

## **Memorial of Alice Mary Dowse Weeks August 26, 1909–August 29, 1988**

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Dr. Alice M. D. Weeks, Professor Emeritus at Temple University, died of Alzheimer's disease, August 29, 1988, in Bryn Mawr, Pennsylvania. Dr. Weeks had been a fellow of the Mineralogical Society of America since 1951.

Alice Mary Dowse and her twin sister Eunice were born on August 26, 1909, to Jessie Parker and Charles Arthur Dowse in Sherborn, Massachusetts. Jessie Parker graduated from Jackson College for Women (Tufts) in 1904 and taught school in Sherborn before marrying C. Arthur Dowse, a banker and farmer. Jessie strongly supported women's rights and encouraged her daughters to get an education. Into her 90's and blind, Jessie eagerly awaited letters from Alice describing her research, travels, and field work.

Alice received a diploma from Sawin Academy and Dowse High School in Sherborn in 1926. She graduated Cum Laude from Tufts in 1930 with a degree in mathematics and science. Following graduation she taught at Lancaster School for girls for 2½ years and then returned to Tufts with a small scholarship to take a few geology courses. She attended graduate school at Harvard and received a master's degree in 1934. Being a woman in geology at Harvard was not easy. Harvard professors taught the same introductory courses twice, once for the men of Harvard and again for the women of Radcliffe. Alice reportedly was not allowed to participate in some classes but sat in the corridor outside the classroom to take notes. Upon completion of her master's degree in 1934, Alice was financially unable to continue with her education at Harvard and so accepted a Research Fellowship at Bryn Mawr for one year and then stayed a second year as a laboratory instructor. She returned to Harvard in 1936 to begin on her doctorate.

Alice began teaching at Wellesley College at this time. She was a laboratory instructor in physical and historical geology for one year before becoming an instructor and then assistant professor. She taught a wide variety of courses including physical and historical geology, geomorphology, cartography, gemmology, petrography, optical mineralogy, and regional geology. During the war she taught military map making to Navy officers at Wellesley. She was totally ambidextrous and would draw on the right side of the map with her right hand and on the left with her left hand. Left-handed students benefited because she was able to demonstrate how to draft left-handed.

One of her summer jobs during this time was the drafting of figures for a new edition of Dana's mineralogy. The

job paid a magnificent sum of \$100.00 per month. During later summers she and another Wellesley instructor made three trips, visiting all of the 48 states and Canada to gather data and scenic photos for her regional geology course.

While teaching at Wellesley she struggled to complete her doctorate at Harvard. Her dissertation, directed by Marland P. Billings, involved mapping two of the quadrangles that included her hometown of Sherborn. It was, in part, a family project as her younger sister Martha was her field assistant during one summer. Alice began mapping in 1935 but found that the topographic maps that had been published in 1893 were inadequate. She waited for the completion of new 7.5 minute quadrangles to be published in 1940 and 1942, but at that time gasoline rationing delayed her work. She was finally able to complete her field work in 1947 and received her degree in 1949.

In May of 1950 she married Dr. Albert Weeks, a petroleum geologist. She and Al had known each other for some time, and he provided much needed encouragement that allowed her to finish her dissertation.

In 1949 she took leave from Wellesley and went to work for the U.S. Geological Survey. She officially resigned her appointment at Wellesley in 1951 to remain with the Survey. Alice's work at the Survey was in the Trace Elements Lab where she studied mineralogy of radioactive deposits. She became a project leader in 1951, continuing to work with uranium mineralogy, particularly that of the Colorado Plateau. At a time when few women worked in the field, Alice did extensive fieldwork and visited many mines. Although she was generally well received, there were occasions when subterfuge was necessary to gain access to mines where superstitions against women were strong. She willingly disguised herself as a man and waited until few miners were around, quietly visiting mines to collect samples. None of the miners were ever aware that a woman had been underground. In recognition of her contributions to the understanding of uranium mineralogy, the mineral weeksite ( $K_2(UO_2)_2 \cdot (Si_2O_5)_3 \cdot 4H_2O$ ) was named in her honor (Am. Mineral., 1960, v. 43, p. 39).

In 1962 Alice accepted the challenge from Temple University to establish a viable degree program in geology. When she began at Temple, the geology department was a one-person service department offering introductory geology to over 1000 students. She rapidly expanded the department, adding more staff and developing a degree

program. The present department of seven full-time staff, two part-time staff, and fourteen full-time graduate students is her legacy to Temple. While at Temple, Alice continued her research on uranium mineralogy, particularly in south Texas.

Alice strongly supported women in geology and science. She was a charter member of the American Geological Institute's Women Geoscientists Committee formed in 1973. She missed memorial services for her mother because they conflicted with a talk on Women in Science that she had previously agreed to give at a symposium at Radcliffe.

In 1976 Alice retired from Temple University and was awarded Emeritus status. A symposium on uranium was held in her honor at the 1980 Northeast Section meeting of the Geological Society of America in Philadelphia. Unfortunately she was beginning to suffer from Alzheimer's disease at that time.

Alice Dowse Weeks was listed in the first (as well as the 40th) edition of *Who's Who in American Women* and was first listed in *American Men of Science* before the name was changed to *American Men and Women of Science*.

During her career Alice was an active member of many professional organizations as well as a lifetime member of the Appalachian Mountain Club. She attended numerous international meetings including the International Geological Congress in Prague in 1968, which was interrupted by Russian troops. Alice later laughed about hiding in the bathtub in her hotel room while waiting to "escape" back to the West.

Alice died immediately after her 79th birthday. She is survived by her husband Al, three sisters (including her twin, Eunice, also stricken with Alzheimer's disease), one brother, and fourteen nieces and nephews.

An endowed chair for Energy Management and Resources Geology will be established at Temple University in her memory. Donations may be sent to the Alice M. Weeks Endowment Foundation of Temple University, Development Office, Philadelphia, PA 19122, U.S.A.

### SELECTED BIBLIOGRAPHY OF ALICE M. D. WEEKS<sup>1</sup>

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<sup>1</sup> A copy of the complete bibliography of Alice M. D. Weeks may be ordered as Document AM-89-407 from the Business Office, Mineralogical Society of America, 1625 I Street, N.W., Suite 414, Washington, D.C. 20006, U.S.A. Please remit \$5.00 in advance for the microfiche.