

THE BULLETIN 442

THE ROYAL SOCIETY OF NEW SOUTH WALES

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July 2020

For Your Diary

- 29 JULY
 Hunter Branch Meeting
 2020-3
 Architecture and the
 Cultivation of Vitality
- 5 AUGUST

 1285th Ordinary General
 Meeting and
 Open Lecture

 Growing Black Tall Poppies



Patron of The Royal Society of NSW

Her Excellency The Honourable

Margaret Beazley AC QC

Governor of New South Wales

1284TH OGM AND OPEN LECTURE Why Art Matters in Times of Crisis

Wednesday, 8 July 2020



Elizabeth Ann Macgregor OBE FRSN

Date/time: Wednesday, 8 July 2020, 6:30PM

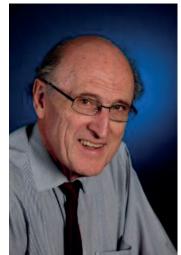
Venue: Zoom Webinar Entry: No charge Enquiries: via email

All are welcome.

See <u>page 7</u> for more information

From the President

What will history make of the year 2020? Of course it will be remembered as the year of the COVID-19 pandemic (or worse, as only as the first year of the pandemic). I fear it will also be recognised as the beginning of the long post-COVID global recession. But I think it will also be the year that marks a big change in the way we do things. For example, changes in the way that many of us work, in future often working from home for two or three days a week. And changes in the way that we hold meetings: many fewer interstate day trips for business meetings, given that we have learned to do so much by video conferencing. For those of us in the scientific world, I suspect that it will mean fewer trips to conferences in exotic locations. I hope it will not mean fewer live concerts and theatre performances.



For our Royal Society it will also mark a big change in the way that we do things. Surely most of our committee meetings and Council meetings will in future, as is already the case, be held by video conferencing, both to save time and also to allow people from all over the state to participate. The interesting question concerns our ordinary general meetings and events. On the one hand I know that most of us yearn to experience again live events, where we can meet and chat with people, and perhaps have a drink and something to eat, and listen to a speaker present in body. On the other hand we have learned to do many things online, including even voting, and we have appreciated one real benefit: that an online event can reach many more people. I think that when conditions allow we will see again live events, but with the important new ingredient that those events will be simultaneously available by livestream to watch remotely, and also recorded and available for later view on our rapidly growing YouTube channel.

The change to livestreaming, however desirable, will come at significant additional cost to the Society, because the transmission and recording of live events requires a much higher quality of audio and video equipment than needed for purely online events. But with the help of our Members, Fellows and supporters I am confident that we will soon be able to take that next step.

Have you found our YouTube channel? It already contains many riches. Just go to our website at https://royalsoc.org.au/ and click on the YouTube button. Recent additions include the inaugural 'Ideas@theHouse', at virtual Government House, and the even more splendid black-tie virtual 'Annual Dinner'.

Stay well and stay safe, Ian Sloan President RSNSW

COVID-19 Injects New Life into Royal Society Events

The Society's program of events, like everything else, was thrown into potential disarray in March 2020 by COVID-19 when the Minister directed that "a person must not participate in a gathering in a public place of more than two persons". The first general response was that the Society's lectures and Annual Dinner could not take place and the future of the Society could be endangered, but a small self-appointed crew of Fellows and Members quietly got to work, determined to convert all events and meetings to online programs. Skills were rapidly learned and equipment borrowed so that all events were pre-recorded or presented online live while being recorded. This massive effort earned a bonus: the much-desired digital library available through our website and YouTube became a reality.

Webmaster Professor Lindsay Botten added video editing and other skills to his CV. Lindsay worked overtime on overtime to get smooth, high quality products to air. The Society now has an accomplished ZoomMaster and technology guru in Stuart Midgley who provided the friendly face to welcome us to online events and managed behind-the-scene technologies. John Hardie's knowledge of the Society's history contributed to content and our Executive Officer, Wendy Enevoldsen, used her organising skills and critical eye to ensure quality. Every member of this crew was a leader, and the lot was coordinated and spurred on by Vice-President Judith Wheeldon.

Ideas@theHouse 21 March 2020

The Royal Society of New South Wales was proud to have been asked by Her Excellency the Honourable Margaret Beazley AC QC, Governor of NSW, to present the first lecture in the series she has initiated and will host called Ideas@theHouse. The goal of this program is to bring the public into Government House and use it as a place for intellectual discussion and exploration of ideas.

The first Ideas@theHouse event took place on 21 March via Zoom into everyone's homes. After a virtual tour of the House to begin the program, the Governor welcomed us all and President of the Society, Professor Ian Sloan AO FRSN FAA, introduced the lecture.

Professor Robert Clancy AM FRSN, an immunologist with a fierce interest in mapping, presented "Ten: The Mapping of Colonial New South Wales", in which he showed the history and society of pre-Federation New South Wales as revealed by contemporaneous maps and the influence on those maps of the Governors of the day. A lively Q&A ensued, guided by Vice-President Professor Brynn Hibbert AM FRSN. Vice-President Judith Wheeldon AM FRSN proposed the Vote of Thanks.



The Annual Dinner

The Annual Dinner had been scheduled for late May at the Swissôtel but quickly became an online event on 27 June, the precise day of the Society's founding 199 years ago. This change was felicitous in enabling a celebration of our birthday to be added to the festivities.

The President of the Society, Professor Ian Sloan AO FRSN FAA gave a birthday message and Her Excellency the Honourable Margaret Beazley AC QC, Governor of New South Wales, addressed us with festive birthday balloons and wishes. She also proved her serious interest in the purposes of the Society in a discourse on philosophy that prepared our minds for the Distinguished Fellow Lecture to follow.

Professor Brian Schmidt AC DistFRSN FRS FAA, Nobel Laureate in Physics, Vice Chancellor of the ANU, delivered "Evidence and Education in a Post-truth and Post-COVID World", in which he scanned history and philosophy to consider how we arrived in this Post-truth and Post-COVID world, and used film culture to describe paths forward as we shape our Post-world. Somehow, he led us to an optimistic future vision in his tour de force lecture.

Viewers had been invited to enjoy the black tie event from home, asking friends to join them in numbers allowed by government restrictions and providing their own dinner and champagne to join the Royal Society's 199th Birthday toast proposed by the President. Indications are that many did just this and were rewarded with an intellectually stimulating evening and social connection, reflecting the goals of the Royal Society of New South Wales as it looks forward to next year's Bicentennial celebrations.



Recordings of both events can be accessed through the Society's website or directly through YouTube.

Report: 1283rd OGM

Drinking for Three: Mother, Baby and Society

Report on the presentation at the Society's 1283rd Ordinary General Meeting held via Zoom on 3 June 2020

The lecture was presented by Distinguished Professor Elizabeth Elliott AM FRSN FAHMS from the University of Sydney and Sydney Children's Hospital (Westmead).

A synopsis of the lecture is given below:

Australians are amongst the highest consumers of alcohol in the world, and Australia is renowned for its excellent wine. Australian national sporting teams are sponsored by the alcohol industry and advertising and promotion of alcohol is rife, including to children. Yet the costs of alcohol are immense. It is difficult to measure the full economic impact of alcohol on our health and mental health and our education, child protection and justice systems. It is impossible to measure the costs to individuals and society. Alcohol has a particularly devastating impact on the most vulnerable members of society — children. The topic of foetal alcohol spectrum disorder (FASD) and the current state of play in Australia was discussed. FASD results from the brain injury to the unborn child that is caused by prenatal alcohol exposure. Children with FASD have severe neurodevelopmental impairment, birth anomalies and learning and behavioural problems, which have lifelong consequences. Over two decades there has been enormous progress in the recognition of FASD as a significant but preventable public health problem. Clinical practice, education, service development and policy have been guided by a national collaborative approach involving clinicians, researchers, parent support groups, Indigenous communities and NGOs — with government and NHMRC funding. Australia has a national action plan, advisory group, website, and disease register, training programs and specialist FASD assessment clinics, and research and clinical networks. There are innovative diagnostic techniques and access to the National Disability Insurance Scheme (NDIS). However, the future is prevention, which remains the biggest challenge: 60% of Australian women continue to drink during pregnancy and children are increasingly diagnosed with FASD. It is known what will minimise alcohol harms, but we face significant challenges to implementing these interventions.

The lecture was followed a lively question and answer session moderated by Vice-President Ms Judith Wheeldon.

(continued overleaf)

Report: 1283rd OGM (continued)

Professor Elliott holds a Chair in Paediatrics and Child Health at the University of Sydney and is Consultant Paediatrician at the Sydney Children's Hospitals Network (Westmead). She holds a Practitioner Fellowship from the National Health and Medical Research Council of Australia. In 2019 she received the James Cook Medal for 2018 from the Royal Society of NSW — its highest honour — and was the first female amongst its 47 recipients at that time. Professor Elliott has dedicated her career to advancing human rights, health and quality of life for ill and disadvantaged children in Australia and beyond, through education, research, clinical care and advocacy. For over 20 years, Professor Elliott has worked to improve the lives of children with FASD in Australia. She is regarded as pre-eminent in advocacy, research, policy and clinical care regarding FASD



and has an international reputation in the field. She is a member of the Australian Government's FASD Advisory Committee; Co-Director of the NHMRC Centre for Research Excellence in FASD; Co-Director of the Care and Intervention for Children and Adolescents with Drug and Alcohol Problems (CICADA); and Head of the CICADA NSW FASD Assessment clinic.

JProcRSNSW, Vol. 152, Part 3, March 2020

The March 2020 issue of the Journal & Proceedings of the Society has recently been published on-line. It's Volume 152, Number 3, and is a special, on-line only, issue recording nine papers from the 2019 Biennial Symposium of the ANZ Associations of von Humboldt Fellows. It is a first-time collaboration between the two groups. Of special interest to us is 'The mediation of science in the age of social media,' by Dietmar Höttecke, which analyses the problems of communicating science (global warming, COVID-19, etc) at a time in which, as Brian Schmidt recently told us, use of social media has disrupted traditional means of communicating facts and news.



1284th OGM and Open Lecture

Why Art Matters in Times of Crisis

Elizabeth Ann Macgregor OBE FRSN

Director, Museum of Contemporary Art, Sydney

Date: Wednesday, 8 July 2020, 6:30PM

Venue: Zoom Webinar (Obtain help in getting started with Zoom)

Entry: No charge Enquiries: via email

All are welcome.



The Royal Society of NSW has long emphasised science, but literature, arts and philosophy have always been categories of interest and responsibility. Today, we find more and more that neither the arts nor science can stand alone; each needs the other. Ms Macgregor is fascinated by the interrelationship of science and creativity. In this important talk she will raise ideas about the indispensability of the arts especially in a time in which it seems as if our survival depends only on science.

Summary: Museums and galleries around the world have had to close their doors, turning to digital programs to stay connected with their audiences. News is dominated by the health crisis and the consequent financial issues. What role can museums and galleries play in these unsettling times where social distancing is the norm? MCA Director Elizabeth Ann Macgregor believes in the social impact of art and will outline how artists can play a critical role as we face the challenges of a changed world post crisis.

Ms Elizabeth Macgregor began her career as curator/driver of the Scottish Arts Council's Travelling Gallery. which ignited her commitment to engaging new audiences with the work of living artists. In 1989 she was appointed director of Ikon Gallery, Birmingham and in 1999 she took up the directorship of Sydney's Museum of Contemporary Art when it was facing significant challenges. To secure its future, she negotiated a new funding model with government, sponsors and philanthropists. Committed to supporting artists and expanding the audience for art, she has initiated a unique program of partnerships in Western Sydney. She successfully negotiated a \$53m building redevelopment completed in 2012 which includes a National Centre for Creative Learning. Last year, the Museum attracted over a million visitors. Ms Macgregor's innovation and contribution to the arts has been recognised with the Veuve Clicquot Business Woman Award in 2008 and the Australia Business Arts Foundation Business Leadership Award. In 2011 she received an OBE in the Queen's Birthday Honours List. In 2019 she was included in *ArtReview*'s International Power 100 list; she won the 'Arts & Culture Category' of the *Australian Financial Review* '100 Women of Influence Awards', and was awarded the Western Sydney Leadership Dialogue's Patrons' Prize for Collaboration. She sits on the Foundation of the Sydney Swans and the Board of UNICEF Australia.

Treasures from the Society's Library

Article for RSNSW Bulletin by Ian Bryce

Imagine finding a contemporary paper by Darwin — only it wasn't Charles, it was his grandfather Erasmus! How did family heritage pave the way for later grand discoveries?

What were the Codex Palatino-Vaticanus, Polite Literature, and Fungoid Delusions? How did The Lancet of 1837 survey *The Slovenliness of Prostitutes*?

What are the earliest records of river flows in Australia, contributing to the measurement of climate change over 190 years?

Which Australians described inventions such as a horse-drawn locust killer, winemaking in hot climates, and a one-wheeled self-balancing car, long before their time?

If these questions intrigue you, then you have some idea how I felt early last year, on opening these ancient tomes (and yes, some are actually titled *Tomes*) as one of the volunteers trying to create a sense of order among the historical book and serial collections of the Royal Society of NSW. The collection that was until recently warehoused in boxes is being systematically listed for cataloguing for the first time in recent memory, and is revealing many historical and scientific treasures.



Part of the Royal Society of NSW collection at the State Library of NSW

Scope of the library

- Many are journals in long runs, such as the *Philosophical Magazine* (as science and natural knowledge were then known), starting in 1798. Authors included Davey, Joule, Faraday and Maxwell. This was the prime means of publishing and disseminating their seminal works. The journal was shipped to Australia for the benefit of the many British scientists here, and curious Australians
- The original Royal Society (of London) dates from 1660. Many of its learned journals are held by us
- The first leading Australian intellectual organisation was the Philosophical Society of Australasia, created in 1821. It is the precursor of the Royal Society of NSW whose Journal published scientific and other significant papers, while its Proceedings recorded its meetings and business. Two runs of these are currently held at our Darlington premises
- After some name changes, Royal assent in 1866 allowed the Society to be renamed the Royal Society of NSW. This situation prevails to the present day
- Royal Societies were also established in other States of Australia, and many of their Journals are
 present in our library
- In addition, there are other groups whose Journals we hold, including the Linnean Society, Geographical Society, Agricultural Society etc. There are also some important foreign-language journals, such as many tomes of the French Cosmos and of Comptes Rendus, the proceedings of the French Academy of Sciences
- Finally, there are many *monographs*, which means single volumes. These report on specific events or topics. They include many historic dictionaries, encyclopædias and catalogs of specific fields such as minerals, botany, chemistry, and pharmacology.

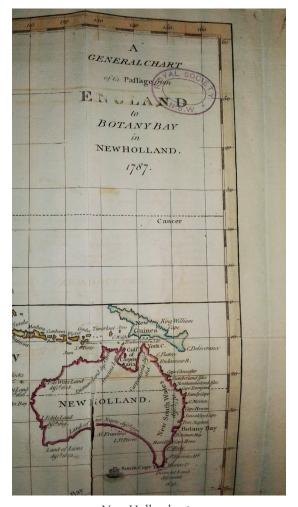
Some special features

The earliest book we have found to date in the Library collection is the *History of the Royal Society* (of London), dated 1734. At that time, literature contained unfamiliar letters and spellings, such as *being unfatisfied my felf.* (The Society also holds material in a special collection going back to 1546: the writings of Roman statesman Pliny the Second.)

The HISTORY of

from Cambodia, and Siam; but they say it is brought by the People of Lawlan, a Country about Cambodia, whence Musk, and Benzoin, and most Aromata come; it is easily distinguished from other Wood by its strong Scent and Richness of Balm in it, which appears in its Blackness; it is of great Value, and hard to be gotten here.





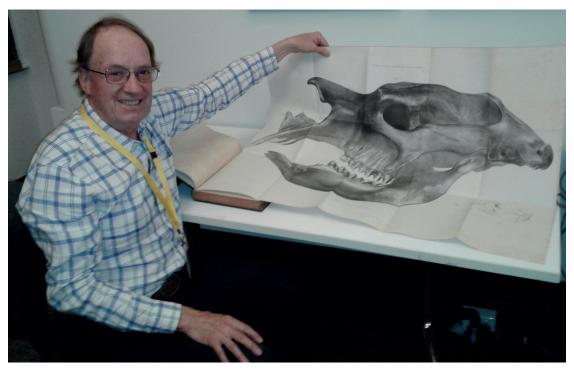
New Holland 1787

The oldest book relating to Australia is titled *History of New Holland*, published in 1787. It collects together the knowledge to that date, which would have been used for planning the First Fleet.

A foldout chart gives directions for sailing from England. Van Diemen's Land is shown connected to the mainland. (Elsewhere it has been suggested that in 1770, Cook suspected there was a Strait, but for strategic reasons was ordered not to reveal it.)

This book presents what was known from the coastal exploration of New Holland: the longer title includes: its produce and inhabitants, with a discourse on banishment (i.e. deportation of convicts).

Many items in the archives contain complex foldouts, which must have been inserted by hand in the binding process. These can be maps, designs for machinery, and drawings such as coral or plants.



The author with fossil foldout from the Society's collection

A Report on the Transit of Venus of 1874 shows sketches made in real time by teams of observers dispatched to four sites in NSW. The black dot seen entering, traversing and leaving the Sun's disk can reveal details of Venus's atmosphere, the Sun's corona, and solar system geometry.

One telescope was fitted with an early astronomical camera. The observers included names such as Archibald Liversidge and H. C. Russell. These were distinguished researchers and office bearers of the Royal Society. Other prolific contributors to the Society were John Tebbutt and Lawrence Hargrave.

In fact, an excellent book: Archibald Liversidge: Imperial Science under the Southern Cross by Roy MacLeod, is available for purchase from the Society.

Matters of importance to a new colony

The Royal Society's journals reveal a surprising range of topics of scientific, cultural or economic value to a young colony.

There are extensive records of the original inhabitants. Most obvious are tribal areas and language, but did you know one group also had an extensive sign language? Aboriginal social hierarchies, customs and ceremonies were recorded in detail. They apparently managed grasslands and herds of kangaroos. Fish traps and stone settlements were photographed, some surviving.

The natural world was studied in detail. There are many plates recording glorious illustrations of the unique flora of Australia and New Zealand. Some early books are individually hand coloured.

Microscopes were commonly used to reveal details of plant structure, parasites, and insects (including the blowfly), but the images were rendered in extraordinarily fine detail with pen and ink. Perhaps the Society has an expert on historical lithography techniques, and could report accordingly. Photographs steadily became more common.

From a more practical perspective, scientists sent out from England surveyed the distribution of soil types and grasses, with a view to establishing European agriculture and animal husbandry.

Geology and mineral deposits were carefully mapped, and means of refining ores were developed. Yearly gold production in each colony was graphed. Fossil finds were carefully sketched.

Australia offered a new vantage point for astronomy. Tens of thousands of observations of planets, comets, dual stars, eclipses, and transits, were carefully timed, recorded and published. Procedures for grinding lenses locally, and building them into telescopes, were developed.

Present cataloguing work

A significant proportion of the library holdings of the RSNSW have been assembled in the State Library of NSW. A small group of volunteers is steadily sorting them and entering title, year, publisher, topic etc. A call number, barcode and security device are attached, and they are placed on shelves in order. This listing will become an online catalogue, and will allow the material to be easily searched in the future.

Our core team includes Julie Cameron, Eva Burns, and myself. We have been working for about a year now but have had to suspend our work due to COVID-19. New volunteers will be welcomed for when we resume when the Library reopens! We would like to thank Erin Robison, Mark Stephenson and others at the State Library for their assistance and support.

The Society has also engaged a book conservator to conserve some of the books which need repair. Some are very frail or in pieces, and so require box storage.

We volunteers have so far listed about 500 of the approximately 5000 in this collection. One problem is that we can't resist peeping inside, which reveals all sorts of historical and scientific treasures. There are so many famous names, reporting their latest measurements and theories.

In future articles in this Bulletin, I plan to report on some of the themes in more detail. This will perhaps develop into a browsing guide, helping accompanied guests to quickly locate items of interest on specified topics. Some might prefer to dive in at random!

Although most items in the collection have previously been scanned into searchable databases (see for example *publications/archives* on our website), there is something special about holding the means by which new discoveries were first disseminated to the world.

We have many duplicate copies of RSNSW journals, and would like to use them to promote the Society. At my regular lectures to community groups, I have been mentioning the archives, and showing selected treasures, enabling me to gauge where interest might lie. One possibility is to present suitably monogrammed copies of the *Journal* as prizes for competitions such as Science Talent Search.

Thus we hope that this unique resource will continue to promote knowledge and the Society.

Nominate a Colleague for a Society Award

Now is your chance to nominate a colleague or friend who you believe is eligible for a Royal Society of NSW Award. Nominations for the Royal Society of NSW Medal and the Royal Society of NSW Citations are now being sought from Society Members and Fellows. These Awards are for exceptional service to the Society, with the Medal being for meritorious contributions to the Society's administration, organisation, and endeavours.

You also have the opportunity to nominate a high achiever for the Society's other Awards. These prestigious prizes for excellence in science, technology, engineering, maths, agriculture, history, philosophy and the betterment of human society, are awarded regularly by your Society, Australia's oldest learned society. One, the Clarke Medal and Lectureship, has been awarded continuously since the time of Charles Darwin. They recognise outstanding achievement by Australians in their chosen field. Nominations for these Awards are also being sought from all universities in Australia, as well as from major research institutions.

In 2020, nominations are sought for the:

Archibald Ollé Prize, Clarke Medal, Edgeworth David Medal, History and Philosophy of Science Medal, James Cook Medal, Poggendorff Lectureship, Royal Society of NSW Scholarships, and Warren Prize.

Nominations are also sought for the <u>Royal Society of NSW Medal</u> and the <u>Royal Society of NSW Citations</u>, each of which recognise substantive contributions, by a Member or Fellow, to the work of the Society.

Information about all the Awards, and instructions for making nominations can be found in the 'Awards' section of the Society's website. Click on the Award name in the drop-down list under the 'Awards' menu to find details of each.

Nominations close on 30 September 2020 and should be sent to: awards-nominations@royalsoc.org.au

For all Awards other than the Royal Society of NSW Medal and the Royal Society of NSW Citations, neither nominator nor nominee needs to be a Member or Fellow of the Society.

Council and Office-Bearers 2020/2021

The current Council and office-bearers of the Society are:

Patron	Her Excellency The Honourable Margaret Beazley AC QC, Governor of New South Wales
President	Emeritus Professor Ian Sloan AO FRSN
Vice-Presidents	Emeritus Professor Brynn Hibbert AM FRSN (immediate past President)
	<u>Dr Susan Pond AM FRSN</u>
	Ms Judith Wheeldon AM FRSN
Hon. General Secretary	Mr Bruce Ramage MRSN
Hon. Editorial Secretary	Emeritus Professor Robert Marks FRSN
Hon. Treasurer	Mr Richard Wilmott MRSN
Hon. Librarian	Mr John Hardie FRSN
Hon. Webmaster	Emeritus Professor Lindsay Botten FRSN
Councillors	Mr Ian Bryce MRSN
	Emeritus Professor Robert Clancy AM FRSN
	<u>The Hon. Virginia Judge FRSN</u>
	Mr Stuart Midgley MRSN
	Emeritus Professor Bruce Milthorpe FRSN
	Ms Nyrie Palmer MRSN
	Emerita Professor Christina Slade FRSN
	Adjunct Professor Robert Whittaker AM FRSN
Hon. Secretary, Hunter Branch	Emerita Professor Eugenie Lumbers AM DistFRSN
Hon. Secretary, Southern Highlands Branch	Ms Anne Wood FRSN

Committees of Council for 2020/2021

The Society's Council has approved the appointment of the following committees for 2020/2021 to manage aspects of the Society's business. Committees may comprise both Council members and other Society members. For further information on each committee please contact the Chair.

Committee	Chair
Awards Committee	<u>Professor Emerita Eugenie Lumbers</u>
Bicentennial Committee	<u>Professor Ian Sloan</u>
Business Continuity Committee	<u>Dr Susan Pond</u>
Community Engagement Committee	Ms Judith Wheeldon
Events Committee	<u>Professor Emerita Christina Slade</u>
Fellows and Members Assessment Committee	<u>Professor Emeritus Brynn Hibbert</u>
Library and Assets Committee	Mr John Hardie
Publishing Committee	Mr John Hardie

