



# THE POWER OF THE HUMANITIES

Case studies from  
leading Australian  
researchers



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# FOREWORD

THE POWER OF THE HUMANITIES is a welcome addition to the suite of publications by the Australian Academy of the Humanities celebrating the diversity and impact of work undertaken by Australia's humanities researchers.

The case studies presented in the following pages profile a small sample of the many outstanding programmes in universities across the country which address major societal challenges of our time, nationally and internationally.

Some of this work involves collaboration between humanities and science or technology researchers. Several are specifically focused on Australia's place in the Asia-Pacific region while others are focused on national challenges of social cohesion, inclusion and belonging. Many serve as reminders that historical perspective is as important as ever in a rapidly changing world. All of the work is international in the sense of being fully engaged with intellectual developments in other countries.

The Academy is dedicated to advancing the pursuit of excellence in the humanities

in Australia and making the humanities' contributions to national prosperity and wellbeing more widely known.

Many of the case studies presented here are directly relevant to the national research priorities identified by the Chief Scientist and Commonwealth Government. In the foreword to the *Mapping the Humanities, Arts and Social Sciences in Australia* (2014) report, Australia's Chief Scientist, Professor Ian Chubb AC, noted that the humanities are partners with the sciences in providing critical intellectual infrastructure for responding to national challenges.

In publishing *The Power of the Humanities*, the Academy also hopes to contribute to a wider national conversation about the social benefits of research, about engagement with real-world issues, and about the value of collaboration with industry, government, and cultural and community organisations.

Funding from the Australian Research Council has been critical to most of the research projects profiled here, with many funded additionally by the collaborators in industry, government agencies or other external bodies.

On behalf of the Academy, I offer my warmest thanks to the researchers whose work is profiled here and to those who collaborate with them. I also thank and acknowledge Kathy Marks, the journalist who undertook the interviews and wrote up the material for the case studies – her skill, enthusiasm and dedication were crucial to the project. Thanks also to Gillian Cosgrove whose design expertise is exemplified in the pages that follow.

My final words of gratitude go to my predecessor as President, Lesley Johnson, who herself has made a powerful contribution to the Academy and to the humanities in Australia over the term of her Presidency. This publication is another example of her staunch advocacy, commitment and vision for the humanities in this country.

**PROFESSOR JOHN FITZGERALD** FAHA  
President, Australian Academy  
of the Humanities, 2014–

# PREFACE

AUSTRALIA'S HUMANITIES SCHOLARS contribute to the vitality and wellbeing of the nation in a multitude of ways.

Research in disciplines such as history, philosophy, archaeology, literature, linguistics and the classics seeks to illuminate the human condition as well as to bring imagination and excitement to the intellectual and cultural life of the nation.

Research in the humanities is sometimes categorised as having either applied or intrinsic value; the case studies presented in *The Power of the Humanities* demonstrate starkly that it can be both, and that 'blue sky' or 'basic' research can have unexpected applications to a range of current issues and challenges.

Joseph Lo Bianco's decades of research into language, learning and literacy, for instance, is given practical effect in his ground-breaking work in Myanmar where he is developing a national languages policy to help build peace after years of ethnic conflict.

Catharine Lumby's work with the National Rugby League and the Australian Defence Force on transforming attitudes to sexual behaviour and violence is also deeply grounded in years of research in gender studies and media studies.

Lumby's and Lo Bianco's work exemplify an often overlooked

aspect of humanities research – its collaborative power.

Collaboration in the humanities takes a wide variety of forms, from jointly-authored books and articles, to breakthrough research that builds on the body of work before it, to new avenues of enquiry that arise from meeting the needs of community groups, industry and public sector organisations. The work of Ien Ang in Sydney's Chinatown and the researchers that inspired the Zest Festival in Kalbarri, Western Australia, are further evidence of the diversity of this engagement.

*The Power of the Humanities* also demonstrates the remarkable outcomes that can be achieved when humanities researchers and their colleagues in other disciplines collaborate on national and global challenges. As Iain McCalman's research on the Great Barrier Reef proves, "a union of the arts and sciences – of sensibility and intellect – can have extraordinary impacts".

This is true of the collaboration between Hugh Craig, a literary and linguistic researcher, and his colleague Pablo Moscato, a biomedical researcher, who are drawing on the methodologies of each other's disciplines to mutually inform cancer research and literary analysis.

Recognising, understanding and giving voice to the complexity of social issues is a key role of the humanities disciplines. Anna Haebich's work on the Stolen

Generations has helped Indigenous people make sense of their past, and in doing so has helped transform lives. Kane Race's research on HIV education for a new generation is about stimulating discussion, helping to effect change and ultimately, saving lives.

Societal challenges are complex and won't be solved by any one discipline. Humanities perspectives are critical contributions because these challenges are deeply human issues and involve attitudes which are steeped in culture, and in history. The work of Han Baltussen shows that attitudes can be remarkably consistent across time and space, and that there is much to learn from ancient approaches to death and loss.

*The Power of the Humanities* contains these and many more examples of excellent humanities research.

As this publication so aptly demonstrates, the value of research and teaching in the humanities disciplines lies in their remarkable power to illuminate, understand and transform.

**EMERITUS PROFESSOR  
LESLEY JOHNSON AM FAHA**

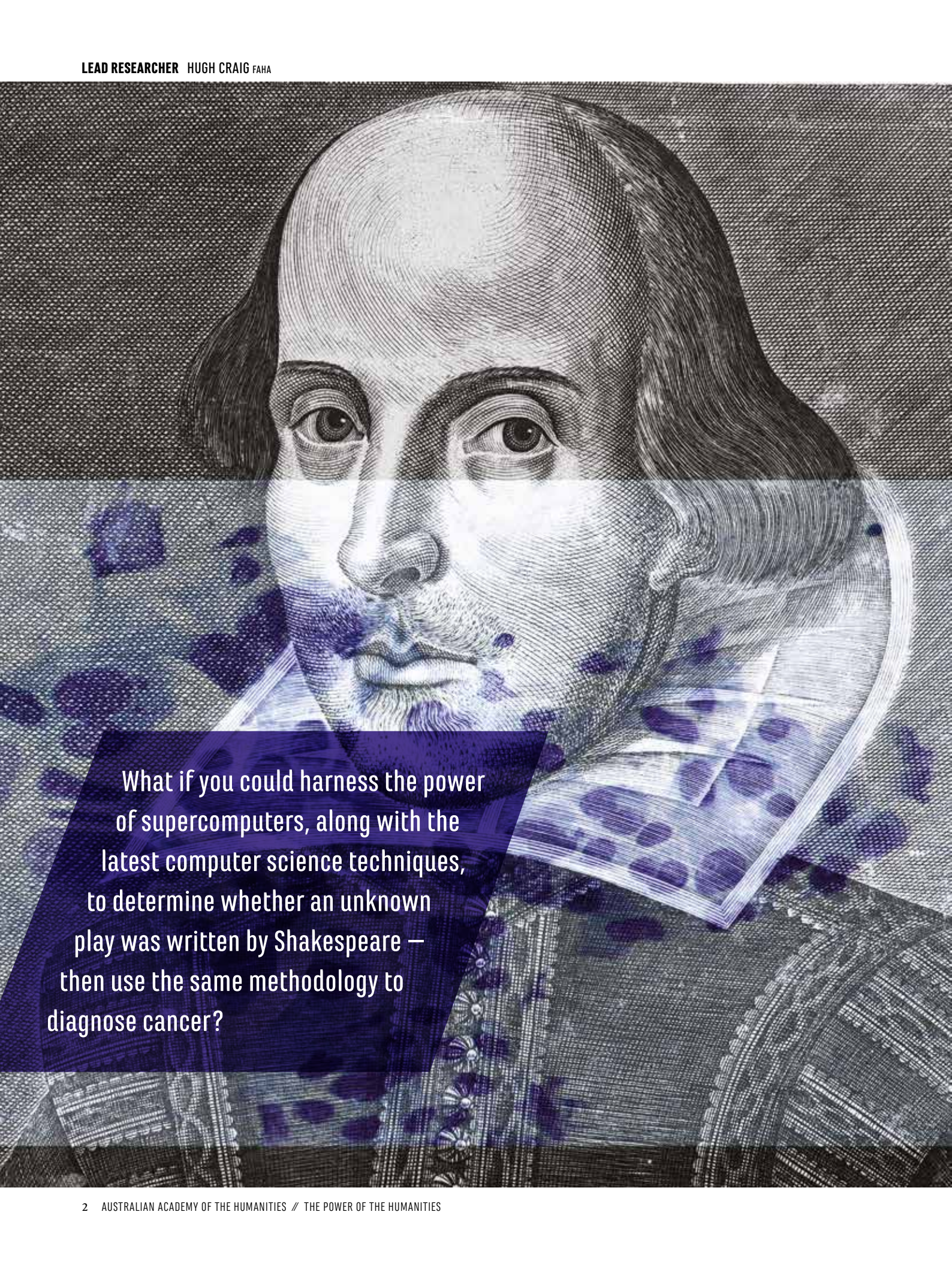
President, Australian Academy  
of the Humanities, 2011–14

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A detailed engraving of William Shakespeare's face is the central focus. Overlaid on the lower half of the image is a semi-transparent dark blue trapezoidal shape containing white text. The background of the entire page is a fine, dark grid. Overlaid on the lower half of the image, particularly around the text box and the bottom of Shakespeare's portrait, are several purple, irregular shapes that resemble cancer cells or microscopic tissue structures. These shapes have a textured, almost crystalline appearance with darker purple centers and lighter purple peripheries.

What if you could harness the power of supercomputers, along with the latest computer science techniques, to determine whether an unknown play was written by Shakespeare — then use the same methodology to diagnose cancer?



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# ENLISTING SHAKESPEARE TO HELP FIGHT CANCER

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WHAT IF YOU COULD harness the power of supercomputers, along with the latest computer science techniques, to determine whether an unknown play was written by Shakespeare – then use the same methodology to diagnose cancer?

Unlikely as it sounds, that is exactly what two academics working in very different fields – linguistics and bio-informatics – have achieved, through a remarkable cross-disciplinary collaboration.

Hugh Craig is director of the University of Newcastle's Centre for Literary and Linguistic Computing, with a long-standing interest in the mathematical qualities of language.

Pablo Moscato is director of the university's Centre for Bioinformatics, Biomarker Discovery and Information-Based Medicine, with a passion for applying advanced computing to the diagnosis and treatment of cancer.

In 2005, inspired by Professor Craig's use of computational stylistics to analyse literary works, Professor Moscato, seeing its potential to advance his own research, suggested they work together.

One of their joint projects, on which they published in 2013, was based on the principle that every

writer – indeed, every person – uses language in a uniquely idiosyncratic way.

The pair fed into supercomputing systems in Moscato's laboratory all of the plays written by Shakespeare and three of his contemporaries, Ben Jonson, Thomas Middleton and John Fletcher, comprising, in total, about 57,000 individual words.

Out of that process emerged a group of common words which each writer used more or less frequently, and which enabled the two academics to establish authorship of disputed works.

That was impressive in itself. But for Moscato, the data set which they had assembled also mirrored the tens of thousands of biological markers found in a blood sample.

Just as the pair had used bio-informatics to identify key words, so Moscato's team isolated key biomarkers, such as proteins and gene expressions. And just as he and Craig had studied each playwright's use of those words, the team investigated the presence of those biomarkers in biological samples.

Moscato was then able to pinpoint a molecular 'signature' – equivalent to a writer's stylistic signature – for not only cancer but also Alzheimer's and multiple sclerosis.

For another study, which they completed in 2014, he and Craig used even more powerful computing techniques to crunch 256 plays and poems, comprising millions of words, by 60 Renaissance writers including Shakespeare. They then noted how the works clustered by author and genre.

This, too, Moscato has been able to apply to his diagnostic work.

The methodology involves detecting subtle patterns of variation across very large data sets. It not only helps with initial diagnoses, but can be used to identify disease types and sub-types, which can then be treated with specifically targeted drugs.

"We started out of sheer curiosity and the intriguing sense that there was a common element here," says Craig.

"The two-way trade is that Pablo has these beautiful bio-informatics techniques and I can supply this beautifully rich language data, which is a goldmine for statisticians and bio-medical researchers as well as for literary people."

# CHANGING THE CULTURE OF RUGBY LEAGUE — AND THE ARMED FORCES

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A LONG-TERM PARTNERSHIP between academia and rugby league is transforming attitudes to sexual behaviour and violence, thanks to an approach now being adopted by other organisations including the Australian Defence Force (ADF).

Following allegations of sexual assault by Canterbury Bulldog players at a training camp in Coffs Harbour in 2004, the National Rugby League (NRL) approached Catharine Lumby for advice on changing the sport's off-field culture.

Within five years, the evidence-based education programme that she oversaw the research and design of had improved players' attitudes and behaviour towards women by 15 to 20 per cent.

"And when you look at the literature on cultural change, that's a huge shift," says Professor Lumby, formerly at the University of Sydney, now based at Macquarie University.

In 2013, following the so-called Skype sex scandal, the then head of the ADF, General David Hurley, invited her to address his senior leadership team. The ADF has since integrated the building blocks of the NRL programme, called Respectful Relationships, into its own education work.

Lumby has produced a manual that explains how the workshop-based programme can be adapted for use by other sporting, community or corporate organisations. The USA's National Football League is among those which have shown interest.

In the NRL, the workshops are delivered annually to up to 1,000 elite and sub-elite players, including 16 to 18-year-olds.

Rather than being given a list of dos and don'ts, young men are helped to develop the skills to make 'ethical' choices. Teaching methods include role plays based on real-life, off-pitch scenarios which footballers might encounter, individually or in groups.

"By 'ethical' we mean acting in ways that demonstrate care for yourself and others," says Lumby, who consults to the NRL pro bono and sits on the League's Education and Welfare Committee.

"The question we ask players to ask themselves is: 'Does anyone walk away feeling harmed or damaged?'"

Lumby developed Respectful Relationships in collaboration with academic colleagues and Rape and Domestic Violence Services Australia. One significant change, she reports, is a greater

understanding by footballers of the impact on women of "being plunged into a situation with a bunch of guys that are very bonded as a team".

In the NRL, external educators partner with specially trained former and current players, meaning that "these ideas have become embedded in the culture of the organisation", says Lumby.

She is working with the NRL to address two other key cultural challenges; homophobia, which "has been a big part of Australian sport", she says, and "the need to get more women into leadership positions, including on the board".


"It's about embracing diversity," says Lumby. "I think they've been very good at doing that in terms of ethnic and religious backgrounds. But what you're seeing now is diversity being embraced in a broader way."





Within five years, the evidence-based education programme that she researched and designed had improved players' attitudes and behaviour towards women by 15–20%.



A close-up, high-angle photograph of a young boy with dark hair, wearing a white shirt. He is looking down at an open notebook on a desk. On his right cheek, there is a large, circular, light-colored object, possibly a piece of tape or a large sticker. He is holding a pencil in his right hand, poised to write. The notebook has some text written on it, though it is not clearly legible. The background is slightly blurred, showing more of the notebook and the desk.

... language can be a primary cause of problems, particularly in multi-ethnic societies, as well as a powerful tool for resolving them.

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# USING LANGUAGE TO BUILD PEACE IN AUSTRALIA'S REGION

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WHEN HISTORIANS and political scientists analyse long-running conflicts, the role of language is often overlooked. Yet language can be a primary cause of problems, particularly in multi-ethnic societies, as well as a powerful tool for resolving them.

Joseph Lo Bianco, a professor of language and literacy education at the University of Melbourne, is testing those theories on the ground in Myanmar (Burma). He heads a UNICEF programme encouraging dialogue and social cohesion in a country emerging from decades of military rule and ethnic conflict.

Operating in fraught and sometimes lawless situations, and using his mediation skills backed by solid academic research, Lo Bianco brings opposing parties together in multi-lingual 'facilitated dialogues'.

At these workshops, he says, "I try to reconcile people's positions by building collective agreement among the antagonists, who include public officials, experts and indigenous community representatives."

Lo Bianco, research director of UNICEF's Language and Peacebuilding Initiative, also helps participants to draft proposals for more inclusive language and education policies: workable

alternatives to those planned by government or already in effect.

In Myanmar, more than 130 languages are spoken by the 60 or so per cent of the population that belongs to an indigenous ethnic minority group. One major grievance is that mother tongues are not officially recognised or used, particularly in teaching.

That not only threatens to erode the distinctive culture and identity of minority groups, but also leads to children dropping out of school, adults suffering social exclusion and families struggling with inter-generational poverty.

"Often the tensions in conflict zones are because of inequalities, and those inequalities are not separate from language, they're actually quite closely connected to it," says Lo Bianco.

Research shows that children learn best in their own language early on, he notes. Then, when older, they can be taught in the national language and/or English.

During Myanmar's recent troubled past, ethnic groups set up rival education systems and fought battles – real ones – over the curriculum.

Lo Bianco dismisses criticism that the multi-lingual policies he promotes are divisive. "Myanmar's had many civil conflicts," he says,

"and they came about precisely because of the forced assimilation of indigenous people who don't want their identity and unique way of life obliterated."

In his chosen field, technical and logistical obstacles are frequently encountered. Fifty languages are spoken in Myanmar's Chin state alone, and few, if any, have an established orthography.

Language and education issues intertwine, sometimes fatally. In Thailand, where Lo Bianco leads a similar initiative, nearly 200 teachers have been murdered by separatist rebels in the mainly Muslim, Malay-speaking south. They are targeted as symbols of the reviled school system, where instruction has historically been solely in Thai.

Lo Bianco also works in Malaysia and, funds permitting, plans to expand his programme to Indonesia, Cambodia and Vietnam.

He still has challenges ahead in Myanmar, where he is now leading the development of a 'peace-building' national language policy.





"... studying and engaging with another people's culture over a long period fosters a deeper understanding and builds more durable bridges."

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# A LIFETIME OF CULTURAL DIPLOMACY HELPS TO BIND AUSTRALIA AND CHINA

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WHEN CHINA'S PRESIDENT, Xi Jinping, addressed the Australian parliament in November 2014, he made special mention of one person: Colin Mackerras, Emeritus Professor at Griffith University and one of the world's foremost China experts.

The President thanked Mackerras for building "a bridge of mutual understanding and amity between our people". And he praised his "tireless efforts to present a real China to Australia and the world, based on his personal experience of China's development and progress".

Seated in the public gallery, Mackerras was "bowled over" by the accolade, he says.

Those familiar with his work were not surprised to hear President Xi single him out, and in such warm terms. Since first visiting the People's Republic as a 25-year-old in 1964, Mackerras has made nearly 70 return trips to teach and undertake research.

Specialising in Chinese theatre, ethnic minorities, Western perspectives on China and Australian-Chinese relations, he has written or edited nearly 50 books, including about a dozen as sole author, and produced almost 100 book chapters and articles.

Those statistics, though, only hint at the scale of Mackerras's accomplishments, which include helping to strengthen bilateral relations through his sustained and committed efforts as a cultural ambassador.

The veteran Sinologist has also inspired generations of students in Australia and China to study and appreciate each other's history, language and culture. During the 1980s, he played a leading role in instituting educational exchanges.

Mackerras – who in 2014 received the Friendship Award, China's highest honour for a foreigner – has championed the teaching of Chinese language and history in Australian schools and universities.

He has seen the country emerge from the Cultural Revolution to become an economic powerhouse and fledgling global superpower – a place increasingly open to Western ideas and influences, but also itself exerting an increasing impact on the West.

Now 76, Mackerras still spends about five months a year in the Chinese capital, teaching at the Renmin University of China and the Beijing Foreign Studies University.

What draws him back time after time? "I like the Chinese people, I like the lifestyle and I think

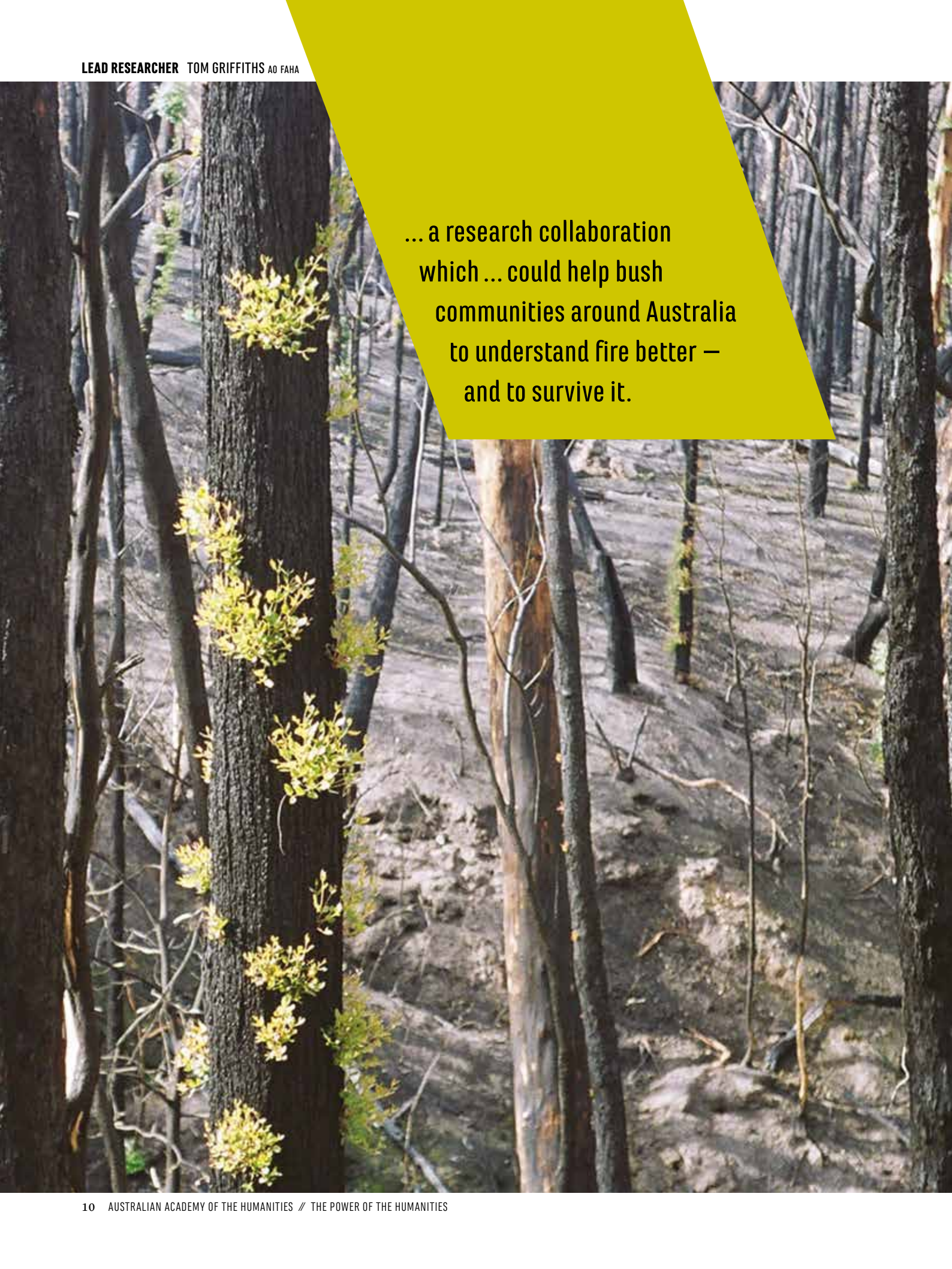
the traditional culture is very attractive and interesting," he says. "And I like my students. They're very respectful, very hard-working, very family-oriented. The Chinese people put a high priority on human relationships."

At Griffith, which has been Mackerras's Australian base, he pioneered a ground-breaking Asian Studies programme, becoming foundation professor of the School of Modern Asian Studies in 1974.

In an article in *Asian Theatre Journal* in 2011, the Canadian-based academic Siyuan Liu wrote that, in the field of Asian theatre research, the Australian "has rightly been hailed as rivalling some of the most outstanding Chinese and Japanese scholars in the past century".

The humanities are "an excellent vehicle for building international relationships", Mackerras says. While trade can play a significant role, "I think that studying and engaging with another people's culture over a long period fosters a deeper understanding and builds more durable bridges".





... a research collaboration  
which ... could help bush  
communities around Australia  
to understand fire better —  
and to survive it.



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# HEALING THE SCARS OF BLACK SATURDAY — AND LEARNING THE LESSONS OF HISTORY

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FOLLOWING THE 2009 BLACK SATURDAY BUSHFIRES, survivors in the Yarra Valley hamlet of Steels Creek were tormented by three questions.

What, precisely, happened that day? How on earth could they make sense of events? And how could a tiny community where 10 people and two-thirds of homes had been lost ever manage to heal and go forward?

Tom Griffiths, director of the Australian National University (ANU)'s Centre for Environmental History, had friends in Steels Creek. He had also been studying Victoria's mountain ash forests for two decades.

And so was born a research collaboration which Professor Griffiths believes could help bush communities around Australia to understand fire better – and to survive it.

The project spawned two books and a film, each addressing one of the three questions.

*Black Saturday at Steels Creek* is a forensic account by Peter Stanley of the day's events. *Living with Fire*, by Griffiths and an ANU colleague, Christine Hansen, is a history of the valley's relationship with fire. And *Afterburn*, a documentary by Moira Fahy, follows three families trying to rebuild their lives.

While all three works helped the community to “heal and come together and in some ways become stronger”, according to Griffiths, they also threw up wider lessons. The most important one, he says, was the need for “more fire studies that are local, ecological and historical”.

Local because different forests produce different fires, meaning they require local knowledge, experience and management, rather than national or statewide strategies.

Ecological because fire behaviour is heavily influenced by vegetation, such as the highly combustible mountain ash forests north and east of Melbourne, which require rare but catastrophic fires to regenerate.

And historical, says Griffiths, because “history is your best survival guide”.

History teaches communities when the deadliest fire days occur. It teaches the distinctive pattern that bushfires follow, and whether they may escalate into what Griffiths calls a ‘firestorm’.

The old-timers, he observes, “know from what direction the fire will come on a particular day and which parts of the valley will burn”.

History also offers significant lessons for policymakers, such

as the fact that the worst fires since British settlement have all occurred in the same region of Victoria. When such a firestorm looms, says Griffiths, encouraging people to believe they can safely defend their homes is mortally irresponsible.

Another lesson: the bunkers dug by sawmill workers early last century – and gradually abandoned by subsequent generations – saved many lives.

Communal memories may fade, but history and good storytelling keep alive such valuable insights. Griffiths notes that the cultural dimensions of fire – how we manage and cultivate it – are as crucial as the science, but receive little attention or funding.

History also helped to illuminate the Blue Mountains bushfires of October 2013. While many believed they were unnaturally early, statistics show the region's fire season has always peaked in November and December. In fact, October is “exactly the kind of incremental advancement you would expect” with global warming, says Griffiths.

What disturbed him most about Black Saturday, by contrast, was its “haunting familiarity”, reinforcing his conviction that we need to act on the distilled wisdom of past experience.

# ARCHAEOLOGY GETS SEXY — AND DRAWS IN THE TOURISTS

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WITHIN A FEW YEARS OF ARRIVING in Melbourne in 1849, John Maloney, an illiterate Irish labourer, had bought a small weatherboard cottage in the fast-growing city.

He and his siblings decorated it with Staffordshire china, dined on chicken and beef, and fastened their clothes with carved bone buttons.

The story of the Maloneys – and their neighbours in the bustling working-class area known as ‘Little Lon’ (bordering Little Lonsdale Street) – has been pieced together from excavations in the Melbourne CBD. It forms a centrepiece of a permanent exhibition, *The Melbourne Story*, at the Museum of Victoria.

As with most urban archaeological digs, the work in 2002 was funded by a developer, in this case the Industry Superannuation Property Trust.

Coordinated by consultants in conjunction with a team from La Trobe University, it unearthed a wealth of material offering new insights into daily life in mid-19th century Melbourne and the city’s evolution.

The half-million or so artefacts analysed by the La Trobe team, headed by Professor Tim Murray, a historical archaeologist, included coins, ink wells, miniature

tea sets, lice combs, clay pipes and diaphragm-style female contraceptives.

Little Lon was just one portion of a long-term project by Murray and colleagues exploring the 19th century city in Australia, Europe and North America. But it illustrates the synergy that has arisen between academic archaeologists, commercial specialists, heritage agencies and developers.

Developers are required to engage archaeological consultants to investigate and document sensitive sites. That means cultural heritage is big business.

And consultancy firms collaborate closely with academics, who without funding from industry would never get the chance to work on digs as extensive as Little Lon.

Here, over the years, almost an entire city block has been turned over, yielding the world’s largest 19th century urban archaeological collection.

Tourism also benefits, since academic analysis adds to the sum of knowledge about historical buildings such as Sydney’s First Government House and Hyde Park Barracks.

The excavations at Little Lon, where the narrow, crowded laneways once housed shops,

pubs and brothels, were a tourist attraction in themselves.

Thousands of people took tours, watched from the viewing platform or even volunteered – all testament, Murray believes, to Australians’ increasing fascination with their history and heritage.

Artefacts and photographs are displayed in the lobby of the office towers built on the site.

More recently, Murray has worked on archaeological items from Sydney’s Rocks area, where the remains of buildings dating back to 1795 have been uncovered.

The dig itself was incorporated into the design of a YHA hostel constructed on pillars above it. Visitors can stroll through two recreated historic laneways.

By linking artefacts to documentary records, such as rate books and newspaper clippings, the La Trobe team has also challenged perceptions of the Rocks and Little Lon as slums.

While both attracted thieves, prostitutes and sly-groggers, their populations were socially and ethnically diverse.

“What’s exciting is that although a lot has been written about the history of Sydney and Melbourne, there’s still an enormous amount more to be done,” says Murray.





... it illustrates the synergy that has arisen between academic archaeologists, commercial specialists, heritage agencies and developers.



[Bill] Gates marvelled at the way Big History connected multiple fields of knowledge and “made it all make sense”.

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# BIG HISTORY: A GLOBAL ORIGIN STORY FOR THE NEXT GENERATION

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IT'S A STORY that bridges nearly 14 billion years, linking insights from fields as diverse as astronomy, geology, anthropology, archaeology and physics.

Spanning Earth, the stars, life and humanity, 'Big History' traces the evolution of the Universe from the Big Bang to the internet.

For David Christian, the Macquarie University historian who coined the term and pioneered the new field, it's a "unifying origin story for a modern age". Big History also melds the humanities and sciences in a way which could help us tackle global challenges such as the decline in biodiversity, he believes.

Originally a Russian history expert, Professor Christian has been delivering a Big History course to undergraduates at Macquarie and elsewhere since 1989.

Now, with a little help from Bill Gates, he is pioneering its teaching in hundreds of high schools around Australia, as well as Britain, the United States, New Zealand, the Netherlands, Japan and South Korea.

Christian met the Microsoft co-founder in 2008 after Gates watched a DVD lecture series which he had recorded. Gates marvelled at the way Big History connected multiple fields of knowledge and "made it all make sense".

"I thought, God, everybody should watch this thing!" he told the *New York Times*.

He and Christian co-founded the Big History Project, with the aim of getting the story into high schools and out to the public, for free. Gates put up US\$10 million for course development, teacher training and content creation, including a website designed as an electronic textbook.

Feedback from schools suggests Big History is engaging and enthusing students, including those who might otherwise have shunned the sciences.

Unlike conventional science teaching, says Christian, Big History tells a "meaningful story" – one that is compelling and comprehensible, but also scientifically rigorous. Moreover, he believes, it addresses students' yearning to understand the origins of life and their place in a bigger picture. "What they love is that we're asking universal questions."

As a historian, Christian – who is director of Macquarie's Big History Institute – was "always fascinated by the idea that we teach bits and pieces of the past". And he wondered: "Why not teach the whole damn thing?"

As he set about constructing a Big History narrative, one thing that drove him was the conviction

that teaching history through a national lens is outmoded and divisive.

Although humans appear only half-way through his story, "you encounter them as a single, remarkably homogeneous species," says Christian, who was invited to address the World Economic Forum about Big History in 2015.

"It's only right at the end that we see them as tribally divided. We share a common history as a species, and we should be planting in the heads of young people an origin story that works as well in Beijing as it does in Buenos Aires."

Christian says: "We've now reached a point in modern knowledge where the big problems lie between [academic] disciplines ... To tackle them, the next generation will have to be able to think across disciplines, and think globally."

# MAKING FISHING MORE SUSTAINABLE THROUGH CULTURAL CHANGE

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ANDREW PUGLISI'S FATHER, Bob, trawled for prawns 280 days of the year, pulling in up to 2,000 tonnes from the clear, cold waters of South Australia's Spencer Gulf.

Andrew works just 50 days a year but harvests a similar quantity, thanks to his local fleet targeting only the largest prawns, leaving smaller ones to mature and spawn.

The changes – which Puglisi and his fellow fishermen implemented after they realised that stocks were seriously depleted – have led the Marine Stewardship Council (MSC) to certify their fishery as sustainable.

Puglisi's company remains a rarity, though – one of only two prawn fisheries in Australia, and nine in the world, to receive MSC certification.

To achieve that kind of radical shift in practices, says the University of Sydney's Elspeth Probyn, large-scale cultural change is required.

Professor Probyn is studying how society engages with fish production and consumption in Australia, the UK and Asia. For the industry to become more sustainable, she believes, we will all – retailers, processors and consumers as well as fishermen – have to rethink the way we view fish and fishing.

Prawns, an iconic Australian seafood, are one focus of Probyn's research. Another is the farming of critically endangered southern bluefish tuna by Croatian migrant families in Port Lincoln, South Australia.

She is also examining oyster and mussel aquaculture, since those two shellfish, she says, are "as close as you can get to sustainably grown, 'clean green' marine protein".

Of key interest to Probyn is what happens when communities choose or are forced to abandon fishing, often through government buy-outs, and how such communities adapt.

Meanwhile, at supermarkets and fish markets in Australia, China and Japan, Probyn – a gender and cultural studies expert – plans to survey the attitudes of retailers, buyers and consumers. Among the questions she will probe is why most Australians say they value sustainability yet very few buy sustainable products.

In the UK, Probyn is investigating how supermarket chains such as Tesco and Sainsbury's have transformed buying habits by promoting sustainable fish.

She is also exploring cultural representations of fishing, on TV and social media and in documentaries and advertisements. One aspect which strikes her is the rise of consumer activism relating to the marine production of food.

Instigating cultural change is critical, Probyn says, particularly amid forecasts that a swelling world population will increasingly rely on the oceans for food.

In the Spencer Gulf, the prawn fleet carries out annual surveys of the fishing grounds. Based on that data, fishermen confine their trawling to small, well-stocked pockets.

While Puglisi and his colleagues are models of good practice, their prawns constitute less than one-tenth of Australia's annual catch. Moreover, 70 per cent of prawns eaten in Australia are imported, mostly from Asia.

Probyn, who has set up a website called The Sustainable Fish Lab, considers cultural and social research to be a vital adjunct to work being conducted in marine and environmental science.

"It's about changing mindsets," she says.





Probyn ... considers cultural and social research to be a vital adjunct to work being conducted in marine and environmental science.





While technical and managerial expertise are critical, says Neilson, so is the capacity to navigate differences in language, culture and labour practices, along with social and political complexities.

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# OILING THE WHEELS OF CHINA'S NEW SILK ROAD

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IT'S A HUGE AMBITIOUS VISION: a vast complex of trans-global trade routes rivalling the ancient Silk Road, along which camel trains hauled Chinese silk, spices and precious stones centuries ago.

The 'New Silk Road' will consist of roads, railways, ports, pipelines and fibre-optic cables linking China with Central Asia, the Middle East and, eventually, Europe and Latin America.

Like its legendary predecessor, the network consists of both a land and a maritime route. The logistics of developing it are immensely challenging. What could Australian humanities researchers possibly contribute?

Plenty, says Brett Neilson, research director of Western Sydney University's Institute for Culture and Society.

Together with international collaborators, he is investigating the cultural and social impacts of the mega-project on communities along its route, where Chinese investment is transforming the way people work and live.

Although much of the attention generated by the New Silk Road has focused on new and upgraded road and rail links, infrastructure is just one element of logistics, according to Professor Neilson. He is studying three key container

ports: Piraeus in Greece, Kolkata in India and Valparaiso in Chile.

Logisticians seek the most efficient means of transporting people and goods – and, increasingly, ideas and technologies. While technical and managerial expertise are critical, says Neilson, so is the capacity to navigate differences in language, culture and labour practices, along with social and political complexities.

That is sharply evident in Piraeus, where part of the port has been leased by China's state-owned shipping company, Cosco. The remainder is still owned and run by the debt-strapped Greek state, with a chain-link fence separating the two workforces.

The unionised dockers on the Greek side are suspicious of the non-unionised, more modern and more productive Chinese operation. The stevedores' union managed to stir up a brief strike on the Chinese side in 2014.

Outside the port, China has built a new rail line linking Piraeus with a logistics centre under construction on the outskirts of Athens, from which Chinese goods will travel on to European markets. Some of the railway fencing has been torn up and sold for scrap metal by low-income families living in the hills outside Piraeus.

Wider cultural and political factors are at play in the anti-Chinese sentiment which the New Silk Road arouses in some quarters, where it is viewed as a front for Chinese global military ambitions.

For Australia, the new trade corridors present lucrative opportunities but also challenges, such as enhanced competition from Chile, a rival supplier of raw materials to China. Also significant for Australia will be the effect of massive Chinese investment on developing nations in its region.

Neilson collaborates with industry and other key logistics players through a Sydney think-tank, the Future Logistics Living Lab.

Closer ties with Asia are crucial if Australia is to take advantage of its position in the region in coming years. Neilson believes his study will deliver vital insights for companies and policymakers.



# LEARNING LESSONS FROM ANTIQUITY ABOUT COPING WITH GRIEF

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GRIEF IS A UNIVERSAL MARKER of humanity, and the pain of bereavement and loss was felt as keenly in Ancient Greece and Rome as it is today.

Han Baltussen is studying how the ancients wrote about grief and consolation, and he believes their works contain important lessons for modern society. Chief among them, he says, is the therapeutic power of language.

Through words we not only articulate thoughts and feelings – “give sorrow words”, as Shakespeare put it – but are able to rationalise and reconceptualise the death of a loved one. Language is also a means for comforting the bereaved.

A professor of classics at the University of Adelaide, Baltussen cites the example of Cicero, the Roman orator and politician, who was plunged into deep mourning after his daughter, Tullia, died in childbirth in 45 BC.

Cicero first poured his anguish into daily letters to a trusted friend, Atticus. He then read everything he could find on the subject of grief – and, dissatisfied, wrote a ‘Self-Consolation’. Finally, he penned a philosophical work reflecting on the subject within a wider framework of human emotions.

Those three stages mirror what modern psychology calls the “process” of dealing with bereavement.

Baltussen points to similarities between ancient and modern coping strategies, which he says reflect the “universality of loss”.

Techniques of cognitive-behavioural therapy, for instance, echo the rational approach of the Stoics. The Ancient Greeks also recognised the benefits of what is nowadays called narrative therapy.

Learning of the death of his two-year-old daughter while travelling, the philosopher Plutarch wrote a letter of consolation to his wife in which he recalled how the little girl would “generously invite” her dolls to eat with her. He was “‘picturing’ her with words ... as a lasting image for the mother to treasure”, says Baltussen.

Commenting on language’s healing role, Baltussen says: “When you vocalise the experience, you rise above it and start to see how you can overcome it.”

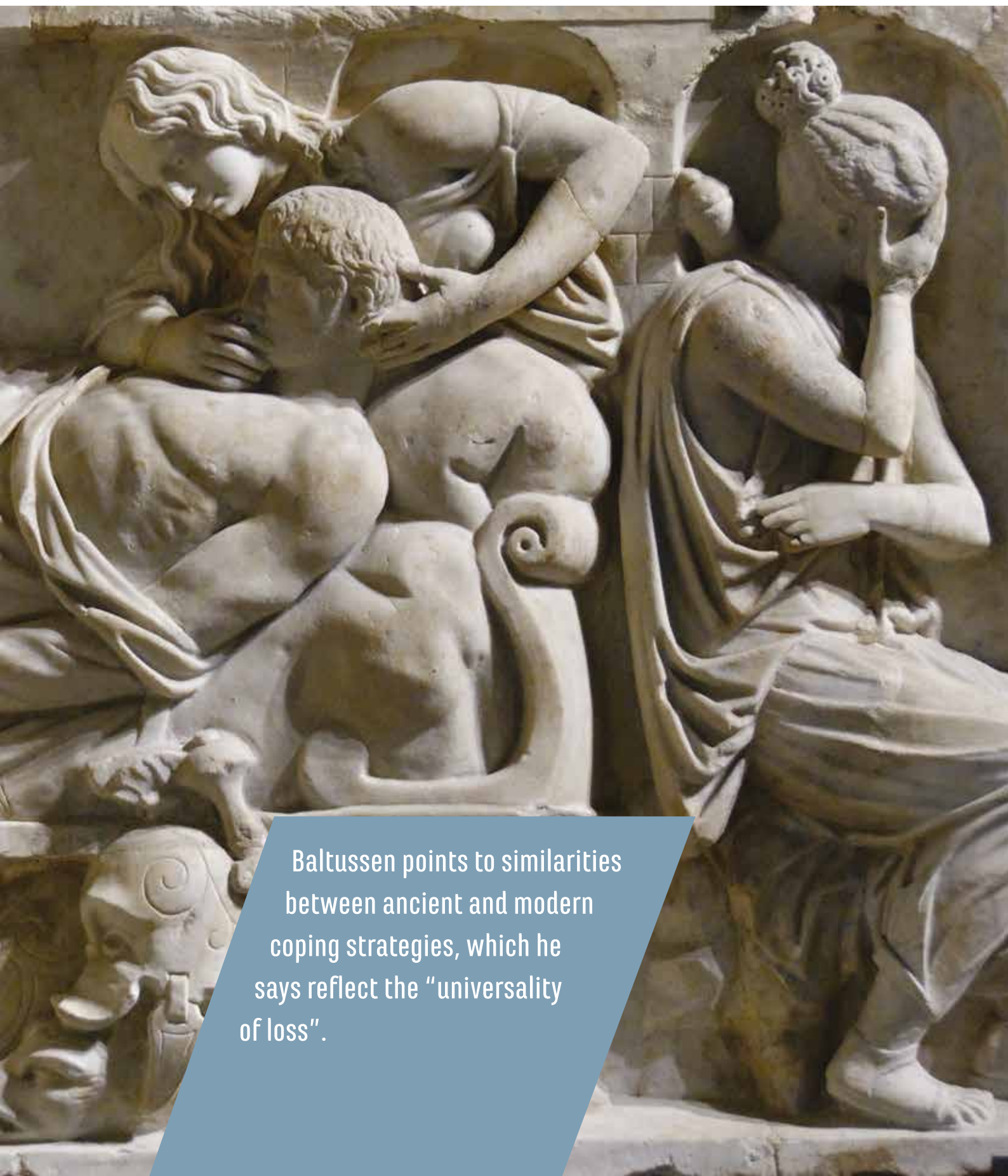
Modern authors such as C S Lewis and Joan Didion have sought solace in a literary response, too. But the medicalisation of grief – viewing it as a mental health problem, to be treated with drugs – has resulted in language being neglected, some believe.

Now, though, the medical approach is being re-assessed, and reading and writing are being embraced anew as belonging to the ‘healing arts’, which also include film, poetry and drama.

The ancients were familiar with all types of loss, including that of an animal – Alexander the Great was said to be inconsolable following the death of his horse. Their writings allow us to “tap into a reservoir of human experience which transcends the historical gap”, says Baltussen.

He is composing a booklet for the bereaved, consisting of classical stories woven together by his commentary, with the working title *Consolation in Translation*.

For him, grief management and consolation are “at the core of what the humanities deal with: human experience, how it is expressed in the miracle of language and what we might learn from it”.



Baltussen points to similarities between ancient and modern coping strategies, which he says reflect the “universality of loss”.





... it has also been adopted by overseas agencies, including the British Government department which conceived the idea of the creative economy in the late 1990s.



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# MINING A RICH SEAM OF CREATIVITY

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AUSTRALIAN ACADEMICS have developed an internationally recognised tool for defining the ‘creative economy’ – and used the new methodology to establish that half a million Australians work in the dynamic sector, more than in mining and agriculture combined.

The figure is far higher than previously thought, and has wide-ranging policy implications, according to Stuart Cunningham, director of the ARC Centre of Excellence for Creative Industries and Innovation (CCI), based at Queensland University of Technology.

The methodology – named Creative Trident, after Neptune’s three-pronged fork – meets the rigorous standards of the Australian Bureau of Statistics.

It has also been adopted by overseas agencies, including the British Government department which conceived the idea of the creative economy in the late 1990s. “We are, if you like, ‘selling coals to Newcastle’,” says Professor Cunningham.

In Australia, many believe the creative economy could power the next boom. Thanks to demand for creative services, particularly design and digital content, it is one of the country’s fastest growing sectors, earning just over \$36 billion in 2011.

There has long been disagreement, though, on how to define it.

Creative Trident measures three categories of creative workers: creative professionals in the creative industries; support staff in those industries, such as administrators and accountants; and creatives ‘embedded’ in other sectors – mobile app designers working with banks, for instance.

Until the CCI’s breakthrough, Australia’s creative economy was greatly underestimated. In fact, based on 2011 census data, it employs 530,944 people, or about 5.3 per cent of the workforce.

These days, creative professionals not only make films, write books and record albums; they also design software, develop online games and produce graphics. And

they are increasingly prominent in the wider economy – in advanced manufacturing, for instance, as well as health, the public sector and community services.

There are, in fact, more creatives working in other sectors than in the creative industries proper: a sign of the expansion of customer-focused ‘design thinking’ in business. In Cunningham’s view, Australia should be emulating the likes of Britain and New Zealand, which have adopted whole-of-government design strategies.

The result of 10 years of research, Creative Trident has been employed around Australia – and in several places overseas – to gauge creative workforces more accurately.

In Australia, says Cunningham, the data which it has produced will help drive innovation across the economy.





Zest adds A\$450,000 to the town's annual tourism revenue. And that's not counting the less tangible benefits, such as the boost to community pride and relationships.

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# A NEW LENS ON HISTORY, A NEW TOURISM ATTRACTION — AND A NEW ZEST FOR LIFE

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AN 18TH CENTURY shipwreck has revitalised a small coastal community by inspiring residents to explore their unique history and their cultural links with Europe and Asia – enriching their own lives while also boosting the local economy.

“It has been transformative,” says Rebecca Millar, who coordinates the Zest Festival in Kalbarri, 140 kilometres north of Geraldton, Western Australia, in partnership with the ARC Centre of Excellence for the History of Emotions (CHE).

The festival celebrates Kalbarri’s history and heritage, and its connection to countries on the route of the former Dutch East India Trading Company, or Vereenigde Oost-Indische Compagnie (VOC).

First held in 2012, Zest is engaging the town of 1,500 people in year-round educational and creative arts projects.

The catalyst was the 300th anniversary of a VOC ship, the *Zuytdorp*, crashing into cliffs between Kalbarri and Shark Bay in 1712. Struggling ashore, survivors encountered the local Nhanda people, in what was almost certainly the first contact between Europeans and Australian Aborigines.

Thanks to CHE researchers based at the University of Western Australia, locals and visitors have had their imaginations fired by the *Zuytdorp* story. They are also being immersed in the cultural heritage of the Netherlands, South Africa, India, Sri Lanka, Indonesia, China and Japan, all linked through their VOC history.

Incorporating dance, music, drama, performance, artworks, crafts, storytelling and food, the Zest Festival – which is being staged every September until 2016 – explores themes relevant to both the VOC era and contemporary society.

The CHE’s wider focus is Australia’s European emotional heritage. As well as unearthing the compelling stories for Zest, CHE researchers write education packs, organise exhibitions and workshops, and establish links with overseas institutions, such as Amsterdam’s Rijksmuseum.

They also bring international artists and musicians to Kalbarri, where festival themes have been woven into the school curriculum. School students have analysed Dutch paintings, learnt to play gamelan instruments and imagined life for sailors, slaves and company men aboard VOC vessels.

Adults, too, have developed a keen interest in faraway places and times, and empathy for the people who inhabited them.

The wives of fly-in, fly-out miners marvel at 17th century sailors’ wives, left alone for years without email or Facebook. The old sea dogs of Kalbarri, mourning the decline of their industry, sympathise with the sailors whose livelihoods were jeopardised by the loss of a VOC ship.

“People are thinking about the humanity behind the history. They’re also feeling more globally connected,” says Millar, who is director of the Kalbarri Development Association.

CHE’s chief investigator, Jacqueline Van Gent, sees the festival as an opportunity for researchers and education outreach officers to share their knowledge and skills with the community. “We’re excited to see Kalbarri’s cultural heritage being appreciated far beyond the town’s borders,” she says.

Zest adds A\$450,000 to the town’s annual tourism revenue. And that’s not counting the less tangible benefits, such as the boost to community pride and relationships.



# TAILORING HIV/AIDS EDUCATION FOR A NEW GENERATION

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AUSTRALIA'S RESPONSE to the HIV/AIDS crisis, which grew out of a unique engagement between government and the gay community, was widely seen as world-leading.

A recent surge in new infections, though, has raised questions about the effectiveness of present-day strategies in a changing social landscape.

When the epidemic struck in the 1980s, gay men socialised mainly in urban public spaces, such as bars, nightclubs and dance parties. Nowadays, thanks to dating websites and 'hook-up' apps, many find sexual partners online. That has given rise to new forms of social connection and new, sometimes risky HIV prevention tactics.

The shift in social and sexual dynamics is being investigated by Kane Race, a cultural and social researcher at the University of Sydney. Associate Professor Race is also analysing that much-praised early official response, seeking useful insights for today.

With HIV infection rates at a 20-year high, and young men constituting the bulk of new diagnoses, experts say a re-focusing of public health efforts is urgently required. Race hopes his research will help community

organisations to tailor programs for a new generation of gay men.

Some experts believe that the anti-retroviral drugs which have spectacularly improved life expectancy for HIV-positive people have fostered a dangerous complacency. There have even been calls for a return to 'Grim Reaper'-style scare campaigns.

Race disagrees. "I think younger gay men are actually very anxious about HIV/AIDS, and that anxiety is really around stigmatisation and shame," he says. "Instead of making this a scarier issue, we should be encouraging them to get regularly tested and adopt pragmatic strategies if they encounter an HIV-positive person."

Whereas in the past gay men had access to reliable information in bars and clubs, on the internet it is easy to 'block' such information, Race's research suggests.

Moreover, the decline of gay neighbourhoods, venues and institutions has eroded what he calls the "shared sense of community" around which gay men mobilised and embraced safe sex practices in the 1980s.

By contrast, the online world, with its distance and anonymity, has popularised 'sero-sorting' – filtering potential partners according to their HIV status.

Not only is that a dubious health strategy, says Race, but it threatens to engender the very divisions which the gay community's response to the disease – based on inclusiveness and mutual support – always sought to avoid.

His research underlines the importance of finding new ways to stimulate discussion and re-create a sense of shared concern.

Ironically, a new approach to preventing HIV infection, which involves taking anti-retroviral drugs prophylactically, may be achieving just that. PrEP (Pre-Exposure Prophylaxis), as it is known, has sparked a lively debate, with some concerned it may promote irresponsible sexual behaviour.

"The level of community discussion is making the field very dynamic again," says Race. "It's making people think, and is creating engagement."



Race hopes his research will help community organisations to tailor programs for a new generation of gay men.



# MOVING FROM AIR-CON TO A 'COOL LIVING' FUTURE

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IN THE SWELTERING CLIMATES of Southeast Asia and the Arabian Gulf, air-conditioning has become the norm. Yet for millennia, people drew on local knowledge to dress and live and sleep in ways that kept them cool.

Tim Winter, a sociologist at Deakin University, is researching the 'cool living heritage' of Singapore, Melaka and Qatar – traditional social and cultural practices which could, he believes, offer low-carbon alternatives to air-con.

"It's not about romanticising the past, but raising awareness that there's a whole way of maintaining thermal comfort that's been lost in the space of a generation," he says.

Buildings account for nearly half of the world's carbon emissions – and, in the tropics and sub-tropics, 50 to 70 per cent of those come from air-conditioning.

"It's a huge deal, but it rarely gets talked about," says Professor Winter. "We worry about light bulbs and plastic bags and recycling while these incredibly energy-intensive air-con units are blasting away in the background."

In Southeast Asia, where Winter and colleagues are investigating air-conditioning and urban development, air-con used to be considered a luxury. However, with the rise of a new and populous

middle class, it is spreading rapidly, with units being installed throughout homes.

In the tropics, buildings traditionally featured high ceilings, courtyards, verandas and gardens, all aimed at maximising shade and air flow.

But cool living, according to Winter, is not just about architectural design. While shutters, blinds and fans might seem old-fashioned, they are highly effective. So are loose cotton clothes, thin bedsheets and open-backed wicker furniture.

Older rhythms of life are also instructive. People used to shop in the morning or evening. As the sun moved, they opened up or closed rooms. There were times to bathe, and times to eat – and things to eat, such as olives at breakfast, in anticipation of the loss of salt through sweat.

Winter stresses: "It's not about banning the air-conditioner, but looking at where and when less energy-intensive alternatives could be revived."

Frustratingly for him, luxury is increasingly equated in Asia and the Gulf with deep-pile furniture and furnishings, particularly by the tourism industry. Hotel guests sleep under heavy doonas, in rooms with non-opening windows.

Since Melaka was placed on the World Heritage List in 2008, tourism has boomed in the Malaysian port city. Paradoxically, that has led to the gradual enclosure of its historic open-fronted shophouses, perfectly suited to the climate.

"It's for restaurants, it's for hotels, it's for shops, it's for travel agents," says Winter. "You can actually see air-con creep street by street across the landscape."

In Singapore, 'green' buildings such as Ken Yeang's National Library, with its rooftop gardens, reflect the city-state's attempts to shed its 'air-conditioned nation' image.

Winter plans to stage 'cool living' workshops and exhibitions in Singapore and Qatar.

His overall aim, he says, is "to make air-con a more contested issue, by initiating debate and challenging social expectations and norms of comfort".



... traditional social and cultural practices which could, he believes, offer low-carbon alternatives to air-con.



A black and white photograph of a long, arched walkway, likely a covered walkway or arcade, with a series of hanging lanterns. The perspective is looking down the length of the walkway, creating a strong sense of depth and repetition. A large red diagonal banner is overlaid on the right side of the image, containing white text.

Civic republicanism can  
guide either side of politics,  
according to Pettit, and it lends  
itself to practical application.

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# AUSTRALIAN PHILOSOPHER INSPIRES A SPANISH PRIME MINISTER

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EVERY POLITICAL THEORIST dreams of making a concrete impact on public life.

The Australian National University (ANU)'s Philip Pettit has not only realised that ambition, but has seen the philosophy he champions adopted wholesale by a European government.

José Luis Zapatero, then Spain's newly elected opposition leader, came across Professor Pettit's landmark book *Republicanism* while searching for a vision that reflected his core values.

The philosophy which Pettit outlined – called civic republicanism, or neo-republicanism – inspired a policy platform which helped Zapatero's Spanish Socialist Party to win the 2004 election.

Once in office, Zapatero invited Pettit to deliver a public lecture in Madrid. Pettit accepted. During his lecture, he warned the Prime Minister, half-jokingly, that living up to republicanism's principles would be tough. That prompted an invitation to return to Spain before the 2008 election and evaluate Zapatero's performance.

The central concept of civic republicanism, of which Pettit is a leading international proponent, is freedom as 'non-domination'.

Unlike the conservative notion of freedom as 'non-interference', or being left alone, non-domination means freedom from tyranny – and from being dependent for that freedom on another's goodwill. It applies to the home and workplace, as well as to dealings with government.

Pettit, who divides his time between Princeton University and the ANU, describes non-domination as the ability to "look others in the eye without reason for fear or deference".

The 'eyeball test' was invoked by Zapatero in a parliamentary speech arguing for gay marriage, one of his first legislative reforms.

In his largely positive review of Zapatero's policies, Pettit applauded the way they embodied the civic republican view of government and society.

They included an amnesty for illegal immigrants, the country's first domestic violence laws and a legal obligation on companies and political parties to eliminate gender inequalities. (Zapatero's own ministry was 50 per cent female.)

In the public domain, where republicanism emphasises the importance of transparent government and strong public

interest groups, the review highlighted the decision to make the national TV station independent.


Pettit's involvement with Zapatero ended after 2008, by which time he had become a well-known figure in Spain. So unusual was his experience that he and a colleague, José Luis Martí, have recounted it in a 2010 book, *A Political Philosophy in Public Life*.

Pettit's *Republicanism*, meanwhile, has been translated into a dozen languages, and he frequently speaks at international conferences. In 2014, he was invited to address the Swiss President in a castle outside Berne.

Civic republicanism can guide either side of politics, according to Pettit, and it lends itself to practical application. All of his books include specific policy recommendations.

Zapatero won the 2008 election, but resigned in 2011 amid criticism of his handling of the global economic crisis. He is already being reappraised, says Pettit, who believes he has left a rich legacy for Spain.





And it “opened them up to the possibility of healing”, spurring many to seek out their birth parents, says Haebich.

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# HEALING THE BROKEN CIRCLES OF OUR NATIONAL LIFE

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FOR THE STOLEN GENERATIONS, still traumatised by the recent past, truth-telling can help in small but significant ways. Anna Haebich has made truth-telling her mission for nearly three decades.

Professor Haebich, a historian at Curtin University, published *For Their Own Good*, about Aboriginal policy in Western Australia, in 1988. That was followed in 2000 by *Broken Circles*, a comprehensive national history of child removals.

The latter grew out of the heartbreaking story of Louis Johnson, which Haebich and a colleague, Steve Mickler, subsequently re-told in *A Boy's Short Life*, published in 2014.

Born Warren Braedon in Alice Springs in 1973, Louis was taken from his mother as a baby and adopted by a Perth couple, Bill and Pauline Johnson. In 1992, walking home after celebrating his 19th birthday, he was beaten up and run over by two white youths, who attacked him “because he was black”, they told police.

Although Louis had multiple injuries, an ambulance took him home rather than to hospital, with the crew dismissing him as a petrol sniffer. He died a few hours later.

What developed into the multi-award-winning *Broken Circles* was suggested and funded by the Johnsons, who wanted to understand the bigger picture. The book made a deep impact on Australians black and white, and 15 years on is still considered the definitive work on the Stolen Generations.

Haebich, though, is keenly conscious of our capacity to forget troubling events in Australia's recent past. She hopes *A Boy's Short Life* will help to educate a new generation.

Another reason for revisiting Louis's story – which also inspired a 2007 documentary, *Liyarn Ngarn* – is that the practices “didn't stop, they just took a new form”, Haebich feels.

The disproportionately high rate of Aboriginal youths in detention and children in foster care, she says, is “just another way of breaking up families and removing kids because they're black”.

With its densely detailed exposition of the social, cultural and political background to the policies and practices, *Broken Circles* complements and amplifies the 1997 *Bringing them home* report.

For the Stolen Generations, it has proved therapeutic, Haebich believes.

Stolen children have drawn comfort from the realisation that they are part of a shared history of Aboriginal people across Australia. They have also come to understand that their parents – far from abandoning them, as many were told – tried their utmost to get them back.

*Broken Circles* has helped them to make sense of their subsequent experiences, including the cruelty they suffered in institutions and, for some, addictions such as alcoholism. And it “opened them up to the possibility of healing”, spurring many to seek out their birth parents, says Haebich.

The book has resonated with white readers, too, assisting them in “facing up to the past, and going beyond the shock and weeping to seek some sort of reconciliation”.

Haebich says she hopes her work has played a part in “healing the broken circles of our national life”.



# SAVING THE GREAT BARRIER REEF THROUGH A MARRIAGE OF ARTS AND SCIENCES

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THEY WERE AN UNLIKELY TRIO, but together poet Judith Wright, artist John Bússt and forest ecologist Len Webb waged a campaign that saved the Great Barrier Reef from being mined, culminating in its 1981 World Heritage listing.

For Iain McCalman, author of the award-winning *The Reef – A Passionate History*, their story showed not only that ordinary people can take on powerful forces and win. It demonstrated that a union of the arts and sciences – of sensibility and intellect – can have extraordinary impacts.

The Barrier Reef itself is a product of both nature and the human imagination, notes Professor McCalman, a cultural and environmental historian at the University of Sydney. And understanding that duality is crucial, he believes, if we are to combat the modern perils now threatening the Reef's very existence.

His book tells the story of human engagement with 'this colossus of nature', and with the communities it sustains.

Beginning with Captain James Cook, whose ship *Endeavour* came to grief on a coral outcrop in 1770, McCalman reveals how different eras, ideas and values – economic, scientific and aesthetic – have

shaped the Reef's multiple identities.

For Cook, the vast coral kingdom was a 'labyrinth of terror'. For Indigenous peoples, it was a 'nurturing heartland'. For scientists, an engrossing mystery. For divers, a place of wonder and beauty. For artists, a source of creative inspiration.

Incorporating a mass of original research, the book presents characters such as William Saville-Kent, a distinguished marine scientist with a dreadful secret, and Ted Banfield, author of the early 20th century bestseller *Confessions of a Beachcomber*.

It was Saville-Kent's photographs of living reefs, and his brilliant, hand-coloured drawings of coral and fish, that first opened people's eyes to the Reef's riotous beauty.

As for the Reef's dwellers, the accounts of 19th century castaways whom they rescued helped to counter the prevailing view of Indigenous tribes as violent savages.

*The Reef's* final story features the renowned coral scientist John 'Charlie' Veron, who stunned a Royal Society audience in 2009 with a warning that the world's reefs face extinction within a few decades.

Such 'wickedly complex' challenges, McCalman believes, require humanities scholars to exploit their storytelling and visual skills to "persuade the public of the absolute importance of their engagement".

With most of his own research projects, he collaborates with scientists and digital artists. *The Reef* spawned an award-winning website. The Sydney Environment Institute, which McCalman founded and co-directs, is multi-disciplinary.

*The Reef* inspired an approach to McCalman by residents of cyclone-ravaged Mission Beach, south of Cairns, where Bússt lived and planned the campaign with Wright and Webb. They told him they wanted to rebuild their community and tourism industry around the trio's story.

With his help, they secured state heritage listing for Bússt's home, Ninny Rise, and custodianship of the property. It is destined to become a centre for artists, and for reef and rainforest environmental research.



... a union of the arts and sciences — of sensibility and intellect — can have extraordinary impacts.



# SYDNEY'S CHINATOWN: A GLOBAL CROSSROADS IN THE ASIAN CENTURY

SYDNEY'S CHINATOWN is fast becoming an Asian hub connecting Australia with the wider region – and its rich economic and cultural potential is being investigated by Western Sydney University (WSU) researchers.

With its restaurants, fresh produce market, language schools and Asian fashion boutiques, Chinatown has long been an important tourist destination.

As Australia forges closer ties with China and other regional neighbours, the former ethnic enclave is gaining new significance as a gateway for Asian migrants, goods, services, investment and even cultural trends.

It also offers a foretaste of Australia's increasingly Asian multicultural future, which is already a bustling reality within this cluster of city blocks just south of the CBD, according to Ien Ang of WSU's Institute for Culture and Society.

"What's interesting is that it is Asian perspectives and ways of doing things enmeshing with already existing local practices," says Professor Ang. "So you get this cross-fertilisation of Australian and Asian cultures in an area which tells us much about Australia's increasing integration with Asia."

Her three-year research project is part-funded by the City of Sydney. The study will help the City to plot Chinatown's future as the area absorbs ever more businesses, tourists and international students while striving to protect its unique history and heritage.

A low-rise island in a sea of office and residential towers, Chinatown is under intense development pressure. The City of Sydney hopes the WSU project, by pointing up its value as a cultural asset, will give planners a strong argument for conserving and enhancing its distinctive character.

The council is also hoping to learn how major cultural initiatives can be used to attract more visitors and enhance Australian-Chinese business links. Foremost among these is the Chinese New Year festival, showcasing Sydney as an Asia-focused, global city.

In their quest to glean a wide-ranging community perspective, researchers have interviewed scores of locals, including residents, artists, international students, developers, bankers, real estate agents, hoteliers, restaurateurs and migration agents.

Chinatown's Asian residents – constituting 64 per cent of its population, according to the 2011

census – used to be predominantly from southern China and Hong Kong.

Nowadays the area also houses ethnic Chinese from Taiwan, Singapore, Malaysia and Indonesia, as well as mainland Chinese and non-Chinese Asians from Thailand, Korea and Japan.

Chinatown was once inward-looking – a place where Chinese migrants could escape racial discrimination and feel at home. Now it looks boldly outwards: to the rest of Sydney, to the wider Australian community and across to Asia. As a result, says Ang, it is becoming "the centre of a strong transnational connectiveness in the region".

Chinatown, she believes, is "an important source of knowledge, cultural capital and cross-cultural connections" – in short, a resource that has yet to be fully exploited.



The council is also hoping to learn how major cultural initiatives can be used to attract more visitors and enhance Australian-Chinese business links.





But equally important ...  
are the social and cultural  
dimensions of adaptation:  
the everyday changes being  
made — and impacts being  
felt — by farming families.

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# HELPING WHEAT FARMERS ADAPT TO A DRIER CLIMATE

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A STUDY EXAMINING how wheat farmers handled the last major drought has delivered new insights into their capacity to deal with climate change, and guidance on how they can be helped to adapt.

Lesley Head, a geographer at the University of Wollongong, has found that climate is only one of many interlinked challenges facing wheat farmers in New South Wales (NSW). Understanding this complex, multi-faceted picture, rather than viewing climate change as a separate, discrete issue, is key for policymakers, she believes.

Professor Head and colleagues studied 24 farming households in the NSW wheat belt, which runs south-north from Albury to Parkes and east-west from Orange to Griffith.

The team found varying degrees of resilience and vulnerability among the family-sized enterprises that still dominate Australian wheat farming. Geography, socio-economics and education levels were among the main determining factors.

The more resilient “tended to have a lot of business savvy, and to be in higher rainfall areas and closer to transport, so they had more [marketing] options”, says Head. By contrast, “the people further west, where it’s drier anyway,

tended to be less well off and more likely to be struggling”.

According to the Bureau of Meteorology, southern Australia will receive significantly lower rainfall in coming decades and experience more frequent and severe droughts.

Worryingly for NSW wheat farmers, rainfall decreases are projected to be greatest in winter and spring, their growth seasons.

While these farmers are accustomed to natural climate variability, the drought that gripped Australia’s southern regions during the 2000s was unprecedented in living memory. Some scientists saw it as a foretaste of conditions which are expected to become more commonplace as climate change bites.

Head discovered that farmers are already starting to adapt – by growing different crops, for instance, or forward selling their wheat, or buying land far enough away from the main property to offer different rain and soil conditions.

Deregulation of the market has also enabled them to store wheat and sell it when prices are favourable.

Head was struck by the way farming households are having

to juggle multiple, intertwined challenges, some not directly climate-related. Among these are stress-induced health problems and the banking system’s inflexibility.

“Approaches [by government] that focus only on the response to climatic factors are likely to miss broader connections and advocate misguided policy outcomes,” she warns. And the same goes for “strategies that aim to simply educate farmers about the ‘facts’ of climate change” and “risk undervaluing existing adaptive capacities”.

Wheat farmers, Head concludes, “have strong coping patterns for incremental changes, but depending how severe the change is, however resilient you are might not be enough”.

Most research in this field has focused on scientific solutions, such as adapting crops – trying to breed a drought-resistant wheat variety, for instance. But equally important, Head believes, are the social and cultural dimensions of adaptation: the everyday changes being made – and impacts being felt – by farming families.

For agriculture, as she reminds us, is “a co-production between humans and the natural world”.



... all the migrant groups share a deep interest in water quality and conservation, and keep a sharp eye on the river's health.

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# THE NEW GUARDIANS OF SYDNEY'S GEORGES RIVER

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ONCE HEAVILY POLLUTED, the Georges River – one of Sydney's great waterways – remains a fragile resource. These days its water quality is monitored not only by environmental scientists, but by Iraqi Mandaean.

For Mandaean, followers of an ancient Middle Eastern religion, regular immersion in fresh flowing water is an important religious ritual. In Sydney, their favourite spot is the Nepean River. However, they closely observe other waterways, making them sometimes better informed than their longer-established neighbours.

Heather Goodall, a cultural and environmental historian at the University of Technology Sydney, has been researching how migrants perceive and use the Georges River and its patchwork of suburban parklands: the Georges River National Park.

In common with many new arrivals, Mandaean have settled in Sydney's densely populated and ethnically diverse southwest, through which the river winds.

Like other Arabic-speaking Australians, and like the Vietnamese, the southwest's other major ethnic group, they are frequent visitors to the national park.

These new Australians value water highly. Muslims consider it a scarce and precious resource. For Vietnamese, all rivers have spiritual significance. The Georges River “evokes memories of the ‘water world’ of their homeland, with its ubiquitous paddy fields, high rainfall and numerous rivers”, as Professor Goodall writes.

These different park users all bring to Australia a fund of knowledge and expertise, as well as experience of a different natural environment. That makes them highly motivated to care for their surroundings.

Growing numbers of Arabic speakers participate in Clean Up programs along the riverbank. But all the migrant groups share a deep interest in water quality and conservation, and keep a sharp eye on the river's health.

The migrant experience reinforces this behaviour. One of Goodall's studies has examined ‘place-making’ – the way new Australians create a feeling of home by exploring their surroundings and forging attachments to certain locations.

As Goodall watched Vietnamese people fishing, young Arabic men playing football and extended families from both communities picnicking, she realised they were place-making – and, in the process,

developing a sense of ownership and responsibility.

Migrants, she believes, are an untapped resource, and she hopes that the reports and books generated by her five-year research programme can prove an impetus for change.

The programme, entitled *Parklands, Culture and Communities: Ethnic Diversity on the Georges River*, involved a partnership with the Office of Environment and Heritage (OEH), which oversees New South Wales' national parks.

As well as updating its management models to reflect the multicultural backgrounds of today's park users, the OEH hopes to draw on their knowledge to manage green spaces more effectively.



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