

Memorial to Wolfgang Werner E. Mahrholz

1917-1973

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The untimely death of "Woody" Mahrholz in Rio de Janeiro on August 6, 1973, came as a shock to all who knew him. His many friends in this country, in Europe, and in Latin America find the world a sadder and less interesting place without him.

Wolfgang Werner Ekkehart Mahrholz was born in Munich October 4, 1917. His father was a prominent literary critic, his mother an accomplished artist. Much of his pre-university schooling was in the Odenwaldschule, an institution famous at that time for its advanced educational methods, which attracted students from all parts of Europe and from America. It was here, in daily contact with students and teachers from other lands, that Woody acquired his remarkable

fluency in French and English. From the Odenwaldschule also came the beginnings of his broadly international outlook, an outlook that made him increasingly unhappy with the political developments in his country which were about to engulf him.

He managed to complete two years of university work, one with Schneiderhöhn at Freiburg and one with Scheumann and Schiebold at Leipzig, before the Luftwaffe claimed him. Eight years of military service took him to all parts of Germany and then to Paris, where a lifelong love affair with France began. Despite his status as part of the Nazi occupation, he made friends with several Parisians and grew fond of French culture and the French way of life. Near the end of the war he surrendered to Americans in western Austria, and for a year and a half was a prisoner of war. Privations during this period caused permanent damage to his health.

After release he returned to Freiburg where, despite the chaotic conditions of post-war Germany, he resumed his studies under Schneiderhöhn, supporting himself with a job as manager of a small publishing company. By chance he met an American girl, Gertrude Bruns, whom he had known at the Odenwaldschule and who now was working in Germany with the United Nations. They were married, and in 1948 he emigrated to the United States.

In America he completed his education at Stanford University, getting a master's degree in 1951 and a Ph.D. in 1959. For his doctor's dissertation, he chose a peculiarly difficult subject, the study of opaque minerals with transmitted infrared radiation; the stubborn experimental problems delayed conferral of the degree until after he had been working for several years as an exploration geologist. His first major job, with the Bear Creek Mining Company, involved geologic mapping, mine and prospect evaluation, and geochemical studies in many parts of the Western States. In 1961 he left Bear Creek for two years of teaching at an institute set up by Petrobras in Bahia, Brazil, for the

training of mining and petroleum geologists. Teaching appealed to Woody, and after this experience he was torn between a wish to settle down in an academic position and his fascination with mineral exploration in out-of-the-way parts of the world. The latter impulse won out, except for a year that he spent as a lecturer at the University of Nevada; for most of the last decade of his life he was a consulting geologist on a variety of projects in Europe, Latin America, Africa, and the United States. At the time of his death he was employed by Terraservice on a large-scale exploration program in Brazil.

Writing was never easy for Woody, and the written record of his geologic ideas is largely limited to reports (many of them confidential) prepared for mining companies and government agencies. In conversation he was more eloquent. From his diverse background—early training under Schneiderhöhn, a decade of work in the American West, contact through extensive reading with French ideas of syngensis, later experience with Precambrian shield areas in Brazil and Africa—Woody acquired a healthy skepticism toward facile generalizations about ore formation. Like others who have studied a variety of deposits over large areas, he became convinced that the metals in ores have their ultimate source in the mantle rather than adjacent rocks, and that the process of concentration is in most cases a long and complicated one. Although always willing to try new techniques in ore finding, he grew increasingly doubtful about the efficacy of many current methods and especially about the theoretical background on which the methods are based.

The bare chronological facts of his life describe an unusual history, but give little hint of Woody's versatility and wide-ranging interests. From his father he inherited a love of books and publishing, from his mother, a deep sensitivity to pictorial art and sculpture. An omnivorous reader in many languages, he had a wide knowledge of history, philosophy, and current events. His wartime experiences made him peculiarly aware of the shortcomings and pitfalls of international politics, yet left him with surprisingly little bitterness, except toward a few of his own country's leaders and toward what he considered the pointless bombing of defenseless German cities in the latter part of the war. His intimate contacts with friends in many countries gave him an unusual understanding of the aspirations and problems of different nations. He was a true citizen of the world, scarred by the upheavals of the mid-twentieth century and worried about the future, but with none of the cynicism and hopelessness of many Europeans of his generation.

Woody's comments about his adopted country were penetrating and sobering. The openness, friendliness, and generosity of Americans had great appeal, as did the simple geographic facts of half-wild mountains and deserts in the Western States. But he was critical of the narrowness and provinciality of many whom he met, even in academic circles, and he was disturbed by the ugliness of American cities. The political chicanery and social troubles in America grew more and more distasteful over the years, particularly as he discerned here an ominous parallel with the kinds of events that led to the Nazi take-over in Germany in the 1930s. Toward the end of his life, he was strongly tempted to move permanently to Brazil.

There are many enigmas about Woody, and one of the most perplexing is the fact that so cultured and urbane a European should embrace geology as a career—and not the academic geology of a university environment, but the raw practical geology of

locating mineral deposits. In the field Woody became another person, no longer the lover of books and paintings and fine living, but the hardy explorer, at home in mining camps or the bare wilderness, cheerful in the face of difficulties, and resourceful in solving mechanical or logistical problems. He often remarked how glad he was that he had picked geology out of all the careers open to him. He seemed to love both city living and the roughest kind of field conditions and made the transition gracefully and often.

Woody was a cultivated gentleman, a keen observer, a dedicated field geologist, and beyond all these, a man of great personal charm. One of his strongest assets was an ability to make friends, an ability that amounted to genius and that gave him an entrée into all levels of society. Artists, lawyers, doctors, company executives, college professors, ranchers, miners, truck drivers, bartenders—all counted Woody as a close personal friend. His extraordinary facility with foreign languages gave him friends in many lands. He not only made friends, he cultivated them; he took vacations for the express purpose of seeing acquaintances of long standing, and he and Mrs. Mahrholz frequently entertained visitors who came to Palo Alto primarily to renew contact with Woody.

Woody will be sorely missed and long remembered among his great circle of friends. We who were fortunate enough to belong to that circle have learned much from him—something about the wellsprings of Western civilization, something about the decency and understanding and joy of living that can survive the battering of this troubled century, and something also about the satisfaction one can find in geology as a way of life.

SELECTED BIBLIOGRAPHY OF WOLFGANG W. MAHRHOLZ

- 1966 Coleção de dados para investigação geológica e exploração mineral no Estado da Bahia, Brasil: Fundação Comissão de Planejamento Económico, 245 p.
- 1967 (and Slaughter, A. L.) Research on geochemical exploration underground: Mining Congress Journal, v. 53, no. 10, p. 42–49.
- Verificação de algumas ocorrências minerais na região nordeste e sudoeste do Estado da Bahia: Fundação Comissão de Planejamento Económico, 90 p.
- 1968 (and Iglésias, D., and Menghezzi, M. L.) Bibliografia comentada e índice da geologia da Bahia: Ministério das Minas e Energia, Departamento Nacional de Produção Mineral, Div. Geologia e Mineralogia, Boletim 242, 175 p. (Rio de Janeiro).
- Exploration of the Kufra region in southeastern Libya: Geol. Publ. Ministry of Industry, Kingdom of Libya, Geol. Section Bull. 8, 76 p.