

The Royal Society of New South Wales

"for the encouragement of studies and investigations in Science Art Literature and Philosophy"

Annual Report of Council and Annual Financial Statements for the year ending 31 December 2019

ABOUT THE SOCIETY

The Society is the oldest learned society in the Southern Hemisphere, tracing its origin to the *Philosophical Society of Australasia*, founded in Sydney in 1821. It became *the Royal Society of New South Wales* by Royal Assent in 1866 and was incorporated by an Act of the NSW Parliament in 1881. The Society exists for *the encouragement of studies and investigations in Science Art Literature and Philosophy*, in particular: publishing results of investigations in its *Journal and Proceedings*; conducting monthly meetings; awarding prizes and medals; and by liaison with other learned societies within Australia and internationally.

PATRON

Her Excellency The Honourable Margaret Beazley AC QC Governor of New South Wales

COUNCIL

The members of the Council of the Society were elected at the Annual General Meeting held on Wednesday 3 April 2019. They hold office until the Annual General Meeting in April 2020.

President	Emeritus Professor Ian Sloan AO FRSN FAA
Vice-Presidents	Mr John Hardie FRSN
	Emeritus Professor D Brynn Hibbert AM FRSN
	Ms Judith Wheeldon AM FRSN
Hon Secretary (General)	Mr Bruce Ramage MRSN
Hon Secretary (Editorial)	Emeritus Professor Robert Marks FRSN
Hon Treasurer	Mr Richard Wilmott MRSN
Hon Librarian	Dr Ragbir Bhathal FRSN
Hon Webmaster	Honorary Associate Professor Christopher Bertram FRSN (until 10 July)
	Emeritus Professor Lindsay Botten FRSN (from 10 July)
Councillors	Dr Mohammad Choucair FRSN
	Emeritus Professor Robert Clancy AM FRSN
	Dr Laurel Dyson MRSN
	Dr Donald Hector AM FRSN
	Professor Nalini Joshi AO FRSN FAA
	Ms Virginia Judge FRSN
	Mr Stuart Midgley MRSN
	Emeritus Professor Bruce Milthorpe FRSN
	Dr Susan Pond FRSN
	Honorary Professor Ian Wilkinson FRSN
Southern Highlands Branch	Ms Anne Wood FRSN
Hunter Branch	Emeritus Scientia Professor Eugenie Lumbers FRSN (from 16 October)
Executive Office	The Association Specialists

The Council met six times during the reporting period at the University of Technology Sydney (UTS) and meetings of Council committees were held at various locations. All Council Committees were active during the reporting period. The Southern Highlands Branch continues to be active. The Hunter Branch established by Council on 16 October 2019 has held two meetings during the period.

OFFICE LOCATION AND SERVICES

The Society occupies premises at 121 Darlington Road, Darlington. The Society is most grateful to the University of Sydney for making this accommodation available to the Society. Professional services are provided under an outsourcing contract by The Association Specialists (TAS), 33-35 Atchison Street, Crows Nest. The Society is grateful to Ms Rachel Greenwood and other TAS staff for their continuing support during the year.

PRESIDENT'S REPORT

It has been a privilege for me as President to see the Society flourish over the past year through the selfless efforts of so many people.

Among the notable achievements of the Society during 2019 were: the adoption of a Diversity and Inclusion policy to bring it in line with contemporary thinking, the establishment of a vigorous new branch in the Hunter region, a branch full of future promise; the very successful Forum on "Making SPACE for Australia", jointly with the four Academies, and for the first time with soon-to-be-revealed videos of each presentation; the very successful History of Science Tour, jointly with the State Library of NSW Foundation, to famous science locations in Europe; the Society's valuable library collection being mainly now on shelves in the State Library of NSW, with repaired bindings, instead of in boxes in a Minto warehouse; two further successful joint lecture series with the Sydney Mechanics' School of Arts; and the recent trial appointment of a part-time Executive Officer to guide our future development.

The mention of individual names can be invidious, but I nevertheless want to convey my special thanks to Vice-President Judith Wheeldon for looking after so many matters, including our relationship with the State Library of NSW and inducting the Executive Officer; to Vice-President John Hardie for his stellar work on the library holdings; to Vice-President Brynn Hibbert for looking after all Fellowship matters; to Honorary Secretary (General) Bruce Ramage for his tireless support; to Honorary Treasurer Richard Wilmott for keeping us on the right fiscal path; to new Webmaster Lindsay Botten for so many improvements to our web presence; to Robert Clancy for initiating and leading the highly successful History of Science Tour; to Susan Pond and Roy MacLeod for convening the remarkably successful Forum; to Don Hector and Stuart Midgley for working creatively to improve our relationship with the State Government of NSW; to Robert Marks for his tireless work to produce splendid issues of the Journal; to Laurel Dyson for editing the Bulletin so capably; and to Eugenie Lumbers for leading the charge to create a Hunter Branch. To these and to all members of Council, and to the Chairs, Secretaries and members of all our committees, I give heartfelt thanks.

TREASURER'S REPORT

The financial position of the Society in respect of the year ended 31 December 2019 continues to improve.

The audited accounts for the 12 months to 31 December 2019 reveal a surplus \$36,688, against a budget figure of \$24,453. This substantial and pleasing variance is due to a number of factors, the biggest contributor to the excess being a near \$10,000 increase in membership income over the budget estimate.

The Society's membership numbers have also shown a healthy increase over the last 12 months. At the same time last year there were 462 financial members. As of February 2020, this figure has increased to 559. A further 95 members have yet to renew for the current year and have not been included in the 559 referred to above. It is expected that at least some of these will do so.

The balance sheet remains strong. At 31 December 2019 the net assets of the Society had increased over the year by \$36,688 to \$454,509 and cash assets had increased by \$21,665 to \$305,019.

Whilst it is pleasing to report the above surplus of \$36,688, the net loss recorded against our Ordinary General Meetings of \$7,796 is of concern. There are a number of reasons for this loss, not the least of which is the low level of member support. This is a matter that Council will be addressing in the coming months.

With all the hard work that the Council continues to undertake, there is confidence that the Society will continue to grow and prosper.

EVENTS

At the beginning of 2019, the Society's Events Committee consisted of:

Honorary Professor Ian Wilkinson (Chair) Dr Mohammad Choucair Dr Laurel Dyson Mr John Hardie Emeritus Professor D Brynn Hibbert Ms Judith Wheeldon

The Committee was reconstituted at the November 2019 meeting of Council and now comprises:

Professor Robert Clancy (Chair) Dr Mohammad Choucair Mr John Hardie Ms Susan Hunt (State Library of NSW)) Mr Nigel Kuan (Inner Sydney High School) Dr Lesley Scanlon (Sydney Mechanics' School of Arts) Ms Judith Wheeldon Honorary Professor Ian Wilkinson President (*ex officio*) Honorary Secretary (General) (*ex officio*)

The OGM/AGM Open Lectures

The Society held a full program of ten monthly open lectures as part of its Ordinary General Meetings and Annual General Meeting. The lectures covered a wide range of topics which are detailed on the Society's website. They were generally well received with a slight increase in numbers on previous years. At the 4 December Ordinary General Meeting the 2019 Jak Kelly Award lecture was given in the presence of Mrs Irene Kelly and Ms Karina Kelly.

Annual Dinner

The Annual Dinner was held at the Swissotel Sydney. The guests of honour were The Honourable Margaret Beazley AC QC, Governor of New South Wales, and Mr Dennis Wilson. At the dinner the newly-appointed Governor announced her decision to accept the Society's invitation to be Patron of the Society. The Distinguished Fellows' Lecture was given by Professor Michelle Simmons AO FRS DistFRSN FAA FTSE, Australian of the Year in 2018. Sir Anthony Mason AC KBE CBE FRSN QC was presented with a Distinguished Fellowship of the Society. The Society's 2018 medallists and prize-winners were presented with their awards by the Governor. The successful event was attended by approximately 200 guests.

Lectures held in conjunction with the Sydney Mechanics' School of Arts

The Society continued to provide a vibrant series of events in conjunction with the Sydney Mechanics' School of Arts. There were two series run in 2019. The *Women in Science Lecture Series* organised by Ms Judith

Wheeldon consisted of seven extremely popular lectures. The *Science Week Series* was held as part of Science Week in August. It comprised a series of four science talks: *Aboriginal Astronomy* by Dr Ragbir Bhathal FRSN; *Complex Systems* by Mikhail Prokopenko FRSN; *Science in Australia before 1950* by Emeritus Professor Robert Clancy FRSN; and *Machine Aesthetics of the Human Body* by Dr Josh Harle.

RSNSW and Four Academies Forum

The Annu**al** RSNSW and Four Academies Forum *Making SPACE for Australia* was held on 7 November at Government House Sydney. The Forum was co-convened by Emeritus Professor Roy MacLeod FRSN and Dr Susan Pond AM FRSN.

It drew together authoritative voices from the natural, technological and social sciences and the humanities, to consider a range of issues that are likely to inform Australian public policy and public opinion about Space in the decades ahead. The gathering of 140 people included representatives from the RSNSW, the four Learned Academies, and a cross-section of the community, including 13 undergraduate students from diverse faculties across six universities and studying various aspects of Space.

The Forum explored great prospects that Space holds for Australian science, technology and industry, and the tensions to be addressed between the civil and the defence realms, and between public and private investment. Judging from the RSNSW's customary post-conference survey, the Forum met the challenges of the day, raising a wide range of questions that continued long after the proceedings ended. At the same time, it foreshadowed a number of issues that will soon confront the Australian public and invite international response.

Other lectures

The Annual Meeting of the Four Societies is held in conjunction with Engineers Australia, Sydney Division, the Australian Institute of Energy and Australian Nuclear Association. In 2019 it was hosted by the Australian Institute of Energy. The topic was "Legal considerations pertaining to nuclear energy as an option for Australia" and was delivered by Helen Cook.

The Poggendorff Lectureship is awarded periodically for research in plant biology and more broadly agriculture. In 2019 the award was given to Professor Robert Park from the University and Sydney who delivered a lecture on "Cereal killers: how plant diseases affect food security" at the University of Sydney on 14 August.

The Clarke Memorial Lecture is now given by the Clarke Medal recipient from the previous year. The 2018 recipient was Professor Emma Johnson AO FRSN FTSE from UNSW Sydney. The 2019 Clarke Memorial Lecture was hosted by the University of NSW Faculty of Science and held at the Australian National Maritime Museum Sydney as part of their Sci-Fi Series "Future Planet" on 19 September.

FELLOWS

The Fellows Assessment Committee comprised:

Emeritus Professor D Brynn Hibbert AM FRSN (Chair) Professor Michael Archer AM DistFRSN Dr Erik Aslaksen FRSN (Secretary) Professor Max Crossley FRSN Dr Donald Hector AM FRSN Emeritus Professor Heinrich Hora FRSN Dr Susan Pond FRSN Ms Judith Wheeldon AM FRSN President (*ex officio*) Honorary Secretary (General) (*ex officio*) In 2019 six meetings were held. Sixty-two fellowship recommendations were made to Council and to members at Ordinary General Meetings.

Two Distinguished Fellows were appointed during the year. Sir Anthony Mason AC KBE CBE DistFRSN QC was presented with his Distinguished Fellowship by Her Excellency The Governor at the Society's 2019 Annual Dinner. Scientia Professor George Paxinos AO DistFRSN FASSA FAA became a Distinguished Fellow in November.

New Fellows and Distinguished Fellows elected in 2019 were published in the NSW Government Gazette No 38 on 26 February 2020. The list is at:

https://gazette.legislation.nsw.gov.au/so/download.w3p?id=Gazette_2020_2020-38.pdf

As of 20 February 2020, there are 381 Fellows (with 19 % women) and 15 Distinguished Fellows (with 33 % women) in the Society.

AWARDS

The Awards Committee was constituted as follows:

Emeritus Professor Bruce Milthorpe FRSN (Chair) Emeritus Professor Stephen Hill AM FRSN Emeritus Professor Heinrich Hora FRSN Emeritus Professor Robert Marks FRSN Associate Professor William Sewell FRSN President (*ex officio*) Honorary Secretary (General) (*ex officio*)

The Awards Committee received thirty-three nominations for five awards and four scholarships. As is now customary, the Chief Scientist and Engineer of NSW, Professor Hugh Durrant-Whyte and the Deans of Science and Engineering at New South Wales universities were invited to form the Advisory Panel to assist the Committee. With Emeritus Professor Bruce Milthorpe and Honorary Secretary, Bruce Ramage as observers, the panel ranked the candidates and gave advice on their merits. This advice was communicated to the Awards Committee and final recommendations to Council which acted on this advice at its November meeting.

AWARD James Cook Medal	2019 RECIPIENT Scientia Professor Matthew England FAA FRSN University of NSW
Clarke Medal (geology)	Professor Dietmar Muller, University of Sydney
Edgeworth David Medal	Professor Si Ming Man Australian National University
History & Philosophy of Science Medal	Emeritus Professor Eveleen Richards FRSN University of Sydney
Walter Burfitt Prize:	Professor Kourosh Kalantar-Zadeh University of NSW

Jak Kelly Award	Gayathri Bharathan
	Department of Physics and Astronomy, Macquarie University
RSNSW Scholarship	Emma Austin
	University of Newcastle
RSNSW Scholarship	Shayam Balaji
	Univeristy of Sydney
RSNSW Scholarship	Micahael Papanicolaou
	University of Technology Sydney and The Garvan Institute of
	Medical Research
RSNSW Scholarship	Thomas Petit
	University of Technology Sydney

MEMBERSHIP

The Membership Committee, formerly known as the Nominations Committee was constituted in May and held its first meeting on 10 July 2019. Membership is as follows:

Dr Graham Bell FRSN (Chair) Emeritus Professor Lindsay Botten FRSN Dr Desmond Griffin FRSN Dr Donald Hector AM FRSN Ms Virginia Judge FRSN Mr Stuart Midgley MRSN Emeritus Professor Phil Waite FRSN Ms Judith Wheeldon AM FRSN Mr Robert Whittaker AM FRSN President (*ex officio*) Honorary Secretary (*ex officio*)

Its responsibilities include matters relating to the Society's membership, particularly the fostering of new members and the provision of services to members.

Since its inauguration, the Membership Committee has initiated and performed the following actions:

- Defined the target for Society members (all classes) for 2019 as 558 persons, an increase of 74 members above 2018. This was exceeded by one person at the close of 2019 (559).
- Drafted new criteria for the Full Membership class of membership in consultation with the Fellows Assessment Committee. These were discussed over several meetings and a final draft has been prepared for Council.
- Considered strategies for recruitment of leading academics, beginning with a list of University of Sydney staff. After due consideration, a new form of institutional membership "College of Emerging Leaders" was proposed which would encompass the leading academics from most or all of the state's universities and equivalent institutions. Sydney University (and its list) would be a trial of the concept if adopted by Council.
- Considered strategies for increasing the number of women joining the Society. These included contacting Heads of prominent girls' schools in Sydney; and encouraging our female members to propose women for membership. This issue remains on the Committee agenda.
- Considered actions for increasing membership of the Society's Southern Highlands Branch and assisting in development of the Hunter Branch. Actions are pending Council advice.

 Provided a service in finding proposers and seconders for worthy applications received by the Society administration.

The committee strongly supported the efforts of the Society's Council to increase membership by distributing hard-copy nomination forms and flyers at Society events, by holding a variety of interesting events and by continually improving the Society's website. It also applauds the surveying of membership to gain an understanding of why people become members (all classes) of the Society.

OUTREACH

The Outreach Committee, formerly the Voice and Outreach Committee, was constituted as follows:

Ms Judith Wheeldon AM FRSN (Chair) Dr Ragbir Bhathal FRSN Emeritus Professor Robert Clancy AM FRSN Dr Len Fisher FRSN Mr John Hardie FRSN Dr Donald Hector AM FRSN Emeritus Professor Stephen Hill AM FRSN Ms Helen Jones MRSN Mr Rory McGuire MRSN Mr Stuart Midgley MRSN (Secretary) Dr John Vallance FRSN (State Library of NSW) President (*ex officio*)

The Outreach Committee's function is to determine ways in which the Society might extend its reach across academia, business, government and the community more broadly. During 2019 several significant areas of committee activity led to specific projects coming to fruition. The first was the Society's first overseas study tour.

Held in October 2019, the History of Science Tour explored aspects of the early history of science in Italy, France and England. Designed and led by Emeritus Professor Robert Clancy, the tour, organised in conjunction with the State Library of NSW Foundation and Academy Travel, was a great success and raised significant funding to assist in the appointment of the Society's first Executive Officer.

The need for an Executive Officer had been strongly argued by this Committee for two years and in 2019 Council agreed to the appointment of Ms Wendy Enevoldson, who will take up the position in January 2020.

The Committee also generated the idea of a monthly drinks and nibbles informal lecture-discussion, provisionally called *Thinking Thursdays*, which is designed to create an informal environment for networking and the exchange of ideas. Scheduled to begin in 2020, this activity will create opportunities for greater engagement with the community beyond the Society and encourage greater take-up of membership.

The Committee continued to work on ways to further enhance the Society's long-term relationship with the State Library. The committee recognised the importance of the work of the Society's Library and Assets Committee in developing this relationship. The work by Vice-President Mr John Hardie in making the Society's library collection available to researchers and interested readers by co-locating and cataloguing it in the State Library was strongly applauded. In addition, committee member Dr Len Fisher accepted the responsibility of advertising Royal Society events in the State Library's *What's On*. The committee encouraged the Society's Events Committee to offer member rates to Friends of the State Library at Society events.

The Society's relationship with the Sydney Mechanics' School of Arts (SMSA) continued to flourish with two very successful and well-attended series: *Women and Science* and *Speaking of Music*, both organised by Ms Judith Wheeldon.

The Committee believes outreach should also be directed to Government and Members of Parliament so that the importance of science and the arts will be less neglected in important decision making. A number of MPs and Ministers were approached in 2019 on several issues such as the relocation of the Powerhouse Museum and the future use of Science House. Discussion meetings were granted to us by several present and former MPs and Ministers. The Committee is working to have the Society once more assigned to a responsible Minister. Raising the Society's profile with Government will be an important step in raising the voice of the Society.

Stephen Hill's earlier work on a Fellows Speakers Bureau sparked concern about the ability of the current website to support such a service and led to a separate project to improve the website and its underpinning technology, led by the Hon Webmaster. The Speakers Bureau is temporarily in abeyance as a new leader is unfortunately needed. The Committee thanks Stephen Hill for his work in bringing the project to its present advanced state.

JOURNAL AND PROCEEDINGS

The Journal published two issues in 2019, the June issue which documented the presentations made in November 2018 at the Royal Society of NSW and Four Academies Forum, and the December issue which included submitted papers, invited papers, and reprinted papers. Both issues also included abstracts of recent PhD dissertations. Whereas the print run for December 2018 was 300, an increase in subscription rates for 2019 led to a reduction in subscribers, but the December 2019 issue was a print run of 225, an increase from 210 for June.

Preparations are under way for the June 2020 issue, but there are few suggestions from universities of excellent PhD theses to be abstracted. The Journal is partnering with *the Australian and New Zealand Humboldt Associations* to publish an extra edition of the proceedings of their 2019 conference, held at Macquarie University in November. This will be Volume 152, Number 3, and will be online only.

LIBRARY AND ASSETS

The Library and Assets Committee was constituted as follows:

Mr John Hardie FRSN (Chair) Dr Ragbir Bhathal FRSN Emeritus Professor Robert Clancy AM FRSN Dr Donald Hector AM FRSN Ms Virginia Judge FRSN President (*ex officio*) Honorary Secretary (*ex officio*)

The work of the Library and Assets Committee in 2019 revolved around the ordering, listing and repair of the Society's library collection which was relocated from its premises at Darlington Road and from a warehouse at Minto to the State Library of NSW. Initially housed in the Glass Stack at the State Library, the collection has now been moved by State Library staff to the Volunteers Room where it fills the shelves, as well as some considerable amount of drawer space. State Library staff have been extremely helpful with advice and training for the small group of volunteers from the Society who have been invaluable with this work. We thank the main volunteers Eva Burns, Julie Cameron, and Ian Bryce for their dedicated support of this important task.

BICENTENNIAL COMMITTEE

Mr Bruce Ramage MRSN (Chair) Dr Ragbir Bhathal FRSN Emeritus Professor Robert Clancy AM FRSN Mr Stuart Midgley MRSN Dr Susan Pond FRSN President (*ex officio*) Honorary Secretary (*ex officio*)

The Committee was formed in 2019 to make recommendations to the Council about events and activities to mark the Society's bicentenary in 2021. A number of ideas have been canvassed including a joint meeting in Edinburgh, with the Royal Society of Edinburgh (from which the RSNSW has taken many of its principles), a very special bicentennial dinner to mark the Society's birthday, an exhibition at the State Library of NSW and a special lecture series relevant to the anniversary. Other ideas will be explored early in 2020 to address art, literature and philosophy.

THE BULLETIN

The Bulletin of the Society was published monthly during the year, except during the Summer holidays. During 2019, the content of the Bulletin continued to expand. It continues to provide a permanent record of all the events the Society holds and reflects its continued vibrancy.

The Council wishes to thank Dr Laurel Dyson who stepped down as the Bulletin's editor at the end of the year. She has been replaced by Mr Tim Humphrey whom the Council welcomes to the role.

THE WEBSITE

The position of Honorary Webmaster changed on 10 July 2019 after Honorary Associate Professor Christopher Bertram stepped down from the role. Following a successful handover, the incoming webmaster, Emeritus Professor Lindsay Botten, took over the reins at the time at which the Society had commenced considering the requirements for an updated and improved website to carry it into the next phase of its development.

The major driver for the ongoing development and improvement of the website in the latter half of 2019 has been the increasing activity profile of the Society. The establishment of the Hunter Branch necessitated reorganisation of the site's menu structure to provide for easily locatable landing pages for the branches. The underlying categorisation of events and news was generalised to ensure that such information from branches could display both globally on the site (as necessitated by an organisation with a state-wide remit) as well on local branch pages.

Improvements to the maintainability and accuracy of the Fellows listing on the website have been undertaken. Such changes remove the need (by TAS) to edit the existing hard-coded HTML list on the website, replacing this by the automatic generation of updated lists using in-house developed scripts that process data exported from the TAS members database. Council is keen to implement a Fellows database (containing biographical and related information) and a prototype of this has been demonstrated, although the full implementation requires considerable work to improve the quality of the underlying source data. The goal of providing a searchable register of Fellows/Members interests and expertise will require enhanced database functionality in the new website and will be a key element of its design.

With Council's decision to enhance its outreach capability, the decision to video-record the proceedings of the annual Royal Society of NSW and Four Academies Forum (and comparable future events) has led to the

establishment of a YouTube Channel for the Society. Website content has been written containing links to the YouTube videos and presentation slides and a launch of this new functionality is expected in early 2020. In other improvements, the appearance of the site has been modernised by replacing the "sliders" (i.e., the moving pictures at the top of the home page) with new and informative content, developed by compositing imagery and text with commercial photo and design software.

Aside from the above, there has been comprehensive housekeeping of the website to ensure the currency of content and the correct functionality of all links, as well as system level maintenance of the website that was undertaken by the website developer, Ezerus, in late 2019/early 2020 (to ensure the ongoing security of the site, and the currency of the open source and licensed website software).

Work is now proceeding apace to plan and implement a phased transition to a new website with enhanced appearance and functionality in 2020–21.

SOUTHERN HIGHLANDS BRANCH

The Southern Highlands Branch Committee for 2019 was as follows:

Mr Hubert Regtop MRSN
Dr John Wright AM FRSN
Dr Mike Jonas MRSN
Ms Anne Wood FRSN
Mr Peter Eustace
Mr Ted Smith
Ms Andrea Talbot

The Branch held ten meetings during the year which were well attended. Details are below.

	Speaker	Торіс
February	Dr Rodney Croft	Ionising Radiation
March	Dr Susannah Fullerton	Samuel Pepys
April	Dr Ken McCracken	His 65-year career
May	Damian Wrigley	Seed Banking
June	Dr Ken Baldwin	Australia's Energy
July	Dr Christian Heim	Mental Health
August	Dr Rick Shine	Cane Toads
September	Dr Rebecca Carey	Kilauea
October	Dr Ian Bryce	Physics of the Mind
November	Dr Steven Harrison	Porcelain Through History

Throughout 2019, the Royal Society Southern Highlands Branch has made determined efforts to involve the entire community in its programs. Speakers frequently comment on the quality and quantity of the questions which are posed to them.

One of its initiatives to appeal to the wider community has involved active participation in school enrichment programs. During the year, the Branch sponsored the inaugural NSW schools annual philosophy essay competition run by *Philosophy in Schools NSW*. The competition is based on a European model which has run successfully for a number of years. Prizes for the first three places, and lapel pins for the participants were presented at a special event in November. The Branch intends to continue sponsorship of this competition.

Another initiative was to work in conjunction with the regional science consultant from NSW Department of Education to identify students who were excelling at local schools in science and mathematics. In this alliance, the Branch has provided prizes and encouragement to these candidates, and generally raised the profile of the RSNSW to a younger cohort.

The Branch's membership remains small and static, despite the enthusiasm of attendees hence a future membership drive is required in the region. The Branch's plan is to nurture the model that has been set up to appeal to the particular demographic of the area, and continue working on bringing the profile and involvement of the Society to the next generation.

HUNTER BRANCH

On Thursday 7 March 2019 a meeting was held at the Hunter Medical Research Institute, Newcastle to discuss a proposal to form a branch in the Hunter region. Twenty people attended, most were Fellows and Members of the Society. The meeting was attended by the President, Professor Ian Sloan and the Vice-President, Mr John Hardie. It was addressed by the Chancellor of the University of Newcastle, Mr Paul Jeans and the Vice-Chancellor, Professor Alex Zelinsky. Professor John Aitken (Pro-Vice-Chancellor, Health) gave an outline of the history of the University of Newcastle and Mr Hardie gave a short presentation on the history of the Royal Society. The meeting resulted in an 'ad hoc' committee being formed to pursue the formation of the branch.

The Chancellor of the University of Newcastle, Mr Paul Jeans, very kindly agreed to be the Chair of the Branch. Professor John Aitken is vice-chair, Professor George Willis is Honorary Treasurer and Scientia Professor Eugenie Lumbers is Honorary Secretary and currently the representative of the Hunter Branch on the Council of the Society. Professor Natalie Thamawattana and Mr John Dunnet have control of publications and advertising. Professor John Boulton and Mr Andrew Doohan are members of the committee as is Professor Brett Ninness who acts as a liaison with the University of Newcastle. Professor Robert Whittaker was granted permission by the Society's Council to be a member of the Branch committee because he resides outside the catchment of the Branch.

The Branch Committee met for the first time on 9 October 2019 at the Newcastle Club prior to holding its first event, a talk by the Chief Scientist and Engineer of New South Wales, Professor Hugh Durrant Whyte FRSN on *Industries of the Future*.

Having been satisfied that the By-laws relating to branches had been met, the Society's Council formally approved the formation of a Branch of the Society in the Hunter region on 16 October 2019.

A subsequent Branch committee meeting was held in December at which it was agreed to hold an event in conjunction with the Mathematics in Industry Workshop. This event was scheduled for 31 January 2020 at which Professor Ryan Loxton would speak. Also at that meeting it was decided to formalise another three meetings for 2020. These lectures are designed to embody the aims the committee has determined for the Hunter Branch:

- The Hunter Branch of the Royal Society of New South Wales represents a source of specialised expertise, advice and support for the various Governmental, industrial and community groupings comprising the Hunter region of NSW.
- It will encourage, stimulate and support the creation of a vibrant intellectual community within the Hunter region of NSW, promoting debate, discussion and policy development around a range of contemporary issues affecting the region's communities

- It will encourage, stimulate and support the growth of promising young talent within the Hunter region of NSW, with a particular emphasis on the most disadvantaged members of the community.
- It will encourage and enhance the development of research excellence and leadership across the public, business and community sectors in the Hunter region of NSW, focusing world class knowledge and know-how on issues of importance to the region.
- It will raise the national and international profile of the Hunter region as a centre for world-class creativity and innovation.
- It will promote the concept of the Hunter region as a living laboratory where the results of research and innovation can be implemented and assessed in terms of their contributions to the health and wellbeing of local communities as well as the economic and environmental sustainability of the region.

ANNUAL GENERAL MEETING

The Annual General Meeting of the Society was held on Wednesday 3 April 2019 at 6pm at the State Library of NSW, Shakespeare Place, Sydney.

President

Ian H. Sloan AO FAA FRSN

On behalf of the Council of the Royal Society of NSW

THE ROYAL SOCIETY OF NEW SOUTH WALES

A.B.N. 76 470 896 415

FINANCIAL REPORT

FOR THE YEAR ENDED 31 DECEMBER 2019

THE ROYAL SOCIETY OF NEW SOUTH WALES

A.B.N. 76 470 896 415

COUNCIL'S REPORT

The Council presents their report on the Society for the year ended 31 December 2019.

COUNCIL MEMBERS

The names of the councillors throughout the year and at the date of this report unless stated otherwise are:

President	Emeritus Professor Ian Sloan AO FRSN FAA
Vice Presidents	Mr John Hardie FRSN
	Emeritus Professor D Brynn Hibbert AM FRSN
	Ms Judith Wheeldon AM FRSN
Hon Secretary (General)	Mr Bruce Ramage MRSN
Hon Secretary (Editorial)	Emeritus Professor Robert Marks FRSN
Hon Treasurer	Mr Richard Wilmott MRSN
Hon Librarian	Dr Ragbir Bhathal FRSN
Hon Webmaster	Honorary Associate Professor Christopher Bertram FRSN (until 10 July 2019)
	Emeritus Professor Lindsay Botten FRSN
	(from 10 July 2019)
Councillors	Dr Mohammad Choucair FRSN
	Emeritus Professor Robert Clancy AM FRSN
	Dr Laurel Dyson MRSN
	Dr Donald Hector AM FRSN
	Professor Nalini Joshi AO FRSN FAA
	Ms Virginia Judge FRSN
	Mr Stuart Midgley MRSN
	Emeritus Professor Bruce Milthorpe FRSN
	Dr Susan Pond FRSN
	Honorary Professor Ian Wilkinson FRSN
Branch representatives	
Southern Highlands	Ms Anne Wood FRSN
Hunter Branch	Emeritus Scientia Professor Eugenie Lumbers FRSN
	(from 16 October 2019)

PRINCIPAL ACTIVITIES

The principal activities of the Society during the financial year were to encourage studies and investigations in Science, Art, Literature and Philosophy.

SIGNIFICANT CHANGES

No significant change in the nature of these activities occurred during the year.

OPERATING RESULT

The Society produced a profit (loss) from ordinary activities for the financial year amounting to \$ 36,688 (2018: profit of \$6,944). There was no requirement to provide for income tax.

Signed in accordance with a resolution of the council members of the Society.

H. flor Morch Page 2 Councilior: day of

19 Dated this

2020

TINWORTH & Co

CHARTERED ACCOUNTANTS and BUSINESS ADVISORS

INDEPENDENT AUDIT REPORT TO THE MEMBERS OF THE THE ROYAL SOCIETY OF NEW SOUTH WALES

Opinion

We have audited the attached financial report of The Royal Society of New South Wales ("the entity") which comprises the statement of financial position as at 31 December 2019, the statement of profit or loss and other comprehensive income, statement of recognised income and expenditure, cash flow statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, other explanatory notes and the statement by members of the Executive Committee.

In our opinion, the accompanying financial report of The Royal Society of New South Wales is in accordance with the Association Incorporation Act 2009, including:

- 1. giving a true and fair view of the Company's financial position as at 31 December 2019 and of its financial performance for the year then ended; and
- 2. complying with Australian Accounting Standards (including the Australian Accounting Interpretations), and the Associations Incorporation Act 2009.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Executive Committee in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standard Board's APES 110: Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis of our opinion.

Responsibilities of the Executive Committee for the financial report

The executive committee members are responsible for the preparation and fair presentation of the financial report that gives a true and fair view and have determined the basis of preparation described in Note 1 to the financial report is appropriate to meet the requirements of the Associations Incorporation Act 2009 and is appropriate to meet the needs of the members. The executive committee's responsibility also includes such internal control as the members determine in necessary to enable the preparation of a financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the committee are responsible for assessing the Society's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the members either intend to cease operations, or have no realistic alternative but to do so.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

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Liability limited by a scheme approved under Professional Standards Legislation

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatements of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis of our opinion. The risk of not detecting material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, international omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Committee's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by members.
- Conclude on the appropriateness of the members' use of going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Society's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Society to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieved fair representation.

We communicate with the committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Mari in moto

MARK TINWORTHCHARTERED ACCOUNTANTNorth Sydney19 March 2020



STATEMENT BY MEMBERS OF THE COUNCIL

The Councillors have determined that the Society is not a reporting entity and that this special purpose financial report should be prepared in accordance with the accounting policies outlined in note 1 to the financial statements.

In the opinion of the Councillors of the Society the financial report, as set out on pages 5 to 9:

- 1. Presents a true and fair view of the financial position of the Royal Society of New South Wales as at 31 December 2019 and its performance for the year ended on that date.
- 2. At the date of this statement, there are reasonable grounds to believe that the Royal Society of New South Wales will be able to pay its debts as and when they fall due.

This statement is made in accordance with a resolution of the Council and is signed for and on behalf of the Council by:

J.H. lom Councillor:

Dated this 19 day of March

2020

INCOME AND EXPENDITURE STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2019

Note	2019	2018
INCOME	\$	\$
Members subscriptions	80,329	65,458
Social event income	63,147	57,354
Donations	3,280	1,000
Journal subscriptions	6,964	8,437
Sale of publications/ties	219	245
Copyright	30	325
Interest received	2,899	2,271
Library group income	9,080	-
Academies Forum	15,000	8,600
New England exchanges	-	9,020
Royalties income	-	1,046
Tour group rebate	15,759	
Sundry income	1,000	-
	197,707	153,756
EXPENDITURE		
Social events	77,324	59,565
Awards	1,456	3,458
Audit fees	2,560	2,560
Bank charges	1,449	1,176
Council meetings	1,577	1,907
General Merchandise – Ties	-	112
Insurance	2,892	3,180
Secretariat	40,399	39,496
Database	5,990	4,250
Postage, stationery & copying	1,009	2,485
Software		207
General expenses	2,680	33
Journal printing & distribution	13,013	13,220
Royalties	-	1,128
Storage	250	2,774
Library	8,430	9,690
Website	1,124	738
Telephone & facsimile	866	833
	161,019	146,812
Profit (loss) from ordinary activities before income tax	36,688	6,944
Income tax expense 1		
Profit (loss) from ordinary activities after income tax	36,688	6,944

BALANCE SHEET AS AT 31 DECEMBER 2019

	Note	2019	2018
		\$	\$
CURRENT ASSETS			
Cash assets	2	305,019	283,354
Receivables	3	13,852	9,646
Inventory	4	739	828
Accrued interest		382	959
Prepaid expenses	5	1,453	745
TOTAL CURRENT ASSETS		321,445	295,532
NON-CURRENT ASSETS		000 040	200.040
Library – at Council valuation		222,940	222,940
TOTAL NON-CURRENT ASSETS		222,940	222,940
		544,385	518,472
TOTAL ASSETS		044,000	
CURRENT LIABILITIES			
Creditors & accruals	6	89,876	100,651
TOTAL CURRENT LIABILITIES		89,876	100,651
		<u></u>	
TOTAL LIABILITIES		89,876	100,651
NET ASSETS		454,509	417,821
MEMBERS' FUNDS			
Asset Revaluation Reserve		209,340	209,340
Retained profits		245,169	208,481
TOTAL MEMBERS' FUNDS		454,509	417,821

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

1 STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

This financial report is a special purpose financial report prepared in order to satisfy the financial reporting requirements of the Royal Society of New South Wales Incorporation Act NSW 2003. The council has determined that the Society is not a reporting entity.

The financial report has been prepared in accordance with the requirements of the Associations Incorporation Act (NSW) 2009:

AASB 112	Income Taxes
AASB 1031	Materiality
AASB 110	Events after the Balance Sheet Date

No other applicable Accounting Standards, Australian Accounting Interpretations or other authoritative pronouncements of the Australian Accounting Standards Board have been applied.

The financial report has been prepared on an accruals basis and is based on historic costs and does not take into account changing money values, or except where specifically stated, current valuations of non-current assets.

The following significant accounting policies, which are consistent with the previous year unless otherwise stated, have been adopted in the preparation of this financial report:

Limitation of Liability

The rules of the Society provide that the liability of the members of the Society to contribute to the payment of the debts and expenses of the Society or the cost, charges and expenses of the winding up of the Society is limited to the amount of the shortfall in addition to the current year subscription.

Income Tax

The Society is exempt from income tax under Section 50-5 of the Income Tax Assessment Act, 1997, as a non-profit association established for the encouragement of science.

Fixed Assets

Office furniture and equipment are carried at cost less, where applicable, any accumulated depreciation. The depreciable amount of all fixed assets are depreciated over the useful lives of the assets to the Society commencing from the time the asset is held ready for use.

Depreciation rates using the reducing balance method are as follows:

Office Furniture and Equipment 10-25%

Library

The library at 121 Darlington Road has been independently valued at fair value as at 31 December 2016.

New Accounting Standards for Application in Future Periods

The AASB has issued a number of new and amended Accounting Standards that have mandatory application dates for future reporting periods, some of which are relevant to the Society. The Society has decided not to early adopt any of the new and amended pronouncements. The Society's assessment of the new and amended pronouncements that are relevant to the Society but applicable in future reporting periods is set out below:

- AASB 9: *Financial Instruments* and associated Amending Standards (applicable to annual reporting periods beginning on or after 1 January 2019).

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

1 STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (cont'd)

The Standard will be applicable retrospectively (subject to the provisions on hedge accounting outlined below) and includes revised requirements for the classification and measurement of financial instruments, revised recognition and derecognition requirements for financial instruments and simplified requirements for hedge accounting.

The key changes that may affect the Society on initial application include certain simplifications to the classification of financial assets, simplifications to the accounting of embedded derivatives, upfront accounting for expected credit loss, and the irrevocable election to recognize gains and losses on investments in equity instruments that are not held for trading in other comprehensive income. AASB 9 also introduces a new model for hedge accounting that will allow greater flexibility in the ability to hedge risk, particularly with respect to hedge accounting that will allow greater flexibility in the ability to hedges of non-financial items. Should the Society elect to change its hedge policies in line with the new hedge accounting requirements of the standard, the application of such accounting would be largely prospective.

Although the committee members anticipate that the adoption of AASB 9 may have an impact on the Society's financial instruments, including hedging activity, it is impracticable at this stage to provide a reasonable estimate of such impact.

- AASB 16: Leases (applicable to annual reporting periods beginning on or after 1 January 2019).

When effective, this Standard will replace the current accounting requirements applicable to leases in AASB 117: Leases and related Interpretations. AASB 16 introduces a single lessee accounting model that eliminates the requirement for leases to be classified as operating or finance leases.

The main changes introduced by the new Standard are as follows:

- recognition of a right-of-use and liability for all leases (excluding short-term leases with less than 12 months of tenure and leases relating to low-value assets);
- depreciation of right-of-use assets in line with AASB 116: *Property, Plant and Equipment* in profit or loss and unwinding of the liability in principal and interest components;
- inclusion of variable lease payments that depend on an index or a rate in the initial measurement of the lease liability using the index or rate at the commencement date;
- application of a practical expedient to permit a lessee to elect not to separate non-lease component and instead account for all components as a lease; and
- inclusion of additional disclosure requirements.

The transitional provisions of AASB 16 allow a lessee to either retrospectively apply the Standard to comparatives in line with AASB 108: *Accounting Policies, Changes in Accounting Estimates and Errors* or recognise the cumulative effect of retrospective application as an adjustment to opening equity on the date of initial application.

Although the committee members anticipate that the adoption of AASB 16 will impact Society's financial statements, it is impracticable at this stage to provide a reasonable estimate of such impact.

- AASB 1058: Income of *Not-For-Profit Entities* (applicable to annual reporting periods beginning on or after 1 January 2019).

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

1 STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (cont'd)

This Standard is applicable to transactions that do not arise from enforceable contracts with customers involving performance obligations.

The significant accounting requirements of AASB 1058 are as follows:

- Income arising from an excess of the initial carrying amount of an asset over the related contributions by owners, increase in liabilities, decreases in assets and revenue should be immediately recognised in profit or loss. For this purpose, the assets, liabilities and revenue are to be measured in accordance with other Standards.
- Liabilities should be recognised for the excess of the initial carrying amount of a financial asset (received in a transfer to enable the entity to acquire or construct a recognisable non-financial asset that is to be controlled by the entity) over any related amounts recognised in accordance with the applicable Standards. The liabilities must be amortised to profit or loss as income when the entity satisfies its obligations under the transfer.

An entity may elect to recognise volunteer services or a class of volunteer services as an accounting policy choice if the fair value of those services can be measured reliably whether or not the services would have been purchased if they had not been donated. Recognised volunteer services should be measures at fair value and any excess over the related amounts (such as contributions by owner or revenue) immediately recognised as income in profit or loss.

The transitional provision of this Standard permit an entity to either: restate the contracts that existed in each prior period presented in accordance with AASB 108 (subject to certain practical expedients); or recognise the cumulative effect of retrospective application to incomplete contracts on the date of initial application. For this purpose, a completed contract is a contract or transaction for which the entity has recognised all of the income in accordance with AASB 1004: *Contributions.*

Although the committee members anticipate that the adoption of AASB 1058 may have an impact on the Society's financial statements, it is impracticable at this stage to provide a reasonable estimate of such impact.

- AASB 2016-4: Amendments to Australian Accounting Standards – recoverable Amount of Non-Cash-Generating Specialised Assets of Not-for-Profit Entities (applicable to annual reporting periods beginning on or after 1 January 2018).

This Standard amends AASB 136: *Impairment of Assets* to remove references to depreciated replacement cost as a measure of value in use for not-for-profit entities; and clarify that AASB 136 does not apply to non-cash-generating specialised assets that are regularly revalued to fair value under the revaluation model in AASB 116 and AASB 138: *Intangible Assets*, but applies to such assets accounted for under the cost model in those standards.

AASB 2016-4 is not expected to have a significant impact on the Society's financial statements.

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

		2019 \$	2018 \$
2	CASH ASSETS		
	Cash at bank	305,019	283,354
3	RECEIVABLES		
	GST receivable	1,433	-
	Royalties	309	-
	Currinda fee	2,410	-
	Publishing fee	1,100	-
	ASSA fee	600	-
	Accrued Forum income	8,000	9,646
		13,852	9,646
4	INVENTORY		
**	Ties	739	828
5	PREPAID EXPENSES		
	Prepaid expenses - Insurance	1,453	745
6	CREDITORS & ACCRUALS		
	Trade creditors	25,649	39,418
	Deferred revenue – fees in advance	64,227	55,496
	GST Payable	,	5,737
		89,876	100,651

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2019

		2019	2018
		\$	\$
CASH FLOWS FROM OPERATING ACTIVITIES			
Members' & customers' receipts		199,333	162,117
Interest received		3,476	1,168
Payments to suppliers & donations		(181,143)	(105,231)
Net Cash (used in) provided by Operating Activities		21,666	58,053
Net (Decrease) Increase in Cash Held		21,666	58,053
Cash at the beginning of the financial year		283,353	225,300
Cash at the end of the financial year	2	305,020	283,353
,			,
Reconciliation of net cash provided by operating activities to operating profit (loss) surplus after income tax			
Operating profit (loss) after income tax		36,688	6,944
Changes in assets and liabilities:			
- (Increase) decrease in inventory		89	112
 - (Increase) decrease in receivables 		(3,629)	(2,605)
 (Increase) decrease in prepaid expenses 		(707)	714
 Increase (decrease) in sundry creditors 		(19,506)	40,754
 Increase (decrease) in deferred revenue 		8,731	12,134
Net cash (used in) provided by operating activities		21,666	58,053