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Historical Records of Australian Science

Rupert Horace Myers 1921–2019

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ABSTRACT

Sir Rupert Horace Myers (1921–2019) was born in Melbourne and educated at Melbourne Boys High School and the University of Melbourne, where he was awarded a PhD degree in 1948 for research on the production of rare metals from Australian ores. As part of an Australian delegation, he worked at the Atomic Energy Research Establishment at Harwell in the United Kingdom on production of uranium and plutonium metals. He returned to Australia in 1952 as foundation professor of metallurgy at the still very young University of New South Wales, where he later became vice-chancellor, serving from 1969 to 1981 before entering a long and fruitful retirement. Knighted in 1981, he was a model of scientific and academic leadership in Australia.

Keywords: atomic energy, chemistry, governance, metallurgy, metals, tantalum, technology, uranium.

Introduction

Rupert Horace Myers (Fig. 1) was born on 21 February 1921 in the Melbourne suburb of East Malvern. His father, Horace Alexander Myers, was an accountant and company secretary who had served in Australian forces in World War 1 at Gallipoli and in France, where he had been wounded. Myers' mother, Dorothy Helen née Harris, was employed by a bank.[1]

Long before he died on his ninety-eighth birthday in February 2019, Myer's was a model of scientific and academic leadership in Australia. Educated at state schools, he studied at the University of Melbourne where he was awarded Australia's first Doctor of Philosophy (PhD) degree in the sciences for his research on the production of rare metals from Australian ores. He then applied the same techniques to production of uranium and plutonium metals when sent by the Australian government to learn about atomic energy at the Atomic Energy Research Establishment at Harwell in the United Kingdom (UK). He returned to Australia in 1952 as foundation professor of metallurgy at the still very young University of New South Wales (UNSW), where he later became vice-chancellor, serving from 1969 to 1981 before entering a long and fruitful retirement.

Education and university study

After his primary, and two years of secondary, school education at Lloyd Street Central School, East Malvern, Myers spent four years at Victoria's first state secondary school, Melbourne Boys High School (from 1948 Melbourne High School), studying a broad curriculum that together with English and two years of French, included four years of mathematics, physics, chemistry and German. Extra-curricular activities saw him gain house colours in rifle shooting, baseball and athletics, and his involvement in the German Club 'had a huge impact on us', he told the author of a history of the school.[2]

[1]Information about Rupert Myers' life is available from public sources and from the transcript of a 1984–5 interview held by the University of New South Wales Archives, OH36.
[2]Gregory (2005) p. 147.

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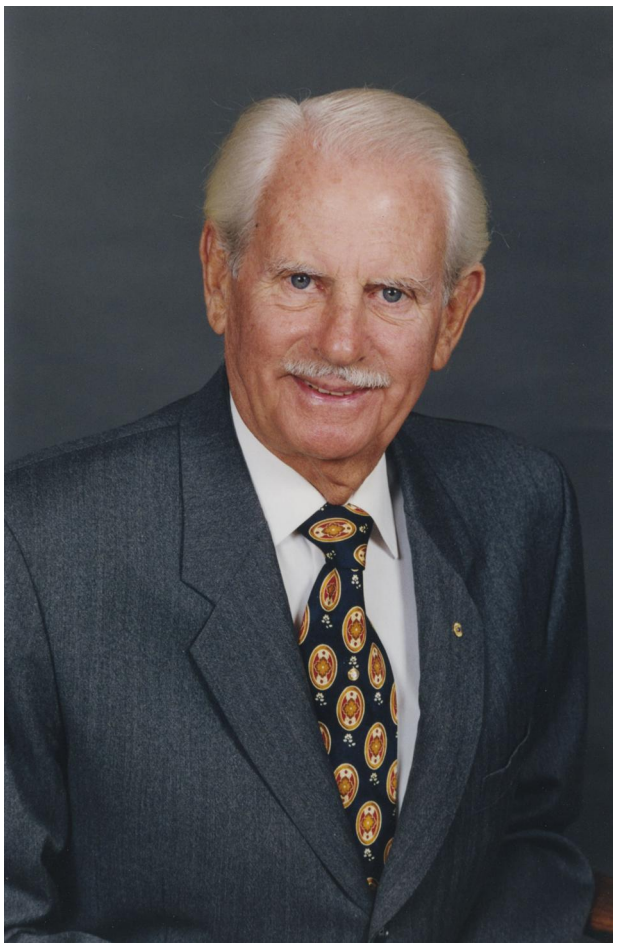

Fig. 1. Rupert Myers (Australian Academy of Science).

Enrolled in first year at the University of Melbourne in 1939, Myers studied pure mathematics, natural philosophy (physics), chemistry, geology and French. In the usual way, he narrowed his science options in second and third year to chemistry and metallurgy but maintained the diversity he had shown in school by studying French and German in second year. He also continued his sporting career, playing hockey for the university. Myers' Bachelor of Science degree was conferred in March 1942, his Master of Science in April 1943, and his Doctor of Philosophy (PhD) in April 1948, for a thesis entitled 'The preparation and properties of tantalum and some of its alloys'. In 1946, the University of Melbourne became the first in Australia to offer the PhD degree.[3] The first recipient was historian Erica Wolff,[4] the second, a week later, was Myers.[5]

Postgraduate research

Myers' postgraduate work in metallurgy was supported by a Commonwealth Research Scholarship in engineering, and was supervised by Professor J. N. Greenwood (1894–1981).[6] It consisted of studies of the rare metal tantalum, for which he was awarded the MSc degree in April 1943 and then his PhD in 1946.[7] Starting in World War 2, efforts were made in Australia to produce hard metals from local ores: Greenwood had already been involved in the production of fine wires of tungsten, made from Tasmanian wolframite, to be used in radio valves,[8] a project to which Myers also contributed.[9] Some of Myers' earliest work with Greenwood concerned the preparation of the carbides of tantalum and columbium, that, typically for metal carbides, were extremely hard. The reason for making them was to investigate their use in the machining of other materials.[10]

Myers was successful in his tantalum project but, Mellor wrote: 'before any commercial use could be made of this laboratory work, the Commonwealth received an urgent request from the United States Government for as much tantalite as could be supplied',[11] so Australian supplies of the tantalite concentrate were promptly dispatched. Myers' work was published formally in five papers in the *Proceedings of the Australasian Institute of Mining and Metallurgy* and four in the British journal *Metallurgia* (see Supplementary Material S1).

The tantalite ore from Greenbushes, Western Australia, consisted of 77.5% tantalum oxide (Ta_2O_5), 11.1% iron oxide (expressed as FeO), and smaller amounts of the oxides of columbium, tin, silicon, antimony, manganese and titanium. Working with 40 pound batches, Myers reduced the ore to powder and fused it with a mixture of caustic soda

[3] Rae (1999).
[4] Anonymous (1948*a*).
[5] Anonymous (1948*b*).
[6] Rasmussen (2007). Poynter and Rasmussen (1996) pp. 51, 64, 102. Anonymous (1946). In 1946, Greenwood, while retaining his professorial title, vacated the chair of metallurgy, to which he had been appointed in 1924, to become head of a new metallurgical research laboratory supported to the extent of £5000 a year by the Broken Hill group of companies and a gift of £20 000 from 'M. L. Baillieu and certain of his relatives to erect facilities to house it'. University of Melbourne research reports of the 1940s included its activities under the heading Baillieu Laboratory.
[7] Myers (1946*a*).
[8] Mellor (1958) pp. 489–490.
[9] Myers was a co-author on Baillieu Laboratory Reports, 1944 (1) 'The processing of wolframite and the production of tungsten oxide, and 1945 (2) The production and consolidation of tungsten powder'. Copies of the reports are not held by the University of Melbourne, and may have been produced for the industry group that funded the work of the laboratory.
[10] Myers and Greenwood (1943).
[11] Mellor (1958) pp. 106–107.

and soda ash (sodium carbonate) to give a mixture of sodium and columbium tantalates that were then treated with sulfuric acid to produce the oxides. These were dissolved in hydrofluoric acid, potassium fluoride was added, and the double fluoride K_2TaF_7, freed of its columbium counterpart, was tantalum pentoxide.[12] Metallic tantalum was obtained by electrolysis at 750°C of potassium tantalum fluoride and tantalum oxide in a molten mixture of potassium fluoride and chloride. Finally, the powder was compressed into bars that were sintered at 2500°C, under vacuum to prevent oxidation of the metal.[13] The paper included detailed descriptions of the experiments and photographs of the apparatus and the products.

The excellence of Myers' research was recognised in the award of the University of Melbourne Grimwade Prize in industrial chemistry, in 1948, which he shared with T. R. Scott of the Commonwealth Scientific and Industrial Research (CSIR) division of industrial chemistry. He had joined the Australian Chemical Institute in 1943, becoming a Fellow in 1956.

Personal and extra-curricular activities

In August 1941, while he was in the third year of his course, Myers enlisted in the Australian Military Forces. In November, following his final examinations, he was 'taken on force' and spent the summer months in a camp at Bonegilla, qualifying as a driver and transferring to Melbourne University Regiment before resuming his studies.

In December 1944, he married Io Edwina, daughter of Henry and Ruby King. The first of the couple's four children, Philippa, was born in the UK in 1954, and the others in Sydney—Gillian (1956), Michele (1958) and Stuart (1959).

From 1931, Myers was active in the scouting movement. In 1942, at the age of twenty-one (the earliest possible age for such an appointment) he became Scout Master of the 9th Malvern Group, and in 1946 he became District Scout Master for the Malvern district, with oversight of sixteen scout troops. His trajectory may have taken him into the upper echelons of scouting in Victoria had he not left to work in the United Kingdom in 1948, but his only subsequent connection with the movement was as a councillor in New South Wales for the Scout Association of Australia (1975–85).

Harwell

At the Royal Society Empire Scientific Conference held in Britain in June and July of 1946 there was extensive discussion about the interchange of information and staff within the Empire and Commonwealth. Sir David Rivett, chairman of Australia's Council for Scientific and Industrial Research (CSIR) and leader of the Australian delegation, spoke of the importance of disseminating scientific and technical information to industry.[14] Reviewing the outcome of the conference, Schedvin, writing about the concerns that led to the reformation of CSIR as CSIRO (Commonwealth Scientific and Industrial Research Organisation) in 1948, noted that restoration and strengthening of scientific collaboration within the Commonwealth and free exchange of information were trammelled by 'the awesome capacity of atomic fission'.[15] Despite this, the federal government minister responsible for CSIR, John Dedman (1896–1973), announced in March 1947 that Australia would send a group of scientists to the UK atomic energy research establishment at Harwell to learn about the utilisation of atomic energy for industrial purposes. Positions were advertised in the *Commonwealth Gazette* in May,[16] and the matter was formally reported in the annual report of the CSIR,[17] tabled in parliament in November. Myers was selected by CSIR to be the metallurgist on the team, and with Io he left Melbourne in *Orontes* in August 1948 to take up the position at Harwell.[18] While Rupert developed methods for preparation of metallic uranium and plutonium, Io worked as a sergeant for British Intelligence.

The results of Myers' research were published in UK Atomic Energy Research Establishment, reports and the titles show why Myers' prior experience with the extraction of metals from their ores led to his being chosen to be part of the Australian team working at Harwell, where he was involved in the production of uranium metal by reduction of uranium oxides by calcium or magnesium and fabrication of the metal,[19] production of cerium by fused salt electrolysis (reminiscent of his tantalum work in Melbourne),[20] and the preparation of plutonium tetrafluoride from the mixtures recovered from uranium-fuelled reactors and its conversion to plutonium metal.[21] The reports of the work are not publicly accessible, presumably due to ongoing security concerns, and nor were they published, as were other

[12] Myers (1946*b*).
[13] Myers (1946*c*).
[14] Rivett (1948).
[15] Schedvin (1987), p. 331.
[16] https://legislation.gov.au/content/HistoricGazettes1947, viewed August 2023.
[17] https://cisorpedia.csiro.au/wp-content/uplaods/2020/05/21st-CSIR-Annual-Report-Year-Ended-30th-June-1947.pdf, viewed August 2023.
[18] Other members of the team were O. O. Pulley, C. D. Boadle, J. N. Gregory, G. L. Miles, N. A. Faull, and D. F. Sangster. https://csiropedia.csiro.au/wp-content/uploads/2020/05/1950-2nd-CSIRO-Annual-Report-Year-Ending-30th-June-1950-1.pdf, viewed August 2023. Hardy (1999), p. 23.
[19] Myers (1949, 1950). Myers and Hedger (1952*a*).
[20] Myers and Gray (1951).
[21] Myers and others (1952*a*). Hedger and others (1952).

contributions from that research group, in the proceedings of the International Conference for the Peaceful Uses of Atomic Energy held in Geneva in August 1955, a series of volumes published by Pergamon Press from 1956 under the general heading *Progress in Nuclear Energy*.[22]

Return to Australia

Myers returned to Australia in May 1952 to take up the foundation chair of metallurgy at the New South Wales University of Technology. This second university in Sydney had been created by an act of the New South Wales Parliament in 1949, taking over some staff and courses of the Sydney Technical College and continuing the strong technological focus of that institution. John Philip Baxter (1905–89),[23] who had been appointed to the foundation chair of chemical engineering in 1950, became director of the university in 1953, a title changed to vice-chancellor in 1955 when the institution became the University of New South Wales (UNSW). Baxter, a strong proponent of nuclear energy, and Myers worked closely together in the administration of the new university in the 1950s and 1960s,[24] and both were appointed to the scientific advisory committee of the Australian Atomic Energy Commission (AAEC) when it was formed in 1953.[25] UNSW was later involved when the AAEC set up the Australian School of Nuclear Technology in 1965, with Myers as chairman of its board. Under its auspices, four-week courses in the use of radioisotopes were conducted at the university and there was training and education in broader aspects of nuclear technology and related topics.[26]

The special nature of the university was further evident in 1956 when it brought several departments—Mining Engineering, Applied Geology, Chemical Engineering, Metallurgy, Wool Technology and Textile Technology—into a new Faculty of Technology, with D. W. Phillips (mining engineering) as dean. When shortly afterwards Phillips was appointed as pro-vice-chancellor,[27] he was succeeded by Myers, who in turn became pro-vice-chancellor in 1961.

Myers was busy in the 1950s, appointing new members of staff and seeing the construction of a new building for his department, and then overseeing the faculty,[28] but with his colleague R. G. Robins he continued the research on the production of uranium from its oxides that had engaged him at Harwell. Myers made two presentations at atomic energy conferences in 1958. The first was at a symposium on the peaceful uses of atomic energy in Australia, held in Sydney in June, where he reported further work on the production of uranium by reduction of the oxide by calcium metal.[29] A 20% excess of the stoichiometric quantity of calcium was used, and the reaction was conducted in a steel bomb lined with calcium oxide to protect the uranium metal from contamination. As the bomb was heated, the reaction $UO_2 + 2Ca = 2CaO + U$ commenced at temperatures above 630°C and was exothermic so the temperature briefly reached 1700°C, but fell back and was maintained at about 1200°C, being above the melting point of uranium (1132°C) and so ensuring consolidation of fine particles. Treating the reaction mixture with water destroyed the remaining calcium metal and the pure uranium was recovered after dissolving the calcium oxide with acetic acid. The second presentation was at an international conference on peaceful uses, held in Geneva in September, when the Australian's topic was the reduction by calcium metal of uranium oxide mixed with oxides of nickel, chromium, molybdenum or niobium to give binary alloys of the respective metals.[30] Alloying with other metals was known to improve the dimensional stability and/or the susceptibility to corrosion of pure uranium.

Delivering the annual review lecture at the annual conference of the Australasian Institute of Mining and Metallurgy held in the Port Kembla–Wollongong area in August 1961, Myers chose to speak about his department's research on metallurgy at high temperatures and emphasised the use of induction heating to achieve temperatures of 1000–3000°C.[31] He accompanied his talk with the showing of a seven-minute colour film in which levitation of small quantities of metal could be achieved in the inductive field.

Vice-chancellor

When Baxter stepped down on 30 June 1969 to become the full-time head of the Australian Atomic Energy Commission, Myers became vice-chancellor. The late 1960s and early 1970s were troubled times at Australian universities, with

[22] Smith (1956).
[23] Angyal (1989). Myers (1980).
[24] Willis (1983). Myers and Baxter (1966).
[25] Baxter was also deputy chairman of the Commission. Other members of the scientific advisory committee were Marcus Oliphant (Australian National University), L. H. Martin (University of Melbourne), F. W. G. White (chief executive officer CSIRO), and V. J. F. Brian (chair, Electricity Authority of NSW). Hardy (1999) p. 23.
[26] Hardy (1999) pp. 99–100.
[27] A eulogy appeared in the *Technology* magazine published by the university from 1956 to 1969. Baxter (1962).
[28] Myers (1959).
[29] Myers and Robins (1958*a*).
[30] Myers and Robins (1958*b*).
[31] Myers (1962).

Fig. 2. Myers being 'inducted' as Rupert, Prince of New South Wales, July 1969 (UNSW Archives).

an unpopular war being carried on in Vietnam and growing student challenges to university governance.[32] Although Baxter and Myers exhibited different styles of management, both recognised the importance of maintaining good relations with the student body and both tolerated, and benefitted from, the activities of Ian Channell, a sociology tutor from 1967 and self-appointed Wizard whose apparently frivolous activities kept a focus on less serious aspects of life.[33] When Channell's academic position was terminated early in 1969, Baxter, recognising the value of the Wizard—and one can only wonder, in view of his responsibility for staffing, whether Pro-Vice-Chancellor Myers had a hand in this—provided half the funding for a continuing position and ensured that the Student Union provided the other half.[34]

Myers' first day in office, Tuesday 1 July, coincided with the investiture of Charles, Prince of Wales, in the UK, and so in Sydney the UNSW Wizard led a ceremony of investment of Rupert, Prince of New South Wales (successor to King Baxter), parading him through a crowd of students in his wheelchair throne (Fig. 2). 'What vice-chancellor would attempt, let alone bring off so successfully, such a spectacular performance?' asked a historian of the university.[35] Throughout his career at UNSW, Myers successfully blended leadership and authority with a personal touch that extended to the entertainment of staff and students at the family home, where he and Io, assisted by their children, were gracious hosts.

Under Myers' leadership, UNSW continued to develop but the strong emphasis on technology, which many staff felt was inappropriate in a modern university, was diluted in various ways. The Faculty of Arts (originally humanities and social sciences) had been added to the science and engineering curriculum of the university in 1955, and Medicine in 1958. It remained to Myers to oversee the formation of the Faculty of Law in 1971. There were other significant developments in the Myers years that deserve their own sub-headings.

Australian defence force academy

Educational standards for cadets entering training at defence academies began to rise after World War 2, and in 1967 an agreement was reached between UNSW and the Royal Military College at Duntroon, in the Australian Capital Territory (ACT), to associate the college as a faculty of military studies in the university from which graduating cadets could attain degrees in arts, science and engineering.[36] The agreement, negotiated by Myers, under which cadets could graduate with UNSW degrees, gave him great satisfaction. Although the arrangement, from the point of view of academic staff on the Kensington campus, was never entirely a happy one, it paved the way for the formation of the Australian Defence Force Academy that took in its first students in 1986.[37]

Australian graduate school of management

In 1970, the Australian government received a report prepared by an international group headed by American expert on economics and organisations, Richard M. Cyert (1921–98), recommending UNSW as the best placed Australian university to host a high quality government-funded Australian Graduate School of Management (AGSM). The recommendation was accepted in 1973 and teaching began in 1977, much to the satisfaction of Vice-Chancellor Myers who had led the negotiations.[38] The school offered short course and a highly-regarded Master of Business Administration degree.

International students

When Myers assumed the vice-chancellorship, student enrolments had been growing strongly, exceeding 13 000 in 1966 (an 18% increase over the previous year) and continuing the upward trend to reach 15 811 in 1982, making it the largest in Australia.[39] Throughout this period overseas students, mainly from Malaysia and Hong Kong,

[32]Life at UNSW was relatively undisturbed by student activism. Monash was the Australian university most affected. Marginson (2000) pp. 16–17.
[33]Channell left UNSW in 1970 and later played a similar role at the University of Canterbury in Christchurch, New Zealand. The Wizard (1998).
[34]O'Farrell (1999). The Wizard (1998) p. 60.
[35]Le Moignan (2017) p. 29.
[36]O'Farrell (1999) pp. 128–129.
[37]Smith (?1989).
[38]https://www.recordkeeping.unsw.edu.au/sites/default/files/documents/403-AGSM.pdf, viewed September 2023.
[39]The University of Queensland was close on its heels, with 15 805 students, shown in the report of the committee of review of private overseas student policy, chaired by Goldring (1984).

made up 10–12% of the university enrolment, a consequence of UNSW not imposing any limitation on overseas enrolments except in the Faculty of Medicine.[40] There was an immense diaspora of UNSW graduates in South East Asia, and in 1975, Rupert accompanied by Io, visited Manila, Kuala Lumpur and Hong Kong to meet them and encourage them to support the university, with the result that there was a substantial, for the time, increase in donations and bequests to the university.

Education in metallurgy

In the address delivered at the conclusion of his term as president of the Australian Institute of Metals in 1964, Myers spoke about the changes taking place, and others that he would recommend, in the education of metallurgists.[41] He supported the strengthening of degree studies in metallurgy at the expense of diplomas that had formerly qualified people for entry to the profession, a change that was affecting other streams of science and technology education more generally. Both streams were necessary, he said, describing them as 'technical education' designed for those who would 'know how', and 'technological education' those who would 'know why'. He also made a distinction between 'post-graduation studies', mainly short courses of specialised nature, 'post-graduate research' leading to higher degrees to be undertaken at a small number of universities where graduate schools should be developed. At undergraduate level, he recommended concentration on the basics of metallurgy and warned against the drift from 'metallurgy' to 'materials science'.

Fourteen years later, when he returned to this subject, and reflected on the way his own university had grown over the years, he saw the need for more breadth in the education of metallurgists. In a reflective mood, he gave the final presentation at a joint conference on resource management that brought together representatives of the Australasian Institute of Mining and Metallurgy (AusIMM) and the American Institute of Mining, Metallurgical and Petroleum Engineers, held in Canberra in May 1978.[42] The resource that Myers addressed was human: 'As the executive head of a university', he said, 'perhaps I may speak as an educator; and there is still, I hope, enough of the metallurgist in me to allow me to speak of what we metallurgists and mining engineers can do to help the educators'. Arguing for a broad education for those entering professions based on science and technology, and especially mining engineering and metallurgy, he cited the advice of Georgius Agricola (1494–1555) in his *De Re Metallica*, that much more than technical education was needed because skills in business management, accounting, commercial law, and employee welfare were required. These could be delivered by a university education but, acknowledging the 'boom and bust' nature of the industrial sector, and therefore of changes in relevant university enrolments and the financial stringencies of the institutions, he went on to advocate for 'fewer, but stronger, schools and departments of mining and metallurgy' in Australia.

Technological change in Australia

In December 1978, Prime Minister Fraser announced the appointment of a committee of inquiry: 'To examine, report and make recommendations on the process of technological change in Australian industry in order to maximise economic, social and other benefits and minimise any possible adverse consequences'. Myers, as chair, was joined on the committee by A. G. Coogan (b. 1922) Manager of Nabalco Pty Ltd and Walter C. Mansfield (b. 1942), federal secretary of the Telecommunications Employees Federation. A secretariat headed by Dr Malcom McIntosh was appointed, hearings were held, and many submissions were received. In their report, published in four volumes in 1980, they concluded that 'the likely new technologies will require, on average throughout the community, the performance of tasks that are more skilled than the present technologies used in Australian industry require' and observed that:

> the specific recommendations made by the Committee should be seen within the context of its general conclusions, which are that the Australian community would be best served if industry uses the high level of expertise in the Australian community to develop new products and processes and thereby to create new employment opportunities; industry in general keeps up with world technological development and where possible, in areas of particular advantage, attempts to lead; people who are likely to be affected by technological change are properly informed and consulted; and a 'social safety net' is provided to assist people to adapt to change.[43]

Facing such a momentous task, and on a page where hopes and fears were already strongly written, Myers, Coogan and Mansfield were unlikely to have been able to please everyone but the consensual nature and readability of the report was widely recognised. It was reviewed by Peter Stubbs (b. 1937), an economist at the University of Manchester but formerly of the University of Melbourne, who wrote that the report was 'widely viewed as a damp squib though that is partly a reflection of unrealistic expectations in certain quarters'. Acknowledging the criticisms,

[40]Only Monash had a higher proportion of overseas students in 1982, 12.% compared to UNSW 11.8%.
[41]Myers (1964).
[42]Myers (1978).
[43]Committee of Inquiry (1980). Myers (1980).

he concluded however that the report had 'made some useful contributions and raised the public standard of debate about technology' and was likely to outlast its critics.[44]

Retirement

In July 1981, at age 60, Myers retired from the university after nearly 30 years of service, twelve of them as vice-chancellor, receiving a Doctorate of Letters Honoris Causa and Emeritus status. Historians have recognised his leadership and commented on the way he consolidated the institution that Philip Baxter had started so well, displaying 'formidable leadership paired with his warmth and down-to-earth nature' that garnered him deep respect from colleagues and students alike.

By 1969, UNSW, although less than 20 years old, was Australia's fourth-largest university with almost 16 000 student enrolled. Myers inherited from Baxter a university undergoing maturation and by 1976 it had grown to 18 000 students, making it Australia's largest. Myers as vice-chancellor was assessed by historian Professor Patrick O'Farrell as:

> An old Australian of the best school… [who] … would listen and offer, most politely, a fair go. But he would not compromise on standards, professional or personal, and would not be messed about…. He was always open and honest with governments and bureaucrats, and was trusted by them. This had benefits in the general, but also in the particular: discretionary funds, when they emerged, tended to find their way to him…. He was non-political… [so] … politicians of all persuasions respected him and the university which he led.[45]

Nor was Lady Myers overlooked: O'Farrell wrote that she:

> deserves every thanks. Her remarkable poise and devoted energy in a whole range of cultural activities gave to the university a dimension of civilisation and refinement (via strenuous, volunteer money-making by wives) it might otherwise have lacked. And it pointed up a lesson which equal opportunity zealots were prone to ignore: the imperative need, in this position, of high-level public demand on the vice-chancellor, of the involvement of his wife in her husband's career—two commitments for the price of one.[46]

Her interest in the arts and her fund-raising activities were recognised in the naming of the drama school's Io Myers Studio in 1982.

Myers maintained his involvement in public life for almost two decades following his retirement from UNSW, continuing as chair of the New South Wales Pollution Control Commission (1971–89) and director of the Prince Henry, Prince of Wales and Eastern Suburbs Hospitals (1966–83), and adding new ones such as the New South Wales Coastal Council (1982–5). He was a patron of the Sydney Opera House Trust (1976–83) and later of the Winston Churchill Memorial Trust (from 2000), and the Australian Trust for Conservation Volunteers (from 1986). In addition he chaired well over a dozen boards and foundations, including CSR (1981–93), IBM Australia (1987–91), Earthwatch Australia (1984–92) and Rothman's Foundation (1987–94). A full list is available in Supplementary Material S1.

Myers had been elected to the Australian Academy of Technological Sciences and Engineering (ATSE) in 1979, and served as vice-president (1985–8) and then president (1989–94). As a contribution to Australia's response to 'the greenhouse question', in 1994 ATSE, in conjunction with the Australian Academy of Science and the Academy of Social Sciences in Australia, undertook a study of current understandings and uncertainties with Myers as chair of the steering group and a range of experts in the study team. Their report concluded that global temperatures would continue to rise but there were uncertainties in the extent to which changes were predicted, and that continued research and monitoring were needed to improve our understanding of them.[47]

Lady Io died in 2001, and in 2002 Myers married Nancy, daughter of Herbert and Christina Cave. Sir Rupert died in 2019 on his 98th birthday and was survived by his wife and children—Philippa who had made a career as a geologist, environmental scientist and sculptor; Gillian computer scientist and project manager; Michele a schoolteacher; and Stuart an orthopaedic surgeon specialising in hands.

Recognition and distinctions

Among his honours, Sir Rupert was appointed a Commander of the Order of the British Empire (CBE) in 1976 and then a Knight Commander of the Most Excellent Order of the British Empire (KBE) in 1981 in recognition of his 'service to education, science and the community'. He was also appointed an Officer of the Order of Australia in the 1995 Australia Day Honours for his 'service to the promotion of innovation and commerce efforts in promoting innovation and commerce in the fields of science technology and engineering'. He was elected by special election to fellowship of the Australian Academy of Science in 1997.

[44] Stubbs (1981).
[45] O'Farrell (1999) pp. 142–143.
[46] O'Farrell (1999) p. 213.
[47] Steering Committee of the Climate Change Study (1995).

Myers was a Fellow of the Australasian Institute of Mining and Metallurgy; Royal Australian Chemical Institute; Institute of Metals and Materials Australia; Australian Institute of management; Australian Institute of Company Directors; Australian Academy of Technological Sciences and Engineering; Australian Academy of Science; and Honorary Fellow of the Institution of Engineers Australia. In consequence of some of these fellowships, he was a Chartered Engineer and a Chartered Chemist. These and other appointments and awards are listed in Supplementary Material S1.

Concluding remarks

Through research on the preparation of important metals at the University of Melbourne and at the Atomic Energy Research Establishment at Harwell, an appointment to a foundation chair at a young university, and leadership of the that university as it grew and diversified, Rupert Myers was always the right man at the right time in the right place and he fulfilled the expectations held of him with great distinction. To know him and to read about his life and his career it is easy to see how Prince Rupert became Sir Rupert.

Supplementary material

Supplementary material is available online.

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