



Photo courtesy of New Mexico Tech

## Frank E. Kottlowski

1921–2001

Frank E. Kottlowski passed away on Wednesday, April 18, 2001, at the age of 80. He was born on April 11, 1921, in Indianapolis, Indiana. He is survived by his wife of 55 years, Florence Jean, and his three daughters and their spouses, five grandchildren and their spouses, and three great-grandchildren.

Frank began his higher education at Butler University as a business major, but World War II interrupted. Enlisting, he served in Europe as an aerial navigator and photographic interpreter for the 8th Air Force from 1942 to 1945, receiving five distinguished service medals. After the war, he attended Indiana University and was one semester away from completing his certified public accountant degree when he took a geology course from Charles Deiss. According to Bill Muehlberger, the enthusiasm of his professor sold Frank on geology, and he received his B.A. in 1947. In his next four years at Indiana, Frank received his M.A. in structural geology (1949) and Ph.D. in economic geology (1951).

Eugene (Pat) Callaghan, another of Frank's influential teachers at Indiana University, moved to Socorro in 1949 to be director of the State Bureau of Mines and Mineral Resources, and in 1951 Frank was offered a position as economic geologist, which he held until 1969, when he was made a senior economic geologist. Frank became familiar with the history, geography, economic geology, stratigraphy, and structural geology for all of New Mexico, and friends say that he could easily recall the details and relevance of every significant outcrop in the state. In 1967 Frank took on administrative duties at the bureau, serving as assistant director until 1968 and again from 1969 to 1973, and as acting director from 1968 to 1969 and from 1973 to 1974.

Because the bureau is a division of New Mexico Tech, many of the staff have academic appointments as well. Frank was appointed a faculty associate in 1954 and adjunct professor of geology in 1970; the latter position he held until 1995. At New Mexico Tech, and earlier at Indiana University, Frank taught a number of courses

including petrology, microscopic petrography, field geology, economic geology, mineral deposits, industrial rocks and mineral, and coal geology.

Frank became director of the New Mexico Bureau of Mines and Mineral Resources in 1974 and later state geologist, positions that he held until his retirement in 1991. His administration was marked by substantial growth in personnel, budget, and influence. His early CPA training came in handy, and his colleagues at the bureau recall Frank's attention to budget numbers.

Upon retirement in 1991 Frank received emeritus status from New Mexico Tech. Even in retirement, his work ethic required him to put in many hours in his office, tying up those loose ends that were acquired over more than 50 years of geological work, and contributing where he could to the geological pursuits of the bureau. Many old friends, like Bill Muehlberger, first met Frank in the 1950s when they were students receiving bureau support for summer field work. Frank's colleagues remember a man of compassion and wit and a scientist of rare skill and insight—one in a million. Their collected tributes reveal the Frank that all of us grew to love.

In a citation bestowing on Frank honorary membership in the American Association of Petroleum Geologists, Bill King wrote:

Frank E. Kottlowski is a rare geologist indeed. He has all of the attributes of an exceptional scientist and an equal aptitude for administering the research of a large number of colleagues as Director of the New Mexico Bureau of Mines and Mineral Resources. In both endeavors Frank has been eminently successful and has significantly contributed to exploration for and development of mineral resources of New Mexico and the nation.

Looking back over his more than 36-year career with the U.S. Soil Conservation Service and as an environmental geologist with the

New Mexico Bureau of Mines and Mineral Resources, John Hawley recalled:

Fek was instrumental in navigating my professional career, and he has done the same for a host of young and not so young colleagues since the late 1940s. A generous personal nature and an encyclopedic knowledge of regional geologic history and economic resources combined to make Frank an effective mentor to an "incompetent-rock" geologist like me. Our common bond included an abiding interest in the application of geology to what I call "the public welfare," whether it is economic or environmental.

Gus Armstrong, now retired from the U.S. Geological Survey, received support from the State Bureau of Mines and Mineral Resources for summer field work in 1951, 1952, 1954, and 1955 while completing M.S. and Ph.D. degrees at the University of Cincinnati:

Frank Kottlowski was for 50 years my best friend, most loyal supporter, and best champion of my personal and professional career. Always there in good and bad times. I can not describe in words my debt for all the kindness and help Frank gave me over the years, no other human did as much for me.

John Shomaker, hydrogeologist, consultant, and former bureau geologist, commented on Frank's uncanny ability to absorb and retain information:

Frank was the only person I ever knew who could read a technical paper and drive a car at the same time; I have seen him do it, as I passed him on I-25. Another manifestation of this capability was his continuous exploration for new meaning in symbols and speech. I once spent a day on a field-trip bus in the seat behind Frank and a geologist from the Oklahoma Survey, listening to their repartee. At the end of the day, Frank said, "Sam, this has been a punishing trip."

His remarkable ability to remember all kinds of facts and concepts, geological and otherwise, was evident to everybody. He also seemed to recognize the right thing to do in any circumstance, and then did it, which I think showed a deep understanding of the world and of people, as well as an exemplary strength of character.

Ed Beaumont began mapping in the San Juan Basin in the late 1940s with the U.S. Geological Survey. Ed and Frank have been friends and collaborators for most of those 60 years:

The essence of Frank, to me, is an essential tenderness and caring, a tenderness that a lot of men would be hesitant to reveal. Frank was capable of being stirred to anger by charlatans who were practicing phony science. He gave everyone the benefit of the doubt, but if, in the final analysis, one proved to be a phony, Frank was not afraid to speak out.

I can't remember Frank ever insisting on doing anything "his way." How such an amenable and gentle man could control such a bunch of headstrong geologists and engineers is beyond my comprehension. It is hard for me to realize that there won't be any more cards or notes in that distinctive chicken-scratching (which sometimes took hours to fully decipher) followed by the signature "Pancho" FEK.

Jim Fassett, another U.S. Geological Survey geologist writes:

Frank was always one of my heroes and was an institution in New Mexico geology. We got cross-wise a time or two, mainly over the friendly competition between the New Mexico bureau and the USGS, but I always held Frank in the highest regard and had the utmost respect for his intellect and integrity.

When Frank received the Geological Society of America's Gilbert L. Cady Award in 1996 for his work in coal, the New Mexico Bureau of Mines and Mineral Resources's senior coal geologist, Gretchen Hoffman, summarized his professional contributions:

Frank has made significant contributions to coal geology in New Mexico, through his research and as an administrator. He has encouraged many others in their work in this field, both as a mentor and as a friend. His many contributions to the minerals industry and to professional organizations reflect a dedication Frank has for all aspects of our profession.

James Robertson served the bureau from 1974 to 1993 as economic geologist, and he was also assistant director of the bureau when Frank retired. Now director of the Wisconsin Geological Survey, Jamie reminisces about Frank's dealings with higher administration:

Perhaps the most positive observation I can make about Frank's patience, tolerance, and goodness of character as exhibited by the whole of those dealings is to note that he never once, to my knowledge, considered taking a rock pick to the bunch of 'em.

David Schoderbek, geologist with Burlington Resources in Farmington, was one of Frank's younger colleagues and Frank's son-in-law. David recalls:

I first met Frank Kottlowski when I was an eighteen-year-old freshman at New Mexico Tech, and he was the geologist most influential in my choice of degree and career to pursue. Throughout the twenty-plus years of our ensuing friendship, Frank perpetually embodied four ideals that I'll always try to emulate. In every way, Frank was exceedingly generous. Not only of his highly sought-after time, but also of his ideas, his credit, his praise, his listening, and his material possessions. Frank gave freely of whatever he had to give, whether it was the last sip of water in his canteen or his valued editorial advice. His door was always open.

Frank's personal and professional integrity was unexcelled. He was consistently fair and even-handed, always extending the benefit of the doubt to those in need.

Frank's insatiable curiosity was not limited to geology; his broad interests drove him to never stop learning. Every trip with Frank was a field trip, and he could always be depended upon to have the relevant maps and literature.

Above and beyond all else, Frank was a geologist's geologist. He was familiar with the history, geography, economic geology, stratigraphy, and structural geology of all of New Mexico, and could easily recall the details and relevance of every significant outcrop in the state. Frank was always eager for a trip to the field, where he taught me that so many geological truths are clearly written for those willing to look and listen to the rocks.

Frank wrote many articles and abstracts during his professional career and even one commercially published textbook. By the time of his retirement in 1991, his resume contained 182 listings. By 1996, five years later, he had added 22 more.

Frank Kottlowski was respected for his research, writing, and editing and also for the administration of the organization he led for 17 years. After retirement he continued to work productively for another 10 years. Those who did not know Frank personally will learn of his dedication to his science through his many and authoritative published works. But beyond his professional life, Frank Kottlowski was respected for his intelligence, humor, kindness, and compassion. He serves an example to us all.

—George S. Austin

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Frank E. Kottlowski

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#### More about Frank's life works can be found in the following:

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