

Memorial to Vincent Cooper Kelley

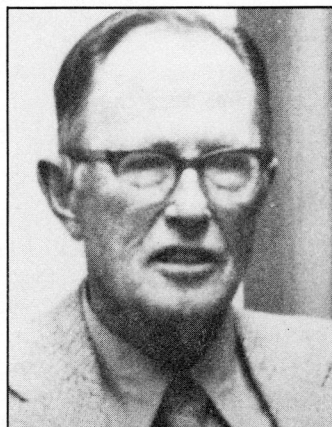
1904–1988

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Vincent C. Kelley (Vin to his many friends) died on December 5, 1988, in Albuquerque, New Mexico, after a long career devoted to the University of New Mexico (UNM). He was born in Seattle, Washington, in 1904, the son of Foster and Sarah Kelley, but he grew up in south Pasadena, California. In later years, Vin liked to reminisce about getting his first taste of geology while rambling among the orange groves and hills of pre-freeway California.

Inspired by professors William J. Miller and Alfred R. Whitman, he majored in geology at the University of California, Los Angeles. A senior thesis on crystalline rocks of the Santa Monica Mountains culminated his undergraduate studies; a 1935 GSA abstract was the first of many. Although he later made his name in structural geology and tectonics, his graduate studies, at CalTech, concentrated on



mineralogy and economic geology. An all-star cast of professors included F. L. Ransome, W. M. Davis, Hugh Fraser, Benno Gutenberg, Ian Campbell, and John Buwalda. While at CalTech, he supported himself as a teaching fellow in mineralogy and mineragraphy by teaching night courses in adult education, assisting his professors in engineering projects and working on a seismic crew. He still found time to win the departmental tennis championship and to help his team win the Graduate Division Cup in basketball.

Vin received his Ph.D. in 1937 with a dissertation on lead-silver skarns at Darwin, California, and a study of copper sulfides from Cananea, Sonora. Only a severe job scarcity could have induced him to apply for an unpromising one-year position as the second member of the UNM Department of Geology. The pay was to be \$1800 for teaching 15 credit hours per semester. A letter of recommendation from Ian Campbell described Vin as "tall, pleasant appearing man, easy to get along with and well-liked by his students ... if you can get him, he will be a 'real bargain' at this price." Vin's correspondence with the chairman and sole incumbent at UNM, Stuart A. Northrop, showed that only the dean's intercession persuaded the president to raise the initial salary to \$2000. The one-year appointment stretched to 33, followed by another dozen productive years as professor emeritus.

UNM in those years was a sleepy campus of about 2500 students. The geology department had offered the M.S. since 1930, but only five degrees were awarded before 1946. When Vin assumed the chairmanship in 1961, the faculty had grown to seven and was ready to take the plunge into major research. Although Vin was always the quintessential classical field geologist, he recognized modern trends. By the time he retired in 1970, the department had awarded its first Ph.D.s., acquired an electron microprobe and other analytical equipment through external funds, broadened the curriculum to include sedimentology, hydrogeology, and geochemistry, and entered the space age by merging with the Institute of Meteoritics. The faculty count stood at 12, but Vin had advised one-third of all graduate students: eight Ph.D. and 55 M.S. candidates. He attracted top students from afar but also had the knack of seeing promise in applicants with marginal paper credentials. He passed on to Lee A. Woodward, his successor as department chairman, his philosophy of "we're not here to discourage students, we're here to get the best out

of them." He set high standards for himself and others; students and faculty colleagues alike regarded him with admiration, tempered by a touch of apprehension about his famous Irish temper. Later, many former students rose to the top of the profession and became close friends. Wherever alumni gathered, the first question was likely to be "how's Vin?" In 1981, his first two graduate students perpetuated his memory through the Caswell Silver Foundation, which sponsors the Vincent C. Kelley–Leon T. Silver Fellowships at UNM. Since then, many alumni and colleagues have shown their appreciation through generous donations to the departmental Alumni Fellowship Fund, established in 1981 in Vin's honor by the then-Chairman, Rodney C. Ewing.

To appreciate the ways in which Vin touched so many lives, it is best to let former students speak through letters they sent to him in 1987: "... you forced me to take on a seemingly impossible task ... more important, I developed a love for the unknown.... You had the great gift to see the possibilities and unrealized potential in your students and the uncanny ability to help them realize it." "I wonder if you know how much awe, respect and yes, a touch of fear, you generated in me.... the fear is gone now, but the respect has grown with the passing of the years...." "VCK was to field geology what Holmes was to criminology." "Dr. Kelley once said to me: 'Never be afraid to surround yourself with excellent people. They are not a threat, but rather they will only make you achieve your best'." "There have been only two men in my life I could say I truly admired and loved: my Dad and you."

Vin's field trips have become the stuff of legends. When firewood was needed for camping in a treeless desert, he was known to chop down highway signs. He could terrify passengers on winding country roads by "doing 90 miles per hour ... looking out the window and pointing out interesting geology."

In his early years at UNM, Vin's teaching covered mineralogy, petrology, optical mineralogy, structural geology, regional tectonics, metallic and nonmetallic economic geology, ore petrography, petroleum geology, basic and advanced field geology, and introductory classes. As the department grew, he concentrated on structural geology, tectonics, and economic geology. In 1957, my first year at UNM, Vin was on sabbatical leave at Columbia University and I was supposed to step into his shoes. What a pair of shoes! During the week I taught structural geology with lab and economic geology; field geology took all of Saturday and part of Wednesday afternoon for a total of 19 contact hours. Each class had between 40 and 50 students. That wasn't all. Repeatedly, a graduate student, previously unknown to me, would appear at my door and announce that, in Dr. Kelley's absence, I was now his advisor and would I please advise!

In spite of heavy teaching loads, Vin was a highly productive researcher and prolific writer. In the 1930s and 1940s, his work was principally on ore deposits of California, Colorado, Utah, and New Mexico; in the 1950s, regional tectonics and structural geology became the major theme. His first paper on the Rio Grande depression, later elevated to the dignity of a rift, appeared in 1952. Concurrently, he published extensively on the tectonics of the Colorado Plateau and the origin of its monoclines and uranium deposits. In the 1960s, the overthrust belt of the northern Rockies and the Pecos Slope of southeastern New Mexico became additional interests. He was the leading authority on geology of the Albuquerque area, including the Sandia Mountains. A former student and close friend, Edward C. Beaumont, remembers that "Vin Kelley's achievements as a field geologist are legendary.... He possessed boundless energy, keen powers of observation, tremendous determination ... but more than that ... total lack of fear.... He went places and did things that others ... thought ... impossible or inordinately dangerous." Another former student, Tommy B. Thompson, recalls the insights on field relations he gained from Vin's visits to his map area, the 12,000-ft. Sierra Blanca in central New Mexico. Tommy was then in his 20s and Vin in his 60s, but Vin never complained about the high altitude and rugged terrain.

Vin's research on the Rio Grande rift and Colorado Plateau attracted wide attention, and Columbia University invited him in 1957–1958, as visiting professor. On other occasions, Vin

was invited to teach at the Universities of Hawaii, Texas, California (Santa Barbara), and UCLA. After retirement from UNM, he became adjunct professor at Texas Technological University.

Today, ambitious professors spend endless hours composing research proposals for federal agencies. Incredibly, all research by Vin and his students was done without a single grant, although he served as a consultant for both the National Science Foundation and NASA. From 1937 to the 1970s, a position with the U.S. Geological Survey took him to Utah, Colorado, Wyoming, and New Mexico. During World War II, the drop in student enrollments left time for extensive strategic mineral surveys. In the 1950s, Vin's work on the Colorado Plateau was done under the auspices of the Atomic Energy Commission. Later, some of Vin's research was funded by the New Mexico Bureau of Mines and Mineral Resources and by industry. Notably, Humble Oil and Refining Company (now Exxon Corporation) supported his work on the Pecos Slope and on the overthrust belt of Idaho, Wyoming, and Nevada. Consulting work, mainly after retirement, took him to Kentucky, Alaska, Venezuela, Brazil, and southwest Africa-Namibia. He became a director and senior technical advisor for Nord Resources Corp.

The name of Vincent C. Kelley appears on 157 publications, including numerous geologic maps and 11 lengthy circulars, bulletins, and memoirs. As a founder (1948), first president, first editor, and honorary member (1955) of the New Mexico Geological Society, he favored that society's annual guidebooks and helped to establish them as an important repository of regional geological information. It is fitting that his last publication (1982) was a major contribution to the society's geologic map of the state. The society's Special Publication No. 6 (Tectonics and Mineral Resources of Southwestern North America, 1976) was dedicated to Vin by his students and colleagues. He became a Fellow of the Geological Society of America in 1942 and served as Councilor (1960-1962) and Chairman of the Rocky Mountain Section (1962-1963). He was member of the Governing Council of the Society of Economic Geologists (1960-1963) and chaired its Penrose Medal Committee (1974-1977). He served as Vice President (1962-1963) and member of the Executive Committee (1963-1965) of the Rocky Mountain Section, American Association of Petroleum Geologists, and was a founding member (1940) and member of the Board of Directors (1946-1982) of the New Mexico Mining Association.

At UNM, he established student chapters of Sigma Gamma Epsilon and the American Institute of Mining, Metallurgical and Petroleum Engineers. He was a member of the U.S. Bureau of Land Management Advisory Committee (1967-1973), the New Mexico Environmental Improvement Board, and the Albuquerque Chamber of Commerce Committee on City Water Planning. Vin was registered as a professional engineer in New Mexico and as a teacher in California. For 26 years, he was a faithful member of the Rotary Club of Albuquerque. In 1981, the University of New Mexico recognized his many years of service by awarding him the Regent's Recognition Medal, and in 1987 the Department of Geology honored him and Stuart A. Northrop with a special convocation and symposium. Vin's prowess as a field geologist is remembered annually with the Vincent C. Kelley Award of a geologic pick to the outstanding UNM student in field geology.

Vin is survived by his wife Anne, a gracious hostess during his years as department chairman; sons David of Tulsa, Oklahoma, Robert, of Las Cruces, New Mexico, and Paul, of Atlanta, Georgia; six grandchildren and six great-grandchildren. A thriving Department of Earth and Planetary Sciences at the University of New Mexico is his lasting memorial.

Acknowledgment:

Anne Kelley graciously shared her memories and mementos of Vin Kelley's life.

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