

Bob Weimer



It is with great sadness that we announce the passing of Robert J. Weimer, an icon in the geology community. Bob died of natural causes on 25 August 2021 at Frasier Meadows Retirement Community in Boulder, Colorado. He was 94 years old.

An internationally known geologist, Bob distinguished himself in a seven-decade career as an outstanding teacher, influential researcher, and innovative explorationist. Bob was born in Glendo, Wyoming, on 4 September 1926. In 1944, at age eighteen, he joined the US Navy's officer training program, where he studied engineering at USC until the end of the War. After being discharged in 1946, Bob enrolled at the University of Wyoming, where he received his BA (1948) and MA (1949) degrees in geology. While in college, Bob met his life partner, Ruth Adams, a journalism student and campus leader who became the secret ingredient in Bob's success. Bob and Ruth married in September 1948 and remained married until her death in May 2017.

From 1949 to 1951, Bob worked with Union Oil in several locations in the Four Corners area. He took a leave of absence to attend Stanford University, completing his PhD in the 2½ years covered by the amount of funding remaining from his G.I. Bill. He returned to work with Union Oil for 1½ years in Wyoming and Montana, and then joined Chet Cassel as a consulting geologist in late 1954. This collaboration became the foundation for the rest of Bob's career as an explorationist, a teacher, and a researcher.

As an explorationist, Bob broke new ground at age 32 with his innovative discovery of the Patrick Draw Field in southwest Wyoming in 1959. Previously, major Rocky Mountain oil fields had only been associated with structural traps. Bob, however, recognized the presence of a productive stratigraphic trap; namely, the combination of the updip pinchout of the Almond Sandstone and where it overlies the Wamsutter Arch. This Patrick Draw discovery launched a decade of exploration in the Rockies and nationwide, searching for similar kinds of previously unrecognized or ignored stratigraphic traps. Later, in 1973, Bob applied the same stratigraphic concepts to help discover the Spearhead Ranch Field in the southwestern portion of the Powder River Basin in northern Wyoming.

While Bob was identifying new techniques to locate petroleum fields, he also pursued his lifelong dream of becoming a teacher. In 1957, he was hired as a professor at the Colorado School of Mines. In this role, Bob became well-known in the Rocky Mountain geo-community:

- As an academic, Bob chose to research areas that were not only economically productive, but also physically close to CSM and Denver. This made it easy for local geologists to visit the outcrops that Bob studied, and apply Bob's concepts for profit.
- At the same time, Bob published papers explaining his novel conceptual framework for identifying potential oil fields in the Rocky Mountains. His paper published in the January 1960 AAPG *Bulletin* -- "Upper Cretaceous Stratigraphy, Rocky Mountain Area" -- quickly became a standard reference and the starting point for understanding the regional framework of the Upper Cretaceous strata. Local geo-companies applied this framework extensively, thus leading to major productive petroleum discoveries.
- As a teacher, Bob used his experience in industry to bring an applied perspective to classes. His students learned not just geologic theory, but also pragmatic operational concerns. For this reason, many of Bob's students credit his tutoring for their successful careers.
- Bob was influential not only for the quality of his teaching, but also for the number of students he taught. In his 60-year tenure at CSM, Bob personally taught more than one thousand students; many of them took Bob's "Principles of Stratigraphy" class that was required for all geology, geophysics, and petroleum engineering majors. A significant number of those students found employment in the Rocky Mountain geo-community, thus allowing them to build lifelong ties with Bob.

Furthermore, during the summers of 1971 through 1988, Bob also taught continuing education courses for industry groups. A significant portion of the Denver geo-community cycled through these courses, further strengthening Bob's influence in local industry.

Bob served as CSM Geology Department Chair from 1964 to 1969, and held the inaugural Getty Chair from 1978 until his retirement in 1983. For the next 30 years, Bob

remained active both as an emeritus professor at CSM, and as a geo-consultant in the Denver area. He described the uppermost Cretaceous strata cropping out along the west side of the CSM campus; his work later evolved into a walking geology trail.

In addition to local pursuits, Bob also traveled and taught extensively around the world. For example, he taught as part of a Fulbright Program at the University of Adelaide in 1967, then returned to Australia several times to teach short courses. He also taught at the University of Calgary (1970), and at the Institute of Technology of Bandung in Indonesia in 1975. These trips were life-changing experiences for both Bob and his family, and led to many lasting friendships in numerous countries.

Bob's strong feelings for professionalism led to extensive work for many geologic and engineering professional associations. He did extensive service for RMAG including President (1968), co-compiler of the Cretaceous Chapter in the 1972 RMAG Geologic Atlas of the Rocky Mountains, leader of numerous field trips, and speaker for many lunchtime talks and short courses. He received RMAG Honorary Membership in 1969 and was named Scientist of the Year in 1982 and Legend in 2003.

In addition, he served as President for SEPM and AAPG, and as a Distinguished Lecturer for both the AAPG and SEG. Bob was also honored to receive many awards during his distinguished career, including:

- AAPG Sydney Powers Medal (1984)
- Election to the National Academy of Engineering (1992)
- Distinguished Alumni from the University of Wyoming (1994)
- SEPM Twenhofel Award (1995)
- From CSM: Mines Medal (1982), Brown Medal (1990), Honorary Degree (2008)
- Parker Medal- AIPG (1986)
- GSA Fellow and Sloss Award (2003)
- AGI- Legendary Geoscientist (2006)
- Honorary memberships with several groups: AAPG, SEPM, Wyoming Geological Association, Colorado Scientific Society, CSPG, Nigerian Petroleum and Mining Association

While Bob was building his career, he and Ruth raised their family on Lookout Mountain near Golden, Colorado. In his 55 years there, Bob served many volunteer roles, including President of his community and Chair of the local water committee. With his

geologic expertise, he found the best locations to drill water wells in Mount Vernon Country Club. To this day, that water still fills the taps for the 100 households, swimming pool, and restaurant in the community. He also served as President of the Northwoodside Conservancy Foundation and a board member to the Foothills Art Center. As part of a family of homesteaders, he had a love for the Rocky Mountain region and spent substantial time with his family doing outdoor activities.

Bob is survived by one sister--Joyce; three sons- Tom, Paul (Laurie), Carl (Kathy); four grandchildren—Dan (Natalya), Lou (Sydney), Rudy (Lisette), Kate (Zach); and two great-grandchildren (Roslyn, Lenna). He was preceded in death by his wife Ruth and son Loren.

In conclusion, Bob represents the very best of his profession. He understood well that in exploration geology, the line between success and failure is infinitesimally thin, and he maintained the humility that is borne from that understanding. His service was driven by his deep gratitude for the opportunities that came his way. But it is clear that Bob was more than an outstanding geologist: he was also a valued friend and colleague to many. He mentored hundreds of geologists in an informal, yet effective and lasting way. He was extremely generous in sharing his time, resources and enthusiasm with members of his profession and his community. He relished guiding young people to discover the wonders of the geologic world and helping every person he came into contact with to feel truly special. And in his quiet moments, one could hear him quietly singing his favorite Louis Armstrong song- "I'm Just a Lucky So-And-So." He will be sorely missed.

--Paul Weimer, for the family