The definition of “professor” may be found in any dictionary; however, those of us at the New Mexico School of Mines who were fortunate enough to be students of Clay Taylor Smith (most of us called him either “Dr. Smith,” sometimes “Doc,” or, more commonly, “Clay T.”) knew that his professional and personal life really defined “professor.” We had no need of a dictionary to understand the meaning of that term.

Having received a Ph.D. in geology from Cal Tech in 1939, Clay T. Smith began a life-long field-based career teaching geology by first working for the U.S. Geological Survey and at Cal Tech. By 1943 he was involved with minerals exploration efforts on the Colorado Plateau, with a dedication to field work that he shared with his students for the next sixty years.

Dr. Smith began teaching at the New Mexico School of Mines in 1947, coming in from the field to have a desk from which to teach, and eventually from which to serve as department chair and dean. For forty years he emphasized field-based studies in School of Mines students. Even after his retirement in 1987, he continued to perform field work and to teach young geologists the essentials of field geology, petrography, and economic geology, until mid-autumn of this year.

We also learned about personal aspects of this professor, those things in which he believed—especially good, solid field mapping and essential rock and mineral identification skills—and those aspects of academia in which he did not believe—perhaps most notably grade inflation, which was reflected on each of our academic records. The rigor with which Dr. Smith graded his students served us well. Those in other academic institutions or within industry recognized that if one fared well enough to receive a “B” from a Smith course, then that student must be pretty good. This respect from other geoscientists is reflected in the fact that his students have gone on to become exploration managers, long-term field geologists, mine managers, and professors.

To us, his students, he stressed professional involvement, and he set an example for us through his local and international participation in educational activities. He served as the Society of Economic Geologists’ Secretary for the Thayer Lindsley lecturer committee for more than twenty years. Those of us at the New Mexico School of Mines enjoyed more than our share of visits from Thayer Lindsley lecturers, thanks to Dr. Smith’s continual requests that the distinguished geoscientists include Socorro on their lecture circuits. Because of his insistence that students become involved in a variety of geoscience issues, and because he offered so much of his time to the Society of Economic Geologists, Dr. Smith was honored by that organization in 1995 with the prestigious Marsden Medal, awarded to that person who serves the society—as a volunteer—with distinction and merit.

Involvement in teaching and excellence in science were not restricted to the School of Mines campus; Smith was also director of the New Mexico State Science and Engineering Fair for a generation, overseeing the coordination and financing of the premier science and engineering event for students. He also participated in the Masters of Science Teaching graduate program from its inception in the early 1970s, a program designed to help elementary and high school teachers upgrade their science teaching skills and backgrounds. Because of his involvement participants learned the basics of geoscience, and the program became known for the practical field content provided on the abundant outcrops in the Socorro region, and for the worn boots of hundreds of teachers.

Because of his background in minerals exploration, Dr. Smith encouraged us to employ the practical aspects of our education, especially mapping skills and the ability to recognize what makes a prospect an orebody, and what makes an orebody a mine. This emphasis on applied field skills was evident throughout his career. We particularly remember this emphasis when field geologist Smith was in the field with us, usually with one of his faithful
dogs. Although most of the time those dogs were quiet (probably because they were busy eating the lunch of some unfortunate student who had stove their sack meal under some creosote bush), we often heard Dr. Smith barking at us to take another strike and dip, to plot a survey point correctly, and/or to identify that rock unit in some impossible-to-reach outcrop. Dr. Smith loved field work, and he was in the field encouraging (yes, “barking at” may be a better phrase) students until late October of this year.

Former students of Dr. Smith have similar comments concerning their advisor and professor. Among them: No matter what the circumstances, no matter what the terrain, no matter what the weather, Clay T. could outpace any of his students in the field, arriving at an outcrop with Brunton compass in hand, ready to take a strike and dip. Another comment: Of all the classes and all the instructors at the New Mexico School of Mines, it was Dr. Smith who provided the most essential real-world skills and who most prepared his students for work or for further academic study in economic geology.

Clay T. lives on in the attitudes, polish, and professional contributions of his students to geology, to exploration, and to education, launched as we were by the fire of our professor, mentor, and friend.

—William X. Chavez, Jr. (B.S., Geology, 1976) Professor, Department of Mineral Engineering New Mexico Institute of Mining and Technology

Selected bibliography

**Books**


**Maps**


**Papers**


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**Abstracts**
