



## Conferring ceremonies held – 1,374 graduate in 1987

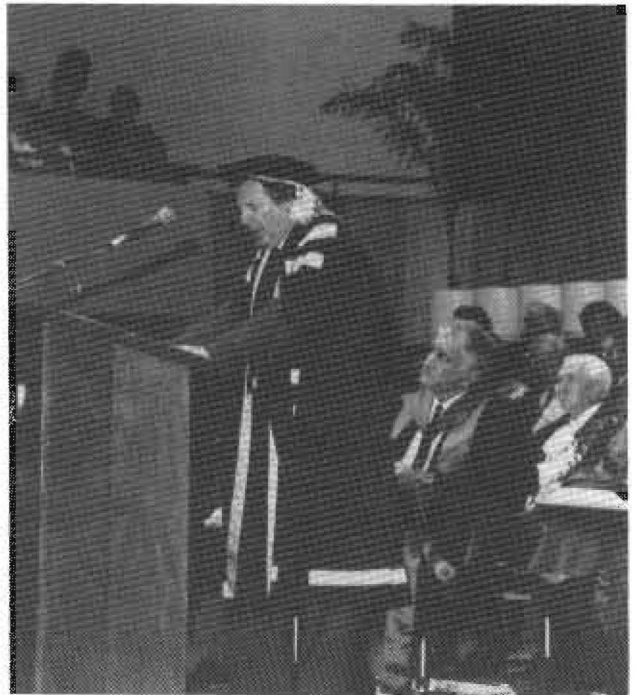
Chisholm's 1987 Conferring Ceremonies were held in Dallas Brooks Hall on 19 and 22 May.

A total of 1,374 students were awarded Associate Diplomas, Diplomas, Graduate Diplomas and Bachelor and Masters Degrees in two ceremonies.

In the first ceremony, awards were conferred to 511 attending graduands from the Faculty of Technology and School of Social and Behavioural Studies. The Occasional Address was given by Professor Malcolm Logan, Vice-Chancellor of Monash University.

Professor Logan spoke of the high esteem in which Chisholm is held, not only throughout Australia, but overseas as well. He observed that the world of scholarship in Australia was far too small, with only one in ten in the workforce holding higher education degrees. Even more disappointing was the decline in the West of science and technology graduates. For instance, in the US in 1982 there were per capita less than half the graduates in engineering as in Japan, and twenty times the number of lawyers.

It is the responsibility of all in higher education to contribute to the overall economic and social progress, Professor Logan said, and Victoria was better placed than other States in this regard since more emphasis was placed on CAEs than universities, blurring the distinctions between them. He suggested that government funding should be more carefully targetted to specific research-development areas, and this is more an Industry and Technology concern than an "Educational" one. He mentioned Sweden as a nation where basic funding for education came from the Education Department, but each government department had considerable research funds, for which various Institutes bid. Were this to happen, funding would have to be co-ordinated, so that, for instance, computer funding went to an institution with a first class computer facility, and health science funds to institutions with a department of anatomy.



*Prof. Logan addresses the graduates and their families.*

Professor Logan then observed the work prospects and income levels of higher education graduates which were about 75% higher than the rest of the workforce. The attitudes of parents, he said, were important in affecting the rates of education, and that many lower income families put a low priority on education on the ba-

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**DEADLINE FOR JULY EDITION  
19 JUNE**

Contributions to Public Relations, ext 2099.

# NEWS

## Public Relations Policy Approved

The Council of Chisholm approved a policy on Public Relations activities at its May meeting.

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## News in Brief

**Trieste revisited** The City of Caulfield is holding an exhibition of photographs of Trieste in the north of Italy. The photographs are by thirteen of Europe's most outstanding photographers, and the exhibition is from 17 June to 5 July at the Caulfield Arts Centre, 414 Inkerman Road. The exhibition is sponsored in Melbourne by "Associazione Giuliani nel Mondo", Trieste and the Italian Institute of Culture.

**CAE Graduates do well** A study just published by the Graduate Careers Council of Australia shows that first degree or diploma graduates of CAEs are likely to be better paid than their university counterparts, and are less likely to be unemployed if they want a full-time job. The results are based upon a questionnaire supplied to all who completed their first tertiary qualification in 1985.

**Austudy Move** The ACT Austudy Office has moved from the Commonwealth Department of Education to the first floor of the Melbourne Building, West Row Civic, Canberra. The new address for mail is ACT Office, Commonwealth Department of Education, PO Box 1573, Canberra ACT 2601. Phone: (062) 837 588.

**Farm Accounting Book published** Chisholm lecturer Eric Smith, Department of Accounting, has published *Managing the Farm — Business Methods for Farmers*. It has been published by Nelson, and has been favourably reviewed by *The Weekly Times*.

**Disadvantaged Students Grant** The Commonwealth Government has made \$30,000 available to Chisholm for a preparatory program to help disadvantaged students adjust to tertiary study, as part of grants totalling \$263,000.

**Choice report** A final year Chemistry student at Chisholm, Christopher Soames, published a letter in a recent *Choice Magazine*, the publication of the Australian Consumers Association, in which he reported that his research had disproven several advertising claims made for Agrasol, a soil treatment organic clay breaker, by its distributors. His research was supervised by Dr D Hewitt and Dr I McKelvie of the Department.

**Chisholm Apprentice Top Again** Mark Formby, Apprentice Electrician in the Maintenance Section, has been named top Apprentice Electrician for the second year in a row. Mark also was named top apprentice of all the other trades taught at Swinburne TAFE, where he is a student.

**Communication Visitors** Two Visiting Fellows in Communication Studies have been invited to address the Australian Communication Association Conference in Sydney in July. Dr Isa Engleberg, of Prince George's Community College near Washington DC, returns home in late July, and Dr Allan Kennedy will also resume his position as Professor of Telecommunications at Morgan State University in Baltimore. Both found their year at Chisholm enjoyable and productive.

The Policy lists the purposes of public relations at Chisholm, and prescribes that presentations made on Chisholm's behalf follow Institute guidelines and be of the approved standard and quality. The Director and President of Council are normally to speak on behalf of the Institute, and the Public Relations Office is to be the reference point for all external public relations activities. Guidelines and procedures are in the process of formulation, and will be published in the near future.

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## National Language Report released

A report recommending a National Language Policy was tabled in Parliament in May by the Minister for Education, Senator Susan Ryan.

The report, entitled *National Policy of Languages*, proposes that the Commonwealth co-ordinate language use and learning in the community based upon four principles: competence in English, the maintenance and development of languages other than English, the provision of services in languages other than English, and opportunities for learning second languages.

Senator Ryan said that the government endorsed the report and would consider funds in the August budget for implementing a national policy.

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## Chisholm Gazette Volume 4 No. 5

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# NEWS

*Continued from page 1*

## Conferrings

sis of social status, rather than cost, but that this also had an effect. He felt that it was unfair that young people were denied education on the basis of the income of their parents.

## Applause for disabled

The President of Council, Dr Lionel Ward, then conferred the title of Fellow of Chisholm on the Victorian Commissioner of Police, Mr "Mick" Miller, for services to Chisholm and the community, as reported in the last edition of the *Gazette*.

Among the graduands was Elizabeth Cameron, 51, who gained her Associate Diploma in Welfare Studies. Elizabeth suffers from cerebral palsy and is confined to a wheelchair, and she received applause when she was awarded her testamur. Two others who achieved qualifications despite considerable difficulty were Jackie Donagon, who was awarded her BA, and Mary Henley, who also gained her Associate Diploma in Welfare Studies, and who was affected by the drug Thalidomide before her birth.

## A History of Banking

In the second ceremony, awards were conferred to 524 attending graduands from the Schools of Art & Design, Education, and the David Syme Business School. The Occasional Address was given by the General Manager of Westpac in Victoria, Mr Raymond Hornsby. He also mentioned the important contribution tertiary education makes to the community, and then treated the subject of the evolution and development of Australian banking.

Beginning with the First Fleet days, when the currency was rum (one man sold his wife

for 4 gallons of rum, so it is said!), Mr Hornsby traced the rise of the New South Wales Bank from its establishment by Governor Macquarie. The bank was joined by others in the 1820s and 1830s. Through a recession in the 1840s and the gold rush in the 1850s, banking grew with the colony, until a depression in 1893 caused by a drop in wool prices caused most of them to close.

The economy recovered in the first years of the twentieth century, and banks ceased to issue their own notes in 1910, when the Commonwealth Government took over the issue of currency. Since then, banking has changed dramatically, with the impact of a major depression, two world wars, the establishment of the Reserve Bank, the threat of the nationalisation of banks in 1949, and the deregulation that followed the Campbell Enquiry.

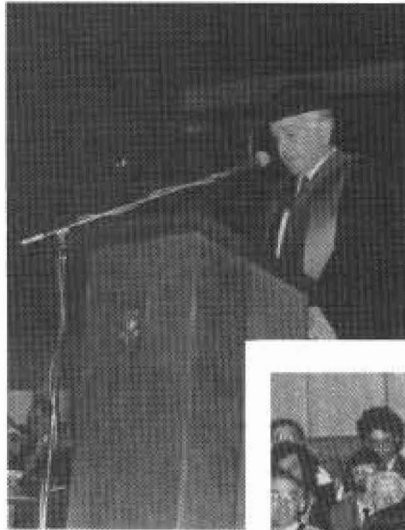
Mr Hornsby described modern banking services as a "financial services supermar-

ket", working in a competitive environment and being forced to provide financial product innovations to attract customers. Investors, he said, are less loyal to individual banks, and are more selective. As a result, banks have become involved with stockbroking, life assurance, insurance, gold bullion trading, trustee company business and investment counselling, in addition to their international operations. This new industry required a highly educated workforce, he said, many of whom would come from institutions like Chisholm.

The Vice-President of the Council, Mr Paul Ramler, then conferred the awards and congratulated the graduates.

## Farewell to Dallas Brooks

The Conferrings were probably the last Chisholm would hold at Dallas Brooks Hall, since by the time the ceremonies were due in 1988, the new Great Hall in the Technology Tower would be available.



*ABOVE: Dr Vaughan opens the first ceremony; TOP RIGHT: Mr Hornsby, General Manager of Westpac; BOTTOM: Elizabeth Cameron receives her long-awaited Diploma.*



# PEOPLE

## Pleasure in Business...

LEFT: Visiting Professor, Norton Bedford, of the University of Illinois, is presented with a David Syme tie and coaster set prior to his last seminar here. Also pictured are Laurie Webb, John Onto and Noel Huggan of the School.



## Statistics on Chisholm staff show inequalities for women

The Equal Opportunity Committee has released a timetable and statistical report of Chisholm for the Affirmative Action Program.

The timetable summarises progress to date and outlines plans for the rest of 1987. The statistics are a survey of the makeup of Chisholm's staff, giving breakdowns of the distribution of staff according to gender and classification. The results show that women are substantially less represented in the higher classifications. The graph below shows the overall profile of staff.

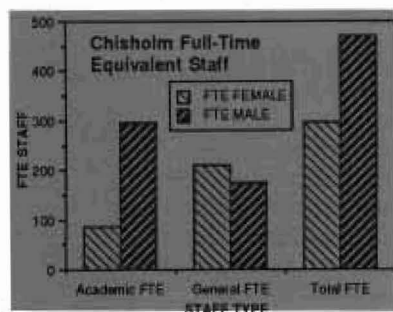
The profile, prepared by the Equal Opportunity Officer, Anne Rennie, shows that 22.8% of academic staff are women and 54.33% of the general staff. Despite this, only 14% of the women academic staff are classified at Senior Lecturer or above, compared to 40% of the men. In the general staff area, women tend to be over-represented in some classifications, such as administrative assistant and laboratory assistant, and under-represented in others, such as senior administrative officers, technical officers, and laboratory managers.

The Chisholm Equal Opportunity Committee has

decided to allow observers at its monthly meetings. Those wishing to attend the meetings, held on the first Tuesday of the month, are asked to inform Anne Rennie. The Committee also plans to set up an Affirmative Action Consultative Sub-Committee, with a membership that will have a balance of gender and managerial and union representation. Expressions of interest should go to Anne Rennie.

The Committee anticipates that the development of the Affirmative Action Program will proceed through work done in working parties of the Sub-Committee. Interested staff may wish to raise specific issues with the Equal Opportunity Officer, and to offer to join working parties.

Copies of the Affirmative Action Timetable and Statistical Profile are available from Anne Rennie, ext 2088.



## Dr Vaughan's portrait unveiled

A portrait of Dr Vaughan as the Director of the Victorian Pharmacy College was unveiled by Mr Geoffrey Oscar at a function on 6 May. It was painted by portrait artist Normi Gude, and presented by the College Council and the Pharmaceutical Society.



## Tribology at the Snowy Mountains

Chisholm's Centre for Industrial Tribology was recently engaged to advise the Snowy Mountains Hydro-Electric Authority on what to do about wear in the guide bearings of a number of turbine units at the Tumut 3 Power Station.

Nick di Toro, Executive Director of the Centre, and Lindsay Evans visited the Station in February, and investigated the possible causes of the unusually high wear rates of the bearings. Their report on the problem was described by Mr R. E. Comer, Business Manager of the Authority as "the most useful" of a number of university and institute reports, and he went on to say "we are proceeding to control the problem based on information in your report and our own investigations".

# PEOPLE

## Director's Column

*An occasional column which will keep staff up to date on matters passing through the Director's office.*

The Institute has received the resignation of Mr Tom Kopp, Executive Director of the Centre for Business Technology effective from 31 July 1987. The matter has been considered by the Centre for Business Technology Advisory Board and all necessary actions are under way to fill the position.

Following Vicki Korman's resignation and departure from Chisholm, and until a replacement for the Legal Officer is made, I ask that all Institute queries concerning legal matters are directed to my office.

I am pleased to advise that Mrs Eileen Wilson has been appointed Assistant Staff Officer for the period 21 May 1987 to 31 December 1987.

Hopefully all staff have now received a copy of the booklet 'Welcome to Chisholm'. Please feel free to

contact my office if you would like to provide comments and suggestions which can be considered when a reprint is under way. If you have not received



the book yet, please phone Staff Branch who arranged the distribution (extension 2183 or 2483).

A request has been made through my office that all staff who may be holding quantities of internal mail envelopes return them to

Central Registry for recirculation. This will help with stationery supplies and costs.

I have enjoyed receiving invitations to meet with staff at departmental meetings and functions. If you have an appropriate function planned, please telephone my Secretary to see if it is possible for me to attend and use the opportunity to see Chisholm in action in the widest sense.

Congratulations to everyone who was involved with the organisation of the Graduation Ceremonies held at Dallas Brooks Hall on 19 and 22 May. Chisholm can be proud of the efforts put in by many people through which the functions were such a success and a fitting ceremony which will be remembered by our graduates in the years ahead.

Dr G. Vaughan, Director.

## Staff Changes

### Resignations

Ms V. Korman, Legal Officer to the Institute. Mr J. Gregor, Bindery/Guillotine Operator, Printing Services Department. Ms N. Phuoc Le, Laboratory Technician, Chemistry and Biology Department. Miss V. Glass, Snack Bar Attendant, Catering Department. Miss M. Bakker, Secretary, Department of Civil Engineering.

### New Appointments

The following staff have been appointed:

Ms F. Boyes, Circulation Clerk, Library. Mr P. Burden, Library Attendant, Library. Mrs J. Edwards, Circulation

Clerk, Library. Mrs J. Gadenne, Secretary/Personal Assistant, International Business Centre, Export Development Program. Miss K. Gould, Library Clerk, Library. Ms R. Kindler, Senior Tutor, Language Development, Educational Development Unit. Mr J. Mackenzie, Senior Tutor, Language Development, Educational Development Unit. Mrs N. Marshall, Circulation Clerk, Library. Mr J. Mason, Carpenter, Premises Department.

School of Art and Design: Miss J. Archibald, Part-time Secretary, (also Part-time Library Clerk, Grade 2).

David Syme Business School: Mr L. Webb, Acting Principal Lecturer, Department of Accounting.

Faculty of Technology: Mr G. Day, Laboratory Assistant, Chemistry Department. Mrs D. Dalby, Secretary, Division of Mathematical and Environmental Sciences. Mr S. Pearce, Laboratory Assistant, Chemistry and Biology Department. Dr M.A. Reid, Lecturer, Division of Engineering and Industrial Technology. Mrs M. Richardson, Secretary, Robotics and Digital Technology.

School of Social and Behavioural Studies: Mr J. R. Duncan, Senior Administrative Officer.

# PEOPLE

## Accounting graduate receives seven awards from accounting companies

The Accounting Annual Ball was held on 22 May and nearly 500 turned up to see a number of awards made to the best graduates of 1986.

Scoping the awards pool, graduate Mark Brunton received seven different awards donated by the Australian

Society of Accountants, BP, Deloitte Haskins and Sells, Price Waterhouse, Coopers and Lybrand, Ernst and Whinney, and Pannell Kerr & Foster.

Other multiple prize winners were Lawrence Borg, Christine Habel, Gary Pflugrath and Murray Blenheim. Nearly \$5,000 worth of prizes were awarded, including two return tickets to Sydney, donated by Australian Airlines, that were won by a ticket holder on the night after the Director's wife, Jennie Vaughan, selected the winning number.



LEFT: Mark Brunton receives one of his seven awards, this one from Jackie Menzies of the accounting firm Deloitte Haskins & Sells.

## Enrolments meet target

Chisholm has enrolled 5,657 equivalent full-time students for 1987, 102 over the quota set.

The School of Nursing has enrolled an extra 38 students in its first year, to be funded by Chisholm, which is 42% more than the quota. All other School enrolments were within 3.4% either way of the quota, and the total of 102 extra students is 1.8% more than the planned quota for the Institute. The Academic Registrar, Ms Helen Boyd, said that the over-enrolment was within the planning range of 120, and was a satisfactory situation.

## Internal Phone Directory out soon...

The 1987 Chisholm Internal Telephone Directory is about to be released.

The returns from staff and existing information were collated to produce a comprehensive alphabetical directory that includes first and last names, staff departments, positions, and room locations.

Suggestions from staff to improve the format, layout and content of the Directory are welcomed, and can be made in writing to Perviz Parakh, Records and Telematics Manager, Caulfield campus.

Any changes that need to be made can be incorporated into the next edition, due in several months. Staff with amendments, deletions or additions should notify the switchboard operators on either campus.

## Awards and Scholarships

Anzac Fellowships for Australians to study in New Zealand next year are being offered jointly by the Australian and New Zealand governments. Benefits include a maintenance allowance, return travel to Wellington, fees, medical insurance and some travel in NZ. Applications close 17 July. Contact the Secretary, Anzac Selection Committee, Department of Education, PO Box 86, Woden ACT 2606.

The New Zealand Government is offering scholarships for post-graduate courses or research from March 1988 to graduates under 35 years. Benefits include return travel, approved tuition, laboratory and examination fees, maintenance, book, marriage and child allowances, medical and hospital benefits, together with establishment, internal travel and field costs. Applications close 12 June. Candidates should apply through the university from which they graduated, or if they never attended an Australian university, through Awards and Exchanges Section, Department of Education, PO Box 86, Woden ACT 2606, from whom application forms and details are available.

The Commonwealth Relations Trust Fund is inviting applications from Australians between 28 and 40 years who have not previously been to the UK for a bursary to Australian educators to study adult education for 3 months from May 1988. The award provides return travel, allowances for internal UK travel and daily maintenance. Details and application form from Margaret MacGregor, Council of Adult Education, 256 Flinders Street, Melbourne 3000. Applications close 7 August.

A number of Japanese scholarships and fellowships are being offered. The Matsumae International Foundation is offering three to six month fellowships in Japan between 1 April 1988 and 31 March 1989 in natural science, medicine, engineering, and to a lesser extent in social science, humanities and the arts. Applicants must hold the equivalent of a Japanese Doctorate or have a minimum of two years research experience after a Masters. The fellowship offers travel expenses, ¥300,000 on arrival for accommodation and local travel, and a

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# PEOPLE

## Myer Retail Executive visits Marketing in 1987

Each year, the Marketing Department appoints a Visiting Retail Executive to give students the benefit of that person's experience.

The 1987 Visiting Retail Executive is Mr Graham Goldie, Group General Manager—Stores for Myer. He is responsible for the running of the

43 Myer and Boans stores across Australia, and has twenty-five years experience in retail.

Other visiting executives have included Bob Bourke of Venture Stores (1986), Ron Torrence of David Jones, Keith Forster of Sussan Lingerie, Don Fraser of Safeway, and Geoff Brash of Brash Holdings.

## Student Union to incorporate

The May meeting of Council approved amendments to the Student Union Constitution, so that it can seek incorporation.

The amended proposed Constitution will be put to the Student Body at the Annual General Meeting, and if accepted the Union will apply for incorporation under the

State Associations Incorporation Act 1981. A major benefit of the move is that the Union will be able to borrow to finance the Student Union Building, which is part of the Technology Tower construction at the Caulfield campus. A Public Officer will be appointed to manage the new body.

## Awards and Scholarships

stipend of between ¥200,000 and ¥300,000 for fees, research expenses etc. Applications close on **30 September** and application forms are available from the Secretary, Matsumae Foundation Fellowship, Department of Education, PO Box 86, Woden ACT 2606.

The Japanese Ministry of Education (**Monbusho**), is offering undergraduate scholarships for applicants between 17 and 22 years on 1 April 1988, and research scholarships for applicants under 35 years on 1 April 1988. For both categories, applicants must be willing to learn Japanese and study in that language. Application forms are available from the Secretary, Department of Education, Japanese Government Monbusho Scholarships, PO Box 86, Woden ACT 2606.

The Federal Republic of Germany is offering a number of scholarships and travel grants to Australian graduates and fine arts students to study at a University, Technical University, or Academy of Fine Art or Music in Germany. The awards are for twelve months. Applicants need a Bachelor

degree and a good knowledge of German. Benefits are return travel, a living allowance of DM 870 to DM 1440, a textbook allowance, accident and third-party insurance, and a DM 200 initial sum for setting up. Applications close **19 June**. Application forms are available from the Secretary, Department of Education, German Government Scholarships, PO Box 86, Woden ACT 2606.

Entries are invited for the **Red Earth Poetry Award** and the **Arafura Short Story Award** in the **1987 Northern Territory Literary Awards**. The Awards applications close on **4 August**, and for conditions of entry, send a stamped, self-addressed envelope to the Chairperson, NT Literary Awards Committee, Box 1701, GPO, Darwin NT 5794.

**DON'T  
FORGET—  
OPEN DAY IS  
16 AUGUST**

## Frankston Course Information Day a Success

Over thirty careers teachers visited the Frankston campus for a day of information about enrolment procedures, prerequisites, courses, job prospects of graduates and the structure of the courses.

The day covered not only courses available at the Frankston campus, but also the Caulfield courses, albeit in less detail. The teachers were from schools on the Peninsula. A similar day is being organised for the Caulfield campus by the Schools Liaison Co-ordinator, Austin Chapman in Community Services.

## Classifieds

FOR SALE: Windsurfer brand sailboard, won in competition, brand new, still in box. Current model, \$800. Rob Pignolet, ext 2239.

FOR SALE: Old wooden double bed, \$50 ONO. Bedhead, base & mattress. Contact Sian ext 2278.

FOR SALE: 1980 Datsun 200B, T-bar auto, reg. 1/88, exc condition, low kms (56k), cloth seats. Offered by Chisholm Visiting Fellow returning to U.S., \$4,900. Contact ext 2271 or 241 6231 AH.

FOR SALE: Sharp portable AM/FM radio/tape player, \$75. Contact ext 2271 or 241 6231 AH.

FOR SALE: Kodak auto 35mm camera (used twice), \$30. Contact ext 2271 or 241 6231 AH.

FOR SALE: Modem, 300/300 and 1200/75 bps fd, with RS232C connection, cables, manual, handset, digital keypad and redial facility, \$75. Contact John ext. 2099 or 529 3079 AH.

TO LET: Town house, fully furnished, two storey. Available for six months from early August 1987 to early February 1988. 3 bedrooms, lock-up garage, situated 50 metres from Aspendale beach. Contact Peter Wells, ext. 2349 or 587 1504 AH.

# NEWS

## Chisholm Graduates Build First Australian Microtomography Scanner

In the past two years the Computer Imaging Group within the Applied Physics Department has developed considerable expertise in computed tomography (CT) which uses x-rays and gamma-rays to non-destructively recreate images of the internal cross-sections of objects. The technique determines the density distribution of the material in these cross-sections. It is widely used in medicine for scanning human anatomy, and has innumerable uses in industry, such as for determining the quality of timber (positions of knots and cracks), locating flaws in engine or rocket components and defects in ceramic materials, and the extent of strength reduction in timber utility power poles.

Two Chisholm Masters students, Pam Shadbolt and Brigitta Suendermann, have recently constructed a prototype industrial microtomography unit. This instrument is the first in Australia and one of only six in the world and is used for scanning the cross-sections of small, low density materials. An Olivetti M24SP micro-computer is used for scanner motion control, data acquisition and image reconstruction. Algorithms for image reconstruction developed by Pam Shadbolt allow the removal of

background noise and x-ray beam blurring artefacts. The final images presently enable spatial details better than 50 micrometres (1 micrometre equals one millionth of a metre) to be obtained.

The first images obtained from the micro CT scanner are shown in the accompanying

photographs. Cross-sectional images of a pencil show clearly the pencil core, growth rings in the wood, and the paint layer.

The microtomography instrument will be used initially to scan objects of approximately 20mm diameter. Experiments are planned to follow the development of fungal decay in

wood, and for scanning maturing palm-oil nuts to determine the stage of greatest oil yield. In a joint project with CSIRO Department of Chemical and Wood Technology, the system will be used for wood densitometry research. Tree core samples will be scanned to yield important density information across tree growth rings and hence wood quality factors in softwood (pine) and hardwood (eucalypt) forests.

The present system uses the existing low energy x-ray source of the Department's x-ray diffractometer unit, and so only low density materials can be successfully examined. The Department hopes to acquire a higher energy gamma-ray source to examine dense materials such as advanced ceramics to retrieve details down to 20 micrometres in size and to distinguish density differences less than 1%. The Computer Imaging Group is also developing a portable CT unit for industry field applications.

*BELOW: Photographs of the cross-sectional reconstructions of two drawing pencils. Higher mass density is shown in white. The top photograph shows the graphite core and surrounding wood, while the bottom photograph shows the 50 micrometre thick layer of paint, in addition to the information shown in the top photograph.*

