

DOUGLAS MAWSON

OBITUARY

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Douglas Mawson, Kt. (created 1914), O.B.E., F.R.S., D.Sc., B.E., Emeritus Professor of Geology and Mineralogy at the University of Adelaide, died on October 14, 1958, at the age of 76. He is Australia's most famous Antarctic explorer. As a member of Shackleton's first expedition in 1907, as leader of two Australian expeditions in 1911 and 1929, and as one of the chief authorities of the Antarctic Planning Committee of the present Australian Antarctic expeditions, he has dominated Australian Antarctic exploration for almost half a century.

He was born 5 May, 1882, at Bradford, Yorkshire, and removed to Sydney with his parents in 1886. From Fort Street Boys' High School he entered the University of Sydney, commencing a course of Mining Engineering at the age of 16. He graduated B.E. in Mining Engineering (1902) at the age of 19 years and continued at the University with further science subjects with special regard for Geology and Mineralogy. During this time he occupied the post of Junior Demonstrator in Chemistry. By the end of 1904 he had completed the Honours Course in Geology and graduated B.Sc. (1905). He thus made contact with the inspired teaching of Professor T. W. E. David (later Sir Edgeworth), whose influence was graciously acknowledged by Mawson on the occasion of the presentation of the Bigsby Medal of the Geological Society of London in 1919. "Any credit that my work deserves," said Mawson, "must be shared by my old friend and instructor Professor T. W. E. David who has been a driving force behind my labours whether conducted in the Tropics or in the Polar Zone".

His first research at the Sydney University was carried out with Griffith Taylor on the Geology of Mittagong and was followed by studies on the radioactivity and occurrence of radium in Australian minerals with T. H. Laby. In 1903 he carried out a six month's geological exploration of the New Hebrides. In 1905 he was appointed lecturer in Mineralogy and Petrology at the Adelaide University at the age of 23 on the recommendation of Professor David. His early work in South Australia included the identification of uranium minerals at Mt. Painter, the discovery of davidite at Radium Hill and geological investigations at Mt. Painter, Olary and Broken Hill which gained a D.Sc. in 1909. He discovered the Sturtian Tillite at Olary in 1906 and later in the Barrier Ranges. With his interest thus aroused in the conditions of sedimentation during an ice age he welcomed an invitation to join Shackleton's Antarctic Expedition.

In 1907 he was released by the Council of the University of Adelaide to join this expedition and was a member of Professor David's party which made the first ascent of Mt. Erebus and the first journey to the South Magnetic Pole area. In this journey

the party hauled their sledge 1,260 miles, 300 of which was over new ground, in 122 days. Mawson served as cartographer and magnetician and contributed to Shackleton's scientific reports with notes on Ice and Snow, Mineralogy and Chemistry, Meteorological Optics, the Magnetic Pole and the Aurora.

A year after his return to Australia Mawson began planning an expedition to explore the coast of Antarctica, immediately south of Australia. With the encouragement of Shackleton, Professor Edgeworth David and Professor Orme Masson and the backing of the Australasian Association for the Advancement of Science and the Royal Geographical Society, £46,000 was raised for the Australasian Antarctic Expedition. The "Aurora" under Capt. J. K. Davis conveyed the expedition to the Antarctic in the summer of 1911-1912. Apart from the main base at Cape Denison, two other bases were established—the Macquarie Island base under G. F. Ainsworth and a Western base on the Shackleton Ice Shelf under Frank Wild.

The land which Mawson discovered at Commonwealth Bay was the windiest in the world and he appropriately named his subsequent narrative the "Home of the Blizzard". In the summer of 1912-1913 five sledging parties fanned out from the main base at Cape Denison to map and investigate the eastern and western coastlines and the interior to the south. Of these, Mawson, accompanied by B. E. S. Ninnis and X. Mertz, undertook the far eastern journey using all available dogs, and so travelling faster and further than the man-hauled ledges of the other parties. He set out on November 10 and had travelled 300 miles by December 14 after crossing two huge glaciers, subsequently named the Ninnis and Mertz Glaciers. The party was intending to sight, if possible, Oates Land before turning back to Cape Denison. When hopes were high for a successful journey they were overtaken by disaster : Ninnis with the rear sledge, the best of the dogs and most of the food disappeared for ever down a crevasse. Mawson and Mertz were left in a desperate position. They were 300 miles from the base with only 10 days' food for themselves and none for the remaining six dogs. For the first week they covered 11-20 miles a day but they were always hungry and gradually began to weaken. When a dog could no longer pull it was killed for food for man and dog. Mertz succumbed on January 6th. Mawson, on the verge of collapse, was still 100 miles from the base and fought on alone, spurred by the hope that if he got near enough to Cape Denison, his records might be found with his body. His feet were in a shocking condition and he met and overcame with great resourcefulness the unseen dangers of crevasses. On January 29th with only two pounds of food and 23 miles from Cape Denison he sighted through the drifting snow a dark object which proved to be a food bag on a snow cairn which had been left by a search party. Delayed by a blizzard, he finally reached the base on February 8th to find that the "Aurora" had left to relieve the Western base on the Shackleton Ice Shelf. With a party of six

others Mawson was forced to spend a second winter at Cape Denison. "What matter", wrote Mawson: a terrible chapter in his life was ended.

The Australasian Antarctic Expedition has been awarded an honoured place in Antarctic exploration and the most comprehensive scientific and geographical work carried out by any expedition up to that time was accomplished. Mawson was knighted on his return in 1914 and published the narrative in the "Home of the Blizzard" in 1915. Upwards of 1,000 miles of new coastline was added to the map, including the discovery and charting of King George V Land, Queen Mary Land and Wilkes Land. The scientific reports of the expedition occupy 22 volumes.

The years 1916 to early 1919 were spent in war work in Europe. He first served as British Munitions Officer in High Explosives and Chemical Warfare Supplies, with the rank of Captain, attached to the Russian Commission. Later he was appointed, with the rank of Major, to the Commission Internationale de Ravitaillment in London in charge of Explosive and Chemical Supplies with Allied Governments.

On the termination of the war he returned to Adelaide and in 1920 upon the establishment of a Chair of Geology he was appointed Professor. He retained an intense interest in Antarctic affairs and was given leave by the University in 1929-30 to command the British, Australian, New Zealand Antarctic Expedition to consolidate the British title to the area stretching from King George V Land round to Enderby Land. Scott's old ship the "Discovery" was employed in two summer cruises. Kemp and Enderby Lands were visited in the summer of 1929-30 and MacRobertson Land discovered. In the summer of 1930-31 Mawson worked from King George V Land in a westerly direction and charted the coast from 140° to 70° east longitude with the aid of aeroplane flights. The Banzare Coast and Princess Elizabeth Land were discovered.

A direct result of Mawson's exploration and agitation was the refusal of the Tasmanian Government to renew further sealing licences on Macquarie Island after 1919, and in 1933 Macquarie Island was proclaimed by the Lieut.-Governor of Tasmania to be a sanctuary for the indigenous wild life of the sub-Antarctic. Mawson was also concerned in a long-sustained endeavour to initiate some scheme of international control to limit the slaughter of whales and thus prevent their extermination. He came to be acknowledged as a world authority on many questions directly related to the Antarctic. The official sequel to his polar activities came in 1933 when the Commonwealth Government under the Antarctic Territory Acceptance Act assumed control of nearly $2\frac{1}{2}$ million square miles of the Antarctic continent.

Mawson was one of the chief authorities of the Antarctic Planning Committee which was set up in 1947 to advise the Government on Antarctic policy; in 1949 this led to the establishment of the Antarctic Division of the Department of External Affairs, which

controls the present Australian Antarctic expeditions. His name and his work are now fittingly perpetuated in Australia's first research base on the Antarctic continent. He took an active part in the planning of Australia's part in the International Geophysical Year and his death is one of its shadows.

For many, it is difficult to think of Mawson except as a great explorer, and this fame probably obscured for some that he was also a distinguished scholar and scientist. In 1952 the University of Adelaide published a volume of contributions to geology, presented by Mawson's colleagues, friends and pupils, in honour of his 70th Birthday Anniversary. This volume contains the following admirable summary of the scope and results of his work :

"It is now nearly 50 years since Mawson set out to explore the geology of the New Hebrides. Together with the researches of his predecessor in Adelaide, W. G. Woolnough, and his pupil E. R. Stanley, in other islands, this work is one of the pioneer studies in the geology of Melanesia. Mawson's work in the Broken Hill district together with his early discoveries in the radium-bearing areas of Mount Painter and Radium Hill were outstanding contributions to economic geology and mineralogy. The main field of his interest over many years remained the "Adelaide System" of pre-Cambrian rocks, especially as developed in the Flinders Ranges. This large and complex area, described in many publications, has been the training field for most of his pupils. The pre-Cambrian and later glacial deposits of South Australia stimulated Mawson's early interest in glaciology which soon led him to the Antarctic. His geological observations in this field, backed by unparalleled experience, attracted world-wide attention. The older rocks were followed into the Macdonnell Ranges in Central Australia, their changes eastward and westward were carefully studied, and from this work by Professor Mawson's school a picture of the margin of Australia in early geological times is emerging which is comparable with that of the margin of the American continent, a picture to which generations of geologists have made contributions. The associated special scientific fields were not neglected. Mineralogical and petrological investigations were made, the physiographic history of Lake Eyre was studied, the stratigraphy of the Moorlands coal deposit examined; palaeontology benefited from Mawson's interest in rock-forming algae, most ancient as well as living; specialists in other states and countries were invited to describe rocks and fossils assembled by Mawson during his investigations in Australia as well as in the Antarctic."

For many years Mawson always had trouble in securing adequate accommodation for his work and for the material pouring in to find a place in the Tate Museum. Eventually as a result of his initiative a new building, devoted entirely to geology and costing £120,000, was erected to his design. The Council of the University have named the building the Mawson Laboratories and it remains his monument.

Honours crowded thickly on him. He was awarded the Royal Geographical Society's Antarctic medal in 1909 and their Founder's medal in 1915; the King's Polar medal (two bars); Gold medals of the American, Chicago and Paris Geographical Societies; the Bigsby medal of the Geological Society of London 1919; the Nachtigal gold medal of Gesselschaft fur Erdkunde 1928; Mueller medal of A.N.Z.A.A.S. 1930; the Sir Joseph Verco medal of the Royal Society of South Australia 1931; the Founder's medal of the Royal Geographical Society of Australia (Queensland) 1931. The honour of knighthood was conferred in 1914, and subsequently for war services Officer of the Order of the British Empire, the Order of SS Maurice and Lazarus of Italy and Commander of the Order of Crown of Italy.

He was elected a Fellow of the Royal Society of London in 1923, and subsequently was a foundation member of the Australian Academy of Science. He was President of A.N.Z.A.A.S. 1932-37 after serving as President of the Geography Section 1920 and the Geology Section 1926. He was President of the Royal Society of South Australia 1923-24. At the time of his death he was Chairman of the South Australian Museum Board.

Mawson was a man in whom scholarship, leadership and courage were generously combined to make a great Australian. A man of commanding stature, tall and sparsely built, modest and somewhat reserved in temperament, yet withal an impressive personality, he was never carried away by success and he did not lend his support to anything which he did not sincerely believe to be in the interests of scientific knowledge. In his vigour and initiative he typified the best traits of Australian character. He was accorded a State Funeral on 16 October, 1958.