

LA TROBE UNIVERSITY

# Bulletin

JULY 2002

Swing into  
**OPEN  
DAYS**

EDUCATION  
REFORM:

*Call for more public debate*

*The most audacious,  
death defying*  
ELLA ZUILA



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Cover: La Trobe's Dr Peta Tait is researching the history of Australian women aerialists on the world stage, see page 16.

Photo: U.S Library of Congress.

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Collaboration sets an example: Health Minister Thwaites at the launch with La Trobe's Professor Nay, left, and Mrs Anne Fox, General Manager of Bundoora Extended Care Centre where the new Clinical School is housed.

## GERONTIC NURSING Clinical School boosts aged-care education

La Trobe University has launched a new Clinical School of Gerontic Nursing to boost the quality of care older people receive in Victoria.

A partnership between industry, government and the University, the new School aims to increase the retention rate of gerontic nurses already in the profession and the numbers of new nurses seeking careers in this expanding field. The State Government provides part of the funding for the School.

Known as the La Trobe University Gerontic Nursing Clinical School, it incorporates the existing Gerontic Nursing Professorial Unit based at Bundoora Extended Care Centre and the Nursing Education and Clinical Support Unit at Caulfield General Medical Centre.

Opening the new School, State Health Minister and Deputy Premier, John Thwaites, said Australia faced a 'very real crisis' in being able to cope with the need for nurses in the next decade. Severe shortfalls have been predicted in specialities such as aged care.

'A decade ago we treated about 40 to 60 per cent fewer patients than today, yet trained exactly the same number of nurses.'

'We therefore have some real challenges to overcome and I am very pleased that at least here we have promoted the level of collaboration that the rest of the country needs to follow.'

Mr Thwaites said state health systems dealt with day to day issues of care and the national university education system with its own educational issues – 'and the two haven't come together'.

'I think it's very important that La Trobe University and this School have seen the significance of collaboration in linking the education system and the clinical system – practice and education – with research as the third component.'

'We will have a crisis unless we have that same approach at a national level.'

Director of the new School, Professor Rhonda Nay, said: 'Older people make up the largest proportion of health care consumers so nurses of the future must be skilled in gerontic nursing. Career prospects are good and there is strong demand for gerontic nurse practitioners and consultants.'

She said that La Trobe leads the way in gerontic nursing education through strong links with industry, practice-based research and flexible, relevant, research-based education and policy initiatives.

Major research includes evidence-based practice in dementia care, creating restraint-free care environments, abuse of older people, family carers, sexuality in long-term care and recruitment and retention of qualified staff. ■

# La Trobe students GO GLOBAL

## Travelling scholarships provide new international dimension



Experiencing life in other countries: Scholarship winners, from left, Marina Findlay, Morgana Brady, Sarah Butler, Kerry Loughrey, Holly Ludeman, Cathryn Prowse, Antoinette Russo, Ben van Doorn and Fatih Sener being farewelled by Vice-Chancellor Osborne, centre rear, Science and Technology Dean, Professor David Finlay, and Humanities and Social Sciences Dean, Professor Roger Wales, far left.

Thirteen students have been awarded inaugural La Trobe University Vice-Chancellor's scholarships to live and study overseas for the second semester of 2002.

The new 'Targetted Travelling Scholarships' were awarded under the International Network of Universities (INU) scheme. They enable La Trobe students to spend a semester studying abroad, with credit towards their La Trobe degrees.

Nine La Trobe second and third year students will go to the University of Leicester in the UK, three to Malmö University in Sweden, and one to the Helsinki University of Technology in Finland.

La Trobe Vice-Chancellor, Professor Michael Osborne, said there was an imbalance in the numbers of students coming to study in Australia from overseas and the numbers of Australian students going abroad.

He said it was important that Australia's best students have the opportunity to experience life in other countries.

'Many other nations encourage a considerably greater number of their students to learn and gain new experiences overseas, and we thought it was about time to help redress that imbalance.'

'Apart from the personal and academic development, study abroad often improves employment prospects and there are benefits from the experience to the nation as a whole.'

Professor Osborne, who is also President of the INU, said the scholarship scheme was extremely generous and competition for places was intense.

'In pioneering the establishment of the INU, La Trobe University has enhanced the opportunities for students to add a genuinely international dimension to their studies by undertaking courses at one of the partner universities.'

The inaugural 2002 scholarship holders have also agreed to share their experiences with organisers on their return, to help fine tune the scheme for future years.

The value of each scholarship varies depending on the country in which students choose to study. Scholarships include a return economy airfare, insurance, generous assistance towards accommodation and living costs, and half of each student's HECS liability and General Service Fee.

Selection criteria for the scholarships include demonstrated academic achievements, potential to complete successfully a full-time semester of study in an unfamiliar environment and the ability to act as an ambassador for Australia and for La Trobe.

*Continued page 11*

**LA TROBE UNIVERSITY**

2002

open days

Sundays in August 2002			
Bendigo	4 August	10am – 4pm	
Mildura	11 August	10am – 3pm	
Shepparton	11 August	10am – 2pm	
Albury-Wodonga	18 August	10am – 3pm	
Mt Buller	18 August	11am – 3pm	
Melbourne (Bundoora)	25 August	10am – 4pm	

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*The right COURSE for you*

# La Trobe honours Peking University Chancellor

La Trobe University has conferred the honorary degree of Doctor of Science on Professor Wang De Bing, Chancellor of Peking University. The award recognises his major contributions in medicine and health and in the development of international ties between the People's Republic of China and Australia.

Vice-Chancellor, Professor Michael Osborne, said Professor Wang was a distinguished academic, a leading researcher in gene diagnosis and gene therapy of leukaemia, and a protagonist in the area of hospital management.

An influential figure in recent developments in higher education in China, Professor Wang has made a major contribution to the successful development of the joint program in Health Administration and Health Management between Peking University and La Trobe University – and to its dissemination to other leading universities in the People's Republic of China.

'Professor Wang is one of those rare persons who has found time in an illustrious academic career to contribute strongly to the enhancement of higher education both nationally and internationally,' Professor Osborne said.

Responding to the award, Professor Wang said three years of co-operation between Peking and La Trobe universities has resulted in significant achievements in training and research.

Many Chinese middle level and senior health administrators have already received Masters degrees from La Trobe, while in China there were joint La Trobe-Peking training programs for postgraduate diplomas.

'We will continue our joint Masters program and Peking University intends to send more outstanding scholars to La Trobe university to conduct PhD studies.'

Professor Wang said internationalisation of higher education was a 'necessary trend in this century', and Professor Osborne has 'provided great efforts in pushing forward China-Australia co-operation in higher education'.



Contribution to health care in China: Vice-Chancellor Professor Osborne applauds as Professor Wang accepts the honorary degree during a special ceremony.

This co-operation has developed smoothly, he added, thanks also to the hard work of many people from the La Trobe's Faculty of Health Sciences.

The China Health Program, in the University's School of Public Health, contributes to the development of health care in China through teaching, research and project cooperation.

It helps train health service managers through the Postgraduate Diploma in Health Services Management and the Master of Health Administration.

It also contributes to the education of health service and health policy researchers through doctoral research in the areas of community health services, hospital information systems, national health information policy and privatisation.

## Partnerships in China

La Trobe University is one of Australia's leading providers of university education in China with strong partnerships in archaeology, health and business studies.

In China the University has formed the International Education Network (IEN) Pty Ltd, with other Australian providers to offer undergraduate and diploma programs. English International Pty Ltd was established to teach ELICOS and IELTS in IEN Institutes in Fujian, Nanjing and Shanghai.

La Trobe's Research and Development Park and the Shanghai Caohejing Hi-Tech Park have also entered into a sister park agreement. ■



# EDUCATION REFORMS

## Vice-Chancellor urges more public debate

The gradual subversion of the intellectual base of Australian universities in favour of a utilitarian one is a very serious retrogression – and should be the subject of much more public debate than has taken place to date, according to Professor Michael Osborne, Vice-Chancellor of La Trobe University.

Opening a seminar on the *Structural Transformation of the University* held at La Trobe, Professor Osborne predicted a narrowing of scholarship as ‘student predilections and workplace considerations impact on what is taught and hence what is researched at Australian universities.’

‘I have a deep foreboding about the general direction into which universities are being pushed at the moment in Australia,’ Professor Osborne said. ‘I also want to express a fear that if we don’t do something about it, this push could become irreversible.’

Professor Osborne said the Federal Government’s current education review demonstrated little, if any, interest in the ‘big picture’.

‘There is nothing in its documents about higher education going beyond the practicalities and utilities of how it should be taught, who it should be taught to, and how you can produce a system of teaching which can easily be assessed by people well removed from the system.’

Professor Osborne warned there were grave risks to the nation in producing a league table of good universities on the basis of the earning power of their graduates and insinuating that the only subjects worth teaching were those that led to earning power.

He gave as one example of the narrowing of educational opportunity the constant

pressure for universities to cut back on languages. This was particularly serious because losing a language nearly always meant losing a significant part of the culture underlying the language.

‘The recent report on Asian languages shows an appalling situation in Australia of the neglect of Asian languages. Surely that is something we must consider very seriously if we are going to be partners with countries in Asia.’

‘It seems to me we have nearly turned the full circle. For we have moved in just over a century from a narrow syllabus suited to a leisured elite to the brink of one which is now about to be equally narrow in a different way because it is functionally based and employment related. In that process we are in danger of losing the crucial ingredient of scholarship.’

### ‘Passive in the face of change’

– Craig Calhoun

The all-day seminar, *Structural Transformation of the University: Contradictory Ideas and Institutional Compromises in American Higher Education* was hosted by La Trobe University’s new ‘Thesis Eleven Centre for Critical Theory’.

Keynote speaker was leading US sociologist, Craig Calhoun.

Professor of Sociology and History at New York University, Craig Calhoun is President of the US Social Science Research Council.

‘Two sets of ideals that have often seemed compatible appear increasingly to be in tension’ Professor Calhoun said.

‘On the one hand, there is the pursuit of the highest “quality” of knowledge, whether understood in humanistic terms as the distilled wisdom of the ages or more scientifically as breakthroughs in new knowledge.

‘The faith is that this will improve human society, and improve it more insofar as it is perfected, even if this means that only a narrow elite can master it.

‘On the other hand, there is the effort to educate citizens in general, to share knowledge, to distribute it as widely as possible.

‘This is especially pronounced as one of the guiding principles of democracy, which is held to depend on an educated citizenry, but also of economic development, especially insofar as this requires technical expertise of participants.

‘In America, and to some extent around the world, the tensions between these two ideals are shaping struggles over the future of the university.

‘I say “struggles”, but in fact there are fewer of these than I would expect. By and large, both academics and citizens who in the past have been important advocates for the public role of universities, have been remarkably passive in the face of change. Grumblings might be a better word than struggles.’

Other seminar participants included Professor Simon Marginson, from Monash University’s Faculty of Education and La Trobe University’s Professor Peter Beilharz, Director of the La Trobe University ‘Thesis Eleven Centre for Critical Theory’ which hosted Professor Calhoun’s visit.■

*A copy of Professor Calhoun’s lecture is available from Tel: 03 9479 1116.*

# COLD COMFORT

*Why some plants need it*

A possible boost to crop production:  
Dr Gendall at work in his laboratory.

A La Trobe University plant biologist has played a major role in recent British research that discovered a previously unsuspected process by which many plants time their reproduction.

Described in the latest issue of the prestigious world scientific research journal, *Science*, the discovery provides new knowledge on the effect of cold temperature on the flowering time – and consequently the healthy life cycle – of many plants.

The research has implications down the line for improving the knowledge of how plants sense and respond to the external environment.

It may eventually enable scientists to breed or 'design' plants to flower at different temperatures and so increase the yield of a single annual crop or to produce more than one crop each year.

Dr Tony Gendall, a lecturer in La Trobe University's Department of Botany, was one of a team of five plant geneticists working at the mainly UK-Government funded John Innes Centre in Norwich.

Perth-born Dr Gendall, who started out as a cancer researcher, spent five years in Norwich working with a research team led by Professor Caroline Dean before joining La Trobe in May this year.

At La Trobe he will continue aspects of the work that achieved the accolade of publication in *Science*, *Journal of the American Association for the Advancement of Science*.

This new research has advanced the knowledge of the processes known as 'vernalization' – the acceleration of flowering time by a long period of low temperature.

From biological and evolutionary perspectives, vernalization is essential to enable many plants to co-ordinate their reproduction with the changing seasons, particularly to flower after winter in the more favourable conditions of spring.

Many species of plants, including some varieties of wheat, canola and barley respond to vernalization. For many years botanists have examined this process at the physiological level, but only in recent times have they probed the process at the molecular level.

To examine the factors controlling vernalization, the team used the small annual weed, *Arabidopsis*, a distant relative of the cabbage, cauliflower and Brussels sprout.

*Arabidopsis* is small, requires vernalization to regulate its flowering, has a relatively short life cycle, produces many seeds and, because it is so widespread, has undergone many mutations. Its genome is being closely studied by hundreds of plant biologists throughout the world.

Dr Gendall said the team had discovered that a gene or protein called Vernalization 1 (VRN1) played a role in the normal process of flowering triggered by exposure to low temperatures.

In Australia, the CSIRO published a paper in 1999, and another was published in the USA around the same time, describing the isolation of an important component in vernalization called Flowering Locus C (FLC).

The John Innes Centre research had in turn showed that vernalization reduced the activity of FLC.

'Our contribution is to show that VRN1 is like an intermediary between the low temperature and a target of vernalization, a gene called FLC regulation,' Dr Gendall said.

'Two years ago, all we knew was that FLC was a target of vernalization but we were largely unaware of the factors that regulate FLC in response to low temperatures.

'The significance of our study is that it demonstrates that VRN1 is a component of a signaling network that tells a plant that it has been exposed to a long period of low temperature.'

However, VRN1 also appears to have another role in regulating flowering time.

'We knew VRN1 was a regulator of FLC expression but we were surprised to find that if you increase the levels of VRN1, you get dramatic effects on flowering times that are not dependent on FLC,' he said.

This might indicate that VRN1 is a component of two different pathways, one that is dependent on low temperatures, and another that is not. ■



# GAME THEORY

## *Incentives help share bounty of the seas*

A La Trobe University economist has used 'Game Theory', the concept developed by Nobel Prize winning mathematician, John Nash – played by Russell Crowe in the recent film *A Beautiful Mind* – to seek a solution to the world-wide problem of overfishing.

Dr John Kennedy took the 'Game Theory' approach to determine incentives for the major harvesters of North-East Atlantic mackerel – Russia, Norway, Scotland and the Irish Republic – to co-operate and maximise their long-run economic returns.

The theory can be used to seek solutions to other overfishing problems.

Associate Professor in La Trobe's Department of Economics and Finance, Dr Kennedy presented the results of this study to the Second World Congress of Environmental and Resource Economists in Monterey, California in June. He was in top company at Monterey, a city whose fishing industry John Steinbeck made

famous in his novels including *Cannery Row*. The congress attracted more than 750 participants, with four keynote speakers, two of whom were Nobel Prize winners in economics.

'Without government-imposed ceilings on catches or harvesting effort, fish stocks world-wide are over-exploited, resulting in major losses in long-run economic returns,' Dr Kennedy says. 'No fisher gains by foregoing a tonne of current catch so as to catch two tonnes later for the same effort if they cannot be assured that other fishers will also reduce their catch.'

The International Law of the Sea now enables countries to declare exclusive fishing zones (EFZs), encompassing areas 200 nautical miles out from their coastlines.

Governments can then regulate harvesting of fish stocks within their zone. However, it is widely recognised that this does not deal satisfactorily with fish stocks that

migrate between zones of different countries, or between one country's zone and international waters.

A case in point is the disastrous slump in stocks of cod in sub-Artic waters, so that cod is no longer on the menu in the UK.

In recent years the United Nations has drawn up guidelines to deal with the problems of international harvesting of migratory stocks, but obtaining agreements between nations is still a problem. Last year Dr Kennedy worked at the Centre for Fisheries Economics of the Norwegian School of Economics and Business Administration in Bergen, researching the mackerel fishery.

Mackerel migrate annually from Norway through international waters to EU waters to the west and south of the UK and the Irish Republic, and back again.

*Continued page 10*

# Saving the language of the Manambu



Manambu, one of the most unusual and complex of Papua New Guinea's 900 languages, may be preserved—thanks to the efforts of La Trobe University's Professor Alexandra Aikhenvald.

A world authority on language conservation, Professor Aikhenvald is working with PNG authorities to produce two grammars and a dictionary of Manambu.

Associate Director of the University's Research Centre for Linguistic Typology, Professor Aikhenvald has studied languages in many countries, particularly in South America.

She says PNG is the world's most linguistically diverse area. But this linguistic diversity is threatened with extinction under pressure from Tok Pisin — a creole language based on English and formerly called Melanesian Pidgin — and from English itself.

Children are learning few of the 900 languages, most of which will probably disappear by the end of this century.

The Sepik river basin is among the most fascinating, linguistically diverse and poorly investigated regions — and one of the least healthy areas, being full of swamps, mosquitoes, and malaria.

Since 1995 Professor Aikhenvald has been studying Manambu, a Sepik area language, with Pauline Laki, a native speaker and Port Moresby-based journalist.

Last summer the two women went to the middle Sepik region, between the Hunstein mountain range and the Washkuk hills. The trip was not easy. From Port Moresby, they flew to Wewak and then to the government post of Ambunti, in a single engine plane.

There they waited for six hours under the scorching sun for a boat to take them down the Sepik River to the Manambu-speaking area. After six weeks in this almost monolingual environment, Professor

Aikhenvald returned as a fluent Manambu speaker.

About 3,000 people in five villages – Avatip (where Professor Aikhenvald spent most of the time) Yuabak, Malu, Apan and Yuanab – speak Manambu with a number of expatriates living in other areas.

‘It is a highly complex language with an intricate sound system and elaborate grammar. One of its most interesting properties is the gender system,’ says Professor Aikhenvald.

‘Manambu divides the world into "masculine" and "feminine". Men are usually masculine, and women are feminine, but not always. Everything big and long is considered masculine, so an unusually big and fat woman, or a woman behaving in a bossy way, is looked upon as masculine.

‘Everything short, small and round is treated as feminine - so a squat fattish round man could very well be referred to "like a woman". A big house is typically masculine, and a small house feminine.

‘When I showed them a picture of Buckingham Palace, they all agreed that it is masculine because it is so long.’

Professor Aikhenvald describes the culture of Manambu speakers as highly sophisticated. They divide into three groups of clans. The Wulwi-ñawi are associated with light and the power of sun and moon, the Glagw with darkness and the power of the earth, and the Nabal-Sablap are 'in-between' the two. All the white people are placed in the Wulwi-ñawi.

The whole universe, the flora and the fauna, are divided between clans as their property. For instance, the sun and the moon, and also all white people's goods and achievements, including writing, belong to the Wulwi-ñawi. The products of the ground are of the Glagw.

‘To correctly greet a Manambu speaker one needs to know the intricacies of the names associated with each clan because the art of correct greeting is highly appreciated,’ she says.

The importance attached to names is a striking property of Manambu culture. Every person has a multitude of names bestowed upon them by relatives from different clans as special gifts. Pauline Laki has seven. Names are not only precious gifts, they are property. Very often people from one clan accuse someone

from another of stealing a name. Then a debate that may go for days is held to determine the correct ownership.

The Manambu people pride themselves on not ‘selling off’ their culture to tourists, trying to survive on their own subsistence farming, and not depending on white-people's goods.

This is probably why the language is still spoken by most people in the village. However, among themselves children tend to use Tok Pisin, not Manambu. They have very little, if any, knowledge of what names belong to which clan. None are eloquent in the traditional genres of name debating, or can sing a song, or lament after somebody has died.

Manambu people have succeeded in the ‘white man's’ world but are now concerned about the impending extinction of their language and culture.

The Manambu people who have succeeded in the ‘white man's’ world – from diplomatic and army officials to public servants and journalists – are now expressing concern about the impending extinction of their language and culture.

One is Colonel David Takendu, President of the Manambu Association and Chief of Staff in the Papua New Guinea Army. Professor Aikhenvald says he is among those encouraging her to document and save Manambu language and heritage.

Her aim is to produce a scholarly, technical grammar. A 400 page draft is already in circulation and a pedagogical grammar that can be used like a text book if the language is to be taught formally in schools is in progress.

She is also working with Pauline Laki on a dictionary. Given the complexity of the language, this may take at least five years.

‘Each of the dozen or so clans has its own clan-specific words for all the important objects, like grass-skirt, slit-drum, ritual men's house, *Haus Tambaran*, and not many people remember all the terms for all the clans.’

Professor Aikhenvald plans to return to the Sepik area next year during the ‘dry’ season, between May and September, when malaria-bearing mosquitoes are less active. ■



Professor Aikhenvald with a group of Manambu speakers. A 400-page grammar is underway to help revive their language.

## GAME THEORY

*Incentives help share bounty of the seas - from page 7*

The International Council for the Exploration of the Sea each year sets a total allowable catch (TAC), low enough to ensure viability of the stock. Harvesting nations then have to reach some agreement on their share.

Issues Dr Kennedy addressed included comparison of current TACs and the TACs over the next 20 years that would maximise long-run economic returns to the harvesting nations, and the incentives for the nations to agree to a system of sharing the returns.

This meant determining economic returns that nations could make by forming sub-coalitions, or going it alone, to the detriment of overall returns.

The approach relies on finding 'coalitional harvesting strategies' that are Nash equilibria. This is the game-theoretic concept that John Nash developed in his PhD work at Princeton University in the early 1950's, for which he was awarded a Nobel Prize in economics in 1994, and depicted in the film *A Beautiful Mind*.

Using 'Game Theory', Dr Kennedy shows that the four major harvesting countries would maximise their combined long-run economic returns by halving their current annual combined catch, and allowing for a gradual increase in combined harvest over the next 20 years of 30 per cent.

To ensure that each country gained from belonging to the joint coalition rather than from defecting, a system of transfer payments between the countries would be required. It was found that this could be achieved with 'Shapley values', named after Lloyd Shapley, who was developing the concept at Princeton University at about the same time as John Nash was working there.

Also at the Monterey Congress from La Trobe's Department of Economics and Finance was Dr Michael Harris who presented a paper co-authored with La Trobe colleague, Dr Iain Fraser.

This was entitled *Natural Resource Accounting In Theory and Practice: A Critical Assessment*, based on his recent PhD work. ■

## Towards your very own TAILOR-MADE DRUG

How close are we to a new era of health care in which your doctor prescribes a totally personal drug – designed specifically for your individual body's reaction to an ailment?

Such a drug would result from an analysis of your DNA and an assessment of which genes were being affected, and to what extent, by the disease.

Surprisingly, for some more common ailments like diabetes, such diagnosis and treatment may not be more than a few years away, says leading European evolutionary geneticist, Professor Volker Loeschcke, who recently spent year in residence at La Trobe University's Institute for Advanced Study.

Professor Loeschcke worked as a Distinguished Visiting Fellow in La Trobe's Centre for Environment Stress and Adaptation Research (CESAR), headed by Professor Ary Hoffmann. He came to La Trobe, he said, because of Professor Hoffmann's internationally recognised work in the field of environmental stress – a field in which CESAR 'is the clear world leader'.

Chair of Evolutionary Genetics at the University of Aarhus, Denmark, Professor Loeschcke said CESAR played a major world role in understanding how genetic variation contributed to an individual's

resistance to environmental stress. 'This means how each individual's body, which represents a particularly combination of genes, reacts to a disease or an external stress. This in turn points the way to a number of practical implications, including personally designed drugs.

'The possibility of your doctor entering your personal DNA make-up into his computer and calculating how much of which drugs would be required to combat the precise extent to which the disease had penetrated your body is no longer a remote theoretical possibility.

'For such common diseases as diabetes, I can see such strategies being possible in two or three years,' Professor Loeschcke said. His conclusions result from his own research at Aarhus and his collaboration with a La Trobe's research team headed by Professor Hoffmann.

Researchers at La Trobe and Aarhus universities, and several other centres, use *Drosophila* – the common vinegar fly – for research to determine how animals adapt to stress. Three years ago several academic institutions in the USA and a commercial company decoded 97 per cent of the 120 million bases constituting the protein-coding segment of *Drosophila*'s genome.

'*Drosophila* and humans share a lot of genes,' he said. 'We believe that many

processes affecting human organisms are also active in *Drosophila*. Heat-shock and stress genes are very similar in *Drosophila* and humans. And there are complex interactions between genes and the environment. One of them is the process of aging.'

With Professor Hoffmann, and a Danish PhD student, Mr Jesper Sorensen who was recently at La Trobe University for six months, Professor Loeschcke completed a major review paper on 'Adaptation to temperature extremes' covering information from evolutionary genetics, molecular biology and eco-physiology.

Professor Loeschcke will return to La Trobe University to spend two more months at CESAR next July. ■

Professor Loeschcke: visiting La Trobe because of its international reputation in environmental stress research.



# REALLY EFFLUENT

## Waste water research tackles treatment problems

La Trobe University researchers have secured a \$400,000 Australian Research Council (ARC) Linkage grant to help solve a global problem affecting waste water treatment plants.

Dr Bob Seviour, an Associate Professor from the Faculty for Regional Development in Bendigo where most of the work is being carried out, said the project – in conjunction with ARC and South East Water – involves researching the problem of foaming in waste water treatment plants.

‘Foaming significantly reduces the effectiveness of treatment processes and causes poor quality effluent. The research aims to identify the micro-organisms responsible for producing foam, the microbiological and surface chemical causes of foaming, and develop scientifically sound control strategies to overcome this problem.’

Dr Seviour said the project would be carried out over three years by members of the Biotechnology Research Centre and the Colloid & Environmental Chemistry Group at the Bendigo campus and the Materials and Surface Science Group in the Department of Physics at the Bundoora campus.

‘A group of nine microbiologists, chemists and physicists, including two PhD students, Kathryn Eales and Jacqui Heard, and one Post Doctoral Fellow, Emma Carr, will be working on the project.’ Dr Seviour said a grant of this size was a significant achievement for the two groups.

‘It underlines the importance of this research and its application to industry and the community. La Trobe University has an international reputation for leading research in the microbiology of waste water treatment processes.’

‘The support from ARC and South East Water recognises the expertise of staff at Bendigo and their role in research at the global level.’ ■



A significant achievement: Four members of the waste water research group at the Bendigo campus, from left, Emma Carr, David Hayes (an Honours student), Kathryn Eales and Jacqui Heard.

### La Trobe students go global – from page 3

INU exchange student partner institutions are chosen primarily on the basis of their capacity to offer courses in English which complement and supplement those available at La Trobe, and their proven commitment to welcoming international students and catering for their requirements.

The scholarship winners are -

Helsinki University of Technology: Corey Putkunz, a Bachelor of Science/Computer Science student;

Malmö University: Rebecca Clark, Nursing; Marina Findlay, Social Work; and Julie McKay, International Relations;

University of Leicester: Morgana Brady, Law/Arts; Sarah Butler, Conservation Biology & Ecology; Kirsti Graham, Archaeology & History; Kerry Loughrey, English & Sociology at Albury-Wodonga; Holly Ludeman, Agricultural Sciences; Cathryn Prowse, Law/Economics (Human Rights); Antoinette Russo, Sociology; Fatih Sener, Economics; and Ben van Doorn, Medical Science.

La Trobe University also offers ten Vice-Chancellor's International Exchange Scheme Scholarships annually for language students.

### Learn art history on location in Paris

From Gustave Moreau's studio, Monet's *Waterlilies* to *Fin de Siècle* decadence and early modernism, La Trobe University students can now study art history 'on location' in Europe.

Senior Lecturer in the Art History, Lucy Ellem, said the subject Paris Around 1900: From Symbolism to Abstraction will be taught next January as an intensive series of lectures, tutorials and site visits in and around Paris, as well as in Normandy and Brittany. ■

Details: Tel 03 0479 1417

# MY TRIP TO THE MOON

Astronaut delivers La Trobe Science Lecture



Dr Schmitt delivers the 2002 La Trobe University Science Lecture. Top of page: Dr Schmitt alongside the lunar roving vehicle 30 years ago, the last time humans walked on the Moon. Photo: Apollo 17, NASA.

*My trip to the Moon and how it happened to me* was the title of this year's La Trobe University Science Lecture delivered to a capacity audience by Apollo 17 astronaut and former Republican Party Senator, Dr Harrison Schmitt.

Dr Schmitt's visit to La Trobe coincided with the 30th anniversary of the Apollo 17 mission, the last time humans walked on the Moon.

While in Melbourne he also visited Strathmore Secondary College, where a Space Education Centre is being established with the help of La Trobe University physicists.

**Life Writing:** 'Grandmothers telling stories of sexual servitude during World War' and 'The Stolen Generation: Australian Indigenous Perspectives' were keynote speeches at a four-day conference organised by La Trobe University's Unit for Studies in Biography and Autobiography

Professor Sidonie Smith, from the University of Michigan, spoke on the first topic and Aboriginal leader, Dr Mick Dodson on the second.

They were among more than 80 delegates from many countries who gave papers or conducted seminars. The conference also included public readings by four prominent Australian writers, Doris Brett, Brian Matthews, Arnold Zable and Peter Rose.

**Motherhood:** A conference on Motherhood featured Federal Sex Discrimination Commissioner, Pru Goward, and writer on marriage and motherhood, Susan Maushart. It was organised by the La Trobe University Women's Study Program.

Program Director, Kerreen Reiger, author of the recent book, *Our Bodies, Our Babies: the forgotten Women's Movement* who spoke at the conference on this topic also interviewed by video leading New



York scholars and writers Sara Ruddick, and Jane Lazarre.

**Social theory:** The Holocaust and September 11 – two events that, respectively, help define the 20th and the 21st centuries – were the subjects of two public lectures held by La Trobe's new Thesis Eleven Centre for Critical Theory, headed by sociologist, Professor Peter Beilharz.

The lectures were given by leading social theorists, Jeffrey Alexander from Yale University, who spoke on 'How The Holocaust Transformed Modernity' and Craig Calhoun, from New York University, who gave a public lecture on the subject of his new book, *Understanding September 11*.

While at La Trobe Professor Calhoun also gave a seminar analysing structural change in higher education, see page 5 for further details.

**Crisis in capitalism:** Leading US corporations and securities regulation scholar and Wall Street Journal commentator, James Cox, gave a public seminar on the 'Crisis in American Capitalism – from Enron to WorldCom' while at La Trobe as a visiting lecturer in the University's Postgraduate Program in Global Business Law. ■



From Enron to WorldCom: Professor Cox, left, with La Trobe Professor of Commercial Law, Gordon Walker.

# Computers and rock art

## Linking the ancient & new

State-of-the-art computer software technology and Aboriginal rock art from thousands of years ago would seem to have little in common.

But they have come together in a research project in La Trobe University's Department of Computer Science and Computer Engineering. The project will record and catalogue rock paintings near Laura on Cape York Peninsula and enhance the tourist potential of the area.

Six teams of La Trobe University final year software engineering students developed the prototype software last year in collaboration with James Cook University and Motile Pty Ltd, a firm of IT consultants and developers.

Known as the Quinkan Culture Matchbox, the software will assist sound cultural heritage management of rock art sites and other Aboriginal cultural places on Cape York using a cutting-edge cultural heritage content management system.

Matchbox is a state-of-the-art Web-based resource cataloguing system that can be used for archiving digital and physical resources of all kinds, including video, audio and print materials.

La Trobe and Motile will develop software for the computer cataloguing, while James Cook University will conduct the archaeological aspects, determining ways to capture and manage descriptions of the rock art and other sites.

La Trobe Head of Computer Science and Computer Engineering, Professor Tharam Dillon, says the University's Software Engineering Project has already led to the commercialisation of a number of other computer engineering initiatives since it was launched in 2000.

Material for the project will be catalogued in consultation with Elders of the community responsible for the rock art of the Quinkan Reserves on Cape York. This will form the content of the Matchbox computer resource description system.

'Time is short,' says Professor Eric Wainwright, project leader from James Cook, 'because the Aboriginal guardians of the sites are aging and they are anxious that the oral traditions linked to each painting be recorded and passed down to coming generations.'

Ms Liddy Nevile, researcher and project manager from Motile and James Cook says: 'The stories, rock paintings and images of them, and information about them, need to be carefully catalogued so they can be "repatriated" to those responsible for the rock art'.

La Trobe lecturer, Mr Torab Torabi supervised teams of students from several disciplines, including computer science and engineering and business, that developed the prototype software.

Two students, Sarah Pulis and Behzad Kateli, who helped develop the prototype,



An example of rock art from the Quinkan Reserves on Cape York.

and Sophie Lissonnet from James Cook University, are now employed as postgraduate researchers on the second phase of the project.

Other people involved are Professor Dillon and Dr Wenny Rahayu from La Trobe and Mr Andrew Donald and Mr Robert Donald from Motile. The project has received a Strategic Partnerships with Industry - Research and Training Scheme (SPIRT) grant of \$270,000. ■

## Teaching older drivers

Risk-taking young male drivers cause the most road accidents.

That's the common perception. However, per kilometre travelled, drivers over 75 years of age also have a high accident rate – a fact attracting the attention of licensing authorities and researchers worldwide.

Re-educating older drivers and teaching them new driving skills can improve road safety for all road users, say Marilyn Di Stefano and Robin Lovell.

Lecturers in the University's School of Occupational Therapy and joint coordinators of the Driver Education and

Rehabilitation Course, Ms Di Stefano and Ms Lovell have produced a handbook entitled *Teaching Older Drivers: A Handbook for Driving Instructors*.

The handbook has been sponsored by the NRMA-ACT Road Safety Trust.

Ms Di Stefano says the proportion of Australians over 60 years of age will double over the next 30 years.

Older people may have reduced vision or hearing, long established driving habits and may not be up to date with changes in road rules. ■



The handbook is available from ACT Urban Services, Tel.: 6207 6931 or from their website [www.act.gov.au/roadsafety/](http://www.act.gov.au/roadsafety/)

# Obituary: Allan Martin

## Foundation Professor of History

Died in Canberra, 31 May 2002.

*The following is an extract from the eulogy given by Dr John Hirst, Reader in History.*

Some professors have made their mark by knowing very clearly what approach to their discipline is the correct one. They have appointed staff who shared their views. They have taught the correct view to their students. Great things have often resulted. But this approach has its dangers. Those who don't share the correct view are excluded. Some clever people learn how to defend the correct view, but do not have the eye, the mind or the heart to be good practitioners themselves.

Allan's approach was very different. He appointed people who had very different views and encouraged them to learn from each other. It was not impossible to doubt the wisdom of one or two of his appointments, but we knew that Allan who had chosen us had also chosen them. And Allan made it work – by his respect and warmth for all and by making it very clear that he was still learning too. He was at La Trobe for less than 10 years, but his spirit still hovers about. People who never knew him are living out the ethic he established. He was determined not to be a 'God professor', but the making of this department was a true act of creation.

He did not want to be a 'God professor' in administration either. He knew the benefits of a mixed polity. He ruled through the senior people, what he mockingly called his upper house. There was a role for democracy but it did not make the important decisions – like appointments.

One of the notable features of his appointments was the number of women, all formidable scholars and intellects. When in the 1970s feminists complained that if there were women in university departments they were junior and marginalised, they were not talking about my world.

The most devastating critic at our seminars was June Philipp and every time Inga Clendinnen spoke you knew that though you might become a good historian you



Professor Martin: 'The last of the reliable historians.'

were not going to be very good. Allan brought these and other talents together and liberated them.

With Allan's passing we are losing one of the last of the generation who believed that history could have the qualities of a social science – it could be comprehensive, accurate, fair-minded; its findings grounded in the evidence. He was the last of the reliable historians, by which I mean those who wrote books in which you could confidently look things up.

Once I met a man at a party who, when he knew I was a historian, said he had tried to look something up in Manning Clark's *History* and been disappointed. Though it was a party, I did not laugh at this folly, but carefully explained what sort of history Manning Clark wrote. It's not simply that Clark was often careless over details. If you look up Manning Clark you find on every page – Manning Clark. Of course you will find Allan on every page of his books, but not as prophet or seer but as curious enquirer, careful recorder and quiet interpreter.

Perhaps I have talked too much of the professor and not enough of the man. What helped Allan to be a success as a professor, of the sort he wanted to be, were the human qualities we all know – his gentleness, his warmth, his wry humour, his love. ■

## TALL POPPY AWARD IN HEALTH RESEARCH

La Trobe University's Dr Anne Kavanagh was one of ten Victorian researchers to receive a Young Tall Poppy Award from the Australian Institute of Political Science recently.

A Senior Research Fellow at the University's Australian Research Centre in Sex, Health and Society, Dr Kavanagh was honoured for her work in the area of cancer epidemiology and the social determinants of health and health inequalities.

Dr Kavanagh received widespread publicity when she and colleagues at the Cancer Council of Victoria and BreastScreen Victoria Registry demonstrated that mammographic screening was less accurate for women who are taking hormone replacement therapy.

The study of more than 100,000 Victorian women, published in the medical journal, *The Lancet* in 2000, found that 80 per cent of cancers were detected at mammographic screening when women were not on hormone replacement therapy, whereas only 65 per cent of cancers were detected if women were taking the therapy.

The Tall Poppy Campaign was established in 1998 to promote awareness among the Australian public of Australia's intellectual achievements by recognising the achievements of outstanding young researchers in the sciences and biomedical sciences.

Dr Kavanagh has qualifications in medicine, a PhD in Epidemiology and cross-disciplinary expertise in social theory and social enquiry making her well-placed to be a national and international leader in the newly developing field of social epidemiology.

She has been a Visiting Fellow at the School of Public Health at Harvard University and has worked regularly with the Victorian and National breast cancer screening program, BreastScreen. ■

## Melissa wins Chinese Government scholarship

Melissa Kramer, a Bachelor of Arts Honours student in Chinese Studies in La Trobe University's Asian Studies Program, has been awarded a Chinese Government scholarship to study at the prestigious East China Normal University (ECNU) in Shanghai.

The announcement was made by the Education Consulate for the People's Republic of China in Melbourne recently.

Melissa's other major is Art History. She has already visited China twice and is writing her Honours thesis on modern Chinese art, focusing on the Shanghai Biennale.

'I would like to thank the Education Consulate of the People's Republic of China for their generosity and for the wonderful opportunity to study at the ECNU.'

She also thanked Dr Xu Yuzeng, Director of La Trobe's Chinese Language Program, and Professor John Fitzgerald, Head of Asian Studies, for their encouragement and support during her studies.

Dr Xu Yuzeng said Melissa was a very good student and that the award also acknowledged the quality of La Trobe's Chinese language program. ■



China bound: Ms Kramer with Dr Xu Yuzeng, right, and Professor Fitzgerald.

## Our women lawyers behind Chinese walls



Resonance among Chinese women: Professor Thornton with a copy of her book.

La Trobe Law Professor, Margaret Thornton, has scored an unusual publishing achievement.

A Chinese language translation of her book *Dissonance and Distrust: Women in the Legal Profession* has recently been published in China – and the first edition of 5000 copies has already sold out.

It is unusual for the leading Chinese publisher, Law Press Beijing, to publish western law books, and even rarer to publish a work examining the experiences of women lawyers in another country.

Originally published by Oxford University Press in 1996, the book is based on interviews with more than 100 Australian women academics, law students, solicitors, barristers and judges and examines why women are perceived to lack authority in the public sphere.

Initiative to publish the Chinese edition came from a prominent legal scholar in China, Professor Xin Chunying, Director of the Law Institute of the Chinese Academy of Social Sciences. Professor Xin wrote the preface and translated more than half of the text.

'In general, law has little international currency, being largely confined to specific jurisdictions, but Professor Xin felt the analysis and experiences I recounted in Australia were meaningful and related to the experiences of women in China,' Professor Thornton said.

'The study transcends women in the law and is relevant to women in professional and public life.

'It was felt that the experiences recounted in my book related to those experienced by women in today's China despite the policy of equality,' Professor Thornton added. ■

## THE MOST AUDACIOUS, DEATH-DEFYING...

# ELLA ZUILA?

Nobody knows her – but she was the most famous Australian public entertainer in the world in the last two decades of the 19th century.

Like her near contemporary and compatriot Nellie Melba, she assumed a continental-sounding stage name, but unlike the great diva we don't know her real name.

A striking-looking athlete of astounding physical prowess, Ella was in her day the world's most famous female circus wire walker or aerialist – the toast of enraptured audiences across Europe and north America.

The extent of Ella's fame and prowess are slowly emerging through a research project of La Trobe University senior lecturer in Theatre and Drama, Dr Peta Tait.

A theorist in performance studies, Dr Tait set out to examine bodies and gender identity – how society views the human body in a cultural sense. Her research led her to examples in comparatively recent history where females began to match the physical prowess and bravado of males.

These examples occurred frequently in circuses, hugely popular public entertainments that came into their own in the second half of the 19th century. The *crème de la crème* of circus performers were the aerialists – and Ella Zuila was the best!

'Men were supposed to have the muscular bodies. They performed public feats of strength and daring. Imagine the effect on staid Victorian-era public perceptions of the female body when women aerialists like Ella broke down, for the first time, the perceptions of the 'natural' difference between male and female bodies,' Dr Tait said.

'Ella was a sensation. She matched and often excelled the daring feats of male aerialists'.

At the height of her fame in America in 1881, drawings of her act show her wheeling a child over the wire in a barrow, carrying on her back a man – probably her aerial partner, husband and manager, George Loyal – pouring water from one



The history of Australian women aerialists on the world stage: Dr Tait with images of some of her subjects.

vase to another held over her head, walking the wire sometimes on stilts, sometimes with baskets on her feet. And she could do some of this blindfolded!

There is also a drawing of her, hanging by her knees catching Loyal who had been fired at her from a cannon.

Reconstructing Ella Zuila's act and touring schedule, Dr Tait has spent many hours in the British Museum's Collingdale Newspaper Library, Westminster Public Library and the circus archives of the Theatre Museum. Despite this, she found only minimal biographical details about Ella whose background in Australia remains unknown.

When she died on 30 January 1926 at Walton-on-the-Naze, England, Ella's age was given as 72, indicating she was born in 1854 somewhere in Australia.

English aerialist and human cannonball, George Loyal arrived in Australia in 1868 and performed in Melbourne and Sydney. He probably established a personal and professional relationship with Ella in Sydney.

*The Sydney Morning Herald* of 22 March 1872 carried an advertisement for Ella's performance as a gymnast next day at the Royal National Circus in Sydney. And according to the American circus industry publication, the *New York Clipper*, Ella, in 1876, rode a velocipede across a 500-foot long wire, 368 feet above the Magani Falls, near Pietermaritzburg, capital of Natal, in South Africa.

She probably worked in London during 1877 and 1878 and performed in the USA in 1880 and 1881 at Adam Forepaugh's, the largest circus at that time. Ella was to remain a major aerial star in London and Europe from 1885 until 1904, with Loyal astutely managing the act.

When Ella's fame was at its zenith she was performing to thousands of people at the Crystal Palace, Royal Aquarium, Canterbury and Paragon theatres in London and touring Continental Europe from 1886.

Her career came to an abrupt halt on 26 August 1904. While riding a bicycle across a wire at the Rotunda, Dublin, she fell. She was so badly injured she could not perform on the wire again.

Dr Tait's extended research covers the history of aerial performance and Australia's contribution internationally. The project involves interviews with Australia's 13 major female aerialists, including the mother and daughter combination of Nicki and Bekki Ashton of the famous circus family. Bekki is still performing the triple somersault, the first Australian-born flier to achieve this difficult trick.

Dr Tait also interviewed Dimpie St Leon who performed on trapeze throughout Australasia from the 1920s to 1950, and Mary Gill who began her trapeze career with Ashton's Circus in Australia and starred with Ringling Bros, Barnum and Bailey in the USA for 12 years until 1973. ■