

# A TRIBUTE



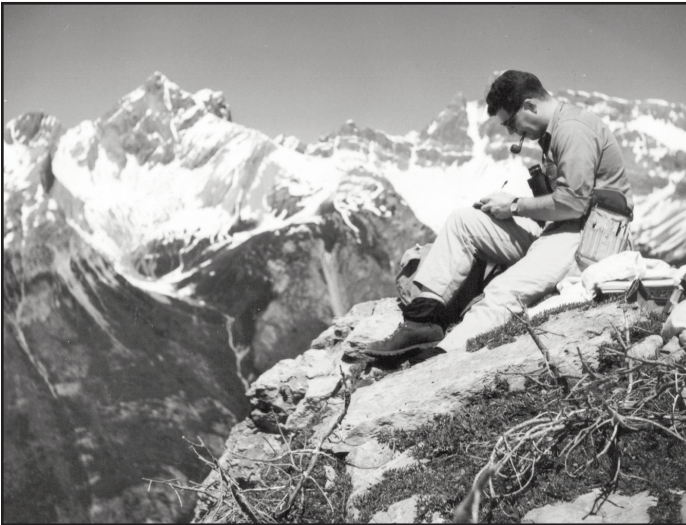
**Raymond Alexander Price**  
**O.C., Ph.D., D.Sc., LL.D., F.R.S.C., N.A.S.**  
**(USA), P.Eng.: 1933–2024**

Ray Price, distinguished Canadian geologist, university professor, and scientific researcher passed away peacefully on October 16, 2024 at Kingston, Ontario. Ray was a remarkable scientist and communicator. He was internationally acclaimed, highly productive, kind, humble, generous and a family man. A

true gentleman geologist who had an important impact on the lives of many, many people. Including all of us.

Ray was born and raised in the ethnically diverse and culturally rich working-class “North End” district of Winnipeg. His father, Alexander F. Price (Prysiazuik), and his mother, Edith Olga (Arlt) Price, were born in Winnipeg’s North End shortly after their parents had arrived in Winnipeg from two different parts of eastern Europe. Ray’s intellectual brilliance was apparent at an early age. In high school he became fascinated with physics and chemistry and graduated in 1950 from Isaac Newton High School with the Governor-General’s Medal for academic achievement. At the University of Manitoba, Ray enrolled in the required introductory BSc science courses in mathematics, physics, and chemistry and in an optional introductory course in geology that was presented by legendary teacher, Professor E.I. (Ed) Leith. It was in that course that Ray met Mina Geurds, his classmate and future wife. After completing this one course in geology, Ray had the good fortune of being hired as a junior field assistant by Dr. Geoffrey B. Leech of the Geological Survey of Canada (GSC) in 1952. Working and living in the Purcell Mountains of southeastern British Columbia, the 19-year-old boy from the flat prairies of southern Manitoba was intrigued and enthralled by the majesty and mystery of the mountains; and amazed that geologists had no really plausible explanation of how and why the mountains were created. Geoff Leech carefully nurtured Ray’s interest in geology over two field seasons. By the end of these, Ray’s focus for future scientific study had shifted to geology. Physics’ loss was geology’s gain and Geoff Leech considered that his greatest contribution to geology was convincing Ray to become a geologist.

Ray continued to work as a field assistant for the GSC during the summers of 1953, 1954 and 1955. Ray was keenly interested in understanding the origin of the mountains of western Canada. In 1954, he published an article titled, “*Whence the Mountains?*” in the Faculty of Science Students’ publication “*The Question Mark*”. In this article, he emphasized the lack of a credible scientific explanation for the origin and evolution of mountains. Developing a credible scientific explanation became his life-long pursuit. Ray and Mina graduated from the University of Manitoba with Bachelor of Sciences (Honours) degrees in 1955; Ray received the University Gold Medal in Sciences; and he also was awarded a Procter fellowship for post-graduate studies in the Department of Geology at Princeton University which he began in 1955 under the tutelage of John Maxwell. During the 1956 and 1957 field seasons,



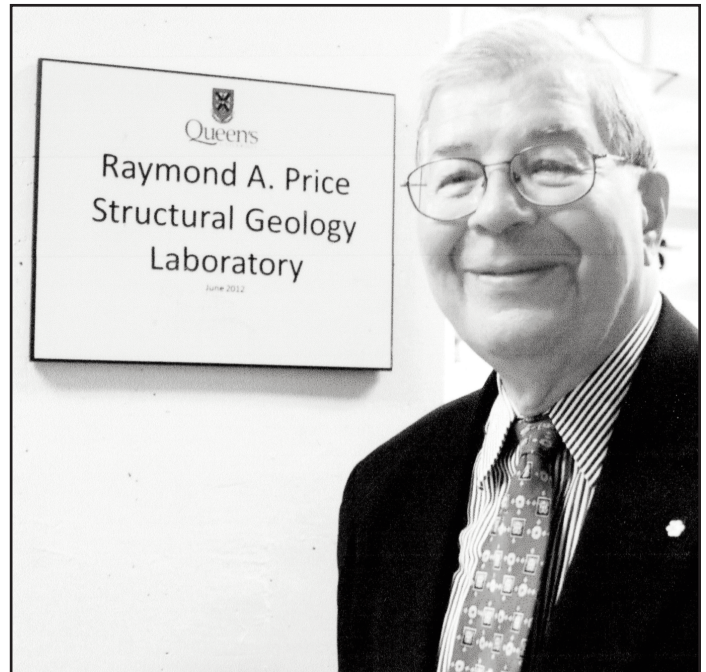
Ray Price in the field during Operation Bow-Athabasca.

Ray was employed by the GSC to explore and describe the stratigraphy, structure, and geological evolution of a segment of the Rocky Mountains along the Continental Divide at North Kootenay Pass. Ray's PhD thesis was based on this GSC geological mapping research project.

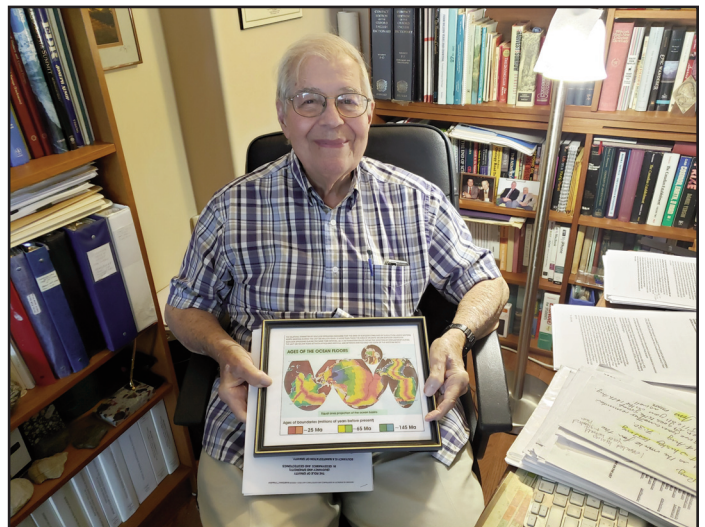
Ray and Mina were married in Winnipeg in September 1956 (after the 1956 field season!). They enjoyed living in the Princeton University geology graduate student community but were eager to have a home in Canada. In the spring of 1958, after Ray had completed his PhD degree requirements, they moved to Ottawa where Ray began full-time employment as a research scientist with the GSC, working mainly on geological exploration and mapping in the Rocky Mountains, initially in the vicinity of the International Boundary and the Crowstest Pass. At the GSC he initially shared an office with Eric Mounstoy, a kindred geologist also fascinated by the beauty and the mystery of the origins of the Canadian Rockies. They soon became scientific colleagues, good friends and close collaborators, particularly on Operation Bow-Athabasca, a major GSC field project led by Ray from 1965–1967 to study the geology of the Rocky Mountains between Jasper and Banff.

In 1968, Ray began his teaching career in the Department of Geological Sciences at Queen's University, where he was quickly recognized as an amazing teacher and supervisor. He served as department head from 1972 to 1977. He was so well loved that the graduate students held a dance party in his honour with Jim Sears singing Ray Prices's Hideaway (to tune of Fernando's Hideaway) in 1977. At Queen's he continued to work on the preparation of GSC geological maps and structure-sections based upon his GSC fieldwork in the southern Canadian Rockies. He integrated this with his supervision of 20 graduate student research projects that involved fieldwork in southeastern British Columbia, southwestern Alberta and also in adjacent parts of the U.S.A. Ray was so energetic and prolific that the rumour was he only needed 2 hours of sleep a day.

Ray had a desire to serve the geological community. In 1981, he rejoined the GSC as Director General and later



Ray Price at the official opening of the new structural geology laboratory at Queen's University.



Ray Price contemplating world tectonics at age 90.

became Assistant Deputy Minister for the Earth Sciences Sector directing the research priorities of Canadian geoscience. While holding these posts, Ray also served on virtually every commission and council of note associated with the earth and environment in North America, ranging from establishing the International Lithosphere Program, to Chairman of the Board of Trustees of the Sudbury Neutrino Institute, to President of the Geological Society of America. Ray returned to Queen's in 1991 and resumed his teaching and research career supervising another 10 graduate students. His research and mentorship were so well respected that a new structural geology lab named in his honour was financed by former students and opened in 2012.

Ray is best known internationally for his understanding of the geometry of the Canadian Cordilleran thrust belt in space and time, developed from his extensive field mapping and his understanding of the kinematics, mechanics, and dynamics of thrust belts in general. He demonstrated the role of tectonic wedging over a broad range of scales, explored the role of gravitational body forces in thrust wedge propagation, and documented the interplay between original continental margin stratigraphy and subsequent thrust geometry. He documented the co-evolution of the thrust belt and its foreland basin, linking isostatic subsidence and pulses of clastic influx to thrust fault advances. Ray was able to integrate the geology of the thrust belt with the evolution of the Canadian Cordillera as a whole. He recognized the relationship of the amalgamation of outboard terranes to the collapse, thickening, metamorphism, and cratonward translation of the ancient continental margin along a basal decollement that rooted under the detached hinterland. Ray saw the role of extension in the final stages of Cordilleran development and identified the presence of metamorphic core complexes in western Canada. He demonstrated a link between major dextral strike-slip faults and core complex extension, synthesizing both with relative plate motion vectors in a single, evolving, regional strain ellipse.

Ray was a gifted presenter and had a way of taking complex information and presenting it in an understandable manner. Ray emphasized in his lectures and field trips that maps told the geological history and structure of an area. His maps were carefully crafted to highlight the main features. Maps were the foundation of his career. Thus, it is fitting that his last major scientific publication was a beautiful 1:125,000 scale map of the Fernie map area in the southeastern Canadian Cordillera.

Ray loved his family; his beloved wife Mina of 68 years, his 3 children, 7 grandchildren and 3 great-grandchildren. He recognized the importance of connection and in the early 1960s when his children were young, Mina and family stayed at a friend's cabin at Crowsnest Pass while Ray mapped that area, in order to be closer to him. Graduate students were part of Ray and Mina's family and they generously opened their home to them.

Ray Price was unwavering in his support of young scientists, offering insightful comments and encouragement to all he saw. He was an early supporter of women doing research based on field mapping, and one of us (MM) is forever grateful for his help in opening an otherwise closed door to employment as a field geologist at the GSC in 1980.

Ray was an inspiring mentor to 30 of his own graduate students and hundreds more who attended the Cordilleran Workshop. Many of these students went on to assume important roles in industry, government research organizations, and university. Many others have been taught by Ray on his Rocky Mountain and Cross-Cordillera field trips. Few could hold attention at a field stop like Ray. This is part of Ray's legacy.

Ray Price's scientific accomplishments have been recognized by numerous international and national awards, including the officer of the Order of Canada, 2003; R.J.W. Douglas Medal, Canadian Society of Petroleum Geologists, 1984; Logan Medal, Geological Association of Canada, 1985; Offi-

er de l'Ordre des Palmes Académiques, France, 1988; The Leopold von Buch Medal, Deutsche Geologische Gesellschaft, Germany, 1988; Major Edward d'Ewes Fitzgerald Coke Medal, Geological Society, London, England, 1989; The Michael T. Halbouty Human Needs Award, American Association of Petroleum Geologists, 1997; and The Penrose Medal, Geological Society of America, 2012.

Peter Fermor, Petroleum Geologist (Retired)  
Margot McMechan, Geological Survey of Canada (Retired)  
Tekla Harms, Professor of Geology, Amherst College

## ACKNOWLEDGEMENTS

We thank the Price family for their support of this tribute; Paul Price for providing background information. Photos supplied by Paul Price and Margot McMechan.

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