

# Gazette

*Farewell Chisholm  
Hello Monash*



*Advance Australia  
Caroline Chisholm*



# Looking to the future

## EDITORIAL

AN EDITORIAL would normally take a matter of present concern and analyse it to see how it might impact on our lives today. Perhaps this is because in a newspaper another editorial is required for tomorrow, and in a journal another editorial is required for next month. Editorials can keep pace with change as it happens and when put together they create an on-going story.

Because this is the last issue of the *Chisholm Gazette* it is perhaps more appropriate to discuss the future rather than matters of immediate interest from the present, or even the past.

### Change

Whatever happens in the future I would be very confident that it will lead us to a pathway of change. For some reason change seems to come about more often in relation to our day-to-day work than in our day-to-day personal lives. Perhaps it is the corporate nature of work that brings on change because it is here that we experience the force of competition. Competition is what keeps an institution moving ahead and without it we would experience stagnation.

We have just completed a decade of change and have no reason to believe that our present decade will be any different. If one looks back to 1980 it would have been impossible to predict what might happen by 1990.

In education the decade of the eighties was characterised by the need for rapid change to take stock with our economic position. We were no longer an isolated country, previously affectionately referred to as the "Lucky Country", and we were forced into what has developed as a global society. We had to become competitive both at home and abroad and as far as education was concerned new emphasis was placed on efficiency, effectiveness, and accountability; not just in dollar terms but also in community terms.

Academic institutions have had to wrestle with new pressures caused through access and participation, economic policy, and social justice policy. Many of our students at Chisholm are with us today through the Institute taking a very positive stand on such issues as access and equity.

On top of this we have had a colourful decade, as witnessed by the Green Paper

and the White Paper – those papers which we jokingly say set the blueprint for higher education.

### The future

An immediate and local outcome of the changes in education through the eighties has been the restructuring and reforms through which Chisholm will merge with Monash University. Monash will become enlarged and what we hopefully can look back to and refer to as a "greater Monash".

I support the reforms because I am firmly convinced that a large academic institution can offer educational advantage to the community, through operating on a broader base which can enhance the quality and diversity of higher education courses. This can be of advantage to both staff and students within the new organisation.

A larger university can lead to economies in operation through efficient resource management and we can improve our links to employers, the government, industry and commerce. The advantages of diversity will have an important impact on both undergraduate and postgraduate teaching.

A larger institution can develop strategies, both pro-active and reactive, to meet the challenges ahead which will be set by the University itself and State and Federal government policies to meet the needs of the community at large. I believe these challenges will be centred on the economy and will include worker planning, competitive advantage in a local and international sense, industrial relations, community needs, work, health and recreation. Possibly the biggest challenge of all will be the development of appropriate mechanisms to fund the needs of higher education as it becomes even more widely available and even more diversified than it has in the past.

### Technology

The challenges of the future will be met by the graduates of the future. In higher education our graduates take the leadership positions for the next generation and as such hold positions of incredible responsibility.

Our graduates of the present and future, charged as the leaders of the next generation, must put their academic training into practice.

In the future, technology will play an even greater role than in the past. Virtually every graduate, no matter what discipline area, comes face to face with the impact of technology. In a way, every graduate is a scientist.



Some of the problems of the future will have been caused by science itself and others will come from social, economic, and political arenas. Nevertheless, the problems spanning the whole community are still very much dependant on the scientific solution. As scientists, in the wider sense, we must be able to operate on a wider front. We must be able to communicate, because our society now realises that our reliance on science has increased. The emphasis we are putting on science education in primary schools and secondary schools, with an eye to the future, gives evidence of this.

The graduates of the future must not chain themselves to their computer, or spend long hours at a laboratory bench, or hide themselves within the library. They must have a wider knowledge of the community at large and must share their culture with other professions, with government and with industry.

Our graduates of the next decade must participate in the economic and sociological debate as we head towards the twenty-first century.

As part of Monash, we might take time to reflect on the Monash Coat of Arms which carries the motto *Ancora Imparo*. This is said to have been a saying of Michelangelo, and means "I'm still learning". I hope this is a motto which we can all carry into the future, and if I can make one last plea, through this last editorial of the *Chisholm Gazette* – please keep learning!

If we can all keep learning we will be able to face the challenge and change of the future with confidence. ■

DR G.N. VAUGHAN, DIRECTOR OF CHISHOLM  
*This editorial is based in part on a graduation address given by Dr Vaughan to Science graduates at Monash University in March.*

# Contents

Chisholm Gazette Volume 7 Number 1

## MERGER

### 5 Chisholm and Monash – making the most of our faculties

Heading towards the merger, Monash and Chisholm sort out what goes where in the structure of the new University.

### 13 Now connecting ...

Using the latest in communications technology, Chisholm and Monash install a new network for sharing information. And the links will grow to join the rest of the world.

## EDUCATION

### 8 Exporting success

The International Business Centre is determined to succeed with its marketing program, explains Executive Director Bill Yeadon.

### 12 Adolescent love and safety

Chisholm's Centre for Continuing Education recently launched a program dealing with AIDS and other STDs. The program provides a resource rather than being prescriptive, and has been widely praised.

### 14 Developing graduate skills in business

A Graduate Enterprise Program aims to have participants operating their own ventures within twelve months.

### 16 A needy business

The Faculty of Business addresses the real needs of the business community and the economy. But Dean Peter Chandler believes that this is the exception and not the rule ...

### 17 At the centre of the retail industry

Senator John Button congratulates Chisholm on the opening of the Centre for Retail Studies, which seeks to be a national provider of education for the retail sector.

### 18 New courses

New Graduate Diplomas in Business and Engineering.

### 23 A new degree of language skills

A new Business Language Laboratory and degree course see Chisholm keeping up in overseas business education.

### 25 Adding experts

Visitors from West Germany, the UK and US assist with Chisholm's initiatives in bridging maths courses.

## COMMENTS

### 24 Chaos under the keyboard

As computer technology becomes commonplace, so does computer crime. According to Senior Lecturer Greg Tucker, we still have a long way to go in legislating against computer-related abuses.

### 30 Changing attitudes to women

Joan Child, in the third annual Caroline Chisholm Oration, explains how affirmative action is a means to an end, and that changing the way people think is what really counts.

## RESEARCH

### 26 Managing stress

According to Dr James Sarros of the Faculty of Business, managers are generally misunderstood and stressed. Make you feel better? Read on ...

### 28 Testing the waters ...

Ever wondered about the intricacies of Field-Flow Fractionation or Flow Injection Analysis? Barry Hart, Director of Chisholm's Centre for Stream Ecology, explains the Centre's technology-leading research.

## TECHNOLOGY

### 6 Update: Simulated Treasury Dealing Room

The School of Banking and Finance's Treasury Dealing Laboratory is now installed. It should help to arrest the drift of financial personnel away from Victoria, says Head of School, Denise Wheller.

### 9 On-line for the course of the future

Using a mouse to select the course of your dreams ... Chisholm introduces its innovative computerised handbook.

### 20 Speeding from the sun

"When you've spent two years and the equivalent of \$2 million on a car, you're allowed to feel confident." So says Paul Wellington, Manager of the Parhelion Solar Vehicle Project.

## STUDENTS

### 10 The quest for gold

Student Colin Robertson explains how winning a gold medal at the Commonwealth Games can have its ups and downs.

### 11 The good oil

Mobil presents first prize in its awards to a second year computing student.

### 11 Banking students in Asia

Banking and Finance students visit Japan, Hong Kong and Jakarta.

## STAFF

### 7 Chisholm's great rebuild

Works continue at a hectic pace at the Caulfield and Frankston campuses.

### 25 A marathon home video session

Chisholm shows guests a video of the 1989 Shell Mileage Marathon.

### 34 Top end performance

How do you improve the performance of middle and senior management? With a residential workshop, according to those who attended Chisholm's course last December.

### 38 On remand

Lecturer in Sociology Barry Ellem is appointed Official Visitor to Melbourne's new Remand Centre.

## ALUMNI

### 36 Where are they now?

The whereabouts of two Chisholm Alumni revealed.

### 37 Alumni news

### 38 Who's who on the Alumni board

Front cover reproduced with permission of the National Library of Australia

Chisholm Gazette is proudly produced by the Public Relations Office of Chisholm Institute of Technology, PO Box 197, Caulfield East 3145.

Editor: John Wilkins, 573 2099.

Associate Editor: Tim Mansour, 573 2311.

Design: Tony Chapman Design Pty Ltd.

Photography: Andrew Barcham, Peter Taylor.

Imagesetting: Pageset, 4 Palmer Court, Mount Waverley 3130.

Printing: The Book Printer, 5-7 Dunlop Road, Mulgrave 3170

This final edition of Chisholm Gazette was produced with tender loving care on Macintosh computers using Aldus PageMaker, Aldus FreeHand, Microsoft Word and Paragon Nisus. Text is set in ITC Garamond and Franklin Gothic. Imagesetting is from Linotronic at 1270 dpi. Screens and graphics are produced on the desktop. Photos are separated by the printer.

Subject to copyright, material in this magazine may be reproduced with or without acknowledgement.

## Chisholm Institute of Technology

Chisholm Institute of Technology is a multidisciplinary tertiary institute offering studies in four schools and two faculties. It has two campuses, at Caulfield and Frankston.

Chisholm is the second largest of Victoria's Colleges of Advanced Education, with a total enrolment of over 8,000 full and part-time students. Its graduate and undergraduate programs are conducted in Art &

Design, Business (Accounting, Banking & Finance, Management, Marketing), Education, Nursing, Social & Behavioural Studies, and Technology (Applied Science, Computing & Information Systems, Digital Technology, Engineering).

Chisholm has a proud record of offering relevant short courses for thousands of students per year, and a strong reputation as a research and consultancy organisation.

Chisholm is negotiating a merger with Monash University, to be effective from 1 July 1990.





## Lush greenery at Chisholm

*Late in 1989 an old tree on the Frankston campus was blown down during a storm and had to be removed. In a spirit of cooperation during the leadup to the merger between Monash and Chisholm, the Chancellor of the University, Sir George Lush, replanted a eucalyptus tree outside building A at Frankston to replace it. Sir George also planted a tree at the Caulfield campus during his visits to Chisholm in November. A commemorative spade is held in the Chisholm archives.*

## Encouraging the sciences

**In line with moves to encourage students, especially girls, to study mathematics and science to Year 12 level, Chisholm again offered summer bridging programs to prepare for science and engineering courses in 1990.**

The program was open to students who do not have the formal entry requirements for degree courses in science and engineering. This includes students who are lacking only one important subject, e.g. Mathematics or Physics. It was also available to students who completed Year 12 some time ago, or who studied Year 12 overseas and feel hesitant about starting a degree.

Successful completion of the Programs make students eligible to enter Chisholm's Bachelor of Applied Science or Bachelor of Engineering degrees.

### *Science and Engineering Program*

The Special Bridging Course in Science and Engineering offered units in Mathematics, Physics, Chemistry and Engineering Principles. Over twenty students entered the program and eighteen satisfactorily completed units in the course. Many of these were offered places in Chisholm and Monash courses for 1990.

### *Mathematics Program*

Special Bridging Courses in Mathematics provided units in Mathematics during the same period. The fourteen students who attended opened up new career paths in science and the technologies.

All programs were run on the Caulfield Campus of Chisholm Institute and no fees were charged.

Enquiries concerning future Science and Engineering Programs may be directed to Mr Gotu Tamhane on (03) 573 2050; and enquiries concerning the Mathematics Program may be directed to Mr Lindsay Evans on (03) 573 2103. ■

## *Future Directions in Banking & Finance*

THE INAUGURAL conference of the School of Banking & Finance was held late last year at the Windsor Hotel. Convened by Greg Tucker, senior lecturer in the School, it was well attended and included a distinguished array of speakers, including the Chief Executive of the National Australia Bank, Nobby Clark, the Federal Privacy Commissioner, Kevin O'Connor, and Nicholas Ronalds of the Chicago Mercantile Exchange in Tokyo.

Highlights of the Conference included a banking technology display, an after dinner address by Edwin Maher at the banquet, and a welcome to Queens Hall at Parliament House by the State Treasurer, Rob Jolly.

The Conference was strongly supported by the National Australia Bank and Deloitte Haskins and Sells. Other sponsors included Bull and the Chicago Mercantile Exchange. The Conference will be run again this year.



# Chisholm and Monash

*The Councils of Chisholm and Monash University have agreed on the structure of the new Monash, to be formed when the two institutions merge on 1 July 1990 to form one of the largest universities in Australia.*

Among the major changes are the creation of a Faculty of Computing and Information Technology, which includes Chisholm's existing School of Computing & Information Systems, Department of Robotics & Digital Technology, and Monash's Departments of Information Systems and Computer Science.

The Chisholm David Syme Faculty of Business will be retained as a faculty in the expanded Monash University, while the Faculty of Economics and Politics at Monash will become the Faculty of Economics and Management. A review will be undertaken within three years with a view to establishing a single faculty encompassing both areas.

The Schools of Engineering and Education at Chisholm will merge with the existing Faculties of Engineering and Education at Monash, and will be known as the Caulfield School of Applied Engineering and the School of Early Childhood and Primary Education.

## Making the most of our faculties

A new Faculty of Professional Studies will encompass Chisholm's School of Social and Behavioural Studies, School of Art & Design and School of Nursing, together with Monash's Graduate School of Librarianship and Department of Social Work. Chisholm's Politics, Literature and Sociology departments will be included in the Faculty of Arts.

The School of Applied Science at Chisholm will merge with the Faculty of Science in the relevant Monash departments.

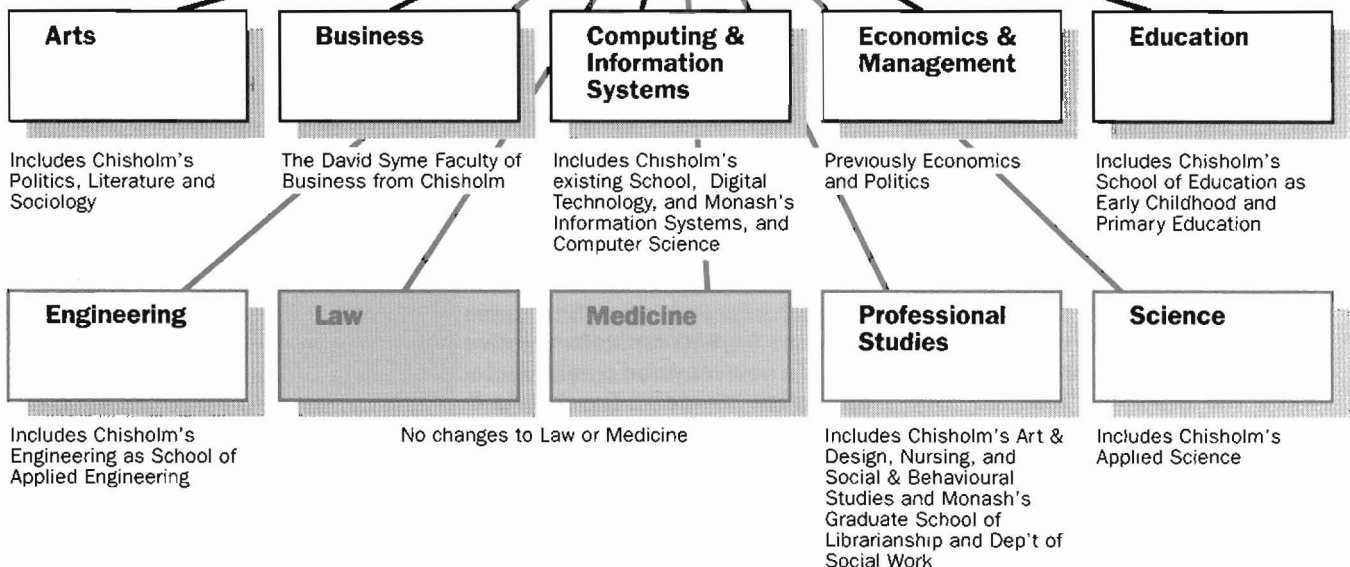
The University will investigate the feasibility of establishing a number of new schools in the areas of anthropology & sociology, aquatic & atmospheric science, languages and mathematics in various faculties to encourage the development of new fields of excellence in research and teaching.

The faculties of Law and Medicine will remain as they are presently constituted.

The Director of Chisholm, Dr Geoff Vaughan, said that the process of negotiation was made easier by the cooperative attitude of staff from both institutions, and by the complementary nature of the two bodies. He said that the new university presented great opportunities to meet the educational needs of Australia in a rapidly changing world.

Dr Vaughan emphasised the new and exciting opportunity now offered to Chisholm in its merger with Monash through which the Institute will gain a role in Distance Education through Gippsland Institute of Advanced Education, which is also negotiating a formal association with Monash University. ■

MONASH  
UNIVERSITY





# Simulated Treasury Dealing Room

**A Simulated Treasury Dealing Room Laboratory, the only facility of its kind in a tertiary institution in Australia, has been built at the School of Banking and Finance, in the David Syme Faculty of Business.**

Announcing the laboratory, Ms Denise Wheller, Head of the School of Banking and Finance, said "Our new laboratory will offer financial personnel hands-on training in the entire operation of world financial markets."

She added, "As a consequence, the drift of personnel away from Victoria to other financial centres should be arrested, thereby maintaining Melbourne's prominence in the marketplace."

Funding of \$872,000 for the project has been provided by major software and hardware houses and the Victorian Education Foundation. Major banks which are sponsoring the project include: State Bank Victoria, Westpac, National Australia Bank, ANZ Group, the Commonwealth Bank, the Bank of America and Reserve Bank of Australia.

The Treasury Dealing Room comprises a Front Office – a hardware and software system which brings together, on one screen, all the necessary real-time financial data to enable the dealer to access the market system, to develop a strategy, and to trade; a Back Office – where the effect of the front office trading on the management of the financial institutions risk will be developed using appropriate global risk management, portfolio management, controls and analytic software; and a Communication System – an industry standard telephone system to complete transactions between financial market participants.

The Laboratory's design places teams of dealers in portable partitions to simulate the competitive real world environment. Security aspects have been incorporated as well as the ability to convert the facility into a personal computer laboratory.

"The Laboratory will be used in four award programs offered by the School of Banking and Finance, as well as offering specialised training courses to industry", Ms Wheller said.

"In addition, the corporate sector will

be offered the Laboratory on a commercial basis as a corporate back-up facility, while major software houses will find it useful as a 'shakedown' site."

Real time data will be provided for students to access actual information while learning and experimenting with the manipulation of data.

The project is managed by Kevin Tant, National Australia Bank Fellow in Treasury Operations. Ms Wheller emphasised that with this training, skilled staff will be immediately employable in treasury divisions in the banking industry, the corporate and the public sector.

The School of Banking and Finance, in the David Syme Faculty of Business, is the largest provider of accredited banking and finance education in Victoria. The School pioneered banking education in Australia in the early 1970s and its courses are recognised by the Australian Institute of Bankers.

For further information contact Ms Denise Wheller, Head, School of Banking & Finance, David Syme Business Schools on (03) 573 2389.

## In brief ...

### GIFTS

The company May Mellor recently provided a free PC-AT compatible portable computer to Chisholm, which required some minor repairs. After Chisholm's Computer Centre fixed the problems that led May Mellor to replace it, a free portable was made available to teaching staff. Thanks to Simon Lae of May Mellor.

**In another computer donation to Chisholm, IBM have donated three PCs that they had previously loaned to the Faculty of Business.**

### AWARD

Ivan Mayevsky, a first year student of Chisholm's Bachelor of Technology (Design) course has been awarded \$1,500 for his innovative use of a new recycled plastic material called "Syntal". The Artists & Industry Design Awards 1990 were sponsored by Smorgon Plastics Recycling, who manufacture Syntal, which can be worked like tim-

**ber. The final winner will be chosen from the five finalists and will be flown to Italy later in the year.**

### ENROLMENTS

In the seven years since the Chisholm Institute of Technology was formed from Caulfield Institute and the State College of Victoria at Frankston, equivalent full-time student tertiary enrolments have grown from 4364 in 1982 to 6820 in 1989, a growth of 56.3 per cent. In 1990, initial tertiary enrolments are estimated at 7,330, taking the increase to 68 per cent.



# Chisholm's Great Rebuild

As part of its general works program, Chisholm is undergoing many changes in 1990

Recent works at Chisholm have ranged from the creation of a new carpark and a sound stage and recreation area for students (as described in the March 1989 issue of *Chisholm Gazette*) to new computer laboratories and lifts at Caulfield and Frankston.

Mike Fuller, Premises Manager, said that the 1989 round of works was one of the most extensive ever undertaken at Chisholm, costing over \$2.3 million. He said that the works would relieve some of the pressure on space needs for teaching and administration at Chisholm, especially on the Caulfield campus which has grown extensively over the past seven years.

New facilities have been prepared for the Library at Caulfield, with

*Premises Manager, Mike Fuller (left) checks plans with Works Officer Russell Thomas.*



archival rooms and space for library administration, freeing up more room for books and journals in the main library area.

One major project has been the refurbishment of the student administration and admissions area. To make the processing of student information and enrolments more efficient, counters have been built to enable several student enquiries to be dealt with at once. Space for Chisholm's International Students Office has also been extended.

In the Printmaking workshops of the School of Art and Design, many chemicals are used that give off toxic fumes. These fumes not only affected students, but also appeared to circulate through the rest of building B on Caulfield campus. To alleviate this, Chisholm has installed a ducting system that extracts the fumes and removes them from the building. The inlet ducts are moveable and can be placed by the student directly over the work area to efficiently take up the fumes.

New lifts have been installed in A Block at Frankston campus for disabled access at a cost of \$124,000, and the Technology block at Caulfield to replace an unreliable and slow lift. Airconditioning has also been installed in that building to make it more able to accommodate both staff and students and the high-tech computer equipment that services the Institute. New

mainframe computers have also been recently installed.

Chisholm purchased the Caulfield Technical School building in 1989, and this has been refitted at a cost of \$1,066,000 to provide classrooms, office and storage space. A walkway over the busy Railway Avenue separating the main campus and the Technical School, now called "T Block", had been built to allow students safe and weatherproof access.

On a widely separated campus such as Caulfield, it is essential that security personnel are instantly



*Radio contact can be made directly with security staff ...*

contactable for emergencies and access after hours. The Security staff now have mobile telephones/walkie talkies that enable them to answer calls to the Watchhouse no matter where they are. This will enable the Security staff on duty to respond immediately to fire and other emergency calls anywhere on Caulfield from the Student Union building to F Block at the other end of the campus. Radio contact can be made directly with the watchmen when they are not at their phone at Caulfield on 573 2131 and at Frankston on 784 4318. ■



# Exporting Success

*Chisholm's International Business Centre conducts an international marketing program to ensure Australian businesses have success in exporting their products. Bill Yeadon, Executive Director of the Centre, explains the goals of the program in this article, reprinted with permission from the September 1989 issue of Overseas Trading.*

**When it comes to export, Australia's long standing role as an international supplier of raw materials has badly disadvantaged all but the most single-minded companies interested in selling abroad.**

Even for those who do, how many are sufficiently well equipped at the start to understand not only the basics of international marketing, trade and finance, but the equally important areas of shipping procedures, the vagaries of tariffs and quotas, or the delicate cultural aspects of dealing in foreign markets?

Experience has shown very few, which is why the Victorian Department of Industry, Technology and Resources (DITR) has elected to subsidise a comprehensive international marketing program geared to guarantee continued export success.

Run by the David Syme International Business Centre on Chisholm's Caulfield campus, their motto "We aim at a 100 per cent success rate" just about says it all.

The Centre's Executive Director Bill Yeadon reports that representatives of 43 companies have successfully completed the four-stage course since its inception in 1987.

With strict criteria to select only those with the necessary commitment and dedication to make a go of it in the fierce climate of overseas competition, as well as a viable product and the financial backing to give the venture a fighting chance, it's little wonder that the success ratio is impressive.

This year a new dimension has been added to the course, which initially invites selected participants to attend an intensive

ten-day training period (two days a week for five weeks) which provides a sound understanding of international marketing.

The 1987-88 export development program was a very successful precursor to this.

"What we've done is take that to the next stage by upgrading the method of marketing to reflect the reality that, for a small to medium sized Australian company, marketing overseas is expensive in terms of resources and manpower, as well as funding costs", Bill Yeadon said.

The Centre's program is the fastest way to train competent marketing executives to compete in the international marketplace.

Targeted at the top end of the corporate scale - chief executives or marketing directors - the program includes corporate strategic planning as well as a practical application by way of an actual field trip to a target country.

So for an outlay of \$5000, a company's chosen representative can be provided with functional business training, examining corporate strategic issues, aspects of international marketing and preparation for establishing those all-important overseas ties.

Then comes the practical side of the training, with candidates doing crucial market research in a country they have targeted themselves, as well as preparing detailed economic and business profiles.

"I guess you could say we're sticking our heads in a noose", Yeadon said.

"We're making ourselves much more accountable by the additional step of assisting the company to implement its development plan", he said.

"So we'll be doing much more active monitoring and fine tuning during the stage four process, which is putting that newfound knowledge to work".

He said the course is designed to achieve a 100 per cent success rate, allowing quantifiable feedback to hone the skills of all Australian exporters who commit themselves to the program.

Backed also by the Victorian Education Foundation, the International Business Development Program (details on (03) 573 2028) is marketed as "the vital link that facilitates smooth interaction between government export support bodies, trade chambers, management associations and your company".

Says Yeadon: "The David Syme International Business Centre views its role as a facilitator of international business knowledge, support and connections through its extensive network of both Australian and international professional colleagues.

"Our primary objective is to provide service in the areas of management training, education, consulting, and the collection and dissemination of information to assist Australian companies to participate more competitively abroad".

Bill Yeadon says the project is "in tune with the dynamics of the international market place", with sharp focus on corporate strategic issues of quality assurance,

offshore partnerships and international agreements.

But far more than that, it is the catalyst for Australian companies to get started on what for the uninitiated can be a

slippery slope - with risks minimised by four golden rules for success.

If Bill Yeadon is right, the IBDP is a sure fire winner to help Australian exporters to help themselves in an expanding trade market where there is no substitute for sound basic training, knowledge of the industry, a viable target market and sound practical application. ■

*"representatives of 43 companies have successfully completed the four-stage course since its inception"*

*"I guess you could say we're sticking our heads in a noose"*

# On-line for the course of the future

*In keeping up with the computer age, Chisholm Institute has recently released an "electronic" version of its 1990 student handbook for use on the Apple Macintosh computer.*

Called "HyperCourse", Chisholm's computer-based handbook is provided on two 3.5 inch floppy disks, and is designed for use with Apple's "HyperCard" software which is supplied with all new Macintoshes.

HyperCourse allows prospective students and careers teachers easy access to information regarding Chisholm's enrolment procedures, administration and student services. It includes descriptions of all subjects as well as courses, and has simple searching facilities to find key topics of interest.

## Comprehensive index

Campus maps describe each building on both the Caulfield and Frankston campuses, and there are maps

outlining transport to the campuses. To make things easier to locate, a comprehensive index is included, allowing the user to find information on a given topic by simply pointing to the word on screen and pressing the mouse button.

The HyperCard software supplied by Apple was developed to allow those of us with less-than-perfect understanding of the workings of computers to easily link information together and access it by clicking on the mouse. HyperCourse makes full use of these facilities, ensuring that just about anyone can use it regardless of computer experience. The package was devised by Chisholm's Public Relations Manager, John Wilkins, and developed by Tim Mansour, the Publications Officer.

## Electronic handbook

"We chose to develop our electronic handbook for Macintosh computers first", explained John, "because of the HyperCard software, and because our printed Handbook is produced using desktop publishing software on the Mac. This meant that transferring information from the printed version was relatively simple." The information contained in HyperCourse is condensed from the seven-volume 1990 Chisholm Handbook.

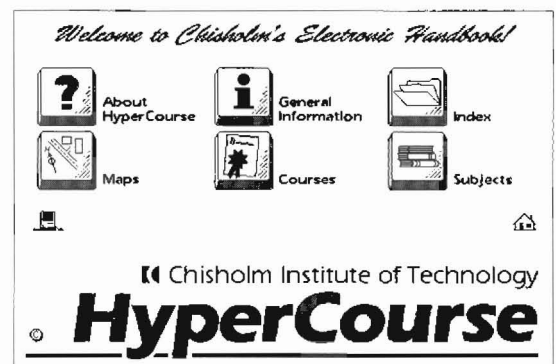
Tim said that production of an IBM version would only be a matter of time. "Until recently, there hasn't been any software for the IBM comparable to HyperCard on the Mac," he said, "but we are investigating a newly announced package called HyperPad."

"We could provide text files on disk for users to wade through, but this would be far less practical than simply browsing through a printed handbook", Tim explained.

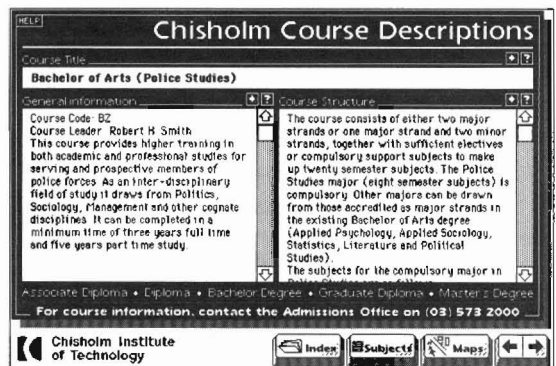
"The beauty of HyperCourse is that you can jump around from one section to the next very simply. You don't really need to be trained how to use it.

"Many schools are now installing Macintosh computers in their libraries, and it is here that we hope HyperCourse will be of most use for students and teachers", said Tim.

Anyone interested in obtaining a copy of HyperCourse should send two initialised, unlabelled 800 kb disks to Tim Mansour, Publications Officer, Chisholm Institute of Technology, PO Box 197, Caulfield East 3145, or for information, phone Tim on (03) 573 2311.



The HyperCourse Main Card (above) has six "buttons" to link to the main sections of the electronic handbook. Course cards (below) show information about the structure and requirements of Chisholm's courses.





# The Quest for Gold

Joanne Connell

**Commonwealth Games gold medallist and Chisholm Business student, Colin Robertson has returned from Auckland with the grim news that unless he can secure sponsorship he will not be able to compete seriously in international competition again.**

But the 32 year old shooter, who dazzled the crowds with his expert shooting to take out the gold medal in the running target section, is optimistic about his future in the sport.

He said he needed someone to sponsor him for \$2,500 to buy new equipment to see him through to the World Shooters Championship in Moscow in September.

He said unless he could find a sponsor he would have to give competitive shooting away.

Colin, who is a full-time student in the Bachelor of Arts/Bachelor of Business (Management) double degree, started shooting with the Sporting Shooters' Association of Victoria in 1978 when he was eighteen.

Less than a year later he competed in his first world championship event.

Since then he has competed in several Oceania Games and world cup events. Auckland was his first Commonwealth Games competition.

Colin said he was disappointed that shooting wasn't given a higher profile in the media during the Commonwealth Games.

"The big problem is that the public see guns and they think of war movies," he said.

"In fact, they are quite the opposite.



*Colin Robertson of Mount Waverley: needs \$2500 to continue his illustrious career.*

To us they are our tools used for sport, no different to a golf club.

"Australia is a very strong nation in international shooting competitions.

"After all, we won seven gold medals in Auckland and sixteen medals altogether.

"We are proving time and time again that we are very competent and competitive."

Colin said the big difficulty in international competition was competing against Eastern Bloc countries which considered shooting as a professional sport.

"Shooters in Hungary are literally professionals. Shooting is well covered in the media over there, and their shooters when they win are just as popular and as celebrated as our swim-

mers over here."

Colin arrived home from Auckland to a hero's reception at Tullamarine airport. He later joined in the official Commonwealth Games athlete's walk through the city.

Since then he has been inundated with requests to make speeches and appearances with sporting groups.

"What's my ultimate ambition? Well, I think to make it into the top ten shooters in the world and to compete at the Olympic Games to win," he said.

If anyone can offer Colin sponsorship, contact him on (03) 807 5563.

*Joanne Connell is a staff writer with the Waverley Gazette. The article and photograph are reproduced with permission.*

## The Good Oil

Mobil Oil Australia has awarded its first prize of \$1,000 and twelve weeks vacation employment to **Cindy Duong**, a second year Bachelor of Applied Science (Computing) student.

Cindy was chosen from among her classmates on her academic achievements in the first three semesters of the course and her personal qualities following an interview by Mobil representatives.

In addition, four other finalists received Mobil watches in recognition of their merit.

Mr Nicholas Jackson, Supervisor of Employment and Equal Opportunities at Mobil, said "Mobil has recruited Chisholm Bachelor of Applied Science (Computing) graduates extensively over the past five years and this award recognises the value we place in attracting these graduates."

A presentation and prize giving was held in November. Cindy Duong was selected as prize winner from eighteen applications, and the other four finalists were Quoc-Cuong Tran, Ching-Wah Mok, Noela Basile and Barbara Rawlinson.

Over the past 25 years, Chisholm's School of Computing and Information Systems has produced over two thousand



From left: prizewinner Cindy Duong, Gregor Howie from Mobil, Noela Basile, Nicholas Jackson, Barbara Rawlinson.

graduates in computing. Many of them have made significant contributions to the Australian computer industry.

Head of School, Jack Greig, said that Chisholm has always attempted to provide a strong vocational bias in its computing

courses, so that its graduates will be immediately useful to industry.

"A number of major employers have traditionally employed significant numbers of Chisholm computing graduates, and this support is greatly valued", he said.

## Banking students in Asia

**Students of the Banking and Finance degree visited Japan, Hong Kong and Jakarta for three weeks as part of their course in January.**

The seventh such tour, students who selected International Banking and Finance, International Economy or International Trade Law subjects attended a concentrated series of

lectures in December prior to their trip. They spent a week in each place, attending numerous meetings with leading participants in the banking and finance industries in those countries.

The results of their research was presented at a formal dinner attended by representatives from banks, Austrade, Nissan and the Australian Institute of Bankers.

Head of the School, Denise Wheller, said that programs like this one augur well for the advancement of Australian business in the Asia Pacific region.



**Program Leaders Greg Tucker (tenth from right) and Andrew Child (sixth from right) with students and representatives from the Indonesian Institute of Bankers (LPPI) in Jakarta.**



# Adolescent Love *and Safety.*

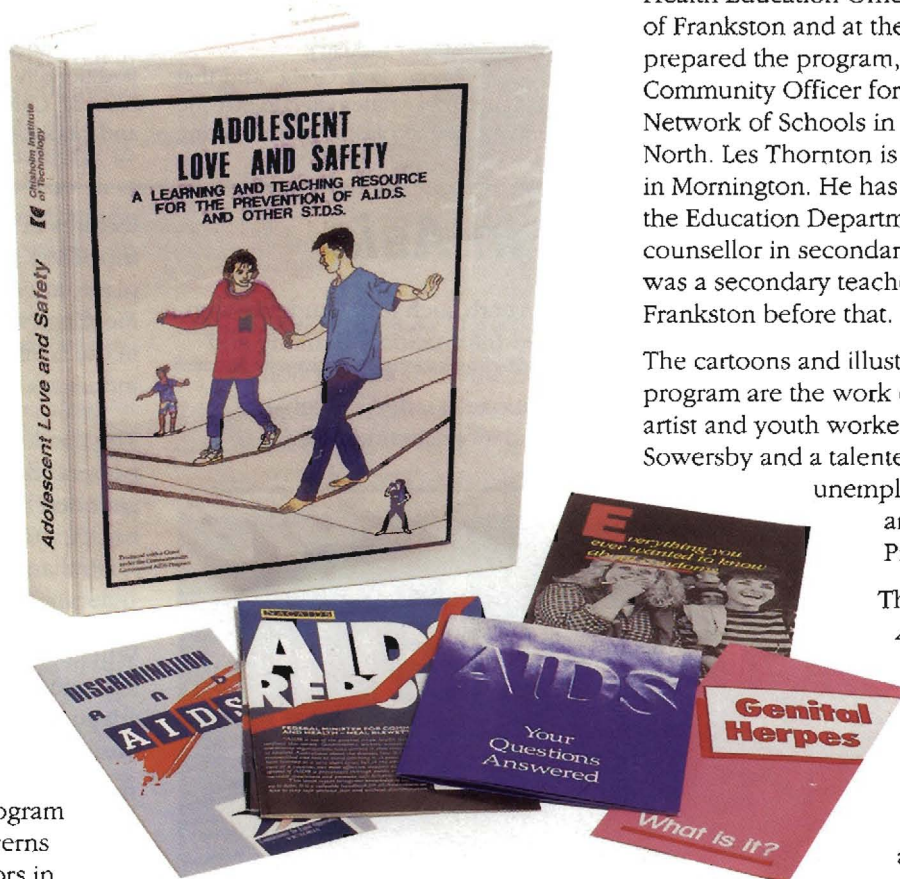
**An educational program to teach adolescents about AIDS and other sexually transmitted diseases, and the lifestyles which put people at least risk of contracting them, was released recently. Adolescent Love and Safety is a joint effort by staff of the Centre for Continuing Education at Chisholm together with a number of professionals drawn from the Frankston community. It is funded by the Commonwealth Government Department of Health and Community Services.**

The program has been praised by educationalists and people working in the youth work field. A Youth Officer of the Red Cross wrote to say that it was the best AIDS education package she had seen.

"Teachers are deluged with issues and are often unable to prepare relevant course material on complex issues", says co-author Dale Ingamells, of Chisholm's Centre for Continuing Education. 'Adolescent Love and Safety' gives background material to make them aware of the facts and issues and includes fourteen lesson plans for them to use either as a complete program or as individual classes within their existing programs."

Many of the subjects and topics included in the program are drawn from real concerns experienced by the authors in teaching young people. They have sought feedback from practising teachers, Frankston family planning clinics and from youth workers all

through the program's development. Parts of it have been trialled in secondary schools and the whole program has been adapted



and improved on the basis of this experience.

The program provides a resource

rather than being prescriptive. It aims to improve the personal safety of young people and empower them to use objective signs to identify safe and unsafe situations. There are several themes: "It's great to feel safe", "We can talk about anything to the right person" and "It's not who we are but what we do that places us at risk".

The fourteen teaching sessions deal with AIDS facts, behaviour patterns, love and sex, stereotypes and how to deal with sexuality and the situations adolescents find themselves in.

The authors are all experienced in the area of adolescent education. Dale Ingamells is a psychologist and lecturer in education at Chisholm Institute of Technology and is Head of the Centre for Continuing Education. Christine Vincent is the Health Education Officer at the City of Frankston and at the time she prepared the program, was School Community Officer for the Monterey Network of Schools in Frankston North. Les Thornton is a psychologist in Mornington. He has worked for the Education Department as a counsellor in secondary schools and was a secondary teacher in Frankston before that.

The cartoons and illustrations in the program are the work of graphic artist and youth worker, Tony Sowersby and a talented

unemployed young artist, Steve Pricor.

The cost of *Adolescent*

*Love and Safety* is \$35 per copy and two related videos can also be ordered. To

order or to find out more, contact the Centre for Continuing Education on (03) 784 4240. ☐

**Chisholm and Monash have just installed a new internal data communications network that will allow the sharing and transmission of electronic data across all three campuses, and which will later include the Gippsland campus as well. This network is leading edge technology and will give academics and students access to each others' work and to computer resources from all over the enlarged Monash. Together with links to international academic networks, Chisholm and Monash are**

## "Now connecting ..."

THE UPGRADE WILL enable the eventual phasing out of the traditional asynchronous networks at Chisholm and Monash, known as Micom and Monet. Replacing them will be a ten megabit per second (10

standard communication protocol using TCP/IP, which is commonly used at academic and research institutions. It can be connected to IBM compatibles, Macintosh computers, DECNet as used on DEC VAX computers, which are the primary mainframes at Monash and Chisholm, and many other formats.

Each campus will have a multi-protocol "router" which will redirect messages between the various parts of the local network and be-

The new system will support a number of communications protocols including mainframe logging using Telnet, file transfers using FTP, electronic mail using SMTP, and the sharing of files and directories on workstations and mainframes using NFS.

The upgrade is being carried out in connection with the installation of new VAXes and microcomputer laboratory facilities.

In addition to this local connectivity, Chisholm is also sharing in the new Australian Academic and Research Net-

work (AARNet). This is a national network being set up by the Australian Vice-Chancellors Committee (AVCC) and the Australian Committee of Directors and Principals (ACDP), with the CSIRO.

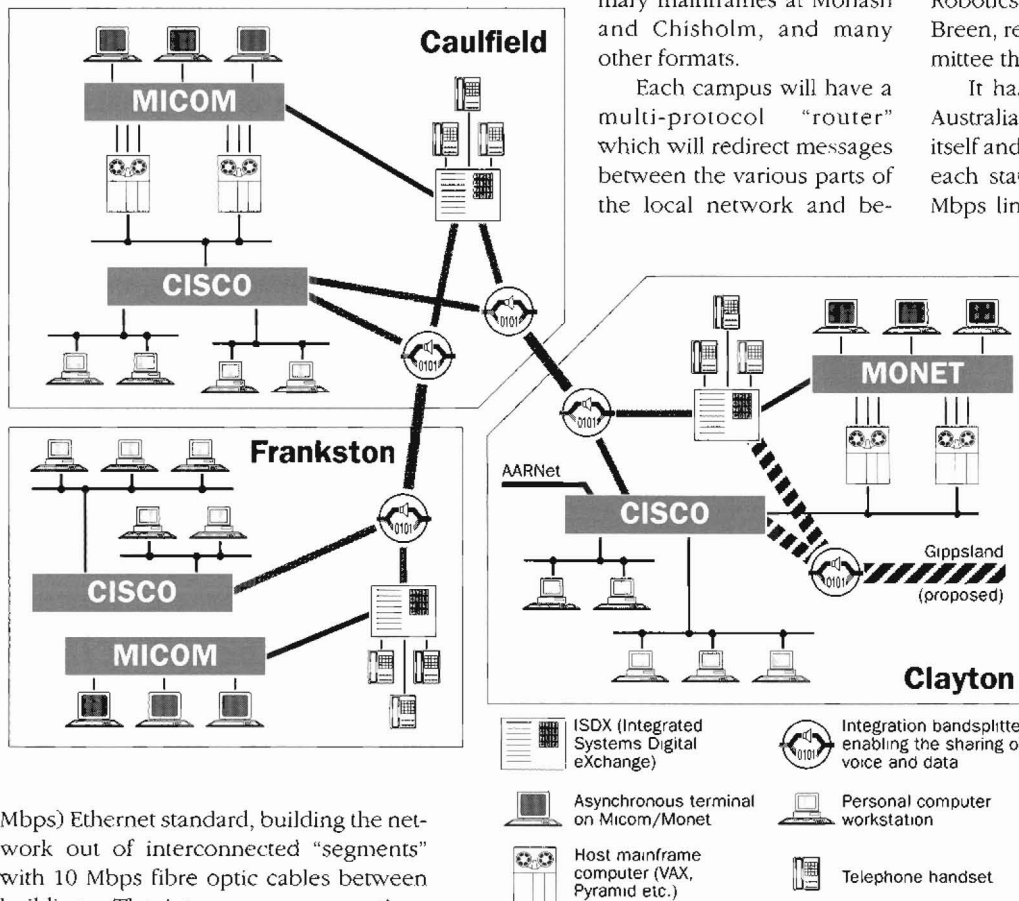
Head of Chisholm's Department of Robotics and Digital Technology, Mr Jim Breen, represented the ACDP on the committee that designed the network.

It has received \$1.8 million from the Australian Research Council to establish itself and will consist of regional centres in each state connected by 48 kbps and 2 Mbps links. Each participating university and college will be connected to its regional centre, which in the case of Chisholm is via Monash University to the University of Melbourne.

AARNet will be connected to similar networks in the US and the UK, using a link partly funded by NASA. A second link to Europe via Japan is being considered.

AARNet uses the same protocols and routers as the Chisholm/Monash network, and will provide the same services. It will also operate the ACSnet mail and news network which has been running informally on a cooperative basis on Unix systems in Australia for several years.

This network will link Chisholm and other academic institutions to a world-wide community of networks to provide an increasingly more important service to academic and research workers. ■



Mbps) Ethernet standard, building the network out of interconnected "segments" with 10 Mbps fibre optic cables between buildings. The intercampus connections currently run over the telephone connection of a 2 Mbps digital link, and an 8 Mbps microwave network is being investigated.

The network file server software is to be Novell network, an industry standard which is connectable to any industry stan-

dard communication protocol using TCP/IP, which is commonly used at academic and research institutions. It can be connected to IBM compatibles, Macintosh computers, DECNet as used on DEC VAX computers, which are the primary mainframes at Monash and Chisholm, and many other formats.

work (AARNet). This is a national network being set up by the Australian Vice-Chancellors Committee (AVCC) and the Australian Committee of Directors and Principals (ACDP), with the CSIRO.



# Developing Graduate Skills

IN BUSINESS

**Dr Denis Kiellerup is an enthusiastic supporter of entrepreneurship, but he agrees that the business world today needs pragmatic and realistic entrepreneurs who have real products or processes to sell.**

**As Executive Director of Chisholm's Centre for the Development of Entrepreneurs, he has overseen the growth of an exciting new national program to assist graduates to commercialise new ideas.**



*Dr Denis Kiellerup: aghast at how Australian innovations are typically treated.*

SINCE THE stock market crash of 1987, the word "entrepreneur" has generally gained the unpleasant connotations of debt financing and unrealistic investments. However, Dr Denis Kiellerup doesn't see it that way.

Economic growth for Australia clearly depends on increased business development and the federal government has thrown its support behind this new program, based upon a similar scheme that has been running successfully in Scotland for over six years and developed at the University of Stirling.

The Graduate Enterprise Program has been set up in conjunction with the National Industry Extension Service with the aim of having the selected participants actively operating their own business ventures within twelve months of the start of the Program.

The Program, and the work of the Centre generally, aims to bring about a change in the attitudes of potential business men and women. The applicants are assessed to ensure that a serious attempt is made to enter the commercial world.

The Program was launched in October 1989, and should enable many

more graduates to utilise the skills and expertise they have acquired in their education to establish their own business. The government gave the Centre the task of developing and trialling the program in Victoria before the national launch. As a result of two pilot schemes a number of successful ventures have been launched. These include video production, catering, shoe manufacturing, gift basket production, design and manufacture of hand-painted screens and furniture, fashion design, stage sculpture, photography, and educational television programs.

Dr Kiellerup is aghast at how Australian innovations are typically treated.

"Unfortunately," he says, "there is an enormous wasted resource of skills, expertise and technology among recent graduates. Many of these people, if they were given the right direction and environment, could quite easily set up successful businesses, greatly adding to the economic growth of our community.

"Graduates are often unaware of the potential they have to set up their own business, and even if they would like to, frequently do not have the management training and skills necessary to make it a success", he says.

"Consequently, many graduates end up in the workforce as employees, often losing their entrepreneurial desire. In addition, the unique individual skills or expertise they

***"Of course, we have all heard of the 'brain drain' of talent out of Australia ..."***

may have acquired can become blunted through disuse, or they become frustrated knowing that their ideas or skills are not being used to their best advantage.

"Of course, we have all heard of the 'brain drain' of talent out of Australia

– the skilled graduates who take their expertise overseas. With the right guidance, many of these people could be just as successful setting up their own businesses here in Australia. We will all be the winners as a result.”

The Graduate Enterprise Program begins with an orientation weekend workshop, followed by a four-month training program. During this time, participants carry out business and market research and are advised in regular sessions by “mentors”, experienced business people who take the burgeoning entrepreneur through the steps of setting up a business. Topics studied include idea evaluation, business planning and strategies, market research, marketing, legal issues, operations, business accounting, computers in business, financing, staff management and much more.

After a “Business Plan” weekend workshop, the new business ventures are launched and a Growth and Development Training Program is tailored to suit the needs of each participant’s new business. Counselling sessions continue for a further six months following the launch, to ensure that teething difficulties do not suffocate the new venture.

### ***Entrepreneurship Workshop***

This scheme is another one of the business enhancement projects the Centre for the Development of Entrepreneurs is running. One which enters its tenth year in 1990 is the Workshop in Entrepreneurship, conducted by staff of the Centre and associated specialists to equip current and potential business managers with the skills, knowledge and practical experience to enable them to be successful in their own business. Over 1000 people have participated in this workshop since its inception, and it is also offered to students at

---

### ***Counselling sessions continue for a further six months ... to ensure that teething difficulties do not suffocate the new venture.***

---

Chisholm in its business and robotics and digital technology courses.

It is a fifteen-week interactive training and development program that emphasises the three key factors that make for a successful business: the personal elements of entrepreneurship, knowledge and understanding of business practice and management, and practical experience in business development.

The course covers the elements of entrepreneurship, the generation of new ideas, developing a business plan, market research and strategies, venture finance, legal issues, technology, and selling ideas to large organisations.

### ***Joint Venturing***

Another initiative being undertaken by the Centre is the encouraging of Joint Venturing: the sharing of resources and expertise to achieve what the partners could not do separately.

“Joint Venturing is difficult to set up”, says Dr Kiellerup. “Most businesses are prone to see those working in a similar or related field as competitors and rivals. However, where one

---

### ***“We aim to encourage cooperative thinking ... to share resources in new ventures.”***

---

person or company cannot achieve the commercialisation of an idea, two or more might be able to.

“We aim to encourage cooperative thinking with production, marketing and accounts, to share resources in new ventures.”

The Centre is itself undergoing this readjustment in thinking, and has entered into an agreement with two of its “rivals” to conduct the 1990 Victorian Enterprise Workshop. In conjunction with the Engineering faculty at Swinburne Institute and the Policy and Public Research Centre at Victoria College, the Centre is running the Victorian Enterprise Workshop program over fifteen weeks.

The Workshops are held at all three institutions and are designed to foster both private and company sponsored entrepreneurial talent, to develop the skills needed to launch successful commercial ventures, to encourage new ventures based on Australian technology and to provide real-world experiences. Participants work in teams drawn from different disciplines.

The program is coordinated by Business Innovation Australia, and is run in Victoria by an independent committee. It is non-profit making, broadly based and totally committed to the development of Australia’s entrepreneurial skills base. Sponsor organisations include private industry, state and federal governments, and individuals from the business community.

Anyone wishing to find out more about the Graduate Enterprise Program, the Workshops in Entrepreneurship, or the Victorian Enterprise Workshops should contact Dr Kiellerup or Centre Manager Margaret Boyes at the Centre for the Development of Entrepreneurs, Chisholm Institute of Technology, PO Box 197, Caulfield East 3145, telephone (03) 571 2638. **■**



**Peter Chandler, Dean of Chisholm's David Syme Faculty of Business, recently called on all academic institutions to restructure and redesign their courses to meet the desperate needs of the business community and the economy.**

# A Needy Business

LAST YEAR the European Business School, IMEDE, and the World Economic Forum released a report entitled "World Competitiveness Report". In it attention was drawn to Australia's lack of export orientation and a heavy reliance on industries where world markets are declining.

Meantime at Harvard University, Michael Porter, recognised world leader in the study of competitive advantage, released his latest research. One of his key conclusions is that international success comes to firms that have the ability and mind set that enables them to constantly innovate and change over time.

Firms do not behave like this in isolation, according to Peter Chandler.

"Rather, they reflect the prevailing attitudes and behaviour of the culture within which they operate," he said.

"Australia's regulated and protectionist policies have been recognised as working against our long-term interest by nurturing a non-competitive environment.

"For culture to change, education must also change. For business to change, an important precursor is for business education to change.

"Until now, tertiary education has really had little reason to change – the tenure system ensures jobs regardless of the realities of the marketplace. But the decline in salary relativities for business academics has led to a drain of talented staff out of academia, leaving the less capable or less experienced to brave a new destiny."

"The reaction of most business schools", Mr Chandler said, "has been to drive firmly into the future while peering out through the back window of Australia in the 1950s, 60s and 70s.

One faculty that is taking up the challenge is Chisholm's David Syme Faculty of Business which comprises four schools – the Schools of Accounting, Banking and Finance, Marketing and Management.

Peter Chandler explains how the David Syme Business Schools have actively sought to refocus their efforts to refocus their efforts to the realities of Australia – a business scene in which Australians will have to compete in international markets.

"Right now the School of Management is introducing an undergraduate degree in Manufacturing Management, a concept unheard of in Australia. Its purpose is to train managers of manufacturing enterprises with world-class techniques that will help their organisations compete internationally.

"We have just introduced a Graduate Diploma in International Business that provides students with the option of specialising in international marketing or international finance and is targeted toward those who need skills in international competitiveness.

"For undergraduates there is the new Bachelor of Business in International Trade. A feature of this program is the requirement for students to major in a foreign language.

For all David Syme Faculty of Business undergraduates there is an opportunity to undertake electives in the international area as part of their course work. What's more, students can elect to take their international units while on site in foreign countries.

"Each January some 40 marketing students from around Australia are escorted on a fact finding tour of the United

States where they are introduced to a cross section of businesses to review their marketing strategies. At the same time a group of Banking and Finance students visits relevant organisations in Asia.

"No matter which tertiary institution the tour students are from, they can gain credits while studying through Chisholm. On tour, students are introduced to Australian Government representatives, discuss Australia's trading problems, meet chief executive officers of major multinationals and are exposed to the thinking of those companies. But perhaps the greatest benefit comes from their meetings with expatriate Australians who tend to give a no-holds-barred picture of operating in those markets.

"Meanwhile a third group, who study Business Japanese, visits Japan on work experience.

"Finally, the David Syme International Business Centre with Government support, targets particular Australian industries and groups to provide practical training that culminates in the participants being taken into overseas markets to initiate contacts and write business."

According to Peter Chandler, "The success of all these initiatives is ultimately dependent upon quality academic staff. Chisholm's Faculty of Business has sought to address this problem by encouraging private and Institute based consulting by its staff. Not only does consulting supplement their income, but it ensures that they remain current with developments in their fields of specialisation.

He said, "The private sector also plays an important role by providing top-up salary funding to allow us to attract the best candidates to key academic positions.

"With confidence we can say that the David Syme Business Schools are providing a useful pointer on how academic institutions can make themselves relevant to the critical educational needs of the Australian business community. It is to be

hoped that we do not stand alone for long", Mr Chandler concluded. ■

***"Australia's regulated and protectionist policies have been recognised as working against our long-term interest by nurturing a non-competitive environment."***

THE AUSTRALIAN Centre for Retail Studies seeks to be a national provider of management education, training, development and research specifically tailored to meeting the needs of the retail industry.

Officially opened by the Chairman and Chief Executive of Coles Myer Ltd, Mr Brian Quinn AO, the establishment of the Centre at Chisholm's Caulfield campus has brought to reality a vision shared by a substantial number of retailers over many years.

Michael Collins, Executive Director of the new Centre and previously principal lecturer in Chisholm's David Syme School of Marketing, paid tribute to those retailers' far-sightedness and generous commitment.

*"We seek to meet the special management training needs of the industry ..."*

They included Trevor Stannus, Foodland Managing Director who in the late seventies chaired the first retail course committee; Kevin Luscombe, well-known marketing consultant who was the School's visiting fellow in 1976; and Bevan Bradbury, former Managing Director of Coles Myer, who gave Chisholm personal support from the earliest days.

Mr Collins said in the thirteen years retailing studies had been underway, Chisholm had graduated nearly 1,200 retailers through its public courses, 40 through the original associate diploma, over 400 undergraduates through retail specialist units and more than 200 buyers through the School of Marketing's various retail in-company and specialist programs.

He said the Australian Centre for Retail Studies would be able to build on these foundations and embark on new initiatives, the most significant

# *At the centre of the retail industry*

*The launch in Melbourne of the Australian Centre for Retail Studies has brought praise from the Federal Government, retailers and education bodies. The Federal Minister for Industry, Technology and Commerce, Senator John Button, unable to attend the opening, sent a message of congratulations to Chisholm Institute saying it provided a "very useful role in the improvement of management skills and the productivity of the retailing industry in general".*

and immediate being the introduction of the Bachelor of Business in Retail Management by distance learning. This has been made possible by funding from the Victorian Education Foundation and will enable country and interstate retailers to undertake the course at their own pace, as well as being of benefit to those retailers

who could not attend regular classes due to trading hours.

Mr Collins said the Centre would not be entering areas such as technical retail training, better done by retail traders' associations and industry training councils; nor was the Centre seeking to become an authority or

*Executive Director Michael Collins (left) and Chairman of Coles Myer, Brian Quinn at the opening of the new Australian Centre for Retail Studies.*





spokesperson for the retail industry, "which would be totally inappropriate".

"We seek to meet the special management training needs of the industry by complementing in-company training where it exists and by working with other education and industry organisations," he said.

The Centre boasts a Retail Advisory Board made up of a veritable who's who of the retail industry nationally; eighteen managing directors or senior executives of Australia's leading retailers all of which have made a significant financial contribution to the Centre.

While the Board provides overall strategic advice and direction, the Centre is also ably assisted by leading practitioners in training and line

management in teaching, course development and advice – in particular Don Fraser, industry consultant and formerly senior executive at Woolworths and Safeway, who is

***The Centre boasts a retail advisory board made up of a veritable who's who of the retail industry ...***

currently the Centre's Retail Executive-in-Residence.

The Centre is now "up and running" at Chisholm and set to extend its prestige when the Institute integrates with Melbourne's Monash University

at the end of this financial year.

"The challenges for retailing in the 1990s make it imperative that management is well-equipped to handle them", Mr Collins said.

"Management training and development represent a critical investment for the future", he said.

Senator Button had praise for the industry and the Centre when he said that "although the industry is labour intensive, retailing has been one of the leading sectors in the use of modern technology to improve its operations and the quality of its service to the public".

"I particularly appreciate the close involvement of the industry itself in collaborating with educational institutions", Senator Button said. ■

## **New Courses**

### **Business**

The Graduate Diploma of Business (Accounting) will be offered as a fee-paying course, to provide the opportunity for students who have graduated in a non-accounting discipline to obtain a basic accounting qualification that will enable them to practise as a professional accountant. It is designed to be completed by two years of part-time study. Enquiries to Dr Ian Beamman, (03) 573 2027.

The Graduate Diploma of Business (Taxation) was accredited late in 1989 and is offered as a fee-paying course designed for graduates of Accounting, Law, or Business who wish to acquire specialised and current knowledge of taxation. Two of the three classes this semester are being conducted at the Melbourne and Dandenong Australian Taxation Offices. The introduction of voluminous and complicated taxation legislation in recent years has created a high demand for business graduates with a special expertise in taxation. This year, 120 full-fee paying students

are enrolled in the course, at a cost of \$500 per subject. Enquiries to Stephen Barkoczy on (03) 573 2389.

The Bachelor of Business (Human Resource Management) is being offered to provide students with a comprehensive knowledge and appreciation of business principles and practices generally, and of human resource management in particular. It will equip its graduates for successful business administration/personnel careers in both the private and public sectors. It is offered at Chisholm's Frankston campus and is open to school leavers and applications must be made directly to Chisholm. Enquiries to Dr James Sarros, (03) 784 4278, or Elaine Layton, (03) 784 4312.

### **Engineering**

The Graduate Diploma in Engineering (Computer Control & Communications) aims to provide graduates who are capable of applying modern high technology and communications to the control of industrial processes. It will be offered either from Semester Two or from first Semester 1991. Enquiries to Jeff Hansen, (03) 573 2579.

## **Banking at a distance**

THE SCHOOL of Banking & Finance has offered its Bachelor of Business (Banking and Finance) degree by distance education, the first Chisholm course to be offered off-campus in this way. It is being offered through the Monash Gippsland Distance Education Centre.

Just two advertisements in January elicited over 500 calls for the course. The government, through the Monash Gippsland DEC, has provided funds for 70 places in the course. An orientation weekend was held at Gippsland in February to welcome the first intake. Most of the students are experienced bankers with over ten years experience who were unable to undertake the course part-time at Chisholm, due to family, business or location commitments.

Leader of the course is Michael Vincent, lecturer in banking, who joined the School after twenty years experience at Westpac.

## In brief

### MALAYSIA

Chisholm's School of Banking & Finance will conduct in June three executive programs in Malaysia, covering Money Markets and Interest Rates, Advanced Bank Management, and Trade Finance. They have been arranged by the Malaysian Strategic Consultancy Sdn Bhd which recently conducted similar programs with the Graduate School of Management of the University of Melbourne.

### GRADUATION

A formal graduation ceremony was held in November last year for staff of Telecom who had completed the Certificate in Strategic Marketing Management conducted by the School of Marketing. This course is run as a non-award course for companies and other bodies by the School.

After the ceremony, humorist Campbell McComas reminisced about some of his more successful hoaxes, including the famous America's Cup speech he gave at Rhode Island. This address resulted in several Americans storming out in protest at the comments of this visiting "dignitary".

### DINNER

The annual dinner of the School of Marketing last year was attended by some 200 people, who heard the Managing Director of Nissan Australia, Ivan Deveson, give a powerful speech on the challenge facing Australia, the role that young marketing graduates will need to play and the attitudes and work relationships they will need to acquire.

# A degree for farming business

Agribusiness is one of Australia's most important industries. The agribusiness sector, which comprises all the industries involved in the production, processing and marketing of agricultural and horticultural products and the supply of farm inputs and services, accounts for 20 per cent of the workforce and 40 per cent of exports.

Agribusiness also has potential for significant expansion, and was recently described by the *Business Review Weekly* as "the new Sunrise Industry".

Despite the economic importance of agribusiness, little effort has been made by tertiary institutions to provide courses that integrate agricultural technology and business studies to meet the needs of a wide range of employers in the sector.

The School of Marketing at Chisholm has responded to the needs of agribusiness employers by designing an innovative program which draws on the expertise of two specialist institutions: Chisholm, and the Victorian College of Agriculture and Horticulture.

The Bachelor of Business (Agribusiness) is a seven-semester full-time course, conducted at Chisholm's Frankston campus and the Dookie campus of the Victorian College of Agriculture and Horticulture.

While there are agribusiness programs in other states, the Chisholm course is the only one that is based in an established Faculty of Business.

The course comprises seven semesters; four at Chisholm's Frankston campus and three at Dookie.

The first two semesters at Chisholm cover the core business subjects and during the next three at Dookie students learn applied science and its

application to agricultural production and the processing and distribution of agricultural products.

The final two semesters at Chisholm introduce specialised topics in agribusiness and integrate the agricultural technology and business streams.

Some unique features of the course are units devoted to the application of new technology such as genetic engineering, to agribusiness and to the management of commodity trading.

Opportunities for employment in agribusiness are as diverse as the agribusiness sector.

They include banking and farm finance, supply of farm inputs (e.g. fertiliser producers, retailers of farm inputs), food processing, food retailing, agricultural production, and international commodity marketing.

Admission to the Bachelor of Business (Agribusiness) is by the regular VTAC procedure or as special entry. A satisfactory pass in a Year 12 course of study accredited by VCAB is required with passes in four subjects including English.

Students with Group 1 subjects are likely to receive preference over students with Group 2 subjects and students who have passed these four subjects at one sitting will also be given preference.

For further information contact: Dr Bill Schroder, Elders IXL Fellow in Agribusiness, David Syme Faculty of Business, phone (03) 784 4328. **■**



# Speeding from the sun

## *The 1990 Pentax World Solar Challenge*

*Athol Yates*



*Staff and students at Chisholm are confident that their new CAD-designed 109 km/h solar-powered car will outshine all others and take the chequered flag in the 3,200 km 1990 Pentax World Solar Challenge race across Central Australia.*

**“When you’ve spent two years and the equivalent of \$2 million on a car, you’re allowed to feel confident”, said Paul Wellington, Parhelion Solar Vehicle Project Manager and lecturer in Department of Mechanical and Industrial Engineering.**

The car uses a revolutionary three-wheeled catamaran design. The driver sits at the front of the right hand hull which contains the electric motor and steering wheel. The second hull only contains one wheel. Solar cells are on the panel connecting the two hulls and on the outside of each hull. Use of the latest high-tech carbon and glass fibre panels has kept the weight of the car to just 170 kg, its size slightly larger than a Ford Falcon.

“As very little is known about the aerodynamics and structural aspects of road catamarans, we are pioneering the design,” said Paul.

The experience from the 1987 vehicle, which was the only catamaran in the race, and the three designs Chisholm has tested in wind tunnels since, has resulted in a light, low drag, stable car. High stability to winds is essential as the race’s route from Darwin to Adelaide is along roads frequently travelled by road trains.

The only frame in the car is the aluminium space frame which transfers the body and driver loads to the front wheel. The rest of the structural loads are carried by carbon fibre and fibreglass honeycombed panels. The

panels, which were donated by Ciba Geigy and fabricated at Aerospace Technologies of Australia (ASTA), are very light and stiff. This has kept the car’s panel weight down to 50 kg. In the 1987 vehicle, an axle connected the wheels but the Parhelion design uses only the top panel to provide lateral rigidity.

“We estimate that once all the donated material, student time and services are taken into account, the

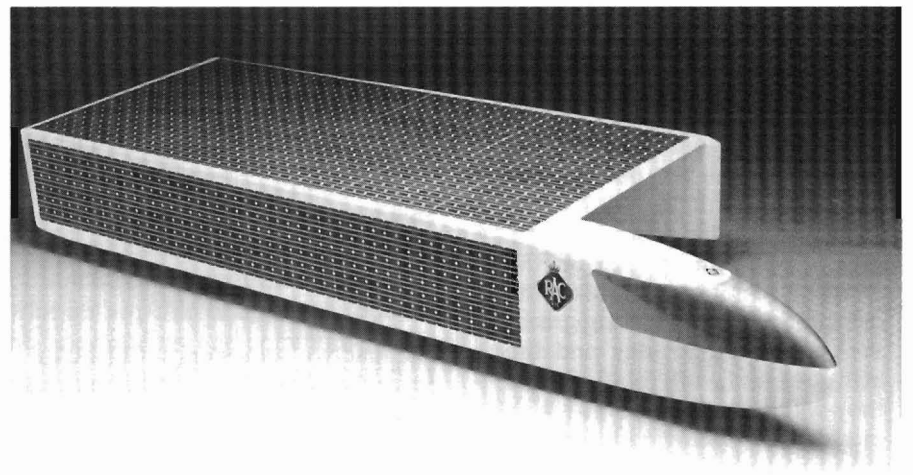
total cost of the vehicle is well over \$2 million,” said Paul Wellington. “This is still significantly less than the 1987 race winner, General Motor’s *Sunracer*, which was rumoured to cost between \$5 and \$20 million.” The value of the carbon and glass fibre faced top panel is over \$25,000 alone.

### **Exciting aspects**

One of the most exciting aspects of the vehicle from a new technology point of view is the use of fibreglass springs. The lightweight “sulcated” springs are about one third of the weight of steel springs and are specially being made to suit the car by GKN Technology in England. GKN has been developing fibreglass springs for the last ten years and their use on the car will be their first extensive road trials, according to Paul Wellington. Different spring designs will be used for the front and rear suspension units

*“As very little is known about the aerodynamics and structural aspects of road catamarans, we are pioneering the design.”*

*Chisholm’s high-tech contender. “Parhelion” means “points of the sun” and is a visual phenomenon in which the sun appears to be surrounded by points of light.*



due to the varying stiffness requirements.

Chisholm's entry this year is a significant advance on its entry in the 1987 race which averaged 30 km/h and came sixth. One of the major reasons for the leap forward is the use of a Computer Aided Drafting system. "A completely new design always requires large numbers of modifications to drawings before the components can be produced", said Paul Wellington. "The easiest and quickest way to do this is to use a proven CAD package like AutoCAD." AutoDesk, AutoCAD's Australian representative, donated three AutoCAD packages for the project.

Paul Wellington also discovered several other benefits of using CAD, including control of drawings. "Unless all the teams are working on the latest drawings and specific area enlargements can be produced quickly, a great deal of time is wasted."

### **Analysing problem areas**

The ability to overlay several component drawings has made analysing problem areas considerably easier. "The front steering assembly and chassis opening for the wheel posed a considerable problem in the 1987 vehicle due to the conflicting goals of constructing a slim wheel hub and steering assembly that maximises the turning circle and minimises the hole in the body floor. This year it has not been a problem as we could easily vary individual components and optimise the total system."

AutoCAD was also central to constructing a very low drag, symmetrical plastic nose cone for the Parhelion. Sixteen full sized, cross sectional drawings of the nose cone were produced and used by the Plastics Skills Centre at Dandenong TAFE as patterns. "While the Centre could have drawn them by hand, AutoCAD saved time and eliminated errors."

"The project is an excellent opportunity for students to work on a real world project and compete against the world's best solar cars", believes Paul Wellington.



*In search of the perfect drivers for Parhelion.*

Specialist assistance for the project has been provided by the Plastics Skills Centre at Dandenong TAFE, the Materials Engineering Department at Monash University and the Engineering School at Moorabbin TAFE.

### **Wide range of disciplines**

Students across a wide range of disciplines have been used in the project including mechanical and electrical engineering students, graphic students who prepared promotional material, and marketing students who raised corporate sponsorship. Industrial design and applied psychology students have also been involved in designing the cockpit layout and selecting drivers who can tolerate driving non-stop for three or four hours a day in 40°C heat.

The major industrial sponsors for *Parhelion* are the Victorian Solar Energy Council which donated money for solar cells; Ciba Geigy which donated body materials and development work; Telecom which donated solar cell testing and control; ASTA which donated body parts manufacturing facilities; AutoDESK which donated AutoCAD software; GKN Technology which donated suspension springs; Comalco which donated aluminium; the Army Engineering

Development Establishment which donated track, workshop and environmental chamber facilities; and the RACV who have helped with promotion and a competition to name the vehicle.

The race from Darwin to Adelaide will be held in November and is likely to take at least six gruelling days to complete. **☛**

### **Parhelion Specifications**

**dimensions** 5.5 m x 2.0 m x 1.0 m  
(L x W x H)

**weight** 170 kg

**construction** Carbon and glass fibre faced, nomex honeycomb cored, sandwich structure. High strength aluminium tubular sub-frames for suspension units.

**wheels** Three 700 mm diameter carbon fibre discs

**suspension** Front: ball spline with sulcated fibreglass springs. Rear and outrigger: single swing arm with sulcated fibreglass springs.

**brakes** Hydraulic drum, leading and trailing shoe

**steering** Worm box with 10:1 reduction

**batteries** Silver zinc

**solar cells** 100 mm square monocrystalline silicon

**motor** ASEA 1 kW samarium cobalt permanent magnet

**transmission** Chain drive with two stage reduction

**estimated maximum speed** 109 km/h (with battery assist)

**estimated cruising speed** 60 km/h



## New books by Chisholm staff

After a very successful first edition of his book *Modern Auditing in Australia* (1985), accounting lecturer Darshin Gill and co-author Graham Cosserat have published the second edition. This text has become a standard work for accounting students throughout Australia and the Pacific and the new edition comes with a two-part extensive Instructor's Manual. The changes reflect extensive reviews by university and college academics. The book is the recommended text for the EDP and Audit Module of the Professional Year of the Institute of Chartered Accountants in Australia. It is published by John Wiley & Sons and retails at a recommended price of \$44.95.

An adaptation to Australian conditions of an American text by Chisholm Head of Accounting Eric Smith has been adopted as the management accounting text by Monash, Griffith, Flinders and Canterbury universities and by Chisholm, Victoria College and RMIT. It is called *Cost Accounting in Australia* and runs to around 900 pages. Published by Nelson, it has a recommended retail price of \$39.95.

*Traffic Management – An Introduction* has been published by Civil Engineering senior lecturer Robin Underwood. It is a simple, clear and practical introduction to the subject, written in lay terms with no prior knowledge needed. It is intended mainly for use by municipal Councillors, Police, members of community groups and other general practitioners who have no specialist training in the field. It is also ideal for undergraduate students. The book complements the Australian Standards and Austroads guides to good practice. It has already received wide support and has been endorsed by all major national, state and local government authorities. Published by Hargreen Publishing, it has a \$39.95 recommended retail price tag. Details from Hargreen on (03) 329 9714.

## An Asian Orientation

**November was a busy month for the Department of Applied Sociology. Seventeen students from Malaysia, Singapore and Thailand were attending classes organised by lecturer Moni Storz on accelerated learning, stress management, time management, effective study techniques, communication skills and speed reading.**

The students were brought out to Chisholm by Mrs Evelyn Low, Director of Accelerated Learning Services in Kuala Lumpur, Malaysia. The students' tour, an initiative of Moni and fully supported by the Dean of the School of Social and Behavioural Studies, Mr Richard Snedden, promoted the courses offered by the Institute. Mr Snedden gave the welcoming address to the students on their first day at Chisholm.

A number of lecturers from all the Institute's Schools were invited by Moni to give a short talk on the courses they offered. She invited a senior lecturer from the law faculty at Monash to discuss their course, and a group of Monash medical students were invited to have dinner with the visitors.

"The med. students were great because they could give the Asian students another perspective to doing medicine", Moni said.

A senior lecturer in business from Victoria College was also invited to come and brief the students on their courses.

"We have to sell not only Chisholm but also what Victoria as a state has to offer, so I invited outside people whenever I could fit them in.

"The itinerary was very tight," Moni said, "as the students had only ten days to tour the academic institutions in Melbourne and Sydney plus sight-seeing. We did all that and it was a huge success. The students' evaluation of the overall tour was excellent."

Said year eleven stu-

dent Louisa Yeoh, "I found that the lectures and briefings at Chisholm were carried out differently and were funny, too. There were lots of jokes, giving us a chance to laugh at our own mistakes without having to blush. This is unlikely to be considered important in a normal classroom atmosphere in our country. But I think it helps add fun to school life."

So what has the tour achieved? According to Moni, who returned recently to Asia and saw most of the students again: "Chisholm and Monash have gained a lot of publicity and goodwill. These students, when they decide to further their studies in Australia, will naturally think of these two campuses first. I guess this is the personal touch. Two of these students have already said they will come to study the Bachelor of Arts after their HSC equivalent in Malaysia. Two want to do the Bachelor of Arts/Business. Others have their eyes on medicine and law. Some of them are still relatively young to decide but when the time comes, they are going to remember Chisholm or Monash because of their tour." ■

*Asian students enjoying their orientation visit with sociology lecturer Cathy Lewis (front left).*



# A new degree of language skills

*The opening of the new Business Language Laboratory at Chisholm Institute of Technology's Frankston campus also introduced a new International Trade degree for school leavers and others wishing to enter this exciting and essential area of business.*

*The laboratory was opened by the Victorian State Manager of Austrade, Mr Barry Hain.*

THE THREE-YEAR Bachelor of Business (International Trade) is conducted at Chisholm's rapidly expanding Frankston campus as both a full-time and part-time degree, providing graduates with a comprehensive range of skills and knowledge essential for the effective management of firms involved in international trade.

## **Communicate effectively**

As part of the course, students learn three years of a language important to trade. Initially, this will be either Mandarin Chinese or Japanese. After the course, graduates will have the ability to communicate effectively in social and business situations with native speakers of the language. The Foreign Business Language Program is funded by the Victorian Education Foundation and is run in cooperation with staff of Monash University and Victoria College.

In addition to the language component, the degree comprises foundation business subjects and specialised international trade subjects essential to a comprehensive understanding of international business activity.

This is the first business degree course in Victoria to specialise in preparing graduates for employment in the trade sector of the Australian economy. It is being run by the

The Head of the School of Banking and Finance, Ms Denise Wheller, said that it is now well recognised that for the Australian economy to prosper, Australian businesses will need to identify and successfully pursue export opportunities.

Ms Wheller said that employer organisations and individual employers had made it clear that graduates of the course will be in great demand from trading companies, tourism and hospitality operators, government agencies, multinational corporations and banks.

The degree satisfies the educational



*Course leaders Ron Edwards (left) and Andrew Child in the Business Language Laboratory.*

School of Banking & Finance in Chisholm's highly regarded David Syme Faculty of Business, which has a number of innovative and important business degrees.

## **Urgent requests**

The course is a response to urgent requests from firms which deal in international trade, investment and tourism for a supply of suitably trained executives.

requirements for Associate membership of the Australian Institute of Export. Entry requirements are Year 12 VCE (with preference given to Group 1 subjects) or equivalent, some other qualifications such as Certificates in business studies, or qualifications or experience relevant to the field.

Enquiries concerning the course may be directed to the Admissions Office on (03) 573 2000. ■



**Greg Tucker is a Senior Lecturer in the School of Banking and Finance. He has a keen interest in privacy laws, and outlines here the problems being experienced in the enacting of legislation against computer crimes.**

**It all adds up to**

# ***Chaos under the keyboard***

## **COMMENTARY**

THE PAST YEAR has witnessed a torrent of legislative output at both national and state levels aimed at outlawing specific computer-related abuses.

Federal Parliament, together with its New South Wales and South Australian counterparts, all passed laws last year designed to combat computer crime. Laws relating to this topic already exist in Victoria, the Australian Capital Territory and the Northern Territory, and the West Australian parliament is currently considering its own version.

The surprising aspect of this legislative outpouring is that very few of the jurisdictions have adopted a similar statutory regime to deal with the matter. Federal and New South Wales parliaments have produced detailed and quite far reaching changes, whereas South Australia and, arguably, Victoria, have produced narrower, less audacious enactments.

Reform of computer crime laws has been on the agenda throughout Australia for some time now. However, there has been a singular lack of accord between the state and federal Attorneys-General as to the nature and extent of the reform, if any. The present mish mash of laws leaves this country with a lack of synthesis in this important area. This may result in the uneven treatment of offenders depending upon where they have been apprehended and the means used to perpetrate their crimes.

***“... there has been a singular lack of accord between the state and federal Attorneys-General ...”***

In a recent case in Canada, the distributor of a software package disputed the amount of royalties it was entitled to receive from a US customer. The customer used the software and supplied the service to others for a fee. The distributor's reaction to the alleged underpayment was to connect via telephone lines with the network used by the customer, and to render some of the software unusable. The customer was unable to carry on business as a result of this. After a protracted legal battle the offenders were finally found guilty of an offence. This outcome would not be so certain in some states of Australia.

Of course the pervasiveness of computer crime may only be guessed at. Although organisations like the Australian Computer Abuse Research Bureau have aggregated figures over more than a ten year period, these statistics are, at best, a focus for discussion of the substantive issues. Nor is it certain that any escalation of computer-related crime has augmented the aggregate crime rate – rather it is entirely possible that it's a substitute for other forms of crime. This would be in harmony with the computerisation of society generally.

For example, theft from a financial institution is increasingly likely to involve computers, such as automated teller machine networks, as this new technology becomes part of everyday banking activity.

To date no analysis has been undertaken to research these areas. On the contrary, media discussion and commentary is generally characterised by sensationalism and random generalisation.

For all this, it must be said that the debate on computer crime legislation is only a part of the problem. Simply enacting a piece of legislation, while good for short term political kudos, is of no use unless it is followed up by appropriate enforcement strategies.

There are, in Australia, few police skilled in the detection and prosecution of computer-related crimes. Accordingly, all but the most flagrant crimes will sorely test the resources of law enforcement authorities. The answer lies not only in training more personnel, but also in inducing them

***“... all but the most flagrant crimes will sorely test the resources of law enforcement authorities.”***

to remain in the job. It has become commonplace that the public sector is used as a training ground for private sector aspirants.

At the microeconomic level, companies and other business organisations have a great deal they can do to prevent computer crime. Simple security procedures, proper lines of responsibility and regular reappraisal of these matters are fundamental to computer crime prevention. Industry associations can develop voluntary codes of practice as a stimulus to improve security standards among their members. Ultimately these may be developed as Australian or even international standards.

Some use of computer auditing systems has been made to extend this function to cover security and data privacy aspects of computers. This task can be undertaken by independent consultants. It has been mooted, from time to time, that these types of audits become compulsory but no country has yet enshrined such a mechanism in its law.

It behoves us all not to be complacent about combating computer crime merely because some legislation has been enacted. Without further action, the legislation amounts to no more than paying lip-service to the problem. ■

# Adding Experts

**Three eminent experts in the area of mathematical learning visited Chisholm late in 1989 to investigate and assist Chisholm's initiatives in bridging courses for intending tertiary students who need to catch up on mathematics.**

They were Professor Günthur Kurz from West Germany, Professor Bert Waits from the US and Dr Mike Beilby from the UK.

Prof. Kurz comes from the Fachhochschule für Technik in Esslingen. He has written extensively on the use of computer based technology in mathematics and physics teaching and has a particular interest in entry testing, where students complete tests directly on computers to assess their progress. Chisholm's Mathematics Training Centre is presently setting up such a system, which

will give students and teaching staff an immediate record of the progress of each student.

Prof. Waits comes from the Ohio State University in Columbus. He is the driving force behind that university's Early Mathematics Placement Testing Program, and has a wide reputation for his writing and courses in the use of graphing calculators

and computers in the education of mathematics.

Dr Beilby, of the University of Birmingham is the Director of the Centre for Computer-Based Learning and is currently responsible for organising the nationally based Computers in Teaching Initiative for Mathematics and Statistics throughout the United Kingdom. ■

*From left: Dr Mike Beilby, Prof. Bert Waits, Dr Ken Mann (standing), Dr Geoff Vaughan, Prof. Günthur Kurz, Senior Lecturer Lindsay Evans.*



## A marathon home video session

**Dr Geoff Vaughan, Director of Chisholm, welcomed 30 visitors from schools and other entrants to a showing of a video of the 1989 Mileage Marathon. The video, made by Don Scutt of Mechanical Engineering in conjunction with Chisholm's Educational Development Unit, is the tenth such video and again has been funded by the competition's sponsor, Shell.**

In his welcoming speech, Dr Vaughan emphasised the value of such projects, not only to the students involved but also to the wider community. He particularly welcomed Mr Peter Millikin of ICI whose ongoing sponsorship of Chisholm's newest vehicle is valued at \$20,000.

## Monash PhD relevant for Chisholm

THE ACADEMIC Secretary of Chisholm, Paul Rodan, recently completed his doctoral thesis at Monash University, giving him both an academic and direct experience of the institution with which Chisholm is to merge.

Dr Rodan's thesis was also of direct relevance to the University and Chisholm, in that it traced the rise of unionisation of non-academic post-secondary education staff in Victoria, and the crea-

tion of the Victorian Colleges and Universities Staff Association (VCUSA).

His research disclosed that there was not a high level of militancy in the union, but that women were more likely to join the union and be less conservative than men.

Dr Rodan is also a member of the Chisholm Council, and will be a member of the Monash Council following the merger.

The development of this vehicle has been managed by Mechanical Engineering graduate, Paul Tuck, who upon joining ICI, persuaded them to provide support. ICI has a long standing tradition of employing

graduates, not only with high levels of technical skill, but also with broad managerial potential as their ongoing commitment to the project attests. ■



## IN BRIEF

### INVENTION

Victoria Police Senior Investigator Martin Taylor and Chief Inspector Alfred Podhorodecki have invented and patented a device to help combat the road toll as part of their Bachelor of Arts (Police Studies) degree. The skateboard-sized device, known as the Podlar, is the first of its type and can accurately analyse the slipperiness of surfaces and provide vital information about traffic accidents.

### UNIVERSITY

The Canberra College of Advanced Education is now the University of Canberra under the sponsorship of Monash University. The University of Canberra Bill was tabled in Federal Parliament in October, and passed through the Senate on 13 December. The CCAE and Monash signed a three-year agreement in November, and both the agreement and Bill were dated from 1 January.

### JAPAN

As part of their studies, a number of Business students recently toured Japan. Sixteen students worked in restaurants of a chain in Japan and toured the country for six weeks. They stayed with families of employees of the chain and were accompanied by lecturers Reiko Neustopyn and Keiko Soto, who teach Business Japanese.

### MURAL

Sally Priestly and Rick Louder, fine arts graduates of Chisholm, have won \$2000 in a mural competition held by the Grollo Group. The brightly-coloured mural was created using acrylic paint and depicts the spirit of Christmas in Melbourne. It will be displayed outside the new 101 Collins Street site.

# Managing STRESS

*Managers are generally under stress and misunderstood, according to a research report by Dr James Sarros ...*

## RESEARCH

Dr James Sarros of the School of Management in the David Syme Faculty of Business has conducted a study of the attitudes and characteristics of 380 members of the Victorian division of the Australian Institute of Management (AIM). Information was gathered on executive demographic characteristics, work stress, work load, work pressure and salary benefits and the extent to which employee participation practices operate in Australian corporations. The study was supported by Chisholm and the AIM.

Managers are predominantly male, although more women are being appointed, both at senior and middle management levels. A higher proportion of women executives are under 40 years of age than men. Nearly four out of five executives are aged between 30 and 49. Half of the survey group had between six to fifteen years managerial experience.

### Midcareer crisis

Dr Sarros' research suggests a number of findings. Managers tend to undergo a midcareer crisis, but some survive to develop lasting and successful late career experiences. Managers are becoming more mobile in pursuit of advancement, with 80 per cent being in their current position for five years or less. Most have responsibility for less than 125 employees. Dr Sarros noted that

although only six per cent of executives are in junior positions, seventeen per cent received less than \$40,000 per annum. The misconception that Australian executives are overpaid in order to perform is false, he says. Women nevertheless are paid lower salaries than men. Female executives tend to be in the retail and services sector, for instance, personnel and advertising. Others, such as manufacturing and importing, are predominantly male.

### Work load

Three quarters of managers work 40 to 59 hours per week, and fourteen per cent work 60 hours or more. Many spend time at home on work-related activities. This arises in part from the increasing demands made on executives. Most, however, work fewer than five hours on weekends. Men work more out of hours than women.

Distinguishing between eustress and distress (positive and negative stress), Dr Sarros found that close to half were moderately stressed by their work but one quarter were considerably to extremely stressed. Only six per cent were very to extremely stressed and one quarter were mildly stressed or not at all.

"These findings indicate that executives are coping rather well with the rigours of their job", Dr Sarros said. "Executives it seems have a fairly healthy and resilient

approach to work that by all accounts is making increasing demands on their time and energies."

### **Pressure to perform**

On the other hand, most managers feel that pressure to perform has increased from ten to fifty per cent over the twelve months prior to the study and three quarters feel that they have a considerable to heavy workload. The greater the workload, the more likely executives were to feel stress. Women had a higher work pressure than men.

"The implications seem obvious, but difficult to implement; reduce work load and pressure to perform, and organisations will be able to alleviate executive work stress."

"An interesting result of this study is that while managers in the 'other' category (such as defence executives, private consultants, and financial advisers) recorded more work load than did junior managers, and more work pressure than both junior and middle managers, they nonetheless registered less stress than all categories of executive. It may be that working for oneself in an environment under one's own control and direction may contribute to more work overall, but less stress. Being in control of the situation reduces role ambiguity and accountability, provides a sense of autonomy and responsibility, and minimises experiences of work stress", he said.

The five most listed stressors are:

personnel issues, deadlines, leadership, productivity/liquidity and workload. Competition, office politics and lack of incentives are among the least mentioned.

Executives cope with stress in a number of ways, according to the study. Most use relaxation and recreation, followed by setting priorities, exercise, delegation and taking a break at work. Interestingly, the most used are not necessarily the most effective. The study finds that

exercise,  
compartmentalisation  
of work and home  
duties, diet/health  
awareness,  
recreation/  
relaxation,  
maintaining self-  
esteem and  
control, setting  
priorities,  
taking  
immediate  
action,  
socialising,  
staff  
involvement  
and taking  
a break are

the ten most effective strategies in order of effectiveness.

### **Industrial democracy**

Dr Sarros's study also looked at the level of industrial democracy in Australian business. He considered a number of mechanisms and processes available.

Quality Circles, which are groups of specially trained employees who meet to discuss problems in their work area, are minimally or not at all used in two thirds of instances, despite their use overseas.

Information sharing, where management informs employees of decisions before implementing them fares better, with nearly half of executives using it from considerably

to very much, while another third use it moderately.

Consultative negotiating councils involve management consultation with employees but use traditional decision making processes. In 58 per cent of cases this was used minimally or not at all, but 39 per cent used it moderately or more.

Joint decision making is used minimally to moderately in 58 per cent of cases and 26 per cent use it considerably or more.

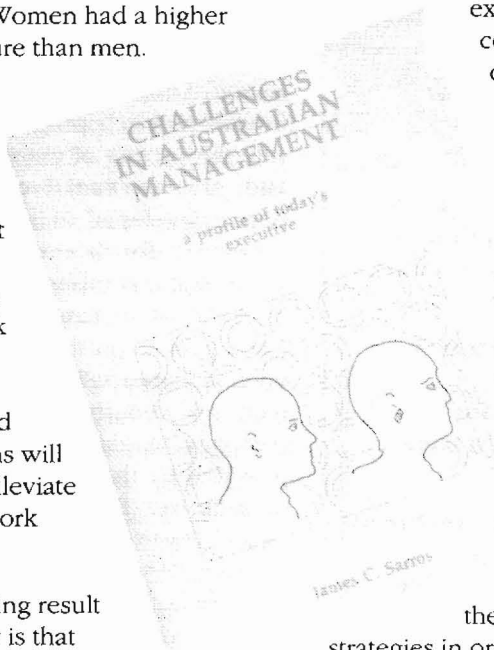
Employee self management, where employees are given almost unilateral control over their workplace, is used moderately or more in 57 per cent of cases.

### **Driven**

His findings suggest that service professionals make most use of industrial democratic procedures, and that this is due to their being driven as much as through the provision of skills and abilities as by profits. By the same token, manufacturing uses them least.

The use of financial participation schemes by employees in their company is not widespread, with nearly 80 per cent of organisations not using them, or using them only minimally. The most frequently used method of financial involvement is profit-productivity sharing. Salary bonuses and incentives for managers were similarly not rated as important by managers, with 43 per cent rating them of mild to no importance. Another 33 per cent rated them of considerable to extreme importance. Salary benefits were of most importance to middle and senior management.

Copies of Dr Sarros' study are available from him at the School of Management, Chisholm Institute of Technology, Frankston campus, McMahons Road, Frankston 3199, telephone (03) 784 4313. ■



*Chisholm's Centre for Stream Ecology is a leader in research involving water quality instrumentation based on flow injection analysis (FIA) and field-flow*

# Testing the Waters ...

*fractionation (FFF). Barry Hart, Director of the Centre, summarises the current research and discusses some of the new instruments being commercially developed as a result.*

## RESEARCH

THE MONITORING OF the quality of effluents, rivers, estuaries and the oceans is now accepted worldwide as a necessity if environmental pollution is to be contained. Normally this involves the collection of samples of the effluent or water which are then transported back to a laboratory for analysis. This is of course time consuming and relatively costly. Also the amount of information that can be collected is limited.

A more ideal strategy would be to monitor the effluents or waterbodies continuously. In recent years, commercial instruments have become available that can test a limited number of water quality indicators such as salinity, acidity and turbidity. However, despite the fact that there is a considerable potential market in Australia and South East Asia, such continuous monitoring instrumentation is not yet available.

At the Centre for Stream Ecology, a joint research centre between Chisholm Institute and Monash University, the Water Quality Instrumentation Group has accepted this challenge by establishing an active research program to develop new instruments for monitoring water quality. This research is focused on two fronts: continuously-recording instruments for monitoring water quality based on flow injection analysis (FIA), and instruments for separating and sizing particulate and colloidal matter in natural waters based on field-flow fractionation (FFF).

### **Current FFF research projects which involve masters students include:**

- **The use of sedimentation FFF to investigate pollutant-colloid interactions in natural waters (Deirdre Hotchin)**
- **Development of a new method based on sedimentation FFF for analysing bacteria in water (Reshmi Sharma)**
- **The efficiency of treatment of pulp and paper mill effluents utilising flow FFF (Rick Wood)**
- **Characterisation of polymers using thermal FFF (Myhuong Nguyen).**

FIA is a relatively new analytical technique with several important advantages including high sample throughput, ease of automation, simple instrumentation, and minimal use of reagents and sample. There are a number of ways FIA can be used. Perhaps the simplest is the colourimetric determination of water quality indicators (such as reactive phosphorus), where the aqueous sample is mixed with reagents in a precisely controlled manner to form a coloured complex, and the amount of the complex formed is subsequently quantified by a detector.

As part of an Australian Water Research Advisory Council (AWRAC) funded research program to investigate the cycling of nutrients in rivers and streams, Paul Freeman of the Centre developed an inexpensive FIA instrument for determining very low concentrations (approx. 0.1 µg/L) of phosphorus in natural waters. This instrument is presently being developed commercially in collaboration with a Melbourne based instrument company, Mindata Pty Ltd, with funds provided by the Federal Department of Industry, Technology and Commerce. The first instrument was sold in February 1990 and it is expected that full production of the laboratory FIA analyser will be underway by May.

In addition to the phosphorus analyser, the Centre is currently developing FIA-based instruments for total phosphorus, nitrate, chloride, bromide, ammonia and dissolved organic carbon. A field-based version of the phosphorus FIA analyser is also being developed. As well, the Centre, again in collaboration with Mindata, has received a grant from the Victorian Post Secondary Education Commission (VPSEC) to develop a multi-probe water quality instrument. This instrument when fully developed will permit the simultaneous determination of several water quality indicators, including conductivity, acidity, turbidity, phosphorus, nitrate, dissolved oxygen and so on. In addition to the obvious advantage of permitting simultaneous analysis of a number of in-

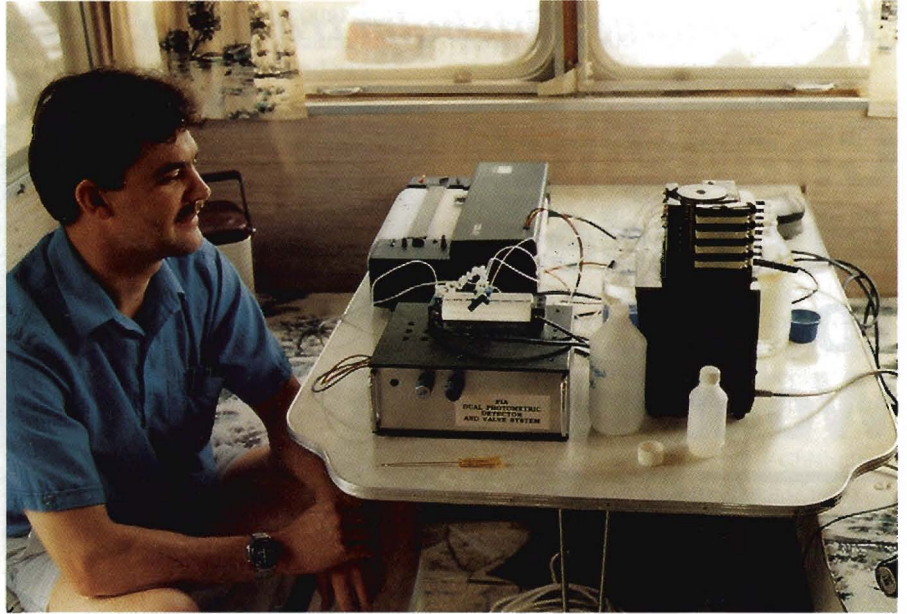


dicators, this FIA instrument should provide the possibility of periodically recalibrating the sensors by automatically injecting calibrating solution through the instrument, and the prevention of fouling of the sensors by flushing each active line at regular intervals with a sterilising solution. Instrument drift and fouling of sensors are very common problems associated with all field instruments.

If a recent application to the Australian Research Council is successful, the Centre will receive additional funding that will assist in further establishing the Instrumentation Group. In particular, these funds will be used to investigate the applicability of fluorescence chemical sensors for FIA instruments, and also to investigate methods based on new membrane technology for on-line cleaning up of samples, a particular problem with naturally turbid samples.

The other research area being actively pursued by the Centre is the application of field-flow fractionation (FFF) techniques to fractionate and size particles, colloids and macromolecules in natural waters. FFF techniques are ideal for characterising the very complex mixture of suspended and dissolved matter found in natural waters.

*Field-flow fractionation instrumentation: ideal for characterising matter found in natural waters.*



*Paul Freeman and FIA equipment: being developed commercially.*

***“... the Chisholm Group now has an FFF research program second only to Giddings’ in the range of instrumentation available and applications being tackled.”***

The FFF technique was first proposed by Prof. J. Calvin Giddings University of Utah in 1966, and that group has almost single handedly developed most of the instrumentation and theory for the technique. The Chisholm Institute group first became involved in FFF in 1985 when they obtained a Sedimentation FFF instrument from Utah for the purpose of investigating aquatic colloids (very small particles less than one micrometre in diameter). These colloids are known to play a very important role in the transport and fate of heavy metals and toxic organic matter in aquatic systems.

Since 1985, a very fruitful research collaboration has been established with the Utah group such that the Chisholm Group now has an FFF research program second only to Giddings’ in the range of instrumentation available and applications being tackled. In addition to flow and thermal FFF units used to study macromolecules, and sedimentation and steric FFF units for studying colloids and particles in the range 0.05 to 100  $\mu\text{m}$ , the Group is currently constructing a new hyperlayer FFF instrument for the high resolution separation of silt-sized (1–60  $\mu\text{m}$ ) sediment particles.



## *“The Caroline Chisholm tradition – past and present”*

# Changing Attitudes to Women

*Addressing the Third Annual Caroline Chisholm Oration, held by Chisholm to commemorate Mrs Chisholm’s tradition in Australian society, the Member for Henty and past Speaker for the House of Representatives, the Hon. Joan Child, said that Affirmative Action is merely a means to the end of changing attitudes to women.*

*Ms Child said, “You cannot, when all is said and done, change, by legislative or administrative decree, the way people think and that is what really counts in the long run.”*

*Ms Child praised the contribution and courage of Caroline Chisholm in dealing with poverty and oppression and her commitment to the family as the basis of society and human relationships, a view that is not universally popular today.*

*The following is an edited text of Mrs Child’s talk.*



*Joan Child with the Director of Chisholm, Dr Geoff Vaughan (left) and President of Chisholm Council, Paul Ramler.*

I WONDER HOW many Australians, on hearing the name of the Chisholm Institute, automatically associate it with Caroline Chisholm? For many people, Chisholm is probably just another anonymous name often associated with public institutions, like Hotham or Latrobe. Everyone knows that it’s vaguely historical, but not too many could tell you why. I think that’s a great shame, because Caroline Chisholm was an immensely significant historical figure and far more deserving of remembrance than most, if not all, of the colonial governors whose names seem to adorn so many of our public institutions. In that regard, I must congratulate the institute on the initiation of this series of orations which are designed to provide a platform for the public discussion of issues relating to women in society and at the same time commemorate a woman who almost certainly achieved more in practical terms for the women of her day than any woman before or since.

... In the course of preparation for this oration, I took the opportunity of reading

the first two orations given by Patricia Grimshaw and Jocelynn Scutt – different in tone but both impressive in the vision shown and the obvious quality of the scholarship involved. My experience in public life has been in the practical – one might say somewhat prosaic – field of day to day politics. Consequently, my perspective on Caroline Chisholm’s contribution to history and the relevance of her experiences to women of today will be different to that of Patricia and Jocelynn. I imagine that’s why I was asked in the first place.

### **No set pre-conceptions**

Caroline Chisholm was a practical woman. She was by no means a theoretical revolutionary, although she held views which many of her contemporaries – men and women alike – regarded as revolutionary. Above all, she was utterly consistent in her approach and in her views – a rare quality in public life – and one made possible because she carried no set pre-

conceptions with her when she confronted the issues of her age. As Margaret Kiddle states in her biography of Caroline Chisholm, "Throughout her life her opinions were formed by hard experience rather than swift abstractions. Like Charles Dickens, she was not a leader of radical thought, but a fearless fighter against abuses upon which others looked with apparent indifference." Allied to her consistency were the qualities of honesty and courage.

In an age noted for its hypocrisy and humbug, Caroline Chisholm – while never compromising her dignity of her femininity – called a spade a spade. In an age when class consciousness was deeply imbedded, she had the courage to look beyond her own genteel background and ally herself with the poor and wretched of the earth against her own class. In an age of religious intolerance, she chose to convert to Catholicism – a religion generally regarded as the province of the lower classes.

### Physical courage

In addition to moral courage, she was a woman of considerable physical courage. Her treks into the wilderness of New South Wales in bullock drays taking immigrant women to their new lives must have been enormously draining physically. It should be remembered also that the roads – or, more properly, tracks – of the early 1840s were haunted by bushrangers who were not especially noted for their chivalry or the mercy they showed to their victims. She must have been filled with forebodings at the thought of undertaking these perilous and arduous journeys, but undertake them she did – to such an extent that she was almost permanently on the road for a year.

Physical courage is a quality which we tend to under-rate today, perhaps because it's being constantly devalued on your movie and television screens. When it comes to women, physical courage at its best is almost always linked to mental courage. Most of you will during your schooldays have come across "The Drover's Wife" by Henry Lawson – a short story which expresses with simple and moving eloquence the mental and physical courage displayed by Australia's pioneering women. Caroline Chisholm, a genteel lady from a comfortable middle-class home, faced comparable

experiences. Listen to her account of her first night alone in the immigration barracks which she had secured as a home for the girls for whom she had taken responsibility:

*"I retired, weary, to rest. My courage was put to the proof at starting. Scarce was the light out, when I fancied from the noise I heard, that dogs must be in the room, and in some terror I got a light.*

*"What I experienced at seeing rats in all directions I cannot describe.*

*"My first act was to throw on a cloak, and get at the door with the intent of leaving the building. My second thoughts were, if I did so, my desertion would cause much amusement and ruin my plan.*

*"I therefore lighted a second candle, and seating myself on my bed, kept there until three rats descending from the roof alighted on my shoulders.*

*"I felt that I was getting into a fever, and that in fact I should be very ill before morning; but to be out-generalled by rats was too bad.*

*"I got up with some resolution. I had two loaves and some butter (for my office, bedroom and pantry were one).*

*"I cut some bread into slices, placed the whole in the middle of the room, put a dish of water convenient, and with a light by my side I kept my seat by the bed reading 'Abercrombie' and watching the rats until four in the morning.*

*"I at one time counted thirteen, and never less than seven did I observe at the dish during the entire night.*

*"The following night I gave them a similar treat, with the addition of arsenic, and, in this manner passed my first four nights at the home."*

One of the great temptations when considering the life of an historical figure is to speculate as to how that person would behave if they lived in the present day and what attitude they would take to the controversial questions of the day.

When arguing for a particular proposition, how marvellous to be able to whistle up some distinguished historical figure to speak in support of your point of view. I note in this respect that Jocelyne Scutt fell into the temptation of enlisting Caroline Chisholm's support for the eradication of what she described as the "Gerrymander of Sex". This can be a dangerous exercise. After all, we are all to some degree, no matter how single minded we see ourselves to be, creatures of our age. Social attitudes which seem deeply conservative today would doubtless have seemed wildly radical only twenty or thirty years ago. With Caroline Chisholm, we are going back more than a century. However, the temptation is too great for me to resist and, in any case, I feel myself to be in good company.

### Family life

Caroline Chisholm had an abiding belief in the family as the basis of society and of human relationships. That is not a view which is universally popular today. In fact, the family unit seems to be regarded by some people as an appropriate whipping-boy to shoulder the blame for many of society's ills.

It is certainly true that many people are deeply traumatised by unhappy experiences in family life. It is true that some parents bash their children or sexually abuse them. These experiences naturally leave indelible scars on their victims. However, interpersonal relationships of any kind are always fraught with dangers of one sort or another.

**For many people, Chisholm is probably just another anonymous name often associated with public institutions ...**

The primary role of the family has always been essentially the nurturing of children. If the biological parents of the child are not the appropriate people to handle that responsibility, then who is? It is up to society to face up to and tackle the problems facing families – it is certainly no answer to simply heap scorn on the whole family concept when no viable option is being proposed an alternative.

I recently received a letter on the subject of the crises facing Australian families



from Dr Paul Kirby, President of the Marriage Guidance Council of South Australia. It was an open letter, so I would like to share some of it with you. Dr Kirby summaries in succinct fashion the role of the family and some of the problems associated with that role in today's society. He states:

*"Most of us still live in family situations in relationship with others whom we regard as emotionally important.*

*"It is these relationships which provide the essence of life's enjoyments and satisfactions and without which life may lose its meaning.*

*"Within the family and our network of relatives and friends we share our joys and achievements, our sorrows and pains.*

*"With family support we are better able to cope with the problems and stresses of the world.*

*"Our children are born and raised in the love and security which family life offers enabling them in turn to create and maintain families.*

*"From within the security of healthy family life we can best contribute to the development of society ensuring its stability and economic growth.*

*"Society is fundamentally dependent on the stability and health of individual families.*

*"Unfortunately, not all families can be regarded as stable and healthy, able to provide the much needed haven of love and security.*

*"Parental, and parent-child relationships are often strained, many single parents struggle, children's needs are not always understood or met.*

*"These families can be regarded as seriously troubled. It is inevitable that their members experience varying degrees of emotional suffering.*

*"The family is the basic unit of society and the parental relationship the foundation of the family.*

*"If this foundation crumbles the structure of society is weakened."*

Dr Kirby's letter is a plea to governments to direct public resources to endeavours aimed at increasing understanding of family and marital relationships and towards preventative and therapeutic

programs that enhance family life. He points out:

*"Families don't live in isolation, they are an integral part of the greater system of society and as such both influence and are influenced by society.*

*"The universal existence of the family, in all its forms, demonstrates beyond any doubt that it is a fundamental and crucial phenomenon of society.*

*"It should therefore have a pivotal place in the development of government policy and legislation."*

Caroline Chisholm's struggle to reunite the families to the emancipists confirms the strength of her commitment to the

---

### *In an age noted for its hypocrisy and humbug, Caroline Chisholm ... called a spade a spade.*

---

family. Her writings provide further evidence if any is needed. While the difficulties faced by Australia's pioneering families were very different from those which bedevil today's families, I think I can say with confidence that, if she were here today, Caroline Chisholm would be fighting just as hard for the dignity of women and the preservation of the family unit as she did in her own era.

In recent years, thanks largely to the publicity surrounding my election as Speaker of the House of Representatives, I've been called upon on a number of occasions to talk to various groups on the subject of women in politics. Of course, we cannot know for sure what view Caroline Chisholm would have taken on that subject. In her time, the whole idea was probably inconceivable. In some respects, it seemed inconceivable less than twenty years ago, when I first stood for the seat of Henty. At that time, while Dame Enid Lyons and Kay Brownhill had represented conservative parties in the house, the only Labor woman who had made it into Federal Parliament was Dorothy Tangney, who was a senator from Western Australia. All in all, I was seen as something of an oddity. In some respects, this had its advantages. After all, my novelty value brought me a good

deal of publicity which a male in my position would cheerfully have killed for – no bad thing when you're flat out trying to hold onto a marginal seat. On the other hand, there was a fair amount of patronising comment, particularly from some of the older men who very likely saw the Parliament as akin to an exclusive mens' club.

Of course in politics, as in most walks of life, you earn respect commensurate with the skills you develop and display – how well you can master the game. I think I mastered it quicker than most and was rapidly accepted as one of the club.

From time to time one hears the view expressed that women who succeed in politics do so only because they adopt a masculine approach and out-macho the men. Margaret Thatcher is generally advanced as evidence of this phenomenon. Certainly Mrs Thatcher plays it hard and seems to utterly dominate her party – although some unkind souls have suggested that the Tory Party has always been full of weak-kneed old duffers who could be dominated by a suitably motivated field-mouse. However, few of the women I know who have risen to prominence in Australian politics would fit that particular mould. I think especially of the late Pauline Toner who proved that it was possible to be a highly successful politician whilst remaining the very embodiment of femininity, and a former staff member of mine, Ann Barker, who last year became the State Member for Bentleigh. It would of course be bad form to instance myself.

### **Progress**

Given that the ALP trailed the conservative parties by around thirty years at getting a woman elected to the House of Representatives, the progress that's been made since has been astounding. It's instructive to note that, of the 89 women currently sitting in parliaments throughout Australia, 52 are ALP members with only 26 representing the Liberal and National Parties. The contrast becomes even more marked when you look at the number of women in lower house seats. It would be fair to say that, in general, political parties tend to endorse for upper house seats those candidates considered to be of doubtful electoral appeal. You will appreciate that this is a little difficult to put diplomatically, but I'll do my best.

Most upper houses these days (though not in Victoria) are elected on a system of proportional representation so that voters are confronted with a long list of names on a party ticket. Consequently, the qualities of individual candidates tend to receive less attention than those on a lower house election where only one person is being chosen. In other words, "star" candidates (those perceived to have electoral appeal) are more likely to be endorsed for lower house seats. Therefore, when I point out that eight of the Labor Party's twelve female federal politicians sit in the House of Representatives, compared with the Coalition's one out of nine, I am sure you can draw your own conclusions about the Coalition's assessment of the political skills of women.

Throughout Australia, Labor has 33 female members in lower house seats and the Liberal and National parties nine. Of these nine, four are National Party MPs from Queensland and I'm not sure if they really count. Incidentally, I hope you don't mind me being a little political – after all, I am a politician.

### **Resentment**

The Labor Party has implemented in recent years a program of affirmative action designed to guarantee to women a minimum level of representation at all levels of party activities. I am not a particular enthusiast for the principle of affirmative action which, if not handled correctly, can generate resentment if it can be painted as nothing more than reverse discrimination. We ought to be trying to establish in both principle and practice that responsibilities and power should be allocated on the basis of aptitude and ability, regardless of sex. If that results in continued representational imbalances in particular jobs and professions, it may simply be that men are better suited, physically or temperamentally, to some jobs than women, and vice versa. After all, our aim should be to establish that men and women are equal – not that they are identical.

It follows from that opinion that I regard affirmative action as very much a transitional concept, justifiable as a means of focussing attention on an historical and deep-seated discrimination and as a way of kick-starting a radical re-assessment of social attitudes. However, in the final analysis, it must be accepted

that it is merely a means to an end. You cannot, when all is said and done, change by legislative or administrative decree, the way people think, and that is what really counts in the long run.

To be honest, when you contemplate the grinding poverty and oppression which afflict so much of the world and the insidious doctrines and social systems which relegate women to a state not far removed from slavery, you feel almost small-minded for worrying about problems in Australia which seem almost trivial by comparison.

### **Righting the wrong**

Looking back at the world in which Caroline Chisholm lived and the mountainous problems which she faced – and conquered – one wonders how she found the strength to go on. Perhaps that is the lesson which we should learn from the life of this admirable and astonishing woman: if you see something which is manifestly unjust, you must take responsibility for righting the wrong. Caroline Chisholm must have seemed at the time just about the most unlikely person you could image to take on such a crushing burden in an uncaring society. But someone had to do it – and someone did. Each of us has to bear the responsibility of cleaning up our own

---

*You cannot ... change,  
by legislative or  
administrative decree,  
the way people think,  
and that is what really  
counts in the long run.*

---

backyard as best we can. Only by meeting our obligations where our views and our actions can really make a significant difference do we qualify to make judgements about the worth of others.

I thank you most sincerely for the opportunity to be with you this evening and share with you some of my thoughts in memory of a remarkable woman.

JOAN B. CHILD, MEMBER FOR HENTY

## *In brief*

### **CORPORATE**

The major initiative for the Mt Eliza Australian Management College has been the establishment of a "corporate MBA". The one-year full-time \$40,000 Master of Business Administration is unique to Australia and will involve employer-sponsored participants engaging in "action learning". The focal point of the MBA is a corporate project, selected by the employer and agreed to by the college and Monash University, to whom the MBA is accredited.

### **OUTFALL**

The panel named for the independent public inquiry into the Latrobe Valley Ocean Outfall Sewer included Chisholm staff member Barry Hart, from the Centre for Stream Ecology. The panel was established to examine whether there are any practical alternatives to the ocean outfall with regard to environmental, economic and social issues as well as scientific information.

### **CENTRE**

Monash University's city business centre on the corner of Flinders Lane and Exhibition Street has been set up to house a new Asian Resources and Briefing Centre, drawing on the expertise of staff from Monash, Melbourne and La Trobe Universities, Chisholm Institute and Victoria College. As well as organising seminars and training courses it will establish an active database on Asia for business market research and operate a consultancy service covering market research, environmental impact and related issues. If market research shows demand for residential courses these will be organised at a number of metropolitan venues.

*Chisholm aims to improve the work performance of senior and middle managers in an initiative funded by a Department of Employment, Education and Training equity grant. The initiative is jointly run by Chisholm's Human Resources Department and Educational Development Unit. It looks set to ensure*

# Top End Performance

**A residential Senior Management workshop was conducted in December last year at Campaspe House, Woodend to provide Chisholm's Directorate, Deans and Heads of Schools with a better understanding of how to motivate, manage and develop the staff for whom they are responsible, and to develop a comprehensive program for middle managers throughout the Institute.**

The course was conducted by the Australian Institute of Management. Course leaders for the Senior Management program were Peter

Sheldrake, Brian Hirsh, and Murray Ainsworth and the keynote speaker was Mr Ian Webber, Chief Executive Officer of Mayne Nickless, whose

topic was "The Importance of Effective Management in a Modern Organisation".

Ann Boyle, Manager of the Human Resources Department, said that "the intended objectives of the program were to provide senior and middle management with the necessary personal skills to achieve the overall aims, and to enable senior and middle managers to fulfil their responsibilities under the second tier agreements for improving staff performance and productivity.

"It is hoped that the total program (including the Senior Management program and the Middle Management program this year) would have four main outcomes: managers will have

a heightened awareness of the issues involved in staff development and its importance under the Second Tier agreements; managers will recognise the nexus between staff development and the realisation of the Institute's organisational goals; all staff with significant supervisory responsibilities will have a much higher level of skill and understanding when dealing with the practical problems of management; and senior staff will have a common understanding of the problems and procedures involved in the Institute staff development program," she said.

The Director, Dr Geoff Vaughan, expressed his enthusiasm about the response at the senior management weekend.

"The workshop provided the Directorate with an excellent opportunity to clarify management issues common to all academic units across the Institute and to identify needs for the improvement of managerial skills. The keynote address by Ian Webber set the scene for the Senior Management group to look objectively at the overall management requirements across the Institute.

"All participants constructively and enthusiastically contributed to a full program over the weekend and developed a useful framework for the Institute's approach to the forthcoming merger with Monash University", he said.

According to the Head of the Educational Development Unit, John Julian, "the way in which senior staff used the opportunity to establish links with their colleagues away from the normal constraints of Institutional life was particularly pleasing. Evaluations carried out before and after the course showed a highly positive response from participants."

The particular outcomes of the program included the creation of an overall staff development strategy consistent with the Institute's Educa-

*Course leader Peter Sheldrake. The workshop was intended to provide a comprehensive program for managers throughout the Institute.*





tional Profile for 1989/91 and related Faculty/School plans; the establishment of a staff development program for Chisholm middle management for 1990 to include a middle management training program (to be conducted by AIM this year) and other training and development activities; and a review of significant staff management issues confronting the senior management team and the further development of strategies to address these.

The Middle Management course will be attended by about 80 Chisholm managers (both academic and general) and will consist of three activities. There will be a three-day People-Management Skills program led by Ms Chris Hunt, a two-day Team Building Workshop led by Mr Tony Andreatta and a one-day Workshop on Self-Management Skills by Mr Bert Holley. The first two will be conducted off-campus to ensure an uninterrupted attendance. Participants will be in groups of 16 or less so the workshops are being run a number of times to enable the maximum participation.

The success of the program will be reported to the Department of Employment, Education and Training (DEET) in accordance with the terms of the grant. It is anticipated that from this program an on-going management training program will be developed and implemented as an Institute priority for both academic and general staff. Care will be taken to ensure it takes into consideration and complements the pilot program being run for general staff by the Human Resources Department under the auspices of the General Staff Development Fund and the on-going Academic Staff Development activities of the Educational Development Unit.

Further application to DEET for funds for this on-going program will also be sought. ■

## Education for body and soul

**Lecturer in Education Margo Guest takes her job very seriously, even if it does include the occasional party – albeit for a worthy cause. Margo and her first-year students combined learning and pleasure last November in a health and nutrition lecture, followed by a “celebration of personal health and happiness”. The hats and zinc cream were donned as part of a government initiative on skin cancer, and the Primary Teaching students were delighted to share in a health fruit cake afterwards. Margo explained the theme behind the end-of-year get together was simply, “We are all here, we have friends”. Healthy sentiments indeed!**



## Marketing Fellow

**The School of Marketing was pleased to be able to host Professor David Cravens of Texas Christian University for fourteen days in October last year.**

Dr Cravens is Professor of Marketing and holds the Eunice and James L. West Chair of American Enterprise Studies within the M. J. Neeley School of Business at the Fort Worth, Texas, University. He is a frequent speaker at management development seminars and conferences for business executives, and has contributed over 100 articles, books and papers.

Dr Cravens addressed a total of over 200 students, both graduate and under-

graduate, on a variety of topics including marketing management and strategic marketing.

The Alumni organised a workshop on “Designing market-driven strategies for competitive advantage”, and a full-day workshop for industry managers on “Sales management”. In addition to these, Dr Cravens presented a two-day in-house Sales Management Conference for Email sales managers.

Those involved in Dr Craven’s presentations were impressed by his specialist knowledge and his ability to reach and hold the interest of his audience. Dr Cravens is a polished speaker, with an enviable reputation for his talents as a teacher, researcher, writer and consultant, and the School of Marketing considered him to be a very worthwhile inclusion in their Visiting Fellow program.

# Chisholm Alumni Association

## WHERE ARE THEY NOW?

### Maurie Fabrikant

#### *School of Computing and Information Systems*

Maurie has an association with Chisholm and Caulfield Institutes that goes back to 1958, longer than the existence of the School of Computing, in which he is a senior lecturer.

In 1960 he graduated with a Diploma of Mechanical Engineering after which he worked at Monsants and the Government Aircraft Factory. In 1963 he completed a Post Graduate Certificate of Mechanical Engineering, but as a result of his work with computers in this course he left engineering and worked with Shell as a trainee programmer, later joining Honeywell as a sales representative. Following this, he became Systems Manager for Management Computing Services, designing systems, writing programs and assisting salespeople in their dealings with prospective customers.

While with Honeywell's, Maurie met Jack D. White, then Head of the EDP Department of Caulfield Institute, and when he heard that Jack was looking for staff to start in 1971, Maurie joined the Department.

"I'm still bloody well here!" says Maurie. "I've been chalking and talking ever since, except during 1979 when I was seconded to the Environment Protection Authority to work on the Ministry of Conservation's Water Quality DP System and the EPA's Discharge Licencing System."

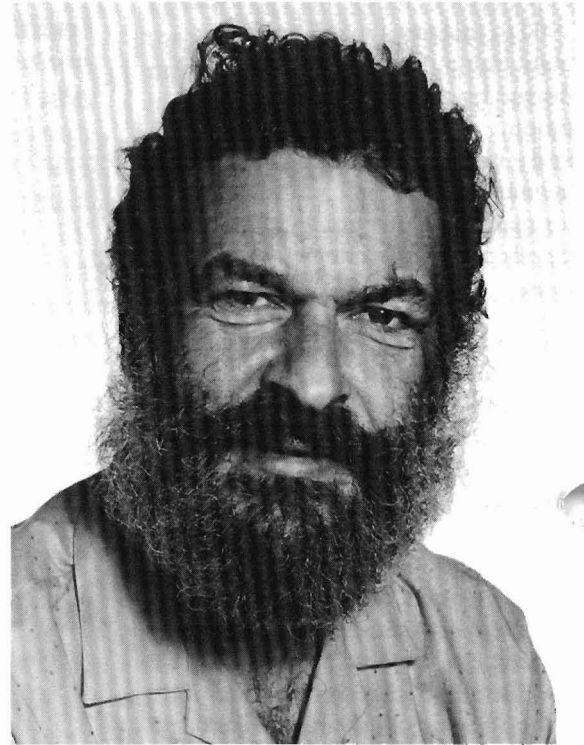
Maurie studied part-time for the Bachelor of Applied Science

(EDP), while actually teaching the same subjects at Caulfield. He completed this in 1976.

He is well known to successive years of Computing students as the lecturer with a booming voice and a very Australian turn of phrase. Nearly all of them have been called "bugalugs" by Maurie at some point.

Maurie has also been President of the Chisholm Staff Club for several years.

He is now working in Chisholm's Computer Resources and Development Unit, developing systems for the Institute's use, and later for Monash University, after the merger.



### Dean McVeigh

#### *School of Accounting*

Dean is a 1985 graduate of the Bachelor of Business Accounting and is now a partner in the top ranking accountants' firm Peat Marwick Hungerfords. He has been working in the public accounting field since 1968 and since 1975 has specialised in the administration of personal and corporate insolvencies.

Dean has worked at Peat Marwick since 1975 and has been a partner since 1986. He has been involved in the administration of over 300 insolvencies as a senior employee and is currently the appointee of some 90 administrations.

## President's Welcome

Welcome to all Alumni.

I must admit to being quite literally thrilled at being involved with the Chisholm Alumni. Although there has been some informal groupings of Chisholm Alumni for some time now, the formal establishment of the "umbrella" Chisholm Alumni has been long awaited.

All of us now have the opportunity to form a lasting association with the many friends and colleagues that we made during our studies. On a personal note, some friendships that I formed whilst at Chisholm have been of immense value to me in the business world.

This particular aspect of a membership with the Alumni should not be underestimated. Contacts in the business world are important and the further in your career that your success takes you, the more important this will be. The time to join is now. Later may be just a little too late.

Another aspect that is also important is that your continued association with Chisholm will give greater recognition to Chisholm itself. The higher a profile Chisholm achieves, the more recognition your qualification will receive.

# Alumni News

This first editorial would not be complete without mentioning Maree Conway, Max Coulthard, Mary Gordon and John Wilkins for their dedicated and selfless efforts in the groundwork for the creation of this Alumni. A finer group would be difficult to find.

For the first twelve months the Alumni Board will have much work to do and each of us are determined that Chisholm Alumni Association will not just be **an** Alumni, but the **best**. Work with us, be a member, and the benefits will be there for you as well.

*Peter D Goujon, President.*

## Association Board Elected

At the Inaugural General Meeting of the Association in November, the first Board was elected and Peter Goujon elected as President. In addition, member of Chisholm Council Jenny Chandler was nomi-

nated as the Council representative and the Director, Dr Geoff Vaughan and the Student Union President Ms Sally Moxham are also ex-officio members of the Board. The Convenor of the Alumni Committee appointed last year to oversee the setting up of the Association, Chisholm business lecturer and graduate Max Coulthard, was elected as Vice-President.

## Did you graduate in May 1989?

Those of you who graduated in May last year are coming due for renewal, and to keep your membership current you should send a cheque for \$25 to the Association before the end of May. Graduates automatically receive one year of free "graduate year" membership.

Changes of address or other personal details should be sent at the same time on the form overleaf. Call the Alumni Office on (03) 573 2731 for enquiries.

# Are You a Graduate

of Chisholm Institute of Technology  
Caulfield Institute of Technology  
or  
State College of Victoria - Frankston



If you are, you are eligible to apply for membership of the Chisholm Alumni Association. Established in 1988, the Association aims to foster pride and enthusiasm for Chisholm Institute of Technology among its alumni, in order to encourage mutual contact and support.

We ask for a membership donation of \$25 per year (of which \$20 is tax deductible) and you receive a range of benefits, including library borrowing rights (after an additional payment of \$20 per year) and regular issues of the Institute magazine

and Alumni News. If you join before 30 June 1990 you can also apply to become a Foundation Member, which entails an additional donation of \$100.

If you are interested in becoming a member of the Association, or if you want more information, please contact Maree Conway on (03) 573 2115. The Chisholm Alumni Association will continue to exist after the Monash merger, and membership will enable you to keep in contact with your fellow Chisholm alumni.

**Chisholm Alumni Association**



# Who's Who on the Alumni Board

## **President: Peter D. Goujon**

Peter is a 1986 graduate of the Bachelor of Business (Accounting) degree, and has been instrumental in the activities of the Accounting chapter. He is Administration Manager of the Safety Regulation Group in the Victorian and Tasmanian Field Office of the Civil Aviation Authority. His hobbies are skiing and weightlifting.

## **Vice President: Max Coulthard**

Max completed a Bachelor of Business (Banking & Finance) at Chisholm in 1985. After fifteen years in Banking, he moved to Chisholm three years ago and is currently a lecturer in the David Syme School of Management on the Frankston campus. He was a member of the Alumni Management Committee set up to establish the Association. His hobbies include local community issues and table tennis. Max is currently completing his MBA at Monash and plans to start his PhD.

## **Chisholm Council Member: Jenny Chandler**

Jenny is the Managing Director of Metafocus Pty Ltd, a company specialising in customer-focused management. Her clients have included Qantas, Wang Computers, State Bank of Victoria and Jetabout. Prior to establishing her own business, she headed the Retail Marketing Division of the ANZ Bank, where she set about introducing and leading a service implementation strategy. Before joining the Bank, Jenny

was Director of Marketing with the accounting firm, Arthur Anderson & Co. She lectured at Chisholm for some years and has been a member of the Council of Chisholm since 1986. She holds a Bachelor of Business with a major in accounting.

## **Director of Chisholm: Dr Geoffrey N. Vaughan**

Dr Vaughan has been a strong supporter of an Alumni since taking up the Directorship in 1987, after being Dean and Director of the Victorian College of Pharmacy since 1979. He is an active member of the University of Melbourne Alumni. He holds a BSc(Hons) and MSc from the University of Sydney and a PhD from the University of Melbourne. His majors were organic chemistry and microbiology.

## **Student Union President: Sally Moxham**

Sally enrolled at Chisholm in 1986 to commence a degree in Industrial Engineering. In 1988 she was president of the Industrial Engineering Club and in 1988 and 1989 she ran the Union's O-Week with other Union Officebearers. She was elected Un-

# On Remand

***Chisholm Sociology senior lecturer Barry Ellem has been appointed Official Visitor to the new Remand Centre. Official visitors meet regularly with staff and prisoners to improve links between prisons and the local community. They provide the Minister for Corrections, Mr Crabb, with independent advice on the operation of prisons in Victoria.***

Barry visits the Remand Centre, opened last year, for three hours every three weeks, and when requested by the Minister.

He says that the Melbourne Remand Centre is based on a Unit Management philosophy which helps to break down the older custodial role of prisons.

"Unit Management is a useful way of

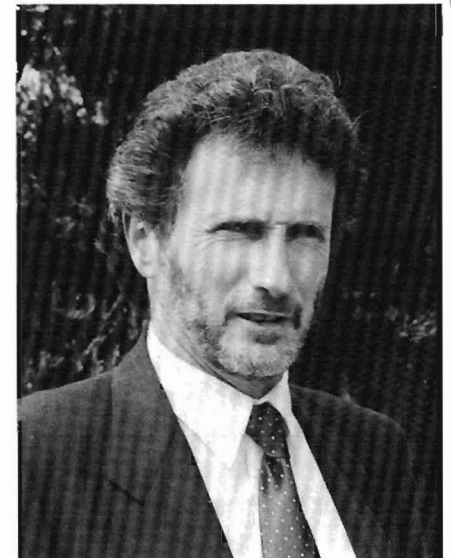
resolving some of the problems associated with the traditional prison system", Barry says.

His previous research was in the area of the effects of imprisonment, which resulted in his book *Doing Time* (Fontana 1984), and he is preparing for PhD research into the Unit Management system in Victoria, making comparisons with the UK and Canadian systems. He will visit the UK

later this year to observe their implementation of the system.

Unit Management is a system of managing small groups of approximately

*Barry Ellem: resolving potential remand problems.*



ion President in 1989, and is due to complete the fourth year of her degree in 1991. Her interests include live music, films and books, student politics and peace and environment movements. She does volunteer work with groups such as Community Aid Abroad, Friends of the Earth, and 3RRR. Her hobbies are "privatisation and shallow education policies".

## General Members

### Wayne Bruce

Wayne is Commercial Manager of the pharmaceutical manufacturer Sigma Company Ltd, and graduated from Caulfield Institute in 1981 with a Graduate Diploma in Marketing. Prior to joining Sigma, Wayne worked for ICI, Pacific Dunlop and Ford New Holland Australia. He was a 2nd Lieutenant with the Pacific Islands Regiment in PNG. His interests are netball, education and the Swans.

### Elizabeth Gleeson

Liz completed a BA Fine Arts (Craft) in 1988. She is an arts teacher with primary

and secondary teaching qualifications, and decided to pursue her interest in flat glass and ceramics at Frankston campus. She now works as an Education Officer at the McClelland Art Gallery at Langwarrin. She joined the Association to maintain contact with former fellow students and to meet others.

### Miklos Lipcsey

Miklos graduated in 1986 with a Bachelor of Applied Science in Applied Mathe-



matics. He is now Computer Systems Officer with the Victorian College of Pharmacy. In addition to programming and teaching programming, he also is a volunteer with the Narre Warren CFA, of which he is Secretary. His interests are firefighting, SCUBA diving, computing and photography. He barracks for Geelong and Tottenham Hotspurs.

### Kevin Tant

Kevin is National Australia Bank Fellow in Treasury Operations in Chisholm's School of Banking & Finance. His Chisholm degree is a Bachelor of Business (Accounting) and he joined the staff of the School after eighteen years experience in the banking industry in Australia and New Zealand. His specialist skills are in treasury management and investment, and portfolio management, and is currently involved in setting up the School's simulated treasury dealing room, the first of its kind in a tertiary institution in Australia. His personal interests include a desire to see Carlton win the 1990 premierships and to reduce an embarrassing golf handicap.

### John Wilkins

John is Public Relations Manager of Chisholm and graduated in 1989 with a Graduate Diploma in Computing. He was a member of the Alumni Management Committee set up to establish the Association. His hobbies include philosophy and personal computers. He steadfastly refuses to support a football team.

30 prisoners. Prisoners are consulted as part of the decision making process. This system was adopted in the USA in the early 1970s and has since been successfully used in the UK, Holland, West Germany and Canada.

The system seeks to encourage prisoners to be responsible and to gain skills that will allow them to readjust to community life after their release. It aims to avoid the tensions and animosities of traditional systems.

Each team includes a permanent staff and has the delegated power to manage its own operations. It does, however, require more modern prisons for it to be implemented, says Barry, and the new Remand Centre is an ideal location for Unit Management.

Barry uses his experience of prisons in teaching a Sociology of Prisons course to BA and Police Studies students at Chisholm. ■

## The Art of Craft

CHISHOLM'S Library and School of Art and Design are sponsoring an exhibition called "The Art of Craft", which will be held at Caulfield campus from 23 May to 8 June.

The British Council has brought this special exhibition of 350 books, journals and videos to Australia for a national tour. The titles were selected by Martina Margetts, former editor of the British *Crafts* journal. Martina is no stranger to Australia, visiting here in 1986 at the invitation of the Crafts Council of Australia.



The exhibit covers a wide cross section of individual crafts including bookbinding, furniture and

woodwork, textiles and design, jewellery and metalwork, and publications on the changing relationship of crafts to art and industry, architecture and design. It provides a unique opportunity for professionals and teachers, as well as enthusiastic amateurs, to evaluate the best and latest in craft publications from the UK. An extensive selection of journals and catalogues from recent craft exhibitions is also included.



# TIMELINE

*The merger of Chisholm Institute of Technology with Monash University marks another stage in the 68 year history of the Institute.*

## Caulfield

Local MLA Frank Groves chairs Mordialloc School Committee which recommends a technical school at Caulfield.

Caulfield Technical School opened with Wheelwrights' and Blacksmiths' course. Principal, Mr R.J. Dorey, had taught these subjects at the Working Men's College, now RMIT. 200 students enrolled.

Diploma Course of Motor Engineering commences, following expansion of curriculum to include carpentry, coach building, sheetmetal working and engineering drawing.

Diploma courses in Mechanical and Electrical Engineering and Art commence.

Applied science, physics and chemistry laboratories open.

Becomes Caulfield Technical College.

Junior section of School moves to Railway Avenue site.

## Frankston

Education Department purchases Frankston site for Teachers' College.

Frankston Teachers' College opens. First principal is Mr W. Eunson. 109 students enrolled.

New lecture block opened.

Mr G. Jenkins appointed Principal. Residential halls completed.

1915

1922

1925

1944

1950

1958

1959

1960

1962

1963

1964

1968

1969

1970

1979

1972

1973

1980

1981

1982

1988

1990



**Caulfield Technical School, 1922.**



## Caulfield

Victorian Institute of Colleges established by Parliament, including Caulfield. Data Processing department established.

Renamed Caulfield Institute of Technology.

Computer Centre opened.

K.H. Boykett Building, Phillip Law Building and Frank Groves Building constructed.

David Syme Business School established.

Amalgamation talks commence between Caulfield and Frankston.

Becomes Caulfield campus of Chisholm Institute of Technology

Amalgamation talks commence with Monash University.

Becomes Caulfield Campus of Monash.

## Frankston

New buildings for lecture theatres, Library, student lounge and cafeteria.

Becomes State College of Victoria at Frankston.

Becomes Frankston campus of Chisholm Institute of Technology

Becomes Frankston campus of Monash.

**Aerial view of Frankston campus.**

