EMERITUS

The Australian National University Emeritus Faculty e-magazine

COVID experience and lessons the subject of annual faculty lecture

Australia's response to the COVID-19 pandemic and what we might do to prepare for future outbreaks will be the subject of Professor Peter Collignon's ANU Emeritus Faculty annual lecture at the China in the World lecture hall at 5.30pm on Wednesday, 12 October.

Professor Collignon, an infectious diseases physician and clinical microbiologist at the School of Clinical Medicine at the ANU Medical School, will survey the nation's experience of COVID-19 and lessons learned in his lecture titled 'Coronavirus (COVID-19): Where were we? Where are we now? What do we need to learn so we do better in the future?'

COVID-19 is caused by a novel coronavirus, SARS-CoV-2, that virus spreads readily from person to person but almost entirely via infectious particles that deposit in the upper respiratory tract. They are inhaled or reach the respiratory tract via people's eyes. Larger particles, often called droplets, are the main way the virus spreads, though not the only way.

Professor Collignon will note that different interventions can be and have been used to decrease the risk and spread of COVID-19. Most of the principles underpinning these interventions relate to physical barriers, isolation, and physical and social distancing. The risk of transmission is markedly reduced when outdoors. Improved ventilation and access to outside air will be of continuing importance.

Safe and very effective vaccines have become widely available and have been delivered extensively and successfully globally, especially to richer countries, less so to lower and middle-income countries. Effective antiviral therapies are now used in clinical practice.

Lockdowns, border closures and restrictions slowed the spread of the virus, he will tell his audience, but they also had adverse, unintended consequences. The socially disadvantaged, especially children, were disproportionately affected. Socio-economic consequences were worse for young adults and children, though ironically they were at the lowest risk from the virus itself.

Professor Collignon will ask what measures Australia now needs to put in place and what future responses should be proportionate to levels of risk. Overall, Professor Collignon will argue, we are in a much better position than in 2021. Vaccines, new antivirals, decreased viral virulence and hybrid immunity have improved the situation, and we are likely to be in an even better position by early 2023.

Professor Collignon is the inaugural and current patron of the Australian College for Infection Prevention and Control and is a member of National Infection Control guideline expert groups, including for Covid-19. In October 2017 he was awarded a PhD by Vrije Universiteit in Amsterdam for a thesis on antibiotic resistance. He has published more than 300 peer-reviewed papers in Australian and international journals. Since 2000 he has served as an expert to the World Health Organization on antibiotic resistance and the use of antibiotics in food animals. In June 2009 he was made a Member of the Order of Australia (AM) for services to medicine in infectious diseases, microbiology and infection control.

Mayors join Go8 on foreign students

Australian universities and the mayors of the nation's capital cities have called on the federal government to provide automatic extensions of post-study visas for bachelor, masters and PhD students as a step to address Australia's skilled labour shortage and reinstate the country's reputation as a global leader in international student experience.

The Council of Capital City Lord Mayors (CCCLM), the Group of Eight Universities, University of Tasmania and Charles Darwin University welcomed the government's announcement of changes to post-study work visa arrangements following the Jobs and Skills Summit. They believe the changes will enhance Australia's international student market competitiveness and contribute to addressing labour shortages.

Mayoral and university representatives met parliamentarians in Canberra in early September and presented their advocacy paper, *Capital Concern: Australia's International Student Market*. The paper provides input into the Government's working group which has been set up to advise on the development of the post-study visa changes and related issues.

The alliance is also advocating the introduction of the Australian equivalent of Britain's High Potential Individual (HPI) visa, which would permit international student graduates to stay in Australia. An applicant must have been awarded a qualification by an eligible university in the preceding five years. Together, the paper says, extended post-study work visas and an HPI visa "could complement each other to provide both short- and medium-term pipelines of talent into the Australian workforce".

The changes would aim to make it as simple as possible for talented graduates to fill workplace shortages and supplement the existing Global Talent Visa Program and post-graduate study rights access.

The Group of Eight notes that international education is one of Australia's largest exports and essential to the nation's future prosperity and global reputation. However, as a result of the pandemic, International Higher

Education Australia has estimated that the value of international education has almost halved, from \$40 billion in 2019 to \$22 billion in 2022.

CCCLM deputy chair Sally Capp, Lord Mayor of Melbourne, said there were multiple advantages to retaining international students after they had completed their studies.

"We are acutely aware of the labour shortages in our country. Keeping international students here post-study would be an immediate boost to available labour for critical jobs in key sectors," Lord Mayor Capp said.

The chief executive of the Group of Eight, Vicki Thomson, said Australia was at a critical juncture with respect to skills needs: facing serious challenges to maintaining capacity in essential areas of workforce need as identified by the Jobs and Skills Summit.

"We can't ignore the international competition for talent, with governments in the UK and US pulling policy levers to attract academic and research leaders in areas critical to economic growth.

"The Government's changes to post-study work rights, combined with a high potential individual visa to target high-achieving graduates, will strengthen Australia's pipeline of skilled labour, boost productivity and our economic prosperity," she said.

Clover Moore, Lord Mayor of the City of Sydney, said that before the Covid-19 pandemic, more than 35,000 international students studied within the City of Sydney each year, contributing not only to the local economy but also to the city's rich cultural and social diversity. "International students create vital links between our city and their home countries, becoming life-long ambassadors for Australia as a place to visit, to learn, and to work," she said.

"We need to ensure Australia reclaims its reputation as a destination of choice for the world's best and brightest students.

"Economically, attracting more international students encourages growth in our education sector, which is one of our largest export earning industries. Growing our population also creates more customers, resulting in higher consumption growth, which we need after our nation's borders were closed for so long."

ARC review group announced

The Vice Chancellor of the Queensland University of Technology, Professor Margaret Sheil AO, will lead the Australian Government's review of the work of the Australian Research Council. Her appointment was announced by the federal Minister for Education, Jason Clare, on 30 August.

The review follows the unanimous recommendation of the Senate Standing Committee on Education and Employment in March that the ARC Act should be reviewed. It is the first review in more than 20 years.

Professor Sheil will be joined by Professor Mark Hutchinson, Director of the Centre of Excellence for Nanoscale BioPhotonics and a Professor of Medicine at the University of Adelaide, and Professor Susan Dodds, Senior Deputy-Vice Chancellor and Vice-President (Research & Industry Engagement), and Professor of Philosophy at La Trobe University. The review team is to report by the end of March 2023.

Mr Clare said the review's terms of reference were broad. "I am asking them to look at the role and purpose of the ARC within our research system so it can meet current and future needs and maintain the trust of the research sector," he said. "The review will complement a review of internal processes by the ARC that is already under way.

"I have also issued a new Letter of Expectations to the ARC. The Letter makes it clear that future grant rounds are delivered on time to a pre-determined timeframe.

"I have also made clear that the National Interest Test should continue but should be clearer, simpler, and easily understood.

"I have asked the ARC to work with universities and researchers to develop guidance for applicants that is clear and simple and advise me on reforms to improve the process."

University lifts research stipends

The Australian National University would immediately increase the PhD and other higher degree by research stipends, the Vice-Chancellor, Professor Brian Schmidt, announced on 16 September.

The decision was made to help students better make ends meet, he said in the VC's Update. "We will raise the minimum PhD stipend from \$28,854 to \$34,000. This new pay rate will be paid starting in October," he said.

"The university's financial position remains very tight, and we will run a very large deficit this year, but the Senior Management Group felt strongly that it was no longer ethical to stick to the underlying government stipend amount given the cost of living pressures on our PhD students.

"As a nation, we want the best and brightest students to undertake research and the benefits to society are immeasurable. I am advocating at the highest levels that, if Australia wants some of our best and brightest to undertake PhDs, the Government will need to raise the base PhD stipend rate."

Professor Schmidt chaired a panel on immigration at the National Jobs Summit which talked about the entire system and how it could be improved.

"I contrasted the four days it took for my visa to be approved in 1994, to the slow and laborious process for attaining work visas many of our staff and students are current facing," he wrote. "This hurts Australia because it makes us a much less attractive destination for the smartest people around the world. ... I and the university will continue to try to improve the visa situation to make that aspect of life much less troublesome than it is presently."

D. J. Carr's life, achievements in print

The life, work and accomplishments of eminent botanist Professor Denis John Carr are the subject of *First Know the Nature of Things*, an appreciation of the former head and Foundation Professor of the Department of Developmental Biology at The Australian National University's Research School of Biological Sciences (1968–1980).

The volume has been compiled and edited by Brian Gunning, Roland Jahnke, Marion Manifold and Bruce Wellington and offers Professor Carr's autobiography, from childhood to the war years, complemented with biographical material covering his life and work at universities in Britain and Australia, including the ANU, with insights into the early years of the (then) Institute of Advanced Studies, and interspersed with personal reminiscences from family, colleagues and friends.

Denis Carr (1915-2008) was educated at Manchester University after war service in a commando unit and held senior academic appointments at the University of Melbourne, Queen's University, Belfast, and the ANU. He was instrumental in developing and expanding the botany departments at Melbourne and Belfast before joining the ANU.

He was internationally renowned for his important contributions to plant sciences through his work and books on plant hormones, flowering, intercellular communication, and the taxonomy of Bryophytes and Eucalypts. *First Know the Nature of Things* (390pp.) is published by Phytoglyph Press and costs \$50 plus postage. It is available from Marion Manifold (email: mmanifold@ansonic.com.au; postal address 590 Wiridgil Road, Camperdown, Vic. 3260).

Government simplifies IP agreements

The federal Minister for Education, Jason Clare, announced on 31 August that the government has simplified and standardised intellectual property (IP) agreements to promote the commercialisation of research and closer collaboration by universities and researchers with Australian industry.

Arranging IP agreements could be time-consuming and expensive for universities, researchers and their prospective partner organisations, he said.

The new Higher Education Research Commercialisation (HERC) IP framework would help to simplify IP negotiations and stimulate collaboration and commercialisation. He encouraged universities to adopt the standardised material voluntarily as part of their broader commercialisation plans.

The framework consists of 12 template agreements with plain English descriptions of legal terms and clauses, as well as associated educational materials to support their adoption. An advisory committee, with members drawn from business, academe and government, will be established to implement, update and help participants adopt the framework. The framework will be reviewed during the next year to ensure that it is meeting its goals.

Obituaries

James Jupp 23 August 1932 – 11 April 2022

James Jupp, who died on 11 April 2022, came to Australia twice as an immigrant, the first time in 1956 and the second in 1978. Like others who have come from elsewhere he brought fresh eyes to bear on Australian political institutions and played a major role in developing the study of Australian political parties, immigration politics and multiculturalism.

James was born in Croydon, South London, where he was to live for his first 22 years, with some interruptions like evacuation to Brighton when he was seven, clutching a gas mask and identity card. Vera Lynn's song *The White Cliffs of Dover* ("Jimmy will go to sleep / In his own little room again") was always to be close to his heart. Later in the war he was back in Croydon when a V2 rocket landed in his street, killing 15 people but none of his family.

A scholarship took James to Whitgift Grammar School in Croydon, where his interest in politics was stimulated by Bernard Crick, several years ahead of him and already organising mock parliaments. By the age of 14 James had joined the Labour League of Youth and when he was 15-and-a-half managed to join the Labour Party (the minimum age was 16) and canvassed actively in the Croydon by-election of 1948. This was the beginning of a lifelong loyalty to Labour, later earning him a life membership of the Australian Labor Party.

Another scholarship took James to the London School of Economics (LSE), where he became president of both the Socialist and Labour Societies. His friendships among the diverse student body later led to a doctoral thesis on Sri Lankan democracy. Meanwhile, his undergraduate degree was followed by a master's thesis on the radical left in Britain between the wars, supervised by Bob McKenzie. When James applied too late for a scholarship for the first year, McKenzie provided useful contacts for jobs, which included working for the London office of *Asahi Shimbun*, grading Persian lamb skins for the Hudson's Bay Company, and giving English conversation classes for the Yugoslav Embassy. Tito was one his heroes and he first visited Yugoslavia in 1953.

In 1956, with the threat of national service looming, a hasty decision was made to leave Britain. An encounter with Hugo Wolfsohn and the possibility of employment at the University of Melbourne led to the long voyage to Australia, part of the way in a ship travelling from Marseilles to Saigon, and then on a Dutch ship from Singapore to Perth. Fortunately, he had met Bill Hartley (later Baghdad Bill) on the ship, who lent him the train fare to Melbourne. After a couple of temporary jobs, he did indeed join the University of Melbourne, first as tutor, then lecturer and senior lecturer.

Lecturing on Australian politics to large first-year classes made James acutely aware of the lack of a textbook on Australian political parties. His pioneering work *Australian Party Politics* (Melbourne University Press) appeared in 1964, and after reprints in 1964 and 1966 a new edition was published in 1968. James

became an international expert on the nature of political parties, publishing both general texts and chapters and articles on party systems in different parts of the world. Party politics continued to be a living subject for him, and he became first secretary of the "Participants" group, working to reform the Victorian Labor Party in the interests of the Whitlam revolution.

Living in North Carlton, close to the university, James became very aware of his Greek and Italian neighbours. At the LSE he had read the demographic work of Mick Borrie but in general there seemed little recognition of the policy implications of large-scale European immigration. Undertaking his own unfunded research, in 1966 James published *Arrivals and Departures*, the first overall look at European migration. It highlighted the lack of fairness in the treatment of Australia's migrant communities and was to have major policy influence, foreshadowing his later work.

Key contributor to understanding multiculturalism

However, James became restless in a country that in the era before jumbo jets seemed too far from anywhere else. In 1966 he took up a position in the UK, at the University of York, where he was to stay for the next ten years, including a time as departmental chairman. In 1976 he set off for Canada, where he spent two years at the University of Waterloo in Ontario, becoming familiar with the multicultural policies of the Trudeau Government.

In 1978 James migrated to Australia a second time to take up a position at the Canberra College of Advanced Education and to marry Marian Sawer, whom he had met at a Political Studies Association conference in Nottingham. They combined their honeymoon in the Condominium of the New Hebrides with research on the branch structure of the Vanua'aku Pati, the first of a number of studies they published jointly on the politics of Vanuatu.

On arrival in Canberra, James was gratified by the distance Australia had travelled down the path of official multiculturalism since his departure in 1966. He became a key contributor to an understanding of multicultural policy as based on principles of access and equity in the provision of services — and the need for more adequate political representation to achieve this. It was Don Aitkin who in 1981 brought James to the Research School of Social Sciences at The Australian National University to co-ordinate and foster the study of ethnic politics. James moved permanently to the ANU in 1984, becoming Director of the Centre for Immigration and Multicultural Studies (CIMS) in the years 1988–2010. During this time, he became a Fellow of the Academy of the Social Sciences in Australia and then its Executive Director, 1993–1995.

A major academic project of this period was the *Encyclopedia of the Australian People*, for which he received \$1 million in Bicentennial funding. As remarked in the *Festschrift* for his 60th birthday, many believed it to be an impossible task to bring together in one volume an authoritative account of the diverse communities making up the Australian population. As general editor, James brought together 250 authors to perform this mammoth task. It was delivered on time and with a remarkable lack of controversy. One exception was the Macedonian question, but even so both Greece and the Macedonian Republic of Yugoslavia invited James to be an honoured guest of their countries. The *Encyclopedia* was launched by Prime Minister Bob Hawke in the (very) new

Parliament House in 1988 and described as one of the most substantial outcomes of the Bicentenary. A second edition was prepared and published for the Centenary of Federation in 2001.

While engaged in major academic projects such as the *Encyclopedia*, James was also increasingly caught up in commissioned policy research for organisations including the office of Multicultural Affairs in the Department of Prime Minister and Cabinet and the Bureau of Immigration Research. Together with his loyal staff at CIMS, he undertook research on matters such as the settlement needs of small ethnic groups, refugee settlement policy, metropolitan "ghettos", political participation and even the interpreting needs of women (helped by Andrea MacRobbie).

James also chaired the Hawke Government's Committee of Review of Migrant and Multicultural Programs and Services. This was a very wide-ranging review of the adequacy of Commonwealth government services in meeting the needs of immigrants from culturally and linguistically diverse backgrounds, both in terms of specialist services and access to mainstream services. The title of the Report, *Don't Settle for Less*, said it all but was not guaranteed to make its recommendations popular with a government seeking budget savings rather than additional expenditure.

From the 1980s James became a central member of the multicultural policy community surrounding the Commonwealth and ACT governments and sat on a large number of advisory bodies. This did not impede his continuing research productivity and a stream of sole-authored and edited books. His books for Cambridge University Press alone included *From White Australia to Woomera* (two editions), *The English in Australia* and the *Encyclopedia of Religion in Australia*.

From 2010–2020 James was a visiting fellow in Demography, where he published his last books – defending multiculturalism and analysing the continuous social engineering of the origins, size and character of the Australian population from 1788 to the present. A lifelong advocate of social justice, he was distressed by developments in the 1990s such as mandatory detention of asylum seekers who arrived by boat. He saw such policies as turning back the clock on the development of more humane policies between 1950 and 1990.

James was deeply honoured to be made a member of the Order of Australia in 2004 for 'service to the development of public policy in relation to immigration and multiculturalism, to education, and in the recording of Australian history'. In 2009, in a new disciplinary history, *The Australian Study of Politics*, he was singled out for his influential contribution to the academic understanding of the politics and policy implications of Australian immigration and multiculturalism.

James had a deep appreciation of the value of cultural diversity and is missed by many for his sense of justice and fairness. He is survived by his beloved daughter Tahja, stepdaughters Hilary and Harriet Sawer, and wife Marian Sawer.

— Marian Sawer

Frederick Edward Mulhearin (Ted) Lilley 8 February 1930 – 4 July 2022

Ted Lilley's life-long career was in the field of geomagnetism, the study of the Earth's magnetic field. For Ted, its subtle changes from moment to moment and from place to place were a source of endless fascination that sustained his entire research career because they enabled his wonder, as he himself said, at being able to measure geophysical processes deep within the Earth.

Ted was born in Hobart, Tasmania, on 8 February 1940. He received his formative education at Hobart's celebrated Hutchins School, where his interest in science was well formed by the time he graduated. He was an excellent student, and he was Dux of the Year in his final two years. Upon completing secondary studies Ted was awarded a cadetship in geophysics by the Australian Atomic Energy Commission, which supported his studies in science at the University of Sydney (1957–1960). After graduating BSc (Hons) in geophysics, Ted took a position in the aeromagnetic surveying group of the Bureau of Mineral Resources, Geology & Geophysics (BMR, now Geoscience Australia), which was then pioneering airborne magnetic field measurements in Australia, using a World War II-era DC3 aircraft and old, cumbersome submarine-detection magnetometers. Ted helped to modernise the program by field testing the use of newer and lighter proton-precession magnetometers in a smaller, more-manoeuvrable Cessna aircraft.

In the early 1960s Ted began an MSc and PhD program at the University of Western Ontario in Canada. There he initially continued working in aeromagnetism, investigating the practical problem of how flight direction affected the characterisation of magnetic anomalies on the ground. In his later doctoral research he turned his attention to the mathematically challenging issue of how earthquake waves travelling through the core of the Earth would be affected by the intense and highly variable magnetic fields that exist there.

Subsequent postdoctoral research with the renowned geophysicist Sir Edward Bullard at the University of Cambridge further fuelled Ted's interest in core studies. At Cambridge his investigation of models of fluid flow in the Earth's outer core were sufficiently computationally demanding as to require the use of the recently commissioned IBM 360/model 91 computer at the NASA Goddard Space Flight Center in the USA, which at that time was the most powerful computer in operation.

Ted and his wife Penny returned to Australia in 1968, with Ted taking up an academic position in the Department of Geophysics and Geochemistry in the ANU's Research School of Physical Sciences. Established by John Conrad Jaeger in 1952, the department became the Research School of Earth Sciences (RSES) in 1973, with Anton Hales its first Director. Interestingly, some of the buildings used to house the new Research School included weatherboard-style buildings dating from the old Canberra Community Hospital, which was itself founded in 1914. The hospital's historic buildings found good use as office space for the growing research school, and they still stand today as an historic monument that sees good use. Indeed, for the latter part of Ted's tenure at

RSES, he and his students occupied what was once a maternity ward in the old hospital.

Ted and Penny settled in the Canberra suburb of Aranda, where they raised their family and embedded themselves deeply in the local community. Ted's work days in fine weather usually involved strenuous morning and afternoon walks through the Black Mountain Reserve. Often he would meet a fellow geophysics colleague at RSES, Mervyn Paterson, and the two of them would share the morning walk observing all the while the seasonal changes in the reserve's flora and fauna. On such days the two colleagues would often share their discoveries of orchids found or nests reconstructed with other colleagues at the daily morning tea gatherings in the RSES seminar room.

Electrical structure of Australia a new focus

At ANU, Ted's research took a major new direction with the study of the electrical structure of the Australian continent his new focus. Initially Ted and his first students used instruments they had built themselves, with mixed results. However, a sabbatical at ANU by Professor Ian Gough from the University of Alberta gave access to a pool of 25 instruments, the design of which he later permitted RSES to copy. These magnetometers could be buried at field sites and left to record for weeks or months at a time. Subsequent painstaking analysis of the subtle differences in the magnetic field as it changed over time from site to site permitted estimates of the electrical conductivity of the deep Earth.

These magnetometers, excellent as they turned out to be, were not, however, without their challenges. Each was housed in an aluminium tube standing more than 1.5 metres tall. They were cumbersome to transport in numbers, and they were very hard to dig vertically into the ground. Visiting colleagues, students, pilots, Ted's children Matthew, Jo and Jim, and station managers — particularly those with tractor-mounted augers — were key collaborators in this fieldwork. After a survey each recovered instrument then had weeks' or months' worth of photographic film that needed to be developed, measured and transcribed into useful numbers for analysis. Ted's long-term research assistant, Merren Sloane, managed this process meticulously.

Ted and his early students — Hans Tammemagi, Dave Bennett and Dennis Woods — deployed arrays of these instruments in central and southern Australia. They collected magnetic-field data over an enormous area across the south of the Northern Territory and western Queensland, much of South Australia, western and southern New South Wales, all of Victoria, and also in northern Tasmania. These studies found large, deep electrical conductivity anomalies under the Flinders Ranges of South Australia, the Eromanga Basin in southwest Queensland and the Otway Ranges of southern Victoria. They also found evidence of the "coast effect" in which magnetic field changes are affected by the strong contrast in electrical conductivity between the continent and the salty ocean.

Because of the remoteness of these surveys, equipment was usually deployed by aircraft. Dennis Woods recounts stories of pilots Peter Smith and Jan Styles flying Ted, his students, and their equipment to remote landing strips on cattle stations and clay pans in the middle of the Simpson Desert, sometimes having

to make a first pass by bouncing the wheels on the surface to see if it was hard enough to land on. The difficulty of these aeronautical feats was later recognised when Jan won an award for her bush piloting skills. Years later, in 2022, when Dennis tracked Jan down, she recalled "what a kind, thoughtful gentleman Ted was", and she still recalled the large "FEM Lilley" that he always used to mark all his baggage.

One of Jan's photos shows Ted and Dennis installing a magnetometer at a desert site, Ted in a white lab coat over shorts and a singlet, Dennis in shorts, and both wearing bucket hats and thongs. In these days of high-vis clothing and steel toe-capped safety boots, it's amazing to reflect on what sufficed for personal protective equipment back then!

In the early 1980s Ted, B.P. Singh, Baldev Arora and other Indian collaborators used the ANU magnetometers to investigate electrical conductivity anomalies in India. This fieldwork included all the logistical challenges implicit in extensive field campaigns in India. Significantly, the research identified a major, deep conductor running from the Himalayan foothills southwest towards Delhi, and another running between the southern coast of India and Sri Lanka. Ted always remembered fondly the wonderful hospitality he enjoyed in India, and the sustaining chai breaks on trips through the mountains.

The 1980s also brought new students: Ian Ferguson, Nathan Bindoff, Richard Kellett and Graham Heinson. With them, and in collaboration with Jean Filloux, Phil Mulhearn and Tony White, Ted's research began to focus more offshore. Seafloor instruments were deployed off the New South Wales coast using the HMAS Cook, the RV Franklin, and a lobster boat working out of Ulladulla. Nathan recalls how he, Ian and Ted diligently tried to test one of the magnetometers near a boat ramp in Ulladulla to make sure it was working correctly before deploying it while wearing little more than their underwear so that their clothes didn't get too wet. Once operational, these seafloor instruments provided the opportunity to study the electrical conductivity of oceanic crust, the electrical and pressure signatures of ocean tides and currents, and the "coast effect" as seen from the ocean side. The new data they provided permitted the first computer models of the electrical structure of the Tasman Sea to be developed using the "thin-sheet" modelling method developed by John Weaver's group at the University of Victoria, British Columbia.

Into the 1990s, with his final students Robert Corkery, Liejun Wang and Adrian Hitchman, Ted's research began to bring together aspects of his work over the previous two decades. Rob and Liejun worked with Ted to amalgamate data from all the Australian array studies, including that collected by Francois Chamalaun, Charlie Barton, Tony White and Peter Milligan, to build the first conductivity model of the entire continent. With Adrian, Ted's research went full circle as they investigated how this newly understood electrical structure might affect aeromagnetic survey data.

Through the 2000s, Ted worked with John Weaver on the inventive use of Mohr circles in the analysis of magnetotelluric data, and wrote book chapters, review papers and, increasingly, also articles about boats and yachting — which for him was another lifelong passion.

Ted often remarked that he considered himself very fortunate in the colleagues with whom he shared the pleasures and satisfaction of making geophysical studies in Australia, once observing that "science is best when it is done with one's friends". Indeed, many of these colleagues returned the compliment by sharing their admiration of Ted at his funeral in 2022. Two such accounts here say as much about Ted Lilley, the man, as they do about how science used to be conducted and how Australia itself has also changed.

Dave Bennett:

"Ted and I were returning from fieldwork on a flight from Adelaide to Sydney, years ago. Before we took off he was regaling me with his memories of airborne magnetic surveys when he was in the Bureau of Mineral Resources, and how they had a nerveless pilot, called Darkie Dangerfield, who would land the old DC3 on salt pans and the like, out in the bush; when the pre-flight announcement came on . . . 'Ladies and gentlemen, this is Captain Dangerfield speaking . . . '

"Ted pressed the attention button and asked the steward whether the captain was indeed Darkie Dangerfield. After being assured that he was, Ted said 'Please tell him that Ted Lilley is in the plane'. Back came the message, 'Captain Dangerfield invites you to join him in the cockpit', where they reminisced happily as we flew to Sydney."

Hospitality 'better than camping out every night'

Dennis Woods:

"We didn't always camp out. Some cattle station owners and managers insisted that we stay with them at the station house. It didn't take too much of this hospitality to convince Ted that it was better than camping out every night. So we loaded up on good wine as hospitality gifts, and Ted organized toys and children's books to give to the station kids who always seemed to be around. I heard later from these station folk, when carrying out my own follow-up study, that they looked forward to these visits from 'Professor Ted' — even more than we looked forward to them ourselves."

In addition to his more than 50 years of research, Ted also taught undergraduate geophysics to students in the ANU's Department of Geology for 25 years. His lectures and practical classes were very popular with students, as were his student excursions to such venues in Canberra as the BMR/AGSO/GA Magnetic Observatory, the ANU Seismic Vault at Mt Stromlo, and the Black Mountain Tower.

Ted Lilley retired at the end of 2003 but continued in the Research School of Earth Sciences as a Visiting Fellow, and in 2019 was appointed an Honorary Associate Professor. During Ted's long career at ANU, he supervised 10 PhD graduates and three Honours graduates, many of whom went on to become influential researchers in geophysics in their own right. His prolific research led to the publication of 155 scientific papers. He was a foundation member of the Australian Society of Exploration Geophysicists (ASEG) and its ACT branch. He served as ACT President in 1980/81 and Vice-President in 1981/82. Between 1981 and 1983 he was Editor of the *Bulletin of the Australian Society of Exploration Geophysicists* and, in 2004, his lasting contributions to Australian

geophysics were recognised with the award of ASEG Honorary Life Membership.

Ted's colleagues have described him as famously patient, utterly kind, generous and gentlemanly, a mentor and champion, a supreme communicator, always generous with wise counsel, encouragement and carefully considered comment, a scientist to emulate, and a strong influence not only on careers, but on lives.

Ted is survived by Penny, children Matthew, Jo and Jim, their spouses Elizabeth, Josh and Jane, and grandchildren Lucinda, Francis, Charles, Sophia, Gabriel, Molly, Freya and Eliza. He will also be ever-present in the lives of his former students and colleagues around the world.

Frederick Edward Mulhearin (Ted) Lilley was truly the epitome of "a gentleman and a scholar" and he was an example to all. He is greatly missed.

- Adrian Hitchman



Richard Campbell 18 January 1939 – 17 July 2022

Richard James Campbell made an outstanding contribution to teaching, research and administration at the ANU and beyond. He was born in Sydney on 18 January 1939, son of Albert and Beryl Campbell. Richard's mother died when he was four years old. His father, a pharmacist, remarried a few years later. He died when Richard was fourteen. Richard's brother became a pharmacist, and his half-brother by his father's second marriage was Joseph (Joe) Campbell (born 1949), sometime Judge of Appeal in the NSW Supreme Court. Richard attended the Fort Street Boys High School and was Dux of the school in 1955.

Richard studied philosophy, education and Hebrew at the University of Sydney and graduated with a BA in 1959. The philosophy professor was John Anderson, widely known as a philosophical and political radical. Richard did not have a high opinion of him as a teacher — "a mumbling Scotsman" — and rejected his scientific materialism, also called naturalism or physicalism, which in various forms has dominated most of twentieth-century Anglophone philosophy. Richard did not accept it.

The reason why he chose Hebrew was that he wanted to keep open the option of not only being minister in his Presbyterian Church but also of studying theology at postgraduate levels. It was not easy: "I am not a natural linguist". But he felt grateful for the insights gained by studying a non-Indo-European language. After his B.A. degree in 1959 he next undertook the four-year course for the B.D.

In August 1960 Richard married Mathilda van Wijk, known as Tilly. They soon had two sons. To support his family Richard served 1961–1965 as a minister of the Presbyterian Church in Glebe, Sydney, within a walking distance of the university. After resigning from that position he remained available to conduct church services occasionally. But he combined his religious commitment with certain reservations about church life, including that of his own.

The marriage and the ministry did not slow down his study for the B.D. and he graduated with First Class Honours in 1963. Of all his teachers, Crawford Miller was the one who had a decisive influence. He was a Scottish Presbyterian philosophical theologian whom Richard described as the greatest theological intellect to come to these shores. Richard benefited much from Miller's vast patristic scholarship and from his reading in German theological literature: "He taught me to think." In 1992, Richard's *magnum opus* was dedicated to him.

At this juncture, having earned two bachelor's degrees, Richard had to decide whether to continue for a higher degree in philosophy or in theology. He wanted to keep his options open. A choice of philosophy would not prevent a later change to theology. On the other hand, choosing theology would virtually rule out prospects of later getting a foothold in academic philosophy. So he opted for philosophy, and his thesis, 'Necessity in Metaphysics', rendered him an M.A. degree with First Class Honours in 1964.

Influence of continental philosophers 'clearly visible'

In 1965 he taught philosophy part-time at Sydney. Next followed postgraduate study in Oxford, 1966–1967 with Geoffrey Warnock as supervisor. Gilbert Ryle and Paul Grice, eminent philosophers, were supportive and helped to get him tutoring hours at Magdalen, Oriel and St. John's. But living conditions were very difficult for him and his wife and the two young boys. The duplex in which they lived on the outskirts of Oxford was cold and damp. (David Lodge's *Changing Places* gives a good idea of the deplorable condition of English housing in the 1960s.) There was not enough money. Their neighbours were unfriendly. They were in many ways isolated.

In 1968 Richard began teaching as Lecturer in the Department of Philosophy, Faculty of Arts, ANU. He returned to Oxford on study leave in 1971. His supervisor was Gilbert Ryle, at the time perhaps the most important figure in Oxford philosophy. Ryle was at the time editor of Mind, widely regarded as the leading philosophy journal. He was most welcoming to Richard and encouraged him to study for a D.Phil. Richard also benefited from discussions with other leading philosophers, among them Arthur Prior. The topic of his D.Phil. thesis was 'Reference and Existence'. Richard once explained that he chose this topic because he firmly believed that we can talk meaningfully about things that do not exist, like unicorns and square circles, and that the widely accepted ways of dealing with this, inspired by Gottlob Frege and Bertrand Russell, were unsatisfactory. The thesis was a piece of analytic philosophy, of the kind predominant in contemporary Anglophone philosophy. But Richard's view of philosophy was more inclusive. On his intellectual horizon, Husserl, Heidegger, Merleau-Ponty, Habermas, and many other continental philosophers were clearly visible. His interest in these came to be reflected in many courses he designed and taught from the 1970s onward. In this, he deviated from the mainstream anglo-centric philosophy.

As a teacher and postgraduate supervisor at the ANU, Richard was held in high regard. John Clanchy, Senior Counsellor in the ANU Study Skills Centre, placed Richard in the top echelon of teaching academics in the Faculty of Arts. Robin Small, now emeritus professor, University of Auckland, once a postgraduate student of Richard's, wrote that he had been "an outstanding

supervisor". Another postgraduate student, Frances Gray, described Richard as a stimulating critic: conscientious, tolerant, with breadth and depth of scholarship.

Richard soon came to be recognised and welcomed internationally. He spent 1974 in London on a Nuffield Fellowship. He was a Visiting Lecturer at the University of Cambridge in 1978 and 1982. In 1982 he was also a Visiting Professor at the University of Toronto. He was frequently invited to give lectures or present papers to conferences and symposia in Australia and abroad.

Having been appointed as Lecturer in 1968, Richard went through the *cursus honorum* all the way to the rank of Professor in 1993. The promotion to Professor was preceded by an extremely thorough vetting. Richard had to present a "statement of accomplishments and plans". It ran to approximately 6000 words. The course evaluations by his students were supplied. Comments on his research and publications were requested from no less than eight referees of international renown. The replies were strongly supportive. The ANU even asked a number of overseas academic journals and magazines like the *TLS* for previews of reviews of his major work, which was published in 1992.

Richard also did significant service in the ANU administration. In 1976 and 1977 he was seconded from the Philosophy Department to a new position of Academic Assistant to the Vice-Chancellor. He served as Dean of the Faculty of Arts from 1990 until 1994, and as Pro Vice-Chancellor and Chair of the Board of The Faculties from 1994 until 1998. These responsibilities were not easy, considering that at this time in just about every meeting the word "cutback" was heard with great frequency. Richard handled the difficulties well. He was well regarded as an administrator by his staff, "with good throughput of files" according to a well-informed source who explained that "there was rarely more than a two-day turnaround of matters sent to him for approval or direction, and there was nothing slapdash: even the most basic matter requiring signature was always read."

On his retirement in 2003 he was made Emeritus Professor. He could then devote more of his time to further research and over the next two decades he published four books.

Richard's remarkable achievement in reforming secondary education in the ACT, which was undertaken concurrently with his teaching and research, was of great extent and uniquely successful. As a father of two schoolboys, Richard, like many ACT parents, took an active interest in their education. He soon was accepted by parents' and teachers' groups and became in 1971–1973 Chairman of the Working Committee on Secondary Schooling in the Australian Capital Territory. This was under the aegis of the Commonwealth Minister for Education and Science, at first Malcolm Fraser and then Kim Beazley Snr. Its report, written by Richard and published as *Secondary Education in Canberra* (Australian Government Publishing Service. Canberra 1973. 186+viii pp.), had as its main recommendation that high school years 5 and 6 be replaced with secondary colleges. These colleges would be governed by parent/teacher/student boards, and they would have broadened curricula, moderated internal assessment, a more professional teaching force, and relaxed attendance requirements. These recommendations were implemented in the

late 1970s. As noted in ACE News in June 1993 "Overall, the ACT colleges have been one of Australia's educational success stories." Thirty years later, this remark remains valid. No person can take more credit for this than Richard Campbell. He was the main designer of this new structure and was also a central force in bringing it into existence as a member of the ACT Schools Authority in 1977 and, as its Chair, from 1979 to 1985. At the time it ran about 100 schools and colleges, and its budget and number of teaching and administrative staff was approximately the same as the entire ANU.

The secondary colleges were a major success and still are. As for the remaining high schools, Richard was at the time not entirely satisfied. He felt at the time that more could have been done. One inquiry, undertaken when preparing the 1973 report, had tested the level of dissatisfaction in high schools. Some did better, other ones worse. The person who had conducted that inquiry asked Richard to guess which four schools had turned out to have the highest levels of dissatisfaction. Richard guessed correctly. The astonished researcher asked: "How could you tell?" Richard answered: "I know who the headmasters are." He regretted that the reform left the years 1–4 of high school without much change. Many headmasters were set in their ways. He thought that even a minor change, perhaps simply assigning a headmaster to another school, would have been of great benefit.

'Well-deserved recognition' for work on educational reform

R. MacDonald, University of Technology, Sydney, wrote: "Richard Campbell is a rarity in Australian academic circles. In addition to his contributions to scholarship in his own field, he has made a contribution to both policy and debates in the field of education which far exceeds that made by most for whom it is a central focus. It would be no exaggeration to describe his contribution as outstanding."

Richard's work in the area of educational reform received well-deserved official recognition when he was made a Member of the Order of Australia in 1986.

Richard's writings were characterised by admirable clarity. His first booklength philosophical publication was his book on Anselm of Canterbury (ANU 1976, re-issued by Mellen Press 1987) It analysed what is commonly known as the ontological argument for the existence of God, proposed by Anselm in his *Proslogion* written in 1087. It has fascinated and frustrated every major philosopher since, including Aquinas, Leibniz, Kant, and Bertrand Russell. Richard argued that what Anselm wrote had been seriously misconstrued. His supposed argument could then be easily refuted. Properly understood, it could not be easily dismissed. The book received much praise from leading experts like Jonathan Barnes in Mind and P. T. Geach in Philosophy. However, when in 2003 he gained the inestimable freedom of an emeritus professor, Richard had a closer look at Anselm. He did not abandon his radical re-reading of Anselm, but the title of his Rethinking Anselm's Arguments, (Leiden: Brill, 2018) indicated that parts of what he had said earlier were "flawed and required substantial amendments". His last word on this topic came in A Cosmological Reformulation of Anselm's Proof That God Exists (Leiden: Brill, 2022), where he argued that the crucial premise turns out to be supported by modern

cosmological theory, and that what Anselm thought is to be understood not as an ontological argument, but as a novel and cogent variant of what is commonly known as a cosmological argument, in tune with present-day ways of thinking about existence and scientific explanation

If Richard's first book on Anselm had a limited scope, his second published book in philosophy, *Truth and Historicity* (Oxford University Press 1992), was all the more wide-ranging. This major work presented a survey of conceptions of truth from ancient times to the present. It was well received by many readers and commended for its "uncommon lucidity and readability", its "breadth of coverage" and "absence of narrow specialization". One reader noted its "particular and rare virtue in that it bridges the gap between scholarly history of philosophy and contemporary mainstream analytic philosophy", and another reader described it as "a *tour de force* of amazing range and consistency of scholarship".

In this work Richard discussed the ideas of a great number of philosophers. Among them was Heidegger, whose ideas about truth Richard treated with sympathy but not uncritically. There was an obvious affinity, because theological conceptions imbue Heidegger's thought and had their place in Richard's philosophical outlook. But Richard had no sympathy for what he called Heidegger's "typically idiosyncratic" ways of formulating his thoughts, nor with his opinion that people of a certain race or nation are incapable of philosophical thinking or his opinion that the only languages in which philosophy can be properly done are ancient Greek and modern German.

This impressive work was intended to show the historical trajectory of truth. But, as Richard insisted in his later *The Concept of Truth* (Palgrave Macmillan 2011), it would be a mistake to take this to imply sceptical relativism about truth — a stance favoured by dishonest politicians and refuted by honest philosophers. The main argument in this later work was that "the contemporary theories of truth are too narrow, because they assume that truth applies only to what is said". Richard advocated a novel conception of truth, by showing "how error is implicated in the actions of all living things; and by analysing uses of 'true' in non-linguistic contexts".

Between this book on truth and the two late books provoked by Anselm, Richard also published *The Metaphysics of Emergence* (Palgrave Macmillan, 2015). It was designed to underpin and supplement his view of truth with an anti-physicalist process-based ontology. Philosophers will no doubt find radical philosophical proposals in this work, and the other recent ones "courageous", in the sense that what is proposed is likely to attract an amount of doubt and criticism above average. This — only time will tell — may be to their credit.

Richard was successful as a teacher, researcher and administrator, but in his life there was always an underlying counterpoint of deep sadness. It began with the loss of his mother when he was four, and of his father when he was fourteen. The early years of the marriage with Tilly, when she was the minister's wife in Glebe, were happy, but over time this changed; and during the time leading up to the inevitable separation and divorce in 1979, and after, he suffered a profound personal crisis.

Richard had remained an ordained minister of his church and had continued occasionally to serve in that capacity. The church, after 1977 the Uniting

Church — Richard did not stay with the Continuing Presbyterians — might have had a problem with his divorce, but no proceedings about his status were initiated and after some time his church made it clear that he was welcome to conduct services as before.

Having recovered from the trauma of the divorce, Richard married Dawne Hooper in late 1980. She was a well-liked member of the ANU administration. It was a good marriage. Still, they divorced in 1988. A *coup de foudre* had struck when Richard met Petra Gilfedder. She had come to study of philosophy as a mature age student and had Richard as adviser when working on her Ph.D. They married in 1989. In later years they divided their time between an apartment in the Canberra suburb of Barton and the south coast of New South Wales. Travel was one of their recreational activities. One of their excursions was a cruise with Hurtigrutten along the coast of Norway, and they once visited Svalbard. This was a happy time. It was also during these years after retirement that Richard continued research and writing and published four philosophical books.

— Thomas Mautner

Diary dates

Emeritus Faculty events

5 October, 12 for 12:30: Molony Room, Collegiate Lunch, Borge Bakken. Borge will discuss his forthcoming book, *Crime and Control in China: The Myth of Harmony*.

12 October, 5:30 pm: Annual Lecture, China in the World Lecture Hall. Professor. Peter Collignon, ANU Medical School: 'Coronavirus (COVID-19): Where were we? Where are we now?' (See front-page story.)

2 November, 12 for 12:30: Molony Room, Collegiate Lunch. Josephine Flood, 'An up-date on Bogong moths and moth hunting in the Australian Alps'.

Meet the Author events

September 26, 7pm – 8pm: Andrew Leigh will talk with Tim Gavel on Andrew's new essay, *Fair Game: Lessons from Sport for a Fairer Society and a Stronger Economy.* T2 Kambri Cultural Centre.

September 28, 6pm: Brett Mason talks with Vice-Chancellor Brian Schmidt about Brett's new book on Howard Florey and Mark Oliphant, *Wizards of Oz: How Oliphant and Florey Helped Win the War and Shape the Modern World.* The Chancellor Julie Bishop, will be MC and give the vote of thanks. Manning Clark Auditorium, Kambri Cultural Centre.

October 5, 6pm: Clive Hamilton talks with Ben Oquist about his autobiography, *Provocateur: A Life of Ideas in Action.* In his memoir Hamilton, an ANU alumnus and founder of the Australia Institute, shows why questioning the status quo matters, how powerful arguments can change the country, and how the life of

ideas in action actually works, from confronting climate change to the dangers of a new authoritarianism. *Provocateur* shows the passions, the doubts, the strategies, the fears, the victories, the mistakes and the questioning behind public debate. The book advances ideas for changing that debate in our increasingly uncertain times: proof that ideas are powerful and that a different future is possible. Hamilton is Professor of Public Ethics and Vice-Chancellor's Chair in Public Ethics at Charles Sturt University in Canberra. T2, Kambri Cultural Centre.

October 10, 6pm: Craig Silvey will be in conversation with Irma Gold on his new novel, *Runt*, a story for readers of all ages from the bestselling author of *Jasper Jones and Honeybee*. Cinema, Kambri Cultural Centre.

October 13, 6pm: Shaun Micallef will talk with Alex Sloan about his new book, *Tripping Over Myself*, his memoir about comedy and life. Micallef, comedian, writer, actor, producer, author and bon vivant, spent a decade practising law, then threw it all away for a life in comedy. Since 1994 he has graced Australian TV screens in such shows as *Full Frontal* and *Sea Change*, his own gigs on the *Micallef P(r)ogram(me)*, *Micallef Tonight* and *Newstopia*, as well as shows like *Thank God You're Here* and *Talkin' Bout Your Generation*. He has hosted the news satire *Shaun Micallef's Mad as Hell* for the last 14 seasons. For his efforts, he has been showered with *Logies*, *AFIs*, *AACTAs* and even an *Aria*. Manning Clark Auditorium, Kambri Cultural Centre.

October 17, 6pm: Simon Holmes à Court will be in conversation with Virginia Haussegger on his book *The Big Teal*. The electoral map was dramatically redrawn at the 2022 federal election, but the triumph of the 'teals' was not entirely unexpected to those helping their rise, such as Climate 200 founder Simon Holmes à Court. Simon is an energy analyst, clean-tech investor, climate philanthropist, and director of the Smart Energy Council and the Australian Environmental Grantmakers Network. He was co-founder of the Australian Wind Alliance and inaugural chair of the Melbourne Energy Institute's Advisory Board. He is a regular commentator on the economic, political and engineering aspects of Australia's energy transition. Manning Clark Auditorium, Kambri Cultural Centre.

October 19, 6pm: Professor Ross Garnaut will talk with Frank Jotzo and Ligang Song about his forthcoming new book, The Superpower Transformation: Building Australia's Zero-Carbon Future. In his earlier bestselling book, Superpower, Garnaut showed that Australia—rich in resources for renewable energy and for carbon capture—could become an economic superpower of the post-carbon world. In *The Superpower Transformation* he offers a practical up-to-date plan to reshape our nation. The Superpower Transformation brings together a collection of essays from leading experts with a major essay by Garnaut, who has edited the book. Garnaut and his contributors argue that stronger and earlier action on climate change will be good for Australian jobs and incomes, including in the gas and coal communities and in rural and regional Australia. The book looks at the challenges facing the federal government in meeting the objectives set at the Paris and Glasgow climate conferences, and the growing costs of not doing so. Ross Garnaut, AC, is Professorial Research Fellow in Economics at the University of Melbourne. A former senior economic adviser to Prime Minister Bob Hawke and ambassador to China, in 2008 he produced the Garnaut Climate

Change Review for the Australian government and a follow-up review in 2011. Frank Jotzo is Professor of Environmental Economics and Climate Change Economics at the ANU's Crawford School of Public Policy. Ligang Song, Professor of Economics at the Arndt-Corden Department of Economics, Crawford School of Public Policy, is Director of the China Economy Program in the ANU College of Asia and the Pacific. Manning Clark Auditorium, Kambri Cultural Centre.

October 24, 6pm: Richard Fidler will talk about his *The Book of Roads and Kingdoms* with Alex Sloan. Kambri Cinema.

October 31, 6pm: Peter van Onselen will be in conversation with Mark Kenny about his book *Victory: The Inside Story of Labor's Return to Power. Victory* goes inside the campaigns in the 2022 election to reveal how Labor orchestrated its remarkable win. The win is seen as the most consequential in decades. As well as ending a "lost decade" of conservative rule and bringing Labor to power federally, van Onselen believes that it ushered in a new force in politics: the victory of the "teal" independents has changed both the face of the parliament and decimated the Liberal Party. Women candidates and voters had their voices heard across the political spectrum.

November 2, 6pm: Frank Bongiorno will talk with Andrew Leigh about Frank's new book, *Dreamers and Schemers. A History of Australia.* Kambri cinema.

November 8, 6pm: Chris Hammer will discuss his new crime fiction novel with Michael Brissenden. Kambri cinema.

November 14, 6pm: Raina MacIntyre will discuss her new book, *Dark Winter: Inside Pandemics and Biosecurity*, with Russell Gruen. In the book, the leading epidemiologist and biosecurity expert examines the history of biological warfare, developments in genetic engineering and synthetic biology, and the potential for catastrophic laboratory accidents. She explores the debate around the origins of the COVID-19 pandemic, investigates vested interests and looks at the shifting narrative since the pandemic began. She also looks at how we might avoid future pandemics. Kambri Cinema.

November 21, 6pm: Amy Thunig will be in conversation with Zoya Patel on Amy's memoir *Tell Me Again*. Kambri cinema.

December 6, 6pm: Niki Savva in conversation with Kerry-Anne Walsh on Niki's new book, *Bulldozed: Scott Morrison's Fall and Anthony Albanese's Rise*.

February 6, 2023, 6pm: Chris Wallace will discuss her new book, *Political Lives: Australian Prime Ministers and their Biographers.* Kambri cinema

ANU/Canberra Times Meet the Author events are held in association with Harry Hartog Bookshop. Books are available for purchase before and after each event. Registration is required and can be made at Registrations at anu.edu.au/events. Conforming with ANU's Covid policy, those attending must wear masks. Enquiries to the convenor, Colin Steele, at colin.steele@anu.edu.au.

Australian life through the lens

Viewfinder: Photography from the 1970s to Now, brings together selected work from the National Library's extensive photography collection to show how

Australia has changed over the past five decades, and how those who have seen Australia through the viewfinder have adapted to and used new techniques as photography has evolved, from film to digital The exhibition, curated by Matthew Jones, shows how Australians' image of themselves and their society has developed in the past 50 years. It also highlights the significant technological advances and increasing diversity of styles, approaches and techniques that photographers have used. The exhibition will run until 13 March 2023. Entry is free and booking is not required.

National Museum: connecting to Indigenous artists

A fortnight remains for people to see *Connection*, a show at the National Museum of Australia that features the work of renowned Indigenous artists and that aims to bring to life the stories, art and culture of Australia's First Peoples through multi-sensory technologies. The show uses visual, audio and aroma technologies to recreate artworks by such Indigenous artists as Emily Kame Kngwarreye, Albert Namatjira, Tommy Watson, Gabriella Possum Nungurrayi, Anna Pitjara and Lin Onus. *Connection* features a soundtrack by Indigenous musicians including William Barton, Yothu Yindi, Gurrumul, Emily Wurramara and Archie Roach.

Nolan's search for paradise

The Canberra Museum and Gallery's exhibition *Sidney Nolan: Search for Paradise*, is a major retrospective of the artist's career. The exhibition moves from Nolan's childhood in St Kilda, which the artist regarded as his "childhood heaven", to his formative period at John and Sunday Reed's artist colony at Heidi in the 1940s, and the artistic influences and personal tensions that played out there. The exhibition, held in conjunction with the Heide Museum of Modern Art, runs until 22 October.

Items of note

Research team finds Klinefelter link in ancient DNA

A study by a group of international researchers, coordinated by Dr João Teixeira of The Australian National University, has found evidence of a rare genetic condition that gives men an extra X chromosome, reporting the oldest clinical case of Klinefelter Syndrome to date.

The evidence comes from a 1,000-year-old skeleton from Portugal. Klinefelter Syndrome is a rare condition where individuals are born with an extra copy of the X chromosome. It occurs in about one in 1,000 genetic-male births.

Dr Teixeira, an Australian Research Council Discovery Early Career Researcher Award (DECRA) Fellow, brought together a multidisciplinary team that combined genetic, statistical, archaeological and anthropological information to establish a definitive diagnosis.

The team began by analysing genetic information obtained from a skeleton found in northeastern Portugal that had been radiocarbon dated to the 11th century by researchers from the University of Coimbra in Portugal.

"We were immediately excited the first time we looked at the results," Dr Teixeira said. "However, ancient DNA is often degraded and of low quality and abundance, meaning we were initially cautious."

The researchers say the findings will help to establish a historic record for Klinefelter Syndrome, as well as enhancing understanding of its prevalence throughout human history.

ANU team earns Eureka Prize for bird data tool

A team of scientists from The Australian National University has been awarded the Eureka Prize for Applied Environmental Research — one of the country's top science prizes — for developing a tool that helps farmers to predict how their farm activities can affect different bird species.

BirdCast, a free web tool, gives farmers an indication of which woodland bird species might be living on their farms, and how that might change under different scenarios. It was developed by researchers at the Sustainable Farms project.

The Director of Sustainable Farms, Michelle Young, said this award came after decades of working closely with farmers to gather data. "None of this work would have been possible without the support of those farmers who enabled our team to monitor biodiversity on their properties for the last two decades," she said.

"BirdCast is a practical tool that draws on this research and gives farmers and land managers access to scientific data to help protect and conserve our shared natural heritage."

Sustainable Farms Lead Scientist Professor David Lindenmayer said tools like BirdCast could play a crucial role in future schemes to allow farmers to be rewarded for protecting wildlife and vegetation.

fANTastic populations dwarf humanity

If all the ants in the world could be placed on a scale, they would weigh more than all the wild birds and animals put together, scientists have calculated. Put another way, the total mass of ants on Earth is estimated to weigh about 12 megatons of dry carbon.

The calculations follow the release of a paper in mid-September by the Proceedings of the National Academy of Sciences in the United States, which estimates that there are about 20 quadrillion individual ants on Earth — that is, 20,000,000,000,000,000, or 20,000 trillion. That adds up to 2.5 million ants per person.

The paper is the work of a group of scientists from the University of Hong Kong, who analysed 489 studies conducted in almost every corner of the world.

"It's a truly global effort that goes into these numbers," Patrick Schultheiss of the University of Würzburg told Dino Grandoni in a *Washington Post* interview. The figures were "unimaginable": "We simply cannot imagine 20 quadrillion ants in one pile, for example."

Ants are important in the natural environment, tunnelling to aerate soil and distributing seeds, providing food for other insects, birds and mammals, and helping to break down dead and decomposing plant and animal matter.

But as entomologists see insect populations in decline around the world, the health of ant populations is still in question. Researchers have "no idea" whether ant numbers are also falling, Schultheiss said. That is the next task for the research team.

Bookshelf

Experiments with Marxism-Leninism in Cold War Southeast Asia

Edited by: Matthew Galway and Marc H. Opper

Asian Studies Series

ISBN (print): 9781760465292 ISBN (online): 9781760465308

September 2022

ANU Press. DOI: http://doi.org/10.22459/EMLCWSA.2022

Southeast Asia was one of the most contested theatres of the global conflict between capitalism and communism. From the 1920s until the end of the Cold War the region was racked by international and internal wars that claimed millions of lives and fundamentally altered societies. Most of the 11 countries that compose Southeast Asia saw the development of sizable communist parties that actively (and sometimes violently) contested for political power. These parties were the object of fierce repression by European colonial powers, post-independence governments and the United States.

This book brings together expert scholars in the most comprehensive study to date on ideological and practical experiments with Marxism-Leninism in Southeast Asia. The bulk of this edited volume presents the contents of these revolutionary ideologies on their own terms and their transformations in praxis by using primary source materials that are free of the preconceptions and distortions of counterinsurgent narratives. A unifying strength of this work is its focus on using primary sources in the original languages of the insurgents themselves.

Designing Social Service Markets Risk, Regulation and Rent-Seeking

Edited by Gabrielle Meagher, Adam Stebbing and Diana Perche

ISBN (print): 9781760465315 ISBN (online): 9781760465322

September 2022

ANU Press.

DOI: http://doi.org/10.22459/DSSM.2022

In recent decades governments of all persuasions have introduced market logics and instruments into Australian social services, with the stated goals of reducing costs, increasing service diversity and, in some sectors, empowering consumers. This collection presents a set of original case studies of the marketisation in social services as diverse as family day care, refugee settlement, employment services in remote communities, disability support, residential aged care, housing and retirement incomes. Contributors examine how governments have designed these markets, how they work, and their outcomes, with a focus on how risks and benefits are distributed between governments, providers and service users. Their analyses show that inefficiency, low-quality services and inequitable access are typical problems and suggest that if governments choose to work with market instruments, they need to do so differently, working with principles and practices that drive up both quality and equality.

Rising Power and Changing People The Australian High Commission in India

Edited by David Lowe and Eric Meadows

ISBN (print): 9781760465278 ISBN (online): 9781760465285

September 2022 ANU Press

DOI: http://doi.org/10.22459/RPCP.2022

Australia's relationship with India is its oldest continuous formal diplomatic relationship with any Asian country. Early diplomatic exchanges between Australia and India have teased for their suggestions of potential unrealised, for opportunities missed, especially when compared with the very recent excitement about the future of Australia–India relations. How did Australia's representatives and their staff in New Delhi negotiate the many dimensions of Australia–India relations? This book brings together expert analyses of the work of the Australian High Commission, its key people and the challenges they faced in New Delhi.

Suva Stories A History of the Capital of Fiji

Edited by Nicholas Halter

ISBN (print): 9781760465339 ISBN (online): 9781760465346

September 2022

ANU Press

DOI: http://doi.org/10.22459/SS.2022

Suva Stories explores the histories of one of the Pacific's oldest and most culturally diverse urban centres, the capital of Fiji. Charting the trajectory of Suva from indigenous village to colonial hub to contemporary Pacific metropolis, it draws on a rich colonial archive and moving personal memoirs.

The diverse contributions in this volume form a complex mosaic of urban lives and histories that give fresh insights into historical and ongoing debates about race, place and belonging. *Suva Stories* is a valuable companion to those seeking to engage with the city's pasts and present, and will prompt new conversations about history and memory in Fiji.

Histories of Australian Rock Art Research

Edited by: Paul S.C. Taçon, Sally K. May, Ursula K. Frederick and Jo McDonald

ISBN (print): 9781760465353 ISBN (online): 9781760465360

September 2022

ANU Press

DOI: http://doi.org/10.22459/TA55.2022

Australia has one of the largest inventories of rock art in the world, with pictographs and petroglyphs found almost anywhere that has suitable rock surfaces. First Nations people have been marking these places with figurative imagery, abstract designs, stencils and prints for tens of thousands of years. The art reflects and expresses changing experiences within landscapes over time, spirituality, history, law and lore, as well as relationships between individuals and groups of people, plants, animals, land and ancestral beings that are said to have created the world. In this volume, the varied histories of Australian rock art research from different parts of the country are explored not only in terms of key researchers, developments and changes over time, but also the crucial role of First Nations people themselves in investigating this key component of their living heritage.

East Asia Forum Quarterly: Japan's Strategic Choices Volume 14, No. 3

ISSN (print): 1837-5081 ISSN (online): 1837-509X

September 2022 ANU Press

DOI: http://doi.org/10.22459/EAFQ.14.03.2022

The articles in this *EAFQ* examine the challenges and opportunities facing Japan and explore its future in an era of growing uncertainty. Japan "crossed the Rubicon" after Russia invaded Ukraine. Unlike the reaction eight years earlier, when Russia annexed Crimea, the Kishida government quickly implemented sanctions against Russia with other Western countries. The Japanese people have generally stood behind the Kishida government's foreign and security policy activism, yet uncertainties about Japan's future remain. Can Japan confront "a three-front war" against China, North Korea and Russia? How can Japan manage its relations with the United States and China amidst great power competition and a growing risk of military conflict? How can it cope with inflation, energy shortages, global warming and the crisis of the nuclear non-proliferation regime? Domestically, Japan has yet to escape from the impact of COVID-19. Maintaining international competitiveness in an era of ageing and shrinking population remains a top priority for Japan.

Administration

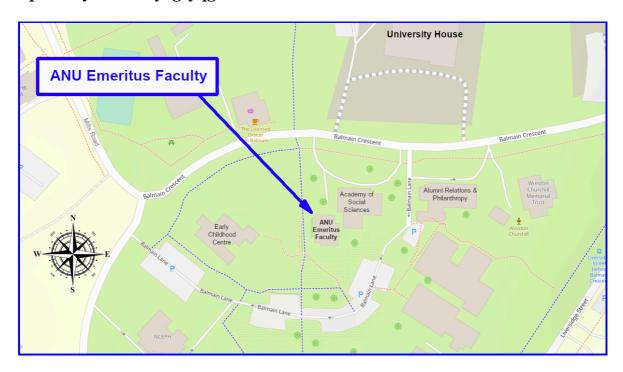
Arrangements for ANUEF room bookings

Requests to book the Molony Room should be addressed to the Secretary of the ANU Emeritus Faculty, Jan O'Connor, at jantancress@gmail.com or 6247 3341.

Finding the Molony Room

The Molony Room is at 24 Balmain Crescent, on the south side of Balmain Crescent almost opposite University House.

It is Building 1c on https://tinyurl.com/yckuknbj, set back between 22 Balmain Crescent (the Acton Early Childhood Centre) and 26 Balmain Crescent (the Academy of the Social Sciences). Four free car parking spaces reserved for ANUEF members visiting the Molony Room in the Balmain Lane Car Park immediately south of the Molony Room. The room is marked on: https://tinyurl.com/y7gsyqgh



Editorial

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Meetings venue: ANUEF Office,

Molony Room, ANU, 24 Balmain Crescent, Acton, ACT 2600

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