Edwin Thor McKnight, a retired U.S. Geological Survey geologist, died December 26, 1992, at the age of 90, of an aneurysm at his home in Falls Church, Virginia. He was in reasonably good health until a month or so before his death. He was born on January 18, 1902, in Forsyth, Missouri. He was interested in natural history and spoke of fishing, boating and admiring the beautiful cliff walls of the White River of Arkansas, which was then a clear, spring-fed, forest-lined river.

Ed or Mac, as he was known to his friends, earned a B.S. degree from the University of Washington, Seattle. He attended Yale University from 1924 to 1926, receiving a master's degree in geology. He worked during the summers with the U.S. Geological Survey in Washington, D.C., in 1924 and 1925 and joined full-time in the summer of 1926 as a junior geologist. He retired from the USGS in Washington in 1969 as a principal geologist.

In 1926 and 1927 McKnight explored a plateau and rugged river margin area of 900 square miles between the Green and Colorado rivers, from Green River on southward to its junction with the Colorado. The southern one-third of the area is now the main part of Canyonlands National Park. The only road crossed the northeast fringe of the area, and except for the towns of Green River and Moab, Utah, the approximately 20 people who lived in the areas lived near the rivers. Much of the mapping retained most aspects of original 19th century geological exploration. Most of the work had to be done on horseback or on foot from field camps. The map and report were not published in final form until 1940, delayed by McKnight's transfer to new major field projects. His geological study was classic in its day, and it has been modified only in detail since then.

Late in 1927 immediately after completing the Canyonlands field work, McKnight was assigned to mapping the zinc and lead deposits of northern Arkansas. They are located in three areas in the northern part of the state, from Lawrence and Sharp counties to the east, and west to Benton and Washington counties. The most valuable deposits are in Marion, Bonne, Newton, and Searcy counties in the central northern part of Arkansas. McKnight visited mines all over northern Arkansas, but concentrated his mapping in the most productive north-central part. His report of this study, published in 1935, is considered the best district geological study of these deposits; it has not been superseded to date. His structural studies and his mineralogy were exceptional. He first identified enargite, microcline, aurchalcite, and wulfenite in a Mississippi valley-type district.

Ed was assigned to mapping the Rico area of Colorado in 1930 even before he had completed his field work in Arkansas. He started mapping at Rico that autumn. He worked there until 1931, when field work was discontinued because of lack of funds. He was assisted by Cornelius Hurlbut, Jr., Bert S. Butler, and Edwin B. Eckel. The work finally resumed during the period from 1955 to 1958, when McKnight and several assistants were able to continue it. He completed the work in 1967 and prepared a USGS Professional Paper, published in 1974.
In 1934 McKnight was assigned to a comprehensive study of the Picher Field, Oklahoma and Kansas. Most of the Tri-State work was geologic mapping in the nearby 200 square miles of connected mine workings. The work was continued until 1941, when it was suspended because of the impending World War II. McKnight was reassigned to silver, lead, and zinc mineral resource assessments and high-level committee work. Field work at Picher resumed in 1955 and was completed in 1962. In addition to the comprehensive mine work, the geologic map of the 30-minute Wyandotte quadrangle was completed by R. P. Fischer, McKnight, and Mackenzie Gordon, Jr. This is probably the last published 30-minute quadrangle geologic map. Mapping of this quadrangle was started in 1906 and 1907 by C. E. Siebenthal and R. D. Mesler. This monumental study of a mineral district by McKnight and his associates finally was published in 1970. This study contains some of the finest stratigraphic and correlation work ever done in the Midwest, and it includes an exceptional structural and mineralogical study of the mineral deposits.

Ed began compiling silver, lead, and zinc commodity data for the U.S. government in the 1930s, replacing eminent geologist Gerald F. Loughlin, who had become chief geologist. As World War II approached, Ed was assigned to many U.S. Geological Survey and then high-level U.S. government committees on mineral resource problems, such as advisory committees to the War Production Board and the Paley Committee on Mineral Resources. He was an instigator and advisor on all major lead-zinc research in the country during and after World War II, including the selection and progress of research and mapping programs in eastern Tennessee; the Upper Mississippi Valley; Eureka, Nevada; western Kentucky—southern Illinois; Metalline, Washington; Cerro Gordo, California; the Tintic district, Utah; and the revived Tri-State district. Most of these major projects continued through World War II and then the Korean War. McKnight visited each of these projects and helped with the mapping and gave valuable advice. He was constantly serving on many committees for the director at this time, was chief of the section of Metalliferous Deposits from 1946 to 1947, and was made mineral resource geologist for silver, lead, and zinc. He carefully compiled a huge file of records on these minerals with the help of many women geologists. He was constantly on call to provide his valuable advice on all kinds of base metal deposits nationally and worldwide. All of this committee and mineral-resource effort postponed his own field work and reports for more than 20 years.

In the late 1950s, McKnight passed on his mineral-resource assignments to others and returned whenever possible to completing his field work and preparing the reports from it. His writing was excellent—careful and clear.

Ed was a member of the Washington Academy of Science, and the prestigious Cosmos Club of Washington. He was a Fellow of the Society of Economic Geology and the Geological Society of America, and a member of the Geological Society of Washington and the American Geophysical Union.

Throughout his life, to the last day, McKnight had a keen interest in birds and bird lore. He identified 622 species of North American birds, a list among the highest in the country at the time. He and his close friends, Thomas B. Nolan, Arthur A. Baker, and William W. Rubey, founded the Accokeek, Maryland, and Brooke, Virginia, Christmas Bird Counts of the Audubon Society. He organized the Brooke count for 39 years, and staffed it with geologists from the Washington area. Each December near Christmas, the forests, fields, and Potomac River east of Fredericksburg, Virginia, would be searched for birds, and the tally would be held at his home that evening. This count continues still. Ed and his friends maintained trails of bluebird boxes in the distant suburbs of Washington, keeping meticulous records of nesting success and the reasons for failures. In the 26 years from 1967 to 1992, 5458 young bluebirds were successfully fledged. He was a member of the Montgomery County Chapter of the Maryland Ornithological Society and was treasurer for 17 years.
Ed McKnight left many friends, including many who worked with the USGS. He was a quiet and reserved person at first, but became a very good friend to people of all sorts. Few people knew of his vast knowledge of the activities of the Union and Confederate armies throughout their eastern campaigns.

Ed's wife, Aseneth L. Graves, whom he married in 1931, died in 1988. Their son, geologist John F. McKnight, died in 1990. Survivors include three children, Lee G. McKnight of Morristown, New Jersey, Stephen W. McKnight of Boston, Massachusetts, and Anne McKnight Bent of Pittsburgh, Pennsylvania; 11 grandchildren; and two great-grandchildren.

SELECTED BIBLIOGRAPHY OF E.T. McKnight

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