

JAMES WILLIAM KERR (1936–2017)

The three decades from 1960 to 1990 can fairly be considered a golden age of geological and geophysical exploration in the Canadian High Arctic. One of the most active and productive geologists in that time was J. William (Bill) Kerr, who died in Nelson, British Columbia, on 5 April 2017.

James William Kerr was born on 24 January 1936 in Coleman, Alberta, the son of Jim and Florence Kerr. Bill was raised in Coleman, in the Crowsnest Pass area of the southern Alberta Rocky Mountains, and it remained his spiritual home. Bill went to the University of Alberta in Edmonton to study geology. In 1955, while still an undergraduate, he signed on as an assistant on the Geological Survey of Canada's Operation Franklin, a pioneering, air-supported reconnaissance of the Queen Elizabeth Islands in the far north of what is now Nunavut. It was there that Bill met Raymond Thorsteinsson (Nassichuk and Frisch, 2012), who was to become his mentor in subsequent years at the Geological Survey of Canada (GSC). Bill graduated from the University of Alberta in 1956, winning the Governor-General's Gold Medal as the university's highest-scoring student.

Bill went on to graduate study at Columbia University, where his PhD thesis advisor was Marshall Kay. Bill's thesis was a study of the stratigraphy and structure of a Paleozoic terrane in northern Nevada. He was awarded his doctorate in 1960, when he was barely 24 years old.

Bill was appointed Lecturer in the Department of Geological Sciences of Queen's University in the academic year 1959–60 and remained there until 1961, when he joined the Arctic Islands Section of the GSC in Ottawa. So began an outstanding career in the study of Canadian Arctic geology.

Bill's first project with the GSC was on Operation Eureka (1961–62), led by Ray Thorsteinsson, where he was assigned responsibility for mapping the early Paleozoic of central and eastern Ellesmere Island. There followed a number of major mapping projects in the High Arctic, most of which were under his leadership but typically involved collaboration with other scientists: Bathurst Island with P.G. Temple (1963–64), Cornwallis Island and neighbouring islands with Thorsteinsson (1965–66), southwestern Ellesmere Island and western Devon Island with D.W. Morrow (1967, 1971–72, 1974), Prince of Wales Island with R.L. Christie and Thorsteinsson (1970), and Somerset Island and northern Boothia Peninsula with A.D. Miall and C.D.S. de Vries (1975–76).

One of Bill's strengths as a geologist was the ability to recognize and explore the regional implications of discoveries and findings made during fieldwork. He possessed a real flair for visualizing the "big picture"—the local geology in a global context. For example, building on fieldwork on Cornwallis and neighbouring islands, he outlined the stratigraphic and tectonic controls of Paleozoic lead-zinc mineralization in the central Arctic Islands,



Bill Kerr, aged 71 (Photo: Julie Kerr).

including the major Polaris deposit, which was mined from 1981 to 2002. Bill also postulated mechanisms of basement uplift from his studies of the Boothia Horst, which comprises crystalline basement overlain by sedimentary strata, as exposed on Boothia Peninsula and Somerset Island.

Bill's research interests ultimately extended to the terranes peripheral to the Canadian Arctic Islands and the tectonics of the Arctic Ocean in general. Over a six-week period in 1968, Bill visited the USSR, touring the major Soviet earth science institutes engaged in Arctic studies. In the summer of 1969, he paid a month-long visit to field operations of the U.S. Geological Survey in Alaska, where his chief contact was Michael Churkin, Jr., with whom he was to enjoy a lifelong friendship. Bill spent 1978 at the Sedgwick Museum in Cambridge University's Department of Earth Sciences, where he collaborated with, among others, W.B. Harland and H.B. Whittington in further research on Arctic geology.

A major topic of debate in Arctic tectonics has been the amount of movement of Greenland relative to Ellesmere Island along the intervening Nares Strait following the opening of the Labrador Sea–Baffin Bay by sea floor spreading. In 1967, Bill published his verdict, based largely, as one might expect, on the geology exposed on land: little to no movement. The question continued to engage Bill's mind and led to a collaboration with Peter R. Dawes of the Geological Survey of Greenland (Dawes and Kerr,



Lunch stop on a helicopter traverse, probably in the 1960s.

1982). Today, after the passage of 50 years and significant advances in geological knowledge of the Nares Strait area, Bill's conclusion remains valid.

In 1980, Bill left the GSC and continued his professional career as a consulting geologist involved mainly with the oil industry in Calgary until retiring from geology in the mid-1990s. He joined his wife Sheila in real estate development and together they also opened a self-storage facility in Calgary.

In 2010, while overseeing work on a property he and Sheila had purchased in Nelson, British Columbia, Bill sustained a head injury that resulted in internal bleeding. He underwent emergency surgery, but a week later, in his sleep, he suffered a massive stroke. The stroke left him paralyzed on one side, but his cognitive skills and speech were largely unimpaired.

Bill lived out his remaining years in a care facility in Nelson, where his wife and daughter Julie and her family had moved.

Bill left a rich legacy of publications, comprising regional and topical reports and maps published by the GSC and papers in journals, books, and symposium volumes. Some of these have a distinct pedagogical flavour, such as "Geology of outstanding Arctic aerial photographs" (1970,

1972, 1976) and "Tips on organizing Arctic geological field work" (1974). A guidebook that Bill published in 1990 to the Frank landslide on Turtle Mountain in the Crowsnest Pass area was a particular favourite of his.

Bill Kerr will be remembered as, above all, a people person: warm, gregarious, forever upbeat. He had a seemingly inexhaustible fund of stories and jokes, which would keep a field party entertained for an entire field season. When not immersed in geology, he kept active pursuing hobbies like gardening and projects mostly of the DIY kind involving physical labour, or just puttering around in tool sheds, barns, or the open air.

Bill is survived by his wife Sheila, daughters Sarah and Julie (Craig Korth), granddaughters Ella and Amy Korth, and brother Gordon.

ACKNOWLEDGEMENTS

I thank Sarah Kerr, Walter Nassichuk, and Peter Dawes for sharing their memories of Bill Kerr with me.

REFERENCES

- Dawes, P.R., and Kerr, J.W., eds. 1982. Nares Strait and the drift of Greenland: A conflict in plate tectonics. *Meddelelser om Grønland, Geoscience* 8. 392 p.
- Kerr, J.W. 1970. Geology of outstanding Arctic aerial photographs; 1, Cape Storm area, southern Ellesmere Island. *Bulletin of Canadian Petroleum Geology* 18(4):463–468.
- . 1972. Geology of outstanding Arctic aerial photographs; 2, Schei Summit area, central Ellesmere Island. *Bulletin of Canadian Petroleum Geology* 20(2):175–183.
- . 1974. Tips on organizing Arctic geological field work. *Geological Survey of Canada Paper* 74-12. 12 p.
- . 1976. Geology of outstanding Arctic aerial photographs; 3, Margin of Sverdrup Basin, Lyall River, Devon Island. *Bulletin of Canadian Petroleum Geology* 24(2):139–153.
- . 1990. *The Frank Slide*. Calgary, Alberta: Barker.
- Nassichuk, W.W., and Frisch, T. 2012. Raymond Thorsteinsson (1921–2012). *Arctic* 65(3):359–362.
<https://doi.org/10.14430/arctic4232>

Thomas Frisch
 545 Piccadilly Avenue
 Ottawa, Ontario K1Y 0H9, Canada
tfrisch@sympatico.ca