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uniken

NEW HORIZONS

The adventurous life
of an entrepreneur



UNSW

THE FUTURE OF NEW MEDIA AND THE ART OF RELIGION

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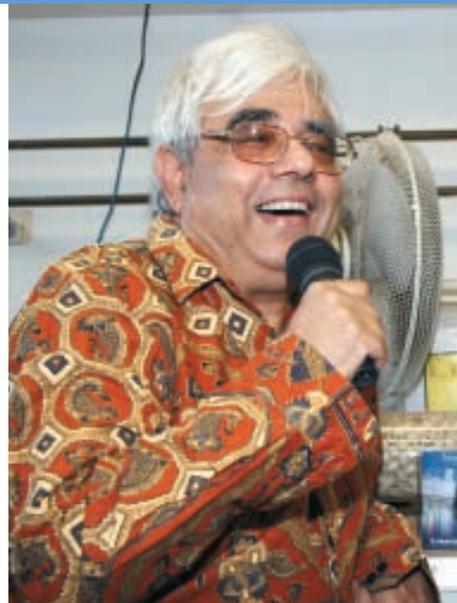
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Five minutes with ...

Sri Bandyopadhyay

Sri specialises in nanotechnology and has worked in the School of Material Science and Engineering at UNSW for the last 16 years. Also known as the Singing Professor, he is a poet who takes inspiration from the world around him, including his experiences at UNSW.



What makes you write poetry?

Whenever a special feeling comes into my mind I guess, it turns into an emotion which then gets converted into a poem, poetry or song. The feeling may come from happiness, sadness, admiration, fun, love, affection or compassion.

How long have you been writing poetry?

From the age of 10, I was inspired to write poetry by my father Atri Kumar. My first poems were in my mother tongue Bengali, and then came English, later the other Indian languages like Hindi and Sanskrit.

Have you written much poetry about events or people at UNSW?

Yes. For example, several years ago when our School was doing really brilliant things on Course and Careers Day, I wrote several verses on the spot. I have also written about Mark Wainwright's Order of Australia medal, the arrival of our new Dean in 2004, and many other UNSW moments such as Martin Green receiving the SolarWORLD Einstein Award.

Do you think that nanomaterials and poetry are an unusual combination?

I wouldn't know, but let me say this:

*Nanomaterials are here, and they will stay
No matter what people think, they won't go away ...*

What do you like about working at UNSW?

I love the University and my students - I enjoy the work and the challenge.

*Oh students you are our sunshine and the light of our eyes
We do hope you prosper, we do wish you conquer, and in your life you rise.*

What about nanomaterials makes you passionate?

I knew:

*Nanomaterials existed inside materials
Such as metals, ceramics and glasses -
Just that they could not be freed up as such
Like now they are done, almost in masses.*

The nanomaterial is a new shape or free size of materials which makes them far more active and efficient than the normal material is - and if properly handled they can be of tremendous value to society including engineering, communication, IT and medicine.

Tell us about your research.

I am a materials engineer with degrees in metallurgy, materials science and polymers - and naturally my research is mainly in the area of composites; even in nanomaterials, I look for nanocomposites.

For more of Sri's poetry and songs go to www.mp3.com.au/Bandythesingingprofessor/. ■

UNSW acts on climate change

Vice-Chancellor Professor Fred Hilmer recently hosted a forum to look at what UNSW can do to address climate change. He also committed \$700 million for major environmental projects over the next five years.

During the forum, which was open to all staff and students, Dr Ben McNeil from the UNSW Centre for Climate Change Research and Caitlin Hurley, Chair of the Arc@UNSW Board, joined with Professor Hilmer to look at the latest scientific data on climate change and the programs that UNSW already has in place to minimise our environmental footprint.

The forum then became an open discussion where audience members were encouraged to offer their thoughts on how the University can further develop best practice strategies for environmental sustainability and greenhouse gas reduction.

Professor Hilmer said: "As a University we want sustainability to be a value that characterises our student experience, our research and our commercial engagement."

Cancer breakthrough

A UNSW researcher has developed a world-first test which will radically improve cancer management. The licence to develop the technology potentially represents the most significant and valuable licensing transaction ever done by UNSW in the biomedical area.

Professor Philip Hogg, co-director of UNSW's Lowy Cancer Research Centre, has developed the technology, which determines whether cancer cells are dying within one day of a patient's treatment with radiation or chemotherapy. This enables oncologists to quickly determine whether a treatment is successfully targeting a patient's cancer.

"It's very exciting. There's no way to do this now. It's a real unmet need in cancer treatment," said Professor Hogg.

The US pharmaceutical company Covidien has bought the rights to develop the technology, which it also believes will have applications for those suffering strokes and heart attacks. Professor Hogg hopes the test for cancer will be used in hospitals within five years.



Professor Phil Hogg

Success for UNSW Press

Recent coverage in newspapers indicates that university presses are barely surviving. But UNSW Press increased its revenues by 12 percent last year and has added an impressive repertoire of award-winning authors to its list.

Phillipa McGuinness, publisher since 2002, says the success is due to the number of titles that are pitched at a wider audience. "This year we launched a trade imprint, New South, and we're doing less academic publishing. We encourage academics to aim their books at a more general audience."

UNSW Press was also extremely successful in this year's round of literary awards. *Slicing the Silence: Voyaging to Antarctica* by Tom Griffiths won the 2007 Queensland Premier's Literary Awards: Non-fiction Prize and was shortlisted for *The Age Book of the Year* awards. *The Silent Deep: The Discovery, Ecology and Conservation of the Deep Sea* by Tony Koslow won the 2007 Victorian Premier's Literary Awards: Science Prize; and *How a Continent Created a Nation* by Libby Robin won the 2007 NSW Premier's History Awards: Australian History Prize.

For the record

"It is a delusion of grandeur and a waste of money."

Dr Mark Diesendorf, Institute of Environmental Studies, on a House of Representatives recommendation that a large-scale carbon-capture demonstration plant be constructed in an attempt to slow climate change - Canberra Times.

"The mantra should be 'you need to eat Skippy in order to save him too!'"

Professor Mike Archer, Dean of Science, arguing that conservation through sustainable use of kangaroos will protect the species - Sydney Morning Herald.

"It's fantastic, it's cool."

Dr Brendan Burns, School of Biotechnology and Biomolecular Sciences, on the discovery that space flight causes bacteria to become more virulent - The Australian.

"If their work commitments get much beyond 14 hours the red light goes on for me."

Dr Peter Birrell, School of Psychology, on the impact that part-time employment has on student's university performance - Sydney Morning Herald.

"We thought that where there was regular dog walking, birds would get used to it. Well, they didn't."

Dr Peter Banks, School of Biological, Earth and Environmental Sciences, on his research which found that walking leashed dogs through bush reduced the number of birds - New York Times.com.

"It's a class-based prejudice that there's something tacky about women who are showing off their cleavage or enjoying their time in the spotlight."

Professor Catherine Lumby, Centre for Social Research in Journalism and Communications, on footballer's girlfriends attending the Brownlow Awards dinner - The Age.

Green thumbs up

New awards acknowledge UNSW's environmental leaders.

The University has announced the winners of the inaugural UNSW Environmental Achievement and Leadership Awards.

Presented in a ceremony last month, the cash awards recognise outstanding innovation and leadership in creating a sustainable future at UNSW through best environmental practice.

The Environmental Achievement and Leadership Awards program is a first within the Australian tertiary education sector.

The following individual staff members were honoured; Robert Wilcox, Waste Reduction category; Robert Grimmett, Energy Efficiency category; and Estely Pruze, Green Procurement category.

Teamwork was also highlighted at the ceremony, with Facilities Management's Grounds Unit receiving the award for Water Efficiency.

Facilities Management Director Alan Egan commended the Environment Unit for initiating the awards program.

"These awards provide an opportunity to acknowledge the achievements of some of our 'unsung heroes', whose day-to-day stewardship of the University estate is making a real difference in reducing our ecological footprint," Alan said.

The awards were judged by a panel, including Professor Veena Sahajwalla, School of Materials Science and Engineering, Mary O'Malley, Deputy Director of Media and Communications, and Cameron Little, UNSW Environment Unit.

It is proposed that the 2008 awards will be open to all UNSW staff members. ■

- Erin Rutherford

UNSW scores top marks for teaching

UNSW has been judged one of the top three universities in Australia for the quality of its learning and teaching, and assessed as number one in Australia for its teaching performance in business and law.

The Federal Government's Learning and Teaching Performance Fund for 2008 shows UNSW outranking all other GO8 universities. It will receive a total of \$9.5 million from the fund, the second largest allocation to any Australian university.

"These results clearly show that a research intensive university such as UNSW can also achieve the highest standards in terms of the learning experience we provide to our students," said Vice-Chancellor Professor Fred Hilmer. ■

Enhancing learning and teaching

Educational outcome the focus of new program.

The words *collaboration* and *community* are often associated with university research practice, but an innovative new program is drawing on these ideas to enhance the learning and teaching experience for staff and students at UNSW.

A Learning and Teaching Academic Fellows Program has been established to identify, develop and disseminate information on leading educational methods. Nine inaugural Fellows will work with Associate Deans (Education), Heads of School, program coordinators and faculty members to roll out the program. The group will also provide guidance to teaching staff through mentoring programs and participation in University-wide committees, and will contribute to the scholarship of learning and teaching through evidence-based research.

"This initiative recognises that advancements in learning and teaching most commonly occur in an environment where issues and resources are shared and



(L-R) Tom Cockburn, Carol Russell, Rosanne Quinnell, Nancy Marshall, Sean Brawley, Rachel Thompson, Henk Eijkman

solutions jointly developed at both the faculty and cross-faculty level," says Associate Professor Michele Scoufis, Director of Learning and Teaching, and the program's creator.

This focus on relationship building is echoed by Faculty of Medicine Academic Fellow, Dr Rachel Thompson, who says: "The Fellowships provide an opportunity to learn how to improve teaching within our own faculties, and also to develop and learn through new relationships across the campus." ■

The Learning and Teaching Academic Fellows are: Dr Sean Brawley, Faculty of Arts and Social Sciences; Dr Tom Cockburn, Australian School of Business; Dr Henk Eijkman, UNSW@ADFA; Nancy Marshall, Faculty of the Built Environment; Dr Rosanne Quinnell, Faculty of Science; Carol Russell, Faculty of Engineering and Dr Rachel Thompson, Faculty of Medicine. Fellows for the Faculty of Law and the College of Fine Arts are currently being appointed. ■

- Erin Rutherford

Susan Trent, Gasbag Studios

Grounds for praise

Deputy Director of Facilities Management Graham Parry is leaving UNSW but his contribution to our campus will remain.

After overseeing some of the University's most ambitious construction projects in recent history Graham Parry, a UNSW alumnus, this month steps down after 16 years as the Deputy Director of Facilities Management.

"I'm going to miss the wonderful people within the campus community and the campus environment," he says. "I consider it an island of higher aspiration in an increasingly 'dumbed down' society."

Having worked on projects such as the Scientia and the refurbishment of the University Mall Graham is well versed in the challenges of trying to create a campus that can be all things to all people.

Describing his job Graham says: "I sometimes think that maintaining a vibrant campus community and a centre for scholarship during times of pragmatic pressures on students and academics could make it easier to have a virtual university!

"The daily challenge is to enhance our



Graham Parry

Susan Trent, Gasbag Studios

quality teaching areas and to provide research facilities which are responsive to changing needs - and we need to set these two important things in an environment where all the other ancillary activities of campus life can also flourish."

Graham is also pleased to see future improvements planned for UNSW.

"It's great to see medical research being given a big boost via the C25 cancer research

building and prospective works on the Prince of Wales Medical Research Institute and on research facilities at St Vincent's Hospital.

"The student housing projects for High Street and New College that are currently underway, and future prospects for investing in our Engineering Faculty and the College of Fine Arts in Paddington, all give me a very positive feeling about the future," he says. ■

- Erin Rutherford

A metaphor for our coming of age

After 16 years in which I have been proudly associated with UNSW, I've been given the opportunity to reflect on how the University's campuses have changed.

One of the most gratifying changes has been the evolution of the University Mall: I have yet to see a finer space on a contemporary campus.

The achievement embodied in the Mall's development can be seen as a metaphor for UNSW's coming of age and its bold aspirations for the 21st century.

I have also discerned a more subtle and entirely serendipitous metaphor for the Mall: Australia as an advanced liberal Western-style democracy.

We start our journey at Anzac Parade, gratefully acknowledging the Eora People, the traditional owners of the campus.

Arc@UNSW represents our student body and the next generation of leaders from which will come many of the ideas and much of the energy to carry forward the noblest ideals of our society.

Looking to the north, we see the Faculty of Law. The rule of Law is a great pillar of any successful liberal Western-style democracy. To the south, the Village Green: a home for sports and games, famously an important part of the founding ancient Greek model of our society.

Next, we arrive at the Faculty of Science. The foundation of our understanding of our world and the cosmos, and the basis of Western technological attainment, is fittingly prominent at this point on the Mall.

Looming large is the Australian School of Business. Western capitalism has served as a foundation for wealth that has enabled

advanced liberal Western-style democracies to flourish. Moving on, we find the Faculty of the Built Environment, which is one of the greatest tangible expressions and celebrations of the success of Western societies.

Behind the reflective glass façade of the Robert Webster Building, we find performing arts and literature, some of the highest points in Western culture. No great university can ignore scholarship of the way our culture is expressed.

Straddling the Mall is the Faculty of Engineering. Our Western civilisation has been singularly successful in harnessing its science into technological innovation through engineering. Indeed, this is the basis on which UNSW was founded.

And lastly, we come to the "Globe": a sculpture which symbolises the University's international aspirations and achievements. ■

By **Graham Parry.**



Susan Trent, Gasbag Studios

Dream Team: engineering a miracle

UNSW's Sunswift team is once again rising to the challenge. By **Peter Trute**.

Two days before the UNSW Solar Racing Team was due to leave for Darwin to contest the World Solar Challenge, their Sunswift race car was without an engine. A specifications error had left the high-tech, aluminium-cased wheel motor an agonising 1 mm too wide to fit into its mounting, leaving the car immobile.

After two years of preparation, such a setback so close to deadline might have caused panic. Instead, the team calmly set about solving the problem: an early morning visit to a machine shop was organised, the wheel motor case was milled to the correct size and a planned two-day testing schedule was reduced to just one afternoon.

"We've worked for two years to get ready but there are always last-minute problems - you deal with them," Sunswift team leader Yael Augarten said.

It was the sort of professionalism you might find in a cashed-up V8 Supercar team - and another reason why Sunswift is an impressive creation: not only is the futuristic-looking car a technical marvel, it exists solely because of the efforts of dedicated student volunteers who fit their commitments to the team around full-time study.

The Sunswift name first appeared in solar-powered racing in 1995, with the car now in its third incarnation as the Jaycar Sunswift III, courtesy of the enthusiastic support of Gary Johnson, founder of Jaycar Electronics, who has committed \$100,000 to the team. The NRMA is also a key supporter.

The car was created from the ground up by UNSW students - from its slippery carbon-fibre shell and chassis to the electronics and software that control it.

And what they have created is a machine that can push its feather-light 205 kg mass to a top speed of 130 km/h using the same amount of power it takes to run a toaster - and all of that power derived solely from the sun.

The car's ability was demonstrated in January this year when it smashed the world record for the fastest solar-powered road trip from Perth to Sydney by three days, completing the journey in just five days.

Since then Sunswift has been updated with a new suspension system designed and built by team member and Mechanical Engineering student Mark Smith.

Mark designed the system for his research thesis project and estimates he then invested more than 1,000 hours in building it.

The car was also given an entirely new carbon-fibre lower body shell and chassis, a new steering system and brakes, a larger canopy to comply with new helmet requirements and its solar array was upgraded to deliver a few more precious watts of power.

Team members also redesigned every circuit board in the car and wrote the software which runs every aspect of its operation - making for an exhaustive and exhausting operation.

"For the last six months we've been working weekends, then for the past two months it's been

nights and weekends, and then for the past month, with the holidays, it's been every day - it just had to be done," Yael said.

Sunswift's world-record-holder status is even more impressive when you consider the teams they are up against in international solar competition.

The team's academic supervisor, Andrew Pratley, says the Jaycar Sunswift III is worth around \$250,000, while the top international teams "would be running a budget of over \$1 million".

Perhaps a hint at the secret of Sunswift's success came earlier this year, when the team won the Welfare, Health, Safety, Education and Training Excellence category in the prestigious Engineers Australia Engineering Excellence Awards.

Explaining the decision, one of the judges, consulting engineer Dr Chris Simpson, paid tribute to the team's strong work ethic and enormous self-discipline.

"You had a lot of people who were welded into a successful team," he said.

"They were doing something with a sense of enthusiasm and it was achieved by sheer force of personality." ■

**Sunswift contested the 20th World Solar Challenge, a 3,000 km race from Darwin to Adelaide, in October. To see how the team fared, visit the Media, News and Events page on the UNSW website.*

Changing media, changing society

The new Centre for Social Research in Journalism and Communication will put Catharine Lumby at the centre of the media debate. And that's just fine with her. By **Steve Offner**.

“Sometimes,” says Professor Catharine Lumby, “I wish I studied igneous rocks.”

The high-profile media expert confesses that some of her areas of interest - gender studies, sexuality and popular culture attract controversy.

Her recent work as a pro bono education consultant to Channel Ten's *Big Brother* and the National Rugby League (NRL) on managing issues of gender and sexual ethics - embroiled her in the sort of media debates that make most academics come out in hives.

But, she stresses, it's not just controversy for controversy's sake.

“I'm very careful about the debates I get involved in and the ones I do enter into I think are important. There is a public interest purpose to them and no matter how much I get involved in controversial subjects I go out of my way to try to create a dialogue and not an argument,” she says.

As the director of UNSW's new Centre for Social Research in Journalism and Communication, Professor Lumby expects that public dialogue to continue.

The Centre - to be officially launched next year within the Faculty of Arts and Social Sciences - will cover print, audiovisual and digital media, and will, according to the Dean, James Donald, “at a stroke create the most dynamic and prestigious research focus on journalism and social communication in any Australian university”.

The Centre's deputy director, Dr Gerard Goggin, left the University of Sydney to take up the post of Professor of Digital Communication and Journalism. Dr David McKnight, a former journalism lecturer at UTS, will become the Centre's Associate Professor in Journalism and Senior Research Fellow, while Dr Kath Albury and Dr Clifton Evers will be the Centre's Postdoctoral Fellow and Senior Project Manager respectively.

Professor Lumby says the Centre will pursue three core elements of research.

“The first is a focus on the evolving media landscape. We will be working on the future of media production, the future of audiences and the effects of both on regulation and business models.



Professor Catharine Lumby

Susan Trent, Gasbag Studios.

... we will be looking at the practise and ethics of contemporary journalism.

“The second element is an interest in the social, cultural and health impacts of media. We'll be looking at the impact of media on different groups and at the role media representations play in shaping our society.

“And finally, we will be looking at the practice and ethics of contemporary journalism.”

Part of the Centre's wider role, Professor Lumby says, will be to promote the relevance of humanities research.

“I do strongly believe you have to have people going out onto the frontline making a strong case for the value of contemporary humanities studies. Some still laugh at the idea of gender studies ... they say 'oh that's trendy that's post-modern, what's that all about?'”

“Well ask the NRL what gender studies is all about. They know that it has very practical

applications in devising evidence-based education programs for players.”

Professor Lumby says an example of the Centre's applied work is a Linkage grant she and Dr Albury have won to work with the NRL to help elite athletes cope responsibly with the pressures of being in the media and public spotlight.

Similarly Professor Goggin has been awarded a major ARC grant to study the impact of mobile media on the media landscape and Professor McKnight is working on an ARC-funded project on the political commentary published in the US, the UK and Australia by the media outlets of News Corporation.

As for her own areas of interest of gender and sexuality, Professor Lumby says she won't be ignoring them.

“I have a real interest in audiences and so on ... and that's where the gender stuff comes in ... I'm particularly interested in youth, and female audiences.

“A lot of middle-aged male media producers are scratching their heads about how to reach those groups.” ■

For more on the future directions of new media see page 12



The drive to innovate

Those with the vision and drive to launch their own business now have a powerful and prestigious ally - one that brings together some of the entrepreneurial world's finest research and learning. By **Chris Sheedy**.

Most industry leaders agree that entrepreneurs are vital to Australia's future global business success as large organisations are relying more and more on specialist external businesses for non-core activities. But world-class research in the field of entrepreneurship and innovation, as well as research-based educational facilities for those who wish to follow the entrepreneurial path, have been sorely lacking.

The Australian School of Business recognised this need and have responded with an offering that is already attracting the attention of business leaders, the School of Strategy and Entrepreneurship, headed by renowned business academic

Associate Professor Peter Murmann. The School, and its new Centre for Innovation and Entrepreneurship, directed by entrepreneur and founder of The Kalori Group, Christopher Witt, have been established to build on innovation programs already in place within UNSW.

The School will create strong bonds between the academic community, students and the business world via networking events, conferences, internships and research projects, says Witt.

"There will be a coursework segment at undergraduate and graduate levels," he says. "We'll be intersecting with commercialisation bodies such as NewSouth Innovations, the Australian Technology Park incubator and NICTA. There will be internships, a "Meet the Entrepreneur" series and a convention in 2008. The overall effect is to create a grooming process for the next generation of entrepreneurs."

The "Meet the Entrepreneur" events will be a series of presentations by leading stars of the business world for students, alumni and staff. The conference, to occur on an annual basis, will be open to anybody interested in entrepreneurship.



“... advanced schooling for anybody who has chosen the life of entrepreneurial adventure.”

“I like to think of the Centre as advanced schooling for anybody who has chosen the life of entrepreneurial adventure,” Witt says.

His enthusiasm for the project, and for the opportunities it will present to students and business people alike, is matched by Professor Murmann’s passion for bringing the power of academia to an area that has previously been more about trial and error than solid research.

“We want to create frameworks and ideas which allow people to see the generality of experience, stripping away the details and seeing what is consistent across several entrepreneurial situations,” Murmann says. “It’s like a flight simulator that can, to some extent, mimic problems and teach many of the necessary skills in an offline environment.”

Witt agrees, saying one of the great values will be the minimisation of defects - in other words an education that ensures entrepreneurs make as few expensive mistakes as possible in the real world. ■

Seat of influence

A Chair in Innovation and Entrepreneurship gives the newly established Australian School of Business even more power to attract the world’s finest academics.

A sign of the business world’s excitement about the establishment of the Australian School of Business is the fact that it has already received a generous donation to create a Professorial Chair.

This is the first Chair in entrepreneurship to be established in Australia and it will have close links to the School’s Centre for Innovation and Entrepreneurship.

The endowed Chair will be known as the Michael Crouch Chair in Innovation and Entrepreneurship, named in honour of the donor - the founder, Chairman and Managing Director of Zip Industries and an Australian legend in the international business world.



Michael Crouch

“Innovation in all respects is the keynote to the future.”

“The donation is an indication of trust and faith in the institution,” says Jane Westbrook, Director Alumni and Community Partnerships at the Australian School of Business. “It’s a wonderful and very important gift that not only enables us to recruit a leading academic in a new area of research for the School but also sends out very powerful messages about our capacity to attract that kind of support.”

“Michael Crouch has been a member of our Advisory Board since its inception. He’s an extraordinarily capable man - he is a member of the APEC Business Advisory Council, for example - and his interest in innovation and entrepreneurship grew from his personal experience of building his own, highly successful international company.”

Michael Crouch said that he and his company were very proud to be associated with the establishment of the Chair. “Innovation in all respects is the keynote to the future. It is very much an Australian characteristic. To have its importance and ramifications encompassed within the Australian School of Business is a very positive step forward for the future,” he said.

The Head of the School of Strategy and Entrepreneurship, Associate Professor Peter Murmann, says the Chair makes the Australian School of Business even more attractive to leading academics in what is already a highly competitive market. It will also give the School an enormous boost to its teaching and research capabilities in innovation and entrepreneurship and its ability to offer such courses at undergraduate and graduate level. It will allow the School, Murmann says, to become even more competitive.

“To compete on a global basis, to remain as one of the internationally ranked schools, we need to have the support of the business community, which helps us to resource the School in a way that makes it internationally competitive,” he says.

“This new, high-profile position is immensely valuable. It will further increase our world-class research and educational capabilities, and that can only be good for students and for business.” ■

UNSW's business alumni provide a bold example for students in the School of Innovation and Entrepreneurship.



Cathy and David Harris with two of their children.

Courtesy of Harris Farm

Pick of the crop

Cathy Harris and her husband David have turned their once humble fruit-and-veg markets into a national icon.

The pair met at UNSW and married straight out of university. When David decided to become a fruiterer, Cathy found his decision confronting. "All our friends were doing the 'smart things' like going to work for Price Waterhouse and we were planning to run a fruit shop!"

When the couple opened their first store in 1972 their "normal" existence involved David being at the markets by 2 am while Cathy worked at Grace Bros during the week and pitched in at Harris Farm Markets on weekends.

The business started expanding and by the late 1980s a publicly listed cashbox company, Panfida Foods, convinced the Harrises to give up equity in the company. At this stage, there were 17 stores, which rocketed to 37 within two years. But when Panfida Foods ran into difficulties the Harrises lost all but three of their stores.

"Panfida was in trouble," Cathy explains. "However, the bank supported us, so we ended up running three stores for family and friends who put up their money on the understanding we would buy them back when the time was right." Today, they have 19 stores.

Cathy says, "It's really important if you have a good opportunity to have plans that are flexible enough that you can take advantage of opportunities. And I think that's what people often don't do - they become so

focused down the path that they don't see all the opportunities that are happening on the sidelines."

Cathy believes entrepreneurs often are A-type personalities. The very thing that makes things possible is, she argues, what stops them. "You have to have so much guts to do these things - open 37 stores - that is really putting yourself on the line every single day and you have to be a certain personality type to do that."

So is there something special about Cathy and David that allowed them to fight back to re-create Harris Farm Markets after the Panfida debacle? "No, just five kids at private schools," David jokes. "Though I've always been a person who runs long-distance running races and that's just how I do business as well." ■



James Stevens

Susan Trent, Gasbag Studios

Coming up roses

In the late 1990s, James Stevens came up with an idea - or what he calls one of his "light bulb" moments - to use the Internet as a trading tool and boxed flowers as a marketing instrument.

James is the son of Greek migrants who came to Australia in the early 1950s looking for an opportunity. That break ended up being flower shops. "I learnt about business sitting at the dinner table each night," Stevens recalls.

Completing his high school education, he went on to study commerce at UNSW and majored in accounting.

"I thought I was going to university to become a calculating entrepreneur. Unfortunately, entrepreneurship as a course did not exist. Calling entrepreneurship a discipline is almost ironic. Sure, a lot of what you do is disciplined, but disciplining an entrepreneur is almost

like mustering a wild horse."

James came up with the idea of taking his family's working business and making it better. He established Roses Only, now a fast-growing brand that is a leader in the online flower market in Australia.

Although he comes from the school of "just do it" entrepreneurs, James appreciates that university changed the way he looks at his business. "You learn the concept of efficiency, the concept of equilibrium, demand and supply. The other thing I studied and enjoyed was economic history. You learn about cycles, you learn about things that aren't that obvious to normal punters."

So what has James' entrepreneurial experience taught him. "Listen more and involve key staff in decision making. And always surround yourself with good people." ■



Winds of change

If you're afraid of shifts in the international financial markets you'd better stop the world and hop off.

By **Chris Sheedy**.

Professor Fariborz Moshirian

The growth of the Chinese economy, the growth of the Indian economy, the possibility of a single currency in the Asia-Pacific region, the likelihood of trade negotiations altering the current structure of the global economy - these will all, according to Professor Fariborz Moshirian, have a major influence on the world economy and international financial markets.

According to Professor Moshirian, from the School of Banking and Finance, the increasing importance of the Chinese and Indian economies is causing many commentators to refer to the 21st century as the "Century of the Pacific".

"The US dollar is now just one of the priorities, not the major priority," he says. "There is also the Euro and the Yen and, in the future, I can see an emerging Asian single currency. This was raised at an APEC summit some years ago. In the next couple of decades I would say we're looking at convergence of main currencies to three - the US dollar, the Euro and a single Asian currency. In a sense it will create a more balanced global economy."

A single currency in the Asia-Pacific region, Professor Moshirian says, would bring with it many benefits for the business world, particularly in Australia. "What you're going to see is lower inflation and lower interest rates because you're going to have a single price and

single monetary policy in the Asia-Pacific zone," he explains.

"The second issue, which is probably more important, is more capital flows within the APEC zone. People will have more confidence in investing in different parts of Asia-Pacific. Currently in Australia, for instance, the fund managers don't invest enough in Asia because they are uncertain about currency crises and corporate governance. A single currency means you have fairly transparent and coordinated financial markets, hence countries in our region will benefit significantly, similar to the EU experience, from this massive increase in capital flows."

This vision of the world's trading future is already becoming clearer thanks to meetings such as the recent APEC summit. While the media has enjoyed reporting that very little took place at APEC, Professor Moshirian would beg to differ.

"The APEC meetings could assist the Doha Round of trade negotiations [which has the aim of lowering trade barriers around the globe]," he explains. "One of the challenges facing the Doha Round is agriculture subsidies. If it is true that the US and Japan, as part of APEC, are going to agree to trade liberalisation then I would say that such a position will encourage the EU to also agree to change their

agriculture subsidies policy."

What all of this means is that the US and Japan, in possibly creating a system with reduced or non-existent agriculture subsidies, will help to open up trade to such an extent that the EU will consider following suit. The APEC Trading Area, rather than being utilised as a discriminatory EU-style trading zone, could instead be used as a stimulus to rejuvenate the Doha negotiations.

"If this happens then other nations such as Australia, Canada, Argentina and many developing countries will become the largest exporters of food outside of Japan, the US and the EU, hence it will be a major restructure of the global economy," Professor Moshirian says.

But first the major power blocs must overcome the inextricable link they see between agriculture and national security which, at first, seems an illogical connection. According to Professor Moshirian most nations are still concerned about retaining their ability to provide food for their own people during wartime, hence their hesitance to become reliant on imports.

"I think this issue at the Doha Round of negotiations will be very interesting," Professor Moshirian continues. "The fact that these nations are getting together and talking is very good." ■



Will new media kill the TV star?

A renaissance in online technology is reflected in changes to the School of English, Media and Performing Arts.

By **Victoria Brown.**

Dr Ross Harley

Susan Trent, Gasbag Studios

The rapid pace of change in new media is causing traditional media outlets some consternation. Concern over piracy laws and unlimited access to material are certainly a challenge but, according to Dr Ross Harley, the end result can only benefit the consumer.

"The web is going through a bit of a renaissance at the moment," says Ross, a senior lecturer in the School of English, Media and Performing Arts. "At UNSW we are forging ahead - getting the students to think about what media is becoming because of all the innovation on the web, in wireless technology, mobile phones, game consoles, home cinemas, MP3 players and all the rest of it."

Traditional media outlets are struggling to deal with technological innovations such as file sharing and peer-to-peer distribution networks.

"Even though these kinds of innovation are talked of in terms of piracy, they are also ushering in a new way that we might deliver media experiences," Ross explains.

"If you look at organisations such as the ABC and BBC, they are publicly funded media, established in the public interest to entertain and inform. They have a brief to make programs and show them to as many people as possible - so why not allow people to file share or download them? And that's just what they're doing."

Ross says that an active role for consumers is the next big thing in new media. "Changes to the internet are all about user-generated content and an increasing importance placed on participatory culture," he says.

"Empowering the consumer to be critically involved in the production of media content is a big change that coincides with, and reflects, our institutional change."

In this current climate there are lots of possibilities for change and for us to be more involved in media choices.

"If you are an active consumer you contribute; you decide when and where to access material and whether to recontextualise it, or mash it up," Ross says. "As this active consumption grows, there are more opportunities for many-way interactions. The more people use the technology, the more empowering it becomes."

Two good examples of this new consumer power can be found in YouTube and Wikipedia. Instead of expert corporations supplying knowledge as a commodity, these new models allow for many users to collectively contribute for the greater good. In the new model, when you share something it increases its value, while traditional models insist that sharing is akin to stealing.

"This is a really interesting moment where corporations with a vested interest are being

very slow on their feet and those people who are faster on their feet are undercutting them," Ross says. "For example the traditional music industry is struggling with entities like Apple iTunes and eMusic which let you download songs legally for a fraction of the cost of a CD."

"Despite all this, people do still love to hold onto an object. Books and movies won't be killed by the web. They'll just evolve into new forms that will co-exist with their current form."

Ross doesn't see new media as a replacement of the old. "This is a dialogue, sometimes a battle, between media forms, and the consumer sometimes ends up with something entirely new," he says.

These developments in new media are reflected in the changes to the School of English, Media and Performing Arts, which has seen an increase in cross-disciplinary work and a sharing of ideas and information since Music, Theatre, Dance, English, Film and Media amalgamated at the beginning of 2007.

"There are lots of synergies between the people who are now in this School," Ross says. "In today's world these areas are increasingly integrated, and being together is allowing our staff and students to make connections more easily. It's really exciting." ■

A vision splendid

UNSW is compiling the art equivalent of the *Oxford English Dictionary*.

By **Steve Offner**.

The vision is enormous, almost utopian, says UNSW Global Professor Vivien Johnson, referring to the Dictionary of Australian Artists Online (DAAO) which will launch this month.

Billed as the only freely accessible research infrastructure on Australian art, the dictionary will provide the first-ever authoritative, contemporary online information service on Australian artists.

"It's utopian in the sense that we aim to include in the dictionary every Australian artist since colonisation, since the concept of art as art arrived here and even back before if that were possible. It's an enormous task," says the College of Fine Arts-based Professor Johnson, who is the editor-in-chief of the enterprise.

The comparison most often used to describe the endeavour is the compiling of the *Oxford English Dictionary*, which set out to include every single word in the English language.

"People thought they must be mad, that it was impossible. But they did it, with very few resources and without the powerful resource of the internet that we have," Professor Johnson says.

Supported by two ARC Linkage Infrastructure Grants so far, and led by a team based at the UNSW Library and at COFA, the DAAO also brings together the resources of its member organisations, including the Universities of Sydney, Monash and Adelaide, the National Gallery, the National Library and various state libraries.

The team has already indexed 7,000 foundation biographies written by 437 art historians and researchers from across the country. And it plans to include far more, to eventually be the final authoritative source of information on Australian artists.

The idea originated with art historian Joan Kerr, who published several volumes of definitive works, including the original *Dictionary of Australian Artists to 1870 and Heritage*, a tome on 500 Australian women artists. Toward the end of her life, Kerr had become frustrated that the books that had taken so much research were out of print and not likely to be reprinted - and that others



Professor Vivien Johnson

Susan Trent, Gasbag Studios

“It's an enormous task.”

could not find a publisher at all.

Kerr's colleague and one of DAAO's chief investigators, Joanna Mendelssohn, suggested the internet, and the idea of a truly authoritative and inclusive resource was born.

The dictionary functions like a cross between Google and Wikipedia. It offers online authoring and online commentary. But unlike Wikipedia, where anyone can contribute and alter entries, the DAAO has an editorial board to oversee the process and keep an eye on the authenticity of entries.

"People can't adulterate the content of the dictionary without going through a series of checks and balances. No-one can add biographies without the editorial board overseeing the process and signing off on it," says Professor Johnson.

"We are undertaking a process of double blind peer reviews so the biographies are checked for accuracy and relevance. So you're getting is information you can rely on."

The capacity of the DAAO's search engine

also differentiates it from other internet-based services.

"We have been working for several years now to develop this machine, this giant search engine, because the other thing that the DAAO does, which is really significant, is search the content of the DAAO over a range of more than 20 fields.

"Google's great but type in a word and it will bring up 2.5 million references ... The search facility of the DAAO is quite precise - the information in the biographies is mined into a range of fields as well as other information so, for example, you could pull up every Aboriginal artist who paints a particular Dreaming, which would be a amazing tool if you were trying to devise an exhibition on that Dreaming."

The end result is a paradigm shift in publishing and art history research.

"That you can publish on the internet and work collaboratively to build a resource that is inclusive and is not part of a single person's empire building, is a major development.

"Once we're launched we'll need people to contribute big time ... and if there's a tsunami of entries, that's great. I look forward to the prospect of being overwhelmed by contributions."

For more information go to the DAAO website: www.daa0.org.au. ■

Art of controversy

COFA artists are using the Blake Art Prize to express their opinions on religion in contemporary society. By **Tracey Clement**.

The Blake Prize for Religious Art was initiated in 1951 by a Jesuit priest, a Jewish businessman and a Catholic lawyer to encourage artists to create works of art with diverse religious content. Fifty-six years later, the Blake Prize has become one of the Sydney art scene's usual suspects. Like the Archibald, Wynne, Sulman and Dobell prizes, it comes round every year with reassuring regularity. Yet this year, the Blake Prize proved once again that old and reliable doesn't have to mean conservative and boring.

As the 21st century progresses, religion finds itself constantly in the headlines. Although Western societies are becoming increasingly secular, our widespread loss of faith is simultaneously mirrored by a rise in religious fundamentalisms which have become inextricably linked to politics in the seemingly endless war on terror. Instead of shying away from negative press, the Blake Prize has risen to the challenge by allowing the exhibition to become a public forum for criticism and discussion.

According to Ian Howard, Dean of the College of Fine Arts, "To have a strengthened, emboldened Blake Prize currently, in a world where these issues are not only coming to the fore, but in the worst instances, coming to the fore in a deadly way; there is no better time. It encourages serious artists to work with these serious issues." In addition to Howard, COFA's Louise Fowler-Smith, Phillip George and Francois Limondin joined a host of other respected contemporary artists in ensuring that the 56th Blake Prize exhibition was powerful, provocative and more relevant than ever.

Phillip George, Senior Lecturer in the School of Media Arts, has exhibited in the Blake Prize previously and admits, "Everything I've put in has been critical of religion. My critique is particularly of that form of Christianity which promotes invasion, occupation and torture." George keeps a keen eye on current geo-political conditions, but his art also mines the centuries-old, rich and bloody history of East/West conflict. In his bold photograph *God's Oil*, a woman in a burqa becomes just a blank silhouette. She stands like a void in front of giant oil tanks, overlaid with Christian icons, tinted green as if seen through the night-vision goggles of the conquering forces.

Ian Howard also explored the convoluted intersections of religion, war and politics. Howard's art has focused on the relationship between military and civilian populations for



Phillip George, *Road to Paradise - Shahidii, God's Oil*, type c print, 100 x 124 cm each. Courtesy of the artist

“As an artist you must talk about the actuality, the contemporary artist is a social commentator.”

nearly 40 years. He presented one of his *Weeping Wall* paintings which he sees as sites for contemplating all that is wrong with the world. Howard's list is lengthy and ranges from "the melting of polar ice caps ... to the attempted dominance of the land, and the political landscape, by wholly righteous people".

Louise Fowler-Smith, Senior Lecturer in the School of Art, is also the Deputy Director of the Imaging the Land International Research Institute and a concern for the environment is her driving passion. Like her colleagues, Fowler-

Smith is critical of organised religion, but she believes strongly that contemporary society needs spirituality. Fowler-Smith's painting, *And the Tree Inside Me Grows*, reflects her ongoing research into sacred trees in which she explores the positive effects of spirituality and beauty in drawing attention to the preciousness of the natural world.

Francois Limondin, Workshop Technical Officer, is something of an agent provocateur. He believes that, "As an artist you must talk about the actuality, the contemporary artist is a social commentator." Limondin's irreverent sculpture of the Hindu god Ganesh, fashioned from an inverted toilet, was deliberately designed to be controversial in an attempt to spark debate. And there is no doubt that right now, religion is a topic which demands discussion. ■

The mind of early man

Excavations in a South African cave have provided startling insights into the lives of our ancestors.

By **Susi Hamilton.**

Homo sapiens are likely to have engaged in symbolic behaviour much earlier than previously thought according to UNSW research, which is centred on a cave on the South African coast.

The excavations have revealed that approximately 164,000 years ago early humans were grinding and boring pigment - possibly for use as body decoration.

"This is the first evidence we have of early man thinking about things other than practicalities. It shows that 164,000 years ago people were thinking symbolically and they were thinking more like we do," says UNSW archaeologist Dr Andy Herries, who is often found abseiling into long-forgotten caves in remote areas of the world.

"It is hard to get into the mind of early man and find out what they were thinking. This research allows us to find out about us; the roots of who we are and why we think the way we do."

Today, the South African cave where Dr Herries, a Post-doctoral Fellow in the Human Origins Group in the School of Medical Sciences, is focusing his research only 10 metres from the sea, but 164,000 years ago it was much further inland and the temperature was substantially colder. Despite this greater distance the excavations show that early modern humans made a concerted effort to travel to the coast to collect shellfish.

"This is the first evidence we have of early humans eating seafood and shellfish, including the scavenging of whale carcasses. That's significant because it would have allowed them to migrate along the coast and maintain a stable source of food," he says.

Dr Herries has also found evidence that they were using a type of stone tool technology, known as "bladelets", that have been associated with much more recent populations, some 100,000 years later.

Genetic and fossil evidence suggests that modern humans arose in Africa and spread, out of Africa from roughly 100,000 years ago. This is known as the "Out of Africa" hypothesis.



Archaeologists working in the South African cave

Andy Herries

"Our discovery lends further weight to this theory and suggests that modern human behaviour arose early in southern Africa and close to the biological emergence of modern humans," Dr Herries says. "Utilising marine resources as food may have helped them to rapidly colonise new areas. It represents the start of marine exploitation that eventually led modern humans to move out of Africa and colonise areas of the world such as Australia."

While Dr Herries has spent five years digging around the Pinnacle Point Caves in southern Africa - and it has revealed unparalleled insights into early humans - the caves are under threat.

"A golf course has been built above them and water is dripping into them and eroding deposits," he explains.

While heritage authorities are trying to preserve the area, it is easy to imagine how

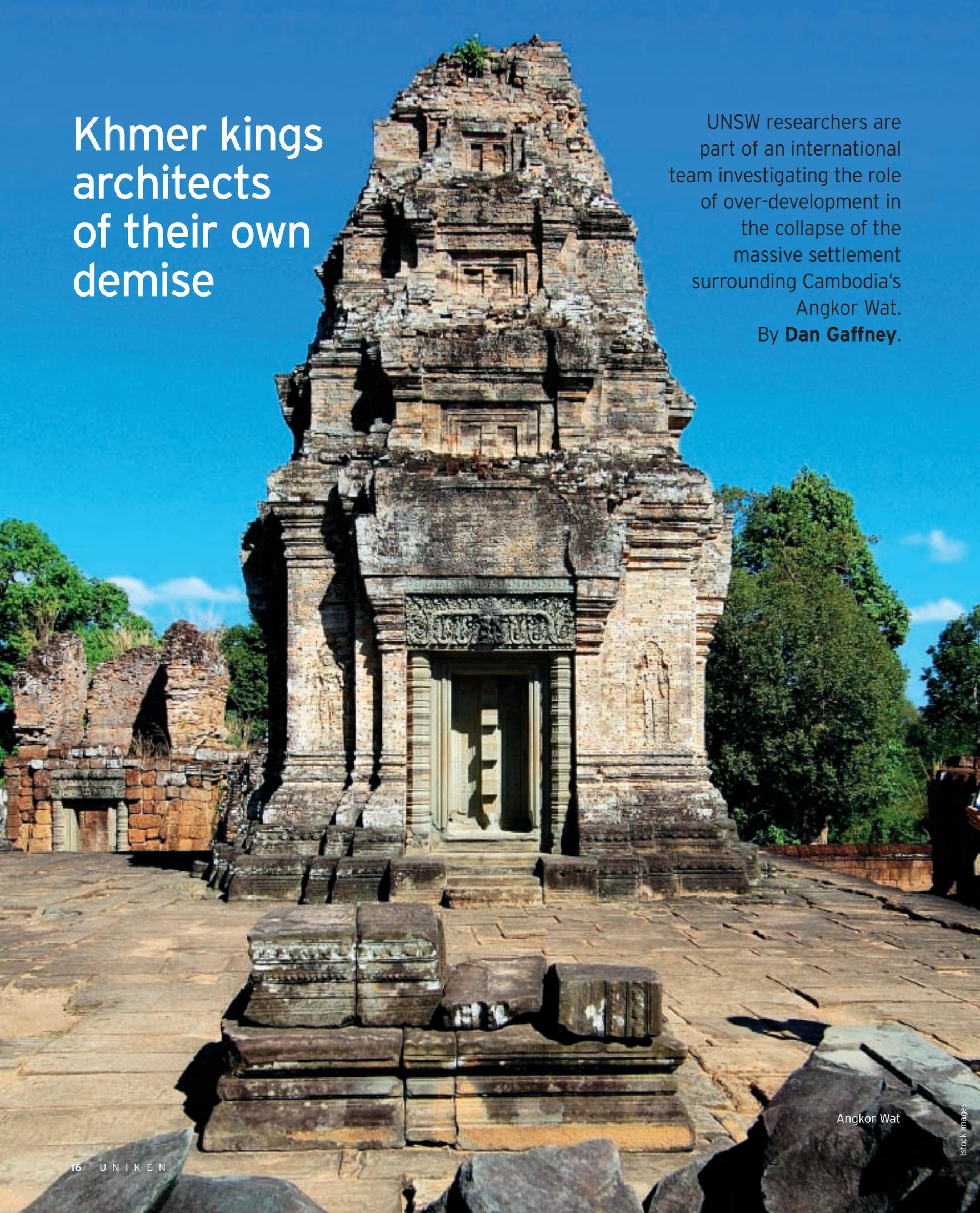
other caves - some known and others still holding their secrets - might be facing the same fate.

"We estimate that we only recover 10-15 percent of what once existed so much will be lost forever," Dr Herries says. "Most of what we find is what people have discarded, so finding this decorated pigment is the equivalent to us finding a forgotten Rembrandt or gold in an Egyptian tomb."

Dr Herries has just been awarded a five-year ARC research fellowship and Discovery grant worth \$665,000 with UNSW colleagues Darren Curnoe (Medical Sciences) and Scott Money (Biomedical Sciences), as well as with other Australian and Chinese researchers. The aim of this project is to discover what happened to the modern humans who left Africa and when they reached South-East Asia, before they colonised Australia some 60,000 years ago. ■

Khmer kings architects of their own demise

UNSW researchers are part of an international team investigating the role of over-development in the collapse of the massive settlement surrounding Cambodia's Angkor Wat. By **Dan Gaffney**.



Angkor Wat

The Khmer kings, who created the world's most extensive medieval "hydraulic city" surrounding Cambodia's famed Angkor Wat, were the architects of its eventual environmental collapse, says an Australian, Cambodian, French and American team which includes researchers from UNSW's School of Biological, Earth and Environmental Sciences.

This new revelation published in the *Proceedings of the National Academy of Science*, supports a disputed hypothesis by French archaeologist Bernard-Philippe Groslier, who 50 years ago suggested that the vast medieval settlement of Angkor was defined, sustained and ultimately overwhelmed by over-exploitation and the environmental impacts of a complex water-management network.

A succession of monarchs ruled the Angkor area from about 800 AD, producing the architectural masterpieces and sculpture now preserved as a World Heritage site. By the 13th century the civilisation was in decline, and most of Angkor was abandoned by the early 15th century, apart from Angkor Wat, the main temple, which remained a Buddhist shrine.

Groslier surmised that a network of roads, canals and irrigation ponds established between the 9th and 16th centuries proved too vast to manage. He argued that extensive land clearing for rice fields supporting up to a million people living beyond Angkor's walled city produced serious ecological problems, including deforestation, topsoil degradation and erosion.

Prior to Groslier's research, archaeologists had concentrated their explorations on the massive temples built between the 9th and 13th centuries as monuments to the power and wealth of the Khmer kings. The rest of the region remained carpeted with vegetation, with few remnants of the ancient civilisation visible to the human eye at ground level.

Undeterred, the Frenchman commissioned an ambitious topographic mapping program in the 1960s to investigate the wider area. However, his vision was halted due to its ambitious scale, the impacts of the civil war and the devastation caused by the Khmer Rouge and Pol Pot's regime.

Latter-day archaeologists therefore disputed Groslier's view because he was unable to support his hypothesis with empirical data about the landscape beyond Angkor's central temple complex.

Using modern-day aerial photography and high-resolution ground-sensing radar, the current international researchers studied an area of nearly 3,000 square kilometres, confirming Groslier's hypothesis by correlating their images to existing maps, topographic data sets and supporting information from extensive ground-based archaeological investigations.

The size of the complex is comparable in area to the sprawling suburbia surrounding

Sydney. It was a vast and extensive settlement that encroached on the natural environment to the north as it grew, according to Damian Evans, the study's lead author and deputy director of the University of Sydney's Greater Angkor Project.

In what is the culmination of 15 years work, the team has discovered over 1,000 man-made ponds and at least 74 more temple sites in the Angkor region, revealing ruins covering an area of 1,000 square kilometres. Mr Evans says the temples not only had a religious function but were centres of taxation, education and water control that reveal much about the everyday life in medieval Angkor.

"We can see that the land use there was very intensive, so whenever the settlement expanded over this vast area, basically they tore down the existing vegetation cover and remodelled the landscape into a very artificial landscape.

"So it's quite clear that they were having some kind of very significant impact on the environment over a large, very, very large area.

"The severity of the problems that that caused, and whether they were able to deal with those problems, is another issue which we're trying to get out through more targeted and focused studies, such as excavations," Evans says.

... they were having some kind of very significant impact on the environment ...

"We also find evidence of village temples, around which these occupation mounds were clustered in many cases, and we see evidence of ponds as well, which would have been used as a water resource during the dry season, as well as evidence of a vast water management system designed to trap water coming down from the hills in the north.

"So really what we can see is a very dense urban fabric stretching between, and far beyond, these huge temples at Angkor."

The new study's radar images were acquired from NASA via airborne imaging radar (AIRSAR) data instruments capable of accurately reconstructing surface structures through cloud cover.

"The instrument can produce high-resolution images detecting surface structures as small as 20 cm in height and distinguish very subtle differences in surface vegetation and soil moisture," says Professor Tony Milne from the School of Biological, Earth and Environmental Sciences, a UNSW co-author of the breakthrough study.

"This was of particular use in uncovering



Angkor Wat

the archaeological landscape at Angkor. The distinctive spatial patterning of features manifests itself primarily in slight variations in topographic relief. This also influences the amplitude or 'brightness' of the radar signal returned to the sensor."

"Both the topographic relief and the surface brightness can be helpful in identifying the possible location of former roads, canals and rice fields," says Professor Milne. "When excavations were carried out, they proved to be the site of a canal or temple moat". ■

The Angkor temples have suffered extensive destruction by nature and pillaging by looters during three decades of warfare and revolution in Cambodia. And local authorities are grappling with the problem of how to preserve the ruins within the temple precinct from increasing numbers of visitors.

Less than 10,000 people ventured to Angkor in 1993, when it was added to UNESCO's World Heritage list. Since then, with Cambodia becoming accepted as a "safe" destination, tourism has boomed. Angkor Wat is now one of South-East Asia's leading attractions and the government is expecting three million visitors in 2010, many of whom will head to the temples.

Helping hands

Students and staff are using their UNSW connection to help those in need.

Universities are places of learning and research, but the skills that they harbour can also provide immediate benefits for the community.

Here we look at a small selection of the UNSW groups and individuals who are making a real difference, whether as part of their degree, in order to gain experience or from personal interest.

Medical students' aid project

UNSW medical students have donated up to \$200,000 worth of equipment to hospitals in developing countries, where even the most basic tests are sometimes unavailable.

The thirty-six students, who are part of the Medical Students' Aid Project (MSAP), took the equipment and their skills to 20 hospitals in India, Africa, Central and South America, South-East Asia and the Pacific during their university holidays.

Victor Burke, 24, who is the Chair of MSAP, spent eight weeks working at a paediatric hospital in La Paz, Bolivia. The experience was counted as an elective for the undergraduate medical program.

"The hospitals there have a chronic shortage of resources. We took a whole lot of equipment which is considered very basic in Western hospitals and included a piece of equipment to measure oxygen in the blood," he said.

"It was heartbreaking at times, because while the doctors are very good at diagnosing diseases, often they can't do anything about it," he said. "Chemotherapy is so expensive that only patients who are thought likely to respond positively are given the treatment. It would be a very different story in Australian hospitals."

Refugee research

Much of the work at the Centre for Refugee Research in the Faculty of Arts and Social Science is done by student volunteers, or interns. While some complete internships as part of their coursework, most volunteer because of their belief in the rights of refugees and to gain work experience.

In 2007 students, many of whom paid their own way, helped to provide six training sessions to refugee groups on the Thai-Burma border. They also went to a meeting of the High Commissioner for Refugees at the United Nations.



Medical student Victor Burke in Bolivia

Another group is going to New Delhi this month to provide training to refugees from Burma who have been trapped in the slums of New Delhi for 15 years.

In Australia students assisted with research into working with children who have survived torture and trauma, domestic violence in refugee families, mapping resettlement services to name just a few of the projects in which they are involved.

The Centre's director, Dr Eileen Pittaway is quick to point out the contribution made by these students. "Without these volunteers the Centre would not be able to maintain its large and diverse research agenda, and the important community outreach for which it is well known," she says.

Engineers without borders

A one-room house of brick and concrete is far from the most complex project UNSW Engineering students will ever handle but for those who go to help out in developing countries it is among the most rewarding.

Volunteer UNSW engineering students are taking a hands-on approach to creating the future through working with charitable organisations Habitat For Humanity and Engineers Without Borders.

Teams from UNSW have recently visited the Philippines, Cambodia and Thailand on missions to build houses for impoverished local families.

First-year mechanical engineering student



Law student Alexandra Rose in Kenya



Engineering student Tom Arnott in the Philippines

Chloe Xuereb worked on a new housing project on the outskirts of Bangkok.

Working alongside the future owners of the houses, the group's task involved bending steel reinforcing mesh then mixing and pouring cement by hand to create foundations and support columns.

"That was one of the surprises," Chloe said of the manual labour. "You don't realise how hard it is until you experience it first-hand."

Kevin Twycross' group worked on two houses at a site just outside Phnom Penh. The first-year mining engineering student was struck by the harsh life endured by impoverished locals.

"We were just overwhelmed by how little they have and how much they want to give," he said.

Support through design

In 1979 architecture students from the Faculty of the Built Environment designed accommodation for rural people experiencing multiple intellectual disabilities.

More than 20 years later Lambing Flat Enterprises (LFE) in Young returned to UNSW for help. This time students designed homes for service users to enable them to live independently while ageing in a familiar environment.

In association with FBEOutThere!, fourth-year architecture students interviewed service users and visited their homes to understand their needs and experiences. Students developed affordable designs that provide privacy and autonomy, room for personalisation and connection to external spaces. The student design projects were exhibited in Young for comment and feedback.

"There was a focus on mutuality as an enabler of design," says project leader Ann Quinlan, "There was a genuine sharing of knowledge and experiences between LFE service users, staff, parents and carers, and students."

Sally Hoffman, general manager of LFE, says

“We were just overwhelmed by how little they have and how much they want to give.”

the students made a big impact on the service users.

"The students were absolutely invaluable in helping progress LFE's own thinking and appreciation of what is needed in this project. The whole program could not have got off the ground had the students not embraced the total project with such empathy and understanding of the needs of the people involved," she says.

Legal assistance

Alexandra Rose is a 26-year-old final-year student in graduate law. She is also a prolific volunteer.

"When I left school I wanted to be an actor but became disillusioned by the audition trail," she says.

Instead Alex travelled to South Africa and worked in an orphanage with children whose parents or carers had died from AIDS. When she returned to Sydney Alex was accepted into Law at UNSW.

"Law is very challenging and can become all-consuming," she says. "So I tried my hand at many extra-curricular activities to break up the readings such as, mooting, trial advocacy, volunteering at the public defenders and teaching law to high school students.

"During my holidays I volunteered in a remote Aboriginal community in NT for a few weeks and travelled from Darwin to Alice Springs. I then spent three months living in a mud hut on the border of Kenya and Uganda teaching micro

finance to groups of orphans and widows.

During Alex's final year she became involved with the International Commission of Jurists, an NGO run by eminent judges, lawyers and academics worldwide. This year she has been part of an Australian delegation travelling to Port Moresby and Bougainville to assist in rebuilding Bougainville's legal system.

Eyecamp

Third-year optometry student Carina Ng describes her volunteer experience in Tanzania as, "an experience that opened my eyes to the privilege of living in Australia and the capacity we have to make a positive difference in the world".

In December last year, Carina and three fellow UNSW students – David Cheung, Jessie Huang and Chu Nguyen – spent a fortnight testing vision and dispensing eyewear to some 1,600 people in rural Morogoro and Dodoma, the East African republic's capital.

The "Eyecamp" experience is an initiative of the ONA Network, a non-profit organisation aiming to eliminate preventable blindness by providing affordable eye-care services to underprivileged people in Africa.

"Our responsibilities included registration, vision assessment and optical dispensing," says 20-year-old, Carina, who emigrated from Malaysia at age seven.

"To be effective, we learnt some of the local language – and with our trusty language books, we managed to get by. I still remember *miwani ya kusomea tu*, meaning, 'These glasses are for reading only!'"

Carina and her colleagues raised funds to donate 2,000 pairs of glasses and retinocopy/ ophthalmoscopy and dispensing kits with support from Maroubra Lions and Rotary Clubs, Maroubra's Chamber of Commerce, and the optical products companies Sola/Carl Zeiss and Alcon. ■



Don't mention the war - on poverty!

Federal elections provide a unique insight into our national priorities. What is not mentioned in the cut and thrust of political debate can be as revealing as what is. One word that has slipped off the political radar since Bob Hawke promised two decades ago to end child poverty is the “p-word”. Today’s leaders have successfully ended “poverty talk”, but have failed to address the problem itself.

Other countries have mobilised expertise (within and outside their universities) to develop indicators, collect data, set targets, implement policies and monitor progress in the fight against poverty, particularly child poverty. In contrast, Australia is witnessing a tax-cut war that does nothing for those without the resources to be liable for tax, except reduce the tax resources needed to fund the programs that address their problems.

Our unwillingness to confront the undeniable fact that economic prosperity has not touched everyone equally, and some not at all, is accompanied by suspicions that those who have missed out have only themselves to blame. Either that, or the extent of the problem has been exaggerated by the poverty statistics. The perception that poverty is a largely manufactured problem allows an increasingly affluent middle class to ignore its existence.

Challenging this complacency requires more convincing evidence that those identified as poor are actually missing out on the essentials of life – things that no-one should have to go without. Assembling such evidence has been one of the aims of a unique partnership between researchers at the Social Policy Research Centre (SPRC) and four of the country’s leading community sector agencies: the Australian Council of Social Service (ACOSS), Mission Australia, the Brotherhood of St Laurence, and Anglicare, Sydney.

The research has tapped directly into the knowledge of those who are experiencing poverty or working at the coalface of poverty relief in order to develop new indicators that provide a more compelling case that the poverty identified is real, not imagined. This has involved asking a representative community sample (over 2,700) whether or not a list of items is essential for everyone in Australia today. The list of items (61 in total) includes basics like a substantial meal every day, a decent and secure home and ability to buy prescribed medications, as well as a washing machine, telephone or home computer. A smaller sample of close to 700 clients of the



“We need to begin a new national conversation about poverty.”

welfare services provided by the research partners sheds new light on the problems confronting this disadvantaged group.

Only those items that a majority of the community sample indicated are essential are included among the essentials of life. Both surveys asked whether participants had each item and, if they did not, whether this was because they could not afford it. Those who do not have the essentials of life because they cannot afford them are identified as deprived.

When deprivation is measured this way, it puts to rest the view that poverty no longer exists in Australia. Around one in five of the community sample were deprived of a week’s holiday away each year and up to \$500 in emergency savings, while one in seven missed out on dental treatment if needed. Deprivation in all three of these areas affected around half of the welfare sample, where around 12 percent were deprived of a substantial daily meal, a washing machine, a separate bed for each child and regular social contact with other people. Many are deprived of adequate

insurance coverage and cannot afford prescribed medications, or to protect their property with secure locks on doors and windows. One in nine of the community sample faced five or more separate deprivations, while almost half of the welfare clients faced this degree of multiple deprivation.

The figures confirm that economic growth will not make inroads into poverty unless steps are taken to ensure that the poor keep pace with the growing affluence of everyone else. The research indicates that this has not happened and raises questions about what needs to be done about it. Providing the deprived with extra income will obviously make things more affordable and reduce their deprivation, but broader actions are also required to make some items more accessible, affordable or preventable.

Instead of pretending that poverty no longer exists, a mature leadership would acknowledge that it does and start addressing its root causes. Setting a realistic child poverty reduction target would be a good place to start. We need to begin a new national conversation about poverty, not pretend that the last word on this important topic has already been spoken. ■

Professor Peter Saunders is an Australia Professorial Fellow with the Social Policy Research Centre.