

## MAZAK in action

The School of Engineering's MAZAK machining centre was recently contracted by the REPCO Auto Parts company to produce 200 clutch plates for the NISSAN car company.

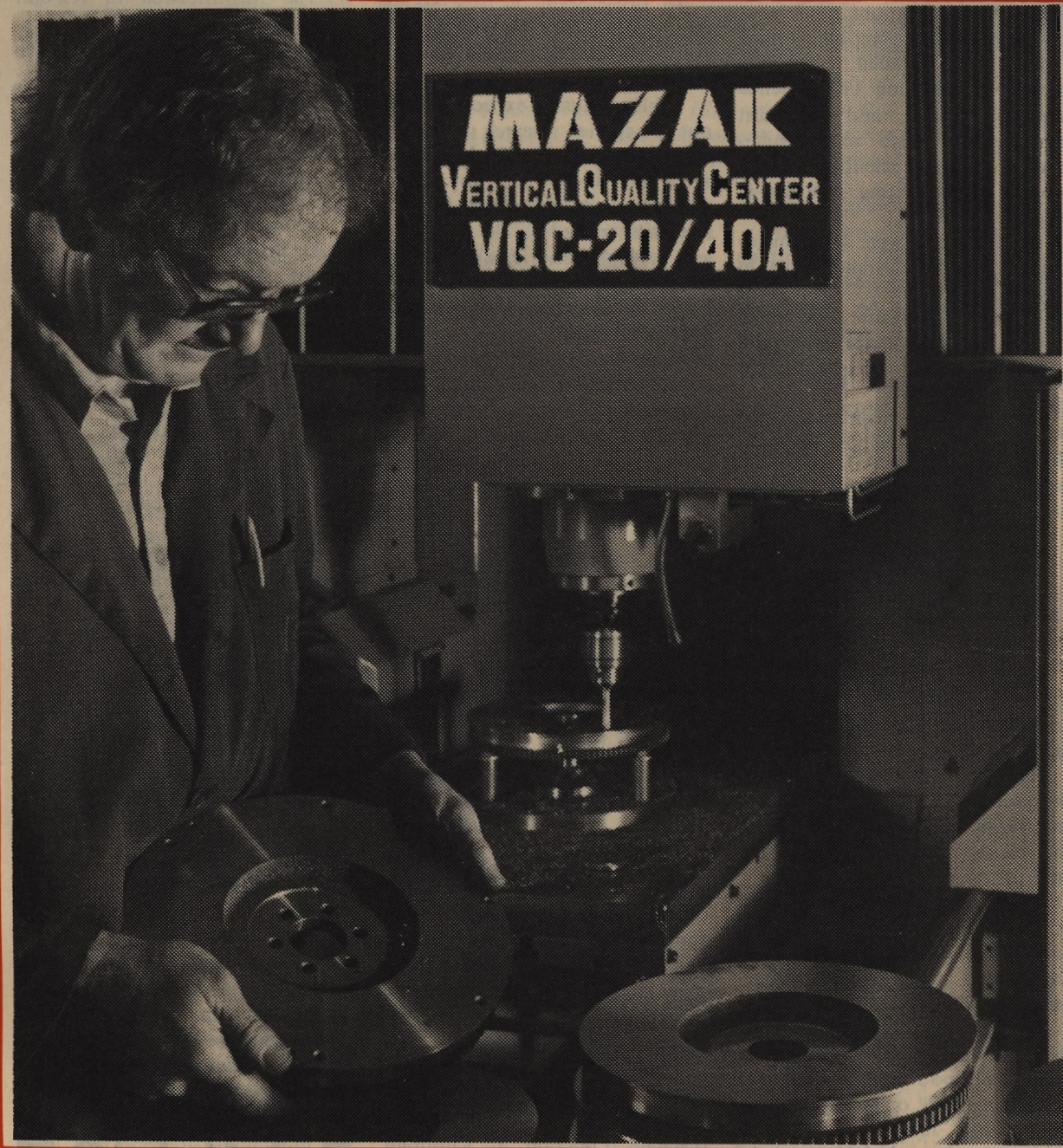
REPCO approached Chisholm to pick up production of the parts while the company's own machine was out of action.

Technicians working on the job were Mr Ivor Little, Mr Ian Dent and Mr Jack Craig.

# Chisholm Gazette

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## Micros for engineering

A \$125,000 microcomputer laboratory will be established by the School of Engineering next year.

Principal lecturer with the Department of Civil Engineering, Mr John Walker, says the move is in line with the complete overhaul of engineering courses which occurred this year, aimed at ensuring Chisholm engineering graduates will be unique in their ability to handle the massive re-orientation occurring within the engineering profession as a result of computer developments.

Initially the laboratory will comprise 20 256k microcomputers, in addition to a Labtem host computer system running under a UNIX operating system.

The microcomputers will be used for applications such as spread sheets and data bases, and for the teaching of a range of computer languages used in engineering.

The School says the new equipment will provide a 'state-of-the-art level of computational support for all students in engineering degree courses'.

The Labtem host computer will act as a file server in handling printing and plotting functions, and provide a general education in UNIX and 'C' languages as well as providing for microcomputer developments in the Department of Electrical and Electronic Engineering.

The School is also investigating the use of Labtem for the provision of electronic mail, document transfer and appointment reminders between offices.

In addition, 18 Apple computers presently being used by various Departments within the School will be consolidated into a separate laboratory to support developments in Industrial Engineering.

Mr Walker says the School expects the laboratory to strengthen its ability to provide short courses for industry professionals, and generate funds for further extension of the facilities in future.

He says a 'significant proportion' of the \$125,000 spent on equipping the laboratory has been drawn from funds generated by the School.

Civil Engineering lecturer, Mr Murray Muspratt, currently on Professional Experience Program leave at Princeton University, has been involved in assessing and arranging for the purchase of software for the laboratory in the USA.

### See you in 1985!

This is the last edition of the Chisholm GAZETTE for 1984. Publication will resume early in 1985. Otherwise, it's business as usual for the Public Relations Office, C1.08, Caulfield. Telephone the Public Relations Officer, Geoff Heard, ext. 2099, or the Publications Officer, Sue Couttie, ext. 2311, for any assistance with publicity or public relations matters.

Meanwhile, we wish Merry Christmas and Happy New Year to all our readers.

## More places for disadvantaged students call

Increased access to tertiary education by disadvantaged groups has been a recent focus for discussion by Chisholm's Academic Board.

The Board has approved in principle a proposal to open up a greater number of places to disadvantaged students, in particular women wishing to study in traditionally male dominated areas, aborigines and the disabled.

According to Acting Academic Registrar, Mr Alan Young, such a move would amount to an extension of the Institute's long standing policies on access by disadvantaged groups, for example, special entry policies for students who lack the traditional HSC or TOP entry requirements.

Early school leavers and mature aged students are among those who have benefited, he says.

'The Institute has long had the role of being available to the educationally disadvantaged', Mr Young notes, but in future special efforts will be made 'to bring our special entry policies to the attention of many more potential students'.

Other examples of Chisholm's commitment to access and participation by disadvantaged students, Mr Young says, include:

- The Women in Engineering program, run by the School of Engineering for the past five years to encourage higher participation by females in this almost totally male dominated field
- Selection procedures for the Associate Diploma in Welfare Studies which consciously splits the intake into those students with secondary school qualifications, and those without
- The 'Second Chance in Science' program - a 13 week mid-year intake course for students who failed science at HSC, aimed at providing intensive revision work to bring students up to the standard required to cope with the applied science degree (the program ran for two years, but ceased in 1982 due to funding constraints).

Head of the Educational Development Unit, Dr Charles Noble, recently prepared a paper on the question of access to higher education by disadvantaged groups, to assist the Academic Board in its discussion.

In it, he argued that 'there is a strong case for Chisholm giving a higher priority to admitting disadvantaged students'.

He pointed to the Chisholm Planning Document which comments that 'the educational opportunities available to most of the community have not been sufficiently extended to certain groups', such as women, the disabled, aborigines and those in the lower socio-economic strata of Australian society.

Dr Noble said: 'To ignore these groups would be to challenge government policy at a time when Chisholm does not appear to be one of the government's favourite sons

(or daughters). The Institute will have to do a great deal more to assist disadvantaged students if it is to attract the favourable funding bestowed on tertiary institutions in the western and northern suburbs'.

But he stressed that the admission of disadvantaged students should not be allowed to 'dilute academic standards'.

He said an important consideration was whether Chisholm had or could develop the resources to provide special assistance to those admitted under a disadvantaged students scheme, and if not it was undesirable to admit those who had little chance of success at tertiary level without adequate support.

One way of improving access for disadvantaged students, Dr Noble said, was the introduction of quotas of the kind in place at Monash University, which defined an upper limit of up to four percent of the first year quota in each faculty to unqualified students able to show definite evidence of educational disadvantage.

But he said disadvantaged students could be given preferential treatment without imposing a quota.

'The critical decisions between applicants are made in the region of the cut-off, for example, if the Anderson score cut-off is 240, disadvantaged students whose scores are up to 10 points below this level could be given preference over other students.'

'Borderline applicants who consider themselves to be disadvantaged could be asked to complete a short questionnaire to assist selection officers. A similar method could be used with special entry applicants.'

Dr Noble said recent research had shown such positive discrimination could be desirable in certain areas, such as for women applicants whose 'lack of a career orientation towards further education appears to remain a powerful cause of lower rates of female transition to tertiary education'.

He said a suitable response by Chisholm could be to focus on 'Careers for Women' in future schools liaison and public relations programs.

Dr Noble's paper concluded that 'a special entry scheme is insufficient and that it is desirable to provide special assistance to disadvantaged students'.

He believed the services of the Language Development Section were particularly important in this regard.

Also important was the need for an improved statistical data base, focusing in particular on the collection at enrolment time of data relating to the socio-economic background of students, and monitoring the progress of those categorised as disadvantaged students.

He said the Commonwealth Tertiary Education Commission (CTEC) was currently looking at such a study, involving tertiary institutions throughout Australia.



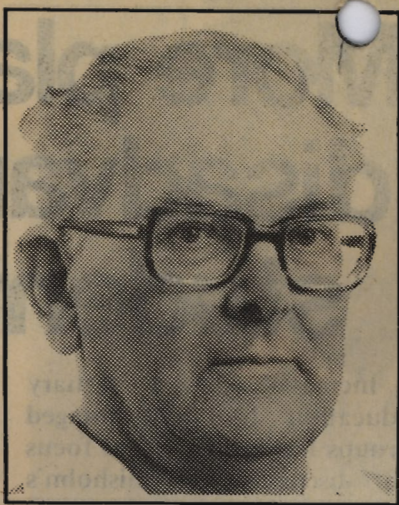
## End of era as Pearcey retires

Dr Trevor Pearcey's retirement at the end of the year signals the end of an era for Chisholm and for Australia.

His distinguished career began in 1940 as a first class honours graduate in physics and mathematics at the Imperial College London.

From 1946 - 57, with the CSIRO's Division of Radio Physics, Dr Pearcey developed Australia's first, and the world's forth, computer, CSIRAC.

Since that time he has been at the forefront of the development of computing in Australia, initiating the first course in practical computing and use of computing in Melbourne at Melbourne University, co-designing Australia's first multi-program, multi-terminal computer, CIRRUS, was the principal protagonist for the establishment of CSIRO's Division of Computing



Research and was engaged in research and development of Control Data Corporation's STAR 100 system.

Dr Pearcey began his association with Chisholm as Head of the Department of EDP at Caulfield Institute of Technology in 1972, and was appointed Dean of the School of Computing and Information Systems seven years later.

This year he was appointed Foundation Dean of the new Faculty of Technology, a pioneering educational initiative recognising the pervasive influence of the information technologies.

# Briggs urges rethink on industry research

Australia can no longer afford the luxury of present policies under which about 80 percent of research is unlikely to contribute to the nation's wealth.

Development Director, Dr Bill Briggs, made the comment in an address to the Royal Society of Victoria on 7 November, in a paper 'Industry Expectations of Science and Problems in its Management'.

Dr Briggs argued that 'the effective utilisation of science requires skillful and specialist management which must understand science and scientists and the process of translating new knowledge into profits'.

He said there were three major tasks facing the research manager in achieving this goal:

- Identifying scientific goals which were in accordance with and would support the overall goals of the enterprise.
- Creating and maintaining the environment in which the scientist could work.
- Monitoring the progress of the scientist's work, and making 'the hard decisions on when a project should be transferred from research to implementation, when it should be terminated or when a whole field of science or research should be abandoned'.

'It is relatively easy to start a research project; it is far harder to kill it,' Dr Briggs noted.

He said it was also essential that the scientist and the manager 'constantly review the relevance of the project to the goals of the enterprise'.

'Very often the manager must rely on the scientist to recognise and advise him of new developments which may make the project redundant.

'Similarly the manager must also look to the market place - there may be no justification for continuing work on a project if the competition has reduced prices below a level at which the costs of further research and development could be recovered'.

The successful exploitation of science in industry also hinged on the scientist making an important contribution to the management of the project and later the direction of the enterprise.

Dr Briggs said in this respect it was important that industry identified 'those individuals who can

make the transition to management' and avoid 'promoting its best scientist to become an incompetent manager'.

A 'career ladder' for the scientist or technologist to progress along and gain recognition was another important facet of the successful exploitation of science in industry, he said.

Dr Briggs went on to stress the importance of closer ties between Australian industry and tertiary education.

'Whilst industry expects to carry out the applied research needed for its development, it looks to the academic world and the wider research community for both the scientists trained to do that work and for the basic research needed for the generation of new knowledge, new enterprises and new sources of wealth.'

Australia should follow the American lead in this area, in which the work of research scientists was protected and exploited for the good of the wider community, in contrast to the British example (which Australia tended to embrace) in which little attempt was made to protect intellectual property, and knowledge was pursued for its own sake.

Dr Briggs argued that it was reasonable for Australian industry and the community to expect that 'more of the basic research carried out in our tertiary education sector

be directed towards areas in which there is at least some reasonable long-term prospect that the knowledge generated will be exploited by Australian industry'.

He suggested that the process and problems of managing science on a national scale were basically the same as in industry.

Each required:

- The identification of relevant goals.
  - Provision of a climate in which science could flourish.
  - Monitoring of progress towards those goals and the adjustment of the work program to achieve them.
  - The courage to terminate projects which were no longer relevant.
- Dr Briggs concluded that:
- An enterprise, an industry and the nation all needed science to survive in today's world.
  - To be worthwhile, science must be geared towards goals which supported the overall goals of the enterprise or nation.
  - Science must be well managed and directed to achieve these goals and use resources effectively.
  - Scientific training predisposed a person against effectiveness in management.
  - Scientists could be very good managers if the deficiencies of their training were recognised and they were properly selected and trained for the job.

## Victorious end to year of enterprise



Chisholm's winning team - (left - right) Brian Taylor, Tim Haslett (Senior Lecturer, Department of Management), and Steve Wharton.

A Chisholm-trained team has tied for first place in the National Enterprise Workshop.

The business plan for the Optical Data Link, put together by the inventor, Mr Brian Taylor, and accountant Mr Steve Wharton, (under the guidance of Chisholm staff member, Mr Tim Haslett), shared pride of place with the Queensland entry, a simulator that allows mining companies to predict how a new ore will react to processing.

The national final was held in Adelaide on 13 November, ending the year of enterprise which began in May.

The workshops were run in each State. In Victoria they were co-ordinated by Chisholm and Swinburne Institutes of Technology.

In a letter of thanks to Dr Ken Tucker, Chisholm program director, Mr Taylor praised the standard of training offered by Chisholm.

'Without this help Dataplex would not have had anything like the exposure to customers and sources of finance that are now open to us.'

He was grateful to 'all those members of your Institute who helped so much in putting together and refining our winning business plan'.

'The first week of the workshop,

held at Chisholm, was 'excellent and the quality of the presenters first class'.

'You have there the basis of a very successful entrepreneur development course which could greatly reduce early life business failures and should be essential material for anyone wanting to start a business.

'I don't know how much entrepreneurship you can teach, and I feel strongly that if you send a turkey to eagle school you still have a turkey.

'If you send a young eagle to eagle school however, he learns to soar very much sooner.'

Mr Taylor said the David Sime Business School's Centre for the Development of Entrepreneurs, under the direction of Mr John Bailey, 'will be an outrageous success if the turkeys can enjoy the course and learn enough not to kill themselves trying to fly, and the young eagles get the same encouragement and positive assistance that all the Chisholm teams received over the past six months'.

Dr Tucker said the success of the Taylor/Wharton team had already resulted in many approaches by venture capitalists interested in a joint venture in the development of expanded local and international marketing arrangements for the ODL.

## Budget trends under attack

The budget philosophy and priorities in recent years has been increasingly anti-academic, resulting in a steady downgrading of the importance of the teaching function of the Institute.

That was the message from Council member, Mr Tony O'Grady, whose paper, 'Downgrading of Teaching Function at Chisholm' was submitted to the November meeting.

Mr O'Grady said his paper was 'not a comment on the 1985 budget, but on trends that have been obvious in the Institute for a long time.

'The basic point is that over a long period there has been a steady decline in the ratio of teaching to non-teaching staff.'

He argued that Chisholm was the second largest spender on administration in Victoria, and it was 'important that we do consciously stop and see why we are going in that direction.'

'The impact on academic staff morale has been all the greater because the tightening economic situation at the teaching level (with forecasts of higher teaching loads and/or larger class sizes in 1985) has been accompanied by a series of costly staff developments at the senior administrative level.

'It is not the desirability of but the equity associated with these decisions that is disputed.'

Mr O'Grady said the shift of emphasis away from 'our primary role of teaching should be of concern to decision makers at every level of our organisation', and as such a 'serious reassessment of our priorities' should be made by Council, the Directorate, Staffing

Committee, Schools and Departments.

The issues raised by Mr O'Grady will be put to the Director's Task Force, set up to examine and recommend on short and long term issues associated with the 1985 budget and beyond.

## BRIEFLY IAC paper

The Industries Assistance Commission has produced a background paper for individuals, organisations and companies intending to provide submissions to the inquiry.

The paper and other relevant documents can be obtained on request.

Contact the Secretary, Industries Assistance Commission, PO Box 80, Belconnen, ACT, 2600. Telephone inquiries should be directed to either Max Carter (062) 643330, or Gary Samuels (062) 643165.

## China visit

Computing lecturer, Mr Noel Craske, will spend two weeks on a lecture visit at China's Nanching University during January.

While there, he will present lectures on data base expert systems, and offer 'any other assistance they may want'.

Mr Craske has been lecturing at Chisholm since February this year.

He was previously a Lieutenant Commander with the Royal Australian Navy, working as an instructor officer in the field of computer projects.

## New legal officer

Chisholm's new Legal Officer is Ms Vicki Korman.

She took up her new position in November, after two and a half years with one of the biggest firms of solicitors in Melbourne, Phillips, Fox & Masel.

During that time Ms Korman practiced mainly in the area of commercial litigation, and in particular insurance and insolvency.

Appointments can be arranged with Ms Korman by phoning extension 2291 at Caulfield. Requests for advice should be made in writing to the Associate Director (Education and Administrative Services).



## EDU video to promote 'self help'

A self-help approach to rheumatoid arthritis is the focus of a new video being produced by Chisholm's Educational Development Unit.

EDU's Media Services Section was contracted to produce the film for Frankston Hospital's Physiotherapy Department at the Edna Vincent Unit, in a strategy aimed at demonstrating the merits of this kind of approach to the disease.

Media Services co-ordinator, Mr Byron Nichols, says the video will give 'an overview of the kinds of treatments available to sufferers of rheumatoid arthritis', with a view to encouraging the formation of similar self-help groups in the wider community.

It will also aim to 'show other physiotherapists that this kind of approach is possible and can work', Mr Nichols says.

At Frankston Hospital, the emphasis for arthritis sufferers is on physical treatment, supportive care and social interaction.

A weekly clinic, run by the Hospital's chief physiotherapist, Mrs Helen Gordon, provides the



Rheumatoid arthritis patients at one of the weekly clinics at Frankston Hospital's Edna Vincent Unit. EDU cameraman, Rob Pignolet, is seen filming the session, where two patients are receiving treatment, and others participate in a group discussion.

opportunity for those attending to help other patients, for example in preparing them for treatment.

It is also a time when they can discuss the common problems and possible solutions - largely related to lack of public awareness of the difficulties arthritis sufferers face.

The EDU production will concentrate on a typical morning's activities at the Unit.

It has been scripted by Mr Nichols and Mrs Gordon, and is

due for completion early next year.

Mr Nichols says the Hospital approached EDU as a result of previous contracts, including the production of training films for use in nurse education at the Hospital.

The EDU team working on the current project comprises Mr Nichols, Mr John Blyth (Technical Officer), Mr Rob Pignolet and Mr Michael Richards (Audio Visual Technicians).

## Hopes fade as bell tolls for NCRFR

With another potentially disastrous bushfire season approaching in southern Australia, the future of the National Centre for Rural Fire Research is in jeopardy.

The Centre's activities are being wound down and staff will be disbanded on 31 December unless urgently needed funds are forthcoming from outside the Institute.

In what may well be a last hurrah, the Centre has distributed the latest product of its research to rural fire brigades and other authorities for evaluation.

It is a wash-off aluminium reflecting paint, designed to save the lives of people trapped by bushfires in cars or houses.

'The idea is that people would be able to swiftly paint over window areas, greatly reducing the heat build-up inside the vehicle or house and the likelihood of the glass breaking to let the flames inside,' the Centre's Director, Mr David Packham, explains.

'When the danger had passed, they could simply wash off the paint with a hose and sponge.'

Research on the product has been curtailed because of the Centre's lack of funds.

Mr Packham believes the lack of support for bushfire research results from a nuclear bomb type syndrome - people accepting the inevitability of bushfires and feeling that little can be done about the resulting loss of life and property.

He agrees that bushfires are inevitable - but strongly asserts that there is a lot to be learned about them and much that can be done to reduce the loss of life and property.

'Firefighters do a magnificent and often thankless job in rural Australia every bushfire season, whether they are volunteers in the country fire brigades or paid personnel in the forestry services.

'But despite their best efforts,

bushfires cost lives and between \$20-million and \$40-million in property damage in an average year - and 10 or 20 times that in a disaster year like Ash Wednesday in 1983.

'I believe we need to put in a decade of pretty tedious basic research.

'The results of that would enable us to halve the number of lives lost in bushfires and cut property losses by 80 percent,' Mr Packham says.

He believes research is needed in a number of areas including:

- How heat travels around in bushfires - how much heat there is and the spectral distribution. This knowledge would be used to develop safer clothing and other shielding for firefighters, improve advice for people caught in fires, and improve building materials recommendations.
- How fast fires travel given various fuel and weather conditions, particularly grass fires (research has been carried out on forest fires). Firefighters could use this knowledge to fight fires more effectively and to provide better advice to householders and farmers.
- How much water or retardant is needed to extinguish fires of various intensities. Given that rural firefighters are working from tankers, they need to know this to increase their efficiency; so they spend the maximum amount of time actually quelling the flames and the minimum away from the fire refilling their tanks.
- How people die in fires. There seem to be three causes - heat build-up in the body, people just getting too hot through a combination of a hot day, hot fire and physical exertion; heat shock through very high radiant heat levels from the fire; and breathing in flames, leading to the destruction of the lungs. More knowledge would lead to

better advice for people caught in fires or fighting fires on how to save their lives.

- Why houses and other structures catch fire and burn down. Some do and some don't, and often there is no obvious reason why that happens. Research would result in better advice on building materials, siting, personal safety and so on.

But to carry out the 'tedious, basic research', long term funding commitments not tied to specific research projects are required.

So far, such money has not been forthcoming, except from Chisholm Institute (\$70,000 in total), the South Australian Country Fire Services and National Parks Service (\$18,000), and the Northern Territory Bushfire Council (about \$7,000).

'Chisholm has been magnificent,' Mr Packham says. 'We fully understand the reasons why it cannot continue backing us.'

'It is not funded by the Federal Government for research and our understanding with the Institute always was that it would provide a home for us, but we would be self-funding.'

The major source of the Centre's income and the major focus of its work during the past three years has been 'Project Aquarius', involving research into the aerial suppression of bushfires under contract to the CSIRO.

That contract, which totalled \$274,000, ran out in the middle of this year.

Other sources of income were the Aluminium Development Council of Australia, which gave \$12,500 for a study on the performance of aluminium as a structural material in bushfires; the South Australian Country Fire Services - \$13,000 in specific research; and smaller industrial and consulting work totalling about \$10,000.

## Study an important initiative - Kiley

A pilot job evaluation study was undertaken during November aimed at ultimately formalising the reclassification system for general staff positions.

The study, by Hay Associates Ltd, was commissioned by the Director, Mr Patrick Leary, as a result of a joint recommendation by Staff Branch, the General Staff Classification Evaluation Committee and VCSA.

In a memo to General Staff, Staff Officer, Mr Tim Smith, and VSCA (Chisholm Branch) Chairperson, Ms Maggie Kiley, said the study aimed to establish 'relativity benchmarks for administrative positions and assist in determining appropriate classification levels'.

They said general staff had been concerned for some time that the reclassification process used at Chisholm needed to be undertaken in a more objective way, using criteria understood by and acceptable to staff.

This year, the General Staff Classification Evaluation Committee had made considerable progress in considering the question of staff reclassifications, but the stage had now been reached where a longer term approach was needed.

According to Ms Kiley, Hay Associates were chosen because of their 'extensive experience in job evaluation in CAEs', for example, at Western Australia, South Australia and New South Wales Institutes

of Technology.

At Chisholm the study was done in conjunction with representatives of VCSA, Institute management, and Staff Branch.

Twenty-two administrative positions in the SAO/AO/AA/CA classifications were chosen, involving an evaluation of the nature and level of duties and responsibilities in each.

According to Ms Kiley, the evaluation process involved analysis of the position, i.e. the process of determining the tasks that comprise the job, the skills, knowledge and responsibilities required by that worker for successful performance in the job.

The result, she says, is an evaluation process which provides 'a comparison of jobs by use of a systematic procedure to determine their relativities within the organisation'.

Ms Kiley says if the Hay system is adopted, the Institute will have 'a formal system resulting in equity and fairness for staff members', and will lead to greater confidence by general staff in the whole process of job evaluation.

As VCSA Chairperson, Ms Kiley believes 'it's a very important initiative'.

The Hay report will be considered at the December Staffing Committee meeting.

Ms Kiley says if the pilot study is supported, each general staff grouping will be looked at in turn.

## Innovative step in ceramics education

The establishment of a ceramic production workshop at Chisholm Frankston will mark the third phase of the School of Art and Design's comprehensive ceramics education program.

Art and Design Dean, Mr Harold Farey, says the workshop program will provide assistance for selected final year students in their transition to self-employed practical ceramicists.

The workshop will be available to students at a nominal rent, in return for assistance from the School with the development and marketing of their work.

'Students will spend up to 12 months learning what is necessary in the day to day regime of being an independent ceramicist - and the disciplines of organising themselves as craftspeople,' Mr Farey says.

The new workshop, to be housed in a relocatable building bought by the School for the purpose, will be operational by March next year.

Mr Farey says the facility will also enable the School to take on small-scale research and production contract work for industry and government.

In addition, the School's typesetting and computer link facilities, as well as its clay production capabilities, will make it ideally placed to offer training programs for groups such as the unemployed.

The ceramic production workshop is one of three initiatives taken by the School as part of its commitment to providing students with a solid grounding in all areas of ceramics.

The first was Chisholm (then Caulfield) Concepts, introduced four years ago to provide all ceramics students with practical experience in the business side of their craft.

Students have the chance to learn how to manage a shop, including stock control, accounting and display, and how to sell to customers.

The establishment of the ceramic technology workshop at Frankston this year was the next phase in the School's ceramics education development.

It is equipped to produce a range of specialised ceramics for particular industrial applications, aimed at providing students with a total grounding in all aspects of modern ceramic technology from the raw material stage.

The School sees this recognition of the importance of training students of the technical as well as the aesthetic aspects of ceramics as a step towards the development of Australia's ceramics industry as a whole.

It sees the industry as an area which has been largely ignored in terms of its potential for economic growth.



# What's On

## SUMMER SCHOOL

Phillip Institute of Technology School of Social Work is presenting a Summer School for Human Services, involving short non-residential courses relevant to welfare, community development and the human services.

Monday, 21 January - Friday 1 February, 1985.

Further inquiries: Maureen Ryal, telephone 468 2419 or 468 2398.

## A DELICATE BALANCE

Exhibition of works by graduating students of Ceramic Design and the Bachelor of Arts (Fine Art), (Craft).

The Executive Director of the Crafts Council of Victoria, Mr Colin Sturm, will officially open the exhibition on Monday, 10 December.

It will run until 16 December, 10.30am - 5pm, Level 2, Phillip Law Building, Caulfield campus.

## LANGUAGE WORKSHOPS

University of Melbourne Office of English for Migrant and Overseas Students is offering a series of Summer School workshops aimed at developing language skills.

The series of workshop classes will run from 29 January - 22 February.

Telephone 341 5120 or 341 5119 for more information.



Richard Uben, one of the graduating students of the Associate Diploma in Ceramic Design, whose work will feature in the exhibition, 'Down to earth', to be held at the George Jenkins Theatre foyer, Frankston campus from 8 - 12 December, 11am - 4pm.

# Top dollars for computer grads

Almost all final year Bachelor of Applied Science (Computing) students at Chisholm have landed well paid jobs for next year.

Senior course leader, Mr David Arnott, says a survey taken in mid-November of the 70 or so graduating students revealed that all had been offered at least one job and over half at least three.

The survey also showed that starting salaries offered to 1984 graduates were up by an average of about \$2000 on last year.

This year, the average starting salary for computing graduates will be \$19,000. The lowest is \$16,000, and the highest \$32,000.

Mr Arnott says many students will be starting their first job on

about \$25,000 a year.

They will be employed by a range of government departments, banks, computer companies and other organisations - many are regular employers of Chisholm computing graduates, Mr Arnott says.

The type of work they will be doing includes positions as programmers, systems officers, consultants, software engineers and EDP auditors.

Mr Arnott says more employers made job offers this year than last, and students not only had a choice of which position to accept, but in many cases they were also able to negotiate their conditions of employment.

Early next year the Language Development Section is offering a short course in 'Language Skills for Study Purposes' for students whose first language is not English.

The course aims to improve students' skills in their use of English for study at Chisholm.

The course will be held on 12, 13, 14, 19, 20 and 21 February

## LDS course

from 9am - 1pm, at 30 Railway Avenue (Caulfield campus).

Enrolment forms can be obtained from Jill Anderson, LDS, 30 Railway Ave, telephone 573 2593, or from the Secretary, EDU, A2.15, telephone 573 2376.

# Scholarships grants and fellowships

**AUSTRALIAN WOOL CORPORATION** - Post-graduate scholarships/awards for support from the Wool Research Trust Fund in the areas of wool production, harvesting, wool measurements, distribution, textile and economic research, development and extension. Closing date: 11 January, 1985.

**TOKYU FOUNDATION** - Scholarships to non-Japanese post-graduate students, beginning April, 1985. Closing date: 20 December, 1984.

**AUSTRALIAN PIG INDUSTRY** - Applications are invited for grants in support of research for the Australian Pig Industry Research Committee, related to the pig industry in 1985/86. Closing date: 31 December, 1984.

**AUSTRALIAN WELDING RESEARCH ASSOCIATION** - Sir William Hudson Memorial Awards for research, development and demonstration relating to welding and it uses. Closing date: 31 December, 1984.

**NATIONAL RESEARCH COUNCIL OF CANADA** - Research Associateships in NRC laboratories for scientists and engineers. Post-doctorate fellowships are also offered, tenable in Canadian Universities. Closing date: 15 December 1984.

• For more information about any grants/scholarships/fellowships, contact the Development Director, Dr Bill Briggs, extension 2111 (Caulfield campus).

# OZ glass in Europe

Chisholm glass artists, past and present, are well represented at the Young Australia Glass exhibition in Darmstadt, West Germany, which opened yesterday.

Principal organiser of the exhibition, and senior lecturer with the Department of Ceramic Design, Mr Klaus Zimmer, says of the 45 Australian artists contributing, 18 are either currently teaching at Chisholm, are graduates, or have enrolled for study here at one time.

Participants were selected by an independent panel from slides submitted by the artists, Mr Zimmer says.

The exhibition, at the Hessisches Landesmuseum, known worldwide for its outstanding collection of stained glass, will run until 3 February next year.

Mr Zimmer says it is the 'first comprehensive exhibition of Australian glass ever shown in Europe'.

In all, 63 pieces by Australian artists are on show, of which 27 are three dimensional work, and the remainder autonomous glass panels.

In addition, the cream of glass

artists from New Zealand have contributed 12 pieces, sponsored by the Queen Elizabeth II Arts Council of New Zealand.

The exhibition was originally proposed about 18 months ago as a result of an approach by Dr Suzanne Beeh-Lustenberger, Hessisches Landesmuseum's historian, who visited Chisholm in 1981.

Funding for Young Australia Glass has come from a variety of sponsors, including \$6000 from the Institute and a matching grant from the Crafts Board of the Australia

Council, the proceeds from two concerts by artists from the Australian Opera Company, and other contributions from various sources.

In recent months, overseas interest in the exhibition has grown, to the extent that it will be shown at the Glassmuseum in Romond, Switzerland during the European Summer of 1985, and later in Chartres, France in 1986.

Mr Zimmer says it is also possible the exhibition will be taken on tour of galleries throughout Australia on its eventual return.

# 'User pays' printing

Chisholm's Printing Services will switch to 'user pays' from next year.

That means it will operate in the same way as a commercial enterprise, charging not only for materials but for its labour and overheads as well.

The move is one of the initiatives introduced by the Budget Planning Committee in its draft 1985 Budget.

Printing Services has not been allocated a budget for next year - instead, each cost centre has been

allocated an increased sum to cover printing costs.

The user pays system will mean Printing Services can take on an increased volume of work.

In addition to its present services, it will offer competitive prices for just about any printing job required by members of the Institute community - from business cards, logos, calendars and brochures, to invitations and posters.

This will apply to both Institute and personal printing requests.

Printing Services is currently in the throes of purchasing new equipment to cope with the expansion 'to make us competitive with outside companies', says its Manager, Mrs Merryl Sherriff.

This equipment will allow Printing Services to offer 'a higher degree of sophistication and improved quality' in its work, she says.

It will also mean greater flexibility and a more streamlined operation.

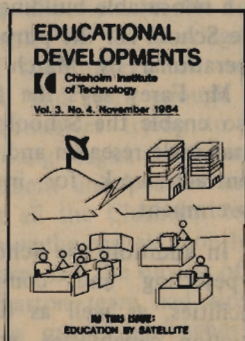
Printing Services will make the transition to the new system from 1 January, 1985.

## Printing Services

offers you the following services for Chisholm . . .

- designing, typesetting and complete art
  - same day service for class notes, minutes & agendas and all general printing (1.1 per side dept. funds)
  - colour printing • posters • brochures
  - reports & covers • business & compliments cards
  - manuals • letterheads • newsletters
  - course material • leaflets
  - collating • binding • stapling • folding
  - guillotining • drilling
- We also have a pick-up and delivery service.

(For further inquiries ring extension 2135)  
Located on ground floor, C Block, Room C1.04, Caulfield Campus



## Classifieds

### FOR SALE

**CONTINENTAL** tent, Marachel. Sleeps five (two compartments with waterproof floors). Windows fitted with curtains and insect screens, living/cooking area with ceiling and reinforced plastic floor. Excellent condition. \$500 ONO. Telephone Alan Thomas, 781 1777, ext. 283 (Frankston campus), or 059 896 241 (AH).

**EAI 180 Analog computer S/N 243** with, 4-channel slow scan oscilloscope S/N 2718; Gould Brush 200 2-channel strip plotter S/N 9364; Gould Brush 500 x-y plotter S/N 462 all purchased 1974.

**TWO** drawer 8" diskette storage cabinet.

**WRIGHTLINE** Printing Punch S/N 393-29.

**HP** Interactive terminal with inbuilt 8" thermal printer Model 2621P S/N 1932 A3327.

**SPECTRUM 11 D** Minicomputer System consisting LSI - 11 processor 64K MOS: Dual 8" disk drives S/N 1018

**TELERAY 10N VDU S/N 1457-051**

**LA 180** Deprinter S/N PN22073

**DOCUMENTATION** card reader

**TM 200 S/N 7802392** purchased 1978. Viewing arrangements via School of Education Frankston Campus. Offers in writing to Supply Manager.

**SOLID** teak oval dining table, seats 12 with extension plus six chairs, two carvers by Parker. \$1200 ONO. Also folding table tennis table as new \$80 ONO. Contact Joan on 2385 or 277 8279.

**TOWING** mirrors, suit all popular cars. \$20. Short wave receiver, YAESU 700 with digital frequency read-out. Frequency range 250 KHZ - 30 MHZ. As new, \$350. Contact Shirley Phillips, Supply Office, ext.2096.

**CHOCOLATES** for Xmas and presents. Xmas specials - ordinary chocolates \$4.50 - 250 gram, filled chocolates \$5 - 250 gram, (depending on availability of fillings), Dolly Parton chocolate \$1.15. Xmas decorations depending on weight. Ring Carole, ext 2484.

### PUBLIC NOTICES

**THANKS:** I would like to express through you my appreciation to Chisholm, and my father's past colleagues, for the tribute sent to his funeral, and to those who were able to attend.

Dad continued to have a strong interest in Chisholm's activities throughout his retirement, and Chisholm's effort to maintain contact was much appreciated.

Yours faithfully  
Jim Lambert