Memorial to Eugene N. Cameron 1910–1999

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One can't walk the woods near Gilsum, New Hampshire, as I have, preparing to lead a pegmatite field trip, without feeling the presence of Eugene Cameron, without knowing that his observations and measurements improved the understanding of pegmatites as no other man's have, and without almost smelling the fragrant aroma of pipe smoke lingering over the outcrops. And when field trippers press around to hear more about pegmatite zoning, mineral identities, and why these mines are here in the first place, you know that "Supergene" is looking over your shoulder, even through your hand lens. He may physically have left the outcrops forever, but his presence lingers on.

Gene Cameron molded and shaped some 90 M.S. and Ph.D. graduate students through his professorship and his rigorous economic geology program at the University of Wisconsin. Most of us knew him on a day-to-day basis for only four or five years while we enriched our lives and received a professional head start in Madison, but I think that we all feel so endowed by the man, and so positively influenced by his character, intellect, and scientific example, that he has quite literally shaped our entire professional lives. We all have images of him sailing down the halls, coattails flying; pacing back and forth behind the lectern with half-rolled shirt sleeves, chalk in hand; bent over his map table with india-ink drafting pen at hand; staring fixedly down the B&L microscope tube; and smiling with tightened lips at some grad student antic. But probably our most persistent recollection of him is a composite one, the memory of a really fine man and excellent teacher role model whose hard work was offered up unquestioningly to his students and his science, whose integrity and honesty propelled his students to be equally true and rigorous, and whose prodigious work ethic was almost unintentionally exemplary of what he expected from his students.

Eugene Nathan Cameron was born on August 10, 1910, in Atlanta, Georgia. His father was in the lumber business, and Gene lived in many eastern locales during his boyhood. After high school in Baltimore, he entered New York University in New York City to earn a bachelor's degree. He worked parttime to earn his way, and learned part of his sense of *noblesse oblige* from his boss, Benjamin M. Anderson, then chief economist of Chase National Bank. Anderson was so impressed with his young page that he took up a collection from his fellow bank officials to pay for Eugene's first university year. Cameron worked nights at the bank to put himself through college. His B.S. in geology at NYU (1932) was quickly followed by M.A. (1934) and Ph.D. (1939) degrees under Paul Kerr at Columbia University. In the process, at NYU and Columbia, he also earned membership in Phi Beta Kappa, Sigma Xi, and Phi Kappa Phi. He stayed on at Columbia as lecturer and instructor until 1942, also working with the Connecticut Geological and Natural History Survey in 1941–1942. He had already met and married (in 1939) the love of his life, Adrienne Marie Macksoud; she and their three offspring Beatrice,

James, and Donald, now poet and linguist, marine biologist, and economic geologist, respectively, all survive him.

There then began a hugely productive career in three parts: (1) associate to senior geologist with the U.S. Geological Survey from 1942 to 1950; (2) associate professor to Van Hise Distinguished Professor of Geology at the University of Wisconsin; and (3) after 1981, professor emeritus of economic geology at the University of Wisconsin.

In the first phase (1943–1950; WAE 1947–1950) Cameron became the architect of the massive wartime pegmatite mapping and petrologic studies for the USGS Strategic Minerals Investigations group on beryl, mica, and columbite-tantalite that led to the framework of our present understanding of pegmatites. He was also involved in studies of several other key industrial minerals, including graphite and the clays, during those USGS years.

In phase two, following Cameron's appointment to the University of Wisconsin—Madison faculty in 1947, he achieved broad international recognition. His specialties included ongoing studies of opaque mineral optics, of chromium and its habitats, especially in the Bushveld Igneous Complex of South Africa, of graphite, beryllium, and manganese deposits around the world, of several aspects of the study of lunar materials after the Apollo 11, 12, and 14 lunar landings, and of U.S. and world minerals policy. Great strides in all of these subjects are his legacy. He was consultant to Union Carbide Corporation from 1951 to 1967, an activity that fed his own curiosity while also resulting in fellowships, student research projects, and manifold benefits to his students and his university program. As consultant, he traveled extensively in Africa and the Americas examining pegmatites, carbonatites, layered mafic intrusions, and beach sand deposits, among others.

Cameron insisted on teaching a campus-wide course in U.S. and global mineral affairs and policy almost annually, and he carried a heavy teaching and graduate student advisory load. Even so, he found time to serve on a score of major University of Wisconsin committees, including pivotal personnel-search and university-policy groups during many difficult university years, and as chairman of the Department of Geology and Geophysics from 1955 to 1960. He was active for decades in key research and national minerals policy committees of the National Science Foundation, the National Academy of Science, the National Research Council, the National Aeronautics and Space Administration, and the National Materials Advisory Board. He became a Fellow of the Geological Society of America, the Geological Society of South Africa, the Geological Association of Canada, the Wisconsin Academy of Arts, Letters, and Sciences, and the Mineralogical Society of America, but his main involvement was with his beloved Society of Economic Geologists. For SEG he served as Thayer-Lindsley lecturer, secretary, councilor, vice president, and president (1973–1974), and in many respected advisory and editorial capacities over a 40-year span. His bibliography from this period includes several books and dozens of articles and reports on ore microscopy and opaque mineral optics, on chromite and other commodities from the Bushveld Complex, on lunar mineralogy, and on public minerals policy. It also records most of his 10 major reports on pegmatites, and a score of papers on a variety of mineral resource matters.

Phase three, Cameron's tenure as professor emeritus, followed from his retirement in January 1981. The ensuing years were a productive and eventful period. They started with a joyous surprise "retirement" party arranged by his army of friends, colleagues, ex–grad students, and fellow faculty members in Madison in February 1981. Fifty of his ex-students attended, many by then professors and corporate officers themselves, and on signal they opened their shirts to reveal T-shirts emblazoned with "I'm a Supergene Grad" on a UW shield, only to applaud even more loudly when the honoree opened a packet to find another shirt that proclaimed "I'm SUPERGENE!" Traditional retirement was not his wish, however. He pursued many of his earlier interests and continued to publish, including articles on public minerals policy, a critically

acclaimed book *At the Crossroads—The Mineral Problems of the United States*, a dozen papers on a new and typically forward-looking subject—the use of ^{3}He as an energy source from the moon, and several articles on other topics. One of his finest achievements in this period was his editing of and written contribution to "75 Years of Progress, 1920–1995," a comprehensive record of the history and accomplishments of the Society of Economic Geologists. Also during this time, he served as Henry Krumb Lecturer for the Society of Mining Engineers, was honored with the Cameron Symposium on Unconventional Mineral Deposits at an AIME-SEG Annual Meeting in Dallas in 1983, and was supremely honored in 1985 with the awarding of the coveted SEG Penrose Gold Medal "in recognition of a full career in the performance of outstanding work in the earth sciences."

Cameron continued to attend and participate in professional meetings, and it was at one of them that he fell and suffered a broken hip, the beginning of a decline that, coupled with cancer, claimed his life on April 21, 1999. Word of his passing spread quickly—ex-students learned of his death on the same day in London, Lima, and Lampang. We miss him, but his ethic, his intelligence, and his personal involvement with us will live on in classrooms, in laboratories, in libraries and studies, and across the pegmatite zones and the ramparts of the Bushveld.

The University of Wisconsin Foundation established the Eugene N. Cameron Scholarship Fund for Students in Economic Geology, Mineralogy, Petrology, Geochemistry, and Resources from Space.

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Note: Cameron's complete bibliography is available on request from the Department of Geology and Geophysics, University of Wisconsin, Madison, WI 53706.

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