Colin Bull, (Fig. 1) geophysicist, died on 7 September 2010 while on a ship bound for Alaska.

Born in Birmingham on 13 June 1928, Colin Bruce Bradley Bull spent his school years near Hereford. In 1945 he entered the University of Birmingham to read physics, graduating in 1948. Staying on to pursue research in solid state physics, he gained his Ph.D in 1951.

Colin was one of a number of British university undergraduates or young graduates who cut their teeth on privately organised expeditions to the Arctic. The University of Birmingham Spitsbergen Expedition of 1951 had a seminal influence on his whole career and led to his participation in more than 20 polar expeditions over the next 50 years.

Moving to the Department of Geodesy and Geophysics in Cambridge in 1951, Colin dreamed of finding work in the Arctic. Major polar expeditions were far between in those days, but from contacts at the Scott Polar Research Institute he learned of the planned British North Greenland Expedition 1952–1954 led by Commander James Simpson, R.N. Colin at once volunteered to join the scientific staff and spent two winters in Greenland. Simpson's military connections brought substantial logistic support from the Army, the Navy and the RAF. Their first winter was spent at the expedition's main base in Dronning Louise Land (78°N).

In the second summer Colin led a coast to coast traverse across the ice sheet to estimate ice thickness by gravity measurements. He was promoted to Chief Scientist and spent the second winter at *Northice*, a 3-man outpost at an elevation of 2,345 m on the ice sheet. He was responsible for weather observations and assisted glaciologist Hal Lister with his snow studies in a 17 m deep pit that they dug by hand. The station had the lowest temperature ever recorded in Greenland, -66° C in January 1954.

Shortly after returning from the expedition in 1954 Colin married Diana Gillian Garrett. At this time the only further UK polar employment opportunity was with the Falkland Islands Dependencies Survey (now British Antarctic Survey). However, that required signing on for two winters in the Antarctic, not the best choice for newlyweds. So Colin secured a post in the Geology Department in Wellington, New Zealand, and in 1956 they emigrated. He later wrote that 'in those days New Zealand was the finest place to live, and the worst place imaginable to try to conduct laboratory scientific research.'

After two years of frustration he sought to use his expedition credentials to plan a Victoria University of Wellington Antarctic Expedition, 1958–1959. With the support of the professor of Geology he organised a four man expedition to the Wright and Victoria valleys in McMurdo Sound. With the help of the US and the New Zealand Antarctic Research Programmes, his party was flown by helicopter from Scott Base, becoming the first people ever to visit that part of the dry valleys.

With a shoestring budget, hiking was the only way to get around. Geological mapping was a major task that had to be tied to their own triangulation because there were no

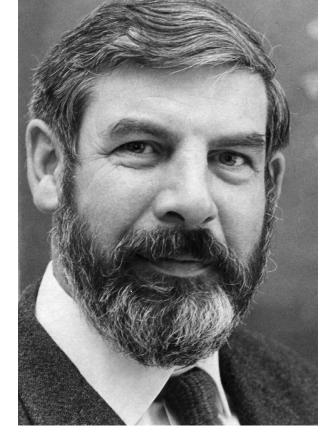


Fig. 1. Colin Bull in 1972. Courtesy The Ohio State University.

earlier surveys. Almost everything they discovered was new to science, leading to a raft of publications. The expedition's success and Colin's inspiration led to many further summer expeditions from the same university. Journal papers dealt with the glacial history of the area, its rivers and lakes, present and past climate, the rate of movement of glaciers, the flow law of cold ice, gravity observations, the palaeomagnetism of rocks, and even mummified seals and penguins that they found far inland. Wright valley was shown to be an internally draining valley with no outlet to the sea. Colin concluded that it had earlier been invaded by an arm of a marine ice sheet that once filled McMurdo Sound.

Colin became senior lecturer in the Department of Physics at Victoria University of Wellington. While there he was invited by Professor Dick Goldthwait to take up a visiting faculty appointment in the Ohio State University in Columbus, Ohio. Goldthwait was seeking to establish an Institute of Polar Studies and decided that Colin would be an asset. Colin accepted and moved to Ohio in 1961, later writing (tongue in cheek), that 'being slow learners . . . we stayed there twenty-five years.'

Having fought unsuccessfully to include a female scientist in one of his early expeditions, Colin finally succeded in fielding an all female expedition to the dry valleys in 1969. This ended the logjam that had kept American women from Antarctic research and in so doing doubled the pool of Antarctic scientists.

In Columbus he taught glaciology and organised expeditions to Alaska, Yukon, Greenland, Norway and Peru, taking part in all except the latter. He proved to be an exceptionally gifted teacher, inspiring and drawing out the best in his students, a number of whom went on to make polar studies their career. He believed that any scientific discipline could be best understood if it also embraced wider fields. Yet he was always youthful in spirit and an enthusiastic adventurer at heart. He rewarded success and proved to be a facilitator supreme.

In later years his expedition wings were clipped by successive promotions to Professor of Geology, Director of the Institute of Polar Studies, Chairman of Geology, and Dean of the College of Mathematical and Physical Sciences; all major responsibilies which made it more difficult to take time off for field work. However, for 12 years he served as Chairman of the Glaciology panel of the Scientific Committee on Antarctic Research, the international group that coordinates field programmes internationally. Always ready to react to rare events like the 1964 Good Friday earthquake in Alaska, Colin studied the unprecedented glaciological effects of the colossal debris slide across Sherman Glacier. Together with Cedomir Marangunic, this led to a classic paper describing how the new rock covering affected the glacier's mass balance.

Colin and Gillian retired in 1986 to a coastal property on Bainbridge Island across Puget Sound from Seattle. Ever a bibliophile, he established a successful business buying and selling polar books. Long an admirer of Charles Wright, the physicist on Scott's last expedition, Colin edited Wright's diaries for publication with the collaboration of Pat Wright (Charles's daughter). This led to the publication of *Silas: the Antarctic diaries and memoir of Charles S. Wright* (Columbus: Ohio State University Press 1993).

Understanding that there was a continuing market for polar narratives, Colin wrote *Innocents in the Arctic: the 1951 Spitsbergen expedition* (Fairbanks: University of Alaska Press 2005). This was followed by *Innocents in the dry valleys: an account of the Victoria University of Wellington Antarctic expedition*, *1958–1959* (Wellington: Victoria University Press, 2009).

Colin Bull was awarded the Polar Medal in 1954 and the US Antarctica Service Medal in 1968. He leaves a widow and adult children Nicholas, Rebecca and Andrew. *Charles Swithinbank*