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## The Bulletin 472

June 2023

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### A message from the President

Dear <<First Name>> <<Last Name>>

Having been constituted at the 05 April 2023 Annual General Meeting, the Society's [Council](#) met for the first time on 08 May 2023. As I foreshadowed at the AGM, one of the major pieces of work for the Council this year relates to formulating a master plan that arms the Society with the

optimal strategies, governance, and implementation plans to flourish during the next five to ten years.

While the world is growing and changing around us, the Society cannot stand still. Our members and audiences are rapidly changing their behaviours and ways of engaging with the Society. Today, we must reach members across a wider geographic spread than inner Sydney. We must be bold to remain relevant while ensuring that the Society retains its fundamental sense of itself and its 200-year heritage.



Council agreed that as the first step in the master planning process, it would be desirable to survey the entire membership of the Society ahead of a workshop in August that will include Council and some members of the Society. This will lead to a Green Paper to be circulated to members for comment and discussion, then a White Paper to be completed before the end of the year and again circulated to members.

You will receive an email about the member survey in coming days inviting you to reflect on: the nature of your participation in the activities of the Society; your likes and dislikes; barriers and enablers to participation; and what you would like the Society to achieve during the next 10 years. The survey will be anonymous and take about 15 minutes to complete.

I encourage all members to complete the survey so that the master plan reflects the entire spectrum of views.

I was pleased to report to Council that the NSW Government through the Office of the NSW Chief Scientist and Engineer [extended its sponsorship](#) of the Society to the end of FY27. This enables the Society to appoint a part-time Communications Officer to develop and implement communication strategies that will raise the profile of the Society, improve member engagement and build a generational bridge between established and emerging leaders.

When you see the advertisement on our website and elsewhere, please encourage anyone who might be a candidate to apply.

You will see elsewhere in this Bulletin information about all forthcoming events. I single out here the 05 July 2023 online presentation on “[Thoughts on the Voice](#)” convened by Peter Baume AC DistFRSN. In Peter’s words “It is important for each of us to be given the opportunity to clarify our thoughts on creating a voice to Parliament for First Nations Peoples”. The presentation is a good example of how the Society achieves its Aim as stated in our [Act and Rules](#) of providing a platform for independent, authentic, and multidisciplinary public discourse, debate, and forward-thinking.

We work for the Society and for NSW because we understand the need to enhance public discourse on a wide range of topics that are crucial to our future. Society members have excellent ideas to contribute. In that spirit, I look forward to hearing your ideas and suggested ways to bring them to fruition.

Susan M Pond AM FRSN  
[President, Royal Society of NSW](#)

## For your diary

- [1313th Ordinary General Meeting and Open Lecture](#) (Wednesday 7 June, 6.30 pm AEST, Gallery Room, State Library of NSW): *Making rights a reality — the need for a Human*

*Rights Act for Australia*, Emeritus Professor Rosalind Croucher AM FAAL, President, Australian Human Rights Commission

- [Ideas@theHouse: June 2023](#) (Wednesday, 14 June, 6.00 pm, Government House Sydney by formal invitation, live streaming, and subsequently on YouTube), *Importance of scientific ideas and discovery to Australia's future*, Dr Cathy Foley AO PSM DistFRSN FAA FTSE, Australia's Chief Scientist
- [Western NSW Branch Meeting 2023-2](#) (Thursday, 15 June, 6.00 pm AEST, Charles Sturt University, 15 Blackall Street, Barton, ACT, and live streaming), *A new history of Australian political thought*, Professor Wayne Hudson, Adjunct Research Professor, Australian Centre for Christianity and Culture, CSU Canberra
- [Southern Highlands Branch Meeting 2023-5](#) (Thursday, 15 June, 6.30 pm AEST, RSL Mittagong, Carrington Room), *Machines behaving badly: the morality of AI*, Professor Toby Walsh FAA FACM FAAAS, Scientia Professor of Artificial Intelligence, UNSW Sydney
- [Joint AIP, RACI, RSNSW, and ANSTO 2023 Meeting](#) (Tuesday, 20 June, 7.00 pm AEST, ANSTO Discovery Centre, New Illawarra Road, Lucas Heights, NSW, and live streaming), *The Invisible Revealed*, Dr Joseph Bevitt, Senior Instrument Scientist, ANSTO
- [RSNSW Online Presentation 2023-3](#) (Wednesday, 5 July, 6.30 pm AEST, Live streaming on Zoom), *Thoughts on the Voice*, Peter Baume AC DistFRSN, Megan Davis FRSN, Christopher Puplick AM, and Dean Ashenden
- [Ideas@theHouse: August 2023](#) (Thursday, 10 August, 6.30 pm AEST, face-to-face at Government House (members-only registration), live streaming, and subsequently on YouTube — details to follow), *Ideas for marine stewardship and sustainability in a time of acceleration*, Professor Emma Johnston AO FRSN FAA FTSE, Deputy Vice-Chancellor (Research), University of Sydney

The Society's complete events program for the year is published in the [online Events Calendar](#), which is updated regularly.

## NEWS

### Vale Edward (Ted) Smith MRSN

The Southern Highlands Branch has suffered a heavy loss with the unexpected passing in April 2023 of long-time Committee member Ted Smith (aged 86) who was an inspiration to all who knew him. He used his industrial chemistry background as a springboard in a series of outstanding careers throughout his long life. Problem solving was at the heart of his many achievements, and a talent that he demonstrated in his everyday life.



His major achievements sprang from his early interest in fibreglass-reinforced plastics. It was in California that he associated himself at an early stage with leading companies in composite materials for aircraft repair and maintenance. He soon founded SAMPE, the Society for the Advancement of Material and Process Engineering in Australia.

Highlights of his business included being involved with FA18 Hornet fighters and supplying the materials used in the windows for the full quadrant of the front of the Collins Class submarines. He held contracts with RAAF, Qantas, Air New Zealand, Boeing, and Airbus, to name just a few. The Atlanta Olympics and America's Cup projects also called on his expertise.

When Ted retired to the Southern Highlands at Robertson, he turned his attention to creating a new use for his beautiful property. He introduced the cultivation of French Perigord Truffles. So successful was this endeavour that he was soon holding the record for the largest French black Perigord truffle grown outside of Europe. Amazingly, it weighed 1.172kg, only 128gm short of the world record. This achievement was reported in newspapers worldwide.

Ted was one of the earliest members of the RSNSW Southern Highlands Branch. This must stand with his other great contributions to science and the community that meant so much to him. He is sadly missed.

Anne Wood FRSN

Chair, Southern Highlands Branch

## Celebration of the Archibald, Wynne, and Sulman Art Prizes

Society Fellow, philanthropist, and patron of the arts, Yves Hernot KNOM FRSN, recently wrote an article titled "Venez célébrer « The Spirit of Australia »: Les 3 Prix d'Art : Archibald, Wynne et Sulman" in the French-English online newspaper, [Le Courrier Australien](#), celebrating the recently announced Archibald, Wynne, and Sulman art prizes.

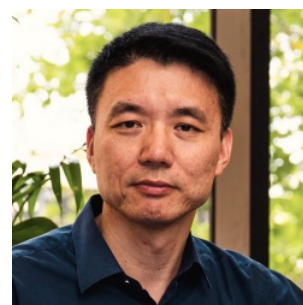
As Yves Hermot writes, "L'esprit de l'Australie", or the "The Spirit of Australia" in English, is how Australians see the Art prizes awarded in early May at the Art Gallery of New South Wales. His article, an [English translation](#) of which is available on the website, discusses the prizes and their winners, and includes a number of images of the prize-winning art and also Society members, including Joanna Mendelssohn FRSN, Ben Quilty FRSN, and Michelle Simmons AO DistFRSN, at the exhibition.



## Society Fellow wins RACI R.H. Stokes Medal

Society Fellow Professor Chuan Zhao FRSN FRSC FRACI of UNSW (Sydney) has recently been awarded the R.H. Stokes Medal of the Royal Australian Chemical Institute Electrochemistry Division for distinguished research in electrochemistry.

Professor Zhao is the Head of the Nanoelectrochemistry Lab at UNSW (Sydney) and is a former Professorial Future Fellow of the Australian Research Council. He is a Director in the ARC Centre of Excellence for Green Electrochemical Transformation of Carbon Dioxide, and a Theme Leader in the ARC Training Centre for the Global Hydrogen Economy. His research interests lie in the discovery of novel electrochemical materials and methods for applications in energy and sustainability and he is a pioneer in developing non-precious-metal-based electrocatalysts for green hydrogen technologies, leading to significant commercialisation projects on water electrolyzers and fuel cells. He has published more than 300 high-impact research papers and held more than 15 patents of which 10 have been commercialised.



The Council of the Royal Society of NSW extends its warm congratulations to Professor Zhao on this recognition of his research achievements.

## **James Cook Medallist wins the 2023 IAPSO Prince Albert I Medal**

Emeritus Professor John Church AO FAA FTSE FAMS FAGU, the winner of the Royal Society of NSW 2022 James Cook Medal, has been awarded the Prince Albert I Medal by the International Association for the Physical Sciences of the Oceans (IAPSO), for his outstanding contribution to sea level research and related new insights into climate change.



The IAPSO recognises John Church as the pre-eminent authority on sea level change in the 20th and 21st centuries and its response to natural and human factors.

After reconstructing the global sea level record back to the 1870s, Professor Church provided new insights into the earth's radiation budget and the oceans' sequestration of anthropogenic heat. His work has been central to successive IPCC Working Group 1 reports and to the projection of sea level change as it will affect the 100 million people living within one metre of the present mean sea level.

The Prince Albert I Medal in the physical and chemical sciences of the oceans was initiated by Prince Rainier of Monaco in partnership with the International Association for the Physical Sciences of the Oceans and is named in honour of the late Prince Albert I of Monaco who, in 1919, organised the Oceanography Section of the International Union of Geodesy and Geophysics. He also served as the first President of that section.

The Council of the Royal Society of NSW extends its warmest congratulations to Professor John Church on this esteemed recognition of his outstanding research career.

## **Society Fellow and Award Winner elected as 2023 Fellows of the Australian Academy of Science**

The Royal Society of NSW is delighted to learn of the recognition of one of its Fellows and a previous Society Award winner in the recently announced list of new Fellows of the Australian Academy of Science, elected in May 2023.

They are Distinguished Professor Belinda Medlyn FRSN FAA (Ecologist, Western Sydney University), a Fellow of the Society, and Professor Richard Payne FAA (Chemical Biologist, University of Sydney), the winner of the Society's 2020 Liversidge Lecture.



**Award  
Winners**

The Academy citation for Belinda Medlyn notes that she 'is a plant physiological ecologist and mathematical modeller known for her ground-breaking contributions to understanding and predicting plant responses to climate change. Bridging the traditional divide between experimental ecology and modelling with innovative quantitative syntheses, her work has provided a compelling basis for long-term prediction of plant responses to rising CO<sub>2</sub> concentrations, warming temperatures, and drought. Her work has been integrated into the mathematical models used to predict Earth system dynamics worldwide. ' Professor Medlyn is a





highly-cited researcher being named in Clarivate's Highly Cited (HiCis) Research list for 2028, 2019, 2020, and 2021.

The Academy citation for Richard Payne states that 'he is an international leader in the fields of organic chemistry and chemical biology. He is recognised for pioneering a number of technologies for accessing precisely modified peptides and proteins for applications in biology and medicine. His lab is also recognised for the development of modified peptide drug leads for a range of diseases, such as anti-inflammatories, anti-thrombotics, and anti-infectives (including for COVID-19). The impact of his research has led to the award of more than 20 prestigious prizes, including the Malcolm McIntosh Prime Minister's Prize and the AJ Birch and HG Smith Medals from the Royal Australian Chemical Institute.'



The Council of the Royal Society of NSW extends its warmest congratulations to Professor Medlyn and Professor Payne on this recognition of their outstanding scientific achievements.

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## EVENTS

### 1313th Ordinary General Meeting and Open Lecture

**Making rights a reality — the need for a Human Rights Act for Australia**

**Emeritus Professor Rosalind Croucher AM FAAL**

**President  
Australian Human Rights Commission**



**Date:** Wednesday, 7 June 2023, 6.30 pm AEST

**Venue:** Gallery Room, State Library of NSW, Shakespeare Place, Sydney

**Entry:** Society members, \$10; Non-members, \$20; Students, \$5.

**Registration:** [Registration through Membes](#) is required before 2.00 pm on 7 June 2023

**All are welcome**

[Please click here to register](#)

**Summary:** This presentation advances the case for a Human Rights Act for Australia, reflecting on experiences during COVID and the difference a Human Rights Act may have made — and where it has helped in places where a human rights lens is legislated for decision and policy making.

**Emeritus Professor Rosalind Croucher AM FRSA FACLM (Hon) FAAL TEP** commenced a seven-year term as President of the Australian Human Rights Commission on 30 July 2017. Prior to joining the Commission, Rosalind was President of the Australian Law Reform Commission (2009–2017) and Commissioner (2006–2009), where she led a number of significant law reform inquiries. She has lectured and published extensively, principally in the fields of equity, trusts, property, inheritance, legal history, and increasingly in public policy. In 2011 she was recognised as one of the 40 'inspirational alumni' of UNSW, where she gained her

PhD. In 2014 Croucher was acknowledged for her contributions to public policy as one of Australia's '100 Women of Influence' in the Australian Financial Review and Westpac awards; and for her 'outstanding contribution to the legal profession' was awarded the Australian Women Lawyer's award. In 2015 she was made a Member of the Order of Australia (AM) for 'significant service to the law as an academic, to legal reform and education, to professional development, and to the arts', and in 2016 Macquarie University conferred on her the title of Emeritus Professor.

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## Ideas@theHouse: June 2023



**Ideas@theHouse**

**presented by**

**Her Excellency the Honourable  
Margaret Beazley AC KC, Governor of NSW**



**"Importance of scientific ideas and discovery to Australia's future"**

**Dr Cathy Foley AO DistFRSN PSM FAA FTSE  
Australia's Chief Scientist**

**Date:** Wednesday, 14 June 2023, 6.30 pm AEST

**Venue:** [Live streaming](#) from Government House Sydney, with a YouTube recording thereafter.

**Entry:** No charge

**Registration:** Please note that Society members who have registered for a place at the face-to-face event will receive formal invitations from Government House in early June. There is no need to register for the live stream.

[Please click here to join the livestream](#)

**Summary:** Science is humanity's superpower. Because of our ability to be curious, deduce, and experiment, we humans have been able to discover how the world works and then use this knowledge to extend our lives with improved health and ways to fight disease. We have worked out how to use materials in the earth and air to construct buildings the height of mountains and electronics with features the size of an atom. But in doing this, we have not been careful enough about the impacts on our environment, and we are now at a point where we must look to science for solutions to the climate crisis. Australia's Chief Scientist, Dr Cathy Foley, will speak about the importance of scientific discovery to making Australia the place it is now, and how science and the humanities can contribute to a future for us all. She will also consider what we can learn from Australia's First Nations peoples about sustainability and care for country.

**Dr Cathy Foiey AO DistFRSN PSM** became Australia's ninth Chief Scientist in January 2021 after an extensive career at Australia's national science agency, the CSIRO, including as the agency's Chief Scientist.

Dr Foley is an internationally recognised physicist with major research achievements in superconductors and sensors which led to the development of the LANDTEM sensor system to locate valuable deposits of minerals deep underground.

Dr Foley's scientific excellence and influential leadership have been recognised with numerous awards and fellowships, including election to the Australian Academy of Science in 2020, and an Order of Australia for service to research science and to the advancement of women in physics. She received the Australian Institute of Physics Medal for Outstanding Service to Physics in 2016. She is a Fellow of the Australian Academy of Technological Science and Engineering (2008), an honorary Fellow of the Australian Institute of Physics (2019), and a Distinguished Fellow of the Royal Society of NSW (2022).

Dr Foley is an inspiration to women in STEM across the globe and focused strongly on equality and diversity in the science sector.

## Western NSW Branch Meeting 2023-2

### A new history of Australian political thought

**Professor Wayne Hudson**

**Adjunct Research Professor  
Australian Centre for Christianity and Culture  
Charles Sturt University, Canberra**



**Date:** Thursday, 15 June 2023, 6.00 pm AEST

**Venue:** Charles Stuart University, 15 Blackall Street, Barton, ACT

**Entry:** No charge

**Registration:** [Registration through Eventbrite](#) for the face-to-face event and live stream

**All are welcome**

[Click here to register on Eventbrite](#)

*This lecture is a joint presentation of Charles Sturt University, as part of its Provocations Public Lecture Series, and the Western NSW Branch of the Royal Society of NSW*

**Summary:** In this lecture, Wayne Hudson will discuss why there is no general history of Australian political thought and the research strategies which might enable such a history to be written. Australians have underestimated the range of political ideas that came to Australia, often misunderstood how these ideas were interpreted here, and have been slow to grasp the originality of Australian political thought. Wayne is currently writing a book designed to remedy this.

**Professor Wayne Hudson** is an Adjunct Research Professor at the Australian Centre for Christianity and Culture in Canberra at Charles Sturt University. He is an intellectual historian and a critical realist social philosopher who works across the areas of history, politics, philosophy, and religion, and has written or edited over 23 books. His latest book is [\*Beyond Religion and the Secular: Creative Spiritual Movements and their relevance to Political, Social and Cultural Reform\*](#) (Bloomsbury 2023). Wayne is a Fellow of the Australian Academy of the



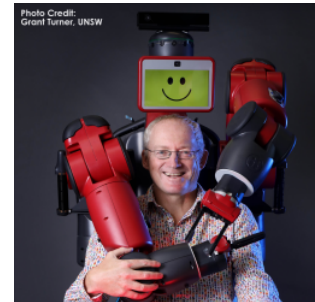
Humanities in recognition of his work in Australian religious thought, the role of English Deism in the Enlightenment, and the connections between religion, utopia, and reform.

## Southern Highlands Branch Meeting 2023-5

### Machines behaving badly: the morality of AI

**Professor Toby Walsh FAA FACM FAAAS**

**Scientia Professor of Artificial Intelligence  
UNSW Sydney**



**Date:** Thursday, 15 June 2023, 6.30 pm AEST

**Venue:** RSL Mittagong, Carrington Room

**All are welcome**

**Summary:** Generative AI tools like Stable Diffusion and ChatGPT have caught public attention. But what new issues does AI bring to the table?

**Professor Toby Walsh** is an ARC Laureate Fellow and Scientia Professor of AI at UNSW and CSIRO Data61. He is the Chief Scientist of UNSW.AI, UNSW's new AI Institute. He is a strong advocate for limits to ensure AI is used to improve our lives, having spoken at the UN, and to heads of state, parliamentary bodies, company boards, and many others on this topic. This advocacy has led to him being "banned indefinitely" from Russia. He is a Fellow of the Royal Society of NSW and of the Australia Academy of Science. He was named on the international "Who's Who in AI" list of influencers. He has written three books on AI for a general audience, the most recent is "Machines Behaving Badly: the morality of AI".

## Joint AIP, RACI, RSNSW, and ANSTO Presentation

### The Invisible Revealed

**Dr Joseph Bevitt**

**Senior Instrument Scientist  
ANSTO**



**Date:** Tuesday, 20 June 2023, 7.00 pm AEST (preceded by an optional tour of the Australian Centre for Neutron Scattering at 5.30 pm)

**Venue:** Hybrid—ANSTO Discovery Centre, New Illawarra Road, Lucas Heights NSW, and live streaming (link sent on the day of the event)

**Entry:** No charge for the seminar, but an optional \$60 charge for dinner afterward at the Rock Salt restaurant, Menai

**Registration:** [Registration is required through Eventbrite](#)

**All are welcome**

[Click here to register on Eventbrite](#)

*A joint presentation by the Australian Institute of Physics, the Royal Australian Chemical Institute, the Royal Society of NSW, and ANSTO.*

**Summary:** Using state-of-the-art scientific techniques from the Australian Centre for Neutron Scattering, the secrets of 26 objects from the Powerhouse collection have been revealed. You will hear from Dr Joseph Bevitt about using neutrons to solve mysteries of the past and uncover new ones.

Registration options include:

- An optional tour of the Australian Centre for Neutron Scattering at ANSTO Lucas Heights (at 5.30 pm)
- Post-event dinner (\$60 pp) at the Rock Salt, Menai (from 8.15 pm)

## RSNSW Online Presentation 2023-2

### Thoughts on the Voice

**Peter Baume AC DistFRSN,  
Megan Davis FRSN,  
Christopher Puplick AM, and  
Dean Ashenden**

**Date:** Wednesday, 5 July 2023, 6.30 pm AEST

**Venue:** [Zoom webinar](#)

**Entry:** No charge

**All are welcome**



[Please click here to join the webinar](#)

**Summary:** Peter Baume AC, who served as Minister for Aboriginal Affairs in the Fraser Government is convening this panel on the Voice. He has invited Professor Megan Davis, a human rights lawyer of indigenous descent from UNSW, who has been at the forefront of the case in favour of the Voice. Chris Puplick, a former Liberal MP, will also be participating in the discussion. Dean Ashenden, an academic and author of the book 'Telling Tennant's Story,' which won the 2022 Australian Political Book of the Year, will bring his own re-evaluation of race relations in Tennant Creek based on his childhood experiences.

**Emeritus Professor Peter Baume AC DistFRSN** is a retired Australian doctor and politician. He was a Senator for New South Wales from 1974 to 1991, representing the Liberal Party. He served as Minister for Aboriginal Affairs (1980–1982) and Minister for Education (1982–1983) in the Fraser Government.

**Professor Megan Davis FRSN** is an Aboriginal Australian activist and international human rights lawyer. She was the first Indigenous Australian to sit on a United Nations body and was Chair of the UN Permanent Forum on Indigenous Issues. Davis is Pro Vice-Chancellor, Indigenous, and holds the Balnaves Chair in Constitutional Law at the University of New South Wales. She is especially known for her work on the Uluru Statement from the Heart.

**Christopher Puplick AM** is a former British-Australian politician, public servant, and public intellectual. He served as a Senator for NSW during the 1980s, after which he was appointed as President of the NSW Anti-Discrimination Board and the NSW Privacy Commissioner.

**Dean Ashenden** has worked as an academic and a political adviser, and in journalism. He has contributed to many print outlets, and was presenter of Radio National's "Education Issues" program. His "Telling Tennant's Story: The strange career of the great Australian silence" (Black Inc 2022) was the inaugural winner of the Australian Political Book of the Year award.

## **Ideas@theHouse: August 2023**



**Ideas@theHouse**

**presented by**

**Her Excellency the Honourable  
Margaret Beazley AC KC, Governor of NSW**



**Ideas for marine stewardship and sustainability  
in a time of acceleration**

**Professor Emma Johnston AO FRSN FAA FTSE  
Deputy Vice-Chancellor (Research)  
University of Sydney**

**Date:** Wednesday, 14 June 2023, 6.00 pm AEST

**Venue:** Government House Sydney (by formal invitation for members-only), live streaming, with a YouTube recording thereafter

**Entry:** No charge

**Registration:** Information about registering for a formal invitation will follow

**Summary:** Our ocean ecosystems are facing great challenges. Human impacts are growing, leading to rapid changes in ecosystem structure and function. Accelerating ecological processes, tipping points and vicious cycles suggest a rapid worsening of conditions.

In this talk, Professor Johnston will describe the key drivers of ecological acceleration, how they act in concert, and the implications for marine and coastal social-ecological systems. I will then present ideas for converting vicious cycles to virtuous ones through effective environmental stewardship.

Finally, Professor Johnston will present a case study of the recent Australian State of Environment Report and how sustainability has been addressed by the inclusion of three new dimensions in this report: centering Indigenous perspectives, developing well-being assessments, and linking to the UN Sustainable Development Goals.

**Professor Emma Johnston** is a leading authority in marine ecology, a sustainability and diversity champion, and a Chief Author of the Australian State of Environment Report 2021. Professor Johnston is the Deputy Vice-Chancellor (Research) at the University of Sydney. She has held the roles of Pro Vice-Chancellor (Research) and Dean of Science at UNSW and is a past President of Science & Technology Australia (STA). Professor Johnston has led major research projects for industry, government, the ARC, and the Australian Antarctic Science Program, and has contributed to the development of national and international research priorities

and plans. She is a Director of the Great Barrier Reef Marine Park Authority and a Governor of the Ian Potter Foundation. Professor Johnston was made an Officer of the Order of Australia (AO) in 2018 for distinguished service to higher education, particularly to marine ecology and ecotoxicology, as an academic, researcher, and administrator, and to scientific institutes.

## REPORTS

### Program Committee — Christina Slade FRSN, Committee Chair

The Program Committee thanks Professor Steve Weller of the University of Newcastle who has represented the Hunter Branch for the last three years. We are also grateful to Michael Jonas who has represented the Southern Highlands Branch, and Dr David Nash who represented the Western Branch. We welcome Dr James Rowe from the Southern Highlands Branch and Prof Lewis Bizo, now representing the Western Branch. Dr Nash will continue with a brief for indigenous matters. We are also delighted to welcome to the Committee the following new members: Professor Roy Green, Associate Professor Alice Motion, and Mr Quang Ly to the committee.



On May 3 Professor Michael Blumenstein FACS, Professor and Acting Dean, Faculty of Engineering and IT, University of Technology Sydney discussed the topic “[Artificial Intelligence myths debunked — how AI is transforming humanity for the global good](#)” online, with Professor Lewis Bizo as the discussant. Professor Blumenstein traced his fascinating history of using AI, inter alia, for shark spotting. At a time when, in the wake of Chat GPT, the media has been rehearsing debates about the existential risk of AI, Professor Blumenstein reminded us of the enormous value of uses of AI

On the 7 June, following the 1313th OGM, Emeritus Professor Rosalind Croucher AM FAAL, President Australian Human Rights Commission will give a lecture entitled “[Making rights a reality — the need for a Human Rights Act for Australia](#)”

### Hunter Branch — Philip Bolton FRSN, Branch Secretary

#### Presentation Report — 11 May 2023

**Innovation, Innovation, Impact — the I's have it!**

**Kevin Galvin FAA FTSE FIEAust CPEng**

**Laureate Professor and Director  
ARC Centre of Excellence for Enabling  
Eco-efficient Beneficiation of Minerals  
University of Newcastle**



Members of the Hunter community were treated to insights of the innovation process by eminent Australian and international researcher, inventor and educator, Laureate Professor Kevin Galvin, of the University of Newcastle, on Thursday, May 11 when he delivered the latest lecture in the 2023 series of the Hunter Branch-hosted public lectures. On this occasion the lecture was co-sponsored by the Australian Research Council Centre of Excellence for Enabling Eco-Efficient Beneficiation of Minerals ('CoEMinerals').

Laureate Professor Galvin used his experiences as a world-renowned researcher and leader in critical minerals separation to explore the processes central to research valued by society. These processes have facilitated his invention of a process of mineral separation used in more than 240 locations around the globe to beneficiate iron ore, mineral sands, metallurgical coal, potash, chromite lithium and other base metal oxides.



He posited that in research the three I's, Invention - the enabler for creating a new platform or paradigm, Innovation — the process of reworking existing platforms for a better result and Impact – the added value from use, are as important as the three R's are in education. Using this framework, he then

considered the activities of universities arguing that universities are ultimately all about societal Impact.

Professor Galvin then detailed his journey into research and his approach to research that resulted in the invention, use and improvement of the Reflux Classifier, a technology used in mineral processing to separate particles by density or size. He identified the importance of the inventive, innovative and impact phases of the research that has underpinned the adoption of the Reflux Classifier throughout the world today.

In the final part of his presentation, Professor Galvin returned to consider the research activity of universities, noting that universities have never had sufficient returns to drive behaviour. He argued that some funds to universities should be driven by the Impact of their activity, in all its forms. He noted that to be considered an “A” rated activity worthy of a return the measures of its impact as a benefit to society should rate serious usage, have verifiable evidence and attribution to the research.

In thanking Laureate Professor Galvin for his interesting and thought-provoking lecture, the Chair of the Hunter Branch of the RSNSW, Distinguished Emeritus Laureate Professor John Aitken of the University of Newcastle said “Professor Galvin had provided insightful observations and provided firsthand evidence of how creative thinking and the scientific process can improve what is done by humans in addressing contemporary issues.”

## **Southern Highlands Branch — Anne Wood FRSN, Branch Chair**

### **Presentation Report — 18 May 2023**

#### **Brief Encounters: Literary Travellers in Australia**

#### **Susannah Fullerton OAM FRSN**

This delightful lecture was presented at the Chevalier College Performing Arts Centre which has only recently undergone extensive renovation. We were very fortunate to be offered this outstanding venue when our usual Carrington Room at the Mittagong RSL was in use for a regional event.

The Southern Highlands Branch offers a wide variety of subjects in its lecture program, as befits a large general audience of wide professional interests. Not surprisingly, this lecture attracted an





audience rarely seen at RSNSW events here – the members of numerous local book clubs and literary scholars for whom classical literature is a passion. Many had travelled over the years with Susannah Fullerton on her literary tours worldwide. This lecture was chosen by the committee as it satisfied well two of the major areas for which the Royal Society advocates, Literature and Science.

Susannah's illustrated lecture was beautifully presented. She had chosen the period of analysis 1836–1939 because she felt that Australia had undergone such changes in that period. Her selection consisted of ten famous literary travellers.



Her diverse array of authors included Charles Darwin, Rudyard Kipling, Robert Louis Stevenson, Anthony Trollope, Mark Twain, Arthur Conan Doyle, D.H. Laurence, Joseph Conrad, H.G. Wells and Agatha Christie. She began with a discussion on Charles Darwin who had come to Australia on the Beagle for scientific purposes. What people today rarely realise is that Darwin was the unfortunate victim of seasickness. The journey to Australia took months and months, and in fact he had been travelling for over four years by the time he reached his destination.

This long, dangerous and tedious journey, made all the worse by his seasickness, did not fulfil his hopes of finding a wonderful new world of science to explore. He found the place very remote and isolated. He was relieved to be able to return to England, to escape this primitive place. Susannah reported that he never again attempted travel over water.

The audience members were surprised to hear that another of Susannah's literary travellers, Arthur Conan Doyle, was received very badly when he visited Australia. The main reason for this situation was that he was deeply involved in spiritualism and tried to convert people he met to the same beliefs. Susannah went on to describe how in 1890, Robert Louis Stevenson and his wife Fanny arrived at Circular Quay after a dramatic sea voyage, only to be refused entry at the Victoria, one of Sydney's most elegant establishments. Next day, the proprietor recognised the famous author from a picture in the newspaper and begged him to return. He did not.

This was a captivating lecture, as could be readily judged by the compliments flowing from the 40 person audience as they departed into the very cold darkness of a Highlands evening.

## Western NSW Branch — Nilima Mathai, Branch Secretary

### Branch News and Events

#### Provocations Public Lecture Series

In conjunction with the Western NSW Branch of the Royal Society of New South Wales, Charles Sturt University is conducting its Provocations Public Lecture series that celebrates research at the University. The first event in this series was presented by Professor Sharynne McLeod FRSN FASSA on the topic '[Children should be seen AND heard: the importance of communication so children can thrive](#)', the recording of which is available on the Society's YouTube channel, with a link to this in the [video recordings section](#) of this Bulletin.

The next event in this series will be presented by Professor Wayne Hudson at Charles Sturt's Campus in Barton, Canberra, on Thursday, 15 June. Wayne Hudson is an Adjunct Research Professor at the Australian Centre for Christianity and Culture in Canberra at Charles Sturt



University. He is an intellectual historian and a critical realist social philosopher who works across the areas of history, politics, philosophy, and religion and has written or edited over 23 books. In this lecture, '[A New History Of Political Thought](#)', Wayne Hudson will discuss why there is no general history of Australian political thought and the research strategies that might enable such a history to be written. Australians have underestimated the range of political ideas that came to Australia, often misunderstood how these ideas were interpreted here, and been slow to grasp the originality of Australian political thought. Wayne is currently writing a book designed to remedy this. Registration for this event is available on [Eventbrite](#) and a recording of the event will be made available on the Society's YouTube channel.



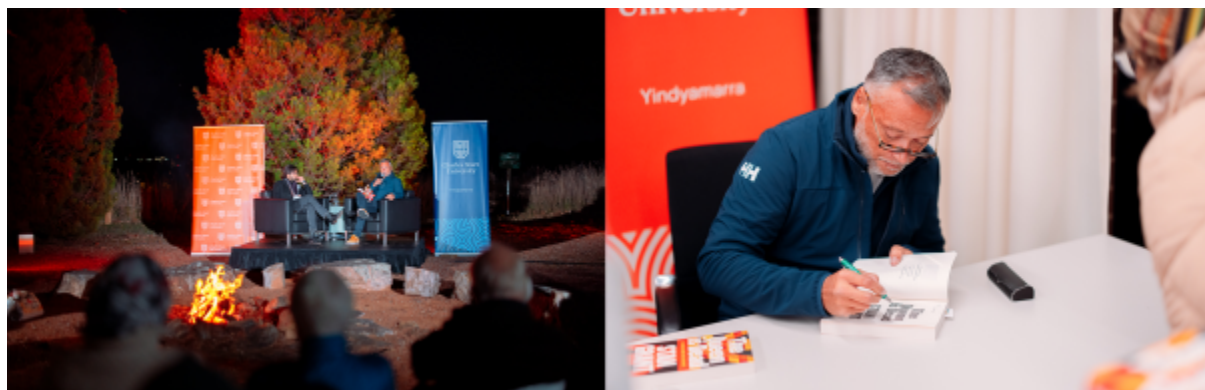
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[Forthcoming events](#) in the Provocations lecture series include:

- *Behavioural data science as a game changer for understanding the interface between human and digital systems in the new digital economy*, Professor Ganna Pogrebna (Wednesday, 16 August 6.00 pm AEST, CSU Bathurst campus)
- *Rural and regional health*, Professor Allen Ross (Wednesday, 18 October, CSU Orange campus)
- *Thirst for power - The rivers of conflict in Southeast Asia*, Professor Lee Baumgartner (Thursday, 16 November, CSU Albury campus)

## Other News and Events

Professor Stan Grant Jr launched his book, *The Queen is Dead* (HarperCollins), in Canberra on 10 May. A recording of the launch can be downloaded from this [link](#).



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## VIDEOS

### Recordings of Recent Events on YouTube

## Artificial Intelligence myths debunked — how AI is transforming humanity for the global good

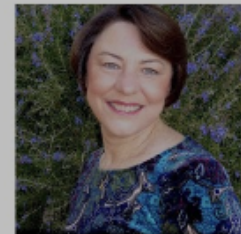
**Professor Michael Blumenstein**  
Acting Dean, Faculty of Engineering and IT  
University of Technology Sydney



YouTube recording of the RSNSW Online Presentation 2023-1 held on 3 May 2023 on the subject of *Artificial Intelligence myths debunked — how AI is transforming humanity for the global good*, delivered by Professor Michael Blumenstein FACS of the University of Technology Sydney. An abstract of the talk and the biography of the presenter is available from the [online event notice](#).

## Children should be seen AND heard: the importance of communication so children can thrive

**Professor Sharynne McLeod FRSN FASSA**  
Professor of Speech and Language Acquisition  
Charles Sturt University



YouTube recording of the lecture delivered at the Society's Western NSW Branch 2023-1 meeting by Professor Sharynne McLeod FRSN FASSA of Charles Sturt University on the subject of *Children should be seen AND heard: the importance of communication so children can thrive*. An abstract of the talk and the biography of the presenter is available from the [online event notice](#).

## Reconstructing ancient oceans, sea-level fluctuations, the deep carbon cycle, and biodiversity

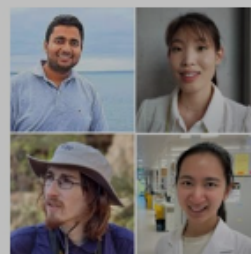
**Professor Dietmar Müller FAA FAGU**  
School of Geosciences  
University of Sydney




YouTube recording of the 1312<sup>th</sup> Ordinary General Meeting and 2019 Clarke Memorial Lecture held on 5 April 2023 on the subject of *Reconstructing ancient oceans, sea-level fluctuations, the deep carbon cycle, and biodiversity*, delivered by Professor Dietmar Müller FAA FAGU, Professor of Geophysics, at the University of Sydney. An abstract of the talk and the biography of the presenter is available from the [online event notice](#).

## RSNSW 2022 Student Award Presentations

**Shankar Dutt (Jak Kelly Award)**  
**Clara Liu Chung Ming (Scholarship)**  
**Thomas Mesaglio (Scholarship), UNSW Sydney**  
**Anyang Zhao (Scholarship), ANU**



YouTube recording of the 1311<sup>th</sup> Ordinary General Meeting and 2022 Student Award Presentation from 15 March 2022, featuring Shankar Dutt (ANU), winner of the 2022 Jak Kelly Award, and Clara Liu Chung Ming (UTS), Thomas Mesaglio (UNSW Sydney), and Anyang Zhao (ANU), each of whom were winners of RSNSW Scholarships for 2022. Information about the talks and the speakers is available from the [online event notice](#).






**Ideas@theHouse**  
presented by  
**Her Excellency The Honourable Margaret Beazley AC KC**  
Governor of New South Wales

Thursday, 2 March 2023 at 6.30 pm AEDT  
Live Streaming at Government House Sydney

**Aristotle on life and thought in the sub-lunary sphere**

**Dr John Vallance FRSN FAHA**  
State Librarian of NSW





YouTube recording of Ideas@theHouse held at Government House on 2 March 2023 in which Dr John Vallance FRSN FAHA, State Librarian of NSW, presented on the topic of *Aristotle on life and thought in the sub-lunary sphere*. An abstract of the talk and the biography of Dr Vallance is available from the [online event notice](#).




**1310<sup>th</sup> Ordinary General Meeting and Open Lecture**  
**Wednesday, 1 February 2023 at 6.30pm AEDT**  
**Venue: Gallery Room, Mitchell Building, State Library of NSW**

**Drones, Smart Munitions, and Cyberspace: the 21st Century Defence of Ukraine and its implications for Australia**

**Major General (Retd) Fergus (Gus) McLachlan AO**  
**and**  
**Colonel (Retd) Andrew Condon**



YouTube recording of the 1310<sup>th</sup> Ordinary General Meeting on 1 February 2023 on the subject of *Drones, Smart Munitions, and Cyberspace: the 21st Century Defence of Ukraine and its implications for Australia*, featuring Major General (Retd) Fergus (Gus) McLachlan AO and Colonel (Retd) Andrew Condon CSC. An abstract of the talk and the biographies of the presenters is available from the [online event notice](#).

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Edited by: [Lindsay Botten](#) FRSN, Webmaster, Royal Society of NSW

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