## Memorial of Paul Seel 1904-1982

## PAUL E. DESAUTELS

9077 134th Way N., Seminole, Florida 33542, U.S.A.

Many amateur mineralogists who have developed sufficient interest in and drive toward the science of mineralogy, if it happens early enough, ultimately find their way, through formal education and employment into careers in professional mineralogy.

Paul Seel, who died on April 28, 1982, at Bala Cynwyd, Pennsylvania, had the interest and drive but was not destined to become a professional mineralogist. However, his extensive knowledge of the subject, his enthusiasm for involving others in it, his close association through the years with notable individuals, in both professional and amateur mineralogy, are inspiring.

To sit around for a long pleasant evening of listening while Paul Seel spun tales of mineralogy and mineral collecting was a rare treat indeed! He told of events and of the legendary mineralogical giants associated with them. What's more, he told of them with authority because he had known many of them personally. He knew and associated with all the founders of *The American Mineralogist* and was a close personal friend of the first editor, Dr. Edgar T. Wherry, for many years.

Paul was born in 1904 in Silesia, Germany. His home town of Breslau, sitting on ancient sand and gravel beds, was the source of his first collected specimens—some pretty pebbles. By 1925 he had earned a college degree in civil engineering and in 1926 left Germany to start life in the United States. Starting work with the Pennsylvania Railroad Company in 1929, he finally left them 35 years later, in 1964, to become a consultant on high-speed transportation. He was an expert on engineering specifications, inspection and testing procedures for suburban transportation systems, Metroliners, and jet turbine cars.

In 1933 he took time out for a degree in education at the University of Pittsburgh. Three years later, during a visit to the Olympics in Berlin, he married Hilde whom he had met many years before in Germany. They had a mineralogical honeymoon visiting Vesuvius and collecting specimens of crystallized volcanic species at Pozzuoli and elsewhere in Italy. Ultimately, Paul was to travel extensively elsewhere, seeking minerals, in every state of the United States, the full length of Canada twice, and in 24 of the 29 states of Mexico. Some of it was rugged travel, such as one 14-mile hike from the Colorado River to climb the Rainbow Bridge and then 14 miles back to the boat.

Starting in 1936, Paul's mineralogical career had intensified. He was transferred to Philadelphia and immediately joined the old and prestigious Philadelphia Mineralogical Society. Later he was to become president of the venerable Leidy Microscopical Society and curator of the important Keeley Mineral Micromount Collection. As a charter member of the Pennsylvania Mineral Society he attended meetings of the Eastern Federation of Mineral Societies as a delegate from Pennsylvania. He began working on Federation committees and eventually became president of the Eastern Federation. For seven years he also served as Eastern Federation Rules Committee Chairman. His work with the Advisory Committee to the United States Bureau of Land Management, during the critical period of establishing rules for collecting petrified wood on government lands, led to his ascension through the ranks of officialdom in the American Federation of Mineralogical Societies. From regional vice president he advanced to secretary-treasurer, excutive vice president, and then served his term as president of the American Federation. At the end of his term of office he became president of the American Federation Scholarship Foundation. As a side activity he also became trustee and vice president of the Wagner Free Institute of Science in Philadelphia.

Through this period he maintained contact with his early mineral collecting friends through participation in local mineral society activities. He supported, through attendance and lectures, the annual Baltimore Micromounting Symposium and continued an avid pursuit of new specimens for his important collection of mineral micromounts. This particular interest in micromounts began in 1936, in Philadelphia, when he met Bill Van Horn who had worked with Dr. Wills on mineral micromounts. Dr. Wills was author of the first authoritative article on the subject and was a friend and associate of the renowned pioneer micromounters Rakestraw, Fiss, Keeley, Bement, Jefferis, and others. Paul was quickly converted, acquired his first microscope and, as might be expected, took a course in crystallography at the University of Pennsylvania in 1944 for his own edification. Stimulated by publications such as Professor Donnay's investigations of frequency of occurrence of crystal forms, he developed a burgeoning interest in morphological crystallography, which led finally to specialization in the morphology of diamond and quartz crystals. He made many large-scale sketches and drawings of some of these crystals, a natural thing to do since he was an accomplished draftsman who also knew how to use-Goldschmidt-style-the old Stowe goniometer. Ultimately, through courtesy of the Smithsonian Institution, he gained access to a scanning electron microscope for diamond crystal surface studies. This work

led to an invitation in 1973 to present a paper in South Africa at the First International Conference on Kimberlites.

Paul received his share of honors. Among others, he was elected a Fellow of the Mineralogical Society of America and a Fellow of the American Society of Mechanical Engineers; in 1981 he was elected to the Micromounters Hall of Fame. However, despite the high opinion in which he was held by both amateur and professional mineralogists, I remember him best standing in the middle of a poor Mexican village on the Balsas River, which we had forded to get there. He had just entertained some of the gathering villagers with harmonica solos and pleasant banter—in Spanish. Then, ever the mineralogical missionary, he moved on to the miserable little local school house to give the children an impromptu demonstration of the use of that wonderful mineralogical tool—the pocket magnifier.