Memorial to Edward Huntington Cobb 1916–1983

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Edward Huntington Cobb died on January 13, 1983, at the age of 66, leaving his wife and a host of friends and colleagues within and outside the U.S. Geological Survey (USGS) with a deep sense of personal loss. Ed will be long remembered as a devoted husband, a true gentleman and friend, and a valued geologist of the USGS Branch of Alaskan Geology for more than 36 years. His unique and extensive indexes, summaries, and knowledge of Alaskan mineral commodities and deposits are of inestimable value to all persons concerned with the mineral resources and geology of the State of Alaska. In recent years, despite the onset of discomforting health problems with which he coped admirably, Ed continued to be actively productive and a cheerful master of dry humor. He succumbed, after a short hospitalization, to complications following a stroke suffered while vacationing at Laguna, California.

Ed was born April 23, 1916, in Great Barrington, Massachusetts, and reared in Canaan, Connecticut. He was the only child of Albert Edward Cobb, the local general physician, and Helen Powelson Cobb, a school teacher. Ed attended elementary school in Canaan and continued his secondary education at Taft School in Watertown, Connecticut, graduating in 1933, and spent an additional year at Hotchkiss School, Lakeville, Connecticut, graduating in 1934. Ed then attended Yale University where, stimulated in part by a longtime fascination with maps, geology captured his interest. He augmented his training with summer field courses in the western United States, given by the University of Missouri in 1936 and by the University of Wyoming in 1937. Ed served as a geology laboratory assistant at Yale from 1936 to 1941, and earned a B.S. degree with a major in geology in 1938 and an M.S. degree in 1941 with a thesis on "Geology of the Gibson Lake Region, Montana." In 1950 Ed did postgraduate work in geology at Stanford University.

Ed passed the Federal Civil Service Geologist examination in 1941 with a very creditable score and was about to accept employment with the USGS when he was inducted into the U.S. Army on July 14, 1941. He became a specialist in depot management and explosives safety in the Corps of Engineers and the Ordnance Department, where he rose to the rank of captain. He served in several capacities, including instructor, personnel officer, magazine officer, explosives-control officer, and terminal-ordnance officer.

Upon his release from active duty in spring 1946, Ed reactivated his request for employment as a USGS geologist, and on June 17 he began his long Alaskan career that continued with but one brief interruption until his death. His first assignment, under George M. Flint, Jr., was to investigate the gypsum and limestone deposits on Chichagof

Island in southeastern Alaska. This assignment was followed in winter 1946–47 by a 4-month detail to the Branch of Military Geology, Natural Resources Section, in Tokyo, Japan, to prepare and review reports on the graphite and garnet resources of Japan. Returning to Alaska for the 1947 season, he collaborated with Flint to map and sample the limestone and clay deposits near Suntrana in the Alaska Railroad belt. From 1948 through 1952, under the direction of veteran coal geologist F. F. Barnes, Ed's efforts were devoted to geologic, stratigraphic, and sampling studies of the coal deposits on Alaska's Kenai Peninsula, and again in 1958 to field studies of the coal deposits in the Knob Creek area of the Matanuska Valley.

A gradual shift of the Branch of Alaskan Geology to the west coast was begun in late 1948, and Ed was among the first to move from Washington, D.C., to temporary quarters in San Francisco. During the ensuing several years of reorganization, formal transfer of the branch headquarters from Washington in 1952, and a move in 1954 to permanent headquarters at Menlo Park, California, Ed handled various duties in addition to his field and office geologic work. He oversaw reorganization of the technical files, set up the branch manuscript-processing unit, was responsible for answering the ever-increasing number of requests for geologic, resource, and general information about Alaska, and from 1956 to 1958 he served as assistant for administrative and fiscal matters to Branch Chief George O. Gates.

The branch's mapping and mineral-resource activities increased greatly in the early 1950s to meet the needs of the burgeoning economy and resource exploration in Alaska. Ed's ability to organize and index both the existing and rapidly expanding new geologic literature, aerial photographs, and other technical data and material to meet effectively the technical needs of the branch geologists, other government agencies, industry, and the general public was recognized, and he was appointed geologist in charge of the branch's Technical Data Unit. Ed had a fine sense of public service and firmly believed that any reasonable inquiry deserved a courteous, prompt, and reliable response. Under his guidance, this unit became a well-organized and responsive focal point for geologic information on all of Alaska and has been widely commended by the public. Ed's incisive and orderly mind, exceptionally retentive memory, comprehensive knowledge and skillful use of the English language, and Alaskan field experience eminently qualified him for these and succeeding tasks.

Early in 1970, Ed was relieved of responsibility for the Technical Data Unit functions that he had organized and directed, concurrently with completing 12 metal-commodity maps, 5 index maps of the Alaska geologic reports and maps, and 5 bulletins. He then concentrated his research on analyses and syntheses of the accumulated geologic, geochemical, and geophysical data base for the metallic and nonmetallic resources of Alaska. In the years through 1982, Ed compiled and updated a wealth of annotated mineral-occurrence summary references and maps, literature indexes, specialized lists of commodities, mineral-deposit occurrences, resource data, and other publications that ranged in scope from state-wide summaries to compilations of individual quadrangles at 1:250,000 scale. Ninety of his metallic-mineral-resources quadrangle maps, showing the locations of and listing references for all the deposits in each quadrangle, were released in 1972 alone. It is safe to say that Ed had read essentially all the geologic literature on Alaska and had extracted and evaluated even the most obscure resource-oriented references.

Ed's bibliography (1947–1983), largely as sole author, comprises 336 bulletin and map publications, open-file reports, circulars, and a few administrative reports; 11 of

these works were released posthumously. These geologic indexes and syntheses of occurrences, geologic settings, and other technical data for Alaskan mineral resources have been and will continue to be widely used.

During the 1970s, Ed served on the branch's team for mineral assessments of D-2 lands, and on the Environmental Impact Statement task forces for the Trans-Alaska Pipeline System and the Arctic Gas Pipeline System, both as contributing author and as editor. He also was editor for two USGS circulars that summarized the geologic accomplishments in Alaska during 1975 and the 1976 USGS field program for Alaska. Ed was adept as a team and committee member at quickly drawing salient information from memory or his records, supplying cogent wording, or pulling a pun out of the air to relieve a tense situation.

Numerous verbal and written expressions of appreciation for his work came to Ed during his career, among them the USGS Special Achievement Award in 1975 for his contributions to the Arctic Gas Pipeline System task force and report. He received all of these compliments with characteristic modesty. On completion of both 30 and 40 years of federal service, the chief geologist particularly cited Ed's initiative, high productivity, painstaking efforts, and meticulous and thoughtful design of the technical files of data and literature, as well as the reward of high public awareness and use of his publications. One of many appreciative comments from the private sector gives a fitting summary—"Your work has saved us hundreds of man hours in research. Thank you so much for all of your dedicated effort." The same appreciation was expressed by Ed's colleagues in the branch, who not only used his publications but also frequently consulted him personally, receiving genial assistance that oftentimes was given immediately from his phenomenal memory.

Ed's contributions to his colleagues and the Branch of Alaskan Geology, however, cannot be measured by his geologic accomplishments and bibliography alone. As a knowledgeable and astute senior geologist, he often gave freely of his time to explain the USGS and branch history, organization, policies, procedures, and sources of geologic information to the new, younger geologists and advised them on professional or personal matters, some as mundane but important as how to get settled in the local area. Many Alaskan geologists who are now in midcareer feel that these unofficial briefings were enormously helpful in getting them started, and they are deeply appreciative of the insight and time-saving direction that Ed gave them.

Ed was a Fellow of the Geological Society of America and the American Association for the Advancement of Science, and a member of the American Association of Petroleum Geologists and the California Academy of Sciences. He also was a Registered Geologist in the State of California since 1970.

With his career well underway, Ed married Ruth Eleanor Twitchen, a native Californian, on June 27, 1953. "Twitch" (as Ruth is known to her many friends) and Ed, with their zest for life, lively good humor, and wide range of talents and interests, formed a delightful partnership and became an integral part of the USGS family and the local community. They shared an enjoyment of quiet home life and generously extended their hospitality. They broadened their horizons with travel and many sojourns to relax in the beneficial climate of Hawaii. Ed's longtime interest and favorite hobby was reading. He was skillful at woodworking and cabinetry but voluntarily abandoned this hobby after the onset of arthritis in favor of needlepoint, which combined therapy with an outlet for creative talent. The precise workmanship and attention to detail, so characteristic of his geologic work, were manifest in the quality of Ed's handcraft work.

One measure of the stature of a man is his enduring contributions to the betterment of people and the world around him, and by this standard Ed indeed stands tall. Only a small part of Ed's bibliography can be listed here, but in large part his reports constitute a permanently valuable legacy to geologic research in Alaska. Beyond this, Ed's generous supportive assistance, both tangible and intangible, and counsel to his schoolmates, colleagues, and host of other friends have made our lives better for having shared his friendship.

SELECTED BIBLIOGRAPHY OF E. H. COBB

1947 Garnet resources of Japan: Allied Powers, GHQ, Tokyo, Natural Resources Section Preliminary Study 7, 10 p.

____ Graphite resources of Japan: Allied Powers, GHQ, Tokyo, Natural Resources Section Report 81, 34 p.

1951 Clay deposits on Healy Creek, *in* Barnes, F. F., and others, Coal investigations in south-central Alaska, 1944–1946: U.S. Geological Survey Bulletin 963-E, p. 165–168.

1953 (with Flint, G. M., Jr.) Gypsum deposits near Iyoukeen Cove, Chichagof Island, southeastern Alaska: U.S. Geological Survey Bulletin 989-B, p. 27–37.

1959 (with Barnes, F. F.) Geology and coal resources of the Homer district, Kenai coalfield, Alaska: U.S. Geological Survey Bulletin 1058-F, p. 217–260.

____ Annotated bibliography of U.S. Geological Survey publications on petroleum and oil shale in Alaska, *in* Miller, D. J., Payne, T. G., and Gryc, George, Geology of possible petroleum provinces in Alaska: U.S. Geological Survey Bulletin 1094, p. 113–122.

____ (with Moxham, R. M., and Eckhart, R. A.) Geology and cement raw materials of the Windy Creek area, Alaska: U.S. Geological Survey Bulletin 1039-D, p. 67–100.

1960 Chromite, cobalt, nickel, and platinum occurrences in Alaska: U.S. Geological Survey Mineral Investigations Resource Map MR-8, 1 sheet, scale 1:2,500,000. (This is representative of a commodity series of 22 initial and updated reports published through 1975.)

1961 (and Kachadoorian, Reuben) Index of metallic and nonmetallic mineral deposits of Alaska compiled from published reports of federal and state agencies through 1959: U.S. Geological Survey Bulletin 1139, 363 p.

1967 (with Berg, H. C.) Metalliferous lode deposits of Alaska: U.S. Geological Survey Bulletin 1246, 254 p.

1972 Metallic mineral resources map of the Iditarod quadrangle, Alaska: U.S. Geological Survey Miscellaneous Field Studies Map MF-363, 1 sheet, scale 1:250,000. (This map with references is representative of a series for 90 quadrangles; all were published in 1972.)

1973 Placer deposits of Alaska: U.S. Geological Survey Bulletin 1374, 213 p.

____ Index of metallic mineral deposits of Alaska compiled from reports in open files of the U.S. Geological Survey and U.S. Bureau of Mines through 1972: U.S. Geological Survey Open-File Report 73-47, 87 p.

1974 Synopsis of the mineral resources and geology of Alaska: U.S. Geological Survey Bulletin 1307, 53 p.

____ Reports of the Alaska Division of Geological and Geophysical Surveys and predecessor agencies, 1913–1973, indexed by quadrangle: U.S. Geological Survey Open-File Report 74-209, 112 p.

____ Geological Survey published reports on Alaska 1884–1914, indexed by quadrangle: U.S. Geological Survey Open-File Report 74-345, 126 p. (The above two indexes are representative of a series of similar indexes through 1981.)

1975 Summary of references to mineral occurrences (other than mineral fuels and construction materials) in the Bendeleben quadrangle, Alaska: U.S. Geological Survey Open-File Report 75-429, 123 p. (This annotated summary is representative of a series of 40 similar reports completed through 1981.)

1977 Placer deposits map of central Alaska: U.S. Geological Survey Open-File Report 77-168B, 64 p., and 1 map, scale 1:1,000,000.

____ (and Dusel-Bacon, Cynthia, Mackevett, E. M., Jr., and Berg, H. C.) Map showing distribution of mineral deposits (other than organic fuels and construction materials) in Alaska: U.S. Geological Survey Open-File Report 77-496, 45 p., and 1 map, scale 1:2,500,000.

1980 (and Tysdal, R. G.) Summaries of data on and lists of references to metallic and selected nonmetallic mineral deposits in the Blying Sound and Seward quadrangles, Alaska: U.S. Geological Survey Open-File Report 80-621, 284 p. (This report is representative of a series of 32 that were released in 1980 and 1981, and one in 1983.)

1983 Placer gold occurrences in Alaska: U.S. Geological Survey Mineral Investigations Resource Map MR-83, 32 p., and 1 map, scale 1:2,500,000. (This report is representative of a series of eight updated commodity publications that supersede similar 1981–1983 Open-File Reports.)

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