

# Campus News

## UNIVERSITY OF WOLLONGONG

Issue No.2

Print Post approved number: 255003103485

April 1998



University of Wollongong

### SYDNEY CENTRE

**d v OPENING** *Story Page 2*



### PROFILE

**PAGE 5** Ubavka Piljevic

## What literacy crisis?

**A**re our children losing the battle for literacy? Or is the "literacy crisis" we hear so much about a manufactured one?

Associate Professor Brian Cambourne, of the Faculty of Education, is regarded as one of the world's leading literacy educators.

He has just been elected to the International Reading Association's Hall of Fame, only the second Australian member in its 25-year history.

Contrary to claims of a "literacy crisis", Professor Cambourne said a growing body of evidence proved Australian children, overall, were better readers than their parents, and far outstripped their grandparents.

He said methods pioneered in Australia and New Zealand over the past two decades have won international acceptance – because they work.

Professor Cambourne has welcomed the launch of the Federal Government's literacy strategy, aimed at 100 per cent literacy by 2002.

But he fears misinformation is driving the current debate on how well our children can read.

He rejects figures circulated last year, used to support claims 30 per cent of children couldn't read or write.

"It's simply not true," he said.

"The government's release of this policy is a perfect opportunity to reintroduce some rational and sensible perspective to the literacy debate and to examine just what the policy and its strategies can achieve.

"The focus of some media commentators and academics has distorted the real nature of literacy in Australia," he said.

"It is a much more complex issue than it seems. It involves a great deal more than spelling, sounding out words, rote learning and word recognition."

**See story page 3.**

## Six minutes to the end of the steam age . . .

**H**ow to heat nature's best insulator? It has been a million dollar problem for the wool-processing industry around the world.

Now a University of Wollongong team has made the transition from sheep's back to European catwalk simpler, faster and cheaper.

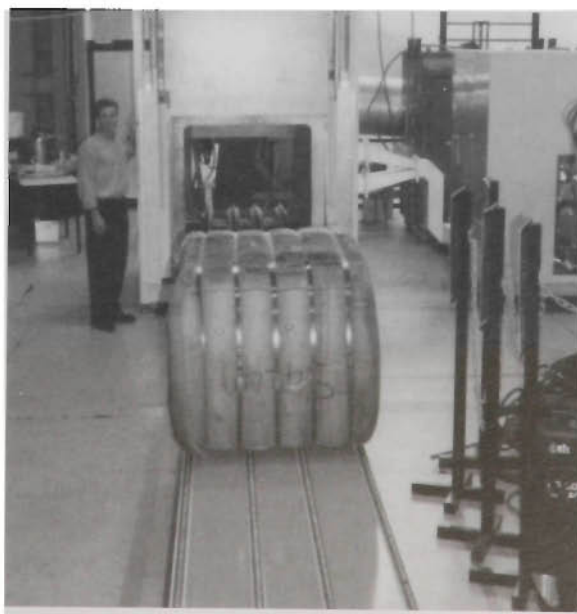
It takes the team just six minutes – instead of several days – to heat-treat wool bales. The result is a finer product, millions of dollars saved and more export earnings for Australia.

From shearing shed floor, wool is compressed under enormous pressure into triple bales for export.

What lands on the docks overseas is a solid block of hardened lanolin and fibre, traditionally requiring several days in a heat room to be soft enough for processing.

Some processors spike the bales and pump steam through, which gets the job done more quickly, but discolours the wool.

Both methods leave much to be desired.



*The ITC's Stephen Van Duin puts the wool bale warmer through its paces.*



*Project leader Luke Nadj.*

Fibre quality is compromised and neither heats evenly, due to wool's best selling point: near perfect insulation.

Now, an Illawarra Technology Corporation (ITC) team at the University of Wollongong has found a fast and simple solution: a microwave oven specially designed for wool bales.

The method increases fibre length by more than three millimetres compared to steam processes, which translates into enormous savings for processors.

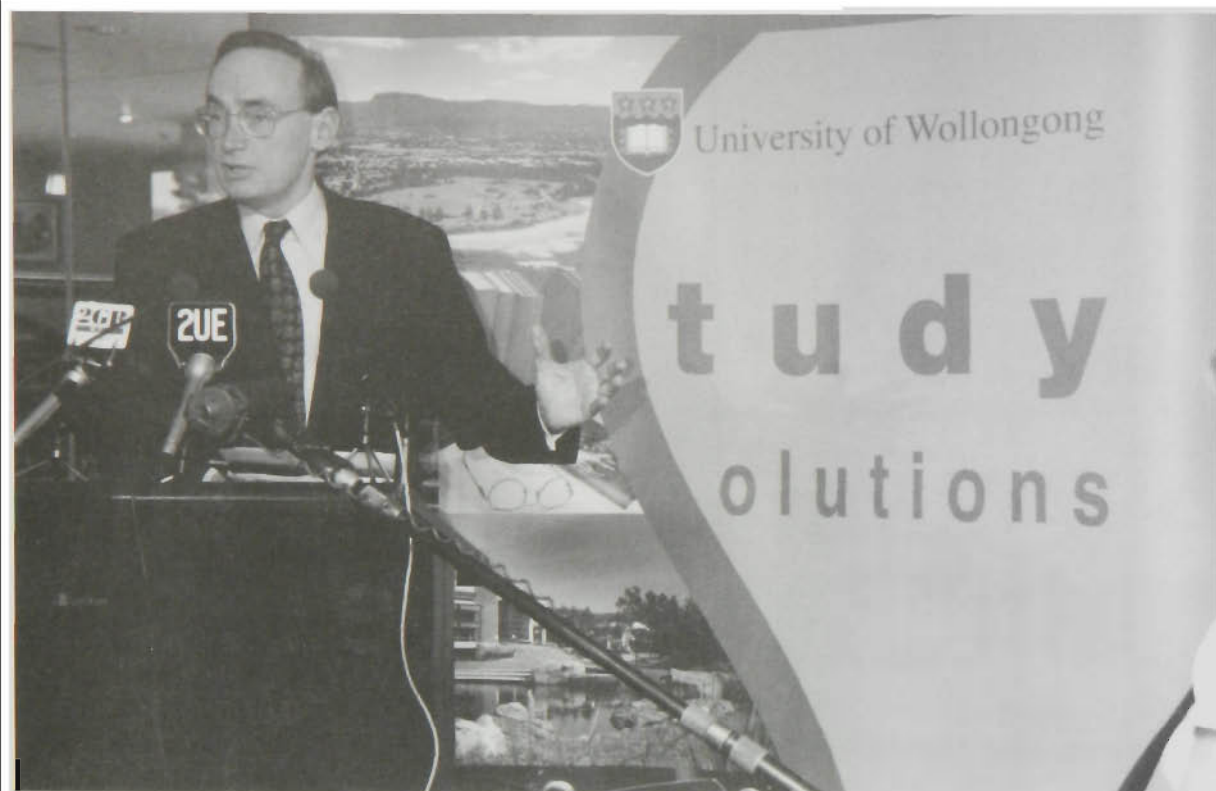
Luke Nadj heads the Microwave Wool Tri-Bale Warmer development team for the ITC.

He launched the system in Wagga Wagga on 1 April before observers from England, Taiwan, Wool International and the International Wool Secretariat.

Mr Nadj is manager of ITC's Advanced Manufacturing Technologies Division and is now in China to discuss the technology with processors.

**Kerrie O'Connor ■**

# NSW Premier's strong praise for Wollongong at opening of new Sydney Centre



NSW Premier, Bob Carr, presents his address at the opening of the University of Wollongong Sydney Centre.

**N**SW Premier, Mr Bob Carr has praised the University of Wollongong as "a forward-looking institution" when opening the University's new Sydney Centre on 16 March.

The Premier said Sydney was an ideal location for the University to run its innovative education programs.

Mr Carr said NSW was a "learning economy".

"We have an economy that is generating investment and jobs; based on our capacity for leading research and development," he said.

"The University of Wollongong Sydney Centre is a leading research centre.

"There is no ivory tower approach from this university."

The University expects that the Sydney Centre will, by 2000, cater for about 500 students, employ around 70 staff and have a turnover topping \$10 million.

The centre, in Regent Street, Sydney will offer postgraduate degrees and certificates in business, marketing, education, engineering, information technology and health management.

It also houses the Wollongong University College which offers language, vocational and pre-university courses to overseas and local students.

In regard to the Business School side of its operations, the Centre will be

offering MBAs geared much more closely to the needs of industry.

The Vice-Chancellor, Professor Gerard Sutton, said the MBAs would be niche products not yet available to the Sydney community.

A six-months market research study many graduates wish to continue postgraduate studies through Wollongong but work in Sydney.

Most of the postgraduate programs at the

centre will be on offer from second semester in July of this year.

In line with all other Australian universities, the postgraduate courses will normally be full fee-paying.

Initial postgraduate courses to be offered at the Sydney Centre will be:

**Business School:** Master of Business Administration, Master of International Business, Master of Logistics and Operations Management, Master of Quality Management, Master of Health Management, Master of Business Administration (Health Management), Graduate Certificate and Diploma in Marketing.

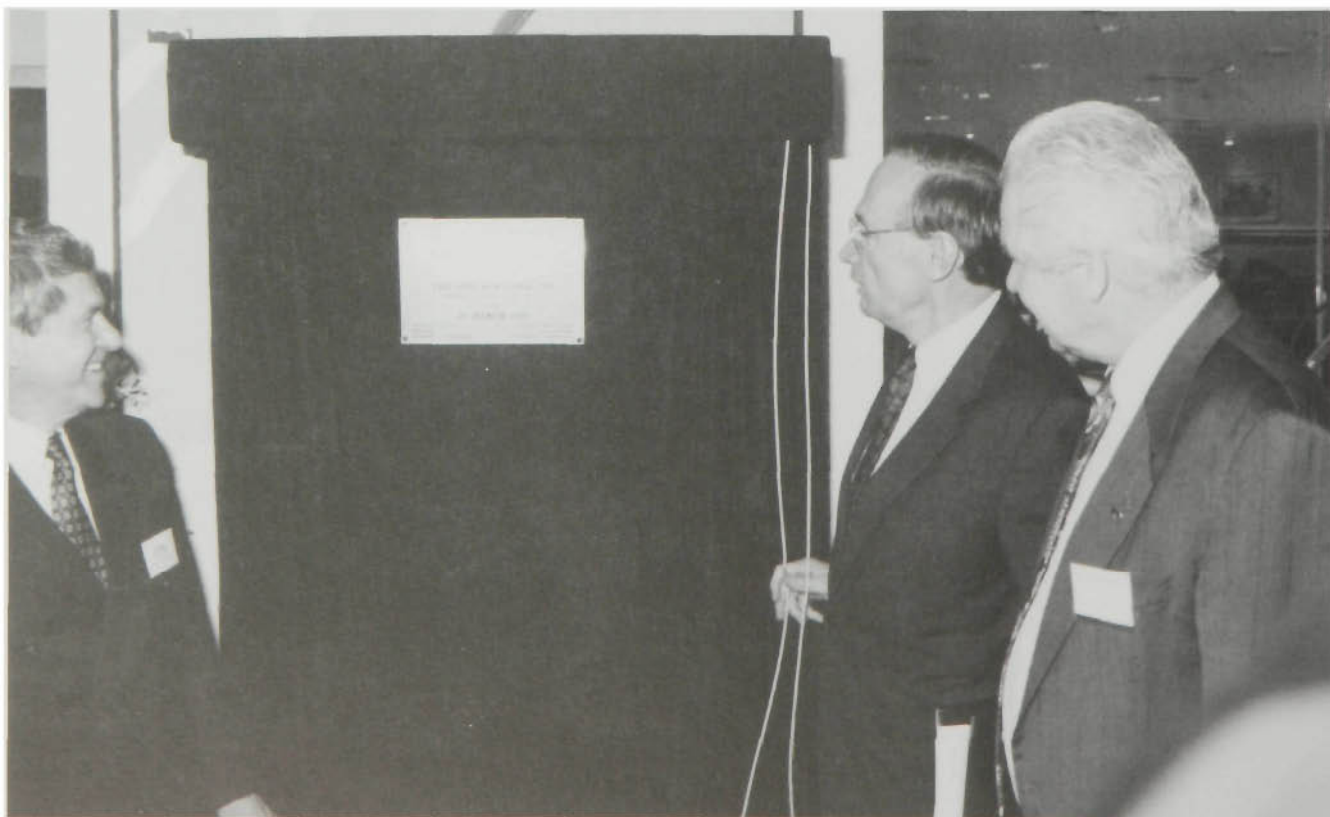
**Education:** Graduate Certificate in Computer Based Learning\* and Master of Education (Information Technology)\*.

**Engineering:** Graduate Certificate in Engineering (Maintenance Management), Graduate Diploma in Engineering (Maintenance Management), Master of Engineering Practice (Maintenance Management) and Honours Master of Engineering (Maintenance Management).

**Informatics:** Graduate Certificate in Information and Communication Technology; and Master of Information and Communication Technology\*.

Note: \* represents HECS payable course.

General enquiries about the Centre can be directed to Wollongong UniAdvice on 1800 680 320 or (02) 4221 3218; fax (02) 4221 3233 or email [uniadvice@uow.edu.au](mailto:uniadvice@uow.edu.au)



The Premier unveils the plaque at the new Sydney Centre watched by the Vice-Chancellor, Professor Gerard Sutton (left) and the Member for Keira, Mr Colin Markham.



# When a teacher shut up and listened . . .

**A**s a young teacher in the 1950s, Brian Cambourne was not satisfied.

All his classes had one thing in common: a handful of children who found simple reading or mathematics almost impossible.

Rote learning and the "three Rs" seemed to work for the majority, yet Brian worried about the rest.

Curiously, these "problem" children had no problem mastering complex tasks outside of the classroom.

Brian, now Associate Professor of Education, made that concern and curiosity his life's work.

"Some of these children could translate across three languages for their parents, at real estate agencies or courts," he said.

"One was the son of the local SP bookie and I watched him playing cards at lunchtime.

"He couldn't learn basic maths but he could calculate the probability the Queen of Spades was in the deck faster than I could.

"Another pair of brothers were classified as 'slow learners', yet they ran an after-school lawn mowing business and I think they made more in a year than I did!

"I realised something was wrong with the way we were teaching.

"Sit down, shut up and listen – drill and kill methods – simply weren't working for everyone."

Often, the losers were children from migrant, Aboriginal or disadvantaged backgrounds.

"Yet when I approached my supervisors for advice, the usual response was to blame the child or the culture," Professor Cambourne said.

His literacy learning curve led him to explore how children acquired language.

With obvious exceptions, all children, even "problem" ones, learn to speak – a task so complex, linguists remain in fierce debate as to its processes.

Yet if children took on this enormously difficult task with confidence, learning quickly and easily, why was reading difficult?

Pondering these questions led Brian and colleagues in Australia and New Zealand to

develop new teaching methods, now gaining acceptance around the world.

They took the linguistic principles: children learn language; they learn through language and they learn about the language *as they use it* – and applied them to literacy.

The result is a teaching method based firmly on a child's need to find meaning on a page – *to read for meaning* – to make sense of sentences, not just individual words.

Phonics, sounding out, word recognition, spelling and drilling are crucial components, but in a framework that does not fragment meaning.

Despite routine "literacy crisis" headlines, their success is now evident in a series of studies in Australia and overseas.



Literacy specialist Brian Cambourne shares his skills and a cuddle with grandchildren Molly "almost two" and Callum, 3.

"Children taught the traditional "skills-based" methods of breaking tasks down into little pieces and repetitive drilling simply don't do as well," Professor Cambourne said.

He rejects figures circulated last year when Federal Employment, Education and Training Minister Dr David Kemp released national literacy standards and benchmarks.

Professor Cambourne says the Minister created an unnecessary crisis in education by stating that only 30% of Australian children could read or write.

"It's simply not true," he said.

"Even those responsible for developing these standards expressed considerable concern at their validity and at the entire process of developing them".

While children from disadvantaged groups continue to face hurdles, overall, standards are rising.

Professor Cambourne notes a growing body of international research supporting methods that have underpinned Australian classrooms over the past 20 years.

He says the evidence proves they are more effective than the simplified "back to basics" approach advocated by some.

"We should be very wary of unsubstantiated claims of a serious literacy crisis and that teaching methods have failed – neither claim has any real validity.

Indeed, recent research from California, Arizona, Israel, Singapore, Sri Lanka, South Africa, and Thailand proves the opposite.

"We see children who are more engaged in the learning process, who read more, write more and learn more," Professor Cambourne said.

"While these methods are being accepted overseas, there has been an orchestrated campaign by politicians and some academics to discredit them.

"We need to be careful not to respond to this misinformation by throwing the baby out with the bath water."

**Kerrie O'Connor ■**

## West Review: Robin Hood reversed?

**T**he West Committee Review of Higher Education Financing and Policy will create a reverse "Robin Hood" effect for many Australian universities, robbing the poor to support the rich, according to the Vice-Chancellor of the University of Wollongong, Professor Gerard Sutton.

The Vice-Chancellor said the report relied too much on market forces and on introducing 'student-centred' funding.

The University of Wollongong's performance-based funding model was the fairest direction for universities, as it tied funding to well-developed performance measures, he said.

The Vice-Chancellor said the West Review's 'student-centred' approach would distort the system, potentially eliminating some disciplines.

But the University of Wollongong model would improve the system's efficiency without distorting it.

"If the government adopts the

student-centred funding model and thus creates distortion in the system it is essential that the capital investment costs of the larger city institutions be included in any formula," he said.

"If not, we will have a reverse 'Robin Hood' effect — rob the poor to support the rich," Professor Sutton said.

# Day of Action protests funding cuts

**A**cademic staff and students from the University of Wollongong joined their counterparts from TAFE in a National Day of Action on 1 April to protest cuts to higher education funding.

They marched from the Wollongong Trade Union Centre to the amphitheatre in the mall, where they heard speeches from the Student Representative Council (SRC), the National Tertiary Education Union (NTEU) and others.

SRC President Erin Cahill said students were suffering real hardship as a result of changes to income support.

The introduction of the Common Youth Allowance, means students are deemed dependent on their parents until they turn 25.

The unemployed, however, become independent at 21.

Students say they are being forced out of higher education because they cannot afford to continue their studies.

The SRC said the sector has absorbed cuts each year the Coalition has been in power.

Ms Cahill said the then Acting Vice-Chancellor, Professor Peter Robinson, sent a message of support to the SRC on the morning of the rally.



*Protestors at the National Day of Action on 1 April.*

NTEU spokesman Michael Morrissey said University staff were increasingly stressed as funding cuts affected their work loads.

TAFE spokesman Russell Hannah said TAFE could no longer be seen as a safety net for students who missed out university.

He said 50,000 students were refused entry to TAFE, but the Government may force institutions

to accept extra students, even without facilities to support them.

Professor Robinson said politicians of all persuasions needed to understand the necessity for lifting university funding to sustain Australia's social and economic aspirations.

"It is also critical that appropriate indexation mechanisms are established so that enterprise

bargaining within universities can continue to produce reasonable salary adjustments and positive restructuring to improve efficiency of operation," he said.

"The University Executive will continue to argue the case for the development of a coherent and forward-looking policy approach to tertiary education in public and political forums."

## Information Technology Minister impressed by university tour

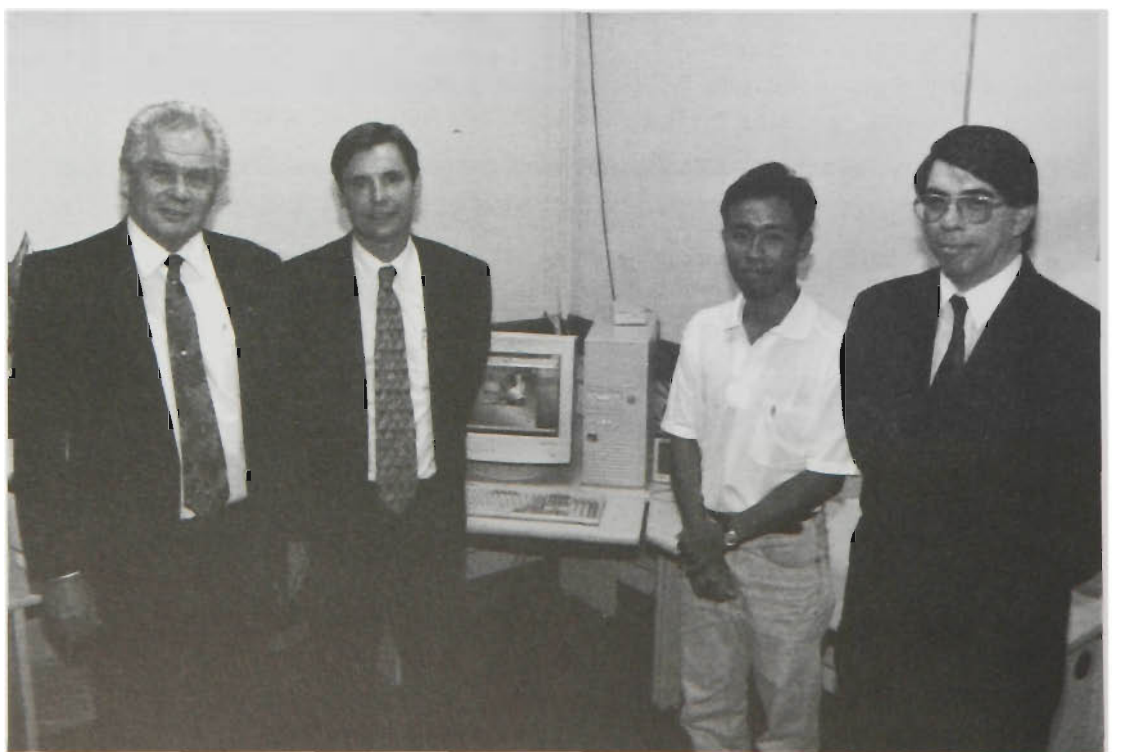
**T**he State Minister for Information Technology, Mr Kim Yeadon, visited the University of Wollongong on 11 March to inspect information technology developments.

Mr Yeadon told university officials he was very impressed with the cutting edge technology he had seen.

The purpose of the visit is part of a program of targeted visits to the Wollongong campus by ministers (Federal and State) to highlight the University's strengths and research interests, particularly in high technology developments.

Mr Yeadon was accompanied on the visit by the State Member for Keira and Parliamentary Secretary for the Illawarra and Aboriginal Affairs, Mr Colin Markham.

*Picture shows (from left) Mr Markham, Mr Yeadon, student Ricky Bangun, and Professor Gary Anido who is Director of The Institute for Telecommunications Research.*





## Bombs, basketball and the human face of immigration

**B**ombs and basketball have figured large in Ubavka Piljevic's life: the first came close to taking her son's life in Bosnia in 1992 and the second saved him.

Ubavka, a UniAdvice Enquiries Officer, has just become an Australian citizen after fleeing the Balkans with her family in 1995.

As UniAdvice staff poured champagne at a recent celebration, Ubavka accepted an Akubra hat, an indefinite supply of Vegemite and introduced her lanky, basketballing son, Dejan, 23.

For several years Ubavka, her husband Slavko, their teenage daughter Mirjana and Dejan lived with war and hunger in the Bosnian steelworks city of Zenica.

A timely fire had destroyed the city's records, so Slavko and Dejan escaped being drafted into the Muslim army.

They are Serbs, but like many in Bosnia, have Muslim and Croatian family and friends – joining any warring faction would have meant shooting their relatives.

As the war progressed the city was surrounded by troops, refugees starved to death on the streets and the family spent days at a stretch underground, sheltering from bombs.

But in the early days, before poverty really bit, people still went to work, spent their spare cash and even found time for games.

When a bomb destroyed her local

shopping centre, Ubavka believed Dejan had died.

"He had gone to look at basketball boots in the shopping centre and did not come home," she said.

He walked in an hour later, having missed the bomb blast by minutes because the shops didn't have the boots he wanted.

Later, basketball intervened again in the family fortunes, with equal weight.

Her husband, Slavko, as a prominent coach, and Dejan, a talented player, secured passports to contest a match in Hungary with the Muslim team – and didn't come back.

They travelled to a "safe" zone in the former Yugoslavia, narrowly avoided the draft again – this time for the Serbian army – and waited a year before Ubavka and Mirjana could escape.

"It was the only way my husband and son could leave the city," Ubavka said.

"It was almost impossible for men to leave by foot because they would be picked up by soldiers; it was easier for women at that stage."

Even as Muslim troops surrounded her town, other Muslims helped Ubavka escape; it was a Muslim surgeon who operated on a relative's broken hip, letting her walk again.

Ubavka has friends from all the cultures who once lived peacefully in the former Yugoslavia – and she refuses to hate anyone.



*Ubavka Piljevic, right, with daughter Mirjana, husband Slavko and son Dejan at their recent citizenship ceremony.*

"I can't do that. Nobody has won from this. We have all lost. There are too many young people without legs, without hands, without a future.

"In one village near my father's home 55 young men died. There are now only old men there."

As an accountant in the local hospital Ubavka saw the results of carnage.

"I have memories and experiences I will carry until I die," she said.

"I still dream of being hungry.

"One kilogram of flour was 25 deutschmarks and one egg was five.

"If I had some spare money I would spend it all on flour and when I made bread I would give two slices to each child, and leave some for tomorrow.

"My son used to say 'can I have some more bread because maybe tomorrow I will be dead'.

"I cannot explain how I felt then. I am his mother. It is the hardest thing that ever happened to me. If you are not able to feed your child, if one of your children is hungry, it is the worst feeling."

Slavko's mother is still in Bosnia, having been refused entry by Australian immigration officials three times.

She is the human face of the Federal Government's move to restrict the family reunion program.

"Slavko's mother is 78, she has only two children and they are both here in Australia," Ubavka said.

As killings continue in her former home, Ubavka holds no great optimism for the region.

But she is confident of her family's future here.

"I cannot thank people enough for all the support I have had in UniAdvice.

"If you feel welcome; if you are with friends, if you feel like they try to help you, it is not so difficult.

"I feel at home now."

Ubavka's children are both studying at the University of Wollongong, Mirjana is enrolled in Nursing and Dejan in Human Movement Science.

**Kerrie O'Connor ■**

## —Double standards mock family values—

**F**amily reunion is critical to the success of the entire immigration program, University of Wollongong academics have warned.

Their warning comes as the Federal Government moves to restrict the Family Reunion program.

Immigration Minister Phillip Ruddock wants to grant only temporary residence status to the parents of adult migrants, thus denying them Social Security benefits.

Professor Stephen Castles heads the Migration and Multicultural Studies program at the University.

He said a major reason for Australia's successful immigration program is that it had always treated immigrants



as future citizens, with the same rights and obligations as other Australians.

"The right to live with one's family is one of the most fundamental rights," he said.

"Treating immigrants as temporary residents would make them and their families feel very insecure.

"Denial of social support and especially medical cover could cause very real hardship."

Dr Ellie Vasta leads the Sociology Program at the University and has carried out considerable research on immigrant families in Australia. She says family reunion is often the key to successful settlement and good integration.

# On Tumbleweed, technology

## New Conservatorium head calls teens back into the fold

**H**e's a classical composer with a decidedly un-classical sideline.

As new Conservatorium director, Italian-born Associate Professor Claudio Pompili wants to plug a teenage brain drain.

It seems young classical musicians work hard until adolescence.

At that point many of them exit formal training – some head for local bands, others don't pick up an instrument for years.

Rather than rail at the seduction of modern music, Claudio wants to embrace it.

It has nothing to do with a murky past clutching an electric guitar in a garage before the Elder Conservatorium of Music at the University of Adelaide beckoned.

It's just that if the members of one of Wollongong's proudest exports, Tumbleweed, were still 15, Claudio would like them to call the Conservatorium home.

He wants the 'Con' to open up to music that teenagers love and give them a reason to stay.

Claudio doesn't believe classical and popular music are mutually exclusive.

Given the popularity of Newcastle's teenage band Silver Chair, – who opted for a string section on their latest single, – he's not alone.

"I want to create an environment in which these kinds of musicians can flourish, which isn't foreign to them," he said.

It's not that Claudio wants to wipe the slate clean.

His classical credentials are well established: he has studied with some of our finest composers -- Richard Meale, Tristram Cary, Bozidar Kos and the internationally-acclaimed Italian composers Franco Donatoni and Salvatore Sciarrino.

He thinks the greatest strength of the 'Con' is its community base: "I want to respect the culture that is here," he said.

"The fine teachers, the flagship childhood music education program and the BHP Youth Orchestra.

"I am trying to preserve its strengths in keeping with that community base."

But he wants the Conservatorium to hold students well into their teens and if that means gradually broadening the musical agenda, he'll do it.

We mainly cater for western art music," he said.

"But we want to have a place in the Conservatorium for pop music, alongside early music and classical repertoire, just as it is in the real world.

"We need a more inclusive approach to popular music.

"It's not about one at the expense of the other."

Claudio said the Illawarra had a fine musical tradition, crossing many cultures, styles and age groups.

"Yet it is still predominantly anglo-saxon students who come here, even though the BHP Youth Orchestra, for example, has a fine mix of nationalities," he said.

He wants the Conservatorium to reflect the diversity of the area: the "in-your-face earthiness" of home-grown rock and roll and the multiculturalism of urban Wollongong.

His not-so-secret fantasy is a glamour concerto competition at the new Wollongong Entertainment Centre, where classical music holds its own with the best of the teenage bands.

"At the end of the day I hope the place will flourish and the classical music side will benefit by that injection of energy," he said.

His plans include a mobile studio, a two-week intensive summer school



*Claudio Pompili: the Conservatorium and popular music not mutually exclusive.*

in popular music and music degree with many flavours, technology, and certificates, including instrumental pedagogy diplomas and a bachelor of music and popular music.

**Associate Professor Claudio Pompili studied at the Elder Conservatorium of Music, at the University of Adelaide (1980-84).**

**He has won several scholarships and his compositions have attracted national and international attention in competitions, including the 1990 Adolf Spivakovsky Prize for the Composition of Music, the 1993 New York International Radio Festival, the 1989 International Composition Competition (Miami, Florida), and Australian submissions for ISCM World Music Days (String Quartet No.1 in 1984 and Elegia in 1990).**

**In 1990 he was honoured with a prestigious 'Composer Portrait Concert' by the leading Canadian music organisation, New Music Series.**

**The concert, in Toronto, premiered his work for baroque flute and percussion, *Lo spazio stellato si riflette in suoniä*, and a performance of his virtuoso baroque flute solo, *Lo specchio del fiore*.**

**From 1987 to 1997 he was a member of the academic staff of the Department of Music, at the University of New England.**

**He taught composition in instrumental, electronic and computer musics; musicology and ethnomusicology at undergraduate level; and supervised a range of postgraduate degree students including MLitt, MMus and PhD.**

**His specialist areas of research are: new music in Italy and Australia in the post-WWII period, and electronic and computer musics.**

**His compositions appear on a number of compact discs including *Anthology of Australian Music on Disc* (Canberra School of Music) 1989; *Strange***

***Companions: New Music for Baroque Flute and Percussion* (ARTIFACT, Toronto) 1991; and two solo CDs entitled, *Claudio Pompili — SPAZIO*, and *Claudio Pompili — CANTO* (Selve Amiche Publications, Invergowrie) both released in 1996.**

**Scores and recordings of Claudio Pompili's music are available from the Australian Music Centre, Sydney.**



# and doing the classical twist

## Stephen sees music graduates' future in computer composition

**M**athematics and music; chemistry and composition: Stephen Ingham has juggled them for most of his life.

He is working at a time when computers make us jugglers of sound, able to dissect notes into 'atomic' parts, — spawning altogether different creatures in the process.

So it is not so surprising to find a chemist-composer working the ground where fine-art music meets technology.

Associate Professor Ingham, now Associate Dean of Creative Arts, once did what headmasters and parents expected: he let music play second fiddle to an honours degree in chemistry.

Somewhere along the way, music won out. Degree in hand, Stephen realised he was a chemist without a cause and dived into a second degree in music.

Now he sits in an office with both kinds of keyboard on the desk, creating music with numbers and sound.

"Once a sound — say a note from a flute — is stored in the computer's memory, it can be analysed, broken down into its 'atomic' parts," he said.

The information is stored as a series of numbers; get creative with the numbers and the original sound becomes more than the sum of its parts.

"For a long time we've been able to 'reverse' sounds and change their pitch using tape recorders — now we can make completely new sounds by re-assembling their components in sophisticated ways," he said.

"You cannot create these sounds without a computer.

"It's exciting. You have the sense you are dealing with sounds that have never ever been heard in the history of the world."



Stephen Ingham: the 'atomic' structure of sound.

**Born in London in 1951, educated at Chichester, and obtaining Honours degrees in both Chemistry and Music, Stephen Ingham studied Composition with Bernard Rands at the University of York, with Donald Erb at the University of Indiana and later with Klaus Huber and Brian Ferneyhough at the Staatliche Hochschule für Musik, Freiburg.**

**He was awarded a DPhil degree by the University of York in 1981, where his research dealt with the application of computers in musical composition.**

**After two years as Composer-in-Residence for the Northern Arts Region of England, he later lectured at the University of Newcastle upon Tyne and went on to establish and direct its Hopkins Studio for Electroacoustic and Computer Music.**

**Since 1993, he has lived and worked in Australia, where he was first employed as Senior Lecturer and Director of the Electroacoustic Studios in the Faculty of Music at the University of Melbourne.**

**He has recently (1998) taken up the position as Associate Professor and Associate Dean in the Faculty of Creative Arts, at the University of Wollongong.**

**Ingham's music is performed frequently in many countries; his opera "No Straight Lines", based on the writings of Leonardo da Vinci, was premiered at the Dresden Musikfestspiele in 1994 and earned him the prestigious Carl Maria von Weber Composition Prize.**

Should some of them stay that way?

"Some of them are grotesque; freak sounds," he said.

"To succeed in this you not only have to be on top of it technically.

"You must have in equal measure the technical skill and the creative, aesthetic talent in composing. It's not often you get both.

"It is easy to make a catalogue of new, but ultimately boring sounds.

"Novelty for its own sake is gimmickry.

"We can use the technology to expand the expressive capability of traditional instruments."

It's possible to create a 'virtual instrument' — a computerised hybrid of guitar, voice and flute for instance — and possible to make sounds 'fly around the room'.

All of which has application for the overwhelming majority of graduates who cannot expect to make their living composing traditional chamber music or for symphony orchestras.

"Maybe one or two composers in a country can do that," Stephen said.

If he has his way, the best of the rest will be in demand as film score or multimedia composers, aesthetic adepts in computer music.

"It's a need that has not been identified by many institutions," he said.

"We really have a chance here to set up some pioneering work.

"We need to make music technology a central part of our training, not just an add on.

"In five or 10 years time perhaps students will need well-developed music computer skills just to start a course such as the BCA degree in music composition.

"They will need to demonstrate they can do a lot more than just switch on a computer."

But Stephen is still juggling: his latest work is an opera "Transfigured Night", to be premiered in Melbourne later this year by the ChamberMade opera company — without a whiff of the digital.

**Music stories:**  
**Kerrie O'Connor ■**

# Award-winning computer game aims to reduce farm accidents



*The award-winning multimedia team (from left) are: Mandy Vallario, Dhammika Ruberu, Geoff Hamer, Michael Packham and Bob Corderoy.*

**F**arms are often the scenes for many tragic industrial accidents. The University of Wollongong has helped develop an award-winning computer safety program aimed at alleviating such accidents.

The multimedia team at the Centre for Educational Development and Interactive Resources (CEDIR), in conjunction with Work Cover NSW, has developed the CD-ROM based farm safety game known as Don't Kick the Tractor.

Don't Kick the Tractor has also won the award for best software in the Education Programs Category of the Australian Farm Computer

Software Competition. It is held in association with the Royal Easter Show each year and it is the only such competition in the world.

Don't Kick the Tractor is a second version of an earlier and highly successful package under the same name which has been aimed at young children and designed to provide them with an understanding of how to keep safe when working around the farm.

The new version has been extended to include various scenarios or jobs which need to be completed, a scoring system which is linked to farm productivity and an extensive set of resource

materials which include safety regulation documents and the many brochures produced by government agencies concerning safety.

The package also includes an extensive set of teacher's notes, providing ideas and lesson plans for the groups – Kindergarten to Year 6, Year 7 to Year 12 and TAFE-based pre-apprenticeship courses.

The game is designed to impress on users the need for safe working practice and good management on the farm.

Users are invited to apply for the job of farm hand and are required to complete successfully a series of jobs. Each job is described in detail and some hints are made as to the equipment which should be used and the safety precautions.

The user must finish all jobs safely which takes about one to two hours. At this point the farmer reports back to the user about his or her performance.

The development team for Don't Kick the Tractor all come from CEDIR and consist of Bob Corderoy, Geoff Hamer, Dhammika Ruberu, Mandy Vallario and Michael Packham.

The game has been developed as a cross platform package.

Minimum hardware requirements are IBM PC or compatible 486/33, 8mb RAM, Windows 3.1 (3.0 with multimedia extensions), 256 colour 640 x 480 VGA monitor, CD-ROM, SoundBlaster or compatible audio card.

Requirements for a Mac computer are: System 7.1 or later 8mb of RAM (16 preferable), Quicktime 2.5, 256, 640 x 480 colour monitor.

The software is being marketed through WorkCover NSW, 400 Kent Street, Sydney.

## High seas endangered Aboriginal burial site

**T**he Koorie community and a University of Wollongong team have acted quickly to excavate a Bulli burial site, threatened by high seas.

Archaeologist Dr Richard Fullagar and Geosciences students began work on the site in April, at the request of the Aboriginal community.

Koorie Senior Sites officer Jim Davis said high seas in March had already exposed remains and he feared seasonal storms and high seas later would destroy it.

He said it was better to remove the remains and keep them safe, than have them washed out to sea.

The community agreed to rebury the remains with traditional ceremony.

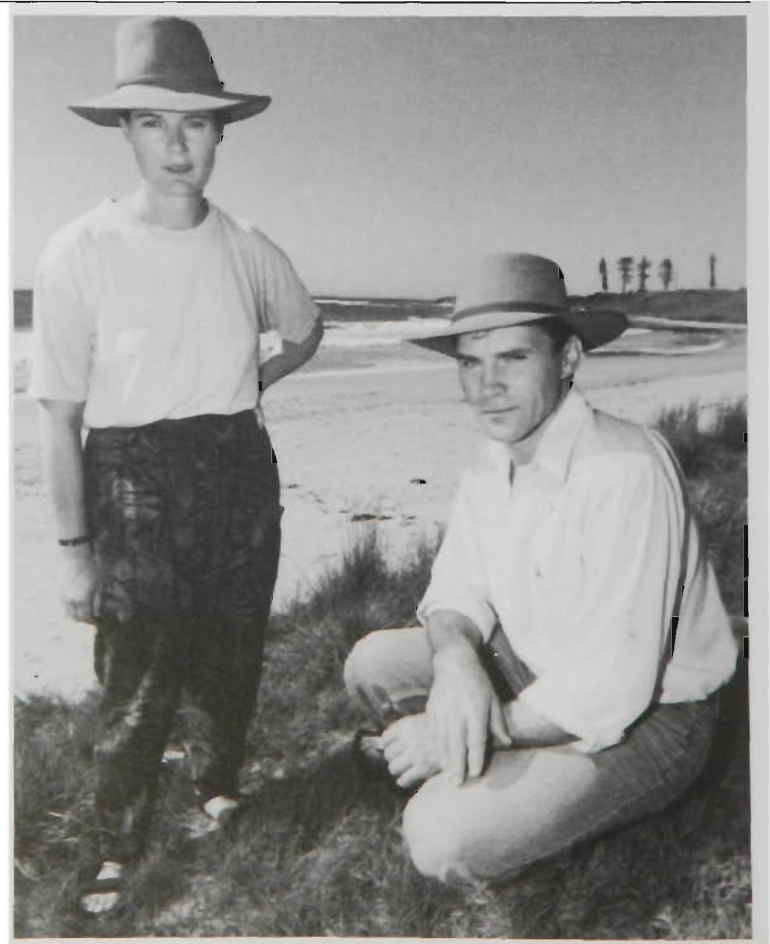
A skull and stone artefacts were found on 9 March, at Sandon Point, Bulli, after high seas washed away the foreshores.

After consulting with the local Aboriginal community, authorities acted quickly to temporarily seal the site, to prevent further damage or vandalism.

Andrew Lawless, a former Geosciences student now working for the National Parks and Wildlife Service, oversaw the mitigation works.

Associate Professor Edward Bryant, of the School of Geosciences at the University of Wollongong, advised it was nearly impossible to protect the site indefinitely.

*Geosciences senior lecturer, Lesley Head, and Archaeologist, Richard Fullagar, at the Bulli excavation site.*





# Judging the politics of junk

**W**ho decides when history is bunk or science is junk?

History has cast its own judgment on Henry Ford's throw-away line – increasingly our courts are asked to do the same for science.

The passive smoker with lung cancer, suing tobacco companies, treasures scientific evidence against them.

The corporate defendants are just as quick to trash it, hence the term "junk science".

The scenario holds for any number of legal cases in Australia, the USA and elsewhere.

The term "junk science" has a catchy ring but Science and Technology Studies (STS) lecturer Dr David Mercer would happily throw it away.

He believes it is a product of clever public relations, coined to offer corporate defendants an out when scientific evidence goes against them.

In a paper he co-authored, *Trashing 'Junk' Science*, about to be published in the Stanford Technology Law Review, he argues STS theory has been plundered,



*Dr David Mercer: the politics of 'junk' science.*

albeit imperfectly, by those keen to keep courts from considering new and controversial areas of science.

It is most frequently used in the USA to discredit evidence used in health or environmental legal battles.

Dr Mercer has just left for the UK to continue his research, join-

ing former STS student Gary Edmond at Cambridge University.

David and Gary, now a lawyer, have collaborated to analyse science and the law since 1996 — and their work on "junk science" has attracted much attention.

Governor Gordon Samuels cited their research in his 1997 annual address to the AMA.

It was cited again in a recent Federal Court judgment and by Justice Ronald Sackville, in the University of New South Wales Law Journal.

Internationally, there is heated debate over moves to restrict the admissibility of scientific evidence. The proponents of the "junk" theory say only 'settled' scientific evidence, conforming to 'their' models of good science, has a place in the courtroom.

Some commentators even want juries excluded from making decisions on scientific evidence, and their place taken by "expert panels".

These are dangerous arguments for Dr Mercer.

"In many of these debates, proponents of the "junk" theory appeal, without much evidence of understanding, to arguments drawn from Science and Technology Studies.

The result has been inconsistent and politically-loaded models of 'good science'." Dr Mercer said.

"Apart from highlighting these inconsistencies, a major theme of our work is to explore the development of Law/Science 'knowledge-hybrids'.

"Many highlight this as a source of problems but this overlooks the important ways various 'sciences' used in courts were developed, 'hand in hand' with legal and regulatory considerations.

"For example, forensic pathology, some areas of epidemiology and toxicology.

"Policies based on a neat partition between science and law are often built on unrealistic images of both," he said.

Dr Mercer will also deliver papers at Edinburgh University, Scotland and Cornell University in the USA.

## Member for Keira launches \$900,000 bus interchange

**T**he Member for Keira, Mr Colin Markham, officially launched the \$900,000 University of Wollongong Bus Interchange in Northfields Avenue (near the UniCentre Building) on 26 March.

Those attending the opening included the then Acting Vice-Chancellor, Professor Peter Robinson; the Road Safety and Traffic Manager for the RTA Southern Region, Mr Graham Brisbane; the Lord Mayor of the City of Wollongong, Councillor David Campbell; and Mr Markham who cut the ribbon to officially declare the bus interchange open.

Mr Markham praised the co-operative spirit demonstrated by the State Government, Wollongong Council, the University of Wollongong and local bus proprietors who all worked together to reduce reliance on private vehicles and increase the use of public transport to the University.

Mr Markham said the bus interchange would

provide easy access to the University and ensure a more efficient public transport system for students which would reduce the traffic congestion and parking problems which have persisted for many years near the University.

"Construction of the interchange has also enabled local bus companies to extend their services and introduce a bus service to North Wollongong Station at the conclusion of evening lectures.

"This is an important and much-needed safety initiative for students who previously had to walk to the station quite often late at night to connect with trains to get home," Mr Markham said.

He said it was particularly wonderful for students from Sydney's southern suburbs to be able to catch a bus to the door of the University.

Professor Robinson told those at the opening that on any one day at the University up to 5,000 people are coming

in or out of the campus.

"The University is one of the major interchange points in the Illawarra and has always encouraged the use of public transport," he said.

Professor Robinson said the University was always trying to make it easier for people to use public transport rather than just create more car parks and cover green areas of the campus.



*Pictured at the interchange opening are (from left), Cr Campbell, Mr Markham, Mr Brisbane and Professor Robinson.*

# Foundation scholarship scheme reaches \$700,000

**A**bout \$700,000 worth of scholarships were acknowledged recently at the University of Wollongong's 1998 Foundation and Scholarship Presentation. The seventh presentation ceremony was held on 2 April in the University Hall and was conducted by the Foundation's Executive Director, Mr Peter Rose.

The University of Wollongong Foundation took the opportunity to recognise and bestow membership on corporate and community individuals who have provided or pledged support for the University through scholarships, in-kind gifts, deferred giving or cash donations.

It provided an opportunity for the Foundation to recognise new members – 24 new ones and six which over the years have increased their commitment and were now recognised at a high membership level.



*Evelyn Dalley, who spoke on behalf of students at the Foundation and Scholarship Presentation, is flanked (from left): Professor Sutton, Dr Gillett and Mr Rose.*

These included: Nortel Technology Centre which was recognised at the highest level – the Chancellor's Club. At the Trustee Level: A.W. Tyree Transformers Pty Ltd, National Australia Bank, Uniting Church in Australia (NSW Synod). At the Benefactor Level: Emeritus Professor Ken Blakey, Camden Council, City Rail, Cunningham D'Souza Family and the Rotary Club of Wollongong.

The Vice-Chancellor, Professor Gerard Sutton, told those attending the ceremony that

due to the deregulated competitive marketplace these days, universities received less government money. He said it was for this reason that the University of Wollongong was so grateful for the financial assistance of external donors.

Professor Sutton was one of the presenters at the ceremony as was the Acting Chairman of the Foundation and Integral Energy Chairman, Mr Bill Hilzinger.

Foundation Director and Chairman of the Scholarships Committee, Dr Brian Gillett, said the University of Wollongong was recognised internationally and nationally for its teaching and research.

He said donors were funding a university which could clearly boast being in the top band of universities in Australia.

Dr Gillett recently received strong praise from the University for his dedication to university affairs. He was Deputy Chancellor of the University from 1988 until earlier this year when the State Government introduced new ministerial appointments to the University Council.

## Wound care expert wins award

**A** lecturer in the Department of Nursing, Ms Annette Hoskins, is developing an international reputation as a wound care expert.

During the Second Australian Wound Management Conference held in mid March at Brisbane, Ms Hoskins was awarded the Comfeel Literary Award.

The award is made annually by the editorial panel of the Australian Wound Management Journal "Primary Intention" (a refereed journal) to the article considered by the panel to be outstanding among all articles published during the 12-month period. The criteria for selection was based upon research originality and clinical significance to wound care.

In addition to the award, on the basis of an abstract Ms Hoskins submitted to the conference committee reporting on "Pressure Area Prevention" she was invited to participate in a forum of international speakers.

Ms Hoskins had two presentations at the conference centred on *Pressure Area Prevention* and *Risk Assessment Tools*.

The conference was a scientific meeting with the majority of speakers being professors of vascular surgery and medicine, plastic surgeons, biomedical scientists and physiologists.

The Head of the Department of Nursing, Professor Rhonda Griffiths, said there was no doubt that Ms Hoskins' reputation as a wound care expert was developing nationally and internationally.

## All you ever wanted to know about Staff Development . . .

**A** healthy attendance at the Staff Development launch in March shows the issue is important to many on campus.

The gathering was the official launch of the Staff Development Handbook, published late last year and available on the Web, via the University's home page.

The handbook offers academic and general staff a detailed overview of career development opportunities.

For instance: What is staff development? Who offers it? Whose responsibility is it? What can you expect from supervisors? Where do I fit in?

The handbook and web site tackle topics like Leadership Development, Problem Solving, Information Technology, Occupational Health and Safety, Teaching and Learning, and Research.

For those wishing to study or work overseas, it gives guidelines for achieving their goals.

The Academic Staff Development Committee Chair is Pro Vice-Chancellor (Academic) Professor Christine Ewan.

Its members are: Dean of Engineering, Professor Brendon Parker; Engineering Physics head Associate Professor Bill Zealey; Accounting and Finance senior lecturer Dr Mary Kaidonis; Economics lecturer Nadia Verrucci; Learning Development senior lecturer Kim Draisma; Education senior lecturer Dr Christine Fox; University Librarian Felicity McGregor.

Associate members include representatives from the major training providers on campus.

Pam Piela, Career Development Unit (CDU) manager, co-ordinates the Secretariat.

Staff development service providers are the: Career Development Unit (CDU); Centre for Educational Development and Interactive Resources (CEDIR); Information Technology Services (ITS); Library; Occupational Health and Safety (OHS); Office of Research and Student Services.

The committee and service providers have produced the 1998 Academic Staff Development Calendar, which offers a comprehensive guide to courses, month by month.

The CDU has produced a brochure listing courses available to all general staff over the next few months.

Copies of the brochure, the 1998 Academic Staff Development Calendar and Handbook are available at the CDU.

Speakers at the launch were Vice-Chancellor Professor Gerard Sutton; Professor Ewan; Vice-Principal (Administration) David Rome; CEDIR director Associate Professor Sandra Wills and Pam Piela.



# Eradication-by-education has not worked for workplace back injury

**B**ack injuries consistently account for just under one third of workplace accidents.

Paradoxically, almost everyone seems to know common sense ways to avoid them.

Physiotherapist Ray Dubber has begun working with the Exercise Science and Rehabilitation Centre (ESRC), located in the Sport and Recreation Centre.

He believes he could walk into the average workplace, ask how many people had been shown how to lift safely, and most people would raise their hand.

Yet Ray spends much of his time mopping up the results of back injuries.

It's bread and butter work for a physiotherapist but Ray would prefer the injuries didn't happen in the first place.

"We need to create an environment where people start to look at the risks involved and what sets them up for injury at work," he said.

He said while most people did understand basic manual handling safety, workplaces should be organised and designed to minimise risk.

"Workers need to be able to identify risks, assess risks, then propose a strategy to manage them," he said.

"The people who do the work are the best people to redesign the work place," he said.

"It is far better for workers to do that themselves than for an outsider to come in and advice on improvements without hands-on experience of the job".

For instance, they should look at how storage systems are designed, the distance things are carried or if a trolley could be used, even if a task seems simple.

Ray said workers often took risks because it seemed easier or quicker, but they misjudged the danger.

He said changes to the way domestic garbage was collected were a good example of trying to eliminate risk, rather than organising around it.

In some areas garbage collection is fully automated, eliminating the "push-pull risks" roadside workers were exposed to.

However risks still remained for truck drivers confined in one position for long periods.

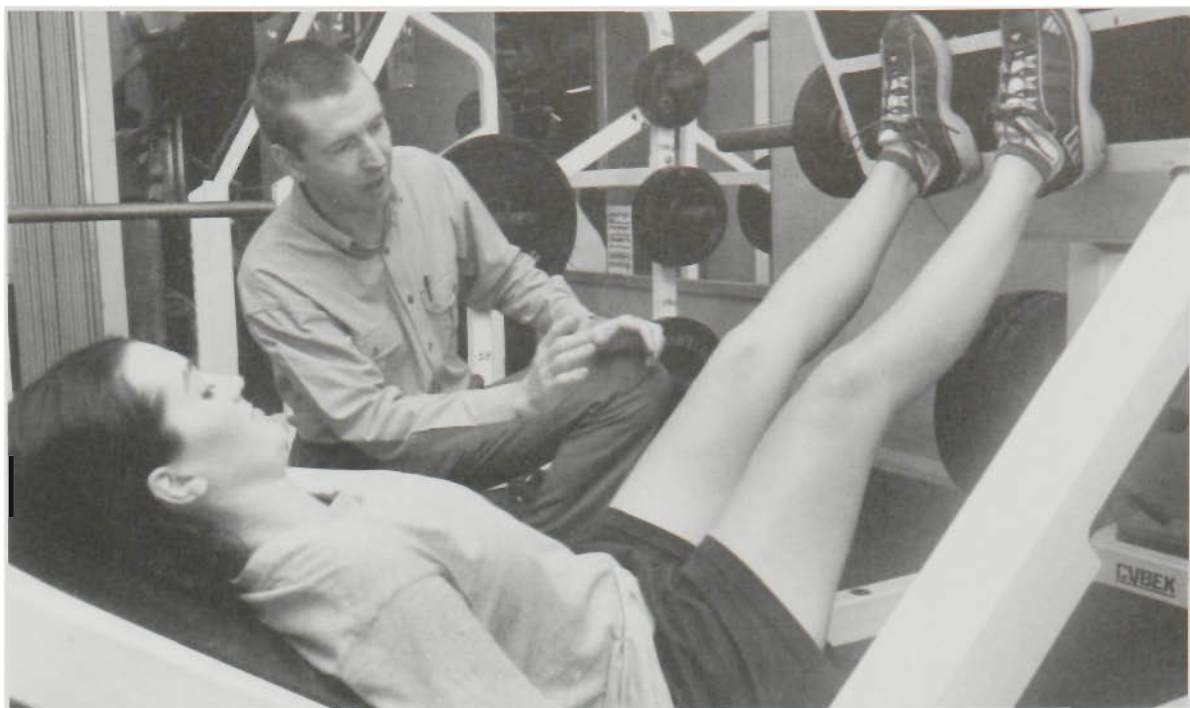
Nursing is proving a significant occupational risk.

"Nursing is a difficult one because there are a lot of elements that cannot be eliminated," Ray said.

But he said risks could be significantly modified.

He said in the past the rigorous hospital morning schedule, requiring staff to have patients washed, fed and bed linen changed by 6.30am led to increased risk.

He said this brief but intense window placed



Physiotherapist Ray Dubber: strength conditioning "within the limits of injury".

enormous physical pressures on nurses.

"Reorganising the way a nurse does work in the day isn't necessarily going to cost the hospital more money," he said.

In fact, some health-care workplaces had already successfully made such changes.

Ray said the ESRC program dovetails exercise-

rehabilitation with the physiotherapist skills of injury management and rehabilitation, a combination he's happy with.

He works closely with exercise scientist Paul Lillyman and ESRC manager Herb Groeller.

**Kerrie O'Connor** ■

A d v e r t i s e m e n t



**Kay Murton**

## Talk to me for financial planning advice without obligation

As your National Financial Planning Consultant my job is to help you make sense of your financial future. To put together for you the most workable,

flexible and profitable financial structure - one that is tailored for you and no-one else, I'll happily work with you until you're satisfied with your plan.

*For an appointment call me today*

**Kay Murton Ph: 4227 3617**



\*\*Authorised representative of National Australia Bank Limited ACN 004 044 937, a licensed dealer in securities. These and other representatives may receive commission for business referred to National Australia Bank Group.

# High Commissioner for Pakistan to Australia visits campus

**T**he High Commissioner for Pakistan to Australia, Mr Khawar Zaman, toured Wollongong on 27 March including a visit to the University of Wollongong.

His Excellency met executives from the University of Wollongong at a morning tea which was also attended by the Consul-General of Pakistan, Mr Mohammad Raza Baqir.

He then had an informal meeting with some of the University of Wollongong Pakistani students.

His Excellency was also in Wollongong to meet the Chamber of Commerce to discuss Pakistani Government-supported investment opportunities/incentives in Pakistan.

The Lord Mayor of Wollongong, Councillor David Campbell, hosted a reception as well as a dinner with the Pakistani community later that day.

The High Commissioner's visit to the University of Wollongong was extremely timely as it was announced during the same week by the Pakistan Government that the University has been accorded official accreditation by the Universities Grants Commission in Islamabad. In effect, this provides potential Pakistani students with an assurance of the high international standing of the University of Wollongong.



*Pictured with the visiting Higher Commissioner for Pakistan, Mr Khawar Zaman (third from right) are from left: Dr Shafqat Mahmud, President of the Pakistan Association of Wollongong; long-standing members of the Pakistan Association, Dr Munir Hussain and Mrs Valerie Hussain; International Programs Adviser at the University of Wollongong, Ms Miranda Baker; the Vice-Principal (International), University of Wollongong, Mr Jim Langridge; the Consul-General of Pakistan, Mr Mohammad Raza Baqir; and Dr Syed Ashraf, of the Intelligent Polymers Research Institute, University of Wollongong.*

## Wollongong University College wins English language delivery contract

**W**ollongong University College, the private college of the University of Wollongong, has been chosen as one of the consortium partners for the delivery of the Adult Migrant English Program (AMEP) in the southern Sydney and Illawarra regions.

After a rigorous process of public tendering, the Department of Immigration and Multicultural Affairs awarded the contract to a consortium of community, public and private organisations led by the Australian Centre for Languages (ACL).

The five-year contract, beginning mid-July, was signed in late March in the presence of the Minister for Immigration and Multicultural Affairs, Mr Philip Ruddock.

The AMEP is a program which provides up to 510 hours of basic English as a Second Language (ESL) tuition to migrants and refugees from non-English speaking backgrounds.

About nine million hours of adult ESL tuition

are provided each year to over 40,000 clients from more than 80 language backgrounds from an annual budget of \$84 million. Major countries of origin are China, the former Yugoslavia and Vietnam.

### College responsible for delivery of English language to AMEP clients in the Illawarra

The prime contractor, ACL, is one of the largest private providers of intensive English language courses in the country and was ranked 14th in a recent *Business Review Weekly* list of the 100 fastest-growing companies in Australia. It is the largest private provider of labour market English language and literacy programs, delivering 160 courses in 1997.

Wollongong University College will be responsible for delivery of English language to AMEP clients in the Illawarra region.

Delivery will be at several locations including the college's modern high-quality premises at the University of Wollongong. Community-based locations will depend on where AMEP clients live in the Illawarra.

The college has campuses in Wollongong and Sydney and is the fifth largest university provider of English language courses in Australia. For the past decade, it has provided intensive courses for overseas students, many of whom have then entered the University of Wollongong to gain undergraduate or postgraduate degrees.

The St George and Sutherland Community College will be responsible for delivery of English language to AMEP clients in the southern Sydney region.

Mission Australia will be responsible for delivery of counselling, home tutoring, job readiness training and employment support across the whole southern Sydney and Illawarra region.

The Kindergarten Union has provided childcare placement for AMEP clients for the past five years and will continue to provide this support service as part of the consortium.

## We are on the Web

Campus News can be located on the Web at:

<http://www.uow.edu.au/admin/marketing/bytes>

Campus News is published every six weeks.

The University of Wollongong, Wollongong, NSW, Australia, 2522

Telephone (02) 4221 5942 or (02) 4221 3926 Facsimile (02) 4221 3128

Bernie Goldie (Editor)

Journalist who contributed to this issue: Kerrie O'Connor

Photography: Sean McGuire, Mark Newsham, Siobhan Breed, Vic Wood and Brian Bird

Production and printing: Printery Services, University of Wollongong