Multiculturalism in the age of terror
David Gonski takes the chair
A garden university for Singapore
From the Vice-Chancellor

This issue of *Uniken* includes a report on a significant step forward for UNSW in the area of research commercialisation (*Unisearch spins off*, p 4).

The University has a strong record in research, and in commercialising its research. In 1959, with the creation of Unisearch, UNSW was the first Australian university to establish a commercialisation arm. The company has served the University well, becoming an acknowledged leader in technology transfer, as well as in the provision of expert opinion services. However, in an increasingly competitive environment, it was timely to look at whether we could improve our approach.

Following an independent review, the decision was made to restructure Unisearch and separate its commercialisation and consulting arms. A new entity, NewSouth Innovations, is now responsible for IP commercialisation for the University, while the consulting arm has been transferred to NewSouth Global.

In conducting the review, we listened to the views of a range of stakeholders, but most particularly our key researchers. The decision to restructure was based on a perceived need to focus more clearly on IP commercialisation as a specific business activity, and to align the business more closely with the research activities of the University. The CEO of the new company will be Deputy Vice-Chancellor (Research), Professor Les Field, and while its board will include a number of independent experts in venture capital and start-up companies, the majority of members will come from within the University. This is a departure from the previous situation, where the board of Unisearch operated independently of the University.

Joining Uniseed

One of the major difficulties in research commercialisation is obtaining adequate pre-seed funding. I am pleased to be able to announce that, following a decision of the University Council, an agreement has been reached with Uniseed, the venture capital fund jointly established by the Universities of Melbourne and Queensland.

UNSW, through NewSouth Innovations, is to become a partner in Uniseed. This will give us access to a significantly larger pool of pre-seed funding and the added advantage of having the commercial potential of our research assessed at arm’s length by an independent board of experts. The move also builds on the strong links between the three universities, forged through our common membership of Universitas 21.

Encouraging innovation and realising our research potential are vital not only to the University, but to the national economy and the community at large. The Federal Government is quite rightly placing increasing emphasis on commercialisation: it is now a key performance indicator in attracting public funding. I am confident that these decisions put UNSW in a highly competitive position in an area crucial to our future success.◆

Mark Wainwright

Not happy, Brendan

The Chair of the Group of Eight, Professor Ian Chubb, has expressed disappointment at the abolition of the Australian Research Council’s governing board. Under governance reforms announced last month, the board will be retired early next year and replaced by an internal executive management. Speaking on behalf of universities that account for about 70 percent of the ARC-administered funding, Professor Chubb said that the changes to the ARC’s governance would “further draw into question the transparency of its decision-making processes”.◆

Bangkok start, Sydney finish

Engineering students from Thammasat University in Bangkok will now be able to complete their degrees at UNSW. The program will take up to 95 students in a range of engineering disciplines and the first intake of students will be in June 2006. “This program has been three years in the making,” Dean of Engineering Professor Brendon Parker said. “Thammasat is an internationally recognised university with a very strong engineering faculty, so it is a great fit for us.”◆

Mark Wainwright
**Secrets of the didge**

Scientists have revealed the secrets of playing the didgeridoo, the world’s oldest wind instrument, according to research published last month in *Nature*. The acoustic response of a player’s vocal tract was measured while playing – the first time this has been done.

The sound produced by the vibrating lips travels both into the instrument and the player’s mouth where it is affected by the resonances of the vocal tract, according to co-author Professor Joe Wolfe of the School of Physics. Resonance is the amplification of sound by its surroundings. What was unexpected is that the resonances suppress vibration at some frequencies. The formants or prominent frequencies are the ones left behind.

“To make the resonances strong enough, a player must keep his vocal cords in the almost-closed position, which is not normal for breathing, but which reflects the sound waves so that they don’t get absorbed by the lungs,” lead author Dr Alex Tarnopolsky said. Experienced players learn to keep their vocal cords in this almost-closed position unconsciously. ◆

**NHMRC success**

UNSW researchers secured two grants in the latest round of NHMRC funding. Almost $4.75 million was awarded to a Children’s Cancer Institute Australia team looking at how to improve the treatment for childhood cancer. The researchers will try to establish why cancers start in children and the best way of getting the treatment to the cancer cell without harming other cells. Charles Mackay, a conjoint Professor in the Faculties of Medicine and Science, was awarded funding to help develop a new antibody into a therapy for a range of chronic and inflammatory diseases. Professor Mackay, based at the Garvan Institute of Medical Research, has already shown that the antibody completely shuts down disease in the animal model. ◆

**Calling young tall poppies**

The Young Tall Poppy Science Awards recognise the achievements of outstanding young Australian researchers, with up to ten years’ post-doctoral experience, working in a broad range of sciences. Award winners act as role models for younger Australians, to encourage interest in Australian researchers, with up to ten years' post-doctoral experience, working in a broad range of sciences. Award winners act as role models for younger Australians, to encourage interest in careers in science, engineering and medicine. Nominations close on 19 August 2005. More information at www.tallpoppies.net.au. ◆

**Our Churchill Fellows**

Dr William Glamore of the Water Research Laboratory in the School of Civil and Environmental Engineering and Lisa Coleman of the Faculty of the Built Environment have won Churchill Fellowships. Dr Glamore will study international practices for restoring coastal wetlands, meeting experts in the US, Holland and Vietnam. Coleman is compiling a book on the Australian writer and editor Norman Hall, arguably the most influential figure in world photography during the mid-20th century. As the inaugural picture editor for the *London Times* and photo editor of the critically acclaimed *Photography Yearbooks* (1953–1963) Hall was able to shape the careers of an extraordinary generation of photographers. The pair will be among 87 recipients to receive the fellowships awards at a ceremony at Government House this month. ◆

Left: Norman Hall by Robert McFarlane

**Kensington Group vs the Premier**

UNSW’s coalition of sustainability academics, The Kensington Group, has questioned the Carr Government’s proposal to build the largest reverse osmosis seawater plant in the world – normally reserved for arid zones – with no prior testing or piloting. The Kensington Group has called on the government to broaden its approach to NSW’s water crisis by conducting a full sustainability assessment. “How did we get to this point without any public discussion?” Associate Professor Greg Leslie said. The Kensington Group says a secure water supply cannot be achieved with one single option. “An overall solution for long-term water security should include a broad suite of options, including water recycling,” Professor Nicholas Ashbolt said. ◆

**History Olympics**

UNSW hosted the largest international history congress ever held in the Southern Hemisphere last month. Opened by Premier Bob Carr and closed by author Thomas Keneally, the 20th International Congress of Historical Sciences drew 1500 delegates from more than seventy countries. Topics included the history of terrorism, relationships between Christianity and Islam, war and peace, children and war, old age in history, natural disasters and the environment. It was the first time the Congress has been held outside Europe or America. ◆

**A new look at light metals**

UNSW is one of six partners in the newly established $21m ARC Centre of Excellence for Design in Light Metals, which will take a fresh, market-driven approach to its research agenda, according to the centre deputy director, Associate Professor Michael Ferry.

“We aim to expand Australia’s light metals industry by making light alloys such as aluminium, magnesium and titanium more competitive,” he said. “We see opportunities to increase the use of light metals in the automotive, aircraft, aerospace, packaging and construction sectors.”

Light metals can be made more competitive with competitor materials such as steel and plastic by improving their strength and durability, and creating new light metals and composites, according to Professor Ferry. ◆
Unisearch spins off into NewSouth Innovations

The restructure of UNSW’s technology transfer company, Unisearch Limited, is now complete. A new entity called NewSouth Innovations is now responsible for IP commercialisation for the University. The consulting arm of Unisearch, Expert Opinion Services (EOS), has been transferred to NewSouth Global.

The decision to restructure Unisearch and separate its commercialisation and consulting arms into two distinct entities was made by the University Council following an independent review of the company’s operations.

NewSouth Innovations will report to Deputy Vice-Chancellor (Research), Professor Les Field. NewSouth Global reports to Deputy Vice-Chancellor (International and Development), Professor John Ingleson.

“The objective is to maximise the potential of both businesses and make better use of available resources,” Professor Field said. “In particular, the creation of NewSouth Innovations will allow us to clearly focus on IP commercialisation as a specific business activity and align the company more closely with the research functions of the University.

“Additional resources are being allocated to further develop the business and we anticipate a significant growth in technology transfer from UNSW research over the next few years.”

Moving EOS to NewSouth Global will consolidate the University’s consulting services, providing a single ‘front door’ for staff and clients. EOS will continue to use the name Unisearch for legal expert witness work and will use the name UNSW Consulting for technical consulting projects.

Both NewSouth Innovations and EOS will stay in the Rupert Myers Building, which also houses Research Services and will accommodate the new Graduate Research School. David Andrews, former general manager of Commercialisation, is continuing in the same role at NewSouth Innovations, but will step down later in the year to manage a technology spin-off company. Casey Windrum, formerly general manager of EOS, has been appointed director of EOS.

Recent Unisearch highlights

- Listing of Unisearch start-up company Biosignal Limited on the Australian Stock Exchange with a market capitalisation of around $25 million.
- Incorporation of start-up company HepatoCell Therapeutics Pty Ltd to commercialise a new treatment for patients with cirrhosis of the liver and other forms of acute liver failure. HepatoCell joins the other five ongoing start-ups incorporated by Unisearch in the last six years.
- Achieved 100 percent success rate with six Australian Government Biotechnology Innovation Fund (BIF) applications over the past three years, contributing $3 million for commercialisation of UNSW research. Biosignal succeeded with two BIF applications adding $1m in new research to UNSW; Acyte Biotech Pty Ltd was awarded three applications to a value of $1.6m for new research;

HepatoCell Therapeutics Pty Ltd received one grant valued at $170,000.

- Successfully tendered to assist the Australian Government’s Defence Science and Technology Organisation (DSTO) in commercialisation of its research. In line with the company’s strategy to expand its commercialisation hinterland, Unisearch has been appointed one of three parties to assist the Australian Government’s DSTO with its commercialisation process.

- Significant progress made by start-up company Cystemix Pty Ltd in the scaling up of its anti-angiogenic compound and transition to Phase 1 clinical trials as a potential cancer therapy.

- Already in the marketplace: Kakadu Software; Cell Bioreactor; Biosignal Limited; P1-166; the Buried Contact Solar Cell and Albendazole.
David Gonski’s association with UNSW started in childhood, just two years after his family emigrated from South Africa. Aged nine, he sat on his father’s shoulders at the 1963 opening of the UNSW Medical School. Now 85, Gonski senior, who taught at UNSW for 20 years and dissected many of the specimens still in the Anatomy Museum, was the most excited of all the family at his son’s appointment to the Chancellorship.

David Gonski’s formal association with UNSW did not end after his graduation with a BCom LLB in 1977. That year, aged 23, he joined the leading law firm, Freehills, and also took up a part-time lectureship in the law school, teaching industrial and intellectual property. He continued teaching for five years, during which time he became a partner at Freehills at the age of 25.

In the mid-1990s he was asked to participate in the fundraising program for the Scientia building and then joined the University Foundation. His lifetime links with Kensington extend throughout his family: his wife and his three siblings are UNSW graduates and his two older children presently attend UNSW.

“I have a love for education,” Mr Gonski said. “It is not only one of the most interesting areas of human endeavour but one of the most essential. This university has been such a part of my life and the lives of my family. The Chancellorship gives me the opportunity to give something back and to be involved in its growth.”

He has been a company director for 23 years – 27 if he includes a not-for-profit organisation, a school for disabled children – and has a range of chairmanships to his credit. Some that are potentially incompatible with the Chancellorship will go but the range and pace of involvement will not change. “Something I learnt at university was time management – I’m very good at it. I don’t take on anything that I can’t do or can’t fit in with my private life.”

The issue of philanthropy, and how to create a climate to encourage people to donate, has long occupied him, not only in the context of education but also his other passion, the arts. Seven years ago he became a member of the Prime Minister’s Business and Community Partnership, and chairman of that organisation’s taxation subgroup. Extensive work followed with the government to change tax provisions that actively discouraged charitable donations. As a result, in the past five years, 300 new philanthropic foundations have been established in Australia that have disbursed $17 million dollars a year to charity over the last two years alone.

“I believe very strongly in philanthropy,” he said. “And if philanthropy is increasing, why are people not giving back to the universities they attended? Perhaps because they see them as commodities. We have to change that.”

He has been gratified by the response to the announcement of his appointment as Chancellor. “I have been surprised by the warmth people have shown,” he said. “People are stopping me in the street and congratulating me. The goodwill is there. Now we have to translate it and get people feeling they are actively linked to the university they attended. It’s the next stage.”

A passionate supporter of the arts, David Gonski has had a long relationship with many branches of the arts and is the chairman of the Australia Council for the Arts, designed to encourage private philanthropy toward the arts. He jokes that his city office is perfectly located, giving him a direct line of sight to both UNSW and the Art Gallery of New South Wales, of which he has been president for nine years: “one more to go”. The greatest perk of his Art Gallery position, he considers, has been to adjudicate the past nine Archibald Prizes, using his mediation skills to reach decisions by consensus. He considers Gallery director Edmund Capon “inspirational – even though he hates to use the red carpet”. From his office window one day he looked across the Domain and saw a red carpet decked across the Gallery’s front steps. He picked up the telephone and rang Mr Capon, who told him it was there “only because Dame Edna insisted”.

David Gonski takes the chair

Prominent businessman David Gonski takes up the role of Chancellor of UNSW this month. He spoke to Uniken editor Louisa Wright.
Targeting auto-immune disease

Australian scientists are spearheading a research effort to understand an anti-inflammatory drug that has the potential to treat a host of crippling auto-immune and inflammatory diseases, such as multiple sclerosis, rheumatoid arthritis, inflammatory bowel disease, lupus and psoriasis.

Known as Chaperonin 10 (Cpn10), the drug is in phase Ila clinical trials to test its safety and efficacy among people with multiple sclerosis. Phase Ila trials for rheumatoid arthritis and psoriasis are in planning.

Researchers from the School of Biotechnology and Biomolecular Sciences (BABS) and a Brisbane-based biotech company, CBio Ltd, are commercial partners in an ARC Linkage grant, the aim of which is to discover the drug’s mechanism of action.

Cpn10 was originally produced for phase I clinical trials by BABS scientists and researchers from Acyte Biotechnology, a UNSW-based biotechnology company.

“The drug was well tolerated in phase Ia trials among healthy volunteers and phase Ib among patients in remission from multiple sclerosis,” UNSW biochemist Dr Steve Mahler said. “The purpose of phase I trials is to begin the process of safety examination.”

The human immune system is made up of a network of cells designed to recognise and eliminate pathogens by altering their function or destroying them. Auto-immune diseases can occur when the immune system attacks normal cells instead of pathogenic ones, causing a range of inflammatory-type symptoms.

Auto-immune disease is a condition of major concern, according to Dr Dean Naylor, CBio’s Head of Biochemistry.

“Conditions like MS and rheumatoid arthritis are well known auto-immune diseases, and their treatment consumes a big chunk of the health budget,” he said. “Not surprisingly, the study of inflammation and auto-immune diseases has emerged as one of the very hot fields in science.”

In April, CBio received a $6 million grant from the Federal Government’s Pharmaceuticals Partnerships Program. “The grant provides an opportunity to accelerate our development of Cpn10 and successor molecules,” CBio’s chief scientific officer, Dr Dennis Feeney, said. “Over the next decade I feel confident that we will see the introduction to market of several new compounds with the potential to dramatically improve the quality of life for patients suffering from auto-immune-related diseases.”

The Australian research team includes UNSW biotechnologists Drs Steve Mahler, Chris Marquis, David Chin and Associate Professor Paul Curmi, and CBio scientists Drs Dean Naylor and Barbara Johnson. More information at www.cbio.com.au.

No fear of living dangerously

Rowena Bull’s passion for danger and excitement underpin both her love for surfboat racing and her hopes for a career as an infectious disease specialist. As Australia’s current open women’s surfboat champion, the 24-year-old PhD student has now won the title two years running.

Widely viewed as surf-lifesaving’s premier event, the sport involves four rowers and a sweep who power through surf as high as four metres in a 230 kg, eight-metre boat.

“It involves big boats and lots of carnage,” said Rowena, who sees her attraction to infectious disease research stemming from the same fascination for danger and excitement. “I first became interested in infectious diseases like the Ebola virus when I was young because they were dramatic and had a lot of fear associated with them.

“These days, SARS represents the same phenomenon: it’s both scary and fascinating because there’s still not much known about it and its spread causes mayhem.”

Rowena specialises in noroviruses, a family of viruses that cause infectious gastroenteritis. Last year her interest was sparked by the sudden five-fold increase in gastroenteritis cases that swept through NSW child-care centres, nursing homes and hospitals.

Spread by air, water and personal contact, noroviruses are highly contagious and can survive in food, water and the environment for long periods. Public health experts have been puzzled by the periodic emergence of new strains of the norovirus in recent years.

“It made me wonder if the big local increase was due to a new strain,” said Rowena, who recently published evidence that identified two new recombinant forms of the virus in Sydney. A virus must have more than five percent of its genome different to existing viral strains to qualify as a new strain.

“New strains can occur through the spontaneous mutation or recombination, which happens when a virus swaps parts of it genetic material with a related virus,” she said. “This can happen when a person is infected with two forms of the norovirus at once. It’s how viruses create diversity in their genome and gives them a better chance of spreading and surviving in different host environments.”

Was last year’s spike in gastro cases the result of a new viral strain? “Let’s just say that there will be a lot of interest when we publish our findings shortly,” Rowena said diplomatically.
John Eden is in many ways the face of reproductive endocrinology in Australia. He was there at the very start of this field in Australia in 1989. “When I decided to do reproductive endocrinology, there wasn’t even a training course in this country,” said Associate Professor Eden, who is in the School of Women’s and Children’s Health and based at the Royal Hospital for Women. “I realised that there was very little known about women’s hormones and that’s what I wanted to specialise in.

“Every woman goes through menopause, there’s infertility and at least a quarter of the female population has menstrual problems. Yet I did not have a single supporter. There were really only two routes for me: physician endocrinology, which mostly looked at diabetes and thyroid disease, and obstetrics and gynaecology.”

Instead, he went to London for training.

Women and girls [with PCOS] were poorly managed before we had reproductive endocrinologists. But even now I see girls who have been told that they are infertile. At least 90 percent of women I see with PCOS are told they won’t be able to have children.

By the time he returned, the Royal Australian College of Obstetrics and Gynaecology had made the field a sub-specialty. He was the first to sit the exam.

Such single-mindedness and pragmatism seems typical of Professor Eden, who is the Director of the Sydney Menopause Centre, the Natural Therapies Unit and the Barbara Gross Research Unit at the hospital.

“When you say reproductive endocrinology, most people immediately think of IVF,” Professor Eden said. “While IVF has popularised the field of women’s hormones, it is a very narrow focus. I felt I could be more useful in helping women in other areas.

“Probably a quarter of my practice is under the age of 18 because of issues like delayed puberty and 12-year-old girls who have very heavy periods and are too young to go on the pill. On top of that, one in four women has polycystic ovaries. In severe cases, Polycystic Ovary Syndrome [PCOS] may be diagnosed.”

PCOS symptoms include excess body hair, irregular or missed periods, acne and other skin problems, weight issues and scalp hair loss, problems overwhelmingly unresolved for women and girls of past generations.

“Yes, there would have been girls with beards and chronic acne. Women and girls were poorly managed before we had reproductive endocrinologists,” Professor Eden said. “But even now I see girls who have been told that they are infertile, simply because they are not menstruating. At least 90 percent of women I see with PCOS are told they won’t be able to have children.”

Professor Eden has written his first book for a lay readership, Polycystic Ovary Syndrome – a woman’s guide to identifying and managing PCOS, in which he debunks some myths of the condition.

“When people look for information on the internet or in textbooks, it tends to emphasise the severe end, which affects only one or two percent of people,” he said. “To paint people with a mild version of the condition with the same brush as those with a severe version is simply wrong. The vast majority have the condition mildly.”

Professor Eden doesn’t only level criticism at his own profession. He says the media also has a role to play.

“The media just does not want to do stories about vaginas and periods. There is some kind of taboo, yet they are happy to advertise tampons,” he said. “It’s a pity, because there isn’t the awareness of many of these common and easily treated conditions.”

His other areas of interest include management of menopause, the impact of diet on the reproductive system, hormones and their effect on breast cancer, osteoporosis and herbal medicines.

That interest in herbal medicine has led him to be a part of the Federal Government’s committee that examined complementary medicines, following the recall of hundreds of vitamins and supplements products manufactured by Pan Pharmaceuticals in 2003.

“To enforce the law, the government is going to have to increase policing of these products,” he said. “I’ve complained to the TGA about products that we have tested and found didn’t work. Then the companies advertise that they do work! Nothing has been done about it. These tablets aren’t killing anyone, they are just placebos.”

The herbal treatments that he gives to menopausal women, particularly those who have had breast cancer, are far from placebos. “We avoid giving breast cancer survivors hormone treatments, because it might stimulate the tumour, but we have had success with a herbal extract, called Remifemin, and even some antidepressants help with hot flushes. “I don’t accept that you need to be a woman to be a good reproductive endocrinologist,” Professor Eden said. “Part of being a caring healthcare provider is being able to empathise with patients.

“I’m the one who gives women oestrogen after breast cancer and remedies for hot flushes. The easy answer could be to say to put up with it. But that is cruel,” he said. “I think I understand quality of life and I am prepared to take a risk with a patient, to improve their outcomes.”
There's not much David Dixon doesn't know about police interrogation. With a forensic eye, the law professor has analysed more than 200 police videotapes as part of a decade-long study on the impact of audiovisual recording on police interrogation of suspects. His conclusion: the recording of police interviews brings real benefits to the criminal justice system.

Professor Dixon's research is the first large-scale study of its kind in the world, and not surprisingly, his findings have attracted international attention. "Police interrogation has long been a source of controversy in criminal justice around the world," he said. "Problems have ranged from unintentional inducement of false confessions, to fabrication of confessions or 'verballing', to torture.

"My research shows that video recording of police interviews has been successful – it does work and it offers significant benefits. It has put an end to the long dispute about verballing, and is perceived by many in the field to have increased guilty pleas, reduced trial length, reduced challenges to the admission of confessional evidence and increased public confidence in the justice process."

"In many ways this is a good news story for the police," Professor Dixon said. "But electronic recording is no panacea to the ills of custodial interrogation, and could even be counterproductive if treated as such."

NSW Police have routinely used audiovisual recording since 1991, "years ahead of other countries". This history, according to Professor Dixon, has provided an unrivalled source of experience for other jurisdictions.

By contrast, UK authorities use audio recording, although field trials of video recording, for which Professor Dixon acted as a consultant, have been conducted. In the US, audiovisual recording is widespread, but is generally used only in the most serious cases to record a confession already obtained in earlier, unrecorded, interrogation.

The recently completed NSW research, which comprised four empirical studies, was a good example of the interdisciplinary nature of criminology, involving law, psychology and sociology, and was conducted in cooperation with police, who provided some funding along with ARC grants. Uniquely, the researchers were able to choose two large, randomly selected samples of interview tapes from across the state. They also conducted large-scale questionnaire studies with detectives, defence lawyers, prosecutors and judges, as well as observing and analysing a sample of court cases. "It showed real commitment for the police to allow access and to be as open as they were," Professor Dixon said.

And Professor Dixon doesn’t give praise lightly; much of his work over 20 years in England and Australia has been critical of policing and law and-order politics.

"The relevance of this research is showing that audiovisual recording can be done, and that's really important internationally, particularly as more cases of miscarriages of justice due to false confessions emerge in the US," he said. "In Illinois, for example, more than a dozen prisoners on death row have been exonerated through DNA evidence. As a result, it is now mandatory for police to electronically record interviews with murder suspects."

While Professor Dixon’s research shows the impact of video recording on the criminal justice system has largely been positive, his analysis does highlight some weaknesses.

"It's not always what you see that's the problem, but what you don't see. While audiovisual recording makes simple verballing impossible, the research here is clear that there's still a substantial amount of interrogation that isn't recorded. The problem is that recording is seen as an alternative to other modes of regulation, but it isn't. It must be complemented by effective rules on how suspects are detained for questioning.

"We also need funding for legal advice in police stations. The almost complete absence of lawyers from interrogations in NSW is one of the most marked differences from my earlier research experience in England."

Professor Dixon also points to a "worrying tendency" among some judges who believe they can detect deception in suspects from video images. "Amazingly, one of the first interviews for this project was with a

Cops, interviews and videotapes

By Denise Knight
judge who, apparently after attending a weekend course, confidently said that you could tell whether a witness was telling the truth from whether they looked to the left or to the right,” he said.

“When you look at everyday police work rather than high-profile cases, you find out that almost all the popular beliefs aren’t true. If you believed TV cop shows, you’d think that interviews with suspects are like a battle of wits, that the police are super-skilled interviewers, that suspects fight back until they crack. Real-world, everyday policing isn’t like that. Most interviews are fairly quiet, co-operative exchanges.”

As part of Professor Dixon’s broader study, he was asked by NSW Police to assess the effectiveness of a new approach to interviewing, developed in the UK. He found that while interview skills improved, it was due to a general change in policing rather than specific training.

What did come through very clearly, however, was the contrast in police interrogation styles. “US policing methods focus on persuading the suspect to confirm an account to which the interrogator is already committed, as a result of pre-interrogation interviewing and other investigation. By contrast, British and Australian police are expected to interrogate with an open mind. The Americans may get people to confess, but those confessions may not be reliable. This brings us back to miscarriages of justice resulting from false confessions.”

This research builds on Professor Dixon’s extensive work on policing in Australia, the US and the UK. He has published on topics ranging from ‘zero tolerance’ policing in New York and drug policing in Cabramatta to corruption and reform and the legal regulation of policing.

“This project started nearly a decade ago in the aftermath of the Police Royal Commission,” he said. “We had to go slow for a while until things quietened down.”

Two forthcoming books will further explore Professor Dixon’s unparalleled window into the interviewing process. Interrogating Images: audio-visual recording of police interviews with suspects will report the NSW research in detail. Investigating, Interviewing, Interrogating, to be published next year in the UK, will broaden the picture, looking at the different approaches to interrogation in Australia, the US and the UK as well as considering how the interrogation of terrorist suspects should be regulated.

Crims fight for social justice

They call them ‘the Crims’ – five UNSW scholars with experience unrivalled in the study of Australian criminal law and justice. Together with David Dixon, they are Sandra Egger, David Brown, Irene Nemes and Alex Steel.

The research work undertaken by this formidable team fits well into the Faculty of Law’s strong social justice agenda. “In recent years there has been huge politicisation of law and order, and a vast increase in the extent of police powers and the punitive provisions in the criminal law,” Associate Professor Egger, said.

Part of the group’s focus has been to examine the impact of these measures on the development of society. For Professor Egger, head of the School of Law, that has meant specialising in issues involving violence against women, imprisonment, prostitution and mental health.

Professor David Brown has been involved in prison reform since the Law School began 30 years ago; Irene Nemes is researching hate speech and the internet; and Alex Steel specialises in theft and fraud, computer offences and legal history.

‘The Crims’ will soon be strengthened further by the appointment of the NewSouth Global Professor of Criminology.

“Crime statistics suggest there’s been a significant decrease in many categories of crime in NSW but we’ve seen an increase in the number of prisoners and generally a far more repressive criminal justice system,” Professor Egger said. “Criminal law is lively, interesting, ever-changing, and there’s a huge amount of work still to do.”
Multiculturalism in the age of terror

By Geoffrey Brahms Levey

“You don’t need to be a suicide bomber in a liberal democracy.”

So remarked London Metropolitan Police Chief, Sir Ian Blair, in the wake of the recent London bombings. The words are striking. They compress two dominant but ultimately flawed accounts of the world’s present predicament with radical Islam. One is the notion that events such as the London bombings are little more than the result of impressionable young people being manipulated by preachers of hate. This view excludes the globalised frame of reference in which local events exist and take shape.

The second account contends that “It’s the occupation, stupid” and not fundamentalism that is the root cause of such wanton violence. That is, militant Islam around the world is a function of protracted Israeli control over Palestinian land and people. This account emphasises an important international dimension, but ignores the broader historical and cultural currents in which Muslim communities and Western democracies view themselves as well as each other.

Two of these broader currents have enjoyed some considerable scholarly attention: Can Islam “modernise”? And can the West come to grips with its own experience of coloniality?

But only recently has a third aspect been opened up to scrutiny: what should be the appropriate relationship between religion, secularism and the state in liberal democracies? The original liberal settlements of this question were forged against the background of protracted sectarian conflict in early modern Europe. And the liberal solution of a “transcendent” politics and state – standing above the fray of contending conceptions of the good by confining them to private associations and a non-public sphere – has arguably been a stunning achievement for the past few centuries.

But what happens when the societies over which liberal states hold their authority have become largely multi-faith and multicultural? What happens when sizeable communities vigorously resist and resent old-time assimilationism? Indeed, what should happen here in the name of justice?

It was precisely to advance inquiry into such questions that an international symposium on Religion and Multicultural Citizenship was held last month at UNSW. Scholars from Britain, the United States, the Netherlands, Germany, Spain, India, New Zealand and Australia came together to probe the original liberal settlements in the light of our multicultural condition, and to suggest possible reconfigurations.

The symposium, co-organised by the Faculty of Arts and Social Sciences with centres from the University of Western Sydney and the University of Bristol, ranged over many topics. However, a common realisation was that liberal democracies must change some of their own institutional assumptions if members of their societies are to feel fully included.

Dr Levey is senior lecturer in the School of Politics and International Relations.

‘Inevitable’ terrorism?

By Michael Humphrey

The revelation that the family of one of the alleged bombers had reported him as missing and a possible victim of the London bombings came as disturbing news. It meant that firstly, Islamic radicalisation and jihadist recruitment had already occurred among a large second-generation Muslim population in the UK, and secondly, if his intentions to become a ‘home-grown’ suicide bomber were unknown to his family, the UK counter-terrorist agencies had little chance to prevent the bombings.

Counter-terrorism emerged as the domestic arm of national security policy in the ‘war against terror’. Post-September 11, it became focused on identifying and preventing neo-fundamentalist Islamist jihadists – invariably given the brand name al Qaeda – proselytising amongst alienated Muslim youth, recruiting potential martyrs and launching terrorist bombings in the West. Yet rather impotently the UK counter-terrorism chiefs and government spokesmen described the London terrorist attacks as ‘inevitable’. An interesting word, often used to describe events once they have happened, either from the wisdom of hindsight or to put events beyond human control or culpability.

Why ‘inevitable’? Because, according to PM Tony Blair, the terrorists hate our values and way of life. It is who we are, not what we have or have not done. The Iraq war has nothing to do with the London bombings, according to Mr Blair. This quarantining of events and causes is more a statement of political preservation than logic. Terrorist acts challenge states politically because they signify the failure to protect citizens. The justification for military intervention in Afghanistan and later in Iraq was that both were part of the ‘war against terror’ to prevent ‘terrorist attacks’ in the West.

Rather than ‘inevitable’, terrorist attacks have become much more likely in our globalising world because of the efficacy of terrorist spectacles for conveying political messages; because the complex mass societies we live in are increasingly vulnerable to anarchic violence; and because we in the West are increasingly risk-averse – nothing is supposed to go wrong and if it does, someone is to blame.

The London bombings are best understood as part of the de-territorialisation of warfare. Counter-terrorism faces the difficult task of threat reduction in societies that are open to the flow of communications, finance, people, goods, and now, to the use of terrorist violence.

The global jihadists attack the West because they want power to produce a social reality according to their blueprint: it is not just a matter of values and ideas. For them, their sympathisers and potential recruits angered and humiliated by the daily images of Muslim suffering, injury and death on internet sites of jihad and martyrdom, the London bombings are another strike against the West. The individual bombers were recruits whose resentments and conflicted identities had been produced through their experience of multicultural Britain, and as globalised Muslims being offered the identity of martyr, now made vital through virtual Islam.

Islamist terrorism in the West is a sign of the globalising of warfare. The best counter-terrorism, apart from the intensification of surveillance, is to stand up impartially for our values at home and abroad.
The Singapore-based firm, Kerry Hill Architects, has won an international competition to design the master plan and library for the new UNSW Asia campus in Singapore.

A selection panel, which included world-renowned Australian architect Glenn Murcutt, unanimously selected Kerry Hill’s design from a short-list of five finalists. “Kerry Hill’s scheme for UNSW Asia has the potential to rank amongst the best campuses in the world,” Mr Murcutt said.

“It is a unique response to the landscape. His scheme rethinks the campus for the tropical environment; he has proposed a beautiful verandah as the place where the University community can interact. The scheme... will give a heart to the campus from day one.”

Vice-Chancellor Professor Mark Wainwright made the announcement recently at a media conference hosted by Singapore’s Economic Development Board. “With this unique and inspired plan, UNSW Asia will be an iconic campus – one designed for the 21st century, for Singapore and the region,” Professor Wainwright said.

A celebrated Australian architect, Mr Hill has practised in Singapore for the past 25 years. He won the Aga Khan Award for Architecture in 2001 for the Datai Hotel in Langkawi, Malaysia. Mr Hill envisions the idea of tropicality as “the recognisable identity of the UNSW Asia campus – a garden university in a garden city”.

Key features of the master plan include the Verandah, a screened canopy featuring cafes, bookshops, galleries and retail outlets; the Library, with a reading room focusing on the ancestor tree on the site; and the Valley Walk.

Construction of the campus is planned to begin in 2006 with students commencing in 2009. UNSW Asia will open for business in 2007 in temporary accommodation at the former campus of Singapore’s Republic Polytechnic.

Kerry Hill speaks to Uniken

What attracted you to entering the design competition?
The idea of designing a truly tropical campus and the fact of it being an Australian university.

It’s your first university project?
Yes.

Where do you start the concept of designing a university that is a foreign presence?
By imagining I am a student thinking about what kind of special place I would like the University to be; a place that allows students (and staff) to manage the social dimension of learning; a place with generosity of spirit; a place that imparts a sense of belonging.

You envision a ‘garden university in a garden city’. Can you explain your design vision for the UNSW Asia campus?
The design embodies the idea of ‘tropicality’ as the recognisable identity of UNSW Asia. It is not just an image but a physical representation of the tropics.

You’re renowned for embodying the environment in your work. How important is the landscape in the campus scheme?
And how does this plan draw on your previous work?
The design begins with a landscape matrix. It is the notion of a campus where landscape becomes the object and buildings are placed within it. In this way, landscape sets the structure of the campus and informs its growth.

I believe this proposal brings together the best of our efforts from 25 years of practice in Asia.

What is intrinsically Australian about this design?
The ‘big’ Verandah – but of course this is also Asian and tropical.

The design also promotes shared experience in a multiracial environment. The campus is designed to dissolve boundaries whether cultural, physical or educational. We believe this to be intrinsically Australian – and uniquely Singaporean.
Driving too hard a bargain

A grieving man, whose wife was killed in a trucking accident in which the driver was on drugs, recently called Michael Quinlan to find out how to prevent similar tragedies befalling other families.

Professor Quinlan of the School of Organisation and Management is accustomed to getting these calls, but they still affect him. As an authority on the trucking industry, he is regularly contacted for advice by politicians, policymakers, those in the business, journalists and family of victims, but he readily admits that it is an uphill battle to bring about any change.

“It is only a matter of time until we have another very serious incident,” he said. “The truck drivers themselves and other road users are at risk. It is simply unacceptable.”

It may appear simple at first: a lethal cocktail of long distances and tired drivers on tight deadlines. Professor Quinlan believes the picture is far more complex. He considers a number of factors responsible, including the highly competitive nature of the industry, unbending pressure from clients and lack of action by governments.

“What we really need is a national approach on a range of issues, but the Federal Government has shown no interest,” Professor Quinlan said.

“The Howard Government has ideological blinkers on. They don’t want to interfere with the market, even when their failure to act is killing people.”

His latest research pulls no punches. A paper, called Trucking Tragedies: The Hidden Disaster of Mass Death in the Long-Haul Road Transport Industry, is about to be published in an international book on occupational health disasters.

The research indicates that, internationally, long-haul road transport represents an ongoing tragedy of a magnitude equal to that associated with toxic chemical leaks, mine explosions or oil rig fires.

“What we really need is enforcement directed at the top of the transport supply chain, namely the organisations that engage trucking companies to deliver their goods,” Professor Quinlan said. “It is pressure from these companies that is often the root cause of dangerous driving practices, as trucking operators and drivers struggle to meet narrow profit lines and tight schedules.”

This relates to another area of his research. “Pay is a safety issue,” he said. “If there’s a lot of competition between companies, then this leads to non-viable freight rates. The most desperate will succumb to pressure from clients to lower their rates, so they get the job. This leads to excessive and illegal working hours and chronically fatigued truck drivers.”

Apart from improved OHS legislation, which incorporates the “chain of responsibility”, Professor Quinlan argues the industry needs a national accreditation process, which would establish the skills and OHS knowledge of each operator as well as having an educative role. The research appears to be having an impact among policy makers. In June the NSW Government introduced the OHS Amendment (Long Distance Truck Driver Fatigue) Regulation 2005, which imposes specific duties on both consigners and consignees concerning fatigue management. The NSW Staysafe Committee is also currently holding an inquiry, following up on Professor Quinlan’s findings of retailer influence.

His 2001 report on long-haul trucking was also used in the Victorian Government’s inquiry into the logging industry and helped shape the recommendations.

Professor Quinlan’s broad research interests include OHS, labour history and precarious employment – all of which are encompassed in the trucking industry.

His next research project will look at the health and wellbeing of this marginalised work force.
According to Go Pinocchio, a recent production at the Seymour Centre and the Riverside Theatre in Parramatta, the wooden marionette Pinocchio grew up in a caravan park on the north coast of NSW. Alyssa Rothwell, who teaches new media production in the School of Media, Film and Theatre, has transported the classic tale to its Australian home using traditional and digital animation. “It’s like a digital set design, where the actors on stage interact with the onscreen animation,” Rothwell said.

Combining hand-drawn illustrations, collage and digital images, Rothwell has created a rich and changing backdrop for the stage actors as they progress through the story. “There are often times when the actors are offstage changing costume and the animation serves to continue the story for the audience,” Rothwell said. “The kids are really captivated by it. It’s like a living, magical set which reduces the need for static props.”

One of the great challenges with this type of production is co-ordinating pre-set screen material created over many months with dynamic actors, short rehearsal periods and the spontaneity of live performance.

“Working with the Go Pinocchio production has inspired me to research the possibility of using other technologies to create an easy and seamless balance between the two mediums, which I feel would really extend the creative possibilities for such hybrid production,” Rothwell said.

Go Pinocchio is expected to tour NSW in 2006. Details of Rothwell’s other works are at www.frommyperch.com.au.

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In 2000, as part of her doctoral research at the College of Fine Arts, Ann Coward set out to study the influence of multiculturalism on the permanent collections of Australia’s major public museums. She focused on the Greek community as a group sufficiently large and settled in Australia to create a blip on any large museum’s radar. She met with members of the Greek community in Sydney, Brisbane and Melbourne, conducting a survey, carrying out interviews, and photographing heritage items.

As the research progressed, problems in the public collections became apparent, as did a range of possible solutions. It appeared, however, that many ideas for transforming museum collections would at least in the short term be destined to remain academic.

An opportunity arose to put some of those ideas into practice, adding a new dimension to Ann’s thesis. A number of Greek women in Brisbane became interested in the issues raised in her research. They felt it wasn’t sufficient merely to talk about preserving evidence of, in this case, Queensland’s Greek heritage; something concrete needed to be done.

To achieve a solution required the combined efforts of the women, in association with Ann, and other interested individuals and groups within the Greek communities of Queensland and NSW.

This solution proposed the formation of a permanent Greek heritage collection of textiles at the Queensland Museum as part of the settlement history of Queensland. An original offer to form a collection had been made by Dr Margaret Kowald, who at that time was the head of Collections, Cultures and History at the Queensland Museum, in discussion with historian, textile conservator and curator Dr Michael Mareny.

Ann organised a meeting in Brisbane in May, which brought together representatives of Athens’ prestigious Benaki Museum, the Queensland Museum, Queensland’s Ethnic Communities Council and the Brisbane Greek community’s Cultural Committee as well as Dr Mareny and the now-retired Dr Kowald. Under discussion was the nature and extent of the Queensland Greek community’s role in the Museum collection’s formation, documentation and conservation. The Benaki Museum offered authoritative advice, with a further promise of assistance to both the Queensland Museum and the Greek community.

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The cat and the fox chase Pinocchio, trying to steal his money.

The multicultural museum

The cat and the fox chase Pinocchio, trying to steal his money.

Pinocchio rides an Australian wave

The cat and the fox chase Pinocchio, trying to steal his money.

Pinocchio's father trying to escape the shark, which eventually swallows him up.
By Dr John Yu AC  
Chancellor


Welcome and farewells

This was my last meeting of Council as Chancellor of the University, as I step down from the role on 31 July. Council welcomed the Chancellor-elect, Mr David Gonski, AO, to drinks at the end of the Council meeting.

UNSW Asia progress report

Council received a progress report on UNSW Asia, which included the executive summary of the Masterplan and Library Building by Kerry Hill Architects.


Council considered a report which it had requested from the Vice-Chancellor, noting the significant efforts that UNSW is directing towards attracting Indigenous students as well as comprehensively supporting them during their experience as students at UNSW. The success rate of Indigenous students at UNSW is higher than the state and national averages and the access rate for commencing Indigenous students has increased over the three years 2002 to 2004.

Approval of new school and new degree programs

Council approved the establishment of the School of Photovoltaic and Renewable Energy Engineering, effective 1 January 2006, and the Master of Taxation. Council also approved the Australian Graduate School of Management’s proposal to introduce the Master of Business Administration (Construction) and Graduate Diploma in Management (Construction), effective 29 August 2005. This proposal also requires the approval of the University of Sydney Senate, which will consider it on 1 August.

UNSW Guidelines and Rules on Student Plagiarism

Council noted the Handbook for staff, and the Vice-Chancellor’s report on the six-month University-wide trial of a new institutional framework for dealing with student plagiarism, endorsed by Academic Board on 1 March 2005. The Vice-Chancellor noted that these measures are designed to strengthen the culture of academic integrity within UNSW while improving co-ordination, co-operation and communication with students about relevant UNSW policy and its implementation.

Effects of Voluntary Student Unionism

Council noted the consultant’s Issues Paper The Implications of Voluntary Student Unionism Legislation for UNSW, and the student organisations’ responses, all of which were considered at a special meeting of the Student Affairs Committee of Council on 14 July. A management response to the paper’s recommendations will come forward shortly.

Council minutes

Council minutes and other information can be accessed by all members of the University via the Secretariat Services website (www.secretariat.unsw.edu.au).

For further information on matters relating to Council or its Committees, please contact Victoria Eyles, v.eyles@unsw.edu.au, 9385 3068 or Helen Parks, h.parks@unsw.edu.au, 9385 3072.

The Chancellor is the chair of Council.

5 July 2005

The Academic Board considered the major issue of talented and gifted student admissions. It was acknowledged that some faculties were catering for the needs of this cohort of students but that a University-wide program should be considered to encourage wider involvement. During the debate, matters raised for further consideration included: the need to promote the initiative to students from comprehensive schools, as well as private schools; ascertaining indicators in addition to the UAI to identify high achievers; the development of study programs that did not detract from Honours degrees; and the value of flexible program structures to the success of such an initiative. A refined proposal would be considered by the Academic Board in due course.

During consideration of new program proposals at Masters degree levels, the Board identified the need for consistency in nomenclature, with particular regard to the increase in development of advanced Masters degrees for executive and professional development. A working party has been established to identify and recommend appropriate nomenclature, and to review model structures in line with the agreed nomenclature. The introduction of the Master of Professional Accounting (Extension), and Graduate Certificate, Master, and Executive Master of Construction Project Management would be recommended to Council once agreement had been reached on nomenclature.

The Academic Board discussed the revised definition of ‘research active’, which had been considered by the Committee on Research, and supported the classification of: “Three (3) publications over the last three (3) years, or one book over the last three (3) years.”

The Board recommended that Council approve the establishment of the School of Photovoltaic and Renewable Energy Engineering; and the introduction of the Master of Taxation by Research.

We welcomed: our new student members Xiao Chen, Khalid Hamady, Michael Hislop and Kylie Ridge; the new members appointed to fill casual vacancies, Professor Angele Cavaye, Dr Paul Hagan and Dr Jan Copeland; and newly appointed Dean of Graduate Research, Professor Margaret Harding, whom we also appointed to membership of the Committee on Research.

We approved the appointment of Professor Veena Sahajwalla and Associate Professor Hans Riesen to fill casual vacancies on the Academic Board in staff electorate D, and the revised Master of International Taxation, and noted the annual reports from the Presiding Members of the Academic Services Committee, Committee on Research, and the Postgraduate Coursework Committee. The Board also noted that the AGSM Academic Board had recommended a new programs proposal for an Executive Master of Business Administration (Construction) and Graduate Diploma in Management (Construction) to the UNSW Council and the University of Sydney Senate for approval, which was in accordance with the Joint Venture Agreement.

If there are issues you want me or Academic Board or its Committees to consider, or if you would like to attend a meeting, please let me know via a.dooley@unsw.edu.au or 9385 2393.

Tony Dooley  
President, Academic Board
The worldwide lawyer

Ben Saul spent three months in 1999 on the Nepalese-Indian border, training Bhutanese refugee leaders in international human rights law, advocacy and strategy. He was an election monitor in one of Sri Lanka's most violent districts for the 2001 national election; there were 40 political murders in his area in the four weeks of the campaign. He spent a few months in Shanghai studying introductory Chinese law. While completing a doctorate at Oxford, he was the principal drafter of an opinion for the Israel Supreme Court on the legality of the barrier around Palestinian areas. And... he's 28.

Dr Saul joined the Faculty of Law in January and is the director of the Gilbert + Tobin Centre of Public Law's Bill of Rights project. The recently formed International Law and Policy group, of which Dr Saul is a member, held a public event at State Parliament last month.

It's a long way from Cabramurra. In primary school Dr Saul was the recipient of a generous academic scholarship, the legacy of a renowned former media baron, which relocated him from the Snowy River hinterlands into eight years of a privileged private school environment.

"Being exposed to this very different socioeconomic group made me realise I had to work very hard to compete and achieve," he said. "It also showed me the massive inequalities that existed – and instilled a sense of social justice from a young age."

His extensive involvement in extracurricular school activities continued during his BA LLB years, during which he fitted in an honours year in Australian literature, along with a breadth of international law and human rights involvements including Amnesty International, the Law Council and an armful of government committees. After a year at the Australian Law Reform Commission, he won a Commonwealth Scholarship to undertake his doctorate. The manuscript, Defining Terrorism in International Law, has been accepted by Oxford University Press. (The second edition of his first co-authored book, Future Seekers: Refugees and the Law in Australia, is due out later this year.)

While at Oxford, he taught public international law and was also a lecturer at Oxford's Refugee Studies Centre. This year, his teaching includes Australian immigration and refugee law; in 2006 he expects to add public international law, the law of armed conflict and international refugee law.

"International law is a great field because it allows you to do a range of different things," Dr Saul said. "You can combine an academic career and also continue practising international law or consulting to governments or NGOs."

At the Faculty of Law, he is actively involved in the Diplomacy Training Program, for which he will visit Bangladesh this month. Before then, he will be in the Sorbonne, presenting on the prosecution of terrorism cases. In June he was in Bangkok, speaking on human security and UN reform, and also gave papers in Budapest and Vienna on defining terrorism. Then it was back to Coogee for a national workshop run by the Gilbert + Tobin Centre's terrorism and public law project.

There is also his community engagement on a local level, on the management committee of an organisation that gives free legal help to people in detention and asylum seekers in the community, and the opinion pieces during the recent debate about torture, a topic on which Dr Saul has both researched and published.

"I enjoy contributing to the public debate. Like Oxford, the Gilbert + Tobin Centre of Public Law has a very useful profile which allows you exposure and also access to the leading thinkers in the public debate."

Alternatives to his recent return to Australia, in part for family reasons, included the Amnesty International secretariat in London or one of the well-funded US universities. "Australia is a long way away for international law," Dr Saul said. "But there are relatively few international lawyers in Australia and you can have a much louder voice. It's important to have people holding Australia to account for its compliance with international law."

And down the track? "International law holds many options. Perhaps politics eventually. Perhaps the bar – if we get a Bill of Rights. And we're working on it."

Louisa Wright
Many people observe the sundial on the tower of the Quadrangle building and have wondered how to read the time from this object of curiosity. As the person responsible for its existence, I feel I should give some explanation for it, especially why its time does not always agree exactly with the time shown on our watches.

The sundial tells the local solar time. We read this time by measuring the shadow of the straight edge of the gnomon (the long vertical triangular column) against the sundial face. For example, the time on the sundial in the photograph is 12:10 pm. This is quite close to Eastern Standard Time (EST), but may differ from it depending on the season. The difference is described in the Equations of Time plaque mounted on the Northern Column of the Quadrangle Tower.

For example, if we were reading the sundial on 20 July, we would need to add six minutes to our sundial time to bring it to EST. The Eastern Standard Time from our sundial reading would therefore be 12:10 plus 6, or 12:16 pm.

A further refinement is needed if we read the sundial during Daylight Saving, or Eastern Australian Summer Time, when clocks are one hour ahead of EST. For example, if the sundial reading in the photograph had been made on 15 January, EST would be 12:10 plus ten minutes, or 12:20 pm. To bring this to Daylight Saving or Eastern Australian Summer Time, we would now add an hour, and the time (as read by our watches at that time of the year) would actually be 13:20 pm.

The sundial is appropriate to the times. It was erected and unveiled in 2001, the start of the third millennium. For this reason we proposed that the sundial be called the UNSW Millennium Sundial.

The sundial is one of the earliest of mankind’s inventions to measure time… [they were] a very common sight in the early universities, as the sciences and the classical arts studied in those institutions came together nicely in the sundial. Sundials were very common in Roman times and there are many examples of them in the archaeological museums of the sites of ancient towns, such as Pompeii. Their construction flourished during the Renaissance, and there are many beautiful examples of them to be seen in many of the early churches and universities of Europe, such as Oxford, Cambridge, Paris and Uppsala in Sweden.

The sundial was a very common sight in the early universities, as the sciences and the classical arts studied in those institutions came together nicely in the sundial; the sciences, because the knowledge of astronomy and the use of mathematics enabled the precise computation and location of the hour lines on the dial; the arts, because the form lent itself to the creative design, which often alluded to classical scholarship and learning.

The School of Surveying and Spatial Information Systems designed and constructed the Millennium Sundial on the south tower of the Quadrangle building. It is probably the largest vertically mounted sundial in the world, as its size (the gnomon is two metres long) and weight (more than 300 kg) presented special problems for mounting.

Of all the precincts on the Kensington Campus, the Quadrangle area – which echoes the cloisters of the older European universities – is the most appropriate. By locating it high on the building’s fourth level, the sundial catches the early morning and late afternoon sun. Its construction received enthusiastic support both from the U Committee, which provided funding, and from the then Vice-Chancellor Professor John Niland, and had special oversight from Paul Turner of Facilities.

It is a useful teaching tool in the study of geodesy and positioning. Astronomy was one of the principal studies in medieval universities, where the study of the sun and stars led to our understanding of the nature of the solar system and of Earth’s motions in space. Its use in navigation and positioning as the means of establishing our location on the globe has only been superseded by the advent of satellite positioning. Nevertheless, an understanding of the various motions of the Earth in space is still fundamental to the study of global positioning.

The sundial will provide a means whereby we observe not only the daily passage of the sun across the sky but also the variations in the sun’s elevation in the sky with the passing of the seasons.

Dr AHW (Bill) Kearsley is Visiting Associate Professor and former head of the School of Surveying and Spatial Information Systems in the Faculty of Engineering. More information about the design and construction of the sundial can be found on the School of Surveying and SIS website, at http://129.94.167.42/currentstudents/ug/projects/yj/sundial.htm.