Association Announcement

Tenth William Christian Krumbein Medalist: John Warvelle Harbaugh

John Warvelle Harbaugh, charter member of the International Association for Mathematical Geology and pioneer in computer applications in geology, has been named the 10th recipient of the William Christian Krumbein Medal. The Medal is the highest honor that the IAMG can bestow for *significant* contributions to mathematical geology.

With so distinguished a career as John's, it is difficult to encapsulate it in a few words, nevertheless, I will try and give a profile of the scholar, the professional, and the man. John has been associated with Stanford University in the Department of Geology and later the Department of Applied Geology for more than 30 years. With the exception of two years with the Carter Oil Company in Tulsa, he has spent his entire professional career at Stanford.

John was born in Madison, Wisconsin, on 6 August 1926, and lived much of his childhood in Ohio, Oklahoma, and Kansas. He received his early interest and inspiration for geology from his father, M. D. Harbaugh, who was a mining engineer. John's formal education consisted of a B.S. degree in geology from The University of Kansas in 1948 and a master's degree in 1950. His masters thesis was a creative work on biochemical investigations in the Tri-State Lead and Zinc Area where he could use his background in botany, geology, and chemistry. In 1955 he received his Ph.D. from the University of Wisconsin, completing a dissertation on the "Geology in the Shasta Lake Country of Northern California" under the direction of Lowell R. Laudon.

After a stint of consulting for a major oil company on the West Coast, John undertook a series of studies—now classic—on the Pennsylvanian marine algal banks in southeastern Kansas. This work, sponsored by the Kansas Geological Survey, was summarized in two extensive field trips, one for the Kansas Geological Society in 1962 and one for the GSA meeting in Kansas City in 1965. He has continued his close affiliation with Kansas throughout the intervening years.

In the early 1960s, John became interested in computers and geomathematics. His early work involved with a Burroughs 220 and he programmed in

a language known as BALGOL. His understanding of the implications of the computer to geology was prophetic and he was instrumental in interesting others in this new approach (including me). This interest resulted in a stream of publications on a variety of subjects as well as books on stratigraphic analysis, geological simulation, probability methods in oil exploration, and Markov analysis.

John's greatest contributions, as judged by the next generation, probably will be his pioneering work in the simulation of geologic processes. With increased computer power—a super minicomputer—he and his students now can make runs unthought of just a few years ago. Much of this research has been sponsored by industry grants for equipment and support for student theses and dissertations.

John has been active in numerous organizations, including the IAMG and AAPG. He has served both organizations on the editorial boards of the *Journal of Mathematical Geology* and *Computers & Geosciences*, as well as the AAPG *Bulletin* and *Geobyte*. He has been chairman of the Membership Committee for AAPG and currently is chairman of the Computer Applications Committee. He has served in several capacities for annual SEPM and GSA meetings, on numerous government boards and panels, and on many university committees. For three years he was chairman of the U.S. National Committee for the International Geological Correlation Program.

He is also a recipient of awards from other organizations, including the Erasmus Haworth Distinguished Alumni Award from his alma mater, The University of Kansas, in 1968; the A. I. Levorsen Award from the AAPG Pacific Section, in 1970; and most recently he has been named to receive the AAPG Distinguished Service Award in Los Angeles in 1987.

John is an opera fan, Wagner in particular. He is fascinated in the history of World War I, is an ardent listener of the Prairie Home Companion, and is a model train buff. He is a venerable traveler and a lover of the out-of-doors, including camping and hiking, especially in the highlands and tundra where he can relate to the flora. He has an interest in and modest collection of Persian rugs. John has a concern for students; he is patient and knowledgable, a great combination for a teacher. He inspires students and has been responsible for encouraging many to complete their education.

In 1951, John married Josephine Taylor of Miami, Oklahoma. They have three sons: Robert, currently a medical doctor in Santa Barbara, California; Dwight, a geologist in Reno, Nevada; and Richard, at home. John also has three grandchildren.

John has been active in IAMG affairs since the beginning. He took part in early meetings, such as the one in Cambridge, England, in 1967, and the founding meeting of the IAMG at the ill-fated International Congress at Prague, in 1968. He also attended the International Congress in Moscow in 1984. It is

indeed fitting that the International Association for Mathematical Geology recognize the work of John Warvelle Harbaugh with the Krumbein Medal.

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