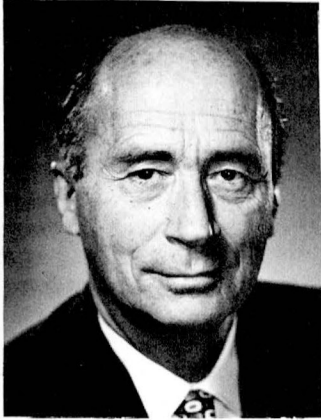


Memorial to Agatin Townsend Abbott

1917-1975

GORDON A. MACDONALD

Department of Geology and Geophysics, University of Hawaii, Honolulu, Hawaii 96822



Agatin Townsend Abbott, a professor of geology and geophysics at the University of Hawaii and a Fellow of the Geological Society of America since 1967, died in Honolulu on July 31, 1975, at the age of fifty-seven. He is survived by his wife, Paula, seven children, and six grandchildren.

Agatin Abbott was born in Duluth, Minnesota, on October 13, 1917, the son of Marie Agatin and Dr. William Pitt Abbott. He was named for his grandfather, Arcadius Agatin. Ag, as he was known to his close associates, grew up in Minnesota, and attended the Shattuck Military Academy and the University of Minnesota. He completed his work for the bachelor of arts degree in geology in 1939. In 1940 he married a fellow student of geology, Paula Johnson.

From 1939 to 1944 he took graduate work at the Arizona College of Mines and worked as a geologist and engineer for the American Smelting and Refining Company, the Phelps-Dodge Corporation, and the Peru Mining Company. His professional career was interrupted by World War II, and from 1944 to 1946 he held the rank of lieutenant (jg.) in the United States Navy, serving as navigator and as executive officer on ships in the Pacific theater. From 1946 to 1949 he was a consulting geologist and engineer with headquarters in Prescott, Arizona.

In 1949 Ag was awarded a fellowship for graduate study at the University of Washington, and in 1952 he was appointed instructor in the geology department. He received his Ph.D. degree in 1953, his dissertation being on the geology of the northwestern portion of the Mt. Aix quadrangle in the Cascade Range of Washington. From 1953 to 1955 he was an assistant professor in the College of Mines, University of Idaho.

In 1955 Harold S. Palmer, the first professor of geology at the University of Hawaii, retired, and Ag was appointed to succeed him, as associate professor of geology and chairman of the department. His job was not only to teach as much as possible of the entire field of geology (he was the only geologist in the department), but also to build the department in size and strength in support of the newly conceived Hawaii Institute of Geophysics. At first the department included meteorology and physical oceanography as well as geology, but as it grew it became desirable to separate them as independent departments. Ag remained the entire faculty in geology until 1958 when I joined him. He remained chairman until 1965, and by that time the department had moved to greatly expanded quarters in the new Hawaii Institute of Geophysics Building and the faculty had increased to fifteen members in the fields of geology, solid-earth geophysics, and geodesy. In 1973 Ag again became chairman and remained so until his death.

Throughout his career at the University of Hawaii, Ag's principal interests were in teaching geology and strengthening the geology-geophysics faculty. However, early in his

stay he became interested in possible commercial uses of Hawaiian lava rock and in the possible development of aluminum ore in the Hawaiian lateritic soils. From 1956 on, he served as a consultant to the Reynolds Mining Company. Also he was a geological consultant to the Hawaii Thermal Power Company and in that capacity selected several sites for test boring in the search for steam or hot water on the eastern flank of Kilauea Volcano on the Island of Hawaii. Although neither steam nor hot water in usable quantity was found in the bore holes, one was determined to have the highest bottom temperature (102°C) found in any well in Hawaii. Ag reported the findings at a meeting of the Tenth Pacific Science Congress in Honolulu in 1963. Unfortunately, his complete report on the geothermal drilling was never published, but Ag freely made the data available for use by others.

During the next decade, Ag's research was largely in the development of Hawaiian landforms, and during the course of the work he made a large number of magnificent photographs of Hawaiian landscapes under the auspices of the Hawaii Institute of Geophysics. The photographs were used extensively in a course on geomorphology and as illustrations in a text on the geology of the Hawaiian Islands. He also participated in National Science Foundation Earth Science Institutes in Japan in 1965 and 1966, and he directed the National Science Foundation Environmental Institute in Palau in 1969. Throughout his teaching career, Ag devoted much time and effort to leading field trips for geology students to various parts of the Hawaiian Islands, and also he was in charge of field trip arrangements for both the Cordilleran Section and the national meetings of the Geological Society of America, and the Circum-Pacific Energy Conference of the American Association of Petroleum Geologists. He led geologically oriented expeditions for students and laymen to British Columbia in 1971 and to Australia in 1972. He spent the spring of 1969 in postdoctoral study at Stanford University. In the early summer of 1973 he participated as visiting scientist in the cruise of the West German research vessel *Valdivia* during manganese investigations in the area south of the Hawaiian Islands; later in that summer and in the summer of 1974 he worked for the National Park Service, examining various islands of the Trust Territory of the Pacific for potential preservation as natural areas.

Ag was a member of Chi Psi fraternity and Sigma Gamma Epsilon, and he was a very active member of Rotary International. In the latter he served both as president of the Waikiki chapter and district governor for Hawaii.

In 1972 the Hawaii Geothermal Project was established to coordinate geothermal interests at the University of Hawaii, and Ag was put in charge of its geological work. By 1974 geophysical, geological, and geochemical studies had demonstrated that several areas were of geothermal interest on the Island of Hawaii, and in February of that year Ag was asked to serve as the principal investigator of an exploratory drilling program. He appointed a committee to advise him in the selection of drilling sites, and by the spring of 1975 correlation of the results of the several types of studies led to the selection of a site for a deep test boring on the eastern flank of Kilauea Volcano. Ag was still actively heading the drilling program at the time of his death.

Gratitude for his years of university service in teaching, in building the department, and on innumerable committees has been expressed in a formal resolution by the university's board of regents, and he is remembered with affection by a host of students. His fellow faculty members feel keenly the loss of his experience and his wise, friendly, and patient council.

SELECTED BIBLIOGRAPHY OF A. T. ABBOTT

- 1957 Report and annotated bibliography on the uses of Hawaiian lavas: Hawaii Inst. Geophysics Data Rept. 4, 92 p.
- 1958 The occurrence of gibbsite on the Island of Kauai, Hawaiian Islands: Econ. Geology, v. 53, p. 842-853.
- 1970 (and Macdonald, G. A.) Volcanoes in the sea; the geology of Hawaii: Honolulu, Univ. Hawaii Press, 441 p.
- 1973 International cooperation between the R/V *Valdivia* and the Hawaii Institute of Geophysics: The origin and distribution of manganese nodules in the Pacific and prospects for exploration, an international symposium organized by the Valdivia Manganese Exploration Group and the Hawaii Institute of Geophysics: Honolulu, p. 3-8.