Study on how coin minting changed to meet demand

In the hundred or so years from 645 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 metallurgical 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 $1,499,517 in funds from the Australian Research Grants Committee in 1981 (see story Soud 31-80). The grants will fund 116 projects including 28 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.

The 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 ’90s. The Facts About the University leaflet no. 8, “Bird Life at Monash”, records sightings of two types of rosellas — the eastern and 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 be 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.

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 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
- 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.
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 war 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 of my personal view of the Civil War is fairly typical — it is regrettable that the war had to be fought but 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 (1865 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 1860) — 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 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 US 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.

Professor Durden says that the South today is not only mostly reconstructed in attitude toward the Civil War but also transformed 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.

As President Carter 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.

"We need a policy to foster multilingualism"

Australia needs a policy to encourage use of one of its most valuable natural resources — multilingualism.

As a Visiting US Professor Michael Clyne, of the German department, said at a symposium during the recent conference of the Applied Linguistics Association of Australia held at Rensden. 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 not only any significant 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 connected 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 an Australian 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 quickly be counterproductive.

For demographic reasons, some groups will require bilingual pre-school teachers and bilingual 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 education of adolescents, and still others have a particular interest in maintenance-oriented community language teaching in primary and secondary school."

Dr Clyne said that the following four criteria could be among those measuring 'need': number and percentage of monolingual non-English speakers; recency of arrival; socio-economic 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" and "community" languages language education should be for "everyone, not just for children from the "appropriate" ethnic background".

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 the 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 and secondary school language teaching methodology in universities and colleges."

An area demanding immediate attention is the development of teaching strategies for the activation of passive skills among the many adolescents who had grown up hearing but not speaking a second language in the home.
The legal problems arising from artificial insemination by donor semen are so far-reaching and at present, so complicated that only choice procedures 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 complexities of the law will be clarified 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 be in the absence of legal adoption by the husband, to 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 marriage, 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 couple was conceived through AID. That child will remain forever and to all the world a child with full legal status in the family structure."

"On the other hand, there may be couples whose philosophy it is to make no secret of the fact - 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."

Rights of the child

Mr Justice Asche points out that if a husband has to pay two sets of estate duty to his children, the expression is construed to mean legitimate children. If the same status is accorded to children of AID, a child conceived in Australia and in those the AID child is at a disadvantage. Under present legislation the Family Court would deal with custody, access or maintenance relating to children who are not the children of the husband and wife, he points out. Cases relating to extrapairal children and AID children must be heard in the Supreme Court.

Matri- monial disputes

Parties to a matrimonial dispute could find themselves in the position of having to pay two sets of estate duty to the children of that husband. Hence, Mr Justice Asche says, it is "simply, 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 intimidating 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 passed in 1974 to remove the disabilities of children conceived by the artificial insemination of a donor, contains a provision relating to the law of AID.

Should a child be 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?

An advanced question is discussed in "Artificial Insemination By Donor" by Miss Alison McMichael, a social worker at the Royal Children's Hospital, Melbourne, who contributes a chapter on the social aspects of AID.

"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 adopted parents at an early age because it is impossible to maintain secrecy, but also because it is distressing to the child not to know.

"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 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 act.
- The sperm donor has been amoral; he has committed an illegal act.
- 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 the 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 complete range of educational, medical 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."

Exploring the problems of AID

The first successful human artificial insemination was carried out by the English surgeon John Hunter in 1785 using the husband's semen. It was not until 1974 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.

Just published is a book "Artificial Insemination by Donor," edited by Professor Carl Wood, professor of Obstetrics and Gynaecology at Monash, who writes, "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."

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What stops 'us' conserving energy?

For many of "us", vitally important energy is lost to five 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 decisions we could be making daily in favour of energy conservation -- in our homes, in travel, in our purchasing habits, and recreational pursuits.

Yet many of us don't take the initiative. Why don't we join 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 energy-conserving practices. His project is being funded by the National Energy Research, Development and Demonstration Council -- the first grant given by NERDC for work on social, rather than technological, 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 returnable containers (and, what is more, actually returning them).

Mr. Crossley's study builds on the work he has done for his Ph.D. on energy conservation practice and techniques but a high initial cost might be a deterrent to the installation of an energy-saving device.

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 disadvantaged 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 transport may mean a "longer day" with 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 energy-conserving 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, he says, "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.

Such activities could include visits by distinguished academics, an oration, dinners and the conferring of honorary degrees.

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 universities, a group of honorary degrees, a banquet and church service.

Professor Keith Sinclair is writing a history of the university, the first part of which is expected to be published in 1983. Faculties and departments, it is anticipated, will also organise functions. Anyone who would like further information or who intends attending the centennial events, visiting speakers or the like should contact the Manager, Development Office, Private Bag, Auckland, NZ.

Public transport

He says: "In the transport area, for example, 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, particularly electric trains and trams for fuel, 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 oil 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 situations, such as their places of work," he says.

With Monash, as with most institutions, there is a variety of significant dates in the history of its foundation.

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

This is 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 University has 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.
Technology IS society its master or servant?

Until recently not much attention had been paid to human factors in technological design, Mr Ron Cumming, Director of the Caulfield Institute 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 disastrous — provided the system has been designed to recognize human capacities and limitations," he said. When errors were allowed to progress, they could lead to error and, over time, to disaster, he said.

"We can design systems to be less critical to some single act — or to a single error — providing 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 reinforce 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 with them," he said. "We can design systems to be less critical to some single act — or in other words design "to fail-safe". 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.

A possible threat to Melbourne, he said, was brought to the city in a single "all eggs in one basket" pipeline. The pipeline, which Melbourne had built to US standards, was designed on the size of our 50c piece. The book is the culmination of a three month workshop on "mature age" students which will bring together 18 invited researchers who have made recent contributions to the field.

The workshop, to be held from October 25 to 28, is being funded by the Education Advisory and Research Unit. The Director of HEARU, Dr Terry Hore, and Dr Ken 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 the field.

One of the major such studies in Australia has been conducted by Dr Hore and Dr West. "How can Australia's prime research organisation tackle the real problems of the nation with its right arm tied behind its back?" he said.

"Several years ago the Federal Government set up the Birch committee to advise it on the future development 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?"

"We can design systems to cope with technological change without sever disruption of our life style," he said.

"The quantum of time for society to adjust to technological change is 10 years," he said. "This means that students and the politicians and financiers behind them won't wait.

"Several years ago, in 1978, Dr Hore and I began to build a freeway through Carlton at enormous social cost, we can afford to put under-analytical railway tracks in order to boost property values, but apparently we couldn't afford to put the usual underground to protect social amenity. "Have we, the community, lost control of technology?"

A real growth phenomenon in universities in recent years has been the entry of adults to normal undergraduate courses.

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He says that, as the volume of production increased, the accuracy in minting of the standard 8 pence was 4.9g. A standard deviation of a group of the early coins (540-546 BC) was 3.8g. By 400 BC this deviation had been reduced to 2.4g.

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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 calculation. "When working with motor accidents there 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 design systems to cope with such hazards into new systems.

A possible threat to Melbourne, he said, was the 1085 of natural gas, which was brought to the city in a single "all eggs in one basket" pipeline. The pipeline, which Melbourne had built to US standards and American pipelines had been known to blow up.

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"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 design systems to cope with such hazards into new systems.

A possible threat to Melbourne, he said, was the 1085 of natural gas, which was brought to the city in a single "all eggs in one basket" pipeline. The pipeline, which Melbourne had built to US standards and American pipelines had been known to blow up.

He says that, as the volume of production increased, the accuracy in minting of the standard 8 pence was 4.9g. A standard deviation of a group of the early coins (540-546 BC) was 3.8g. By 400 BC this deviation had been reduced to 2.4g.
### The 1981 Budget

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

#### BUDGETARY AREA/UNIT

<table>
<thead>
<tr>
<th>Activity</th>
<th>1981</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Teaching and Research 1.1.1 Faculties' Staffing and Maintenance</td>
<td>38,187.7</td>
<td>38,374.6</td>
</tr>
<tr>
<td>1.1.2 Trainee Teacher Supervision</td>
<td>177.0</td>
<td>177.0</td>
</tr>
<tr>
<td>1.3 Aboriginal Research Centre</td>
<td>41.9</td>
<td>41.9</td>
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<tr>
<td>1.4 Outside Studies Programme, Appointment Costs, Repatriation, Distinguished Visitors and Professional Loadings</td>
<td>403.1</td>
<td>385.5</td>
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<tr>
<td>1.5 Supplementary Pensions</td>
<td>118.3</td>
<td>93.9</td>
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<tr>
<td>Total 1.1 Teaching and Research</td>
<td>38,761.0</td>
<td>39,028.6</td>
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<tr>
<td>1.2 Research Only — Publications Subsidy</td>
<td>10.0</td>
<td>10.0</td>
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<tr>
<td>TOTAL 1.0 ACADEMIC ACTIVITIES</td>
<td>38,761.0</td>
<td>39,038.6</td>
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<tr>
<td>2. Academic Services</td>
<td></td>
<td></td>
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<tr>
<td>2.1 Library</td>
<td>4,063.2</td>
<td>4,080.3</td>
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<tr>
<td>2.2 Computer Centre</td>
<td>988.5</td>
<td>903.4</td>
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<tr>
<td>2.3 Higher Education Advisory and Research Unit</td>
<td>410.7</td>
<td>488.2</td>
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<tr>
<td>2.4 Animal Services</td>
<td>269.0</td>
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<td>2.5 Safety</td>
<td>67.0</td>
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<tr>
<td>2.6 Art Collection</td>
<td>10.0</td>
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</tr>
<tr>
<td>2.7 Alexander Theatre</td>
<td>68.6</td>
<td>69.0</td>
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<tr>
<td>2.8 Robert Blackwood Hall</td>
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<td>67.7</td>
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<td>2.9 Sub-total</td>
<td>5,922.5</td>
<td>5,913.3</td>
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<td>2.10 Supplementary Pensions</td>
<td>10.0</td>
<td>8.8</td>
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<td>TOTAL 2.0 ACADEMIC SERVICES</td>
<td>5,942.5</td>
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<td>3. Student Services</td>
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<td>3.1 Careers</td>
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<td>3.2 Counselling</td>
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<td>3.3 Health</td>
<td>183.3</td>
<td>182.3</td>
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<td>3.4 Housing</td>
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<td>3.5 Religious Centre</td>
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<td>3.6 Warden of the Union</td>
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<td>61.9</td>
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<tr>
<td>3.7 Sub-total</td>
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<td>580.9</td>
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<td>3.8 Supplementary Pensions</td>
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<td>3.9 M.G.S. Stipends and Allowances</td>
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<td>TOTAL 3.0 STUDENT SERVICES</td>
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<td>4. General University Services</td>
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<td>4.1 General</td>
<td>9,431.0</td>
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<td>4.2 Major Building Renovations</td>
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<tr>
<td>4.3 Supplementary Pensions</td>
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<tr>
<td>TOTAL 4.0 GENERAL UNIVERSITY SERVICES</td>
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<tr>
<td>5. Public Services — Continuing Education</td>
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<td>6. General Reserve</td>
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<td></td>
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<td>Provision for extra cost of Superannuation</td>
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<td></td>
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<tr>
<td>General</td>
<td>850.0</td>
<td>850.0</td>
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<tr>
<td>7. BUDGET TOTAL</td>
<td>66,647.0</td>
<td>66,335.0</td>
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<tr>
<td>Less</td>
<td>66,487.0</td>
<td>66,085.0</td>
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<tr>
<td>8. Overbudget</td>
<td>360.0</td>
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<tr>
<td>TOTAL 9. RECURRENT GRANT</td>
<td>58,197.0</td>
<td>58,335.0</td>
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</tbody>
</table>

**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 revised 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) above.

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

### Recent events in focus

#### 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 Coode fatigue cracking a sample of aluminium casting alloy. Chairman of the department, Professor Ian Polmear, looks on.

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 gentle persuasion and a touch of humour — the 'gospel' of safety. The Barkers retire to Tewantin on Queensland's Sunshine Coast.

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 canoes, entered in Melbourne's fourth annual concrete canoe 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 organised this year by RMIT and sponsored by the Concrete Institute of Australia.

The Monash canoe 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 canoe 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 Alan Beasley, says that about 30 students helped in construction of the canoe. They moulded 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 canoe 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 canoe under construction.
While much serious public concern has been directed on unemployment among young people and their 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 addressed by men and women at the other end of the work cycle.

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."

"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."

"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 workforce facing permanent financial disaster and falling below the poverty line to join the already too-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 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.
The British Museum and not the living creature that was the original resting place for the common law—judge-made law—in the UK, unless a "fresh start" was made.

Lord Scarman, Lord of Appeal in Ordinary, delivered the Wilfred Fulagar Memorial Lecture at 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 stressed 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 argued that 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 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.


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 on its efficacy upon a judiciary having the duty to strike down as unconstitutional legislation infringing human 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 "exasperating 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.id 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. It took the first step to ratify it in 1953. It has acted under Article 25 of the Convention to permit individual citizens the right to petition the European Commission of Human Rights and the European Court of Human Rights for a declaration that their human rights have been violated.

Lord Scarman, Lord of Appeal in Ordinary, delivered the sixth Wilfred Fulagar Memorial Lecture at Monash last month on the topic: "The Common Law Judge in the 20th Century—Happy Marriage or Irretrievable Breakdown?"

His career as a judge began in 1961 when he was appointed to the Court of Justice: Probate, Divorce and Admiralty, later Family Division. In 1971 he was made Lord Justice of Appeal.

His career as a judge began in 1961 when he was appointed to the Court of Justice: Probate, Divorce and Admiralty, later Family Division. In 1971 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?"**

Lord Scarman pointed to the Convention to permit individual citizens the right of petition to the 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 issues such as the right to access to a lawyer, threats to the freedom of the press, and immigration and naturalisation requirements.

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.

"Both Australia and the United States have, with the aid of their constitutions, united societies spread over a continent into a viable sovereign state. The former has 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 constitutional, essentially private law has developed an effective public law."

**Homegrown recombinant DNA research**

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

"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 development of these techniques, their contributions to fundamental knowledge, and their likely 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 the present arrangements for surveillance of the 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 sub-committee be established to assume the role of the Academy's Committee on Recombinant DNA molecules (ASCORD), which has provided surveillance since 1976.

The report notes that progress in recombinant DNA research and its application to industry, agriculture and medicine is likely to be rapid and recommends 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 (AMSTAC) 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 technological manpower, develop fisheries research and monitor the disposal of wastes and other pollutants. Marine biology, particularly in the studies of phytoplankton and zooplankton, and marine geosciences, physical and chemical, were of special emphasis and coastal and ocean engineering required special emphasis.

"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 judges, is in contrast with the wide-ranging American approach," he said.

**Consequences**

"American judges have refused to confine themselves to the classical meaning of the words of the statute, or to the traditional search for a legal formula designed, irrespective of its purposes, to answer the question as to (the words) meaning."

"But Australian judges approach the interpretation of their Constitution much as the word's meaning and a literal rather than a grammatical approach. They have even hesitated to apply a 'plain meaning' approach."

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 explicit than the English."
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 view 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 85 per cent of respondents went into "pre-professional training", with 56 per cent securing articles of clerkship and 25 per cent entering legal workshop courses (chiefly conducted by the Leo Cussen Institute). This distribution is statistically 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 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 commercial 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 are 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 an article.

"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."


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.
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 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 conglomeration 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 admirable 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 President 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 settlement by “loyalists” from the independent United States and British emigrants, which faced both internal rebellion for reform and American hostility; Bombay still under the East India Company’s partial control, which involved relations with Indian rulers and military campaigns e.g. in Sind, to establish British authority.

Nevertheless, across this range of situations, certain common themes run through Arthur’s colonial career: relations with native people; confrontations with local Europeans; land policy; reform of lax officials and administrations.

**Devoted**

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 public servant.

All of this Professor Shaw brings out, not to condemn nor justify, but to understand 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 situations.

Francis West
Dean of Social Sciences and Professor of History and Government, Deakin University.

**SCHOLARSHIPS**

The Reporter presents a precis of the details. More information can be obtained from the Graduate Scholarships Office, ground floor, University Office, 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.

IT&T International Fellowships

For Master degree studies only up to 21 months, in USA. Benefits include fares, fees, living and other allowances. Application close in Canberra October 31.

AINSE Postgraduate Research Fellowships 1981

For research into nuclear science and engineering. The scholar is required to spend part of his time at Lucas Heights. The stipend is $5,100 pa. Dependant’s and other allowances are provided. Applications close at Monash November 16.

**BOOKS RECEIVED**

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


This volume brings together the latest readings on labour relations under 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 Administrative Studies (soon to take up an associate position at Macquarie University). Dr Lansbury is the author of two of the readings, “Employee 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 — “Employee and Professional Employees in Australia: Reluctant Militants in Retreat?” 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 “Democratic in Trade Unions”. Lecturer in Law, Ron McCallum, contributes a paper, “Secret Ballots in the Industrial Relations Bureau: Old Wine in New Bottles”.


The work of 60 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 included 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 ($29.90).**

Senior Fellow in History at ANU, Dr A. W. Martin, tells the story of “White Collar and Professional Employees in Australia: Reluctant Militants in Retreat?” and “Industrial Democracy in Australia: Past Performance and Future Prospects”.

Closing date October 20.

**MONASH REPORTER**

An exhibition titled Three British Writers: Aldous Huxley, D. H. Lawrence and Virginia Woolf is being held in Monash Main Library until October 16. 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, Tanya Sykes, peruses a book on the paintings of D. H. Lawrence.

October 1980
The main body of the work deals with the changing approaches to numbers — natural, complex, irrational and real — over nearly four millennia, attempting to identify moments at which major advances 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 eighteenth 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 feature repetition is made of China; whether or not Chinese mathematics 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 us have a good knowledge of them. And it is remarkable to see in the examples using the method of earlier times as a test, out by educated 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 those peoples who have reacted to the linguist's variety of communities. One particularly interesting numbers system is the number system which Professor Crossley's own experience of rediscovery, and see what that can tell us about the place of mathematics in the history of man.

Rediscovery

Though every now and then the non-mathematician might shy away when faced with a daunting array of symbols, it is a 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 preserved 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, from a future, history of mathematics 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 a test, out by educated 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 those peoples who have reacted to the linguist's variety of communities. One particularly interesting numbers system is the number system which Professor Crossley's own experience of rediscovery, and see what that can tell us about the place of mathematics in the history of man.

For further information contact 25 5255.

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. They will be able to use the National Aquatic Stadium which has already been built, and the National Indoor Sports Centre, which for construction. Other venues are being planned, modified or upgraded.

Applications for admission will be considered from secondary students, those who have left school, and those who wish to undertake post-secondary study. All will be assessed on their experience, skills and ambitions. To ensure that all applicants have a chance to express interest in the Institute, all past Blues Award winners are expected to advise the Association of their current address. The Association's annual dinner will be held on Friday, November 38.

Sport

Monash University Sports and Recreation Association is seeking part-time coaches and instructors for a range of sports in 1980.

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 VAPA), 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, taekwondo, tennis, volleyball, weightlifting and women's fitness.

Applicants are asked to state their experience and remuneration expected. Telephone enquiries: ext. 3103.

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Lecture

Thor Heyerdahl has gone to heroic lengths to prove several theories on the spread of civilisations throughout the world — in, for example, 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 premieres of the film "Mysteries of the Sea" will be held during the festival. For further information contact 25 9265.
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 (Hindustani) music will be held in Robert Blackwood Hall on Thursday, October 9 at 9 p.m. and is being sponsored 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 lecturing 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 Sydney, the University of Melbourne at LaTrobe and Melbourne University and the Victorian chapter of the Australian Musical 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 Kathak dancer, represented India at Expo ’87 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 tongpura (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.

Dramatic union to be recaptured on radio

Philosophy and mathematics has 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 Aldan 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 presentation as a radio play. Production details are being finalised.

Dr Sudbury says that the play places standards of philosophical arguments within a dramatic setting — one more entertaining than a textbook, he hopes.

He says: “It bears a relationship in content to plays like Tom Stoppard’s “Hedgerows” 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 story line? An overworked philosopher, Prof. Fist, is selected by various logical paradoxes before succumbing to the conspicuous charms of a ma­­se­­na­­me­­ne­­named 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 say I haven’t found it anything like as easy.”

Festive poll for Clayton

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 series.

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, October 29.

Contributions (letters, articles, photos) and suggestions should be addressed to the editor (ext. 3085) G/ the information office, ground floor, University Offices.