

EMERITUS

The Australian National University Emeritus Faculty e-magazine

Silver lining in pandemic response, says CSIRO chief

The national response to the COVID-19 pandemic had given Australia the momentum to reinvent or create new industries, create jobs and find ways to work together more efficiently, the Chief Executive of the Commonwealth Scientific and Industrial Research Organisation, Dr Larry Marshall, told a conference in Melbourne earlier this month.

In doing so, it would help to bridge the “valley of death” between research and industry, and into which great ideas had fallen and withered in the past, Dr Marshall told *The Age's* Innovation Summit on 11 August.

He hoped for a better future by looking to Australia’s “unfair advantages”—“our unique strengths that, for too long, we have not turned into solutions to our challenges by supercharging them with science”.

Those strengths included the nation’s mineral wealth, agriculture and food crops, and renewable resources. “For too long,” he said “we’ve watched other countries commercialise our research in areas like solar and hydrogen, taking the lead on renewables when we have the tools and the raw materials right here.”

Australia had many opportunities to grow markets, create jobs, meet challenges and improve life for Australians by adding value across our strongest industries: an objective that was also the aim of the Australian Government’s National Reconstruction Fund.

But hitherto, he said, Australia had not realised the economic, environmental and social gains offered by its “unfair advantages” because great ideas had fallen into the chasm between research and industry, a place where startups fail for lack of investment to see them through product development, moving to production, distribution, “and all the other hurdles they have to jump before they can learn to feed themselves”.

“Rather than risk the valley of death, our best ideas go overseas, and we buy them back once someone else has taken the risk for us—and taken the value from us.”

However, Dr Marshall said, COVID-19 had forced Australia to realise “that waiting for the world to sell us vaccines and PPE was not going to work anymore”. With global supplies restricted, the nation had to look to its own expertise.

“When we looked to Australian science, we found not only answers to understanding and fighting the pandemic, but also ways of working better together and ways of reinventing and creating new industries that grew new jobs as well,” Dr Marshall said.

“Australia manufactured 50 million doses of one of the world’s first vaccines by using science to solve a seemingly impossible challenge of sovereign supply.

“We have momentum in these industries now that I hope will continue.

Later that day Dr Marshall joined the federal Minister for Industry and Science, Ed Husic, for the official opening of CSIRO’s National Vaccine and Therapeutics Laboratory in Melbourne. The new facility grew out of the unit that was created to produce first COVID-19 vaccines and is designed to greatly increase Australia’s ability to produce vaccines and therapeutic materials.

Dr Marshall’s remarks came a few days after CSIRO launched the *Our Future World* report, its 2022 revision of global megatrends: the “trajectories of change that typically unfold over years or decades and have the potential for substantial and transformative impact”.

Seven ‘megatrends’ identified

The new report updates the agency’s assessment of global megatrends till 2042 with the intention to guide long-term investment, strategic and policy directions for government, industry, not-for-profit organisations and the Australian community. Taking a similar approach to CSIRO’s previous megatrend reviews, the new report shows how megatrends have evolved over the past decade. It identifies new trends, developments and pressures that have emerged and assesses their possible impact over the next 20 years.

The report identifies seven areas for particular attention: adapting to a changing world climate; protecting biodiversity and using resources efficiently by being “leaner, cleaner and greener”; promoting health as demand increases through demographic ageing, emerging diseases and unhealthy lifestyles; increasing efforts to ensure global stability and economic growth; benefiting from opportunities offered by increasing digitisation; capitalising on breakthroughs in artificial intelligence (AI) and investments in technology-driven research and development; and elevating the importance of diversity, equity and transparency in business, policy and community decision-making.

CSIRO uses global megatrends to identify areas where the greatest challenges can be solved through innovative science and technology. “This helps ensure that every research dollar provides the maximum benefit for current and future generations of Australians,” the report says.

Previous work in this area has been used by several Australian organisations to guide their long-term decision-making, including GPT, the large diversified listed property group, which used megatrend information to make \$1.2 billion of new investments into logistics and warehousing from 2012 to 2015, which led to a 12.7% increase in net operating income.

Our Future World can be found here:

<https://www.csiro.au/en/research/technology-space/data/Our-Future-World>.

20,000 more university places

Applications will open this month for potential higher-education providers to be allocated places under the federal government's scheme to fund an additional 20,000 university places.

The scheme was announced earlier this month by the Minister for Education, Jason Clare, and the Treasurer, Jim Chalmers. The places will be allocated over two years from the start of 2023, with an investment of up to \$485.5 million over the next four years.

The scheme is designed to tackle skills shortages and give more students from under-represented backgrounds a chance to go to university. Places will be targeted at such skills areas as education, health, engineering and technology.

Higher education providers will bid competitively to be allocated places for both the 2023 and 2024 academic years. They will have to demonstrate that they will dedicate places to addressing areas of need that have been identified in the government's Secure Australian Jobs plan and by the National Skills Commission.

Providers will also be required to allocate places to people from low socio-economic backgrounds, rural and remote areas, First Nations people, first-in-family tertiary students and people with disability.

Modelling shows that 90 per cent of new jobs in the next five years will require a tertiary qualification.

"Australia needs more skilled workers," Mr Chalmers said. "How we prepare Australians for the jobs our economy needs will be a focus at the Jobs and Skills Summit next month.

"Investing in more university places in industries where we need skilled workers will help to make our economy more productive. This policy will also ensure more Australians have the skills they need to get sustainable, well-paid jobs into the future."

The government's scheme has been welcomed by Universities Australia. Increasing university places was crucial to keeping pace with the economy's growing demand for skilled people, said UA's Chief Executive, Catriona Jackson.

The scheme was "clear recognition of the role universities play in addressing skill shortages and shaping a diverse and talented future workforce," she said.

"More than half of the nearly one million new jobs projected to be created over the next five years will require a university degree, which is why it's vital we skill-up Australians today to ensure we can meet the challenges and embrace the opportunities of tomorrow.

"We commend the Government for its focus on making university more accessible to under-represented backgrounds.

"More university places mean more opportunity to maximise the skills and talents of all Australians, regardless of their background or where they live."

ANU researcher joins dark matter search

Australian National University researcher Dr Zuzana Slavkovska and her team will play a leading role in the international quest to learn more about dark matter, the elusive but seemingly ubiquitous substance that doesn't absorb or emit light.

Dr Slavkovska will be a member of the team working at the new Stawell Underground Physics Laboratory (SUPL) in regional Victoria, the centre of dark-matter research in Australia. SUPL is a collaboration between the University of Melbourne, ANU, the Australian Nuclear Science and Technology Organisation (ANSTO), Swinburne University of Technology and the University of Adelaide.

Located one kilometre underground in the Stawell Gold Mine, SUPL is the first dark-matter laboratory in the Southern Hemisphere.

The lead researcher on the project, Professor Elisabetta Barberio from the University of Melbourne, said dark matter has been eluding scientists for decades.

“We know there is much more matter in the universe than we can see,” she said.

“With the Stawell Underground Physics Laboratory, we have the tools and location to detect this dark matter. Proving the existence of dark matter will help us understand its nature and forever change how we see the universe.”

Discovery will change ‘understanding of the universe’

Dr Slavkovska’s work will involve procuring crystals that will be the main part of the dark matter particle detector in SUPL.

“My team at ANU is also working on the development of methods for identifying radio-impurities in materials that will be used to build the dark matter detector,” she said. “Even the smallest radioactivity has to be thoroughly assessed, because particles from radioactive decays might mimic dark matter particles.

“What excites me most about the lab is that I might be a part of a discovery that will change the understanding of the universe. We believe that about 85 per cent of the mass of the universe consists of this mysterious substance called dark matter. We know almost nothing about it.”

Dr Slavkovska said the new lab could also help develop new technologies: “Look at all the inventions and technologies that we have created and discovered knowing only 15 per cent of the mass of the universe; now imagine how much potential there is knowing the rest,” she said.

With stage one of SUPL now complete, the laboratory is ready to host the experiment known as SABRE South, to be installed over coming months, which aims to directly detect dark matter.

SABRE South will run in conjunction with the complementary SABRE experiment taking place in Laboratori Nazionali del Gran Sasso, Italy. These

experiments are designed to detect WIMPs (Weakly Interacting Massive Particles), one of the likely forms for dark matter particles.

ANU Vice-Chancellor Professor Brian Schmidt said Australia was one of the world's leaders when it comes to astrophysical and space research.

“Dark Matter remains elusive, and there are only a handful of labs across the globe capable of making meaningful investigations. Australia has just put itself on the map when it comes to this exciting field of science,” he said.

The Australian and Victorian governments each gave \$5 million in funding for the building of SUPL. This was boosted by the Australian Research Council awarding a \$35 million grant to develop a Centre of Excellence for Dark Matter Particle Physics.

Meeting climate targets can avert higher sea-level rise

Experts from the ANU have joined international colleagues in pressing nations to meet climate targets outlined in the Paris Agreement, saying that doing so could avoid the worst effects of global warming on the world's largest ice sheet.

The international team of climate scientists, including experts from the ANU and the Australian Centre for Excellence in Antarctic Science (ACEAS), have examined how much sea levels could rise if climate change melts the East Antarctic Ice Sheet (EAIS).

The team's research, published in *Nature*, suggests that by limiting global temperatures to well below two degrees Celsius above pre-industrial levels, the EAIS is predicted to add less than half a metre to sea-level rise by the year 2500. If the targets aren't met, sea-level rise from the EAIS alone could climb up to five metres in the same period.

If greenhouse gas emissions are drastically scaled back and global warming increases only marginally, the EAIS—which holds the vast majority of Earth's glacier ice—will likely not add to sea-level rise this century, although sea levels will still rise due to unstoppable ice losses from Greenland or West Antarctica.

The researchers warn that if countries fail to meet Paris Climate Agreement targets, the world risks awakening a “sleeping giant”.

“The EAIS is 10 times larger than West Antarctica and contains the equivalent of 52 metres of sea level,” said co-author Professor Nerilie Abram of the ANU Research School of Earth Sciences.

“If temperatures rise above two degrees Celsius beyond 2100, sustained by high greenhouse gas emissions, then East Antarctica alone could contribute around one to three metres to rising sea levels by 2300 and around two to five metres by 2500.”

Professor Abram said the world's window of opportunity to shield the largest ice sheet from the impacts of climate change was closing quickly.

“A key lesson from the past is that the EAIS is highly sensitive to even relatively modest warming scenarios. It isn't as stable and protected as we once thought,” she said.

Obituaries

Robert (Bob) Woodhouse Crompton

9 June 1926 – 22 June 2022

The news that our colleague, friend, and mentor, Emeritus Professor Bob Crompton, passed away on 22 June, only a few weeks after his 96th birthday, has been met with great sorrow by all of us. Bob is survived by his children, Malcolm, Graham and Cathy, as well as his grandchildren and great grandchildren.

Bob was born in Adelaide and his childhood hobbies included building electric motors to power his toys, including a gramophone and clock (which is keeping accurate time to this day). This developed into academic success, and he graduated from Prince Alfred College top of the state (South Australia) in Leaving Honours Physics. He was awarded a cadetship in the Physics Department of Adelaide University. He very much enjoyed his time as a cadet since it involved building equipment, such as a Wilson cloud chamber, an electron diffraction camera and a Van De Graaff high-voltage generator (which I later used in my Honours year project).

He graduated with honours in 1949 and in 1954 he was awarded one of Adelaide University's earliest PhDs for his study of collisions between slow electrons and gas molecules, his supervisor being Sir Leonard Huxley. From 1950 to 1960 he was a physics lecturer/senior lecturer at the University of Adelaide. He was an inspiring lecturer, which was the primary reason that I chose him as my supervisor during my honours year in the Department of Physics. He was also an inspiring mentor, encouraging me to move to the ANU for my PhD work. Little did I know that a couple of years later he would also move to the ANU in the newly formed Research School of Physical Sciences.

After Sir Kerr Grant retired in 1948, Sir Leonard Huxley took up the Elder Chair of Physics and he introduced new subjects of research into the department. One of these was the laboratory studies of electrons in gases, which became the work for Bob's PhD thesis. Around this time his future wife, Helen, came to the department as the departmental photographer. Helen however, left to go to England, which started a long period of letter-writing before a long-distance telephone call led Bob to propose to her. They were married in 1951.

After completing his PhD and starting a research group in Adelaide studying the motion of electrons in gases, Bob had a period of study leave in Swansea with Professor Frank Llewellyn Jones, carrying out research on the measurement of pre-ionisation breakdown currents. Sir Leonard came to England during his study leave and invited Bob to meet John Townsend, who had won the Nobel Prize in Physics in 1906 "in recognition of the great merits of his theoretical and experimental investigations on the conduction of electricity by gases". Huxley had studied under Townsend, so Bob was able to meet his research "grandfather" in Oxford.

Around the beginning of 1961 Huxley was appointed Vice-Chancellor of the ANU. Not long after that Huxley invited Bob to bring his small research group to the ANU. Their laboratory was to be in a burned-out part of the Cockroft building in the Research School of Physical Sciences. I remember that very well because part of the burned-out area was the control room of the accelerator that I was using for my PhD research program. The fire had started overnight in an office further down the corridor. However, this burned-out shell gave Bob a chance to have John Gascoigne, his technician, design and have their laboratory built from scratch. The funding available at the research school was much better than at Adelaide and they were able to move into the ultra-high vacuum era. This was helped greatly by the return of Malcolm Elford from overseas, where he had learned the tricks of ultra-high vacuum technology. Thus began, in Bob's new laboratory, a new era of electron swarm physics and the successful mentoring of many PhD students and postdoctoral fellows.

In a tribute to Bob just before his death, Zoran Petrovic and Stephen J. Buckman wrote: "Bob Crompton's name is uniquely identified with the physics of swarms of charged particles, indeed it was he who actually coined the phrase swarms."

Over his career Bob and his group carefully developed the most precise experimental equipment for providing the most accurate measurements of the detailed behaviour of swarms of electrons in atomic and molecular gases. His experimental results remain the most accurate available even 50 years after their first publication. He was always a perfectionist and demanded the same from others.

He won worldwide recognition for his research, including Fellowships in the Australian Academy of Science (1979), the Australian and United Kingdom Institutes of Physics, and the American Physical Society (1995). He served as Secretary Physical Sciences for the Australian Academy of Science (1984-88), President of the Australian Institute of Physics (1993-95), Chair of the Board of the Australian Journals of Scientific Research, and was heavily involved in the Australian and New Zealand Association for the Advancement of Science (ANZAAS) from the 1960s, including chairing the ACT Division from 1982-83. He always maintained that the award of a Fulbright Scholarship in 1968 had a major influence on his career.

Bob was a strong supporter of education, particularly science education. He chaired the Board of the Australian Science Olympiads and with Helen established the Robert and Helen Crompton Endowment Fund. This funds the Robert and Helen Crompton Award for overseas travel for PhD students in the Research School of Physics and scholarships for keyboard students in the ANU School of Music. He also made significant contributions to the National Brain Injury Foundation and the University Cooperative Credit Society. Bob was also committed to helping his church, St. John's. He was very much involved in the purchase and installation of a new organ for St John's and the cross on its roof. With Helen, he also lobbied for and funded a large part of the electronic organ at the Canberra School of Music. Much of this was recognised when he was honoured as a Member of the Order of Australia "For service to science, particularly physics education and research, to the Australian Science

Olympiads, and to the Community through the National Brain Injury Foundation”.

Bob also had a playful sense of humour, which his son Malcolm recalled he often displayed in practical jokes. One recalled by Ian McIntosh, one of his early PhD students, involved a piece of imported equipment which should have gone to Sydney but ended up in Darwin. Bob and Ian placed an advertisement in *The Canberra Times* for a camel train to bring the equipment from Darwin to the research school. They thought it hilarious until a few days later they found the corridor outside the entrance to the laboratory stuffed full of bales of hay. A note on the hay from the purchasing office stated that it was to feed the camels on their long journey from Darwin.

Vale Bob Crompton.

— Erich Weigold



Harold Geoffrey Brennan **15 September 1944 – 29 July 2022**

Harold Geoffrey Brennan was born on 15 September 1944, came to the ANU as an undergraduate student of economics in 1962 and graduated with first class honours in 1966. He immediately went on to pursue research as a graduate student but was appointed two years later as Lecturer in Public Finance, promoted to Senior Lecturer in 1973, and to Reader in 1978. In those early years at the university, he published twenty articles, including some that brought him international repute; spent a year on secondment as a member of the Australian Taxation Review; and was awarded a PhD on the submission of some publications in the theory of public goods and income distribution. In those years, too, he married a fellow student, Margaret Youngman, and they started their family.

His publications brought Geoff to the attention of James Buchanan, later a Nobel Laureate in Economics, and this led to his appointment in 1978 as Professor of Economics at Buchanan’s base, the Center for the Study of Public Choice, then situated in the Virginia Polytechnic Institute and later George Mason University. After five years in the United States, Geoff and Margaret returned with their family of four to Australia, where late in 1983 he became Professor of Economics at the ANU. He was head of the Department of Economics from 1984 to 1987, transferred to the Research School of Social Sciences in 1988, and served there as Director from 1991 to 1996. Moving his base to social and political theory, and then philosophy, he remained an active member of the school until his death. His retirement at the end of 2016 made little or no difference to his academic and social presence or indeed his activity in research and teaching. From 2005 on, Geoff spent a semester each year as a joint appointment of the Department of Political Science in Duke University and the Department of Philosophy, University of North Carolina, Chapel Hill; he was a research professor at Duke and helped establish the PPE (Philosophy,

Politics, Economics) program conducted at UNC but jointly sponsored by Duke. He also played a major part in getting a similar PPE program going at the ANU.

Geoff's early work at the ANU mainly focused on the theory of public goods and issues of equity in taxation. With his move to the United States, he became a leading figure within the Public Choice tradition, as it was known. He published work related to the two strands in that tradition. First, the belief that it is as important to look at the rational incentives of the authorities who form government policy, for example in the area of taxation, as it is to look in the standard economic manner at the rational incentives of those who live under that policy and adjust to it: if those incentives can lead subjects to bend things in their favour, they may lead authorities to do the same. And second, the belief that in order to inhibit authorities from bending things in their favour, it is important that policymaking be directed, as far as possible, by democratically authorised rules, even rules that are constitutionally protected against legislative alteration. The first theme is emphasised in *The Power to Tax* (1980), the second in *The Reason of Rules* (1985), both books jointly authored with James Buchanan.

About the time of his return to the ANU, Geoff worked with a number of colleagues in loosening the assumption, still present in the work with Buchanan, that human beings can generally be modelled as rational, narrowly self-interested agents. He did this initially in arguing for the importance of expressive motivations to human behaviour. To act expressively relative to a presumptive goal is to act in a way that reveals not so much a concern to promote that goal as a concern to present oneself to others, or indeed to oneself, as an agent with certain attitudes, including attitudes towards that goal. In *Democracy and Decision* (1993), a book with an American philosopher, Loren Lomasky, he argued that if voters rationally discount the effect of their vote, on the grounds that it is unlikely to make any difference, it may then be rational for them to act expressively out of a desire to be able to see themselves, and let others see them, as public-spirited; it may even be rational for them to vote against policies that would benefit them personally. Later, in *Democratic Devices and Desires* (2000), a book written with Alan Hamlin, an English economist and political theorist, he explored the implications of expressive behavior in predicting voting patterns and in designing institutions with a view to achieving certain valued effects.

The disposition to loosen the modelling of human beings as rational, narrowly self-interested agents led Geoff in further directions during his later period at the ANU. In 2004 he and Philip Pettit, an ANU colleague, published *The Economy of Esteem*, in which they argued that just as agents may be rationally moved to act expressively in certain contexts, so they may be rationally moved more generally, as a long tradition holds, by a concern to maintain the acceptance and approval of other people. Among the social facts that they took this to help explain are the generation of social norms and people's compliance with them. Geoff later collaborated with other ANU colleagues—Lina Eriksson, Bob Goodin and Nic Southwood—to write a comprehensive study of those phenomena. In this work, *Explaining Norms* (2013), he took a further step in loosening up his model of human behaviour. This book argues for the need to recognise the role in motivation of normative attitudes that resist any reduction to self-interested motives, even motives of an expressive or esteem-based kind.

At the time of his death Geoff was finishing a book, *On Exchange*, co-authored with a German colleague, Harmut Kliemt, which looks at how best to characterise exchange in economics and in wider political settings. He had also done a great deal of work—much of it while he struggled with illness—on a book, *Back to Basics*, that covers topics like the nature of rationality, methodological individualism and the need for trade-offs; these are central to his interest in PPE research and teaching.

Geoff was the most warm-hearted and generous of people, always ready to hear the views of others, always poised to discuss and collaborate, and always disposed to hail the achievements of colleagues and students and to celebrate a community to which he was deeply devoted. His penchant for celebration frequently led him to song, displaying an operatic talent for which he was well known outside as well as inside the university. After returning to Canberra in 1983, as before leaving, he displayed his rich tenor voice in solo performances at a number of venues, played a leading part in Oriana Chorale, a distinguished *a cappella* choir, and sang with Margaret in the Choir of All Saints, Ainslie.

Those of us who worked under Geoff as Director of the Research School of Social Sciences will forever remember the sound of his voice ringing joyously around the corridors of the Coombs Building as he did his daily round of departmental seminars and events. Interested in our diverse pursuits, and invested in our individual success, he embraced us all, and made us into a whole that was manifestly greater than the sum of its parts.

Geoff was elected Fellow of the Academy of Social Sciences in Australia in 1987, and was the recipient of many awards and prizes, national and international, including the Presidency of the Public Choice Society (2002-4), an Honorary Doctorate from the University of St Gallen, Switzerland (2002), a Distinguished Fellowship of the Australian Economic Society (2013), and the Hayek Medal (2014). Had he lived longer he would undoubtedly have garnered ever more laurels. As a scholar as well as a man, he was one of the greats. Goodbye Geoff.

— Philip Pettit



Peter Manners Hill

16 October 1945 – 19 June 2022

Professor Peter Hill, who died on 19 June 2022, was an outstanding scholar in the field of Slavonic languages, especially those of the Balkan region. Born in Perth, WA, he attended Christ Church Grammar School, where he first showed his rare gift for language-learning. He proceeded to take his first degree, First Class Honours in German and Russian, at the University of Melbourne (Ormond College) in 1967. This was followed by an MA from Melbourne University in 1970. He continued his studies in Germany, at the University of Hamburg, where he received a PhD in Slavonic Studies in 1972, and was then appointed Assistant Professor (*wissenschaftlicher Assistent*), teaching linguistics for students of Russian and other Slavonic languages, and in 1980, Professor. There

he did much to encourage and support the study of lesser-known Slavonic languages, while devoting much time to administrative matters and a range of committees. He also found finance to support dialect-study expeditions to Bulgaria and other parts of South-Eastern Europe.

Peter returned to Australia in 1983, when Macquarie University expanded its offerings in community languages, in line with the Galbally Report, by establishing a program of Slavonic Studies. With Dr John Besemeres, another Melbourne University graduate and specialist in the field, he undertook to develop the new program. Peter would have charge of the South Slavonic area. This was no simple task, since the fractious politics of the Balkans were bound to intrude, but Peter was able to handle the inter-ethnic tensions adroitly. One of his major research interests, the Macedonian language, posed its own serious problems. Intractable political considerations attended its recognition and codification, which was achieved only at the conclusion of World War II. With the passage of time and the seismic changes in the Balkan region, those factors have changed but the difficulties remain. The Greek government refuses to accept the existence of a state named Macedonia beyond its own borders, and Bulgarians continue to regard the language as merely a dialect of their own. At a time when the situation was fluid and the Yugoslav state was nearing its final collapse, Peter was not to be deterred, and the credit for establishing the study of Macedonian in Australia is rightly his. He was also responsible for courses in Serbian and Croatian and taught an introduction to Slavonic philology.

When the program of Slavonic Studies at Macquarie fell victim to funding cuts and increasing casualisation in 1986, Peter returned to his previous post at the University of Hamburg, where he remained until he took early retirement in 2001. For the next two decades he would live in Canberra or on the NSW coast, holding the post of Visiting Fellow in what is now the School of Literature, Languages and Linguistics at the Australian National University. There he was a regular contributor to the lecture program in that school's courses in European Studies, presented numerous conference papers and continued to publish articles and book reviews. In September 2009 he chaired the Inaugural Forum for Advancing Australia-Macedonia Relations at Parliament House. In 2010 he gave guest lectures in Hamburg and at the Humboldt University in Berlin on the language of Bosnia, and in 2011 lectured on general and Macedonian linguistics at the University of Skopje in Macedonia.

In his seventies, Peter took an increasing interest in matters of theology and the study of the Bible in various languages. He played a very active and competent role in Professor Anna Wierzbicka's theology group at the ANU. In 2017 he officiated at the launch of her book *What Christians Believe*, written in Polish, displaying an impressive command of the subject matter. At a conference on semantics at the ANU in 2018, he presented a paper on ways of addressing God in German.

In retirement Peter taught Italian at the University of the Third Age in Bateman's Bay, took up environmental causes with great determination, and made use of a fine singing voice by singing in a choir.

Peter was the author of many scholarly publications. His major works included: *Die Farbwörter der russischen und bulgarischen Schriftsprache der Gegenwart. Versuch einer Klassifikation und einer strukturell-semantischen Analyse* [Words for

Colour in Contemporary Standard Russian and Bulgarian. An Attempt at a Classification and a Structural-Semantic Analysis], Amsterdam, 1972; *The Macedonians in Australia*, Carlisle, WA, 1989; *The Dialect of Gorno Kalenik*, Columbus, Ohio, 1991; and *The Routledge Macedonian-English Dictionary*, London, 1998. The last-named was a long-term collaborative project begun by the late Professor Reginald de Bray, based on the large *Rečnik na makedonskiot jazik* [Dictionary of the Macedonian Language] compiled by Todor Dimitrovski, Blagoja Korubin and Trajko Stamatovski, and brought to completion by Peter, Sunčica Mirčevska and the present author.

Peter will be warmly remembered by his many former students, friends and colleagues in Hamburg, Canberra, Sydney, Melbourne and Macedonia. He is survived by his wife Alexandra and her two sons and their families (three grandchildren and two great grandchildren), as well as his two elder brothers and a sister in Western Australia.

— Kevin Windle

With thanks to Alexandra Hill, Bettina Strewe, John Besemeres and Anna Wierzbicka

Diary dates

Meet the Author events

August 29, 6pm: Vikki Petraitis will talk with Chris Hammer about her crime fiction award-winning novel *The Unbelieved*. Senior Detective Antigone Pollard returns to her home town and encounters a wall of silence built of secrets, denial and fear. The women of the town are scared and the law is not on their side. Timely and gripping, *The Unbelieved* takes readers behind the headlines to a small-town world. Kambri cinema.

September 7, 6pm: Kristine Ziwica will be in conversation with Michelle Ryan on her new book, *Leaning Out*. T2 Kambri.

September 14, 6pm: Elaine Pearson, Australia Director of Human Rights Watch, will be in conversation with Dr Helen Watchirs on Elaine's new book, *Chasing Wrongs and Rights*, in which she shares her experiences defending human rights. Pearson's story is an extensive survey of human rights across the world, from UN committee rooms in New York and Geneva to the front-lines of Sri Lanka's search for those who disappeared in the country's civil war, examining death squad killings in The Philippines and the detention of asylum seekers in Papua New Guinea. Helen Watchirs, OAM, is President of the Australian Capital Territory Human Rights Commission, and the territory's Human Rights Commissioner. Cinema. Kambri Cultural Centre.

September 20, 6pm: Joëlle Gergis will talk with Jonica Newby on her book *Humanity's Moment: A Climate Scientist's Case for Hope*. Joëlle Gergis takes readers through the science in the Intergovernmental Panel on Climate

Change's Sixth Assessment Report, explaining what it means for the future, while sharing her personal reflections on seeing the climate emergency unfolding in real time. However, she reminds readers that we are each a part of an evolutionary force that can transform our world. She shows us that the solutions we need to live sustainably already exist: we just need the social movement and political will to create a better world. Kambri cinema.

September 22, 6pm: Andrew Leigh will talk with Tim Gavel on his new essay, *Fair Game: Lessons from Sport for a Fairer Society and a Stronger Economy*. T2 Kambri.

September 28, 6pm: Brett Mason talks with Brian Schmidt and Julie Bishop about Brett's new book on Howard Florey and Mark Oliphant, *Wizards of Oz*.

October 3, 6pm: Clive Hamilton talks with Ben Oquist about his autobiography, *Provocateur: A Life of Ideas in Action*. In his memoir Hamilton, 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 strategising, 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. Kambri cinema

October 10, 6pm: Craig Silvey will be in conversation with Irma Gold on his new novel, *Runt*. Kambri cinema.

October 13, 6pm: Shaun Micallef will talk with Alex Sloan on his autobiography. Manning Clark Hall

October 17, 6pm: Simon Holmes à Court will be in conversation with Virginia Haussegger on *The Big Teal*. Manning Clark, Kambri.

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 his 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 her memoir *Tell Me Again*. Kambri cinema.

November 28, 6pm: Chris Wallace will discuss her new book, *Political Lives: Australian Prime Ministers and their Biographers*. Kambri cinema

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

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.

National Museum: connecting to Indigenous artists

The works of renowned Indigenous artists are featured in *Connection*, an event at the National Museum of Australia that is designed 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*, which runs till 9 October, features a soundtrack by Indigenous musicians including William Barton, Yothu Yindi, Gurrumul, Emily Wurramara and Archie Roach.

Nolan's search for paradise

Canberra Museum and Gallery is showing *Sidney Nolan: Search for Paradise*, a major retrospective of the artist's career. The exhibition moves from Nolan's childhood in St Kilda, his childhood heaven, to his formative period at John and Sunday Reed's artist colony at Heide 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.

Australian life through the lens

A changing Australia will be exposed in *Viewfinder: Photography from the 1970s to Now*, the National Library's exhibition of documentary photography over the last five decades, from black and white images to vibrant digital colour. The exhibition, curated by Matthew Jones, draws on the library's extensive photography collection to show how Australians' image of themselves and their society has developed in the past five decades. It also focusses on the evolving nature of photography and highlights the significant technological advances and increasing diversity of styles, approaches and techniques that photographers have used. The exhibition opens on Friday, 16 September, and will run until 13 March 2023. Entry is free and booking is not required.

Items of note

Gold medal recognises work against vaping

Prominent ANU public health physician and epidemiologist Professor Emily Banks has been awarded the Australian Medical Association's Gold Medal for her contributions to medicine and public health by shaping public discourse on e-cigarettes.

The medal, the highest honour bestowed by the peak medical professional body, followed a major report published earlier this year by Professor Banks and her ANU colleagues that reviewed the emerging global evidence on the use of e-cigarettes. It found that the use of nicotine e-cigarettes, or vapes, carry significant risk of harm, particularly among young people, and could lead to a range of adverse outcomes, including poisoning, seizures, trauma, burns and lung injury.

The report also found young non-smokers who vape are three times as likely to take up smoking compared with those who don't vape.

The findings were widely reported in the Australian media and sparked a national discussion about the dangers of e-cigarettes and their growing uptake of vapes among young Australians.

The outgoing AMA President, Dr Omar Khorshid, said Professor Banks' important and timely research had been conducted in the face of fierce opposition and growing political pressure by the tobacco industry.

"As the tobacco industry has unscrupulously marketed to children, teenagers and young people, Professor Banks and her research team at ANU have provided high-quality data the community, doctors and policymakers need to make truly informed decisions," Dr Khorshid said.

Professor Banks said it was an honour to be recognised by doctors working on the frontline. "Public health is the ultimate team sport and this award pays tribute to everyone who has generously shared their experiences to help others, and everyone in the community who takes steps to protect their health and that of other people," she said.

Professor Banks was appointed a Member of the Order of Australia in 2021 for her achievements and service to medical research and education. She is a Fellow of the Australian Academy of Health and Medical Sciences.

ARC hub to work on antimicrobial resistance

The Australian Research Council (ARC) on 3 August launched the ARC Research Hub to Combat Antimicrobial Resistance, which will take up the global challenge of antimicrobial resistance through a world-first partnership between Australia's best researchers, industry, international research institutes and end users.

Antimicrobial resistance occurs when bacteria, viruses, fungi and parasites no longer respond to medicines, making infections harder to treat and increasing the risk of disease spread, severe illness and death.

The research hub will be based at the University of New South Wales and will receive \$4.9 million in ARC funding over a five-year period under the latest round of the Industrial Transformational Research Program (ITRP), with an additional \$6.9 million in cash and in-kind contributions from participating organisations.

The hub will focus on Australia and neighbouring countries as part of the global effort to develop cost-effective ways to identify new antimicrobials, ultimately aiming to transform social and health outcomes internationally.

The ARC's Chief Executive Officer, Ms Judi Zielke, said collaboration was key to addressing global challenges such as antimicrobial resistance. The hub brings together six Australian universities and 12 national and international industry and other partners.

Biologist honoured for biosecurity work

ANU biologist Dr Benjamin Schwessinger has been named 2022 ACT Emerging Scientist of the Year for his work on helping to protect the biosecurity of Australia's unique flora and agricultural industry.

Dr Schwessinger's research is focussed on fungi, which are, he says, "hugely important for all our ecosystems". "Over 80 per cent of all plants form tight interactions with fungi to get nutrients out of the soil," he says. "On the other hand, fungi can also be pathogens causing disease in animals and plants."

One pathogen is the myrtle rust fungus which threatens Australia's forest ecosystems, affecting eucalypts, bottlebrush and paperbark trees. First detected over a decade ago in New South Wales, it has now spread to Western Australia. Now Dr Schwessinger is investigating the origins of this new outbreak.

"We want to know if the myrtle rust fungus found in WA is the same as on the east coast or a novel introduction to Australia. This is important to mitigate further spread, which is critical for our economy and community wellbeing so we can preserve our unique ecosystems," he said.

His team is also undertaking similar research on the wheat stripe rust fungus that costs Australia's wheat industry more than \$100 million annually. They are looking at the evolution of this fungus and investigating how it causes disease at a cellular level.

"Using this information, we are also developing technologies to better track the invasive fungus within Australia using genomic and molecular tools," Dr Schwessinger said.

"Any work that can limit impact of disease on wheat production in the short and long term is important to secure food production now and in the future. A growing world population will require additional food production, and this production needs to be resilient to climate change and pathogen impacts," he said.

State and Society in Papua New Guinea, 2001–2021

By R.J. May

Series: Pacific Affairs

ISBN (print): 9781760465209

ISBN (online): 9781760465216

August 2022

ANU Press. DOI: <http://doi.org/10.22459/SSPNG.2022>

In a previous volume, *State and Society in Papua New Guinea: The First Twenty-Five Years* (2001, reprinted by ANU E Press in 2004), a collection of papers by the author published between 1971 and 2001 marked Papua New Guinea's first 25 years as an independent state. This volume presents a collection of papers written between 2001 and 2021 which update the story of political and social development in Papua New Guinea in the first two decades of the 21st century.

The chapters cover a range of topics, from an evaluation of proposals for political reform in the early 2000s, a review of the discussion of “failing states” in the Pacific and the shift to limited preferential voting in 2007, to a detailed account of political developments from the move against Sir Michael Somare in 2011 to the election of Prime Minister Marape and his performance to 2022. There are also chapters on language policy, security, religious fundamentalism and national identity, and the sustainability of economic growth.

Made in China Journal: Volume 7, Issue 1, 2022

Edited by Ivan Franceschini, Nicholas Loubere and Matthew Galway

ISSN (print): 2652-6352

ISSN (online): 2206-9119

August 2022

ANU Press.

DOI: <http://doi.org/10.22459/MIC.07.01.2022>

Cultural theorist Svetlana Boym distinguished two types of nostalgia: a restorative one that “manifests itself in total reconstructions of monuments of the past”, and a reflective one that “lingers on ruins, the patina of time and history, in the dreams of another place and another time”. But nostalgia can represent a feeling of longing for a future yet to be lost or even realised.

For historian Roxanne Panchasi, nostalgia may originate in the ways in which people anticipate and plan their lives around an expected future. This anticipation, Panchasi intimates in her 2009 book *Future Tense*, “can tell us a great deal about the cultural preoccupations and political perspectives of the present doing the anticipating”. Contributors to this issue of the *Made in China Journal* explore the workings of nostalgia in people's memories and spaces in China from a variety of perspectives to show how and why admirers of the Maoist and post-socialist eras express their longings for pasts real, imagined, and somewhere in between.

Administration

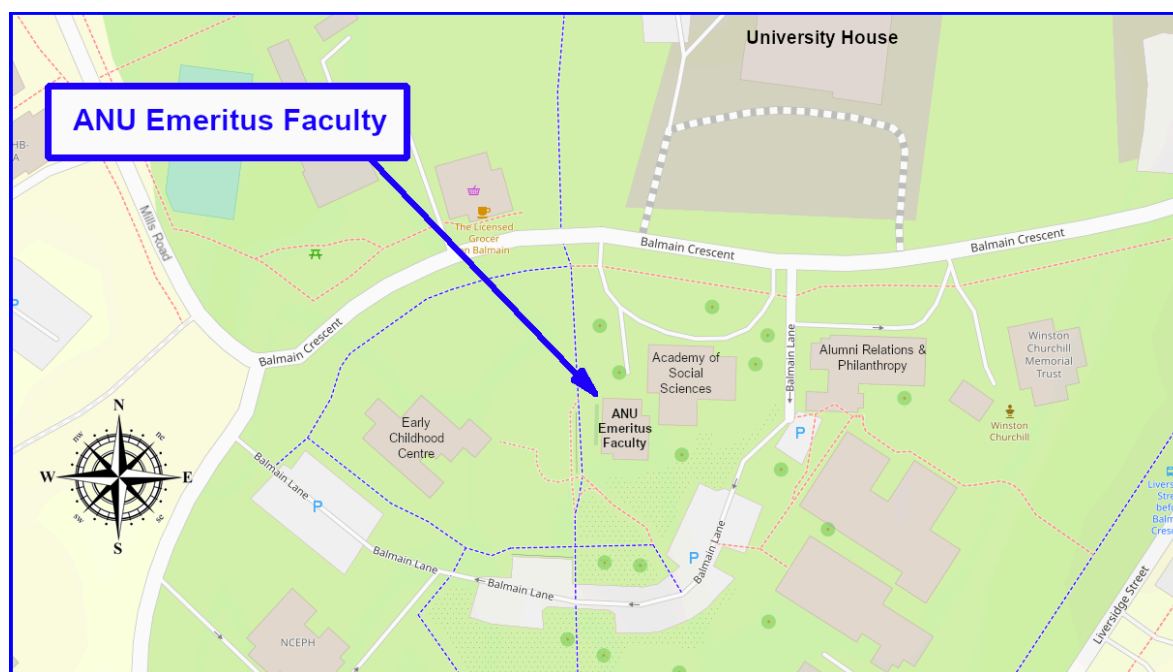
Arrangements for ANUEF room bookings

Requests to book the Molony Room should be addressed to the Secretary of the ANU Emeritus Faculty, Jan O'Connor, at jantanress@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>



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The next issue of the Emeritus Faculty newsletter will be published in September.