

**Sir Charles Seymour Wright, at Cape Evans, Ross Island and Wright Valley, McMurdo Sound Dry Valleys, Antarctica (1910 – 13)**

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It wasn't until my eight hour flight back to Christchurch, New Zealand from Ross Island, Antarctica that it started to dawn on me that Canadians had played a significant role in the early scientific expeditions into the Antarctic.

Sprawled out comfortably on a medical evacuation stretcher in the cavernous fuselage of a Royal New Zealand Air Force C-130 heavy transport aircraft, I started reading Diana Preston's, *A First Rate Tragedy: Captain Scott's Antarctic Expeditions*, which I had purchased at Antarctica New Zealand's Scott Base.

In Preston's book there was reference to a Canadian physicist, a Charles Wright, who on November 12, 1912 found the frozen remains of Robert Scott, Henry Bowers and Edward Wilson after they had reached the South Pole but died on their way back within eleven miles of a food depot. And it suddenly struck me that Wright Valley which I had camped in, and which is restricted to around two dozen visitors a year, must have been named after Charles Wright, but I still wasn't sure.

Born in Toronto during April 1887, Wright received his early education at Upper Canada College, one of Canada's elite private boy's schools. An adventurer from an early age on, Wright spent entire summers canoeing with his older brothers in the Muskokas and northern Ontario.

In 1904 Wright was awarded the Governor General's medal for academics and that fall he enrolled in the physics and math honours degree program at the University of Toronto. Around this time he also enrolled in the Queen's Own Rifles of Canada (QOR), an army reserve unit founded in 1862 in response to a potential American invasion. The QOR is still active to this day at Toronto's Moss Park Armoury.

By 1908 Wright's original research into 'penetrating radiation' at the University of Toronto won him a scholarship at Cambridge University. As passionate about science as he was for outdoor adventure, Wright's inquisitive mind led him to develop a primitive form of the Geiger counter, unfortunately his professor at Cambridge being tardy, didn't get around to filing Wright's papers for publication in a timely fashion; had he done so the device for measuring radiation might today be named the Wright counter.

With Ernest Shackleton coming within 112 miles of the South Pole in 1909, there was heightened interest in Scott's second expedition to grab the polar prize. Mixing imperial glory, with geographical and scientific curiosity, Scott's second expedition, which lasted from 1910 – 13, attracted numerous applicants including Australian geophysicist Griffith Taylor, a classmate of Wright's at Cambridge and a Brit, Cecil Meares. Taylor would eventually move to Canada to teach geography at the University of Toronto, while the buccaneering adventurer Meares became a lieutenant-colonel in the British Royal Flying Corps during the First World War and he would eventually retire in British Columbia.

It was Taylor who talked Wright into joining Scott's expedition. After an initial rejection, Wright was eventually accepted as the expedition's physicist, and as an assistant to the meteorologist. Not wanting to be left out of the trek to the South Pole, Wright the adventurer, volunteered to become the expedition's glaciologist, even though he knew nothing about the topic, but it would allow him to get out into the field, while his other scientific taskings would have kept him hut bound. Eventually Wright would become an expert in glaciology and in 1922 he would co-author the first English language book on the subject entitled, *Glaciology*.

Departing on June 15<sup>th</sup>, 1910 on the ship *Terra Nova*, Wright would sail into history as part of an expedition that fostered polar research, spawned numerous books, a movie *Scott of the Antarctic*, and the Scott Polar Research Institute at Cambridge University. It mixed triumph with tragedy, and intrigue with a sense of betrayal when on October 12<sup>th</sup> while in Melbourne, Australia, Scott received a telegraph from fellow Explorers Club member, Roald Amundsen announcing his intention to make a run for the South Pole.

After an adventurous voyage, that took Wright from Wales to islands in the South Atlantic, over to South Africa, on to both Australia and New Zealand, and across the most treacherous seas in the world, the Southern Ocean, Wright along with the rest of Scott's expedition finally arrived at Ross Island at the beginning of January 1911. Throughout the entire voyage Wright engaged in scientific activities, it was this commitment to science and the pursuit of knowledge that defined the rest of his life.

The site chosen for the expedition's *Terra Nova* hut was Cape Evans, which is roughly halfway between Shackleton's 1908 – 09 *Nimrod* hut at Cape Royds to the north and Scott's 1902 – 03 *Discovery* hut at Hut Point to the south. While in the Antarctic I was fortunate to be able to visit all three huts, each frozen time capsules with many of their contents intact, including some of the scientific equipment that Wright would have used at Cape Evans.

Upon arrival at Cape Evans, Wright set about building an ice cave to house the expedition's magnetism-measuring instruments, a tasking that took him and another companion five days to complete. After the ice cave was built Wright and Taylor were photographed by Herbert Ponting, the expedition's photographer, inside a massive 150-foot-long ice cave. These still images ended up being the most famous that Ponting took. Ponting also produced a popular forty-minute movie of the expedition which featured scenes that included both Wright and Taylor.

Scott sent Wright and Taylor on January 15<sup>th</sup>, 1911, to inspect Shackleton's *Nimrod* hut at Cape Royds. Upon arrival they found the hut intact with food still laid out on the mess table, as the hut had been hurriedly abandoned two years prior. So Wright and Taylor feasted on the victuals left behind. What still remains in my memory of Shackleton's hut is the front page of a 1908 newspaper, I think it was the *London Illustrated Dailey*, and an advertisement from a retailer that specialized in school uniforms for private boy's schools including Eaton and Rugby. It seemed so surreal to find an ad like this down here, such a contrast between this Spartan, isolated hut in the Antarctic and high society

in London, which at the time was the center of the world's largest Empire, it provided a momentary snapshot of the times.

As an aside, while looking into Wright's life story, I came across an entire chapter in Beeby's, *In A Crystal Land: Canadian Explorers in Antarctica*, that pointed out that a Canadian, a Dr. William Michell, of Perth, Ontario, and like both Wright and myself, a University of Toronto graduate, had been *Nimrod's* ship-borne surgeon supporting Shackleton's expedition here on Ross Island during 1908 – 09. In Shackleton's, *The Heart Of The Antarctic: Being The Story Of The British Antarctic Expedition, 1907 – 1909*, there are only three brief references to Michell, which don't amount to a good sized paragraph.

On January 28<sup>th</sup>, Wright, Taylor and two others departed for the McMurdo Sound area to conduct a geographic and scientific survey of a dry valley that was discovered in 1903, but left unexplored during Scott's first Antarctic expedition.

What the party of four had entered was one of three neighbouring valleys collectively known today as the McMurdo Sound Dry Valleys, which comprise one percent of the Antarctic landmass - the Antarctic continent is larger than either Australia or Europe, and even though it is under an ice sheet averaging 1.6 km in thickness, it is the driest continent on this planet.

These three dry valleys - Taylor, Wright and Victoria, have been both ice and snow free for at least 2 million years based on a geologic anomaly which elevated the area and forced glaciers to flow around the McMurdo Sound Dry Valleys. Extremely powerful katabatic winds blast through the these valleys during the winter months at speeds reaching 300 km an hour, forcing all airborne moisture out of the valleys, and quit possibly making this area the driest region on earth. These valleys are so harsh, and unique that NASA currently uses them to simulate conditions on the frozen surface of Mars.

Wright, Taylor and their two companions spent a week exploring the most southern of the three dry valleys, a geographic oddity that was 40-kilometers long and 7-kilometers wide. Not surprisingly it was named Taylor Valley after the team's leader and geographer, Griffith Taylor, who as mentioned above would later on in life teach geography at the University of Toronto. While not a geographer, Wright went on to discover and name Canada Glacier, as well as Mount McLennan, Mount Coleman, and Mount Falconer, all of whom were named in honour of University of Toronto academics, who respectively held the following positions of professor of engineering, head of geology, and president of the university.

According to Beeby, Scott formerly agreed to the names on July 15<sup>th</sup>, 1911, and later that year Taylor would venture immediately to the north where he found a new ice sheet and named it Wright Glacier, now Wright Lower Glacier, after his close friend. It wasn't until the 1950s that it was discovered that the Wright Lower Glacier ran into another dry

valley, and in 1959 this one was charted as Wright Valley by Colin Bull, an American glaciologist.

As an ecologically sensitive area, access to Wright Valley is restricted to around two dozen people per annum. And as mentioned above, I was fortunate to be picked to camp out in Wright Valley for two days, and word quickly spread around both Scott Base and McMurdo Station, about the “lucky five” who were to fly out to the dry valleys by helicopter. Wright himself only saw the valley named after him once during his entire life; it was during 1965 when he was flown out to it by a US Navy helicopter.

After returning from Taylor Valley, Wright with only one day’s rest, and wet clothes volunteered to go out on a week long expedition to forward position supplies for the following spring’s push to the South Pole. With the onset of winter Wright set into a routine of glaciological studies, along with magnetic and meteorological readings.

The big push to the South Pole began on November 2<sup>nd</sup>, 1911, with Wright in charge of a pony named Chinaman, who only lasted until November 28<sup>th</sup> when it finally died. Unlike Amundsen, who wisely choose dogs over ponies and motorized vehicles, Scott made several mistakes, including not bringing along enough sled dogs, which were far superior to ponies in a polar environment, and more importantly he miscalculated the amount of food required for the expedition.

In Preston’s book, she estimates that Scott’s men burnt 6,000 calories per day, while their diet only provided 4,500 calories. Wright began to personally question Scott’s ration calculations during the trek through Taylor Valley, and it was the memory of ‘starvation’ that was etched into Wright’s memory for the remainder of his life.

By December 9<sup>th</sup> the last pony had died and now the quaint British tradition of manhauling heavy sleds laden with supplies over extremely rough terrain began in earnest. Amundsen thought this practice to be insane, he stuck with dog sleds and cross country skis, which lowered the calorie consumption of his men, and increased their speed.

Wright on December 18<sup>th</sup> picked up the first fossilized sponge ever found in the Antarctic. On December 20<sup>th</sup> Scott informed Wright that he wouldn’t be a member of the team that would make the final run to the South Pole. Based on Wright’s entry in his diary he is visibly upset, Wright refers to Scott as “a fool”. In any case not being picked for the ill-fated trek was a blessing since Amundsen had already reached the South Pole on December 14<sup>th</sup>, 1911, the prize had been won by the Norwegians.

Turning north on December 21<sup>st</sup>, Wright and his three companions were the last ones to see Scott and his South Pole party alive. Always fearful of starvation, Wright kept motivating his colleagues to put in the extra hours necessary to reach the next food depot before starvation set in. They completed their brutal journey back to Cape Evans on January 26<sup>th</sup>, 1912. By March it was evident that Scott’s party had perished but due to

severe weather a rescue attempt organized by Wright was aborted, so the survivors settled in for the long austral winter.

On October 29<sup>th</sup> with Wright leading as the navigator, a party set out to find the bodies of Scott, Edward Wilson, Henry (Birdie) Bowers, Captain Lawrence (Titus) Oates, and Edgar Evans. And on November 12<sup>th</sup> it's Wright who spots a dark six-inch speck on the horizon, he quickly separates from the rest of the party and almost a kilometer away finds the frozen remains of Scott, Wilson and Bowers. While reading Scott's diary the search party concludes that they died on March 29<sup>th</sup> 1912, after having reached the South Pole on January 17<sup>th</sup>.

In his diary Wright wrote, "Found Owner (Scott), Bill (Wilson) & Birdie (Bowers) in tent. Evans went mentally first then physically at foot of [Beardmore] Glacier, Feb. 15<sup>th</sup>. Titus (Oates) got a badly frostbitten foot but struggled on till Mar. 17. Knowing then he had no hope & realizing that he was a drag on the party, he walked out into a blizzard about 19 m. (miles) south of here. A damn fine finish (referring to Oates self-sacrifice). The other three were caught here short of oil & food by a blizz (blizzard) on Mar. 22. Last entry on the 29<sup>th</sup>. Last entry in Owner's diary "for God's sake look after the rest". Cold and exhaustion did for them, capped by the week's blizz (blizzard)".

The next day they set out looking for Oates, only to find his sleeping bag and one of his boots. On the return to Scott's final campsite Wright found a note retrieved by Scott from Amundsen's tent at the South Pole, it was written by Amundsen and addressed to King Haakon of Norway. Putting it in his pocket, Wright and the rest of the search party returned to Hut Point on November 27<sup>th</sup>.

January 20<sup>th</sup>, 1913 is the final entry in Wright's diary and it simply reads, "Hut Pt. and [cross]". On that day, Wright and seven others erected a cross in memory of Scott and his four companions, on top of Observation Hill. Wright revisited the site on December 22, 1960, while I had the opportunity to climb up the steep sided hill to take in this somber memorial on November 11, 2001.

Leaving the Antarctic Wright returned to Cambridge via Canada where he received a hero's welcome at Toronto's Union Station. After a short visit with his family in Toronto, he proceeded to England where he was appointed lecturer in the geography department at Cambridge.

Interested in wireless transmission, Wright joined the Signals Section of the Cambridge University Officer's Corps. With the outbreak of the First World War during August 1914 he became a commissioned officer holding the rank of second lieutenant with the 2<sup>nd</sup> Army Wireless Company, Royal Engineers.

During the war Wright developed wireless trench communications for both the French and British armies, and thus began his life-long career in military research. By 1918 he was awarded the Medal of Chevalier of the French Legion of Honour, as well as the British Military Cross (MC), and he was made an Officer of the Order of the British

Empire (OBE). By war's end, Wright had been promoted to Major, and he finished off his military career in Wireless Intelligence with the British General Staff.

Joining Britain's Admiralty Research Department, along with Professor John McLennan of the University of Toronto, Wright helped establish a new military research branch. During 1934 Wright became the Director of Scientific Research at the Admiralty, a position that he held until 1946, when he became the first chief of the British Royal Navy Scientific Service. In the same year, for heading the team that led to the early development of radar, Wright was appointed Knight Commander of the Order of the Bath (KCB), and he became Sir Charles Wright.

Retiring from the Admiralty, Wright moved back to Canada in 1947. But before he could settle into retirement he was asked to become the Scientific Advisor to the British Joint Services Mission in Washington, D.C., and this developed into a pattern of contracts that would keep him active in scientific research until 1969. During this period he also worked at Scripps Institute of Oceanography in La Jolla, California; the Pacific Naval Laboratory in Esquimalt; Royal Roads Military College in Victoria; and the University of British Columbia.

His research at the Pacific Naval Laboratory led to his return to the Antarctic in 1960 and 1965. And it was during the 1965 visit that Wright flew along Wright Valley without landing in it. In 1969 Wright retired permanently, he moved to Salt Spring Island, where he resided until his death in 1975. On November 13<sup>th</sup>, 1975, Wright's ashes were consigned to the sea from the deck of the Canadian destroyer HMCS *Restigouche* off of Esquimalt.

No other Canadian has sparked my interest as much as Charles Wright. His dedication to adventure, exploration, science and the pursuit of knowledge even if it meant risking his own life, intrigues me. To paraphrase Colin Bull, dean emeritus at Ohio State University, I am delighted to have learned so much more of the life and accomplishments of Charles Seymour Wright – a great Canadian scientist and always one of my own polar heroes.

Reference materials referred to while researching Sir Charles Wright

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