

Memorial to John Sinclair Stevenson 1908–1987

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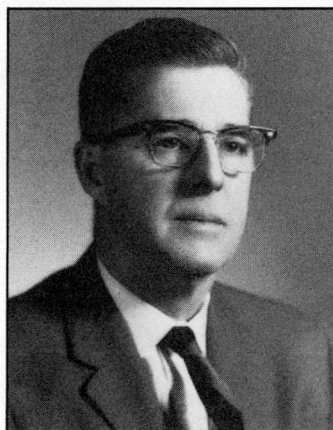
John Sinclair Stevenson died on September 6, 1987, after a very short illness. He had been in apparent good health and had just returned from the International Workshop on Cryptoexplosions and Catastrophes in the Geological Record, at Parys, South Africa. John made important contributions to Canadian mineralogy and economic geology, to medical mineralogy, and to the geology of British Columbia and of the Sudbury region in Ontario. He was involved in the training of many geologists, and he was an active member of the Geological Society of America.

John Stevenson was born in the community of New Westminster, British Columbia, on September 21, 1908, and received his primary education there. He attended the University of British Columbia at Vancouver, studying two programs concurrently. He was granted the Bachelor of Arts degree majoring in Latin in 1929, and the Bachelor of Applied Science (engineering) degree in geology in 1930. He then went to the Massachusetts Institute of Technology to do graduate work under Waldemar Lindgren: he was Professor Lindgren's last teaching assistant and one of his last graduate students. John received his Ph.D. in 1934. His research subject was the geology of the Eustis Mine, a sulfide copper producer near Sherbrooke, Quebec.

While at MIT John met the only geology student then at Radcliffe, Louise Stevens, who was studying geology and mineralogy. After graduation they were married. They raised two sons, John and Robert. Throughout their careers they collaborated in mineralogical research and were active jointly in supporting various scientific organizations.

John and Louise started married life in the bush of northern Ontario where John was supervising the drilling of a gold prospect, Longacre Longlac. After the end of the field season, the Stevensons returned to British Columbia, where John became a geologist for the British Columbia Department of Mines in Victoria. He spent the next 15 years studying the mineralization of the Coast Range. He reported extensively on the mercury, molybdenum, tungsten, lode gold, and uranium deposits of the province. From 1939 to 1945 he was in charge of strategic minerals. While in Victoria John joined the Royal Astronomical Society of Canada and served a term as president of the Victoria center; meteorites were of particular interest to him, and he became a founding member of the Meteoritical Society founded by F. Leonard.

During 1947–1948 John became a Canadian Fellow of the Guggenheim Memorial Foundation. During his tenure he concentrated on the mineralogical basis of economic geology. He studied the Coast Range rocks and associated ore deposits, then visited 21 mineralogical research organizations in North America to exchange ideas. While based in Victoria, John also assisted in the compilation of the *Tectonic Map of Canada*, synthesizing data on the very complex province of British Columbia from university, government, and industry sources. He cooperated with O. C. Lucas on the mineralogical analysis of a kidney stone and became interested in medical geology.



John left British Columbia in 1950 to take over the teaching of mineralogy at McGill University upon the retirement of R. P. D. Graham. John had enjoyed training young geologists in the field and was very much in his element in the classroom. For many years he taught mineralogy at the undergraduate and graduate levels, and in a quarter of a century trained hundreds of students to use the petrographic microscope. He directed at least 21 Ph.D. and 20 M.Sc. theses, in addition to being the departmental consultant to all graduate students with projects having mineralogical problems. John's background enabled him to give appropriate emphasis to the aspects of mineralogy important to the mining industry and mineral exploration without neglecting the more academic aspects of the subject in a department then noted for training geologists for industry.

In appreciation of his teaching, his former students established the Stevenson Medal in his honor; it is awarded to the outstanding graduate student in the mineral exploration program at McGill. John served as chairman of the McGill Department of Geological Sciences from 1966 to 1968. He was named Dawson Professor of Geology at McGill in 1970. He retired in stages, first in 1974 and more formally in 1977, but he taught part-time off and on until 1984, and never ceased his research.

While associated with McGill, John was active in many professional organizations and others designed to make science accessible to laymen. He was president of the Mineralogical Association of Canada from 1958 to 1961, chairman of the GSA membership committee from 1967 to 1969 (and a member of the special reviews committee from 1959 to 1961); he was chairman of the publications committee of the Society of Economic Geologists during 1957–1958, and served in several other capacities. He was active on several committees of the Canadian Institute of Mining and Metallurgy from 1954 to 1961. He was also very active in the Royal Society of Canada from 1955 to 1961, and in the Geological Association of Canada from its inception.

John and Louise were always very supportive of their colleagues and students who presented papers at scientific meetings; they invariably turned up in the audience and always made encouraging remarks afterward. John was very active in the McGill chapter of Sigma Xi and was its chairman in 1966–1967; he supported Louise in the founding of the Montreal Gem and Mineral Society, an organization promoting public interest in mineralogy and geology.

In 1952 John became associated with the International Nickel Company of Canada; hence, the Sudbury basin and the nickel deposits at Thompson, Manitoba, dominated his research interests while he was at McGill. His contribution comprises a succession of papers on the mineralogy and petrology of these nickel-producing structures. He had unique access to the sites and studied them in detail with meticulous care. He may be better remembered for his conservative skepticism when the meteorite theory for the origin of the Sudbury complex came into vogue; his skepticism was based on his very detailed knowledge of the area. He was well informed on the petrology of meteorites. His later papers on Sudbury point out what the meteorite theory does not explain, and are supported by a wealth of field work and analyses. This surely was good science rather than mere chauvinism. At the last conference he attended, the workshop on cryptoexplosions and catastrophes, he argued that the Onaping formation of the Sudbury basin was an ignimbrite erupted from a linear series of vents rather than a meteorite impact fall-back phenomenon, which helps to explain the asymmetrical form of the Sudbury basin.

In a 1980 paper written with Louise, John emphasized the position of the Sudbury basin "near the junction of the Superior, Southern, and Grenville provinces of the Precambrian Shield." To uninvolved spectators of the Sudbury debate the glamor of planetary geology and meteorite impacts seems to face serious competition from the advances in plate tectonics of the 1990s which now involve the accretion of Precambrian shields. Perhaps a restless-Pluto theory for the origin of the Sudbury and Vredefort structures may yet supplant Jupiter's celestial bolides!

Sudbury was not John's only interest; he had many other projects, mostly with Louise, on materials such as microsaure teeth in the Redpath Museum, unusual minerals from the Montere-gian Hills, and, in medical geology, urinary calculi and ashed lung tissue in connection with sili-cosis research.

At home, John was very much a family man and loved sailing, cross-country skiing, and folk dancing, and he played the recorder with enthusiasm. He was very active in the Wyman Memorial Church in Hudson, Quebec. John was an urbane host and always a good sport. He was a very considerate person, a well-loved teacher, a meticulous observer, and a gentlemanly colleague who is missed by all who knew him.

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