

uniken

WHY?

- Indigenous mortality
- Kids in detention
- Treaties ignored

WHY NOT?

- A charter for human rights



UNSW

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Five minutes with ...

Dr Craig Roberts is a lecturer in the School of Surveying and Spatial Information Systems and a keen rock climber.

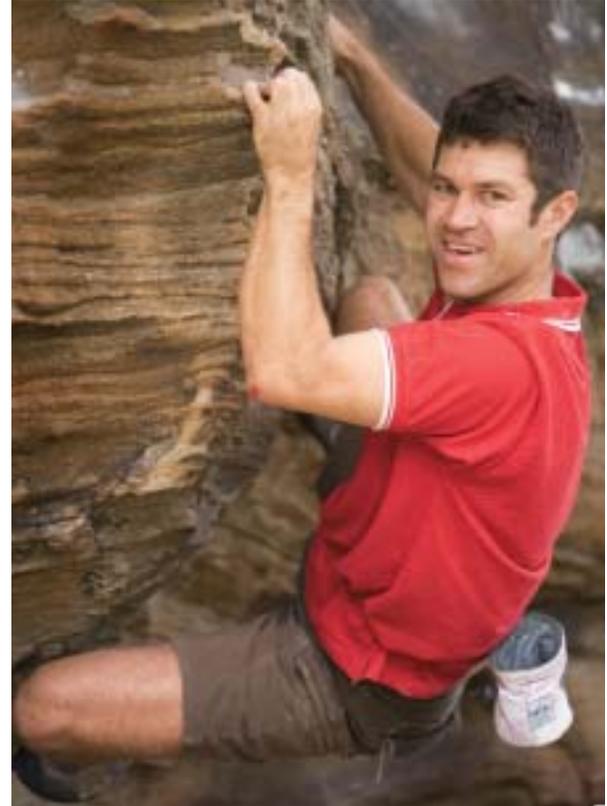
What's the attraction in hanging off a sheer cliff face?

Bushwalking got boring. It's a combination of being in a beautiful place that few can (or want to) access, the sense of freedom, the beauty of the movement, solving a sequence of moves presented by a natural rock face, camaraderie, challenge, repeating ascents of previous climbers, aesthetics and being part of a natural environment rather than just observing it. It's really such a joy.

The best climbs?

The Nose of El Capitan in Yosemite Valley, California - 1000 m of perfect vertical to overhanging granite. It took four days when we climbed it. The Comici route on the Trei Cimai in the Dolomites in Northern Italy. A 500 m north wall at 3500 m.

The Verdon Gorge in the south of France, the gritstone of the Peak district in England, the Grampians in Victoria and nearby Mt Arapiles, Heuco Tanks in Texas, Moonarie in South Australia, Frog Buttress in Queensland ... I need a vacation.



Eddie Safarik

If your love of the outdoors why you chose Surveying and Spatial?

Definitely. I worked for a research organisation in the US and was sent on large projects in Nepal, Ethiopia, Argentina and Indonesia to measure plate tectonics using GPS. This was anything goes, high adventure with the outcome being good GPS data - however you got it. Lots of logistics, in-country training, equipment maintenance and jiggery pokery to make the project happen. A great combination of outdoors and a professional skill.

What do you enjoy most about your discipline?

Finding practical solutions to difficult problems. These days I am an educator and get a kick out of finding an innovative way to explain a concept to a student.

What inspires you?

Stories of hardship made good. People who overcome difficulties and still manage to achieve what they set out to do and more. I'm also pretty excited about watching pimple-faced 17-year-olds grow and mature into young professionals and graduate from our school.

If you could leave your students with one legacy what would it be?

A sense of ownership of their profession. Rather than just graduating and doing what they're told, I'd like to think they have the skills to identify new opportunities and grow the profession based on the exposure they have had in their degree program - and hopefully come back for some postgrad study later on in their careers. ■

Academy of Science winners

Three UNSW academics have been elected as Fellows of the Australian Academy of Science (right). Professor David Cooper, the Director of the National Centre in HIV Epidemiology and Clinical Research; Ian Dawes, Professor of Genetics in the School of Biotechnology and Biomolecular Sciences; and Professor Richard Harvey, a UNSW employee on an Endowed Chair of Cardiovascular Research at the Victor Chang Cardiac Research Institute, were among the leading scientists honoured by the Academy.



For the record

Geosequestration cannot be fitted to existing coal power stations, only new ones.

Dr Ben McNeil, on why not one gram of today's carbon dioxide emissions from coal power will be stored underground - Sydney Morning Herald.

The RQF is not a good thing - it's an expensive way to measure something that could be measured relatively simply.

Professor Fred Hilmer on the government's Research Quality Framework which assesses the quality and impact of publicly funded research - Campus Review.

The use of PowerPoint is a disaster. It should be ditched.

Professor John Sweller, founder of Cognitive Load Theory, on how popular presentation methods ignore the architecture of the brain. - Sydney Morning Herald.

People now see HIV infection as something that happens to Africans or someone else.

Professor Susan Kippax, National Centre in HIV Social Research, on the need for another Grim Reaper-style safe sex campaign - Southern Courier.

Species that lack tolerance like some possums and koalas - the cute ones - would not survive.

Professor Andy Pitman, Climate Change Research Centre, on the ability of Australia's native species to survive the impacts of climate change - Sydney Morning Herald.

The age of innocence has passed, and rather than take a chance and be blind to possibilities, we should be prepared.

Professor Leon Trakman, Faculty of Law, on the need for universities to balance open access and security in planning for tragic events such as the Virginia Tech massacre in which 33 students were killed. - The Australian

User friendly

Tips from our academic experts

By **Professor John Evans**, Faculty of Business

In a climate of unpredictable interest rates, how does one decide whether to elect for a "fixed" or a "variable" mortgage?

"Variable" mortgages means that there is no set interest rate in absolute terms, but a rate that is related usually to some short-term cash rate, i.e. the lender can change the rate up or down, whereas a "fixed" mortgage usually has a fixed rate of interest for a certain period.

If you have an expectation that interest rates might rise in the next few years, then locking in a fixed interest rate makes sense; but if rates fall instead of going up, then you will be paying more than you otherwise would be.

Another reason for selecting a fixed-term mortgage would be if you could not withstand an increased repayment; by locking in the rate you are insulating yourself from unexpected rises.

However, if you want to repay the mortgage early, there can be penalties, as the lender may not be able to reinvest the money at the same rate and will want to be compensated for the loss. Variable mortgages can also involve early repayment penalties, but these usually only reflect fees that might have been paid upfront to the mortgage broker.

Another major disadvantage of fixed-term mortgages can be the difficulty of rolling over the mortgage when the fixed term expires; if your situation has changed you may have trouble getting a new loan.

Unless you think you can predict interest rates (and the success rate with the professional fund managers is not good) then go for a variable interest rate mortgage, and keep life simple.

* These tips do not purport to be financial advice for any specific situation.

All the right signals

UNSW researchers have developed the first Australian receiver that can pick up both the L1 and L2C GPS frequencies, as well as the signal from the first prototype Galileo satellite.

"We are the first people in Australia to design hardware and software that will pick up the Galileo signal," explains Associate Professor Andrew Dempster, Director of Research in the School of Surveying and Spatial Information Systems.



Strong Foundation

Q&A with **Jennifer Bott**, CEO, UNSW Foundation

Q: What attracted you to UNSW?

A: The opportunity to use my skills in a new environment. I had come from the Australia Council where I worked closely with David Gonski. Universities are one of the great frontiers in our society. They're changing rapidly and I look forward to being able to work again with David, for whom I have such respect, in tackling what are some very important issues for the University. David has agreed to Chair the Foundation (as well as serving as Chancellor) for at least two years.

Q: Do you agree that the university sector is untapped when it comes to philanthropy?

A: Both David and I feel that the Foundation can be an exciting resource - and a much larger resource than it has been. The focus of our fundraising would clearly be in the area of scholarships and research, but also for enhanced partnerships, supporting key UNSW programs. Governments can't do it all anymore and so it's a way of building partnerships with the corporate sector but also increasingly in philanthropy. Philanthropy is the fastest-growing source of income for the not-for-profit sector in all fields.

Q: What would you like to achieve, in broad terms, with the Foundation?

A: Apart from being a catalyst for partnerships and a way to fund great ideas, I'd like it to



Britta Campion

provide an important link to alumni. In Australia we're just starting to really see the potential of those hundreds of thousands of students whose lives have been changed, and whose careers have been formed by coming to UNSW.

The foundation will be the way UNSW generates significantly more funds - working in each faculty on key projects and alumni programs as well as their support for the

University's scholarships, research, key projects and programs and faculty strategic priorities. A lot of my job is actually making the most of the great things that are happening anyway and just haven't been pulled together in a way that works for the University.

Q: Your role in building philanthropic culture in Australia?

A: The kind of personal engagement in things you care about is one of the healthiest things happening in our society. In Australia the number of prescribed private foundations (PPFs) that have been established in recent years is just galloping. An enormous amount of new money is coming in to charitable giving and it's not replacing anything else - it is literally new money. It's enabling individuals and their families, through family trusts and other means, to get involved in projects they care about. In Australia we have enormously high expectations of government and in many ways that has been an inhibitor to giving personally. But that's rapidly changing because people recognise that companies, government and individuals need to partner each other to build a better society, be it in education or health, the arts or environmental sustainability.

As David Gonski says, if you look at the Bill and Melinda Gates Foundation and fast forward 100 years, people will know the name Gates for the Foundation, they won't even know what Microsoft was. ■

Double happiness

In what's believed to be a first, a married couple have graduated together with Doctorates of Medicine from UNSW.

Professor George Murrell and Associate Professor Dédé Murrell, both of whom are UNSW conjoint academics at St George Clinical School, were each awarded their MDs by published thesis in a ceremony last month.

Each published thesis represents about 15 years' worth of publications in journals.

George received his MD for work on nitric oxide and tendon healing, while Dédé was conferred with hers for studies on blistering diseases.

The couple's three children, Oliver, 12, Alexander, 10, and Isabella, 8, also attended the ceremony

The couple have some house rules which keep the family and their careers on track: they don't go out during the week, they alternate conferences to ensure one of them is always at home with the children, and they take time off during the school holidays to relax as a family. ■



Factoring in fun

Teacher, researcher and dad. Richard Buckland draws on all three roles to inform his lively teaching style.

By **Dan Gaffney**

Some doubt that his computer science students can learn anything when they are having so much fun in lectures.

But the man who authored a teaching guide called, *How I Learned to Stop Worrying and Love the Job*, also has a string of teaching honours to his credit, including an Australian College of Educators Quality Teaching Award and a Vice-Chancellor's Award for Teaching Excellence.

"Every adult learner has a little kid inside who wants to be fascinated and entertained," says Buckland, who got his introduction to teaching as a year-nine mathematics teacher.

"Children love learning new facts and skills. So, if we bring creativity and a sense of wonder to the way we engage learners - no matter what their age - I believe we can meet people's innate desire to learn about themselves and the world.

"The trick is to find out what fascinates people, and that means asking students questions and listening to their answers. If you can do that, the rest," he says, "is easy."

He should know. In addition to 10 years teaching at UNSW, Buckland - a senior lecturer in the School of Computer Science and Engineering - has successfully taught and mentored people of all ages and abilities. He has taught children with learning maths and language difficulties, gifted children, highly numerate actuarial students, and guest-lectured at Stanford, Oxford and Imperial College London.

His ability to reach even the youngest of students is helped by being a father of three young children. His self-created home page lists his hobbies as "being a dad, bush regeneration, geology, being a dad, theatresports, cinema, being a dad, and speaking in the third person".

Buckland's policy of engaging learners means that his first-year computer science students get entertaining challenges such as creating robotic hands from Lego that can manipulate and solve Rubic's cube problems. His students also get to indulge their childish side while learning to program railway networks using Thomas the Tank Engine toys.

These creative learning opportunities have



Eddie Safarik

"It doesn't matter which subject it is, as long as it's with Richard," says Peggy Kuo (second from right), learning computer programming through game playing with Joe Xie, Martha Winata and Richard Buckland (far right).

been extended to outreach learning workshops that the School of Computer Science and Engineering offers to schools and teachers. During April and May, the School ran a six-week program of robotics workshops pitched at teachers and school students from years 4 through to 12.

"The workshops were about kids having some serious fun with robots and exposing them to several programming languages," says Buckland, who has since handed over the running of the program.

The workshops featured three robot designs - DanceBot, RescueBot and SoccerBot - and the workshops' learning outcomes were tied to the NSW Department of Education's Software Technology syllabus. Using Lego Mindstorm NXT software, children learnt to program their robots by "dropping and dragging" computer icons that needed no knowledge of programming code.

As an IT expert and former Microsoft Research Fellow, Buckland is something of an oddity. He doesn't own a mobile phone and he spurns email. "I spend an hour at most responding to email each day. Unfortunately, spam has become a major impediment to email traffic but beyond that, people have become far too reliant on email as a communication tool," says Buckland, who is an expert in computer security, cyber-crime, cryptography and cyber-terror. ■

Artists fly the flag at Biennale

Three artists with strong COFA links have been selected to represent Australia at the Venice Biennale in July.

COFA graduates Rosemary Laing and Shaun Gladwell and PhD student Susan Norrie are three of six Australian artists appearing at the prestigious event.

Rosemary Laing and Shaun Gladwell have been chosen by Venice Biennale artistic director Robert Storr for his curated section of the prestigious international event. Laing will exhibit three works from her 2004 photographic series *To walk on a sea of salt*. Gladwell will exhibit a new video installation influenced by the Australian desert landscape.

Susan Norrie's PhD work - an immersive video installation - will form part of the Australian official representation within the Australian Pavilion and at external sites in Venice.

The news comes following the recent successes of other COFA artists.

John Beard, visiting professor at COFA, was awarded the 2007 Archibald Prize for his monochrome portrait of fellow artist Janet Laurence. ■



NewsPix

Prisoners of the system

The country's legal system does not work to protect Indigenous people's rights in the same way it does for other Australians.

By **Victoria Collins**

The over-representation of Indigenous people in gaol points to a major human rights issue in Australia, says NSG Professor of Criminology Chris Cuneen.

On a per capita basis, Indigenous people are 13 times more likely to be in prison in Australia than non-Indigenous people. In some states, like Western Australia, the figures on over-representation are even worse.

"These statistics are reflective of a much deeper problem," Professor Cuneen says. "Our legal system does not work to protect Indigenous people's rights in the same way it does for other Australians.

"Problems arise because of two main issues: the failure to ensure the human rights principle of equality before the law, and the failure to adequately recognise specific Indigenous rights.

"Major areas of inequality include services for victims of crime, particularly of family violence and sexual abuse, non-custodial sentencing options, offender programs, and programs and counselling for substance abuse.

"Fairness for Indigenous people in the criminal justice system arises as an issue continually. For example, the failure to provide interpreters for all Indigenous people

means that there are very real questions as to whether Indigenous people understand the legal proceedings against them, or the sentences that are imposed.

"Finally there is the question of recognition of Indigenous rights, particularly rights to maintain and develop culture, and to self-determination. For much of the colonial

“One of the reasons that Aboriginal women don't go to the police is because they are scared that their children will be taken away, as they have been in the past.”

period, government policy was aimed at destroying Indigenous culture. Today the massive criminalisation of Indigenous people continues to disrupt family and community life, and to limit what educational and economic opportunities might exist."

Professor Cuneen is currently working with the Department of Communities in Queensland to find better ways of supporting

Aboriginal women who are victims of domestic violence.

He says women aren't using the protection systems to the level that one would expect, given the number of people affected. The problem is caused by a combination of historical and contemporary policy issues and problems with how the system works within remote communities.

"One of the reasons that Aboriginal women don't go to the police is because they are scared that their children will be taken away, as they have been in the past," says Professor Cunneen. "If a woman who has children goes to the police about domestic violence, the police are obligated to notify the child protection authorities."

Support systems, legal and otherwise, for victims of domestic violence also have been developed around models that are more likely to work effectively in urban centres.

In isolated Aboriginal communities everyone knows the location of the women's shelter. Women can't go there for help without the whole community knowing. It can also be difficult to enforce separation orders between ex-partners in small isolated communities often comprising fewer than 1000 people.

These problems, Professor Cunneen believes, require a rethinking of the system.

"We are looking at possible law reform, as well as non-legal alternatives such as a bigger role for community justice groups," he says.

Professor Cunneen was also a member of the recent NSW Aboriginal Child Sexual Assault Task Force, and has worked on the NSW Department of Juvenile Justice's plan to reduce contact of Aboriginal children with the juvenile justice system.

"Many of the young Indigenous people in custody have also been victims of child abuse. The distinction between offenders and victims is not always as clear-cut as governments would like to make out. Unfortunately the more punitive approaches currently taken by the government in areas such as bail and sentencing has had a negative effect for Aboriginal kids.

"The problems of over-criminalisation of Indigenous people in Australia certainly haven't improved in recent years, in fact they've got worse," he says. ■

When laws fail us

Why we need a national charter of rights. By **George Williams**

Over the past few years Australia has locked up children in conditions that have caused many of them to become mentally ill. It seems unthinkable that this could have occurred, yet it has. The problem was the law, which said that the detention of people seeking asylum in Australia was mandatory. That law was applied without exception, even to unaccompanied children who were already suffering trauma.



Lonely Planet

One of these children was five-year-old Shayan, who arrived in Australia in March 2000. Along with other members of his family he was taken to the Woomera detention centre, a facility ringed by desert in South Australia. While in detention, Shayan witnessed hunger strikes and riots, saw authorities responding with tear gas and water cannons, and watched as adult detainees harmed themselves. By December that year, the detention centre's medical records reveal that Shayan was experiencing nightmares, sleep disturbance, bed wetting and anxiety. He would wake in the night, gripping his chest and saying, "They are going to kill us." He also drew pictures of fences containing himself and his family.

Three times during that year the detention centre managers strongly recommended to the government that Shayan be moved from Woomera. Despite further recommendations and psychological assessments reporting high levels of anxiety and distress, it was several months before he and his family were moved to Villawood detention centre in Sydney.

At this time, Shayan was diagnosed with post-traumatic stress disorder. During the next few months he was admitted to hospital eight times for acute trauma and, because he refused to drink, dehydration. He also became more withdrawn. Medical staff consistently recommended that he should be removed from detention and drew a direct link between Shayan's trauma and his experiences in detention. It wasn't until August 2001 that the government transferred him into foster care. He was separated from his parents and sister until they were released in January 2002.

Shayan was one child among many. The statistics make for grim reading. According to the Human Rights and Equal Opportunity Commission, the number of children in

immigration detention peaked at 1923 in 2000-01. Some of these children had arrived in Australia unaccompanied by family members or friends. Between 1 January 1999 and 20 June 2002, for example, 285 unaccompanied children arrived in Australia seeking asylum; all of them were detained. By the end of 2003, a child placed in detention was kept there for an average of one year, eight months and 11 days. Some children were detained for more than three years. Most of the detained children were found to be refugees and so were eventually released into the community: over the four-year period from July 1999 during which most of them arrived, 92 per cent of the 2184 detained children were found to be refugees.

The detention of children like Shayan occurred under an Australian law introduced in 1992 by the Keating government and continued after John Howard became prime minister. In other nations, it would have been counter-balanced by another law, called by names such as a bill of rights, charter of rights or human rights act, setting out and protecting people's fundamental human rights. In Shayan's case, this might have included the rights of children and more general rights such as freedom from arbitrary detention. By contrast, the Australian immigration law was unchecked. In fact, when it was challenged in the courts it was held to be legally unobjectionable. Shayan's case is just one more example of what can happen when there is inadequate legal protection for basic human rights. ■

George Williams is the Anthony Mason Professor and Director of the Gilbert + Tobin Centre of Public Law at the Faculty of Law, University of New South Wales. This is an extract from his latest book, *A Charter of Rights for Australia*, published by UNSW Press.

Words of honour

The importance and fragility of human rights requires a new form of expression, says a leading UNSW lawyer. By **Mary O'Malley**

Andrea Durbach wants to rearticulate the language of human rights. She believes the importance of rights has been largely lost in a society assured of its own prosperity.

"I'd like to see a language that resonates with people across society, reminding them of the critical importance of rights for the effective functioning of life within a democracy," says the associate professor, who is director of UNSW's Australian Human Rights Centre (AHRC).

"I think when society is immersed in periods of conservatism, economic pressures and self-interest – as Australia has been for over a decade – these forces combine to erode or diminish rights in the name of national security or economic interests," she says.

"Often this is achieved fairly insidiously when leaders co-opt the traditional language of rights or more deliberately, when governments pit rights against one another, arguing, for example, that the protection of jobs and the right to work has primacy over the right to protect the environment. Or that the right to be free from cruel and inhuman punishment has no application when the threat of terrorism – often only perceived – exhorts the denigration of rights."

Professor Durbach believes a cavalier approach to rights comes from a society's belief in its increasing and sustained prosperity and power. "With complacency comes a forgetfulness, a failure to remember the importance and fragility of institutions which protect and enhance rights – of the rule of law, of rights legislation, of the independence of the judiciary, of government accountability."

It was this trend that prompted Professor Durbach to invite author David Malouf to present the inaugural Annual AHRC Public lecture on "Challenging Indifference." She believes one of the greatest barriers to the protection of rights and to change is indifference.

As the AHRC celebrates its 21st anniversary this year, it has been developing strategic interdisciplinary projects focusing on economic, social and cultural rights. "This creates a broad, more integrated approach to human rights, highlighting their interdependence," says Professor Durbach. "It allows the Centre to engage in research and teaching initiatives across disciplines, such as health and human rights, trade and corporate accountability and environmental justice."

AHRC researchers are working closely with other UNSW scholars on such areas as human rights and public health (also with the UNSW Initiative for Health and Human Rights) and climate change. To celebrate its anniversary, the AHRC hosted a major symposium on the impact of climate change

on human rights. The symposium brought together a climate change scientist, an epidemiologist and a refugee lawyer whose research demonstrated climate change and environmental degradation present critical challenges to the protection of human rights and national security. ■



Eddie Safarik

Brave heart

When asked how much her South African upbringing informed her commitment to human rights, Andrea Durbach gasps. "In just about every way," she answers quietly.

Andrea had been practising law for only four years when she found herself embroiled in one of South Africa's most notorious human rights cases: The Upington 25.

On November 13, 1988, 25 black men and women were found guilty of the murder of a black policeman on the outskirts of the all-white town of Upington. Fourteen of them were sentenced to death.

Andrea was brought into the case after the convictions to try and save the 14 from the mandatory imposition of the death penalty. The trial ultimately claimed the life of her friend, colleague and barrister to the 25, Anton Lubowski, who was assassinated.

Such was the trauma, the dreadful impact of that trial on Andrea's life, that she emigrated to Australia and wrote a cathartic book about those times.

Called simply *Upington* (available from Amazon.com), it is a passionate and profound account of an extraordinary legal battle in the last days of apartheid – and Andrea's private agonies.

In May 1991, after commuting between Sydney and South Africa to fight the case, Andrea finally stood with journalists, news crews and human rights activists in front of Pretoria's prison to watch the release of the 14 from Death Row.

It was a bitter-sweet victory. As Geoffrey Robertson QC wrote of the book, "Andrea Durbach is one of a small band of truly brave lawyers who saved black lives at the peril of messing up their own."

Andrea had once vowed she would never leave South Africa. "It has shaped me, it's who I am," she said. Fate had other plans but Andrea believes Australia has given her an important opportunity to apply and adapt the lessons from South Africa. ■

– Mary O'Malley

Double discrimination

Inequalities persist in people's enjoyment of their right to health.

By **Susi Hamilton**

The Cambodian government is rightly proud of the inroads it has made in tackling HIV/AIDS but there are still glaring inequities.

"Discrimination is supposed to have plummeted, but there are still people living with HIV and AIDS who don't get treatment at all," says Daniel Tarantola, the NewSouth Global Professor of Health and Human Rights.

Cambodia has been able to offer antiretroviral treatment to more than 80 percent of the estimated 25,000 adults and children requiring such treatment in the country.

But HIV leaders are not complacent about this remarkable achievement. Just last month they consensually agreed to a list of HIV-related research priorities to address discrimination in the healthcare setting and within communities.

"If you are a wealthy businessman in these countries, you have access to treatment, but if you are seen as a drug user or sex worker and live with HIV, the story is quite different," says the Frenchman, who has seen the crisis emerge first-hand, as a senior staff member of the World Health Organization Global Programme on AIDS in the 1980s. "Your access to treatment is minimal, so there is a double discrimination."

This presents not only a horrendous personal burden but a threat to the wider community through the possibility of further infection.

The Cambodian example is just one of many areas in which UNSW sees an opportunity for health and human rights research to further improve public health and human development.

Leading health workers and policy makers from Asia and Australia will converge on UNSW in July for a short course, which is believed to be the first of its type in the world. People are coming from such countries as Cambodia, Vietnam, Laos and China. The course is also open to UNSW postgraduate students.

"Participants in the course will have had very little exposure to all three concepts of health, development and human rights. All of these interact with each other. They might be aware of one or two of the areas, but not all three."

While HIV/AIDS and Hepatitis C remain strong research areas at UNSW, there are also projects in East Timor focusing on the country's resilience during instability, and a project in the Solomon Islands focusing on mental health during conflict. ■



Helping home from afar

Dr Nelson Martins

Susi Hamilton

Like so many East Timorese living abroad, Dr Nelson Martins returned to his homeland to help fight for independence there. Ironically, it is the strength of his ties with home which have now taken him further away for another two years.

The 36-year-old is the inaugural Dean's International Post-Doctoral Fellow in the Faculty of Medicine. He ultimately hopes to improve the health of East Timorese, by developing health-related research activities in Timor Leste.

An AusAID-funded project starting by mid-year will allow Dr Nelson - as he prefers to be known - and his colleagues to train emerging research leaders in Timor-Leste and to facilitate the establishment of a national health research centre or institute in the country. The project is a partnership between UNSW, led by Professor Anthony Zwi, and Dili's Ministry of Health.

"I'd like to commit my time and energy to research to guide health policy development in my country, and to establish linkages with other Asian and Pacific countries, especially those where health and development is poor," he says.

While Dr Nelson is thinking of the big picture he has also helped at a grassroots level.

Providing medical care in his bedroom while in hiding in Dili, or in the mountains, was part of his role as the medical coordinator for the Falintil freedom fighters, in the lead-up to the referendum in 1999. It was dangerous work, which at times forced him to flee overseas for his own safety.

The fresh-faced doctor was also the founding director of East Timor's National Tuberculosis Control Program (NTP).

Since he started the program seven years ago, TB treatment success rates have increased dramatically - from only 50 percent to 82 percent now (World Health Organisation target is 85 percent). The recent political crisis has adversely affected the performance of the program but Dr Nelson hopes to boost that through his postdoctoral fellowship program.

Dr Nelson has earned a Masters of Health Management and PhD and sees the current postdoctoral position as a way to further strengthen the existing TB control program and other health systems.

"I'm interested in health system development and the important role that health plays in peace-building," he says. ■

- Susi Hamilton



Eddie Safarik

Signed but not delivered

Though a signatory to many international human rights treaties, Australia is not honouring its commitments. By **Victoria Collins**

Refugees and how to respond to them is an increasingly pressing human rights issue for Australia, and one in which we are lagging behind the rest of the world.

As the changing climate impacts on low-lying Pacific Islands and with an increasing number of people arriving by official and unofficial channels, the political and moral challenges of dealing with displaced people are significant.

According to Dr Jane McAdam, from the Faculty of Law, two important issues facing Australia's refugee policy are complementary protection and "climate change refugees".

"The legal definition of a 'refugee' was established by the United Nations in the 1951 Refugee Convention," says Dr McAdam. "It is a very specific definition which requires refugees to demonstrate a well-founded fear of persecution on account of their race, religion, nationality, political opinion, or membership of a particular social group.

"However, since the 1950s, countries have adopted numerous human rights treaties which have expanded their obligations not to send people back to serious forms of harm. These additional treaties, such as the Convention against Torture, are complementary to the Refugee Convention, giving rise to the notion of 'complementary protection'," she says.

She says every Western country, except Australia, has implemented these complementary human rights obligations into domestic law, so that people at risk of torture or

inhuman or degrading treatment or punishment must not be deported.

"In Australia, unless you can meet the very technical refugee definition, you cannot obtain a protection visa. This is despite the fact that Australia has signed up to human rights treaties guaranteeing that it will not send people back to other forms of serious harm. It also means that we aren't carrying our fair share of the refugee burden under international law."

Dr McAdam believes Australia's policy demonstrates the government's confusion about complementary protection.

"The Immigration Minister's discretion to grant people a visa on humanitarian grounds is not the same thing as a codified system of complementary protection," she says. "The very nature of a discretionary power means that it does not have to be exercised, and even when it is, there is no appeal mechanism. By contrast, Australia's international treaty obligations require it to ensure that no person is ever sent back to any place where he or she is at risk of torture or inhuman or degrading treatment or punishment. Under international law we have already agreed to these obligations; we just aren't enforcing them under national law."

Dr McAdam has two related books on the topic – *Complementary Protection in International Refugee Law* and *The Refugee in International Law*. Her research has steered her towards looking at other displaced people who are caught in a protection "gap".

On Christmas Eve 2006, the world's first inhabited island disappeared underwater as a result of global warming. The residents of Lohachara Island in the Bay of Bengal had already fled to nearby Sagar, an island that has itself already lost 7500 acres of land to the sea and risks the displacement of 30,000 people by 2020.

Dr McAdam is starting work on a major research project which will investigate whether people fleeing habitat destruction should be considered using traditional refugee law approaches to displacement, or as a new challenge requiring new solutions. ■

Protecting the voiceless

The legal rights of animals and how they can best be protected were discussed at the first annual *Voiceless Animal Law Lecture*, hosted by UNSW in early May.

The public lecture was presented by Professor Steven M Wise, a legal expert described by *USA Today* as "America's best-known animal lawyer". Accompanying panellists were Emeritus Professor David Weisbrot, President of the Australian Law Reform Commission (ALRC), Geoffrey Bloom, a lecturer in animal law at UNSW and Southern Cross University, and Katrina Sharman, corporate counsel for Voiceless (www.voiceless.org.au).

Struck off the roll

Changes to the Electoral Act are serving to disenfranchise Australians at a time when other countries are moving in the opposite direction. By **Victoria Collins**

In June 2006, Australia passed legislation disenfranchising all prisoners serving full-time sentences from voting in federal elections. This was the result of a succession of changes dating from 1983 which alternately extended and restricted the prisoner franchise.

Professor David Brown from the Faculty of Law says this latest change raises a number of troubling questions about prisoners' rights, including why disenfranchisement is happening in Australia when developments in similar nations are moving in the opposite direction.

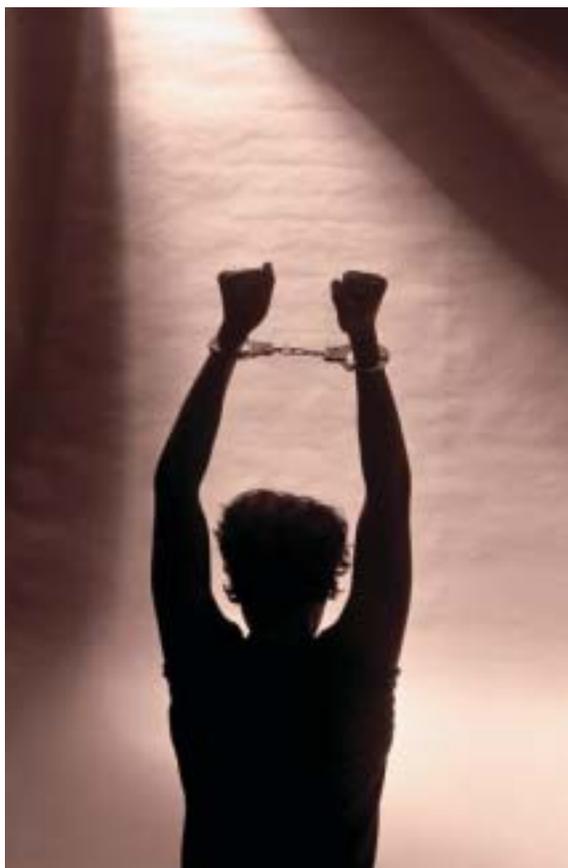
Professor Brown says the Howard Government's 2006 changes to the Electoral Act were contrary to the International Covenant on Civil and Political Rights (ICCPR), which Australia ratified in 1981.

"Although our government regularly invokes international treaties in the area of trade negotiation and regional agreements they have shown open hostility to human rights and international standards promoted through treaties, and this hostility has increased under the Howard Government," he says.

"Also notable for its absence from government contributions to the debate on the changes to the Act was any reference to the importance of the franchise as a manifestation of citizenship, a basic human right, and a mechanism of participation in a democratic polity."

Another issue ignored in the government's contributions to the debate was the goal of prisoner rehabilitation. The UN's Standard Minimum Rules for the Treatment of Prisoners state that "The treatment of prisoners should emphasise not their exclusion from the community but their continuing part in it."

Professor Brown acknowledges that access to the franchise is perhaps not among prisoners' most pressing concerns. Most prisoner complaints concerned access to health services, contact with family and friends, and disciplinary and segregation practices. However, he does note that the symbolic importance of the issue is neither lost on prisoners nor insignificant.



“The treatment of prisoners should emphasise not their exclusion from the community but their continuing part in it.”

"The Howard Government's total disenfranchisement of Australian prisoners in federal elections is a regressive and backward step," he says.

"Inasmuch as it made any specific argument at all, the government contended that it was simply self-evident that prisoners should forfeit the vote while they are in prison serving sentences, as a form of punishment. Counter-arguments based on the international treaties; on decisions by courts in Canada, Europe and South Africa; or on our understanding that suffrage is a fundamental human right, all were missing or ignored." ■

Vote of no confidence

Changes made to the Electoral Act will make it more difficult for Indigenous Australians to cast their vote at this year's Federal election, according to the Faculty of Law's Sean Brennan.

The changes mean new voters must enrol before the rolls close. For some this is the same day the election is called. For others it is three days later. On top of this, they must provide proof of identity. Previously a form witnessed by another eligible voter was enough.

This will disadvantage Indigenous voters, particularly those in remote communities where there are limited postal services.

"I think that kind of requirement doesn't look so imposing for people in the city, but if you live in a remote area you may not have a driver's licence, your first language may not be English and your literacy levels may be low," Mr Brennan says.

"Every one of these additional bits of paperwork that are put between you and that fundamental democratic right are a barrier to your participation in the political system. I think we should be taking measures to encourage people to participate in the electoral system, not finding ways to exclude them."

The government made these changes in response to cases of electoral fraud and to maintain the integrity of the roll but Sean Brennan believes the changes were not necessary.

"There's really no case made for the early closure of the rolls. The Electoral Commission - our independent expert body on elections - has consistently said, 'Don't do this. This is a backward step.'"

"It's a bad sign, to see our system starting to turn back again in the direction of excluding people from the franchise, rather than looking at alternatives that will promote people's participation while ensuring the integrity of the roll."

- Jane Hunter



Pilot-free flight

Australian scientists are applying insect navigation systems to guide unmanned mini-helicopters for defence. By **Dan Gaffney**

The Hollywood movie *Black Hawk Down*, which depicts real historical events, revealed the cost of putting military personnel and helicopters in harm's way. By the film's end, 18 US special operations soldiers are dead because several choppers were shot down in a hostile part of the Somali capital, Mogadishu.

Manned military helicopters will always be targeted in warfare because commanders need to deploy troops and attack military targets.

However, the prospect of using self-guided unmanned aerial vehicles (UAVs) for surveillance in counter-terrorism purposes has military planners talking. For example, the Australian Defence Force's Director General of aerospace development, Air Commodore John Oddie, recently said the ADF should accelerate its plans to trial and adopt promising unmanned systems.

Not far from the ADF's Canberra headquarters, UNSW scientists at the Australian Defence Force Academy are teaching a small 80 kg unmanned mini-helicopter to launch itself, hover and land in wind gusts of up to 80 m/h. They hope to develop the technology to a point where the mini chopper can do reconnaissance missions from land or sea.

"The Americans have got quite large remote-control helicopters to land on ships, but they have been on aircraft carriers or ships that

have been in a harbour where it is completely calm," says UNSW aeronautical engineer Matthew Garratt, one of the key researchers behind the project. "No-one has really done a lot with landing things on small ships in rough weather and that is what we are working on."

"One of the most difficult requirements of sea operations is the need to restrain a helicopter so that from the moment of touchdown and just prior to launch, the helicopter is prevented from toppling and sliding due to ship motion. For this purpose, we have designed and flight-tested a series of four spring-loaded probes to engage with a deck grid to positively lock the helicopter to the deck upon touchdown and immediately prior to launch," says Mr Garratt, who is a former Navy engineer. "This system requires no moving parts on the ship and has been shown to positively secure the helicopter up to a roll angle of 39 degrees."

Garratt's team is using a "hotted-up" version of a stock standard Yamaha L-15 R-MAX mini-helicopter in the experiments. They have added computers, GPS, gyroscopes, magnetometers, accelerometers, cameras and laser systems that enable it to "observe" its surroundings and navigate independently.

This ability exploits "optic flow", a navigation system used by insects that allows them to fly

in novel surroundings without crashing into hazards. "Optic flow refers to the apparent motion that objects have as we move about in the world," says Garratt. "Objects that are close to us appear to move by rapidly, whereas those that are further away move more slowly. By combining optic flow and acceleration data, the mini-helicopter can determine its distance from the ground and make adjustments accordingly."

Garratt says the helicopter could be an inexpensive asset on board a small ship or boat on a surveillance exercise, operating at about \$50 an hour compared with a large helicopter at \$25,000 an hour.

An autonomous mini-helicopter that carries radar, infrared sensors and cameras could be used for short-range surveillance – to reconnoitre a bay which is concealed from the ship by a headland or to fly past or hover at a window in a terrorist situation or siege.

"You can send this thing off with a camera to do exploration of an inlet if you are looking for smugglers and it allows you to listen to radio signals that would not otherwise be picked up," says Garratt.

"The mini-helicopter would be useful for counter-terrorism situations, especially, in an urban environment where it could fly through a street or hover near a window and take a photo." ■

Tracing the family supertree

Mammals have been around longer than we thought. By **Dan Gaffney**

It's a natural history tale that every third grader knows: the dinosaurs ruled the Earth for hundreds of millions of years. Then, 65 million years ago an asteroid struck Earth and triggered a mass extinction that allowed the ancestors of today's mammals to thrive.

The asteroid part of the story may still be true, but a recent study published in *Nature* says it took 10 to 15 million years after the dinosaurs were wiped out before modern mammals - including our ancient human ancestors - were able to diversify and rise to their present-day prominence across the globe.

An international research team including Robin Beck, a PhD student in the UNSW School of Biological, Earth and Environmental Science, reached that conclusion after analysing the evolutionary links of some 4500 mammals, creating for the first time a "supertree" of family relationships between almost all species of mammal alive today.

Armed with the information about those relationships, the researchers used DNA data and the fossil record to estimate diversification rates and work backward to establish when specific groups of mammals first appeared on Earth.

"The research tells us that most mammal orders appeared between 85 and 100 million years ago, surviving in their original form for 10 to 15 million years after the demise of the dinosaurs," says Robin Beck. "Then they diversified into groups such as primates, rodents, carnivores and hoofed animals."

These two separate spikes in mammalian evolution indicate that the rise of present-day mammals was delayed for a long time.

"The previous evidence showed that we did see a die-off of the dinosaurs and an increase in the rise of the mammals roughly 65 million years ago," says John Gittleman, a study co-author from the University of Georgia Institute of Ecology.

“The research tells us that most mammal orders appeared between 85 and 100 million years ago.”

"But the fossil record, by its very nature, is patchy. We found that when you fuse all of the molecular trees with the fossil evidence, the timing does not work. The preponderance of mammals really didn't take off until 10 to 15 million years after the demise of the dinosaurs."

"For many years, molecular biologists and palaeontologists shared different views about the rise of present-day mammals," says research team member, Ross MacPhee, a curator in the Division of Vertebrate Zoology at the American Museum of Natural History.

"Extensive molecular data indicate that our common mammalian roots have to go back 90 to 100 million years, if not more, but many

palaeontologists have been dubious of this claim given the lack of ancestral-looking fossils until about 50 to 55 million years ago. This new work helps reconcile those differences. Now we know the ancestors of living mammal groups were there, but in very low numbers."

Molecular evolutionary supertrees are a kind of summary of evolutionary history for a large group of organisms constructed from many, smaller studies for separate groups based on genetic or physical analysis or both.

They are constructed by comparing the DNA of species. Because genetic changes occur at a relatively constant rate, like the ticking of a clock, scientists can estimate the time the species diverged from their common ancestor by counting the number of mutations. Using radiocarbon dating, scientists can also estimate divergence times from the fossil record.

"The supertree itself is really just the first stage", says Mr Beck. "The information it provides allows us to look at the overall pattern of mammalian evolution in far greater detail than before. It has applications in ecology, conservation, physiology, palaeontology, amongst other fields, and it will also shed new light on the evolution of our own species - it's a big step forward."

The aim is to better understand what might happen to mammals in the future, and which ones are particularly vulnerable to climate change or other threats to survival, such as low fertility. ■



The classroom whisperer

How philosophy is transforming schools and teaching children to deal with life. By **Susi Hamilton**.

A classroom of 12-year-old students are without their teacher. He dashes in, preoccupied.

"Kids could you please rearrange the furniture and if I don't get back, just start," he says.

Such is the enthusiasm for philosophy at Buranda Primary School, in Brisbane, that the class began without a hitch, according to Associate Professor Philip Cam, who happened to be sitting in on the lesson.

Professor Cam, from UNSW's School of Philosophy, came up with this part of the school's curriculum over ten years ago. It is a dedicated part of the students' learning - just like English or maths - during which they discuss scenarios, which typically involve a problem or a dilemma. Typical questions include "What is it for someone to be a friend?" or "What is a work of art?"

As the students have engaged with ideas, it has fundamentally changed them - and their school.

"It was a small, inner-city school, going out backwards that had been earmarked for closure by the state government," he says. "The new principal was looking for ideas and approached me."

Since the curriculum for the upper primary students changed to incorporate philosophy, the school has become so popular, it is full to capacity.

There's good reason. Not only are there marked improvements in children's academic achievements, but school bullying is a thing of the past.

"If you look at objective measures such as state-wide testing, you get improved results across the board - and they are quite a long way above the average."

"Because this work has a social focus, kids grow up rather differently - there's no bullying, abuse or violence," says Professor Cam. "They are a lot nicer to one another and they learn to deal with problems on the basis of being reasonable."

The program is currently being introduced to a primary school in Sydney's inner west.



Corbis

Stanmore Primary School has received Federal Government funding to help kids think more critically and communicate more effectively.

"You don't have to look very far to see that the world we are living in is rapidly changing. You can't just teach information for students to record and memorise," said Professor Cam. "Information is cheap. What students need is to know how to interpret the information, how to tell if it's reliable and how to apply it to problem-solving. Philosophy is all about dealing with issues and problems for which there is not a single answer, so it prepares the students well for the real world."

A former career as a teacher, current position as a philosopher and the ongoing role of being a parent have all led Professor Cam down this path. He has written six books on the subject - mostly aimed at teachers - and has most recently become interested in the very youngest of primary students.

"I want to see philosophy as having a more formative influence," he said. "You can't have

that by putting it into the last year or two of high school. You wouldn't think of putting literature in for the final two years of high school, so why would you think that about the riches of philosophy?"

Many people think about the greats such as Plato, Socrates, Aristotle and Descartes when philosophy is mentioned, but Professor Cam sees their influence in a different way.

"There is a world of difference between doing philosophy and learning about it," he says. "In European secondary schools or in undergraduate philosophy, students learn about philosophers' main ideas and leading works. What I do is quite the reverse."

"I encourage students to engage with the ideas philosophically. I'm trying to encourage kids to think for themselves, to be excited about ideas, to be inquiring and thoughtful," he said. "Thinking deals with the problematic, not just in the classroom but in everyday life. So learning to think well is not merely of academic interest, it's education for life." ■



What's that again?

Modern teaching methods could be doomed to fail because they ignore the brain's architecture. By **Susi Hamilton**

We're being taught the wrong way, from primary school through to university level, according to a UNSW expert in education.

John Sweller, from the School of Education, is the founding father of Cognitive Load Theory, the subject of a recent international conference at UNSW. It is based on the notion that one can either solve a problem or learn a solution but

not both simultaneously.

"Much teaching doesn't take into account the way we think and learn, and so it fails," says Professor Sweller, who, with his research students, began developing the theory at UNSW in the 1980s.

The theory relates to "working memory", which refers to part of the brain that provides temporary storage and manipulation of information necessary for complex cognitive tasks such as comprehension, learning and reasoning.

The key, according to Professor Sweller, is to get information out of our severely limited working memory and into our effectively limitless long-term memory as quickly as possible without overloading our working memory.

"Everything we are aware of goes through working memory, which has a limited capacity of only three to four items of information that can be held for only three to four seconds without rehearsal," he says. "Almost all information goes after 20 seconds, unless there is rehearsal."

Professor Sweller first tested his theory on university students solving numerical problems. The problems were of the type: "Convert 31 into 3 by multiplying by 3 and subtracting 69 as many times and in whatever order you need."

If only problems could be solved by alternating multiplying and subtracting. The intention was to study problem-solvers learning this rule. But they didn't learn it, even though they had solved many such problems in the past.

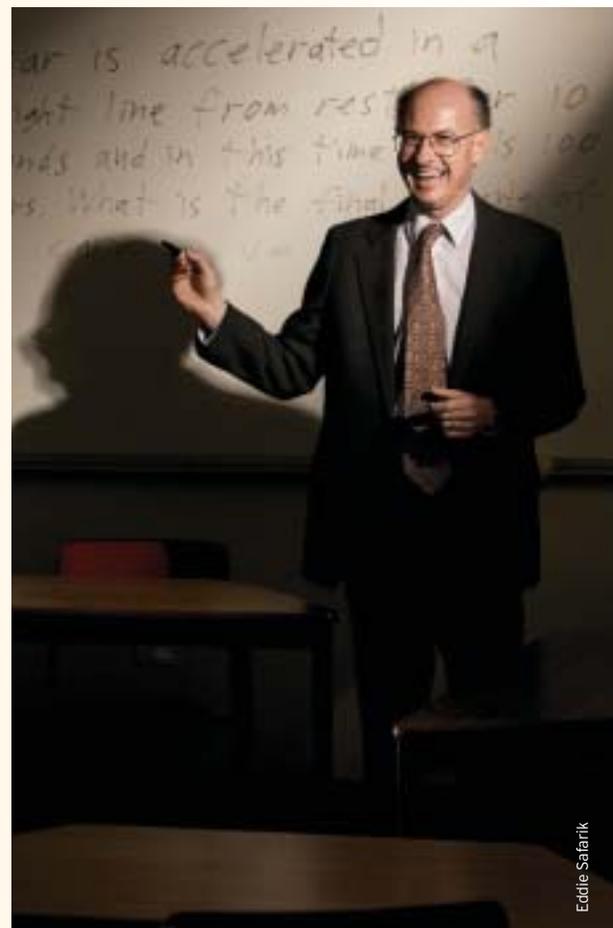
"At first, I didn't believe it," he says. "Then I thought that the people involved in the trial were not so bright. Then I realised that everyone's brain works in that way.

"If you told people the solution rather than have them solve the problem, they could learn it instantly and solve all the problems of that sort, even extremely long and difficult ones," he says.

The theory goes against the trend of widely used problem-based learning, which according to Professor Sweller is lacking evidence of its effectiveness.

"Problem-solving places a great demand on working memory, so teachers are better off giving students solved problems to study and store in long-term memory for future use," he says. "Once stored in long-term memory, whenever students see a similar problem, in an exam, in the workplace or during everyday living, they can bring the solution from long-term to working memory and easily solve the problem. It's what experts in a field do.

"The hitch with problem-based learning is that it goes against the architecture of the brain. The cognitive processes involved in learning and solving problems are different, so we need to cater to the way the brain works."



Eddie Safarik

Professor Sweller says that in addition, teachers often give us the wrong type of information, which places too great a demand on working memory. He says the same information can be reorganised to make it much easier to understand.

"A classic example of something which overloads the brain is the way some people present PowerPoint presentations," he says. "They can backfire if the information on the screen is the same as that which is spoken, because the audience's attention will be split between the two. You are using two different processes."

In Australia, Cognitive Load Theory is taught to those studying teaching at UNSW but other institutions have been slow to take it on. "My primary goal has been to influence the research community and for it then to be taken up by the wider community," says Professor Sweller.

It is used in Europe and the US, even in the corporate sector. Professor Sweller said he had heard about a French company whose pressure cookers were being returned with complaints they did not work. "The company hired someone to re-write the instructions, using Cognitive Load Theory, and the cookers stopped coming back! It was a resounding success!" ■



Splendour and decay

The faded mansions of Indian's indigenous elite are the subject of a thesis and new book.

Tucked down the dark and shadowy lanes of Old Calcutta are splendid ruins. Rare exemplars of Indian architectural history, they are European in their grand use of

colonnades and parapets yet distinctly Indian with their friezes and plaques of painted Hindu gods.

These are the former palaces of the city's noble households. Heavily influenced by the classic buildings the British were constructing, indigenous elites began to build their own enormous palaces, combining Indian, Moghul and British features and resulting in an exuberant architectural style.

These buildings might have remained largely forgotten in the whirl of the modern-day city had it not been for a UNSW Masters student and her passion for Indian architecture.

Joanne Taylor, from the Faculty of the Built Environment, had a long-time interest in India through travel and an undergraduate degree in Indian history. In her many visits, researching and photographing monuments such as the Taj Mahal, she found several examples of British

architecture and lifestyle but little on their indigenous equivalent.

"I came across the existence of these houses by chance," Joanne explains. "I had first visited India in my early twenties, but like most Westerners I travelled to the northern states, and had no interest in Kolkata, or Calcutta as it was then called."

Then one day, she was invited to the ancestral home of an Indian friend who knew of her passion for heritage architecture. Nearby was the Marble Palace, one of many old Indian-built mansions she eventually discovered down lanes and by-lanes.

"It looked like a film set, all dusty with faded mirrors, statues and paintings everywhere," recalls Joanne. "I was entranced, and the image of majestic decay stayed with me when I came home to Australia."



Intrigued by their strange architectural styles and varying stages of decline, Joanne undertook a series of month-long research trips to Kolkata, focussing on the old historic precinct where the majority of the city's *rajbaris* are located.

The result is an architectural thesis and a book written and photographed by Joanne, called *The Forgotten Palaces of Calcutta* (Niyogi Books).

Many families still live in their ancestral homes, some of which are 250 years old. Their enormous size and opulent style make a dramatic contrast with the slums and small dwellings of the old city. Some have been taken over by squatters, others have huge numbers of the extended family in residence and others have been divided into apartments or rented out to businesses. "These houses are impossibly expensive to maintain," Joanne

says. "Sometimes owners sadly walk away and leave their home as it is cheaper than keeping it."

Most mansions were difficult to find and often an address was just the beginning. "Even locals had no idea or were oblivious to the enormous mansion or palace at the end of a nearby lane," says Joanne. "The sudden discovery of a line of massive columns looming up from the urban chaos was exciting and rewarding."

Along with the rewards there were many disappointments, time-consuming footwork and "a lot of wild goose chases". But Joanne gradually began to build up a network of supporters, among them scholars of history or architecture who were infected by her enthusiasm.

"It is tragic to see these houses falling into

L-R: Ornate window in north Calcutta; the Marble Palace (top) Barsu palace, Basubari Palace, Jorosanko Palace (top) and two generations of the Laha palace, with the newer building on the left.

disrepair, as each one is unique. Through their architecture they tell of a fascinating time in India's history when the British needed Indian contacts to trade with, to act as their bankers and interpreters. British patronisation created a new wealthy, powerful merchant class".

The British have begun working with heritage authorities in Kolkata to restore the colonial British-built buildings. It seems unlikely that their indigenous equivalents will be given the same funding, which makes Joanne's work all the more important. ■

How does one carry on with the rituals of life during wartime? Two new books by UNSW academics explore the lives of civilians caught in the chaos of carnage.

Rituals amid the rubble

By Dan Gaffney

If we portrayed the history of war as a dramatic production then we would expect to see clashing armies, bloodied soldiers, imperious generals and flint-eyed heads of state.

This way of telling the history of war down through the ages is understandable. After all, the deeds of military heroes and villains are the subject of great storytelling, and success and defeat on the battlefield have governed history-changing events.

By comparison, war historians have shown little interest in the common lives of citizens during wartime unless they have been systematically targeted for acts of aggression by governments or armed forces.

Of course, war histories frequently cite the miseries that war imposes on society, such as widespread disease and starvation but in the end, these tend to be seen as the corollaries of war, not the stuff of history itself.

Stewart Lone holds a counterview. An associate professor of North-East Asian social history at UNSW's Australian Defence Force Academy, he values ordinary people's lives in wartime precisely because they often are a positive and constructive contrast to the extraordinary chaos and carnage associated with war.

"I really marvel at people's capacity to continue with the ordinary preoccupations and rituals of life during wartime," says Lone, who has edited and contributed to a new work of social history titled *The Daily Lives of Civilians in Wartime Asia: From the Taiping Rebellion to the Vietnam War* (Greenwood Press, 2007). "This isn't weakness or indifference in the face of a crisis; instead, it shows strength and resilience."

According to Professor Lone, wars in the 20th century affected the lives of ordinary people like at no other time in recorded history. It is now the common wisdom that, around the 1900s, civilians accounted for 10 percent of wartime casualties. By the close of the century, non-combatants accounted for 90 percent of casualties.

"The body count in Iraq today tells the same story," he says. "Recently each month, about 120 US and Iraqi military personnel are killed but more than 10 times that number – around 1500 Iraqi citizens – also lose their lives."

Bombing of civilians and civilian centres has increasingly become the norm. "In the Korean war, perhaps one million North Korean civilians were killed, mostly from the air," says Professor Lone. "If we don't know this, then we can't even begin to understand North Korea's actions today."

Professor Lone points out that humour is one of the greatest forces for self-protection in war. "China's cities were bombed by Japan in the war of 1937-45 and millions were made homeless. But Chinese students found ways of escape in parody. A boy who fell in love with a girl in wartime was said to be 'gliding', to have 'taken off' if she responded, and, if she abandoned him, to have made 'a forced landing'."

In his chapter on daily life in South Vietnam, 1965-75, Lone writes about people's determination to remain positive and focused on life instead of death. "In Saigon throughout the 1960s and '70s, senior students would make a point of ensuring that first-year undergraduates learnt ballroom dancing as part of their orientation into university life. This was to help them avoid boredom or isolation. Even in the final days prior to the fall of Saigon to the North Vietnam People's Army in 1975, the *Saigon Times* was carrying an advertisement from a man called Nguyen Trong who touted himself as 'the best dancing instructor in Vietnam'."

What was remarkable for Lone was how little the war and its privations destroyed the resolve of these people to be positive and happy.

"One woman I spoke to told me that she woke every day of her university life with enthusiasm for the day ahead." This woman married just as the North Vietnamese army was advancing on Saigon but her most pressing problem was to locate good-quality "lucky candles" burnt throughout the wedding ceremony. As Professor Lone explains, "She must have found them because she and her husband are together today, even as the government of Vietnam seems increasingly to be divorcing itself from communism." ■

A family's war fare

By Mary O'Malley



It was Easter Sunday 1941, a time to crack festive eggs and eat buttery almond and raisin buns, when Germany bombed Belgrade just after dawn.

Mira Crouch, then eight years old, had been looking forward to the traditional Easter lunch when her mother's Serbian relatives and her father's Jewish family would gather for vine-leaf rolls, roast lamb and fried spring chicken.

Food marked the gentle rhythms of life in Belgrade, an expression of a city shaped by disparate epochs and civilisations. But from that day on, food became a primary preoccupation. How to obtain it, and inventive ways to use it, became pressing questions for Mira's family as they struggled to cope with months of deprivation and death.

Such memories are recounted in a new book by Mira, 75, who spent 25 years teaching in the School of Sociology and is now a Visiting Fellow in the School of Social Sciences and International Studies at UNSW. Called *War Fare*, it traces the progress of war through key events affecting Mira's family.

In the space of 11 months, from April 1941 and March 1942, Mira lost her father, her



L-R: Schoolgirl Mira in 1944; A man reads a German newspaper which announces the declaration of war on Yugoslavia; Mira on a return visit to Europe and again as a younger child.

grandmothers, two uncles, two aunts and a cousin - all killed because they were Jews. Mira was saved because the Nazi racial policy in occupied Serbia exempted children of mixed marriages from persecution.

Nonetheless, she deeply felt the scars of loss, particularly of her beloved father. He was gassed in a truck, "liquidated" among patients taken from a Jewish hospital in which he had been imprisoned.

Mira did not consciously set out to write a book. Her memoir was penned with her son Alex in mind. But in the process of writing a comprehensive record of her life for him, two leading themes emerged: death and food.

"I knew that death would play a large part in my story," says Mira in her introduction. "But I did not expect that memories of loss, when fully articulated, would be so thoroughly entangled with minutiae of our existence at that time."

The brave attempts to re-create the snug

comforts of pre-war meals poignantly counterpoints Mira's account of atrocities inflicted on her paternal family.

The provisions the family managed to buy, grow or somehow procure provided physical and emotional sustenance. Daily food gathering and preparation - precious chicken stews laced with paprika, the plump eggplants, capsicums and sunlit tomatoes of the vegetable patch - clearly signified the moments of light and happiness Mira found against the dark backdrop of the war years.

Every event, from the Soviet Union's entry into the war, to the invasion of Sicily, is traced through the family's perception of them. Three years after the German planes attacked Belgrade, again on Easter Sunday, allied air force units dropped bombs on the city and continued to do so, off and on, for five months.

Writing of these times, in either a scholarly or autobiographical fashion, is relatively new

for Mira, who for years felt her story simply to be one of thousands.

"Only when I started writing theoretically about power in the 1990s could I see that I had something original to say," says Mira.

She is dismissive of her many achievements, as an academic and a writer. She says it is part of her childhood legacy, a lingering feeling that emotionally her life is still to begin.

"Only now, when in my thoughts the past carries more weight than the future, can I see that all my life has been lived in suspension, and I know that, at some deep level, I still wait for my train to arrive," writes Mira of her sense of being in the waiting room of a station, constantly looking out for her loved ones on board.

"I still hope for the restoration of my world of *Before* [the war], a 10-year-old still lurks in the mind's shadows, whispering. In the midst of the clamour of my so-called adult existence, the small voice is soft, but it insists." ■

War Fare: Sustenance in time of fear and want by Mira Crouch, Gavemer Publishing, RRP \$26. For copies email m.crouch@unsw.edu.au.



At your service – applications on demand

The second wave of the internet revolution will change the way businesses offer their products and services. What will this mean?

While ago, I visited a travel agent's office to confirm a few details about my trip and make the final payment. The office had two long desks along the side walls, on which streams of computers were sitting. It must have been a busy time of the year; the queue was long. I finally got to talk to one of the travel consultants. I told him what I was after and he asked, "Ah ... did you make a booking with the person sitting over there?" "Yes," I replied. "Oh ... Sorry, the system on this side is not connected with the computers on the other side. You will have to talk to a person from the desk over there." So, I joined the queue again thinking how stupid the situation was and how I wasn't going back for their service again.

Many successful businesses outgrow their original capacity and assume new roles. Often, they employ new IT systems to perform these new roles, which means some parts of the company's business functions are fulfilled by old systems that are not compatible with the new. Over time, IT systems develop a life of their own and the whole IT infrastructure becomes unnecessarily complex.

The problem is not that the companies do not have enough data about you. The problem is that the data is scattered among different systems (e.g. billing, customer relations, marketing) in the organisation, managed by different departments whose offices are placed in multiple geographical locations. It is just too hard for them to get a single normalised view about you.

Integrating applications and their data to make them act like a single entity is a difficult, time-consuming and costly task. However, business needs and steep competition in the marketplace have been driving companies to look for solutions. Many software vendors with huge stock prices make their profit by selling various programming platforms and their proprietary knowledge that are designed for the task. However, packaged solutions are costly and cannot keep pace with constantly changing trends in business.

This is set to change thanks to recent developments in the Web. Commentators call it the second wave of the internet revolution that will change the way businesses offer their



products and services to their customers and revolutionise the ways they work with their partners.

At the heart of this development are Web services. A Web service is a software component that can be invoked and return its results over the Web. An important characteristic of a Web service is that it makes information about itself available so that others can find it and understand how to use it. What's more, an existing application can be Web serviced-enabled, allowing them to be readily accessible to other applications. An implication of this is that individual Web services become software building blocks that can be put together as needed.

In the business domain, you can quickly build new services to meet customer demands based on services provided by others. Web services make it much easier than in the past to share data between applications. Customer data that is stored in multiple sites, can now be "virtually" integrated, so that, for example, you develop a consolidated customer profile for precisely targeted marketing. Or, as another example, the

disparate information systems in a large organisation such as UNSW could be combined into a coherent information resource that could provide novel services to staff, existing students and potential students.

For example, the UNSW student system and the course/student management systems in individual schools could be integrated, allowing students to create a personal service that will automatically track their graduate status, or perhaps recommend their course program for the next semester depending on their progress.

Already Web services are levelling the playing field between the small businesses and big businesses. For example, Amazon.com opened up its core business functionality as a collection of Web services: searching for goods, ordering goods and paying for goods. This allowed hundreds of small retail businesses to hook their own catalogues into Amazon.com's and sell their products worldwide.

Web service technology makes information sharing between applications much easier and shortens the development time for new applications. It is not far-fetched to say that in the near future, the concept of large, monolithic software applications will be obsolete. Virtually anybody will be able to build their own application for the needs of the moment.

Proliferation of Web services does, however, pose issues in data security. For example, consider a loan approval service that takes your information and does credit checks by passing your information to a credit checking service. This kind of scenario is inherent in a Web services world where one service relies on a service provided by third party in order to achieve its goals.

Another challenge in Web services is the construction of single applications that involves large numbers of interacting component services. Orchestrating such a collection of services requires issues such as protocol management, distributed transactions, quality of service, etc. to be resolved. Researchers in the School of Computer Science and Engineering (in conjunction with researchers in the Smart Services CRC) are at the forefront in addressing these issues. ■