



THE ANTARCTICAN SOCIETY

7338 Wayfarer Drive

Fairfax Station, Virginia 22039

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Special Note: On December 11, local Virginia, Maryland and Washington D.C. members of the Antarctic Society were invited to attend a special lecture given by Dr. Phillip Law, a veteran of nearly three decades of Antarctic exploration. Dr. Law, an Australian, was in town for a brief visit, and we were honored that he took time from his travels to address our Society. With Dr. Law's permission, we have reproduced his lecture for this newsletter so that those living beyond the beltway may benefit from his insights on an important Antarctic era, an era in which he played a major role.

Introduction

Phillip Law is responsible for establishing Australia's permanent presence in Antarctica. Joining the Australian National Antarctic Research Expedition (ANARE) in 1947, he became the first Director of the newly-created Antarctic Division of the Commonwealth Department of External Affairs in 1949, a position held until 1966. He designed and developed the Antarctica Division, and the ANARE programs. He also led the expeditions that established Australia's three Antarctic stations: Mawson, Davis and Casey.

Over the years, 1954 to 1966, Dr. Law led voyages that explored and mapped 3000 miles of the Antarctic coastline, while the wintering parties at ANARE stations under his direction explored more than 700,000 square miles of previously unknown territory. During the Law era, an extensive variety of scientific programs were developed including Australia's Antarctic contributions to the International Geophysical Year.

Phillip Law has received wide recognition for his work, including Australia's highest award (the A.C.), the British C.B.E. and Polar Medal, the Founder's Gold Medal of the Royal Geophysical Society, honorary doctorates from three Australian universities, and a number of other awards. He is a fellow of the Australian Academy of Science, and the Australian Academy of Technical Sciences and Engineering. Dr. Law has published four books on Antarctica.

Fire Sale: 2001 ANTARCTIC CALENDARS. We have remaining a handful of the beautiful New Zealand Hedgehog House Antarctic calendars (which are spectacular), and are willing to sell them at a small loss (rather than have them molder in Maine). Yours for the unbeatable price of just \$US 10.00 (in the U.S. and Canada) Order NOW by sending your check to the Society's address, 7338 Wayfarer Drive, Fairfax Station, VA 22039. The calendars will be mailed out pronto from a redoubt in Maine.

One Hundred Years of Australian Involvement in Antarctica

A lecture given by Dr. Phillip Law
December 11, 2000
in the National Science Foundation auditorium

I am greatly honored to have been invited to lecture today to the Antarctic Society. I do not feel a complete stranger here. Looking at the notice for today's meeting, I see, in your list of Presidents and Honorary Members, the names of a number of my personal friends and Antarctic acquaintances: Dr. Carl Eklund, Dr. Paul Siple, Mr. Gordon Cartwright, Admiral Tyree, Mr. George Toney, Mr. Mort Rubin, Dr. Albert Crary, Dr. Henry Dater, Dr. Bill Sladen, Dr. Ken Bertrand, Mrs. Ruth Siple, Dr. Bob Rutford, Dr. Larry Gould, and Dr. Charles Swithinbank. I am lucky enough to have survived to become a veteran of the exploration era of Antarctic endeavor - that period between 1945 and 1970 - when the major exploration of Antarctica took place, and the great explosion of scientific research following the International Geophysical year was initiated.

Australia has a distinguished record of exploration and scientific research in the Antarctic but few Australians are aware of the extent of the work. Most of them know that Douglas Mawson was one of the early Antarctic Explorers and that, today, ships go off each year to take men and supplies to some bases that Australia has established on the coast of Antarctica; but a fog of ignorance obscures the events leading up to Mawson's first expedition (AAE in 1911) and the developments subsequent to his last expedition (BANZARE in 1931) that have led to today's activities.

Even less widely known is the fact that Norwegian, United States and Soviet Union explorers have made valuable contributions to knowledge concerning that part of Antarctica that we claim as Australian Antarctic Territory. Then there are the various contributions that Australia and Australians have made to Antarctic expeditions organized by explorers from other nations. The nature of Australian work has been very different from that of other nations, except the USA and USSR.

Australian interest in the Antarctic goes back more than 150 years. The earliest ventures were those of sealers and whalers, who were motivated by visions of quick profits rather than by any sense of geographical curiosity. Amongst the pioneers were Frederick Hasselburgh, who discovered Macquarie Island in 1810, Richard Siddons and D. Taylor who took sealing expeditions in 1820 from Sydney to the South Shetland Islands, and Samuel Harvey who in 1831 pushed south from Hobart to reach 72° south latitude in what was later to be called the Ross Sea.

A number of famous Antarctic voyages of various nationalities called at Sydney, Melbourne or Hobart on their way south during the 19th century: Bellingshausen (1819 - 21), Balleny (1838 -39), Dumont d'Urville (1837- 40), Wilkes (1838 - 42),

Ross (1839 - 43) and Nares (1872 - 76). A sealing venture from Hobart, led by Captain Robertson in the "Offley," operated at Heard Island in 1858.

The first Australian Antarctic Exploration Committee was set up by the Royal Society of Victoria in Melbourne in 1886. It worked for twenty years trying to stimulate interest in an Antarctic expedition and to raise the necessary funds, but without success.

It was left to a Melbourne resident of Norwegian nationality, Henrik Bull, to solve the financial problem. He persuaded the Norwegian whaling magnate, Svend Foyn, to sponsor a purely whaling expedition to the Antarctic in 1894. A young Norwegian immigrant who had been in Australia since 1888, Carstens Borchgrevink, applied to Bull for a position as scientific observer. Bull took him on as a general hand but, despite this, Borchgrevink devoted a lot of his time on the expedition to scientific observations.

Bull's ship, the "Antarctic," flying the Norwegian flag, reached the Antarctic continent and Bull landed briefly with a party at Cape Adare, at the entrance to the Ross Sea, in January 1895. This was the first recorded landing of a party on the Antarctic mainland, earlier landings on the Antarctic Peninsula having been on islands or ice shelves.

Borchgrevink, his enthusiasm fired by his Antarctic experience, went to England and succeeded in organizing a British expedition in the ship "Southern Cross" with the sponsorship of a publisher, Sir George Newnes. On its way south the ship called at Melbourne, where it took on a young Tasmanian physicist, Louis Bernacci, who had been working on the staff of the Melbourne Observatory. He was to become the first Australian-born person to land and winter on the Antarctic continent.

The Borchgrevink expedition set up and occupied a station at Cape Adare in 1899, the remnants of which can still be seen there. They made valuable observations in zoology, geology, meteorology and terrestrial magnetism. However, the steep terrain behind their base denied them access to the Antarctic hinterland.

The years 1900-14 saw great progress in Antarctic exploration through the activities of the famous expeditions of Scott, Amundsen, Shackleton and Mawson. To each of these, except Amundsen's, Australia made important contributions.

Scott's "Discovery" expedition of 1901-3 obtained a grant of £250 from the Australian Antarctic Exploration Committee and £1000 from the Queensland Government. Scott enlisted Louis Bernacci as physicist.

When Shackleton brought the British Antarctic Expedition to Melbourne in the "Nimrod" in 1907 he was in debt and in danger from bailiffs. Professor Edgeworth David, of the University of Sydney, persuaded the Australian Government to donate £5000 to the expedition and, when the New Zealand Government contributed

£1000, Shackleton's main financial worries were over.

Shackleton enlisted Douglas Mawson of Adelaide as physicist and B. Armstrong of Melbourne as a general hand. Professor David and one of his geological staff, Leo Cotton, signed up for the round trip on the "Nimrod," however, when they arrived at McMurdo, Shackleton persuaded David to remain for the whole year as his chief scientist. One of Shackleton's men, Raymond Priestly became the first Vice Chancellor of Melbourne University. The first officer of the "Nimrod," John King Davis of Melbourne, later became master of this ship and of Mawson's "Aurora" and "Discovery". (He also captained the "Aurora" on the relief expedition that rescued Shackleton's Ross Sea party in 1917).

David and Mawson made notable contributions in geology and geophysics to the achievements of Shackleton's expedition. A six-man party led by David and including Mawson made the first ascent of the Antarctic volcano, Mt. Erebus (altitude 12,450 feet). Later, a three-man party of David, Mawson and MacKay man-hauled a sledge to the South Magnetic Pole, a return journey of 1,260 miles in 122 days. This was a major achievement and one that has never been adequately recognized.

Scott's second expedition, in the "Terra Nova" in 1911-13, also obtained a grant from the Australian Government, this time of £2500. Two Australian scientists accompanied Scott - Griffith Taylor and Frank Debenham. (Taylor later established the first Department of Geography in Australia at the University of Sydney, and Debenham became the foundation Director of the Scott Polar Research Institute in Cambridge.)

After returning from Shackleton's expedition, Mawson set about organizing one of his own. He obtained financial assistance from numerous private sources in both Australia and England and donations over a two-year period from the Commonwealth Government of Australia (£13,000), the South Australian Government (£5000), the New South Wales Government (£7000), the Victorian Government (£6000), the Tasmanian Government (£500), the British Government (£3000), the Royal Geographical Society (£600), and the Australian Association for the Advancement of Science (£1000). His Australasian Antarctic Expedition (AEE) of 1911 - 13 established three stations: Macquarie Island, at Commonwealth Bay (George V Land) and on the Shackleton Ice Shelf (Queen Mary Land).

In February 1912 the "Aurora," commanded by Captain J. K. Davis, sailed along off the coast of Antarctica between 140° east longitude and 90° east longitude, naming Wilkes Land, Queen Mary Land, the Davis Sea and the Shackleton Ice Shelf. Sledging parties from the Western Base mapped the coast of Queen Mary Land, while others from Commonwealth Bay explored 150 miles west, 300 miles south and 300 miles east of their base. The scientific reports of the expedition filled twenty-two volumes.

Shackleton's Imperial Trans-Antarctic Expedition of 1914-17 also included Australians. Shackleton took with him Mawson's photographer, Frank Hurley, and his Ross Sea party included Australians R. W. Richards, A. K. Jack, and C. O. Gaze. Richards was the hero of that party and was awarded the George Cross.

The Australian adventurer, Sir Hubert Wilkins, became famous because of his pioneer flight over the North Pole. In 1921 he joined Cope's British four-man expedition to Graham Land and in 1922 he was with Shackleton's last expedition. He and pilot Eielson made the first flight in the Antarctic in November 1928, 1,300 miles over Graham Land. He later accompanied the U.S. explorer, Lincoln Ellsworth, on his 1935-36 and 1939 expeditions in the ship "Wyatt Earp," which later, in 1948, took me on my first Antarctic voyage.

When Mawson returned from his Australian Antarctic Expedition, the outbreak of war in 1914 precluded any further Australian activity in Antarctica for some years. In the 1920s Mawson led a resurgence of national interest in Antarctic exploration and, following discussions between the British and Australian Governments, it was agreed that Britain would make available the ship "Discovery" for an expedition, to be led by Mawson in the summer of 1929-30, that would strengthen any claim the British might make to Antarctic territory in the so-called Australian sector. Thus arose the British-Australian-New Zealand Antarctic Expedition (BANZARE), a private expedition supported by the three governments concerned and private donations.

Two voyages were made in the summers 1929-30 and 1930-31. The "Discovery" visited Macquarie Island, lies de Kerguelen and Heard Island in the sub-Antarctic and cruised along the coast of Antarctica between Terre Adelie in the east and Enderby Land in the west. A landing was made at Proclamation Island (Enderby Land) where Mawson read a statement laying claim on behalf of King George V of Britain to all lands between longitudes 47° east and 73° east and south of latitude 65° S.

Other landings were made at Cape Bruce, Kemp Land (where a copy of the Proclamation was deposited beneath a cairn) and at Scullin Monolith, MacRobertson Land. A number of flights were made in a Moth aeroplane, discovering from the air the BANZARE coast and Princess Elizabeth Land and confirming the existence of the Knox coast, but much further south than Wilkes had described it in the 19th century.

Another Australian, John Rymill of Adelaide, made important contributions to Antarctic knowledge, although the expedition he led was a British one. This was the British Graham Land expedition of 1934-37, which carried out high quality scientific work and cartography in the Antarctic Peninsula region.

Following Mawson's BANZARE expedition in 1929-31, further Australian work in Antarctica was precluded, first, by the economic depression of the 1930s and,

second, by the Second World War.

After the War, Mawson approached the Government and urged that Australia should resume scientific research and exploration in Antarctica. Herbert Evatt, Minister for External Affairs, became enthusiastic about the proposal. Consequently, the Department of External Affairs convened an inter-departmental committee that met, together with Mawson and a representative of the Council for Scientific and Industrial Research (CSIR), on 2 December 1946.

The main accent of Mawson's argument was on the political need to consolidate the Australian territorial claim that had come into effect in 1936, particularly in view of Norwegian exploration in the Australian sector during the 1930s, and the growing interest of USA in Antarctica during the 1940s. The major part of the Australian Antarctic Territory was still unexplored. But Mawson was primarily a scientist and he continually stressed that any expedition sent to Antarctica for political reasons should take the opportunity to carry out as much scientific research as the logistical limitations of the expedition would allow, for the Antarctic was an almost virgin field for investigations in a number of scientific disciplines.

The committee of 2 December 1946 recommended that the departments concerned should develop concrete plans for an expedition to Australian Antarctic Territory, using a naval ship equipped with a suitable aircraft, with the object of finding an ice-free area on the continent that could be used as the site for a permanent base. Mawson suggested that the ship "Wyatt Earp", owned by the Navy but lying uncommissioned in the Torrens River at Port Adelaide, be refitted for use by the expedition. Cabinet accepted this recommendation on 20 December 1946 and proposed that an executive committee be formed to develop plans and estimates for an expedition in the 1947-48 summer, that Mawson should act as adviser to this committee, and that an executive officer be appointed to organize the expedition. The first meeting of the Executive Committee on Exploration and Exploitation was held on 4 January 1947, chaired by the permanent head of the Department of External Affairs, Dr John Burton. Thereafter events moved swiftly. With various personnel and under several different titles a number of committee meetings were held, and finally the following proposals were put forward to the Department of External Affairs:

- that an Executive Planning Committee be formed under the department;
- that preliminary plans for an expedition be drawn up at an estimated cost of £250,000;
- that the "Wyatt Earp" be refitted by the Navy; and
- that Group Captain Stuart Campbell, RAAF, be seconded from his position in the Department of Civil Aviation to act as Executive Officer of the expedition.

The British Government, which had been advised by the Australian Government of the moves being made, asked that any expedition plans should include the occupation of Heard Island, far south in the Indian Ocean. Sir Douglas Mawson also suggested that his old base at Macquarie Island be re-occupied.

In July 1947, Phillip Law was appointed Senior Scientific Officer of the expedition, which, soon afterwards, was given the official title of the Australian National Antarctic Research Expedition (ANARE). The word Expedition was later changed to the plural, Expeditions. Law was asked to draw up a scientific program for consideration by the Executive Planning Committee, whose meetings he was invited to attend.

The outcome of all these deliberations was that the Australian Government approved recommendations that scientific stations should be established at Heard Island and Macquarie Island and be maintained for at least five years and that a reconnaissance of King George V Land should be carried out to seek a suitable site for a permanent Antarctic station. It approved the use of two naval ships - HMAS "Wyatt Earp," captained by Commander Carl Oom, R.A.N., for the Antarctic voyage, and HMLST "3501," captained by Lieutenant Commander George Dixon, R.A.N.V.R., for the two island voyages. The CSIR was to accept responsibility for the financial aspects of the ANARE and the Royal Australian Air Force was to act as purchasing agent. The scientific plans were to include meteorology, and geomagnetism and geology by the Commonwealth Bureau of Mineral Resources.

The stations at Heard Island and Macquarie Island were successfully established in December 1947 and March 1948 respectively, but the "Wyatt Earp" broke down on her first voyage in January 1948 and her delayed resumption was too late in the season to enable her to reach the Antarctic Continent.

In January 1949 Stuart Campbell relinquished leadership of the ANARE and was succeeded by Phillip Law who continued searching for a ship suitable for use in an assault on the Antarctic Continent. In the meantime he visited Antarctica with the Norwegian-British-Swedish Antarctic Expedition in 1950 to gain first-hand experience with the Antarctic environment.

In 1952, Law learned that the Danish shipping company, J. Lauritzen Lines, had just built an ice-going vessel, the "Kista Dan" that would be suitable for Antarctic work. In February 1953 the Australian Government approved Law's plans for setting up an Antarctic station using the "Kista Dan" and this was accomplished on 13 February 1954, when Law named the new station "Mawson".

Thus, in 1954 and 1955, Australia maintained three stations - Heard Island, Macquarie Island, and Mawson. However, scientists of many nations were planning an International Geophysical Year to commence in 1957 with one of its principal objectives being an assault on the Antarctic Continent. Law persuaded the Australian Government to approve the establishment of a second continental

station, this one at the Vestfold Hills, Princess Elizabeth Land, which offered one of the best sites in Greater Antarctica for a scientific station. Law led the expedition that set up this station and on January 13, 1957, named the new station "Davis" in honor of Mawson's captain, John King Davis. Meanwhile, in 1955, the Heard Island station had been closed because of ANARE's growing responsibilities in Antarctica.

At the end of the IGY, during which the Australian stations had distinguished themselves with scientific work of outstanding quality, the USA found itself over-stretched in manning a number of bases. Law was able to persuade the Americans to offer their Wilkes Station to Australia instead of closing it and, on 4 February 1959, he formally accepted administration of the Station from the U.S. leader of the American relief expedition.

Over the next few years the temporary buildings of the Wilkes Station deteriorated to the point where the establishment had to be replaced. Under Law's direction a new site was chosen and work commenced in 1965 to build, nearby, the station named Casey. It was opened in 1969. This was later rebuilt as the present Casey Station.

During the "Law Era" (1949-66) Australia's greatest Antarctic contributions in exploration and scientific research were achieved. The Antarctic Division was created and built into a vigorous and efficient organization. Law led the expeditions that set up the Mawson and Davis stations and that took over Wilkes Station from the Americans. Patterns for the provision of chartered ships and for logistical and scientific support of the stations were developed

Year after year the ships relieving the ANARE stations extended their voyages to include coastal exploration along the full extent of Australian Antarctic Territory. ANARE field parties working from Mawson, Wilkes and Davis traveled hundreds of miles inland to extend this exploration to embrace a total area in excess of a million square kilometers. Law himself led eleven voyages of coastal exploration, making 28 new landings. ANARE aircraft, flown by RAAF personnel in the first instance and later by commercial pilots, carried out photo-flights covering vast areas of Australian Antarctic Territory and transported field parties of surveyors, geologists and glaciologists to remote regions.

Australia has been able to secure the three best sites for Antarctic stations that exist over a distance of 4,000 miles of coast and to forestall much of the extensive work that USSR expeditions were to do in this region.

Australia's Antarctic Division has coordinated scientific programs, in a multitude of disciplines, keeping Australia's international reputation at a high level. It can be said that the "Law Era" established an enduring platform for Australia's continuing Antarctic endeavors and completed the broad exploration and mapping of all unknown areas of Australian Antarctic Territory.