

Association Announcement

Richard B. McCammon: Krumbein Medalist



IAMG President Mike Hohn presented Richard "Dick" McCammon with the seventeenth Krumbein Medal during the evening banquet at the annual conference of the association held at Mont Tremblant, Quebec, in the Fall of 1994.

The William Christian Krumbein medal is the highest award given by our association. Few fit as well as Dick all the conditions required to deserve the honor: contribution to the geological sciences, services to the profession, and

support of the organization. In his address at Mont Tremblant Dick was generous enough to share with the audience his approach to successful research:

1. Assume that any mathematical expression used to represent an aspect of geology is in need of improvement.
2. Examine the assumptions that underlie any given mathematical expression.
3. Redefine the original problem in light of such an examination.
4. Search for solutions outside of geology.
5. Do not be discouraged by early failures.
6. Understand that solutions will be found when and where they are least expected.

Dick was born in Indianapolis on December 3, 1932, the second of the two boys of Bert and Mary Jean McCammon. He remained there until graduation with the class of 1951 from Broad Ripple High School. Being the son of a pharmacist (see Fig. 1), Dick went to the Massachusetts Institute of Technology (MIT) with the idea of obtaining a degree in chemical engineering. During his junior year, however, Dick came under the influence of a friend studying geology, who made him realize how much more exciting it was to work outdoors than in the secluded and confined setting of the laboratory.

Dick completed his formal education without interruptions receiving a Bachelor degree from MIT in 1955, his Master's degree from the University of



Michigan the next year, and his Ph.D. from the University of Indiana in 1959, all in geology. His dissertation was on the outwash sediments in the glacial valley of the Wabash River, Indiana. Fascination with the bimodal granulometric distributions produced by mixed populations led him to learn more about probability distributions, statistics, and eventually mathematical geology, leading him to spend a year at the University of Chicago as a postdoctoral fellow in statistics.

In 1960, at a time of abundant working opportunities for geologists, Dick's expertise in the sedimentology of glacial deposits allowed him to begin immediately his professional career by joining the faculty of the Department of Geology, University of North Dakota at Grand Forks, where he was an assistant professor teaching courses in quantitative geomorphology and regional geology to graduate and undergraduate students. After a year at Grand Forks, Dick decided to try the "real world" and moved to warmer Hamarville, Pennsylvania, to accept an offer from Gulf Research and Development Company. There he devoted seven years to statistical analysis and computer programming applied to petroleum exploration employing what at the time was a rare combination: strong backgrounds in geology and statistics.

Dick went back to academia from 1968 to 1975. During his second period at the classrooms Professor McCammon spent most of his time with the Department of Geological Sciences at the University of Illinois at Chicago Circle, but in 1973 accepted a temporal visiting appointment with the Department of Geology at the University of Calgary and in 1974 spent a sabbatical year as Senior Research Fellow with the New Zealand Geological Survey at Christchurch. While in New Zealand Dick had a stint in hydrology by analyzing hydrograph records and consulting for the Canterbury Water Catchment Board.

At the New Zealand Geological Survey Dick enjoyed the environment that allowed him full-time dedication to research without the teaching duties of a university. This experience lured him to accept a position with the American version of a national geological survey shortly after returning to his native country. His twenty years of work for the United States Geological Survey, first at the Office of Resource Analysis and now at the Branch of Resource Analysis, have been the culmination of his professional career. As a resource analyst Dick has been involved in numerous projects related to fundamental research and assessment of mineral resources and computer applications in mineral exploration. He has been chief of the branch since 1992. Throughout his career Dick has authored or coauthored about 100 papers and technical reports in sedimentology, stratigraphy, applied statistics, resource analysis, computer programming, pattern recognition, and artificial intelligence.

Dick defines himself as a joiner who enjoys the opportunity to meet interesting peers at professional organizations. He has been a member of the American Statistical Association and is a member of the Society of Economic Geol-

ogists (SEG) and the American Association for Artificial Intelligence (AAAI). Because he likes to see his organizations progressing and flourishing, he has held offices and served on numerous committees for several institutions and in many functions. He has taken part in countless meetings and has been representative, convener, advisor, reviewer, chairman, and keynote speaker. As an IAMG member he has served in almost every capacity available at the organization beginning as editor of *Mathematical Geology*, 1976–1980; western treasurer, 1980–84; secretary-general, 1984–89; president, 1989–92; and now he is our past president.

Dick was instrumental in negotiating for IAMG a couple of publications with Oxford University Press. In 1987 appeared the first volume of the *Monograph Series in Mathematical Geology*, a venue for medium-size contributions too large to be published as a paper and not extensive enough to make a book. For years, Dick felt that there was the need for a journal devoted to publishing research done in the appraisal of natural resources. His perseverance in pursuing the idea paid off in 1992 with the release of the first issue of the journal *Nonrenewable Resources*. Dick was the first editor-in-chief of the monograph and *Nonrenewable Resources* and continues serving in those capacities to the present. He also was responsible to a large extent for starting *Mathematical Geologists of the United States (MGUS)*, a regional chapter of the IAMG, for which he served as vice-president, 1978–78; president, 1980–82, and past-president, 1982–84.

In 1956 Dick married Helen Zaborniak, today a science administrator at the United State Department of Energy (DOE). They have two children: Catherine, currently a mineral physicist in Bayreuth, Germany; and Ian, a private consultant in sensor technology applied to robotics in Salt Lake City. Dick has been an avid squash player, a sport that he learned to play and enjoy during his stay in New Zealand. He is also a certified squash referee.

The International Association for Mathematical Geology is proud, honored, and grateful to include Richard Baldwin McCammon among its distinguished Krumbein medalists.

Ricardo A. Olea
Secretary-General, IAMG