of nitrones and oxaziridines	1,50 19.10 50

B. Gatehouse of. J. Swan	Crystal chemistry of the solid state Monomeric metaphosphate derivatives	22,250 15,470
	BIOLOGICAL SCIENCES	
C. S. S. M. Mary	(Plant and Animal Biology)	State of the state
r D. Irvine	Organization of acoustic input to	9,310
J. Kerr	association cortex Studies on testicular function	9.900
J. Ken	of a dasyurid marsupial (Antechinus)	5,500
. I. McDonald	Endocrine functions in	20,800
	Australian monotremes and	A REAL PROPERTY.
	marsupials	
	BIOLOGICAL SCIENCES	
	(Molecular Biology and Cell Metabolism)	
r J. Armstrong	Structure activity relationships in	11.000
of. J. Bornstein	peptide hormones	an all the second
r R. Bayly	Biochemical and genetic analysis of	9,500
R. Skurray	aromatic degradative pathways	
of. B. Holloway	Genetic analysis of pseudomonas and	38,979
r A. Morgan	its application in the genetic	
ssoc. Prof. V.	exploration of selected gram negative	
rishnapillai	bacteria	
of. A. Linnane	Biogensis of mitochondria	29.000
ssoc. Prof. H. Lukins	and a second of the second second second	
r H. Robinson	Structural studies on connective	10,000
	tissues: Factors involved in the	
	maintenance of cartilage	
r D. Smyth	DNA organization in chromosomes of	7,000
	lilium	
	EARTH SCIENCES	
r D. Dunkerley	Field measurement of rates of	4,150
	limestone solution and	
	precipitation	
rof. B. Hobbs	The defect chemistry of minerals	23,450
rof. M. A. Etheridge	and its influence on	
	deformation	
	ENGINEERING AND APPLIED SCIENCES	
r. J. Keedy	Monads Series III central processor	24,650
r J. Rosenberg		
tr D. Rowe	HET WALK IN THIS IS DO NOT MICHAEL AND AND IN THE REAL PROPERTY OF	
ssoc. Prof. R. CPherson	Metastable phases in ceramic systems	9,000
tar marine that		Line adams

# An autocrat who commanded respect



### BOOKS RECEIVED

The following titles have been received recently by the Information Office:

Australian Labour Relations: Readings. Third Edition, ed. G. W. Ford, J. M. Hearn and R. D. Lansbury, Macmillan Australia, 1980 (\$16.95).

This volume brings together the latest readings on labour relations un-der six headings: Industrial conflict, trade unions, management and employers' associations, industrial regulation, industrial democracy and

research needs. It has a healthy contribution from Monash University. Co-editor Russell Lansbury is a senior lecturer in Ad-ministrative Studies (soon to take up an associate professorship at Macquarie University). Dr Lansbury is the author of two of the readings - "White Collar and Professional Employees in Australia: Reluctant Militants in Retreat?" and "Industrial Democracy in Australia: Past Performance and Future Prospects". He is also co-author of two more — "Employers' Associations: An Introduction" (with G. W. Ford and D. Plowman) and "The Role of Management in Industrial Relations" (with G. W. Ford).

Associate Professor Bill Howard, also of Administrative Studies, contributes two papers: "Australian Trade Unions in the Context of Union Theory" and "Democracy in Trade Unions".

Lecturer in Law, Ron McCallum, contributes a paper, "Secret Ballots and the Industrial Relations Bureau: Old Wine in New Bottles".

+

### The Golden Apples of the Sun: Twentieth Century Australian. Poetry, ed. Chris Wallace-Crabbe, Melbourne University Press, 1980 (\$11.80).

The work of 63 poets - from Christopher Brennan to Kenneth Slessor, Douglas Stewart, Judith Wright, James McAuley, Kath Walker, Dorothy Hewett, A. D. Hope and Michael Dransfield — are included in this anthology. The editor, who has in-cluded four of his own poems, says that he has chosen "the best, the most challenging and the most spirited Australian poems of this century".

Henry Parkes: A Biography, A. W. Martin, Melbourne University Press, 1980 (\$29.80).

Senior Fellow in History at ANU, Dr A. W. Martin, tells the story of a 19th A. W. Martin, tens the story of a 19th century self-made man, one-time Bir-mingham artisan and radical who emigrated to New South Wales in 1839, formally entered the colony's politics in 1854, served — with only short breaks — in the legislature until 1904, and heaven Dramiar five times 1894, and became Premier five times.

SIR GEORGE ARTHUR Bart: 1784-1854 by A. G. L. Shaw Melbourne University Press, 1980. Pp. XV + 307.

IT IS STILL uncommon for historians to write the lives of colonial governors across a number of their governorships.

Usually, as Sir Keith Hancock once Usually, as Sir Keith Hancock once said, they write about the policy of Lord Binks in Upper Canada from 1873-1874 and, when asked about their next book, say that they will write about the policy of Lord Binks in Lower Canada from 1873-74. Shudder, very properly, if you will. One might shudder even more if the life of a governor of a number of colonies was simply a series of studies à la Lord Binks, or his equivalents, in this, that or the other colony, stuck together in some encyclopaedic conglomerate of excessive bulk: for example Joyce's biography of Sir William MacGregor.

Professor Shaw is a much better scholar and writer than that; indeed, with good scholarship and an ad-mirable economy of words, he traces the career of a professional governor who ruled long before the "expansion of Europe" threw up governors better

### known because of their eulogists.

That is not to say Sir George Arthur was in himself a very interesting man. He was not.

Although he began his colonial career (after active service in the Army) in Belize, British Honduras, until 1823, then became Lieutenant Governor in Van Diemen's Land (Tasmania) until 1836, then Lieutenant Governor of Lower Canada from 1837 to 1844, and finally the Presidency of Bombay, after William Macnaughton, Governor designate, was killed in Afghanistan, the main interest is in the situations he encountered.

### **Common themes**

Arthur administered or governed an interesting range of colonies: Belize, a small, timber-cutting settlement; Tasmania, half penal colony, half agricultural settlement in a land with Aboriginal inhabitants; Lower Canada, a much larger colony of settle-ment by 'loyalists' from the indepen-dent United States and British emigrants, which faced both internal rebellion for reform and American hostility; Bombay still under the East



An exhibition titled Three British Writers: Aldous Huxley, D. H. Lawrence and Virginia Woolf is being held in Monash Main Library until October 15. The exhibition has been arranged by the British Council and the Library and features

books by and about the writers as well as photographs, typescript facsimiles and the like. It emphasises the diversity of its subjects' careers.

Above, first year Arts student, Toula Syros, peruses a book on the paintings of D. H. Lawrence.

October 1980

## **SCHOLARSHIPS**

India Company's partial control, which involved relations with Indian

rulers and military campaigns e.g. in Sind, to establish British authority.

situations, certain common themes run through Arthur's colonial career:

relations with native people; confront-ations with local Europeans; land

policy; reform of lax officials and ad-

Always inclined to worry, sometimes to overreact, Arthur was an upright, autocratic, evangelical gentleman

who, although often denounced, in the end commanded respect as a devoted

All of this Professor Shaw brings out,

not to condemn nor justify, but to un-derstand a man of the past. The great merit of the book is that there is no

facile, anachronistic judgment, although Arthur's need to provide for the fortunes of himself and his family, to see his daughters dowered and his

sons established, are tempting targets by modern standards. So is his pursuit

of honours and promotions. In this Arthur was a man of his time and

Professor Shaw very firmly places him in it, as any good historian should, a

task the more necessary with Arthur

because he was uninterested in ideas or

reflection, and his life is made up of actions taken in response to particular

Dean of Social Sciences and Professor of History and Government,

**Francis West** 

Deakin University.

ministrations.

Devoted

public servant.

situations.

Nevertheless, across this range of

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

Australasian Medical Students' Association — Lilly Research Fellowships 1980-1981

Available to members of affiliated AMSA societies for research in medical or paramedical fields during long vacation or an elected term. Minimum value \$400. Closing date October 20.

**ITT International Fellowships** 

For Master degree studies only, up to 21 months, in USA. Benefits include fares, fees, living and other allowances. Applica-tions close in Canberra October 31. AINSE Postgraduate Research Studentship 1981

For research into nuclear science and engineering. The scholar is required to spend part of his time at Lucas Heights. The stipend is \$5,105 pa. Dependant's and other allowances are provided. Applica-tions close at Monash November 7.

## Numbers down the ages

John N. Crossley. The Emergence of Number. Steel's Creek: Upside Down A Book Company, 1980. 376 pp. \$14 50

MOST OF US take counting for granted, and many language beginners' courses seem to assume that almost before we have learned to pass the time of day or negotiate a simple purchase we shall need to express a vast array of numbers in the target language, even though nowadays exchange rates and other economic factors have seen to it that knowledge of the names for numbers with two or three digits on either side of the decimal point will usually suffice in all but the most exceptional circumstances.

We have much to learn from societies whose number systems differ from our own enough to make fingers serve purposes more immediately meaningful than mere jabbing at buttons in blind acts of faith in the infallible microchips. One can hardly blame those peoples who have reacted to the linguist's earnest probing by profferring obscenities or non-sense as names of high numbers for which they have no conceivable use — there is, after all, a limit to the annual production of even the largest coconut plantation.

Much of Professor Crossley's first chapter. therefore, is devoted to the naming of numbers and what that can tell us about the place of counting in a variety of communities. One particularly interesting group is the international fraternity of scientists, whose apparently insatiable need to deal with the unimaginably vast and the infinitesimally minute has generated an extraordinary medley of number terms. One notes that the Greeks and Romans, from dwarfs to giants, no longer have it all their own way; pico from Spanish at one end and femto and atto from Norwegian at the other have been pressed into service now. But all these matters are merely hors d'oeuvres — though one suspects they could have a book to themselves without difficulty

The main body of the work deals with the changing approaches to numbers — natural, complex, ir-rational and real — over very nearly four millennia, attempting to identify moments at which major ad-vances were achieved. The treatment of these various aspects of number is rather uneven, perhaps because some of the material included was originally designed for other purposes and has not been fully tailored to fit the new context. So for the natural numbers we are given mainly the ideas of the ancients, the late Renaissance and the nineteenth century, whereas two chapters on complex numbers take us from antiquity to the seventeenth century, the irrationals are dealt with almost entirely in terms of ancient approaches to them and reals, by contrast, are seen from Renaissance and modern perspectives. It is not always clear that this distribution of emphasis arises from the varying levels of interest in particular problems at different times. On the other hand, one notices that no mention is made of China; whether or not Chinese mathematics found their way to the West, it would be interesting to know how the Chinese tackled these problems.

#### Rediscovery

Though every now and then the nonmathematician might shy away when faced with a daunting array of symbols, there is no real cause for alarm; four years of secondary school mathematics, dimly remembered after a quarter of a century, proved equal to the challenge on all but a few occasions (one hopes that this is not solely because these treasured remnants were acquired that much nearer in time to the subject matter of this book).

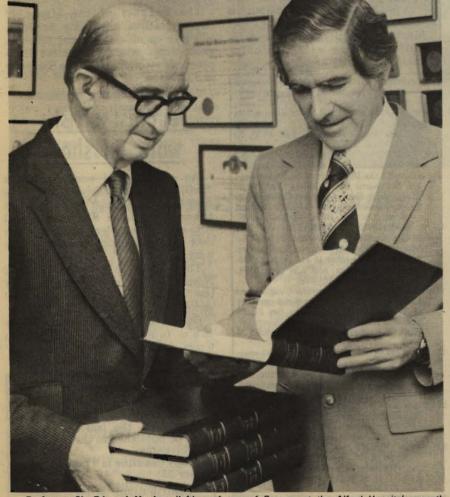
In fact, it would be a very great pity if too cursory an inspection of "The Emergence of Number" were to deter students of literature, history or philosophy from reading the book as it deserves to be read: thoughtfully, and allowing time for working

through the examples using the methods of earlier times as set out by their originators and manipulators. Only so can we begin to share Professor Crossley's own experience of rediscovery, and see things as they were once seen by Babylonians, Greeks, Persians (Omar Khayyam, no less), the many medieval scholars who wrote in Arabic, and their contemporaries and heirs who used Latin, though at times also Italian, French, English, etc.

Nearly all of the multitude of quotations translated in the text are given in their original language in the endnotes, for the benefit of those who distrust translators. Disregarding the occasional detail needing correction, one has in the versions appearing in the text as close a reproduction as possi-ble of what the authors actually wrote, not what they might have written had they been familiar with present-day terms and operations. This is most important for Professor Crossley's purpose. Time and time again proper respect for the original text shows just how far these early mathematicians understood what they were about. Often they understood things differently, and sometimes not at all, simply performing operations whose nature, scope and import they never fully realised, but Professor Crossley lets them speak for themselves — and even in transla-tion the personality of a Tartaglia or a Stevin is com-municated across the centuries. Fortunately, even the blind and one-eyed often unwittingly signposted a path for others more alert to develop into a broad highway.

However exact a discipline mathematics may be, its historical development proves to be as fumbling and serendipitous as that of any other branch of human endeavour. But if Professor Crossley's suspicion that "there will be no ultimate description of the emergence of number" (p. 322) should prove unfounded, his own contribution will have helped clear a track worth following.

Ron Keightley, Chairman **Department** of Spanish



Professor Sir Edward Hughes (left), professor of Surgery at the Alfred Hospital, recently presented the University with four bound volumes of his publications. The Vice-Chancellor, Professor Ray Martin accepts them above. The publications — 202 of them — were written between 1944 and 1979 and have appeared in journals throughout the world. They deal mainly with general surgical topics and, particularly, Sir Edward's specialty of large bowel surgery. Photo: Rick Croker.

### SPORT

Monash University Sports and Recreation Association is seeking part-time coaches and instructors for a range of sports in 1981.

Coaches and instructors who wish to be considered for appointment are asked to register their names with the Association no later than October 17. Sports include archery, aikido, Australian Rules football (B and F

Grades, seniors, reserves and juniors VAFA), basketball (men and women), baseball, fencing, golf, gymnastics, hockey (men and women), ice skating, judo, kei shin kan, kung fu, netball, soccer (men and women), squash,

tae kwon do, tennis, volleyball, weightlifting and women's fitness. Applicants are asked to state their experience and remuneration expected. Telephone enquiries: ext. 3103.

 All past Blues Awards winners are asked to advise the Association of their current address. The Association's an-nual dinner will be held on Friday, November 28.

Top national and international coaches will supervise the programs of the Australian Institute of Sport, which will be established in Canberra in January next year. The Institute will enable promising

\*

athletes to pursue their special interests in both sport and education. As well as having top level training, students at the Institute will have world-class facilities and sports science and sports medicine back up. They will be able to use the National Athletics Stadium which has already been built, and the National Indoor Sports Centre, which is under construction. Other venues are being planned, modified or up-graded. Applications for admission will be con-

graded. Applications for admission will be con-sidered from secondary students, those who have left school, and those who wish to un-dertake post-secondary study. All will be required to undertake some course of study. Post-secondary students will be able to enrol for a bachelor degree course in Sports Studies at the Canberra College of Ad-vanced Education, or in non-sports related courses at the CCAE, the ANU or the Bruce College of Technical and Further Educa-tion.

### LECTURE

Thor Heyerdahl has gone to heroic lengths to prove several of his theories on the spread of civilisations throughout the world — in, for exam-ple, the Kon Tiki and Ra expeditions. Heyerdahl, on a lecture tour of Australia, will be at Monash during

the Oceans '80 Underwater Congress and Film Festival being held at Robert Blackwood Hall from October 17 to 19. The world premiere of the film "Mysteries of the Sea" will be held during the festival. For further information contact 25 5255.



# Ashok Roy in free **RBH** performance

One of the world's masters of the sarod, Ashok Roy, will give a free evening concert at Monash this month.

The performance of North Indian (Hindusthani) music will be held in Robert Blackwood Hall on Thursday, October 9 at 8 p.m. and is being spon-sored by the department of Music. It follows a highly successful lunchtime concert given by Mr Roy last month.

As well as a performer, Mr Roy is a composer and teacher of Indian music (Reporter, August 1).

He is currently a visitor in the Music department where he has been lectur-ing on various aspects of Indian music and giving practical instruction in vocal music, sitar and sarod to about 15 students.

While in Australia on this his fourth visit he has also given lecture demonstrations at the two universities and the Conservatorium of Music in Brisbane, the University of Sydney, LaTrobe and Melbourne universities and the Victorian chapter of the Australian Musicological Society.

At home, Mr Roy is Master-in-Charge of the Music Department at The Doon School in Dehra Dun, Uttar Pradesh - one of India's top public schools.

### Cultural 'ambassador'

Mr Roy, a pupil of Ustad Ali Akbar Khan, at one time worked with All India Radio and for a number of years has been an "ambassador" for Indian culture abroad. He worked for five years at the Indian Cultural Centre, Suva and recently completed an Indian Government-sponsored tour of Europe

Performing with Mr Roy on October 9 will be Ram Chandra Suman on the tabla.

Mr Suman, who is also a trained

October 1980

Kathak dancer, represented India at Expo '67 in Montreal and has performed in the US and Singapore. He has also taught for eight years in London and Fiji. He now lives in Sydney.

On the tonpura (a drone instrument) will be Sandra Faigen, a graduate student in Music who has recently completed field work in India on women's folk music, and Mary-Anne Titter, an undergraduate student.

> **OCTOBER** DIARY

8-10: RED CROSS MOBILE BLOOD BANK 8-10: RED CROSS MOBILE BLOOD BANK will be visiting Monash University, 9.15 a.m.-3.30 p.m. weekdays. Arts Assembly Rooms SGOI-4. Appointments can be made at the Union Desk.
8-10: WEAVING EXHIBITION presented by Macedon Weavers. Weekdays 10 a.m.-4 p.m. Arts & Crafts Centre. Admission free. University of 2006

- p.m. Arts & Crafts Centre. Admission free. Inquirles: ext. 3096.
  9: ABORIGINAL STUDIES LECTURE "The Future of Aborigines," panel discussion. Pres. by Aboriginal Research Centre. 1 p.m. Lecture Theatre R6. Admission free. Inquiries: ext. 3335.
  8-31: EXHIBITION Erica McGilchrist, past and recent works. Pres. by department of Visual Arts. Monday-Friday 10 a.m.-5 p.m.; Thursdays 11 a.m.-6 p.m. Exhibition Gal-lery, Menzies Building. Admission free. Inquiries: ext. 2117.
- Iery, Menzies Building, Admission free. Inquiries: ext. 2117.
  10: CONCERT Peninsula Grammar School concert featuring the "Grand Chorus from Aida" Verdi; "Spring" from The Seasons Vivaldi; "Royal Fireworks" Handel; "Kol Nidrei" Bruch. 8 p.m. RBH. For further information and tickets contact 787 4911 787 4811
- 787 4811.
  10-11: OPERETTA "La Belle Helene," by Offenbach. Presented by Cheltenham Light Opera Company. 8 p.m. Alex. Theatre. Admission: Adults \$5; students, pensioners \$3.50; children \$2.50. Bookings: 95 3269. Performances also October 15-18, and October 22-25. tober 22-25. 11: CONCERT — ABC Gold Series No. 6. The

## Dramatic union to be recaptured on radio

Philosophy and mathematics had a "dramatic union" at Monash's Open Day in 1979 and soon a much larger audience may be hearing about it.

The union of the two disciplines was in the form of a play written (and directed in its original production) by lecturer in Mathematics, Dr Aidan Sudbury.

The play, Language Takes a Holiday, is a dramatisation of philosophical arguments which also have application to mathematics.

First performed at Open Day '79, then twice again on campus, "Language Takes a Holiday" has now been accepted by the ABC for presen-tation as a radio play. Production details are being finalised.

Dr Sudbury says that the play places standard philosophical arguments in a dramatic setting — one more enter-taining than a textbook, he hopes.

He says: "It bears a relationship in content to plays like Tom Stoppard's 'Jumpers' although the arguments in my play are presented a good deal more technically and less theatrically. A comparison can be made too with the style of 'The Goon Show', or the Theatre of the Absurd.

"The play is close to the Absurd in that people don't speak like everyday characters in it although they operate in a semi-plausible setting."

The storyline? An overworked philosopher, Prof. Fist, takes a Cretan holiday and is tormented by various logical paradoxes before succumbing to the conspicuous charms of a masseuse named Aphrodite.

Dr Sudbury says: "I think it was courageous of the ABC to decide to put such a technical play to air. I only hope people find it entertaining.

"I have tried writing plays about 'human beings'. I must say I haven't found it anything like as easy."

### Festive poll for Clayton

The Clayton Community Festival organisers tried to avoid a clash with the date of the federal election and even telegrammed the Prime Minister with a special plea.

Politics came first but, come rain, shine or elections, the Festival, organised by the Clayton Chamber of Commerce, will be held on October 18 and 19.

Organisers are hoping that about 200,000 people will visit the Festival to be held from 9 a.m. on the Saturday to 6 p.m. on the Sunday in Clayton Road which will be closed to traffic from the railway line to Centre Road.

Many community groups and institutions in the area, including Monash University and local schools,

- Monash University and local schools,
  Melbourne Symphony Orchestra conducted by Arvid Yansons with guest Claude Helffer piano. Works by Weber, Milhaud, Bruckner. 8 p.m. RBH. Admission: adults A. Res. \$8.50, B. Res. \$6.90, C. Res. \$4.90; students and pensioners A. Res. \$6.90, B. Res. \$4.90, C. Res. \$4.10.
  12: CONCERT "Young Australia in Concert" by arrangement with the ABC in conjunc-tion with the University of Melbourne and the Melbourne State College. Faculty of Music String Ensemble, State College Brass Quintet, associate artist Trevor Barnard piano. 2.30 p.m. RBH. Admission free.
  16-17: MARIONETTE THEATRE "The Magic Pudding," presented by The Marionette Theatre of Australia, Victorian Arts Council. October 16 at 1.30 p.m., Joc-tober 17 at 11 a.m. and 1.30 p.m. Alex. Theatre. Bookings: 529 4355.
  17-19: OCEANS '80 Underwater Congress and Film Festival featuring the world premiere of "Mysteries of the Sea" by Sea Films. Special guest speaker Dr Thor Heyerdahl. RBH. For information, tickets, contact 25 5255.
  18: SATURDAY CLUB (Blue Series, 8-13-year-
  - 5255.
- 5255.
   18: SATURDAY CLUB (Blue Series, 8-13-year-olds) "The Magic Pudding," presented by the Marionette Theatre of Australia. 2.30 p.m. Alex. Theatre. Admission: adults \$4,
- by the Mathematical Theorematical Action Registration 200 p.m. Alex. Theatre. Admission: adults \$4, children \$3.
  20: CONCERT Mirrabooka Primary School featuring the musicals "The Pied Piper" and "Paradise Island". 7.30 p.m. RBH. For information, tickets, contact 877 2849.
  21: FILM NIGHT "Breaker Morant," organised by the Monash Parents' Group. 8 p.m. Waverley Cinema, Pinewood. Admission: \$4.50. Inquiries, tickets: Mrs D. Farr, 232 5146.
  23: SEMINAR "Liabilities and Duties of Accountants and Auditors," pres. by faculty of Law and Aust. Society of Accountants (Vic. Div). Fee: \$47 (includes dinner papers). Further information: ext. 3377.

will participate in some form in the Festival.

A full entertainment program appealing to diverse tastes — from music hall to disco — has been planned over the two days.

Well known names in entertainment and politics are scheduled to appear at the Festival.

Competitions to test a variety of skills will be held; food representative of the large number of national groups living in the Clayton area will be available.

The Speaker of the House of Representatives, Sir Billie Snedden, will give an official opening touch to proceedings when he arrives in a parade of veteran cars on the Saturday at 12.30 p.m.

### Feminist artist's work on show

An exhibition of works by Erica McGilchrist, probably Melbourne's best-known feminist artist, opens tomorrow (October 8) in the Visual Arts exhibition gallery on the seventh floor of the Menzies building, south wing

The exhibition will be on until November 5. It marks the conclusion of the "Women and Art: Into the '80s" serie

Gallery hours are Monday to Friday 10 a.m. to 5 p.m., Thursday 11 a.m. to 6 p.m.

### MONASH REPORTER

The next issue of Monash Reporter — the last for 1980 — will be published in the first week

of November. Copy deadline is Thursday, Oc-tober 23.

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