

Presentation of the Roebling Medal of the Mineralogical Society of America for 1993 to Brian Mason

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It is a great pleasure and privilege to introduce Dr. Brian Mason as the recipient of the Roebling Medal of the Mineralogical Society of America. I first met Brian when he taught the first-year course in mineralogy at what was then Canterbury University College of the University of New Zealand. Brian was a graduate of that department, and we shared a common mentor, Robin S. Allan, after whom the Allan Hills are named. He was an expert in Tertiary brachiopods, and I don't think that he ever mentioned the words "geochemistry" or "meteorite" in his lectures. Nevertheless, both Brian and I were stimulated by the teaching of that remarkable man, a friend of the philosopher Karl Popper, who was on campus at that time, a refugee from Hitler's Germany.

Brian graduated with a double master's degree with first class honors in geology and chemistry, a rare feat, since the University of New Zealand master's degree was at that time the highest postgraduate degree, and equivalent, in my reckoning, to doctoral degrees from other universities. Brian's interest in geochemistry was sparked by reading Goldschmidt's 1937 paper, "The Principles of Distribution of Chemical Elements in Minerals and Rocks," given as an invited lecture to the Chemical Society of London. It's still a remarkable summary. Brian was sufficiently stimulated by reading this paper to write to Goldschmidt, who invited him to Oslo as a graduate student.

Brian's research on the geochemistry of Te was rudely interrupted early on the morning of April 9, 1940, by the arrival of the German army. He made his escape to Sweden, spending a couple of weeks with the Norwegian army en route, and was only slightly inconvenienced by a leg in plaster, which he had broken in a skiing accident a few days before. Brian, marooned in Stockholm, completed his Ph.D. dissertation, "Mineralogical Aspects of the System FeO-Fe₂O₃-MnO-MnO₃." He also published many mineralogical studies and carried out some crystal structure determinations using the laborious methods of the precomputer age, an exercise that he told me cured him of any further interest in crystallographic structural work.

Goldschmidt, after narrowly escaping deportation to the concentration camps in Poland, was spirited to Sweden by the Norwegian resistance and was then flown to England. He reminded the British authorities that there was a bright young scientist in Sweden who might be useful in the war effort, and so Brian duly undertook yet another hazardous journey, this time by air across German-occupied Norway to England.

After the war, he returned to New Zealand as a lecturer in the Geology Department at Canterbury University College, where I encountered him. It was difficult to distinguish Brian from the students; to this day he retains both a youthful appearance and manner. He still makes arduous field trips to the west coast of the South Island of New Zealand, famous for its very high annual rainfall. He continues to publish many papers on local geological studies in New Zealand.

Brian taught mineralogy for a few years in New Zealand before being tempted to the Department of Geology at Indiana University, where I became his Ph.D. student. My initial task on arrival was to proofread the page proofs of the first edition of the famous *Principles of Geochemistry* (now in its fourth edition, with sales of more than 50,000 copies and with translations into German, Russian, Spanish, Portuguese, Japanese, and Malay). It was a great way to get up to speed in what was then a very new subject. Brian went to the American Museum of Natural History in New York as a mineralogy curator after a few years in Bloomington. I was thus his only doctoral student: I have always presumed that, after me, he decided one had been enough. However, he taught geochemistry and meteoritics at Columbia, where his students included Ed Anders, who tells me that was the starting point of his meteoric career.

Brian has continued in museum work since then, official retirement being only a formality. His book *Mineralogy* (with L. C. Berry) appeared in 1959 and is now in its third edition. In 1960 he began to publish papers on meteorites (starting with four in that year) and hasn't let up since. His book *Meteorites* (1962), written during a visit to Japan, introduced the subject to most of us present. It has all the hallmarks of Brian's work: accuracy, clarity, and readability. With apologies to the authors of similar books, I don't think that anyone has matched it. I only regret that he never wrote a second edition. In total, he has published more than 230 books and papers.

He was a participant in the great tektite controversy in the 1960s. At the Corning tektite conference in March 1969, he proposed that since the debate would be settled in July by the Apollo 11 mission, the meeting should vote on lunar vs. terrestrial origins. It was a triumph of democracy; I recall the vote was 50-50.

At the time of the Apollo lunar missions, Brian became immersed in lunar studies and went on meteorite- and tektite-hunting expeditions in Australia. He often visited my laboratory in Canberra and became an accomplished

analyst on the spark source mass spectrometer. He worked extensively on the Allende meteorite. In Canberra, having persuaded me that the refractory inclusions, or CAI, in Allende might be worth looking at, he then discovered their curious REE patterns and erected the group classification, of which the most famous example is the exotic Group II REE pattern.

The influx of meteorites from the Antarctic in the 1970s suddenly put a premium on people who could deal with their staggering numbers; Brian quickly became, and has remained, in demand as one of the few who can instantly identify and classify meteorites. He was the first to draw attention to the existence of a meteorite that looked very much like a lunar highland breccia (Allan Hills 81005).

I could continue for a long time; Brian stories are legion. He has been president of the Meteoritical Society; we are all in his debt for his most recent accomplishment, the remarkable account of the life of Victor Moritz Goldschmidt, a book that once again demonstrates Brian's many talents. He was probably the only person who could have written such an account.

It gives me, as one very much indebted to him, great pleasure in presenting Brian Mason to you for the highest honor the Mineralogical Society of America can award, the Roebling Medal.