

Bill Rose

to Richard Edwin Stoiber

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Richard Edwin Stoiber

On 9 February 2001, only days after a 90th birthday celebration, which attracted students, friends, and family, Dick Stoiber died at home in Norwich, Vermont. For his whole professional career after his doctorate, Dick was a professor at Dartmouth College. He was a productive mineralogist for almost 30 years (Morse 2002). At the age of 53 he turned to volcanoes, which inspired him to supervise more than 50 undergraduate theses, 26 master's thesis and 9 PhD dissertations—mostly all about volcanoes and volcanic geology. He was thrilled with volcanoes and was talking creatively and passionately about them until his death. A website, *The electronic volcano* (<http://www.dartmouth.edu/~volcano/>) was one of his many communication outlets during his “retirement years” of the 1990s.

Born in Cleveland and raised in New Jersey, Dick studied geology at Dartmouth (AB 1932) and mineralogy at MIT (PhD, 1937), and then joined the Dartmouth faculty in 1935. His early research was in ore deposits,

where he worked to define solution movements and mineral growth in Mississippi Valley type deposits. He then focused for a decade on the Michigan Copper deposits of the Keweenaw Peninsula. Dick became a volcanologist after a trip to Central American volcanoes with his colleague Bob Decker in 1963 stimulated him to begin studying high temperature fumaroles as analogues of ore deposits. But Dick did not only think about his own research needs, he realized that to observe active processes was a key to thinking differently about geology and science as a whole. He quickly realized that volcanoes were laboratories where his skills at teaching and research could blossom, and made Central America a second classroom for decades. His work on gas condensates and fumarole minerals was followed by investigations of volcanic front segmentation and then by using the correlation spectrometer to measure degassing rates at volcanoes. His group of students at Dartmouth (Al Eggers, Paul Taylor, Mike Carr, Bill Rose, Stan Williams, John Stix, Chris Newhall, Dick Birnie, Gerry Carlson, John Hughes, Chuck Conner, and many more) grew and the international nature of Dick's efforts changed the whole program by building extensive field work into both the graduate and undergraduate programs.

Perhaps of greatest importance, Dick shared the volcanoes with students. He built Dartmouth into a leader of volcanology graduate work by using Central American field sites. His students were responsible for many mapped quadrangles in Guatemala, and his students did field and lab. work which was the foundation for many volcanic hazard studies. Many of Dick's students have become prominent volcanologists, and a great many more are doctors, lawyers, and bankers who know much about how the Earth works and volcanoes in particular. He involved all of Dartmouth's undergraduates in geology by bringing them to work at volcanoes as part of his research team, establishing a now famous field education effort called the “Stretch”, an original field experience lasting 7–10 weeks, which threw students into the middle of research on active processes. It was the highlight in the education of more than 500 undergraduates. The Dart-

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mouth stretch visited Central America for 20 years led by Dick's energy, until war there made it dangerous. It continues today and has been copied broadly across the world. The educational value of the stretch came in part because Dick gave it a holistic perspective, which inevitably involved intercultural communications and lots of practical issues. It was life in the Third World where the stated theme of geological hazards were not the worst problems. The Stretch interacted with many foreign scientists (Jose Viramonte, Moises Harrouch, Gabriel Dengo, Otto Bohnenberger, Sam Bonis, Alfredo MacKenney, Oscar Salazar, and many more) and Dick continued to communicate with all of them. He wanted to make his new knowledge accessible in Central America and aimed to build infrastructure for hazards mitigation.

Stoiber was an inspirational teacher who pushed his students to do new things, and to do them thoroughly. In classroom lectures, he had an eclectic, dramatic style that looked disheveled and completely without self-consciousness. He might lie down on the desk and look at the ceiling during his explanations, changing the cadence and emphasis carefully for each word, with pauses and weird questions, then suddenly jumping up with a surprised look, his glasses askew, chalk dust all over his pants and his shirt untucked. It was memorable. His words generally led in an unexpected direction, and he likely never gave the same presentation again. Dick showed everyone original thoughts and how to focus on what was really important. He did not ever use artificial formality or pretension. He came to the point swiftly and more precisely than anyone. He could size up a new acquaint-

tance in microseconds. He could not abide tedium. He overcame obstacles by cleverness or sheer persistence and clung to ideas doggedly. Being with him was irritating, exciting, nerve wracking, hilarious, fascinating, wild, joyous, and exhausting all at once. As a chairperson in his department, a job he did twice, he shook the college and cheerfully overspent his yearly budget—once in the first month. He always had more fun than anyone and shared everything. He made friends everywhere. One of his most treasured honors is the recognition of his mineralogical/volcanological career through the mineral stoiberite ($\text{Cu}_5\text{V}_2\text{O}_{10}$), discovered in the summit fumaroles of Izalco, El Salvador.

Dick's wife and lifelong companion, Eddie Howley, preceded him in death by a year. He is missed all around the world, especially in volcanological and mineralogical circles and by his daughter, Christine Fahlund, and son, Philip Stoiber. A Stoiber Field Fund to support geological student field work is his memorial at the Earth Sciences Department at Dartmouth. Memories and recollections of Dick Stoiber may be sent to the "Richard E Stoiber Archival Collection" at Dartmouth's Baker Library. These will be rich beyond belief.

Reference

- Morse SA (2002) Memorial of Richard Edwin Stoiber, 1911–2001. *Am Mineral* 87:1024–1025