ROYAL SOCIETY
NEW SOUTH WALES

Presidents' Profiles

Notes on trailblazers who led the Royal Society of New South Wales and earlier associations, 1821–2021

Editors
Marian Kernahan and Davina Jackson

PREFACE

In 2021 the Royal Society of New South Wales celebrated 200 years as a learned fellowship supporting the State's intellectually curious citizens. Established as the Philosophical Society of Australasia in 1821, it has continued to advance knowledge by encouraging investigations into Science, Literature, Art and Philosophy. After several interruptions, iterations and name changes, the RSNSW was granted Royal Assent by Queen Victoria in 1866, and it remains the oldest learned society in the Southern Hemisphere.

Any anniversary is a time to recall the past and consider future directions, and the Society's Publishing Committee is commemorating our Bicentennial with a book and two digital research guides highlighting our history of administrative and intellectual leadership. Along with an early history of the RSNSW, written by historian Anne Coote, and a keyword-searchable, author-alphabetical bibliography of early articles and Journal papers, compiled by Davina Jackson, we have produced this biographical directory to illuminate the professional careers of the Society's 121 Presidents (including some who served two or more terms).

Mostly men, the Society's Presidents came from a wide variety of backgrounds. All people of learning, some had practical skills and expertise which, in the cases of engineers Henry Deane and Henry Deane Walsh, helped to build the State's infrastructure. Others, including Charles Nicholson and Thomas Peter Anderson Stuart, were pioneers of the modern higher-education system. Others, like Archibald Liversidge and Henry Chamberlain Russell, instigated specialised scientific societies. In the 19th and early 20th centuries, some Presidents crossed disciplines, appearing in the Journals and as Presidents of other societies such as the Linnean Society of NSW. Our first woman President, Ida Browne in 1953, was an eminent geologist, while one of our recent Presidents, Karina Kelly, expanded public knowledge of science through her work as a television journalist and advocate.

Researching the lives of our Presidents has been marvellously enabled by post-internet online information resources and search tools—especially the *Australian Dictionary of Biography*, *The Encyclopaedia of Science and Innovation*, *Wikipedia* and *Trove*. More insights emerged from the State Library of NSW's print copies of *Who's Who in Australia*. Almost all Presidents gave a presidential address to the Society, and transcripts were usually printed in the *Journal and Proceedings of the Royal Society of New South Wales*.

During the 20th century, the Society's prominence was gradually overshadowed by various new specialist organisations—for example, the Royal Australian Chemical Institute and the

Geographical Society of New South Wales—and by new technical colleges and universities. Our research for biographical information on our Presidents seemed easier for those of the 19th and early 20th centuries, when there were fewer academics and innovators. With the increase of learned institutions came a greater number of intellectual leaders in NSW, so information about Presidents from the 1960s onwards has been gathered more from the archive of memory than from published biographies. Many living Presidents were asked to provide their own biographies, and some remembered the careers of contemporary colleagues from their own and other disciplines. There are still a few Presidents whose concerns and contributions are clear from their presidential addresses, but about whose lives we know very little. So some Presidents' dates and entries are missing or scanty, and we hope to be able to update this first edition of *Presidents' Profiles* with more information in future.

Marian Kernahan and Dr Davina Jackson

INTRODUCTION

During its 200-year history, the Royal Society of New South Wales has been led by 121 Presidents, who were elected for their knowledge and achievements in advancing one or more disciplines of science and the humanities. This long-overdue research guide gathers brief profiles of the professional careers and major achievements of most of the men, and all three women, who have held the gavel at the RSNSW's meetings since 1821.

Fifteen years ago, one of the RSNSW's leading contemporary Fellows, Professor Roy MacLeod, pointed to the lack of research publications on the history of Australian science with the apt metaphor of 'a landscape without figures'. His 2009 book—*Imperial Science Under the Southern Cross*—was an RSNSW-sponsored biography of Archibald Liversidge, the Society's long-serving, dynamic Honorary Secretary during the late 19th and early 20th centuries, and who designed the official Seal that we still use today.

Liversidge, the 13th person listed in this collection of presidential profiles, was a chemist, geologist and mineralogist. The entire list includes Presidents drawn from disciplines that span the sciences and humanities, thus reflecting the aim of the Society as stated in its Rules 'to advance studies and investigations in all dimensions of learning including Science, Art, Literature and Philosophy'.

My thanks to RSNSW Councillors Marian Kernahan and Davina Jackson for compiling and editing this ambitious publication that amplifies our knowledge of significant figures in the Society's evolution. Thanks also to Virginia Buckingham, Wendy Enevoldsen, Bruce Ramage and John Hardie, who compiled the thirty presidential profiles and portraits used to name tables at the Society's 200th Anniversary Dinner on 24 June 2022.

Today's leaders and members of the RSNSW maintain its mission of 'enriching lives through knowledge and inquiry'. We continue to bring together and inform curious people around the State using increasingly diverse digital communication channels and via in person lectures and debates in Sydney; the Southern Highlands; the Hunter Valley and Western NSW (with a forthcoming revival of the branch in New England and Northern NSW). We maintain our 200-year-old collection of books, archives and physical assets that represent a unique record of Australian research and innovation. We publish our *Journal and Proceedings of the Royal Society of New South Wales*, which can be traced back to 1822 and is also a unique resource.

Now entering its third century, the Society remains committed to accelerating better futures in a world that is under enormous pressure. We aim to mobilise the transformative

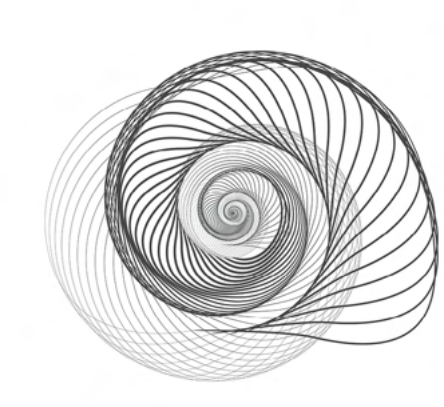
power of knowledge, imagination and ideas, and to build a generational bridge between established leaders and innovative, younger researchers. We welcome and actively promote the distinctive status and diversity of our First Nations people and our increasingly multicultural society.

In seeking to meet these goals in contemporary times, we build on the leadership of former Presidents and Society colleagues on whose shoulders we stand.

Dr Susan Pond AM

President, Royal Society of New South Wales

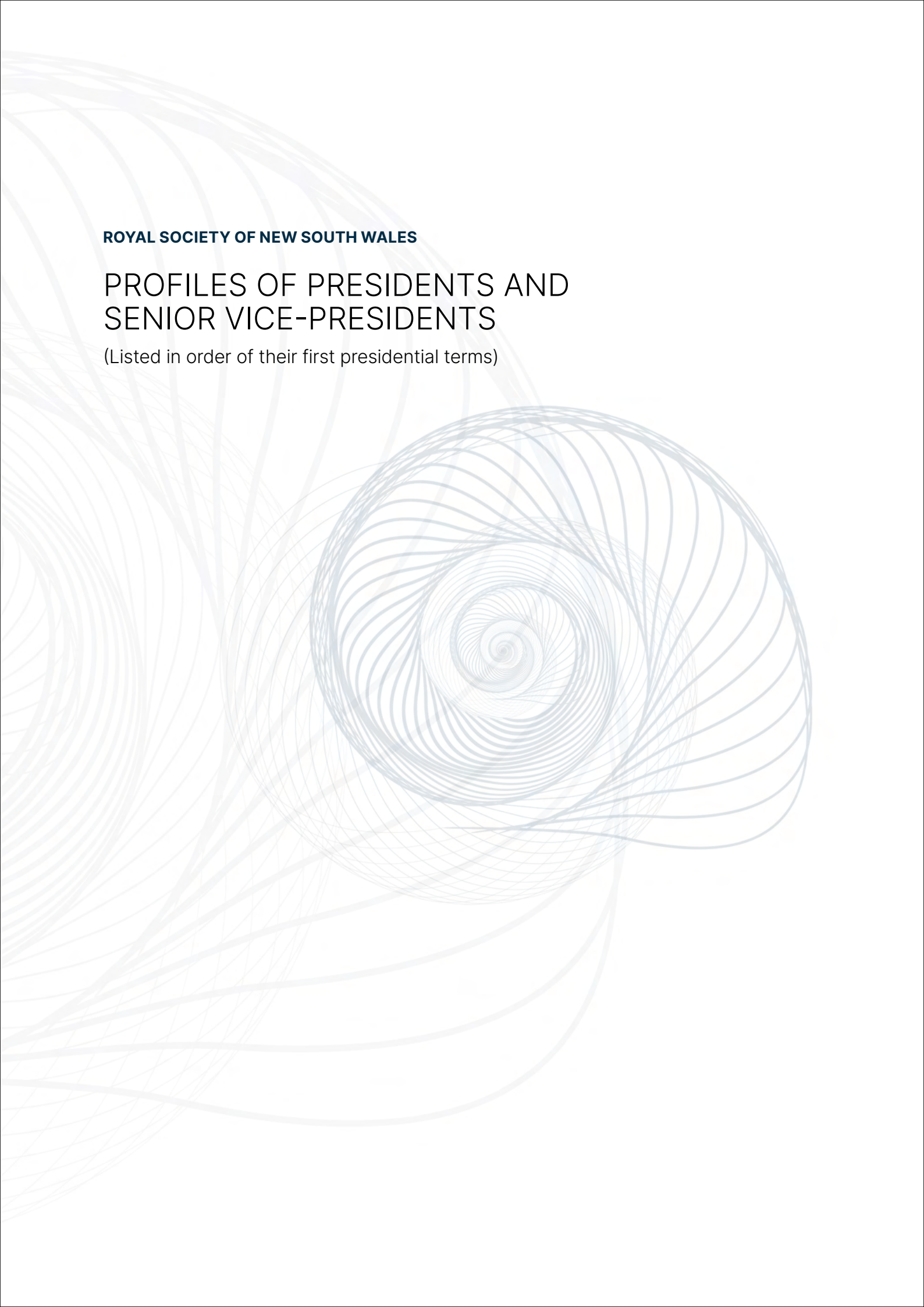
CONTENTS



ROYAL SOCIETY OF NEW SOUTH WALES

PROFILES OF PRESIDENTS AND SENIOR VICE-PRESIDENTS

(Listed in order of their first presidential terms)

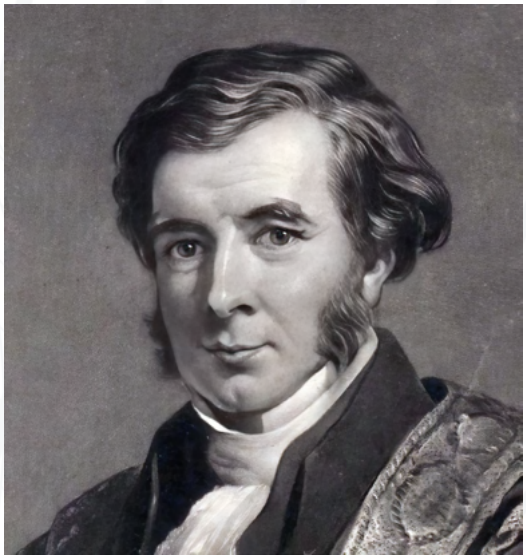


THOMAS MAKDOUGALL BRISBANE
1773–1860

Sir Thomas Brisbane was the sixth Governor of New South Wales and an accomplished mathematician, astronomer and military administrator. During his term as Governor, 1821–1825, he reformed administration of the convict system. He revised the colony's currency system and abolished censorship of news reporting. He was the inaugural President of the Philosophical Society of Australasia 1821–1822. As Governor, he built the colony's second observatory at Parramatta. His two astronomical assistants, Carl Rümker and James Dunlop, took regular recordings of stars and comets. Using this material, Sir Thomas published in 1835 a catalogue of more than 7,000 stars of the Southern Hemisphere. When he returned to Scotland, he left his scientific books and instruments for use by other colonial astronomers.

EDWARD DEAS THOMSON
1800–1879

Sir Edward Deas Thomson was a senior NSW colonial administrator during the mid-19th century. Born in Edinburgh, he arrived in Sydney in December 1828 to serve as Clerk of the NSW Legislative and Executive Councils. In January 1837 he became Colonial Secretary; a position he held for nearly 20 years. He was a strong advocate for self-governance. In 1856, he was appointed to the NSW Legislative Council and was Vice-President of the Executive Council during the short term of Premier Henry Parker. He joined the University of Sydney Senate when it was founded in 1850, then became the University's Vice-Chancellor in 1863 and Chancellor 1865–1878. Sir Edward served two terms as Senior Vice-President of the Australian Philosophical Society, 1850–1855 and 1861–1865. He also served as a President of the Australian Jockey Club, the Australian Club, the Benevolent Society and several charities.



WILLIAM THOMAS DENISON
1804–1871

Sir William Denison was a senior colonial official in Australia from the late 1840s to early 1860s. Born in London and educated at Eton, he was Lieutenant-Governor of Van Diemen's Land 1847–1855; the 11th Governor of NSW 1855–1861; then Governor of Madras 1861–1866. When he was appointed as NSW Governor, he also became 'Governor-General in and over all our Colonies of New South Wales, Van Diemen's Land, Victoria, South Australia and Western Australia'; a role intended to encourage co-operation between the separately founded colonies. He inaugurated the bicameral system of representative government in NSW and introduced a parliamentary Bill to annually tax five shillings on each free adult to provide education for all of the colony's 9,767 children. Sir William served two consecutive terms as Honorary President of the Philosophical Society of NSW; 1855–1860.

CHARLES NICHOLSON
1808–1903

Yorkshire-born Sir Charles Nicholson (christened Isaac Ascough) was a NSW physician, landowner, businessman, connoisseur, scholar and statesman. He graduated as a doctor of medicine (MD) from the University of Edinburgh in 1833 and arrived in Sydney the same year. He became prominent among the founders of the Australian Gas Light Company and was active in the movement to encourage immigration from India. He inherited real estate around the Hawkesbury River and upper Hunter Valley, and established large shipping and railway companies. He was a Trustee of the Savings Bank of NSW and the Australian Museum. In 1849–1850 he joined William Charles Wentworth in a campaign to establish Australia's first university in Sydney. In December 1850, he was nominated as a member of the inaugural University of Sydney Senate, then became the university's Vice-Provost 1851–1854 and Provost (later Chancellor) 1854–1862. Nicholson served as a Senior Vice-President of the Philosophical Society of NSW 1858–1860.

JOHN YOUNG
1807–1876

Sir John Young was the 12th Governor of NSW during the 1860s. He was born in Bombay, India, and was educated in law at Eton and Oxford before he was called to the Bar in London in 1834. After a term representing County Cavan, Ireland, in the House of Commons 1831–1835, he served as a Lord of the Treasury then Secretary of the Treasury during the 1840s; Chief Secretary for Ireland 1852–1855; then Lord Commissioner of the Ionian Islands 1855–1859. In 1861 he was appointed Governor of NSW and in that role served as Honorary President of the Philosophical Society of NSW 1861–1867. He also worked to support the Sydney Ragged Schools, the Society for the Relief of Destitute Children, the Sydney Female Refuge Society, the Female School of Industry and the House of the Good Shepherd. During his term, the NSW town of Lambing Flat was renamed Young in his honour. He was created Baron Lisgar of Lisgar in 1870, and served as Governor-General of Canada 1869–1872.

WILLIAM BRANWHITE CLARKE
1798–1878

A Cambridge-educated clergyman, schoolteacher, geologist, surveyor, metallurgist, meteorologist and poet, Reverend William Clarke arrived in Sydney in 1839 to take a post as Pastor of St Peter's Church, Campbelltown. He was promptly promoted to Headmaster of the King's School, Parramatta, with charge of the nearby parishes of Castle Hill and Dural. He was one of the founders of the Royal Society of NSW and was its Senior Vice-President (under the NSW Governor as Honorary President) 1866–1880. Prominent in colonial science and religious culture, he wrote dozens of newspaper articles and papers for academic journals. He was a Trustee and Curator of the Australian Museum and a Fellow of the Royal Society and Royal Geological Society in London. Clarke embodied the 'gentleman naturalist' ideal of the time. Dubbed the 'father of Australian geology', he first identified local rocks dating from the Silurian period, 400–450 million years ago. He corresponded with Charles Darwin to help mediate their different views of the origins of species. His name lives on in the RSNSW with the Clarke Medal and Memorial Lecture. Since his death in 1878, it has been awarded annually for distinguished research in the natural sciences.

SOMERSET RICHARD LOWRY-CORRY
1835–1913

The 4th Earl of Belmore, Lord Somerset Richard Lowry-Corry (Viscount Corry) was an Irish Conservative politician who served as the 13th NSW Governor and Commander-in-Chief, and Honorary President of the Royal Society of NSW, from 1868 to 1872. He promoted the *Audit Act 1870*, which required government expenditure to be authorised by appropriation through both Houses of Parliament. Belmore Park near Sydney's Central railway station, Belmore Falls in the NSW Morton National Park, and the Sydney suburb of Belmore are named after him.

HERCULES GEORGE ROBERT ROBINSON
1824–1897

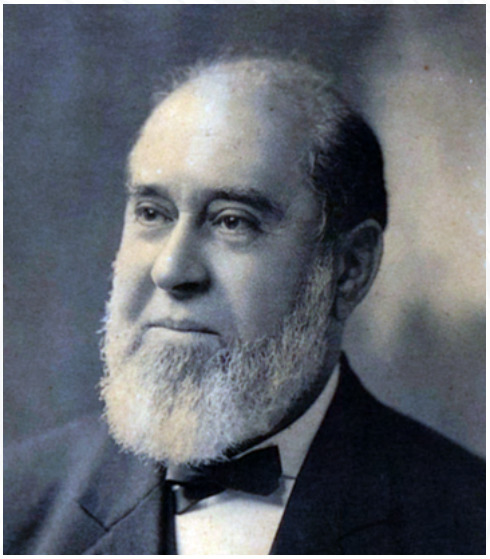
Sir Hercules Robinson was born in Ireland. Before his appointment as the 14th Governor of NSW in 1872, he served as Governor of Ceylon, Hong Kong, Fiji and St. Kitts. During his Australian term, from 1872 to 1879, he was the Honorary President of the Royal Society of NSW and an active promoter of the colony's interests. He was an accomplished public speaker, despite some criticism for a condescending style. He promoted the colony's potential to host the Sydney International Exhibition in 1879 but left a few months before its opening, to continue his career as a colonial administrator. His next appointments were as Governor of New Zealand, High Commissioner to Southern Africa, then Governor of the Cape Colony (South Africa).

AUGUSTUS WILLIAM FREDERICK SPENCER LOFTUS
1817–1904

Lord Loftus was the 15th NSW Governor during the early 1880s. Born in Bristol, England, he was the second son of the Marquis of Ely. Educated privately, he travelled around Europe then entered the British diplomatic service. He first served in the British legation in Berlin then in several European courts. He was appointed a Knight Grand Cross of the Order of the Bath in 1866 and was sworn in to the Privy Council in 1868. After serving as Britain's Ambassador to the Russian Empire, he was appointed Governor of NSW in 1879. He became a cautious but diplomatic mediator between the conservative views of the Colonial Office in London and the increasingly independent views of leading NSW parliamentarians, notably Sir Henry Parkes. Lord Loftus wrote on many subjects, from sewerage to prison reform, and publicly supported federation of the Australian colonies while also advocating imperial rule rather than self-governance. He was the Honorary President of the Royal Society of NSW during his term as NSW Governor 1879–1885. After returning to England in ill-health, he was declared bankrupt in 1887, then wrote his memoirs, titled *Diplomatic Reminiscences*; published in two volumes in 1892 and 1894. He died near Ascot, England.

JOHN SMITH
1821–1885

John Smith was a surgeon and professor of chemistry in Sydney in the mid-19th century. He was born in Scotland and obtained his MD from the University of Aberdeen in 1844. He sailed to Australia in 1847, acting as the ship's surgeon. He became a Fellow of the University of Sydney Senate and Dean of the Faculty of Medicine in 1851. In 1852, he was appointed the foundation Professor of Chemistry and Experimental Physics, and often gave public lectures on chemistry. In 1877 he was one of only two members of the Senate to vote to allow women to attend classes at the university. He was concerned with water purity and chaired a Royal Commission on the water supply of greater Sydney. He was later appointed to the Legislative Council. He was President of the Royal Society of NSW for two terms; 1880–1881 and 1883–1884.



HENRY CHAMBERLAIN RUSSELL
1836–1907

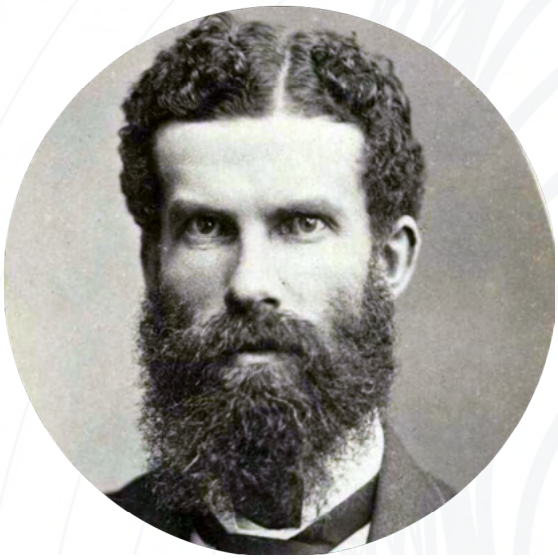
Astronomer and meteorologist Henry Chamberlain Russell was born in West Maitland, in the NSW Hunter Valley, and was an early graduate of the University of Sydney. He joined the Sydney Observatory c.1859 and was appointed Government Astronomer in 1870. He reorganised and enlarged the building, and organised an expedition to observe a total eclipse of the sun in 1871; also equipping four tracking stations for the Transit of Venus in 1874. He substantially increased the colony's number of weather stations and observers. By 1893 he had discovered 500 new double stars in the Southern Hemisphere; published two influential textbooks: *Climate of New South Wales: Descriptive, Historical and Tabular* (1877), and *Physical Geography and Climate of New South Wales* (1884); published observational papers in the *Journal and Proceedings of the Royal Society of NSW*, and other specialist periodicals; and introduced daily weather maps for publication in Sydney newspapers. He also researched the periodicity of weather and invented various self-recording barometers, thermometers, anemometers, and rain gauges, which were used by around 1,600 observers at NSW weather stations. He was a long-standing Councillor of the RSNSW and its President for four terms: 1881–1882, 1884–1885, 1891–1892 and 1901–1902. In 1888 he was elected President of the Australasian Association for the Advancement of Science, then was awarded a CMG in 1890. He joined the NSW Board of Technical Education and the University of Sydney Senate, and was Vice-Chancellor of Sydney University 1891–1892. After a serious illness in 1903, he retired from the Observatory.

CHRISTOPHER ROLLESTON
1817–1888

Public servant and statistician Christopher Rolleston was born in Nottinghamshire, England, and worked for a firm of merchants in Liverpool before arriving in Sydney. In 1838, he purchased land near Paterson in the lower Hunter Valley, which he farmed with his brother for several years. In 1842, the farm's failure provoked him to qualify as a magistrate and a obtain government post as Commissioner for Crown Lands, representing the interests of colonial land squatters at Darling Downs, in today's Queensland. After visiting Britain in 1853–1854 (where he married), he returned to Sydney to become Private Secretary to the Governor-General, Sir William Denison. In late 1855, he was appointed Registrar-General and in 1856 launched compulsory registration of births, deaths and marriages. He joined the Philosophical (later Royal) Society of NSW in 1856, where he gave many papers public sanitation, statistics and savings banks, and provided monthly data reports on the health of Sydney. From 1858, his annual *Statistical Register* was published as a parliamentary paper, and in 1864 he was appointed NSW Auditor-General. In the mid 1870s, he was a Commissioner for the Philadelphia International and Melbourne international exhibitions and was made a CMG in 1879. He was a long-standing Councillor, Treasurer and Vice-President of the Royal Society of NSW and was its President 1882–1883 and 1886–1887. He also held positions as a Trustee of the Australian Museum and Australian Club and many other governance roles with public bodies and charities. Mr Rolleston suffered from Bright's disease and died at his home, Northcliff, in Milsons Point.

ARCHIBALD LIVERSIDGE
1846–1927

Geologist and mineral chemist Archibald Liversidge was born in London and was educated privately and at the Royal College of Chemistry and the Royal School of Mines. In 1872 he joined the University of Sydney as Reader in Geology, assisting in the laboratory, and in 1874 he was appointed Professor of Geology and Mineralogy. He wrote many papers on the chemical composition of minerals for Australian and British scientific journals and was one of the first researchers to detect gold and platinum in meteorites. His major publication was *The Minerals of New South Wales* (1876, with revised editions until 1888). He was also an effective organiser of scientific ventures. He helped to establish the Industrial, Technological and Sanitary Museum (forerunner of the Museum of Applied Arts and Sciences) and was prominent in establishing the ANZ Association for the Advancement of Science (ANZAAS). During the 1870s, he became an Honorary Secretary of the Royal Society of NSW and was responsible for many advances and reforms and its incorporation. He designed its Seal, including motifs representing the Society's disciplinary sections and symbols of the colony's economy and culture. He was RSNSW President three times: 1885–1886, 1889–1890 and 1900–1901. He also was a Trustee of the Australian Museum and an original member of the NSW Board of Technical Education. In 1887, the University of Cambridge granted him an MA (*Honoris causa*); one of many honours bestowed by international universities and science societies. He returned to London after Australia's Federation in 1901 and worked in the Davy-Faraday research laboratory of the Royal Institution before retiring to his home at Kingston Hill. He made bequests to the ANZAAS, the Royal Society of NSW and the University of Sydney to support invited lectures in chemistry.



CHARLES SMITH WILKINSON
1843–1891

Geologist Charles Wilkinson was born in Northamptonshire, England, and moved with his family to Melbourne in 1852; the first year of the Australian gold rush. After education at a private school, he was employed by the Geological Survey of Victoria. In 1861, he became a field assistant to Richard Daintree; surveying part of southern Victoria, then Cape Otway. Following a serious lung infection acquired while surveying the Grampians, he moved to Wagga Wagga, NSW, in 1868 and became a pastoralist and a licensed surveyor. He was employed by the NSW Surveyor General to map a new tin mining area in New England, then worked for the NSW Department of Lands in 1874 and next year joined the new Department of Mines as Geological Surveyor-in-Charge. He led a major new geological survey of the state. From 1888 continued to inspect the state's natural resources as a member of the Prospecting Board. He was first to suggest the possibility of finding subterranean water in western NSW; compiled the first collection of specimens for the Mining and Geological Museum; served on commissions for international exhibitions; contributed geological notes to the *Memoirs and Records of the NSW Geological Survey* and regularly gave lectures and wrote papers for science journals. A Fellow of key science societies in London and Australia, he was President of the Linnean Society of NSW 1883–1884 and President of the Royal Society of NSW 1887–1888.

ALFRED ROBERTS
1823–1898

Sir Alfred Roberts was born in London, where he was trained and practised as a surgeon. After arriving in Sydney in 1853, he became a consulting surgeon with the Sydney Infirmary and Dispensary. Concerned about incompetent nursing, he persuaded parliamentarian Henry Parkes to ask English nursing pioneer Florence Nightingale to send a superintendent and team from London to train local nurses. Roberts also advocated to establish the Royal Prince Alfred Hospital, which opened in 1882; the Coast Hospital for contagious diseases at Little Bay; and the Hospital for Sick Children. He was active in hospital management and policy matters and became a Trustee of the Australian Museum. In 1881, he helped to battle a smallpox epidemic and advised the NSW Parliament to introduce compulsory vaccination. Knighted in 1883, he read three papers to the Philosophical (then Royal) Society of NSW; was an RSNSW Councillor and its President in 1888–1889.

CARL ADOLPH LEIBIUS
1833–1893

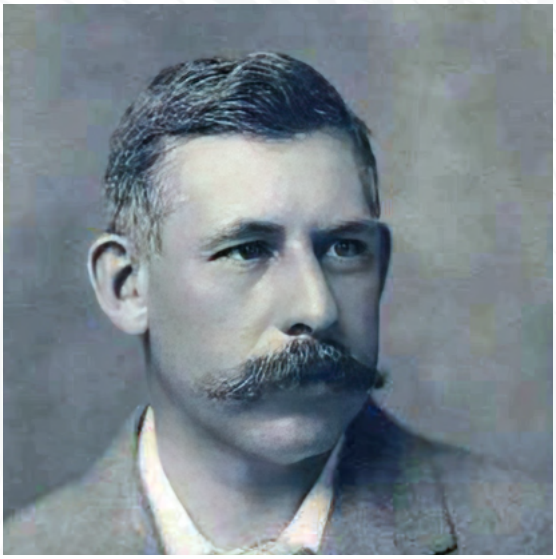
Mineralogist and coin assayer Dr Carl Leibius was born in Germany. After gaining his PhD in science at the Universität Heidelberg in 1857, he went to London and studied analytical and assaying chemistry at the then-new Royal College of Chemistry. He arrived in Sydney in 1859 and was appointed Assistant Assayer at the NSW branch of the Royal Mint. By 1870 he was the Senior Assayer. His main interests were identifying and refining ores, including gold. He was elected a Fellow of the Chemical Society of London in 1879 and was admitted to the University of Sydney in 1882 (MA *ad eund*). Dr Leibius was involved with the Royal Society of NSW for more than 30 years. He was a joint Honorary Secretary 1875–1886, a Vice-President 1886–1887 and 1891–1892, and President 1890–1891.

WILLIAM HENRY WARREN
1852–1926

William Warren was a pioneer of engineering education in Australia. Born in Bristol and educated at the Royal College of Science for Ireland and Owens College, Manchester, he migrated to Australia in 1881. After first working for the Roads and Bridges branch of the NSW Department of Public Works and teaching applied mechanics at the Sydney Technical College, he was appointed as a Lecturer in Engineering with the University of Sydney in 1883. A year later he was made foundation Professor of the Department of Engineering and in 1890 became the Challis Professor of Engineering. He remained a professor for 42 years and built the department into an internationally significant engineering faculty, launched in 1920. Warren was the inaugural President of the Institution of Engineers Australia, the forerunner of Engineers Australia. The Warren Centre for Advanced Engineering at the University of Sydney was named in his honour. He was a Councillor of the Royal Society of NSW for many years and was twice President; 1892–1893 and 1902–1903.

THOMAS PETER ANDERSON STUART
1856–1920

Professor Anderson Stuart was a pioneer of medical education in Sydney. He was born in Dumfries, Scotland in 1856 and was educated in Edinburgh and Germany in pharmacy and medicine. After working as the Chief Demonstrator in Physiology at the University of Edinburgh, he accepted the Chair of Anatomy and Physiology at the University of Sydney in 1882. From an original four-room brick cottage, he led development of a permanent medical school and increased student numbers from six to 604, with a commensurate increase of staff. As well as leading medical education in NSW, he contributed to the launch and development of Royal Prince Alfred Hospital and was a prominent medical advisor to the NSW government. He was involved with various community organisations and was President of the Royal Society of NSW 1894–1895.



RICHARD THRELFALL
1861–1932

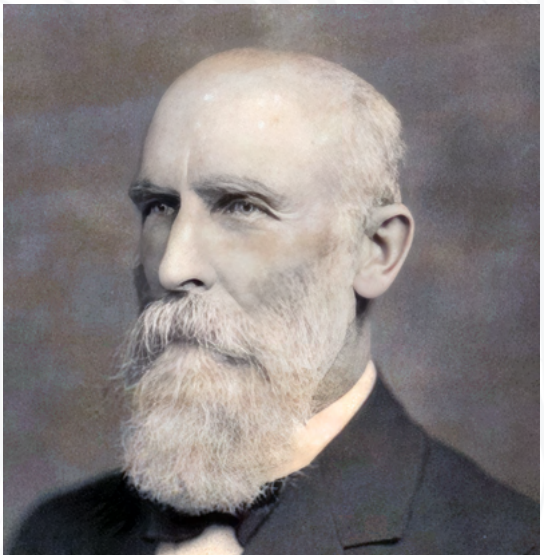
Sir Richard Threlfall was an English chemist and engineer who established the School of Physics at the University of Sydney and made important contributions to military science during the First World War. Born in Lancashire and educated at Clifton College, Bristol, he graduated from the University of Cambridge with a BA (first-class honours) in 1884 and an MA in 1888. During the early 1880s he also studied mathematics at the University of Strasbourg. After graduation, he was a Demonstrator in the Cavendish Laboratory at the Cambridge Department of Physics. After losing several fingers in an explosion while experimenting with nitro-glycerine, he was appointed Chair of Physics at the University of Sydney in 1886. His broad knowledge, progressive instincts, and skills in communication and fundraising inspired many other physicists and accelerated the discipline in Australia. He chaired Royal Commissions on combustions of coal cargoes in ships; was a founder of the Australian Association for the Advancement of Science in 1888; supported aviation pioneer Lawrence Hargrave's kite design experiments and wrote the textbook *On Laboratory Arts*; published in London 1898. He was President of the Royal Society of NSW 1894–1895, then returned to England in 1898, where he was appointed Director of Research with chemical manufacturers Albright & Wilson and became a Fellow of London's Royal Society. During the First World War, he advised on uses of chemicals, especially phosphorus, in combat. He was knighted in 1917 and won the Society of Chemical Industry's Gold Medal in 1932.

TANNATT WILLIAM EDGEWORTH DAVID
1858–1934

Sir Tannatt William Edgeworth David was a Welsh–Australian geologist and Antarctic explorer. Born near Cardiff, he went to Magdalen College, Oxford, then won a classical scholarship to New College and graduated with a BA in 1880. After two years of field studies on the geology of Wales, he arrived in Australia in 1882 to take up a position as Assistant Geological Surveyor with the NSW Geological Survey. From 1891 to 1924, he was Professor of Geology at the University of Sydney. A household name in his lifetime, he discovered the major Hunter Valley coalfields and led the first expedition to the South Magnetic Pole. During the 1920s he began writing the first definitive book on *The Geology of the Commonwealth of Australia* (a task completed later by one of his protégés, William Rowan Browne). He was President of the Royal Society of NSW 1895–1896 and 1910–1911, and the RSNSW's Edgeworth David Medal was named in his honour.

JOSEPH HENRY MAIDEN
1859–1925

Joseph Maiden was the first Curator of Sydney's Technological Museum (today's Museum of Applied Arts and Sciences); Director of the Botanic Gardens, Sydney; and the NSW Government Botanist. Born in London, he excelled in science subjects at school but ill health prevented him from taking up a scholarship to Christ's College, Cambridge, or finishing a degree at the University of London. He sailed for Australia in 1880 and gave a course of science lectures, then became Curator at the Technological Museum. He went on collecting expeditions throughout Australia, adding significant knowledge of new species, and was an authority on wattles and eucalypts. He also campaigned for more trees and parks. An expert in economic botany, with a particular interest in Australian timbers and essential oils, he published many papers in the *Journal and Proceedings of the Royal Society of NSW,* was a long-term Councillor of the Society, and served two terms as its President, 1896–1897 and 1911–1912.



HENRY DEANE
1847–1924

Railway engineer and botanist Henry Deane was born in London and graduated in mathematics and natural science from Queen's College, Galway, in Ireland. He studied engineering at King's College, London, then worked on engineering projects in England, Europe and the Philippines. He arrived in Sydney in 1880 and became a surveyor with NSW Railways. He was a District Engineer and became Engineer-in-Chief in 1890. He made world trips to study tram and light rail systems, then helped to build the Sydney electric tramway system. After retiring from NSW Railways, he became a consultant for the Commonwealth Oil Corporation and was a consulting engineer for the Commonwealth Government in 1908. His advice influenced important engineering projects, he wrote various articles on botanical subjects and co-authored with Joseph Maiden a series of papers on native timbers. Mr Deane was President of the Linnean Society of NSW 1895–1897 and President of the Royal Society of NSW 1897–1898 and 1907–1908. He is commemorated with the naming of Henry Deane Plaza near Sydney's Central railway station.

GEORGE HANDLEY KNIBBS
1858–1929

Sir George Handley Knibbs was a senior public servant who pioneered government organisations concerned with surveying, statistics and technical education. In 1889 he began practising as a surveyor, and in 1890 began lecturing in surveying at the University of Sydney. He joined the Royal Society of NSW in 1881 and became a Councillor in 1894. From 1896 to 1906 he was almost continuously Honorary Secretary and Editor of its *Journal and Proceedings*, to which he contributed 29 papers. He was the RSNSW's President 1898–1899. In 1905 he was appointed NSW Superintendent of Technical Education and in 1906 he became the first Commonwealth Statistician, directing the newly established Commonwealth Bureau of Census and Statistics. In 1921 he became Director of the new Commonwealth Institute for Science and Industry (a forerunner of today's CSIRO) and was on the Federal Capital Site Board.

WILLIAM MOGFORD HAMLET
1850–1931

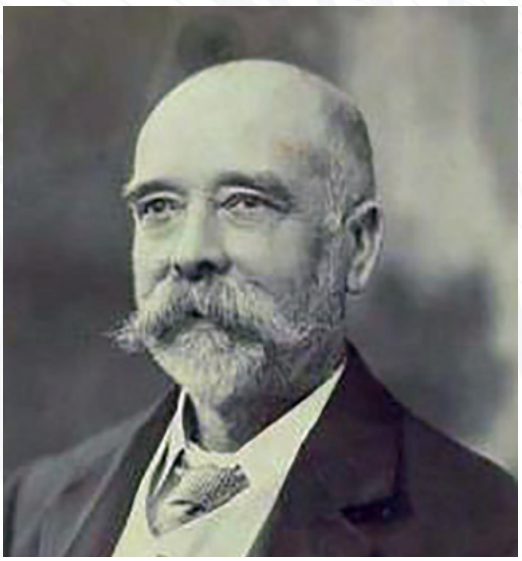
Forensic chemist William Hamlet was born near Portsmouth, England, and was apprenticed to a Bristol shipping firm while taking night classes in chemistry and physics at the Bristol Trade and Mining School. He later trained at the Royal College of Chemistry, London, where he graduated with first-class honours in 1873. He spent the next decade working for several firms as a chemist. After arriving in Australia in 1884, he became a Lecturer for the NSW Board of Technical Education, then Assistant to the Government Analyst in the Department of Health in 1885 and Government Analyst from 1887 to 1915. His forensic work on criminal cases and public lectures on diet made him well known. He was also a member of the government's Anthrax Board, and a member of the Board of Inquiry into lead poisoning at Broken Hill. A Fellow of the Institute of Chemistry of Great Britain and Ireland, he strongly supported the foundation of the Australasian Association for the Advancement of Science. He was President of the Royal Society of NSW 1899–1900 and 1908–1909.

FREDERICK BICKELL GUTHRIE
1861–1927

Agricultural chemist Frederick Guthrie was born in Mauritius and was educated in agricultural chemistry at University College London and the University of Marburg. He worked as an Assistant and Demonstrator at Queens College, Cork, and the Royal College of Science in London before he came to Australia in 1890. He was appointed as a Demonstrator in Chemistry by Professor Archibald Liversidge at the University of Sydney. In 1892 he became a chemist with the NSW Department of Agriculture, where he researched soil compositions, manures, and the milling qualities of wheat. With William Farrer, he bred new varieties of wheat and devised methods to test grain and assess its quality. He became Acting Professor of Chemistry at the University of Sydney and President of the Chemical Section, then the Agricultural Section, of the Australian Association for the Advancement of Science. He was an original member of the Commonwealth Advisory Council of Science and Industry. He was President of the Royal Society of NSW 1903–1904 and a joint Honorary Secretary 1906–1911.

CHARLES ORMSBY BURGE
c.1839–1920

Railways engineer and journalist Charles Ormsby Burge was born in Dublin and trained as a civil engineer with a large railway construction firm. He worked on railway projects in Ireland and England before he left Britain in 1866 to work for the Madras Railway Company in India. He later worked in Wales, then South Africa, before returning to England and buying a half-share in a magazine titled *Colburn's United Service*; which he edited as well as writing articles for other magazines and newspapers. He later joined a railway construction company in southern Spain, before returning to London and then sailing to NSW, where he was appointed as Engineer-in-Charge of a survey party for the NSW Railways. He later led teams which constructed new railway lines and planned new towns along each route. His most challenging project was to build the long railway bridge over the Hawkesbury River, north of Sydney. In the 1890s, Burge travelled to Hobart, Melbourne and Brisbane to advise on designing inter-colonial railways. He gave a course of 20 lectures to engineering students at the University of Sydney, which won him the 1899–1890 Telford Medal from Britain's Institution of Civil Engineers. He was President of the Royal Society of NSW 1904–1905, then returned to Britain, where he published his autobiography,*The Adventures of a Civil Engineer: Fifty Years on Five Continents*, in 1909. He died 11 years later in Essex.



HENRY ALFRED LENEHAN
1843–1908

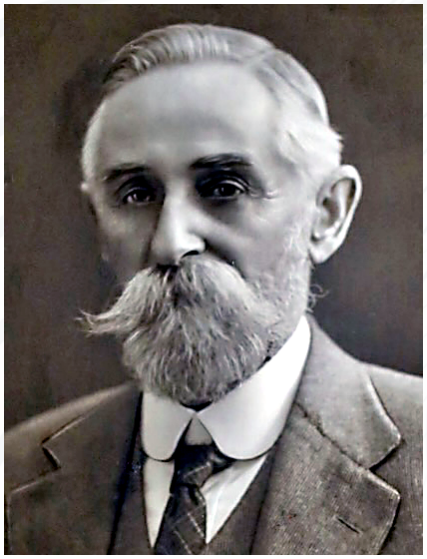
Astronomer Henry Lenehan was born in Sydney and began working in his father's cabinetmaking business before becoming a bank clerk in Ipswich and Rockhampton, then a draughtsman for the Queensland Railways Department in Rockhampton. On his return to Sydney in 1870, he was appointed Assistant to the Government Astronomer, Henry Chamberlain Russell, for whom he worked for the next 37 years. He was responsible for recording accurate star positions using the transit instrument, and took many thousands of observations. He organised the Observatory's participation in an expedition to Flint Island to observe a total solar eclipse, observations of Daniel's comet and preparations to observe Halley's comet. He was a Fellow of the Royal Astronomical Society of London; a Councillor of the Royal Society of NSW for many years and its President 1905–1909.

HENRY DEANE WALSH
1853–1921

Civil engineer Henry Walsh was born in Dublin, migrated to NSW in 1877 and joined the Department of Public Works in 1878. He was first a Surveyor for the Sydney water supply scheme. By 1891, he was Supervising Engineer and District Engineer in Newcastle, where he was responsible for all land and waterway works from Lake Macquarie to the Queensland border. When the Sydney Harbour Trust was established in 1901, he came to Sydney as its Engineer-in-Chief. He led design and building of new rat-proof concrete sea walls around Dawes and Millers Points and construction of new wharves at Darling Harbour, Jones Bay, Walsh Bay and Woolloomooloo. He was a member of the Institute of Civil Engineers in London. After joining the Royal Society of NSW in 1891, he was its President 1909–1912.

RICHARD HIND CAMBAGE
1859–1928

Mining surveyor and botanist Richard Cambage was born at Applegarth, near Milton, NSW, and was a pupil-teacher at the local school before training as a surveyor; licensed in 1882. After several years as a Draftsman for the NSW Department of Lands, he became a surveyor with the Department of Mines and travelled widely around the state. By 1902 he was the State's Chief Mining Surveyor, then he became a founding member of the NSW Institute of Surveyors and was its President 1907–1909. He took a keen interest in the plants, animals, and birds of his local district in southern NSW. He focused on the importance of the chemical composition of the parent rock in the distribution of eucalypts and on the physiology and morphology of Australian species of acacia. He was active in the Linnean Societies of NSW and London and was a foundation member of the (Royal) Australian Historical Society. He was President of the Royal Society of NSW 1913–1914, then a joint Honorary Secretary 1914–1922 and 1925–1927.



HENRY GEORGE SMITH
1852–1924

Organic chemist Henry Smith was born in Kent and was educated at a local grammar school. He came to Australia in 1883 and worked for Joseph Henry Maiden at the Technological Museum. As Laboratory Assistant, he published his first paper, 'On the occurrence of Barite in the Hawkesbury Sandstone, near Sydney', in the *Journal and Proceedings of The Royal Society of NSW*. He was appointed Assistant Curator at the museum in 1899 and became focused on organic chemistry, especially the chemistry of certain Australian flora. He collaborated with botanist Richard Thomas Baker; was a member of the Linnean Society of NSW from 1899 and was President of the Royal Society of NSW 1913–1914. He was awarded the David Syme Research Prize by the University of Melbourne in 1922.

CHARLES HEDLEY
1862–1926

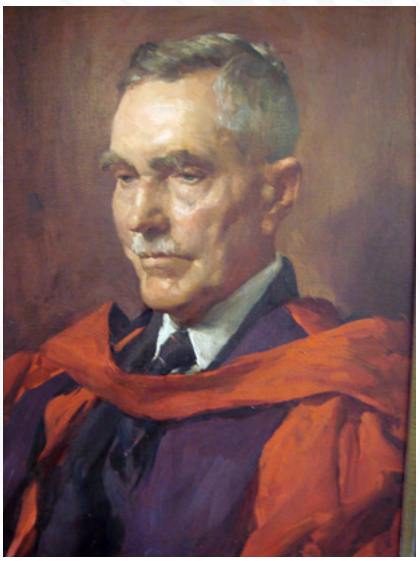
Naturalist Charles Hedley was born in Yorkshire and was educated mainly in France. A chronic asthmatic, he migrated to New Zealand in 1881 then arrived in Queensland in 1882, where he tried an oyster lease and fruit-growing. After an accident which prevented him from continuing manual labour, he joined the Queensland Museum in 1889. In 1891, he moved to Sydney and became Scientific Assistant with the Australian Museum, where he added new books and specimens to its collections. A self-taught naturalist, he wrote on botany, ethnology, and natural history. His work on molluscs established him as the foremost conchologist of his time. He also wrote on zoogeography; connecting the ancient histories of Antarctica, Australia, and New Zealand. He also contributed to the taxonomy of Australian fauna. He was a member of the Linnaean Society (London) and a Fellow of the Malacological Society. He was President of the Royal Society of NSW 1914–1915.

ROBERT GREIG-SMITH
1856–1927

Biochemist Dr Robert Greig-Smith was born in Edinburgh in 1866 and gained his BSc, with first-class honours and medals, from the University of Edinburgh in 1890. He studied microbiology in England, Germany and Denmark, then gained an MSc from the University of Durham and his DSc from the University of Edinburgh in 1903. He became a Lecturer in Agricultural Chemistry at Durham's College of Science, then moved to Sydney in 1898 to become Macleay Bacteriologist to the Linnean Society of NSW. He contributed various papers to that society's journal and produced pioneering research on root-nodule bacteria. In 1900 he became President of the Pathological Club of Sydney, then led the Sanitary Science Section of the Australasian Science Association. He chaired the Sydney Section of the Society of Chemical Industry 1906–1908. He became a Fellow and member of various other scientific societies, and was President of the Royal Society of NSW 1915–1916.

THOMAS HENRY (HARRY) HOUGHTON
1857–1924

Engineer Harry Houghton arrived in Australia from England in 1890. He organised the pumping plant at the Crown Street Waterworks and designed the Pyrmont Cold Stores before launching a commercial practice in Sydney in 1891. His later career included many private and public works; including projects for the State Abattoirs, the NSW Board of Health and the Metropolitan Meat Industry Board. His work took him to Adelaide, Melbourne, Broken Hill, Christchurch and Wellington. He also was a consulting engineer for many organisations, including the Australian Jockey Club, the Royal Prince Alfred Hospital, and St Vincent's Hospital. He was a member of various technical and scientific societies, including the institutes of mechanical and civil engineers and the Committee of Civil Engineers. He was President of the Royal Society of NSW 1916–1917.



JOHN BURTON CLELAND
1878–1971

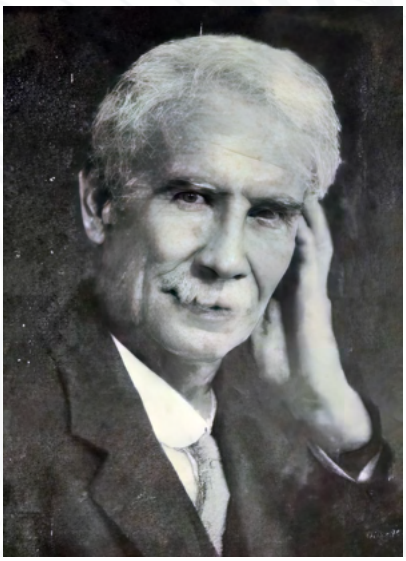
Pathologist and bacteriologist Sir John Cleland was born in Northwood, SA, and was educated in medicine at the universities of Adelaide (MB, 1900) and Sydney (MD, 1902). He became a house surgeon at Royal Prince Alfred Hospital and further studied in London and Glasgow. He was the Government Bacteriologist and Pathologist in Western Australia and in 1909 joined the NSW Bureau of Bacteriology in Sydney where, as Principal Bacteriologist after 1909, he discovered that the dengue virus was transmitted by the culicine mosquito *Aeges aegypti*. After editing the *Australian Medical Gazette*, he continued his career in pathology and microbiology at the University of Adelaide, where he was appointed Marks Professor of Pathology in 1920, then became a consulting pathologist to the Adelaide Hospital and Adelaide Children's Hospital. His interest in anthropology produced a series of papers on diseases of Aboriginal people. He also published biological studies of fungi and founded and edited the Royal Adelaide Hospital's *Medical and Scientific Archives* 1921–1948. He was President of the Royal Society of NSW 1917–1918, the Royal Society of South Australia, the Royal Australasian Ornithologists Union, the Medical Sciences Club of South Australia and the Western Australian Natural History Society.

WILLIAM SUTHERLAND DUN
1868–1934

Geologist and palaeontologist William Dun was born in Gloucestershire, England, then was educated at Newington College, Sydney. In 1890, he became a probationer for the Geological Survey of NSW, then passed his BSc in geology and palaeontology with first-class honours from the University of Sydney in 1892. He became Palaeontologist and Librarian with the Geological Survey and was Honorary Palaeontologist for the Australian Museum. His publications covered broad aspects of palaeobotany and palaeozoology, but his special interests were brachiopods and molluscs, especially from the late Palaeozoic period. Dun was a Councillor and President of the Linnean Society of NSW and was President of the Royal Society of NSW 1918–1919. As a valued member of the Australian National Research Council he also influenced geological research. He retired in 1933 and died the following year.

CHARLES EDWARD FAWSITT
1878–1960

Chemistry professor Dr Charles Fawsitt was born in Scotland, qualified as a chemist at the University of Edinburgh, took further studies in Europe, then gained his DSc at Edinburgh and went on to lecture in metallurgical chemistry in Glasgow. In 1909 he moved to the University of Sydney to take Archibald Liversidge's Chair of Chemistry. He retained that role until his retirement in 1946; including a term as Dean of Science 1923–1929. Professor Fawsitt taught both inorganic and physical chemistry and co-authored various papers for the *Journal and Proceedings of the Royal Society of NSW*. He was President of the RSNSW 1919–1920 and President of the Royal Australian Chemical Institute 1924–1925.

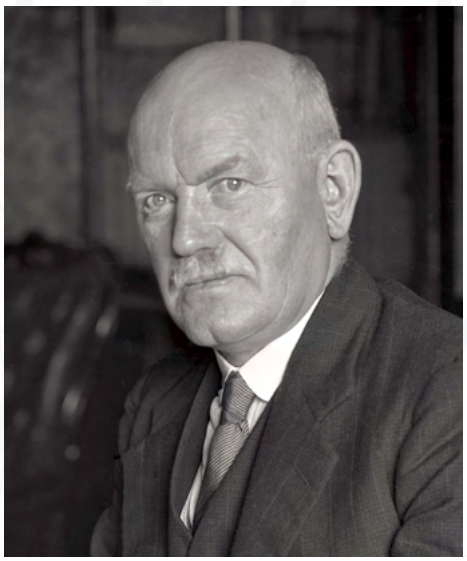


JAMES NANGLE
1868–1941

Educationalist, architect and town planner James Nangle was born in Newtown, left school at 11 and first worked as a labourer. During the 1880s, while apprenticed to a carpenter and joiner, he attended technical drawing, building design, construction and engineering classes at Sydney Technical College and the University of Sydney. While lecturing in technical drawing, he began practising as an architect in 1891, then set up building trades courses at Sydney Technical College and wrote an influential textbook, *Australian Building Practice* (1900). In 1905 he was appointed Lecturer-in-Charge of the STC Department of Architecture and he was the architect of the Architecture and Building blocks at both the STC and the Balmain Trades School. His other notable architectural works included Marcus Clarke department stores at Pitt and George streets and Newtown; Sacred Heart Church in Darlinghurst; St Columba's Seminary in Springwood and St Mary's Cathedral Girls' School. In 1913 he was appointed Superintendent of Technical Education with the NSW Department of Education and he began a program of successful reforms of administration, teaching, course structures, qualification criteria and examinations. After the First World War, he oversaw State training of 20,000 ex-servicemen. Also an amateur astronomer, he was elected a Fellow of the Royal Astronomical Society of London in 1908. He was a member of the committee to reorganise the work of the Sydney Observatory, a President of the Royal Australian Institute of Architects 1936–1937 and a Fellow of the Senate of the University of Sydney. He was President of the Royal Society of NSW 1920–1921.

ERNEST CLAYTON ANDREWS
1870–1948

Geologist and surveyor Ernest Andrews was born in Balmain; son of artist Fearnleigh Montague, then was adopted by a Wesleyan minister, John Andrews, and grew up in Rockdale. At 16 he became a pupil-teacher at Hurstville Public School, then qualified at Sydney Teachers College. He studied mathematics and geology at the University of Sydney, where he graduated with honours, winning Professor Edgeworth David's prize for geology. Working as a teacher in Milltown, near Bathurst, he took field trips with Professor David and later with Charles Hedley. He worked as a Geological Surveyor for the NSW Department of Mines and Agriculture and in 1909 became the NSW Government Geologist. He wrote papers on the theory of erosion. He also taught field biology and published papers on *Myrtaceae* and *Leguminosae*, and was President of the Linnaean Society of NSW. He held positions in various organisations including the Australian National Research Council and he was a Trustee of the Australian Museum. He was President of the Royal Society of NSW 1921–1922.

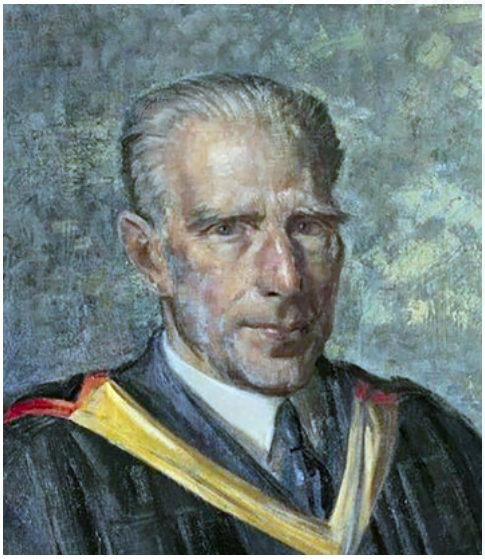


ADOLPH CARL VON HEYDE SÜSSMILCH
1875–1946

A geologist and technical education leader, Carl Süssmilch was born in Sydney to German parents. He attended science classes at Sydney Technical College and engineering lectures at the University of Sydney in the late 1890s and early 1900s, before publishing the influential textbook, *An Introduction to the Geology of New South Wales*, in 1911. Appointed Principal of the Newcastle branch of the Sydney Technical College in 1914, he was an advocate for scientific efficiency in the NSW mining industry. He later became Principal of the East Sydney Technical College, then Assistant, later Acting, Superintendent of Technical Education in the NSW Department of Education. He wrote or co-authored more than 16 papers for the *Journal and Proceedings of the Royal Society of NSW*, was the Society's President 1922–1923 and won its Clarke Medal in 1939.

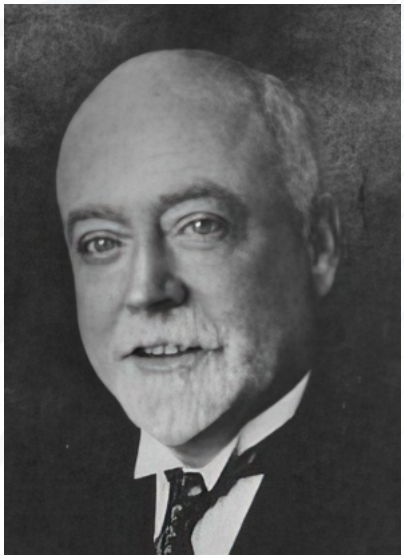
CHARLES ANDERSON
1876–1944

Museum director and mineralogist Dr Charles Anderson was born in Scotland's Orkney Islands and was educated at the University of Edinburgh with medals and distinctions for six science subjects, mathematics, literature and Latin. He joined the Australian Museum as a mineralogist in 1901 and was its Director from 1921 until his retirement in 1940. He gained his PhD in 1908 for a thesis on the chemistry of minerals in Australia, then published the *Bibliography of Australian Minerals* in 1916, before focusing on vertebrate palaeontology, including significant research on Meiolania (extinct horned turtle) fossils. He modernised the museum's displays with dioramas, increased its public lectures, appointed its first female scientist and launched its natural history magazine. He was President of the Royal Society of NSW 1924–1925.



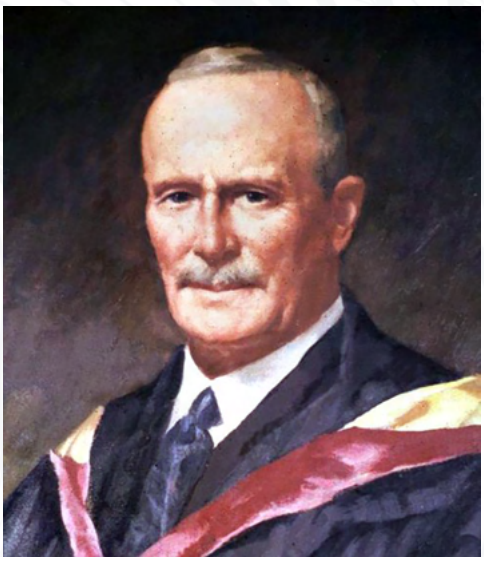
ROBERT DICKIE WATT
1881–1965

Agricultural chemist Sir Robert Watt was born in Ayrshire, Scotland, and graduated from the University of Glasgow with an MA in 1903, a BSc in 1905 and diplomas with first-class honours in dairying and agriculture. After several years as a chemist with the Department of Agriculture in Pretoria, South Africa, he moved to Australia as foundation Chair of Agriculture in the Faculty of Science at the University of Sydney. He built his department into the Faculty of Agriculture and served as its Dean from 1920 until his retirement in 1946. As well as pioneering tertiary education in agriculture, he was a founding member of the Commonwealth government's Institute for Science and Industry (the 1920s forerunner of today's CSIRO) and a leader of other science and research organisations. He was President of the Royal Society of NSW 1925–1926 and was knighted in 1960.



WALTER GEORGE WOOLNOUGH
1876–1958

Geologist Walter Woolnough was born at Grafton, NSW, and graduated from the University of Sydney with a BSc (Hons) in geology in 1898. After working for Professor Edgeworth David, he joined the University of Adelaide as a lecturer in Mineralogy and Petrology in 1901. With support from the Royal Society in London, he led two geological surveys in Fiji which earned DScs from the universities of Sydney and Adelaide in 1904 and 1905. Unable to join military service during the First World War, he became foundation Professor of Geology at the University of Western Australia, then joined a British mining company to investigate major Australian salt deposits. From 1927 to 1941, he was a geological adviser to the Commonwealth Government, surveying oil deposits in Australia and New Guinea. He was President of the Royal Society of NSW 1927–1928 and received its Clarke Medal in 1933, then the Society Medal in 1955.



JAMES DOUGLAS STEWART
1869–1955

Veterinarian Douglas Stewart was born at Windsor, NSW, and was educated at the Royal Veterinary College in Edinburgh, from where he graduated in 1893 with three gold medals and membership of the Royal College of Veterinary Surgeons in London. On return to Sydney, he founded the Veterinary Medical Association of NSW in 1894, became a veterinary officer with the NSW Department of Agriculture in 1898, then accepted the foundation Chair of Veterinary Science at the University of Sydney in 1909. He pioneered veterinary education in Australasia and led and served on many various government and professional organisations. He was President of the Royal Society of NSW 1927–1928.

WILLIAM POOLE
?–1929

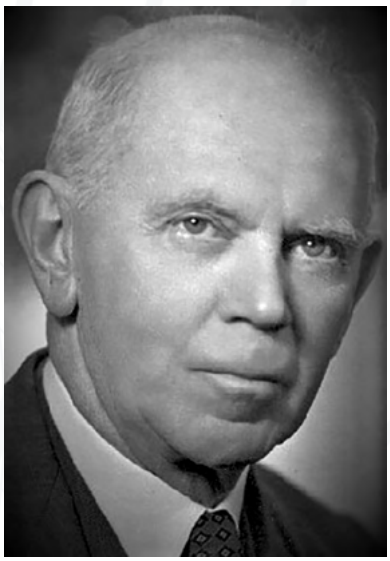
Mining surveyor and engineer William Poole received his early education at Sydney Grammar School, then attended the University of Sydney where he graduated in civil engineering, mining and metallurgy. He was the author of many papers on surveying, civil engineering, treatment of ores and industrial manufacturing. He was also President of the Sydney University Engineering Society and a prominent member of the Institution of Civil Engineers. In 1904 he was appointed Director of the Charters Towers School of Mines; then he joined the Ballarat School of Mines as a lecturer. He was elected to the Royal Society of NSW in 1891 and was its President 1928–1929.

LEO ARTHUR COTTON
1883–1963

Geologist Leo Cotton was born at Nymagee, NSW, and was educated by Professor Edgeworth David at the University of Sydney, where Cotton gained BA, BSc, MA and DSc degrees between 1906 and 1920. During his student years, he worked as a draughtsman with the NSW Department of Lands and sailed with David to the Antarctic to support Ernest Shackleton's 1907 expedition. He continued at Sydney University in professorial and administration roles, complemented by geophysical (Earth movements) research. He succeeded David as Chair of Geology in 1925 and was Dean of the Faculty of Science in 1944-46, then retired in 1948. He contributed seven papers to the *Journal and Proceedings of the Royal Society of NSW* and was the Soceity's President 1930–1931.

OSCAR ULRICH VONWILLER
1882–1972

Physicist Oscar Vonwiller was born in Sydney and was Dux of Sydney Boys' High School in 1898, then graduated from the University of Sydney in 1902 with a BSc and first-class honours in physics and mathematics. By 1910, he was an assistant lecturer in physics and had co-authored with Professor J. A. Pollock a textbook, *Practical Physics*. During the First World War, he took over Pollock's professorial duties and became Sydney University's Chair of Physics after his mentor's death in 1922. He gradually expanded his physics expertise from electrical properties of solids to quantum mechanics, optics (especially spectroscopy) and astronomy. He held leadership roles with many science organisations and contributed nine papers to the *Journal and Proceedings of the Royal Society of NSW* from 1903 until his retirement in 1946. He was President of the Royal Society of NSW 1930–1931 and received the Society Medal in 1950.



EDWIN CHEEL
1872–1951

Botanist Edwin Cheel was born in Chartham, Kent, migrated to Queensland in 1892 and worked as a labourer on sugar cane plantations before he moved to Sydney and became a gardener at Centennial Park in 1897. He continued his career as a self-trained naturalist with the Royal Botanical Gardens and its National Herbarium, culminating in his appointment as Principal Botanical Assistant (in charge of the Herbarium) in 1913 and Curator from 1933 to 1936. He wrote or co-authored almost 20 papers (mainly analyses of Australian myrtles and lichens) for the *Journal and Proceedings of the Royal Society of NSW*, and he won the Society's Bronze Medal in 1943. After his death, his extensive collection of botanical specimens was donated to the Herbarium in Sydney. He was President of the Royal Society of NSW 1931–1932 and received the Society Medal in 1943.

WILLIAM ROWAN BROWNE
1884–1975)

Geologist Dr William Browne was born in Londonderry, Ireland, and migrated to Sydney in 1904 to improve his tuberculosis. He won a DSc from the University of Sydney for research on igneous and metamorphic petrology. During the 1920s and early 1930s, he was the Assistant Professor to Professor Edgeworth David, who gave him rough notes that Browne converted to a major textbook, *The Geology of the Commonwealth of Australia*, published in 1950. He also advised the NSW government on siting the Warragamba Dam and was a founder of the Geographical Society of NSW in 1927. He married geology lecturer Dr Ida Alison Brown and both became Presidents of the Royal Society of NSW. Dr Browne was President of the Royal Society of NSW 1932-1933, was awarded its Clarke Medal in 1942 and received the Society Medal in 1956.

RICHARD WESTMAN CHALLINOR
1874–1951

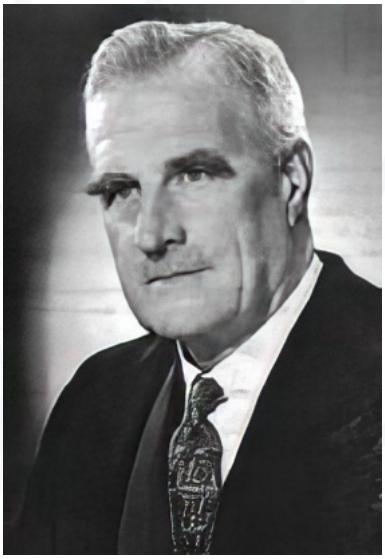
Chemist Richard Challinor was born in Redfern and educated at Sydney Technical College (STC), where he became a Laboratory Assistant in 1900 and joined the teaching staff in 1903. Although he did not pass University matriculation, he attended second and third-year science lectures at the University of Sydney. After almost a decade with the STC's Department of Chemistry and Metallurgy, he passed examination to become a Fellow of the Royal Institute of Chemistry of Great Britain and Ireland. He continued teaching at the STC and was a founder and twice President of the STC Chemical Society and a founder and a NSW President of the (Royal) Australian Chemical Institute. In 1924 he became the STC's Head Teacher of Organic Chemistry. He also wrote and co-wrote various papers on plant chemistry for scientific journals, and was President of the Royal Society of NSW 1933–1934. When he retired from the STC in 1938, he was made a Fellow of the College. He became a Director of the Nightingale Supply Company in 1940 and joined the Scientific Section of the Commonwealth Employment Service during the Second World War.

ROBERT JACKSON NOBLE
1894–1981

Agricultural chemist Dr Robert Noble was born at Five Dock, Sydney; won a cadetship with the NSW Department of Agriculture and graduated from Sydney University in 1915 with a first-class honours BScAg degree and the University Medal, and other scholarships and prizes. After serving in Egypt and Europe during the First World War, he returned to the Department of Agriculture as an Assistant Biologist, then won a scholarship to the University of Minnesota, where he gained his MSc in 1922 and PhD in 1923 for research on plant diseases. As his NSW government career progressed, he published more than 60 science papers and influential reports and led Australia's first delegation to the United Nations Food and Agricultural Organization. He was President of the Royal Society of NSW 1934–1935 and received a CBE in 1959.

ARTHUR DE RAMON PENFOLD
1890–1980

Phytochemist Arthur de Ramon Penfold was born in Sydney and at age 14 began working as an office boy for a paint company, after the death of his father. He also took night classes in chemistry at the Sydney Technical College, where, in 1913, he was the founder and inaugural Secretary of the Sydney Technical College Chemical Society, which he continued to lead until 1948. During the First World War, he worked as a research chemist for eucalyptus oil distillers Gillard Gordon Ltd, then became a research assistant with the Technological Museum in Sydney; where he focused on extracting and analysing the essential oils of Australian native plants, including tea-tree oil. During his term as Curator of the Technological Museum (forerunner of the Museum of Applied Arts and Sciences) from 1927 to 1948, his work in phytochemistry was internationally recognised and he was active in research publishing and science organisations in NSW. He was the founder and first Secretary-Treasurer of the Art Galleries and Museums Association of ANZ. During the Second World War, he worked on various government advisory committees, and after the war, advised Monsanto Chemicals on advances in plastic. He published various papers in the *Journal and Proceedings of the Royal Society of NSW*; was President of the RSNSW 1935–1936 and received its Medal in 1951.



EDGAR HAROLD BOOTH
1893–1963

Dr Edgar Booth was a soldier, seismologist, educationalist and administrator. Born in Petersham, Sydney, he studied engineering and became an acting lecturer-demonstrator in Physics at the University of Sydney. In 1916, he joined the Australian Army, went to fronts in France and Germany, was promoted to a Lieutenant, and commanded a battle for which he was later awarded the Military Cross. After the war, he resumed lecturing at Sydney University. During the 1920s, he became President and Director of the Sydney University Union, then President of the Science Teachers Association of NSW (1928–1932) and he wrote a successful textbook on physics, and articles on geophysical exploration. Awarded his doctorate in 1936, he was President of the Royal Society of NSW 1936–1937, then helped to establish the New England University College in Armidale, NSW. After resigning from that University, he became Chairman of the International Wool Secretariat in London and later served terms on the Standards Association of Australia and the Australian National Research Council.

WALTER LAWRY WATERHOUSE
1887–1969

Botanist Walter Waterhouse was born in Maitland, NSW, and was educated at Sydney Boys' High School, where his father was Headmaster. In 1907, he gained a diploma from Hawkesbury Agricultural College and then became Headmaster of a high school on Fiji's Davuilevu theological campus. He fought during the First World War and was awarded the Military Cross. After the war, he studied at the Imperial College of Science and Technology, London, and obtained its diploma in 1921. Following his return to Australia he was appointed Lecturer in Agricultural Botany at the University of Sydney. He was Reader in Agriculture in 1937 and promoted to Research Professor in 1946. Waterhouse was also President of the Linnean Society of NSW and later a foundation Fellow of the Australian Academy of Science. From his research he bred wheat varieties noted for their rust-resistant baking quality and high yield. He was President of the Royal Society of NSW 1937–1938, then received the Society's Medal in 1948 and its James Cook Medal in 1952.

JOHN CAMPBELL EARL
1890–1978

Chemistry professor Dr John Earl was born in Adelaide and went to Great Yarmouth, England, for his secondary education following the death of his parents. He studied chemistry at the City and Guilds Technical College, London, and was employed from 1911 at the Imperial Institute, South Kensington. He returned to South Australia, where he was Assistant Government Analyst but from 1917 he worked as a chemist at an explosives factory in Scotland. Later he obtained a PhD from St Andrew's University. Returning to Australia in 1924, he became a lecturer at Sydney University and was later appointed Chair of Organic Chemistry. From 1939 he focused his department's research on Government-assisted defence projects. His varied and important work, including large-scale preparation of Dimercaprol anti-poison medication, earned him Life Membership of the Society of Chemical Industry, London. He was President of the Royal Society of NSW 1938–1939.

HENRY SLOANE HALCRO WARDLAW
1889–1970

Biochemical anthropologist Dr Henry (H. S. H.) Walcrow was born in Townsville, Queensland, and won his DSc at the University of Sydney, where he worked as a Laboratory Assistant in the School of Medicine and won a Linnean Society of NSW fellowship. He joined the lecturing staff of the University's Department of Physiology in 1919. In 1929, he was elected President of the Linnean Society and gained a Rockefeller Foundation fellowship to research human nutrition and biochemical phenomena in the United States and Europe. He returned to Australia in early 1932, then was elected President of the Anthropological Society of NSW. He was President of the Royal Society of NSW 1939–1940 and wrote various papers on biochemical and nutritional topics for Australian and American science journals; including a series of studies of Aboriginal blood types, metabolism and perspiration. He died in Singapore, aged 80.

ADOLPHUS PETER ELKIN
1891–1971

Anthropologist Dr Adolphus Elkin was born in West Maitland, NSW. After high school he worked in banks in Sydney, then in 1912, he entered St Paul's College, Sydney University, to become ordained as a priest. After various clerical and teaching positions, he developed an interest in Aboriginal culture. Because there were no departments of anthropology in Australia, he gained his PhD at University College, London, in 1927. After his graduation, he completed several years of fieldwork in Western Australia, then became Lecturer-in-Charge of the new Department of Anthropology at the University of Sydney in 1932; promoted to Professor in 1933. Until his retirement in 1956, he was the dominant voice in Australian anthropology. He researched and wrote widely on Aboriginal culture and lobbied for Aboriginal rights, but his belief in assimilation was widely criticised and his work on the Aboriginal Welfare Board was seen as interference. He was President of the Anthropological Society of NSW, a Trustee of the Australian Museum and a founding Councillor of the Australian Institute of Aboriginal Studies. He wrote various papers for the *Journal and Proceedings of the Royal Society of NSW* and was the Soceity's President 1940–1941.

DAVID PAVER MELLOR
1903–1980

Chemistry professor Dr David Mellor was born in Launceston and educated in chemistry at the University of Tasmania (BSc 1926; MSc 1928; DSc 1945). After graduation he was a chemist with the Electrolytic Zinc Company of Australasia, then held a research fellowship with the Commonwealth Solar Observatory at Mount Stromlo, ACT. In 1929, he was appointed Assistant Lecturer in Chemstry at the University of Sydney, where he was promoted to Reader in 1948, after a leave year working as a Researcher with Dr Linus Pauling at the California Institute of Technology. In 1955, Dr Mellor became the second Chair of Chemistry at the NSW University of Technology (today's University of NSW). He later became Head of the School of Chemistry, then Dean of the Faculty of Science. Dr Mellor held many honorary appointments, including Chief Examiner roles for the State's high school examinations. He was a member of the Secondary Schools Board, the Council of UNSW and the interim Council of Macquarie University. He edited and wrote many papers for the *Journal and Proceedings of the Royal Society of NSW* and chaired the Editorial Committee of the *Australian Journal of Science*. He also wrote or edited three textbooks: *The Role of Science and Industry* (1958); *Chelating Agents and Metal Chelates* (edited with Frank Dwyer, 1964); and *The Evolution of the Atomic Theory* (1971). He was President of the University of Sydney Chemical Society, then the Royal Society of NSW 1941–1942. He received many honours and awards, including the RSNSW Medal in 1954 and the Royal Australian Chemical Institute's Smith and Leighton Medals.

HENRY PRIESTLEY
1884–1961

Biochemist Henry Priestley was born in Yorkshire and migrated with his family to Sydney in 1886. He was educated at Newington College and the University of Sydney (BSc, 1906; MB, 1909; ChM, 1910; MD with first-class honours and the University Medal, 1915). While a Resident at the Royal Prince Alfred Hospital, he won a fellowship to work and study nutrition at the Lister Institute of Preventative Medicine, London. He later studied bacteriology in London then was appointed Bacteriologist with the Australian Institute of Tropical Medicine in Townsville. In 1918 he became Lecturer and Chief Demonstrator in Physiology at the University of Sydney. He was promoted to Associate Professor of Biochemistry in 1921, then was Acting Professor of Physiology 1928–1930. In 1938 he was appointed McCaughey Professor of Biochemistry, then Head of a new Department of Biochemistry, then Dean of the Faculty of Science and a Fellow of the University Senate. He led the establishment of a BSc in Medicine. He was a foundation Fellow of the Royal Australasian College of Physicians, a member of the Linnean Society of NSW, and an Advisor to many committees of the National Health and Medical Research Council. He was President of the Royal Society of NSW 1942–1943. When he retired from his Sydney University Chair in 1948, he was annointed a Professor Emeritus.

ARTHUR BACHE WALKOM
1889–1976

Geologist Dr Arthur Walkom was born in 1889 in Grafton, NSW. He was educated at the University of Sydney; graduating BSc in 1910 and DSc with first-class honours in 1918, when he shared the University Medal with William Rowan Browne. After working as a Demonstrator for Professor Edgeworth David in the Department of Geology, he was appointed Linnaean Macleay Fellow in Geology in 1912. His initial research was on volcanic rocks in the Pokolbin District and Pyroxene granules collected on Ernest Shackleton's Antarctic Expedition 1907-1909. In 1913 he moved to Brisbane to become Assistant Lecturer in Geology at the University of Queensland as well as taking honorary roles as Palaeobotanist for the Queensland Museum, and Secretary and President of the Royal Society of Queensland, and Editor of its *Journal and Proceedings*. In Sydney in 1919, he became Secretary of the Linnean Society of NSW (until 1940) and Editor of its *Proceedings* (until 1966). In 1926, he won a Rockefeller Foundation fellowship to study palaeobotany at the University of Cambridge, then travelled in Europe for some years. After returning to Sydney, he resumed work at the Linnean Society and became a Trustee of the Australian Museum in 1939, then its Director 1940–1954. After the Second World War, he was an Australian delegate to various international science conferences and collaborative planning committees, and he edited the Australian National Research Council's *Australian Science and Abstracts*. He was a Life Member of The Royal Society of NSW from 1919; its President 1943–1944 and he won its Clarke Medal in 1948 and the Society Medal in 1953.

GEORGE DAVENPORT OSBORNE
1899–1955

Geologist Dr George Osborne was born in Marrickville and educated in Sydney Boys' High School before he entered the University of Sydney in 1917, intending to become a schoolmaster. However he developed a strong interest in geology and published his first geological paper in 1920, with help from Professor Edgeworth David. After gaining his BSc with first-class honours and the University Medal in geology in 1921, he held various research and junior teaching posts before gaining a tenured appointment at Sydney University as a lecturer and demonstrator in 1926. During the late 1920s he studied and mapped Carboniferous and Permian strata in the Hunter Valley and won his DSc from Sydney in 1929. Between 1930 and 1939, he worked and studied in Cambridge, England, where he was awarded a PhD and won a Carnegie grant to visit American geological centres. Back at Sydney University's Department of Geology, he continued research, teaching, publishing and working with a number of organisations. He was promoted to Senior Lecturer in 1945 and Reader in 1949. His monograph, *Structural Evolution of the Hunter-Manning-Myall Province* was published in 1950. Dr Osborne was President of the Sydney University Union 1933–1934; the Royal Society of NSW 1944–1945 and the Linnean Society of NSW 1948. He was also active on the Australian Research Council and the research committees of the ANZ Association for the Advancement of Science.

ADOLPH BOLLIGER
1897–1962

Biochemist Dr Adolph Bolliger was born in Zurich in 1897 and was educated at the Baden and Zurich gymnasia. Although his studies were interrupted by compulsory service in the Swiss Army during the First World War, he graduated from the University of Zurich in 1917 and won his PhD from the University of Basle in 1922. He worked for chemical and dye firms in Konstanz before migrating to the United States in 1923, where he joined Henry Ford Hospital in Detroit, where he won a medal from the American Medical Association for his research on cardiovascular disease. After meeting Australian surgeon Gordon Craig, Dr Bolliger came to Sydney in 1928 to work at the Royal Prince Alfred Hospital. Two years later he was appointed Director of the Gordon Craig Research Laboratories at the University of Sydney; from where he published papers on a wide range of medical and biological subjects. From 1938 he focused his research on marsupials; publishing papers in the *Journal and Proceedings of the Royal Society of NSW* and other science publications, on topics including hormonal changes to the sex organs of possums. In 1955 he was appointed Reader at the University and later was conferred with a DSc. He was President of the Royal Society of NSW 1945–1946 and a founding member of the Australian Mammal Society in 1958. He received two medals from the Royal Australian Chemical Institute and the RSNSW Medal in 1961.

FRANCIS (FRANK) LIONS
1901–1972

Organic chemist Dr Frank Lions was born in Perth and moved with his family to Sydney in 1903. He was educated at Sydney Boys' High School and the University of Sydney. After topping the State in the Leaving Certificate examinations for his year, he graduated with a BSc with first-class honours for chemistry and the University Medals for chemistry (1922) and organic chemistry (1923). Granted a fellowship to study further in Britain, he gained his PhD from the Victoria University of Manchester in 1925, then returned to the University of Sydney in 1926, where he was appointed as a lecturer and demonstrator in chemistry. His specialty was heterocyclic chemistry and he and colleague Francis Dwyer designed various organic molecules that could bind to metals. He named these *sexidentates* (six-toothed) molecules. He was promoted to Senior Lecturer in 1944, then Reader in 1947 and was elected as the Student Representative on the University Senate. Dr Lions was President of the Royal Society of NSW 1946–1947 and received its Medal in 1965.

JOHN ALLAN DULHUNTY
1911–1994

Geologist Dr John Dulhunty was born in New South Wales and was educated at the University of Sydney, where he graduated with a BSc and the Deas Thomson Scholarship for Mineralology in 1938. He was Linnean Macleay Fellow at the University of Sydney 1940–1944; Senior Commonwealth Research Fellow 1951–1956; then Reader in Geology from 1957 until his retirement in 1973. During this period he was also Acting Head of the Department of Geophysics. He was President of the Royal Society of NSW in 1947–1948 and the Geological Society of NSW 1964-1965. He also won the RSNSW's Medal in 1970. After his retirement, he and his wife Rona took several expeditions to Lake Eyre, which yielded many important research papers on the sedimentological and geomorphic changes of the salt flats and lake.

RONALD LESLIE ASTON
1901–1969

Civil engineer and academic Dr Ronald Aston was born in Burwood, NSW, and was Dux at Newington College before he enrolled, on scholarships, at the University of Sydney. He gained his BSc in 1921 and BE in 1923 with first-class honours in civil engineering, the University Medal and the Barker graduate scholarship. He moved to England to study at Trinity College, University of Cambridge, where he worked in the Cavendish Laboratory on the effect of boundaries on the deformation of single crystals of aluminium. He obtained his MSc there in 1925 and returned to Australia, but qualified for a Cambridge PhD in 1932 and was admitted 1955. From 1926 to 1929, he tutored in mathematics and physics at the University of Melbourne's Trinity College, then in 1930 he returned to the University of Sydney as a lecturer in surveying and engineering. In 1946, he founded the Association of Professional Engineers, Australia; then became President of the Royal Society of NSW 1948-1949 and edited the *Australian Journal of Science* (1948–1955). At Sydney University, he was promoted to Associate Professor of Geodesy and Surveying in 1956. As an Honorary Fellow of the Institution of Surveyors, Australia, he advised on establishing the degree course in surveying at the University of NSW (1958). He was also a Fellow of the Institution of Engineers, Australia.

HARLEY WESTON WOOD
1911–1984

Dr Harley Wood was born in Gulgong, NSW, and went to high school in Mudgee, where he developed an interest in astronomy. He gained his BSc with first-class honours in mathematics and physics in 1933 and his MSc in 1934; both degrees were from the University of Sydney, which in 1965 awarded him an honorary DSc for his contributions to astrometry. After two years of school teaching, he was appointed in 1936 as an Assistant Astronomer with the Sydney Observatory, where he reactivated and completed a project to photograph and analyse Sydney's night skies for an international catalogue of stars. In 1943, Mr Wood was appointed Director of the Sydney Observatory and was classified as the Government Astronomer. A year later, he was asked to complete unfinished work on the Melbourne Section of the catalogue, following closure of the Melbourne Observatory by the Victorian Government. He was strongly involved in NSW, national and international astronomical affairs and became the foundation President of the Astronomical Society of Australia. He also helped search for a rural Australian site for a large astronomical telescope, which led to the Anglo-Australian Telescope at Siding Spring. He was Honorary Secretary of the Royal Society of NSW in 1948, 1951 and 1968–1961; was its President 1949–1950 and received the Society's Medal in 1962.

FRANK RICHARD MORRISON
1895–1967

Chemist and museum director Frank Morrison was born in Randwick, Sydney, and was educated part-time at Sydney Technical College, where he obtained a Diploma in Chemistry in 1922. From 1912 to 1916 he worked as an Assistant in the Chemical Laboratory of the Metropolitan Board of Water Supply and Sewerage. After two years in the Australian Imperial Force (1916–1918), he joined the Technological Museum, where he assisted the economic chemists Henry George Smith and later Arthur de Ramon Penfold with their research on the economic potentials of Australia's natural resources, especially plants. Morrison travelled extensively in rural areas to study and collect plant material. He wrote around 50 research papers, mostly with Penfold, on volatile plant oils and chemical variations within plant species, and most were published in the *Journal and Proceedings of the Royal Society of NSW*. Morrison was President of the Royal Society of NSW 1950–1951, then won a UNESCO fellowship to inspect museums in North America, Britain and Europe in 1952. In 1958, he became Director of what is now the Museum of Applied Arts and Sciences and he received the RSNSW Medal in 1958. He retired from the museum in 1960.

RICHARD CHARLES LESLIE BOSWORTH
1907–1964

Chemist and academic Dr Richard Bosworth was born in Adelaide, was twice Dux of Scotch College and obtained a string of science degrees from the University of Adelaide (BSc, 1928; BSc Hons, 1930; MSc, 1931 and DSc, 1938). He won research scholarships in 1930 and 1933 and travelled to England to take his PhD with Trinity College, Cambridge, in 1935. On return to Australia in 1938, he became a Research Chemist with the Colonial Sugar Refining Company Ltd in Sydney. During the Second World War, he researched production of drugs, in particular Vitamin C, to support the armed forces. From 1948 to 1957, he managed CSR's Research Department; then he joined the NSW University of Technology (later renamed the University of NSW) as Associate Professor and Head of Physical Chemistry. He published numerous papers and three books: *Physics in Chemical Industry* (1950); *Heat Transfer Phenomena* (1952) and *Transport Processes in Applied Chemistry* (1956). He was President of the Royal Society of NSW 1951-1952 and President of the State branch of the British Society of Rheology and the UNSW Chemical Society. He received the H. G. Smith Medal of the Royal Australian Chemical Institute in 1952 and the RSNSW Medal in 1957 and 1959.

CHARLES JOSEPH PATRICK MAGEE
1901–1989

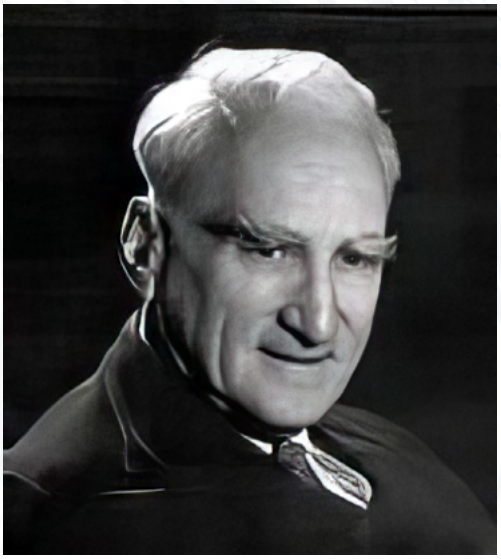
Agricultural scientist Dr Charles Magee was an international expert on crop diseases, especially insect-borne viruses. He was born in Lismore, NSW, and was educated at Sydney Boys' High School before he obtained his BAgSc from the University of Sydney in 1924. He was an Assistant Biologist with the NSW Department of Agriculture during 1924, then he moved to the University of Wisconsin, United States, where he gained an MSc in 1927. On return to Sydney, he rejoined the NSW Department of Agriculture as a Plant Pathologist (1931–1940) and isolated an aphid-borne virus that was destroying banana crops. He also was a foundation member and Councillor of the Australian Institute of Agricultural Science and gained a DScAg from the University of Sydney in 1939. He progressed at the department as a Senior Biologist 1940–1944, then Chief Biologist and Head of the Biology Branch 1944–1948 and finally Chief of the Division of Science Services 1958–1966. His work took him to Fiji, Western Samoa, The Philippines, the USA and Britain. In 1945, he was a founding member of the Australian Society of Dairy Technology, then President of the NSW Branch of the Australian Institute of Agricultural Science. During the late 1940s and early 1950s he was a Fellow, a Councillor, then Treasurer, then President (1951–1952) of the Royal Society of NSW.

IDA ALISON BROWNE
1900–1976

Dr Ida Brown was a geologist and palaeontologist of Silurian and Devonian rocks and fossils in southern NSW. She was born in Paddington, educated at Fort Street High School and graduated from the University of Sydney in 1922 with a BSc with first-class honours and the University Medal in geology. She worked as a Demonstrator at the University until 1927,when she won a Macleay Linnean scholarship to conduct a geological investigation of the South Coast, which underpinned a doctoral thesis; her DSc was awarded in 1932. She also travelled extensively to scientific conferences and research institutes. In 1934 she became Assistant Lecturer in Palaeontology at Sydney University, then Senior Lecturer in 1945; a position she was required to resign when she married fellow geologist William Rowan Browne in 1950. Her field research and publications continued privately; often in co-operation with her husband. In 1934 Dr Brown became the first woman to address the Royal Society of NSW. She served as Vice-President of the RSNSW 1942–1950, then became the first female President of the Linnean Society of NSW in 1945, then (under her married name, Dr Browne) was the RSNSW's first female President 1953–1954, and she received the RSNSW Medal in 1959.

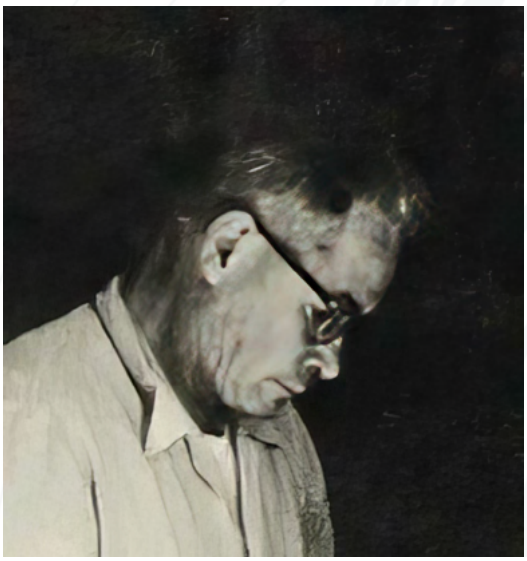
RONALD SYDNEY NYHOLM
1917–1971

Sir (Dr) Ronald Nyholm was a leading researcher in the field of inorganic chemistry during the 1950s and 1960s. He was born in the western NSW mining area of Broken Hill, with paternal ancestors from the Swedish-speaking area of Finland. As Dux of Broken Hill High School, he won a Teachers' College scholarship to the University of Sydney, where he gained his BSc in 1938, then an MSc in 1942. Influenced by lecturer George Burrows, he began lifelong research on arsines as ligunds (compounds which bind chemically to metal ions). In 1940, he began teaching chemistry at Sydney Technical College and in 1947 he went to University College, London, where he gained a PhD in 1950, then a DSc in 1953. After returning to Sydney he became a lecturer, then Associate Professor of Inorganic Chemistry, at the NSW University of Technology (later the University of NSW), where he stimulated research in the new field of coordination (multidisciplinary) chemistry. With co-author Frank Dwyer, he published 17 papers in the *Journal and Proceedings of the Royal Society of NSW*; was the Society's President 1954–1955; and received the Society Medal in 1963. After winning several honours from leading British science institutions, he returned to England in 1957 as Head of Chemistry at University College, London. He was Chairman of the Royal Institute of Chemistry's Editorial Board, a Fellow of the Royal Society and a Trustee of the British Museum. He was awarded numerous honorary doctorates and medals and was knighted in 1967.



MAX RUDOLF (RUDI) LEMBERG
1896–1975

Dr Rudi Lemberg was a German biochemist who was noted in Australia for his research on biological pigments during the 1950s and 1960s. He was born in Breslau, Germany (today's Wroclaw, Poland) to a Jewish family of lawyers. Before and during the First Wrold War, he studied chemistry, physics, mineralogy and geology at the universities of Breslau, Munich and Heidelberg. In 1917 he was allowed to enlist in the German Army as a telephonist in the trenches, and won an Iron Cross (2nd Class) for his bravery while repairing a telephone line during the Battle of the Somme, 1918. After the war, he began doctoral studies on uric acid derivatives at the University of Breslau and gained his PhD in 1922. After some years working for the Bayer chemical company and gaining teaching qualifications, he left Germany in 1933 for a research post with the Dann Institute at the University of Cambridge. In 1935 he was appointed Director of the Biomedical Laboratories at Royal North Shore Hospital in Sydney. With J. W. Legge, he wrote a book titled *Hematin Compounds and Bile Pigments*, which became a standard text. He was elected a Fellow of the Royal Society of NSW in 1952 and was its President 1955–1956. He was also a Councillor of the Australian Academy of Science and President of the Australian Biochemical Society. He received various medals and distinctions including an Honorary DSc from the University of Sydney in 1970 and the RSNSW's James Cook Medal in 1964 and Walter Burfitt Prize in 1971.



FREDERICK DAVID (FRED) McCARTHY
1905–1997

Fred McCarthy was an anthropologist and Australian Museum Curator who worked closely with his wife, Elsie McCarthy (née Bramell), on researching, conserving and promoting Aboriginal art and material culture during and after the Second World War. He was born in Petersham, Sydney, and began work at the Australian Museum as an Assistant Librarian in 1920; shortly before Elsie Bramell arrived in a slightly more senior role. They became Scientific Assistants in charge of the museum's Anthropological and Numismatic Collections; in this collaborative role, they curated exhibitions, catalogued collections, classified and analysed stone tools, conducted archaeological excavations and carried out anthropological and ethnographic studies. They were also pioneers in advocating the protection of Aboriginal heritage. After Bramell gained several degrees and McCarthy gained a Diploma of Anthropology in 1935 and published his first book, *Australian Aboriginal Decorative Art*, in 1938, the couple married in 1941. Bramell was forced to resign from the museum and McCarthy became Curator of the Anthropological and Numismatic Collections. He continued fieldwork and studied Aboriginal culture and produced more books and papers, including *Australian Aborigines: Their Life and Culture* (1957) and *Australian Aboriginal Rock Art* (1958). In 1964, he was appointed foundation Principal of the Australian Institute of Aboriginal Studies in Canberra. He was President of the Royal Society of NSW 1956–1957 and received its Medal in 1964. After his retirement in 1971, he received an honorary DSc from the Australian National University in 1980.

FREDERICK NOEL HANLON

?–?

Frederick Hanlon was a mining geologist who was admitted to the University of Sydney's Faculty of Science in 1931, where he gained a BSc and DipEd. He worked for the NSW Department of Mines, for which he surveyed the Ashford coalfield and advised on earth slippages in coal mining areas of the NSW South Coast. In 1954, he advised the Silver Valley Uranium Company on deposits of uranium, silver, lead, copper, zinc and tin at Howell, near Inverell. He was President of the Royal Society of NSW 1957–1958.

JAMES L. GRIFFITH

?–?

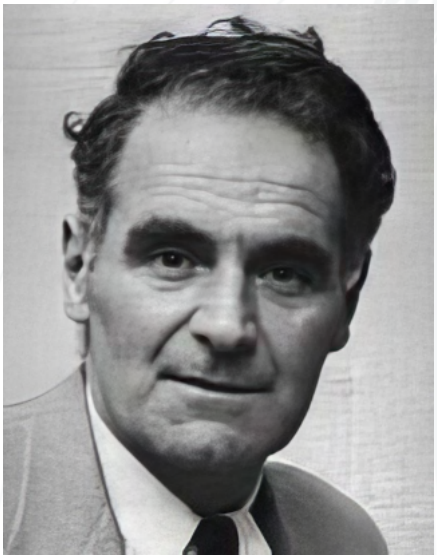
James Griffith was a mathematician who co-authored and edited the 1959 book *Complementary Mathematics*. He was President of the Royal Society of NSW 1958–1959 and received its Medal in 1971. In 1964, he won the RSNSW's Archibald Ollé Prize for his paper on Mellin transforms, published in the*Journal and Proceedings of the RSNSW*.

ARTHUR FREDERICK ALAN HARPER
1913–1991

Physicist Dr Alan Harper was born at Summer Hill, Sydney, and was educated in England, where he was Dux of Wilson Central School, Reading, and in 1928 completed the Oxford University senior examination with first-class honours in physics; although he was deemed too young (age 15) to enrol then. After returning to Australia, he studied physics at the University of Sydney and gained a BSc (Hons) and the University Medal in 1934 and his MSc in 1935. He next took a position with the University's Cancer Research Committee, as State Physicist to Hospitals, where his duties included advising on radiation safety. When the Council for Scientific and Industrial Research (CSIR) established a National Standards Laboratory in 1938, he was awarded a studentship in its Physics Section and travelled to England for training with Britain's National Standards Laboratory at Teddington. For many years he was Leader of the Heat Section in the CSIR's Division of Physics, where much of his research involved establishing and maintaining the standards of viscometry and hygrometry and low-temperature properties of materials. In 1971 he became an Executive Member of the Metric Conversion Board and was credited for the successful conversion program. He was President of the Royal Society of NSW 1959–1960 and won its Medal in 1967. He also helped to establish the Australian Institute of Physics in 1962 and was its President 1969-1970.

HENRY ARTHUR JAMES DONEGAN
1902–1987

Mine safety expert Henry Donegan was born in Chiswick, London, and migrated to Australia with his family as a 'ten pound Pom' on the federal government's assisted immigration scheme. He wrote a 1954 thesis at the University of NSW on causes of fires in NSW coal mines, then joined the NSW Department of Mines, where he wrote various papers on coal mining management and safety issues. He was President of the Royal Society of NSW 1960–1961; received its Medal in 1966 and was awarded an AM in 1975. In retirement, he self-published a memoir of his migrant family, *The Pommy Kid* (1970), and a history of the Boy Scout movement in the St George area of Sydney (1983). He died at home near Sans Souci, southern Sydney, aged 85.



RAYMOND JAMES WOOD LE FÈVRE
1905–1986

Chemistry professor Dr Raymond Le Fèvre was born at Hornsby, north London, and was educated at the Catholic Salesian College at Farnborough before gaining four degrees in chemistry at Queen Mary College, University of London (BSc, 1925; MSc, 1927; PhD, 1929; DSc, 1935). He worked in the discipline of physical organic chemistry, using new techniques to solve questions of molecular structure. In 1938 he published a book titled *Dipole Moments: Their Measurement and Application in Chemistry*. When the Second World War began in 1939, he began to train gas identification officers for the Department of Home Security, then he joined the Directorate of Scientific Research as an Advisor on Chemical Weapons. He was seconded to the Royal Air Force; arranging anti-gas defences and supervising the storage and later the destruction of RAF chemical weapons. After the war, Le Fèvre came to Australia to take up an appointment at the University of Sydney as Professor of Chemistry, 1946. He helped to plan a new Chemistry Building and presided over a successful research school until 1970. His work in molecular electric anisotropy was described as 'outstandingly original'. He was a Fellow of the Royal Australian Chemical Institute; the Australian Academy of Science; and the Royal Society of NSW (1959). He also was President of the Royal Society of NSW 1961–1962 and won its Medal in 1969. After he retired from the University of Sydney in 1970, Le Fèvre continued to advise Macquarie University in an honorary role. Sydney University awarded him an honorary DSc in 1985.

WILLIAM BRODERICK SMITH-WHITE
1909–1986

Born in Sydney, mathematician William Smith-White gained his BSc from the University of Sydney in 1930 and a BA from the University of Cambridge in 1932. He worked for the Prudential Assurance Co in Sydney 1932–1934, then was a tutor in mathematics at Trinity College, the University of Melbourne 1935–1936. He returned to the University of Sydney as a lecturer in mathematics 1937–1959, then was an associate professor 1960–1974. He was President of the Sydney branch of the London-based Mathematical Association 1949–1950, then was President of the Royal Society of NSW 1962–1963. He received the RSNSW Medal in 1982.

HOWARD HAMLET GORDON MCKERN
1917–2000

Analytical chemist Howard McKern was born in Mosman, Suydney, and was educated at Newington College, where he obtained first-class honours in chemistry and geology in his Leaving Certificate in 1934. He gained a Diploma in Chemistry from Sydney Technical College in 1942 and his MSc from the University of NSW in 1957. From 1936 to 1945, he worked as an Analytical and Organic Chemist at the Meggitt Laboratory in Parramatta. From 1945 to 1960, he was in charge of the Chemistry Department of the Museum of Applied Arts and Sciences in Ultimo, where he directed research on the chemistry of essential oils, then became the museum's Deputy Director 1960–1977. He published more than 40 papers; many in the *Journal and Proceedings of the Royal Society of NSW*. He was the Society's President 1963–1964 and won its Medal in 1968.

JOHN WILLIAM (JACK) HUMPHRIES
1916–2006

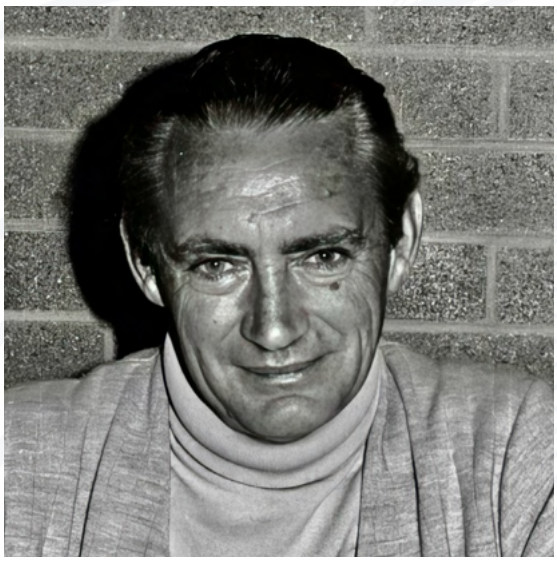
Scientist Jack Humphries was born in New Zealand and spent his childhood on the family farm. He was apprenticed to the NZ Lands Department in New Plymouth in 1934, then moved to Wellington in 1938 to begin night classes in science at Victoria University. He worked in the Standards Laboratory of the NZ Department of Science and Industrial Research—a job which included calibrating instruments on military ships and planes during the Second World War— before graduating with his BSc from Victoria University in 1945. After visiting Australia to meet counterparts at the Council for Scientific and Industrial Research (forerunner of today's CSIRO), he was offered a position at its National Standards Laboratory at Sydney University. In this role, he was responsible for maintaining the Bertha balance which established the national standard of mass. He lived on the upper North Shore and was involved in community and church activities before he retired from the CSIRO in 1981. He was Secretary of the Royal Society of NSW for many years; its President 1964–1965 and he received the Society Medal in 1977

ALAN A. DAY
?–?

Alan Day was a geologist. He edited the *Journal and Proceedings of the Royal Society of NSW*, was the Society's President 1965–1966 and received its Medal in 1979.

ALAN HEYWOOD VOISEY
1911–1995

Geologist Dr Alan Voisey was born in Cessnock, NSW, and was educated at the University of Sydney (BSc and DipEd, 1933), then taught at the Greta Public School in 1934. He was an Assistant Geologist for the Aerial, Geological and Geophysical Survey of Northern Australia 1935–1936, then won a Macleay Fellowship from the Linnean Society of NSW to gain his MSc at Sydney University in 1938. From 1939 to 1952, he lectured in geology and geography at New England University College, then was Visiting Professor of Geology at Antioch Collee in Ohio while his University of Sydney PhD thesis was examined, then passed in 1954. From 1954 to 1965, he was Professor of Geology at the University of New England; then foundation Professor of Geology and Head of the School of Earth Sciences at Macquarie University 1966-1971. He is commemorated by the A. H. Voisey Medal of the NSW Division of the Geological Society of Australia. He won the Royal Society of NSW's Clarke Medal in 1957 and was the Society's President 1966–1967.



ANGUS HENRY (GUS) LOW
1929–2012

Mathematician Dr Angus Low was born in 1929 in Newcastle and educated at Newcastle High School, the University of Sydney and the University of NSW; where he won his PhD with a 1960 thesis on some aspects of fluid flow past porous barriers and surfaces. He was a lecturer and senior lecturer in applied mathematics at UNSW 1954–1964 and a senior lecturer from 1964 until his retirement. He was President of the Royal Society NSW 1967–1968 and died at Gordon, aged 83.

AUSTIN KEANE
1927–1979

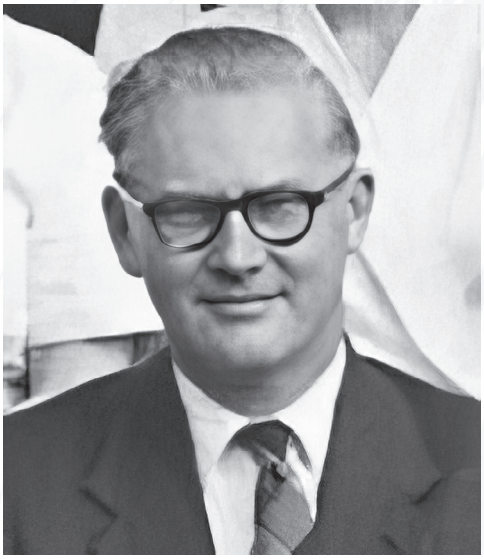
Mathematician Austin Keane was born in Sydney and educated at the University of Sydney and University of NSW. From 1949 to 1961, he was a lecturer then senior lecturer in mathematics with UNSW. He edited various mathematics publications from 1959 to 1967. From 1961 to 1964 he was Principal Research Officer and Head of the Theoretical Physics Section of the Australian Atomic Energy Commission and UNSW's Visiting Professor of Nuclear Engineering. From 1964 to 1978, he was Professor of Mathematics with the University of Wollongong, where he published various papers and reports that were compiled in two volumes now held at the University's archives. He was a member of various University committees, a foundation member of the Australian Mathematics Society and a Councillor of the Institute of Marine Science. He also was President of the Royal Society of NSW 1968–1969. When he retired in 1978, the University of Wollongong awarded him the title of Emeritus Professor, and after he died in 1979, the University posthumously awarded him an Honorary DSc.

JOHN WILLIAM GEORGE NEUHAUS
?–?

John William George Neuhaus was a mathematician who wrote his University of NSW masters thesis on Sthnological radioactive carbon dating in 1965. He was an Analytical Laboratory Research scientist with the NSW Department of Health and published on mercury and pesticides in fish. He was President of the Royal Society of NSW 1969–1970.

WILLIAM ERIC SMITH
b. 1931

Mathematician Dr William Smith was educated at Sydney Technical Boys' High School in Paddington, NSW, then studied electrical engineering and physics at the University of Sydney, where he graduated with a BSc and the University Medal in 1952. During the mid-late 1950s, he worked for the Division of Electrical Technology at the Commonwealth Scientific and Industrial Research Organization (CSIRO); which awarded him a scholarship to study at Oxford, where he graduated in 1956. On return to the CSIRO, Dr Smith worked on precision electrical measurements, microwave spectroscopy and electromagnetic circuit theory. From around 1960 to 1984 he was a senior lecturer, associate professor, then an honorary professor with the School of Mathematics at the University of NSW. He was a Councillor of the Royal Society of NSW for many years, was its President 1970–1971 and received the Society's Medal in 1981.



MAURICE JAMES PUTTOCK
1921–1985

Born in Britain, metrologist Dr Maurice Puttock was trained as a civil and mechanical engineer and worked at the National Physical Laboratory in Teddington, then served in the Royal Air Force and Royal Navy during World War II. He and his family migrated to Australia in 1953, and he joined the Commonwealth Scientific and Industrial Research Organization (CSIRO) at its National Standards Laboratory, where he worked on dimensionally related problems until his retirement in 1984. He was best known for pioneering large-scale metrology, especially applied to the geometry of the CSIRO's parabolic radio telescope. In 1968, he wrote, with E. G. Thwaite, an influential technical paper on elastic compression of spheres and cylinders at point and line contact. He was active as a Committee Member and Chair with the Australian Standards Association and the International Standards Organization and was a Commissioner of the National Standards Commission. He was President of the Royal Society of NSW 1971–1972 and received the Society Medal in 1978.

JOHN CRAIG CAMERON
?–?

John Cameron was President of the Royal Society of NSW 1972–1973.

JOHN P. POLLARD
?– ?

John Pollard was President of the Royal Society of NSW 1973–1974.

JOHN WILLIAM PICKETT
b. 1937

Geologist Dr John Pickett was born in Kempsey, NSW, and gained his MSc from the University of New England in 1962. He won a scholarship from the German Academic Exchange Service to gain his doctorate from the J. W. Goethe University in Frankfurt. He returned to Australia in 1964 to join the NSW Geological Survey as a Palaeontologist and began to curate the survey's neglected collection of fossils. As well as publishing memoirs on the fossil Carboniferous corals of New England and Palaeozoic sponges of NSW, he provided palaeontological support for the geological staff of the Survey. After joining the Royal Society of NSW, he was its Secretary, President 1974–1975, then Treasurer during the RSNSW's expulsion from Science House at The Rocks. The fossil collections that he managed at the nearby Mining Museum were also threatened by the government's plans to redevelop The Rocks with tower buildings. Dr Pickett edited the Australian palaeontological journal *Alcheringa* for 12 years until he became Assistant Director (Regional) of the Geological Survey, where he remained until his retirement in 1997. He authored or co-authored more than 100 publications, was a Corresponding Member of the International Union of Geological Sciences' Sub-Commission on Devonian Stratigraphy, and remains a Councillor of the Linnean Society of NSW.

EDRIC KEITH CHAFFER
1933–2021

A leather goods manufacturer and geologist, Edric Chaffer was a generous stalwart of the Royal Society of NSW. Enthused by an RSNSW geology lecture while a student at Knox Grammar in 1949, he gained an honours pass in the subject for his Leaving Certificate, then took night classes at the Sydney Technical Institute while working at his father's large tanning and leather goods business during the day. He assembled a large collection of rocks and remained interested in history and engineering. At the Royal Society of NSW, he was a Councillor for many years; Honorary Secretary 1970–1971, and President 1975–1976. He received the Society's Medal in 1976.

DALWAY JOHN (DAL) SWAINE
1920–2013

Geochemist Dr Dalway (Dal) Swaine obtained his BSc and MSc from the University of Melbourne in 1945 and 1947, then gained a PhD from the University of Aberdeen in 1952. As an undergraduate student, he joined the Council for Science and Industry Research (today's CSIRO) as an Sssistant Research Officer with its Lubricants and Bearings Section. After his doctorate, he worked as a Senior Research Officer with the Macauley Institute for Soil Research in Scotland until 1959. He returned to Australia in 1960 as Senior Research Scientist with the CSIRO's Coal Research Division. Here he specialised in the geochemistry of trace elements in coals and authored of co-authored more than 30 papers and three books: *Biogeochemical Cycling of Mineral-forming Elements* (with P. A. Trudinger, 1979);*Trace Elements in Coal* (1990); and *Environmental Aspects of Trace Elements in Coal* (with F. Goodarzi, 1995). His research won numerous awards, including the Peter H. Given Award for Coal Science from Pennsylvania State University (1998); the Research Excellence Award from the University of North Dakota (2000) and the Merrill W. Haas Award from the University of Kansas. Dr Swaine was a Fellow of the Royal Australian Chemical Institute, the Australian Institute of Energy and the Royal Society of NSW. He was President of the Royal Society of NSW 1976–1977 and was awarded the Society's Medal in 1985.

WILLIAM HUMPHREY ROBERTSON
1918–1986

William Robertson was the last person to hold the title of NSW Government Astronomer (1975–1982) before the Sydney Observatory closed as an astronomical research centre. After obtaining a BSc and DipEd from the University of Sydney in 1940 and 1941, he joined the Observatory in 1942 and was in charge of recording the movements of minor planets from 1953 until 1975. He was President of the NSW branch of the British Astronomical Association (today's Sydney City Skywatchers group) 1947–1950 and 1964–1966. In September 1973, he made a historic observation of an occultation of the small planet Ceres and in 1976 he published research on the proper motions in and around galactic cluster NGC6025. He regularly gave lectures on astronomy at the University of Sydney. He also wrote regularly for the *Journal and Proceedings of the Royal Society of NSW*, received the Society Medal in 1975, and was the Society's President 1977–1978.

FRANCIS CLIFFORD BEAVIS
1924–?

A geologist, palaeontologist and lawyer, Dr Francis Beavis was born in Melbourne and was educated at the universities of Melbourne (BSc, PhD), Cambridge (MA) and New South Wales (LLB). From 1956 to 1973 he was a senior lecturer in geology at the University of Melbourne, then he was Head of the School of Applied Geology at the University of NSW 1973–1979. Dr Beavis became UNSW's foundation Professor of Engineering Geology 1973–1986. He was also a Barrister at Law 1987–994 and was UNSW's Emeritus Professor of Engineering Geology from 1986 and a consultant geologist. He was President of the Royal Society of NSW 1978–1979.

DONALD HAROLD NAPPER
b. 1937

Physical chemistry professor Dr Don Napper was educated at the University of Sydney, where he graduated BSc with the University Medal for physical chemistry in 1959, then gained his MSc in 1960, before obtaining a PhD from the University of Cambridge in 1963. While an undergraduate, he was a trainee chemist with the Colonial Sugar Refinery (CSR), which also employed him after his return from Cambridge, 1963–1966. He returned to Britain in 1966 to lecture in physical chemistry at the University of Bristol, while working as a research officer with ICI (Paints). In 1968, he returned to the University of Sydney as Queen Elizabeth II Fellow with the Department of Physical Chemistry; where he moved up the ranks over many years to become a professor and Head of the School of Chemistry, then Pro Vice-Chancellor of the College of Science and Technology 1997–2003. He won various awards from the Royal Society of NSW and NSW branch of the Royal Australian Chemical Institute. He was President of the Royal Society of NSW 1979–1980. In 2003 he became Chair of the Bragg Institute Advisory Committee of the Australian Nuclear Science and Technology Organization (ANSTO) and a University of Sydney Professor Emeritus. He also was awarded a Centenary Medal for service to Australian society and science in polymer colloids.

GEORGE STUDLEY GIBBONS

?–?

Geologist and building archaeologist
Dr George Gibbons gained his PhD from the University of NSW in 1971 and worked for the National Trust of Australia (NSW) as an adviser on conservation of historic buildings. He edited a 1978 National Trust symposium anthology on maintaining and restoring masonry walls. He was President of the Royal Society of NSW 1980–1981 and received the Society's Medal in 1987.

BRUCE ALBERT WARREN
b. 19??

Pathologist Dr Bruce Albert Warren graduated in medicine at the University of Sydney then obtained an MA, PhD and DSc at the University of Oxford. Following further research and teaching in Canada, he returned to Sydney in 1980 and became Professor and Head of the Department of Pathology at the Prince Henry/Prince of Wales Hospital of the University of NSW, where he remained until his retirement in 1997. He published 81 papers, mainly concerned with tumour biology and thrombosis, and authored many textbooks about basic histology and atheroembolisms. He also edited the *Journal of the Royal College of Pathologists in Australasia* 1988–1995 and was President of the Royal Society of NSW 1981–1982, where he remains a Distinguished Fellow. Awarded an OAM in 2018, he is a Fellow of the Australian Institute of Management, the Royal College of Pathologists and the Royal College of Pathologists of Australasia. He is also a Life Fellow of the Royal Microscopical Society, a Life Member of the American Association for the Advancement of Science, and was a member of the Scientific Advisory Committee of the NSW Division of the National Heart Foundation 1983–1996.

TREVOR WILLIAM COLE
b. 1943

Electrical engineer Trevor Cole was born in Perth and graduated BE (Hons) from the University of Western Australia in 1965 and gained his PhD, on the discovery and timing of pulsars, from the Cavendish Laboratory at the University of Cambridge in 1970. He worked in the Netherlands then with the CSIRO's Radio Physics Group before he joined the University of Sydney in 1980. He spent 25 years as Sydney University's Peter Nicol Russell Professor of Electrical Engineering, where he had periods as Head of Electrical Engineering, Deputy Chair of the Academic Board and Executive Director of the Warren Centre for Advanced Engineering. He also was a Trustee of the Powerhouse Museum, Chair of the Education Committee of the Australian Academy of Technology, Science and Engineering (ATSE), a member of the Commonwealth Government's Industry Research and Development Board, and Chair of the Research and Development Committee of the Overseas Telecommunications Commission. His research focus was on signal and image processing during his early career, then he became concerned with the creation of technology-based goods and services. On retirement from the University of Sydney he was granted the title Emeritus Professor. He received numerous awards, including the Edgeworth David Medal from the Royal Society of NSW (1978); the David Rivett Medal from the CSIRO Officers Association (1980), and the Centenary Medal (2001). Professor Cole was President of the Royal Society of NSW 1982–1983, then Vice-President 1983–1986.

ROBERT SYLVESTER VAGG
b. 1945

Chemistry professor Dr Robert Vagg was educated in chemistry at the University of NSW (BSc 1965, MSc 1967), then became a tutor in chemistry and a PhD candidate at Macquarie University (1967–1970, PhD 1971). He was a Research Fellow at University College, London (1970–1972) before returning to Macquarie University as a chemistry lecturer. In 1997 he was appointed to a personal Chair in Chemistry, and became an Emeritus Professor in 1999. Through 2005–2018 he was an adjunct professor with the Department of Chemistry and Institute for Future Environments at the Queensland University of Technology (2014–2017). He also qualified as a financial investment analyst and presented his science-based financial market research results to various national and international investor associations. Since 2017 he has acted as consultant to the Flack Group, a boutique wealth management firm, on the algorithmic risk management of investment fund portfolios. Robert was President of the Royal Society of NSW 1983–1984 and received the RSNSW Medal in 1984 and the Archibald D. Ollé Research Prize in 1985. He is a Fellow of the Royal Australian Chemical Institute and the Financial Services Institute of Australasia.

RAGBIR SINGH BHATHAL
1936–2022

Dr Ragbir Bhathal was an Australian astronomer and author who gained his BSc from the University of Singapore and a PhD on magnetism from the University of Queensland. He spent most of his career at Western Sydney University and was known for his work on optical search for extra-terrestrial intelligence (OSETI), nanosecond laser-pulsed communications, astrophysics, galactic surveys and the history of Australian astronomy. He wrote 15 books on science and history topics; including *Australian Astronomers: Achievements at the Frontiers of Astronomy* (1996), *Profiles: Australian Women Scientists* (1999), *The Search for Extraterrestrial Intelligence* (2000) and *Aboriginal Astronomy* (2010). Dr Bhathal served as President of the Royal Society of NSW 1984–1986; was its Honorary Secretary 1989–1991 and was awarded the RSNSW Medal in 1988. He also was a UNESCO Consultant on Science Policy for the ASEAN group of nations, an advisor to federal Minister for Science Barry Jones, Project Director for renovations to the Sydney Observatory and Deputy Director of the Museum of Applied Arts and Sciences in Sydney. He designed and built the twin-dome Campbelltown Rotary Observatory at WSU and was Director of the Observatory 2000–2022.

JOHN HAROLD LOXTON
b. 1947

Mathematician Dr John Loxton was educated at the University of Melbourne (BSc, 1969; MSc, 1970) and obtained his PhD from the University of Cambridge in 1972. He was a lecturer with the University of NSW School of Mathematics and Statistics 1972–1986, then joined Macquarie University as Professor of Mathematics in 1987. He was Dean of Macquarie's School of Mathematics, Physics, Computing and Electronics 1988–1991 then became the University's Deputy Vice-Chancellor (Academic) 1996–2006. He then joined the University of Western Sydney as a Deputy Vice-Chancellor 2007–2008, then was its Senior Academic Adviser 2009–2019. He served two terms as President of the Royal Society of NSW; 1985–1986 and 1992–1993, and received the Society's Medal in 1989. He also chaired the University's Committee of Academic Boards in NSW and ACT 1992–1995 and the national Chairs of Academic Boards Forum since 2017. He also edits the *Bulletin of the Australian Mathematical Society*.

MICHAEL ANTHONY STUBBS-RACE
b. 1932

Physicist Michael Stubbs-Race was born in Buckinghamshire, England, and was educated in radio telecommunications engineering at Ipswich Civic College and London Southbank University. He spent five years in the Royal Air Force (1950–1955), then joined the Atomic Weapons Research Establishment at Aldermaston, Berkshire, as a research assistant. He worked at monitoring stations in remote areas of the United States, Canada and Australia then returned to Aldermaston to join the Herald Beam Physics Reactor there. In 1973 he returned to Australia and began work as a biomedical engineer for Messrs N. Stenning & Company in Camperdown; then worked for Roche Diagnostics in Dee Why as Technical Services Manager (1975–1977), then became a technical advisor for EMI Ltd. He was President of the Royal Society of NSW 1986–1987 and is a Fellow of the Association (now Institute) of Sound and Communication Engineers and a Justice of the Peace.

FREDERICK LINSTEAD SUTHERLAND
b. 1936

Geologist Dr Lin Sutherland gained his BSc (Hons) in 1962 and MSc in 1966 from the University of Tasmania, then a PhD from James Cook University, Townsville, in 1980. He began his career as a geologist with the Queen Victoria Museum, Launceston, 1958-1965, then was Keeper in Geology and Archaeology at the Tasmanian Museum, Hobart, 1966-1970. After working as a lecturer in petrology at James Cook University, Townsville, in 1971, he joined the Australian Museum in Sydney in 1973 as Curator of Mineralogy and Petrology. He was President of the Royal Society of NSW 1987–1988 and 1992–1993 and received the RSNSW Medal in 1990. With the Australian Museum, he was Senior Research Scientist then Principal Research Scientist until his retirement in 2001, and he remains a Senior Fellow (Geosciences and Archaeology) there. He also was an Adjunct Professor with the School of Science, University of Western Sydney, until 2012. Since 2018, he has been an Editorial Board member for the international journal *Minerals*, and has guest-edited some of its special issues.

DENIS EDWIN WINCH
b. 1937

Geophysicist Dr Denis Winch was Dux of Homebush Boys' High School in 1953 and gained his BSc with first-class honours from the University of Sydney in 1961, then his PhD, on geomagnetism, in 1967. In 1963, he became a lecturer on applied mathematics with Sydney University's School of Mathematics and Statistics and was an associate professor there from 1973 until his retirement as an honorary associate professor in 1997. He co-authored papers for international journals on medical and geospatial science issues. He was President of the Royal Society of NSW 1988–1989 and received the Society's Medal in 1991.

HAROLD S. (HARRY) HANCOCK

?–?

Mathematician Mr Harry Hancock introduced computing facilities, training and research to the Macquarie University School of Mathematics and Physics. He was President of the Royal Society of NSW 1989–1990.

G. W. K. (KIM) FORD

?–?

Nuclear physicist Dr Kim Ford is believed to have been educated in England and to have obtained an MA from the University of Cambridge. He wrote many publications on atomic energy topics. In 1980, he became foundation Chief of the Nuclear Technology Division of the Australian Atomic Energy Commission. He worked at the nuclear fission research facility at Lucas Heights, western Sydney. He was President of the Royal Society of NSW 1990–1991 and received the Society Medal in 1992.

EDMUND C. POTTER
1923–2005

Combustion chemistry researcher Dr Edmund Potter was born in England and was educated at the University of London, where he obtained a PhD in physical chemistry. He first worked for the British Electricity Authority on the corrosion of steel, then he began researching the fundamental properties of steel, particularly the behaviour of magnetite. From 1955 to 1965, he published at least six papers (three co-authored with colleagues) on internal corrosion of boiler tubes, and a 1956 textbook: *Electrochemistry: Principles and Applications*. In 1968, he moved to Sydney to work with the Commonwealth Science and Industry Research Organization (CSIRO) on how to prevent combustion of pulverised flue ash in furnaces beside boilers. During the 1970s, Dr Potter and C. A. Paulson led a team that developed a technique for reliably estimating the design parameters for a projected precipitator, using observations obtained from a scaled-down coal combustion furnace. This produced cleaner smoke emissions and collections of more fly ash. Dr Potter was President of the Royal Society of NSW 1991–1992 and 1997–1998, and received the Society's Medal in 1994.

ROBERT ARMSTRONG LEE OSBORNE
b. 19?

Geologist Dr Armstrong Osborne gained his BSc (Hons) in 1976, his MSc in in 1982 and PhD in 1986; all from the University of Sydney. He was a high school science teacher 1978–1980, then a tutor of geology and geophysics with Sydney University 1982–1986, before joining the Australian Museum as an Education Officer 1987–1990. In 1990 he was appointed as an Associate Professor with Sydney University's School of Geosciences. His research specialties are karst geology, geomorphology and geoconservation; particularly limestone caves. He was a Research Associate with the Australian Museum and a Visiting Fellow with the Karst Research Institute in Slovenia.

JOHN ROBERT HARDIE
b. 1953

John Hardie gained his BSc from the University of Sydney and became an educationalist in the higher education, vocational training and non-profit sectors. He specialises in strategy, governance, curriculum, educational technology and instructional design. He is a Fellow of the Royal Society of NSW, the Higher Education Academy and the Geological Society of London. He was President of the Royal Society of NSW 2007–2011 and has been President of the Royal Societies of Australia since 2010. He won its Medal in 2012. In 2021, he was awarded an AM for services to science education and professional societies.

DAVID FRANCIS BRANAGAN
1930–2022

Geologist Dr David Branagan was born at Broken Hill, NSW, and studied at St Ignatius' College and the University of Sydney, when his family relocated to Sydney. After completing a BSc in 1950, he worked as a Field Geologist in regional NSW and north-west Queensland. He spent some time in London teaching secondary school science, and working on photo-geological interpretation for the Hunting Geological Services. After returning to Australia he was a Research Fellow and later an Associate Professor at the University of Sydney, where he gained his PhD in 1963. His association with that University lasted 74 years. He specialised in civil and mining engineering geology, field mapping, and the Sydney Basin. He often appeared in courts as an expert witness. Branagan authored or edited almost 300 papers and 20 books, and his biography of Tannatt William Edgeworth David was a 2007 finalist for the Prime Minister's Prize for Australian History. As well as his presidency of the Royal Society NSW 1995–1996, he chaired the NSW HSC Board of Studies for Science and was Chief Examiner for Geology. He also was President of the International Commission for the History of Geology, foundation Editor of the *Australian Geologist*, and he received various awards, including the Royal Society of NSW Medal in 1998.

KELVIN LLOYD GROSE
1930–2007

Dr Kelvin Grose was an academic and historian who researched and wrote books and papers on NSW schools, teachers and education, family and local history. He was President of the Royal Society of NSW 1996–1998.

DANIEL JOHN O'CONNOR
1927–2014

Industrial chemist Dr Daniel O'Connor was born in a Melbourne cottage just before the 1930s economic depression, then he won a free place at the University of Melbourne, where he completed a BSc, MSc and PhD in mineral chemistry during the late 1940s and early 1950s. He went to Britain for further research at the University of Manchester at Harwell. On return to Australia in 1957, he became a researcher with the Australian Atomic Energy Commission at Lucas Heights and a part-time lecturer at the University of NSW. His research career continued at Taubmans Industries and Colonial Sugar Research (CSR). Although most of his findings were recorded in confidential corporate and government reports, he authored or co-authored about 40 papers published in journals such as *Nature* and *The Journal of Chemistry*. He gained further degrees at the University of Sydney, including an MEcon in science and public policy. He was active in some non-profit organisations, including the Royal Australian Historical Society. He was President of the Royal Society NSW 1998–1999 and received the Society Medal in 1999.

ANTHONY THOMAS BAKER
b. 19?

Chemistry professor Dr Tony Baker obtained his BSc (Hons) and PhD from the University of NSW and later gained an Honorary Doctorate from Pranakhon Rajabhat University in Thailand. He worked at the School of Chemistry and Forensic Science at the University of Technology Sydney, where he was appointed an Emeritus Professor in 2016. He is a Fellow of the Royal Australian Institute of Chemistry and the Australian Institute of Company Directors. He was President of the Royal Society of NSW 1999–2000.

PETER ALLAN WILLIAMS
b. 1950

Chemistry and geology professor Dr Peter Williams was educated at Macquarie University, where he gained a BA (Hons) in 1970 and his PhD in 2005. He was foundation Professor of Chemistry at the University of Western Sydney in 1993 and was Dean of its Faculty of Science and Technology 1993–1998, then Senior-Associate Head of the School of Natural Sciences. During his academic career he was active in university affairs; wrote or co-wrote more than 300 published papers; edited or co-edited various specialist mineralogy journals, and supervised more than 50 postgraduate degree candidates. He also was an active member, Fellow and officer of various professional organisations; notably the Mineralogical Society of NSW and the Royal Society of NSW, where he was President 2000–2001. He received various awards, including the RSNSW Medal in 2001.

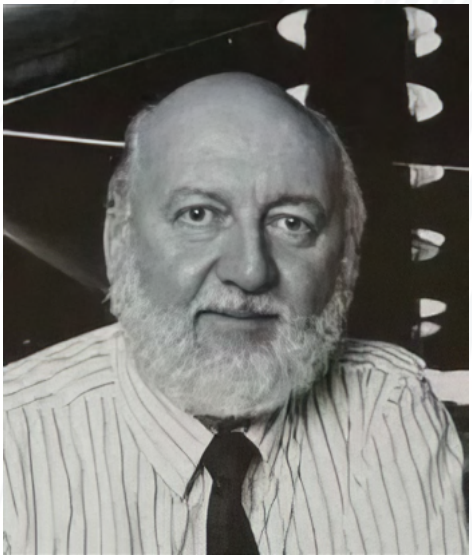
DAVID ANDREW CRADDOCK

b. 1941

David Craddock is an aeronautical engineer and aviation historian. He gained his BSc in aeronautical engineering from the University of NSW in 1976 and a Graduate Certificate in Management from the University of Western Sydney in 1998. He was a senior executive with the Department of Defence's Directorate General of Technical Airworthiness and wrote four books on Australian-designed gliders (1987–1994); two more books on Lawrence Hargrave 's experiments with box kites (1994) and George Taylor's 1909 gliding flights (1999), and various papers on Australia's early history of aircraft design. He was active in the Australian branch of the Royal Aeronautical Society, the Australian Society for History of Engineering and Technology, and the Hornsby and District Historical Society. He was President of the Royal Society of NSW 2001–2002.

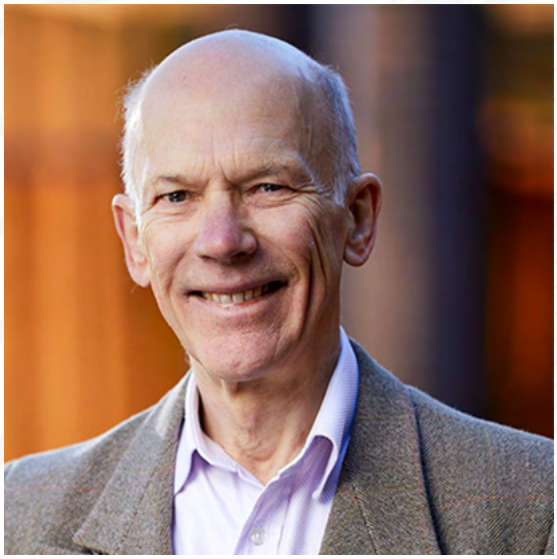
KARINA FRANCESCA KELLY
b. 1959

Television journalist and science communicator Dr Karina Kelly was born in Reading, England, and studied archaeology, history and literature to gain her BA(Hons) from the University of Sydney in 1980. She worked for the Special Broadcasting Service multicultural television channel and the Australian Television Network's Channel 7 before moving to the Science Department of the Australian Broadcasting Corporation, where she presented and reported for the *Quantum* and *Catalyst* science series. She holds an honorary DLitt from the University of Wollongong, a World Gold Medal from the New York Film Festivals and a Michael Daly Award for Science Journalism. For *Quantum*, she devised the Save Eric appeal, which raised over $A500,000 to buy the opalised fossil of a pliosaur for the Australian Museum in Sydney. She served on the Council of the National Museum of Australia, the Near Eastern Archaeology Foundation of the University of Sydney, the Advisory Board of the Monash Science Centre and the Trust of the Australian Museum. As President of the Royal Society 2003–2004, she organised the historic first meeting of the State Royal Societies of Australia; secured three-year funding for the Society from the NSW Government; set up the inaugural Eureka Award in Interdisciplinary Science; and moved the Society to larger and more suitable accommodation at the University of Sydney.



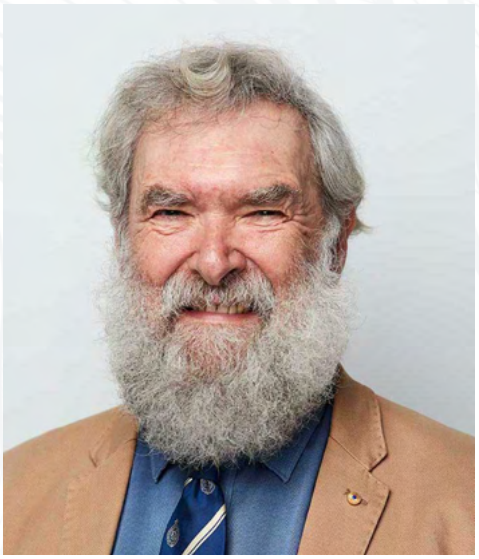
JOHN CHARLES (JAK) KELLY
1928–2012

Dr Jak Kelly graduated in physics from the University of Sydney and worked at the CSIRO before moving to Britain to complete a PhD at the University of Reading. He published his first paper in *Nature*, describing a new method of vibration measurement using multiple beam interferometry. He returned to Australia to join the Department of Physics at the University of NSW. Kelly published more than 150 papers developing new techniques for charged particle beams and their interaction with solids. He received an Honorary DSc from UNSW for his long commitment to physics. He was Head of the School of Physics and Chair of the UNSW Faculty of Science. He was also Chair of the Australian Institute of Physics and Editor of *Australian Physics*. Dr Kelly was President of the Royal Society of NSW 2005–2006.



DONALD CHARLES ALEXANDER HECTOR
b. 1950

Engineer Dr Don Hector was born in Sydney and studied chemical engineering and, later, a PhD at the University of Sydney. His doctoral research was on structuring the complex socio-economic problems of the sustainability discourse. He practised engineering for 15 years, then moved into Senior Executive, CEO and Director roles in the high-technology manufacturing and engineering industries in Australia, the United States and Asia. He also was involved in establishing several advanced-technology start-up companies. He was a Global Vice-President of the Institution of Chemical Engineers (London) 2000–2001 and has served on various committees of Engineers Australia. He has been involved with the Royal Society of NSW since joining the Council in 2009. He edited its *Journal and Proceedings* 2009–2012; was the RSNSW's President 2012–2016; received its Medal in 2017 and became its Secretary in 2023.



DAVID BRYNN HIBBERT
b. 1951

Chemistry professor Dr Brynn Hibbert was born in the south Yorkshire coalfields and was educated in Bournemouth, England, before gaining his BSc with first-class honours in chemistry, and the university's J. Millar Thomson Medal, from Kings College London; where he later gained a PhD. After lecturing at the University of London's Royal Holloway and Bedford Colleges, he accepted the Chair of Analytical Chemistry at the University of NSW in 1987. After retiring from that role in 2013, he became UNSW's Honorary Dean of Emeriti in 2020. His research interests are metrology, statistics in chemistry, and electrochemistry. He also serves as an expert witness in legal matters involving drugs (abuse and sports), scientific fraud and presenting science to the public. Long a member, and now Emeritus Fellow, of the International Union of Pure and Applied Chemistry (IUPAC), he has helped to name elements, revise the International System (SI) of units and write the terminology of analytical chemistry as Editor of the IUPAC 'Orange Book'. Hibbert was President of the Royal Society of NSW 2016–2018, received the Society's Medal in 2019 and remains a member of the Editorial Board of the *Journal and Proceedings of the Royal Society of NSW.*

IAN HUGH SLOAN
b. 1938

Physicist Dr Ian Sloan was born in Melbourne and completed physics and mathematics undergraduate degrees at Melbourne University, an MSc in mathematical physics at Adelaide University, and a PhD in theoretical atomic physics at University College London. After a short period in industry, he joined the University of NSW, where he was later appointed to a personal Chair in Mathematics, and in 1999 to a Scientia professorship.
His strong record of research in theoretical physics and computational mathematics has been recognised by awards including the Information-Based Complexity Prize, the Lyle Medal of the Australian Academy of Science, and the Szekeres Medal of the Australian Mathematical Society. He was President of the International Council for Industrial and Applied Mathematics and the Australian Mathematical Society. He was elected a Fellow of the Australian Academy of Science in 1983, a Fellow of the Royal Society of NSW in 2014, and was appointed an Honorary Doctor of the University of NSW in 2018. He also was awarded an AO in 2009, and was President of the Royal Society of NSW 2018–2021.

SUSAN MARGARET POND
b. 1946

Dr Susan Pond is a physician, academic and company director with deep expertise in biotechnology. Born in Sydney, she completed high school at Santa Sabina College in Strathfield and graduated MBBS with first-class honours from the University of Sydney (1969). She gained fellowship of the Royal Australasian College of Physicians (1972) and a higher doctorate (MD) from the University of NSW (1977). Her first academic position was with the University of California San Francisco (1977–1984). While Professor of Medicine at the University of Queensland (UQ; 1985–1996) she gained a DSc (1997) and chaired several Australian government committees, including the Australian Drug Evaluation Committee. Dr Pond was a senior biotechnology executive with Johnson & Johnson (1997–2009) and Board Member and Chair of AusBiotech Ltd (2004–2009). At the University of Sydney, she led the industrial biotechnology program on renewable aviation fuels at the United States Studies Centre (2010–2016) and the Sydney Nano Institute (2017–2018). Susan was inaugural Chair of the NSW Smart Sensing Network (2016–2022) and continues to serve on government, industry, university and not-for-profit boards. Honours include the Wellcome Australia Medal (1992); AM (1994); Fellow of the Australian Academy of Technology and Engineering (1996) and Australian Academy of Health and Medical Sciences (2014); Centenary Medal (2001) and MD (*Hon. causa*; UQ 2013). Dr Pond has been President of the Royal Society of NSW since 2021.

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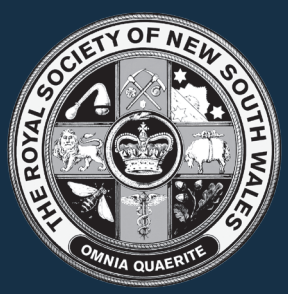

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