

Memorial to Jack B. Epstein

1935–2020

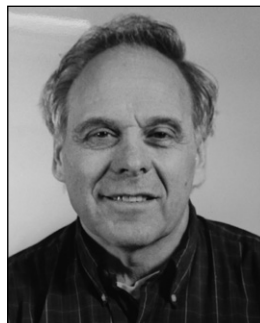
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Jack Burton Epstein, a career geologist with the U.S. Geological Survey (USGS) passed away in May 2020 at his home in Great Falls, Virginia. His career and contributions to the USGS spanned more than 60 years from his time as a summer field assistant while attending college, through 40 years as a research geologist, and more than 15 years as an emeritus scientist. Jack was born 27 December 1935 in Brooklyn, New York, and attended CUNY–Brooklyn College where he received his Bachelor of Science degree in geology in 1956. He earned his Master of Science degree in 1958 from the University of Wyoming and his doctorate degree in geology in 1970 from The Ohio State University. His master's thesis was geologic mapping of the Fanny Peak quadrangle, Black Hills of Wyoming and South Dakota, and his Ph.D. dissertation focused on the geology of the Stroudsburg quadrangle and adjacent areas, Pennsylvania and New Jersey.



Jack married fellow geology student Anita Fishman (Anita Epstein Harris) in 1958, and both were assistant geologists for the late Irving J. Witkind of the USGS, mapping in and around Yellowstone National Park. This relationship with the National Park Service would last throughout his career. While Jack, Anita, and Irving were camping in the western part of the Park in August 1959, the magnitude 7.2 magnitude Hebgen Lake earthquake occurred. This event changed the course of Jack's mapping project and launched him into emergency response and studies of earthquake features. Years later, he was honored as an invited speaker by the National Park Service (NPS) at the 50th anniversary of the earthquake in 2009. The NPS funded Jack, an avid photographer, to reoccupy stations for a before, immediately after, and decades later compilation.

After the completion of his work in Montana, Jack was assigned to the USGS groundwater office in Alexandria, Louisiana. About one year later, he decided he wanted to avoid working in bayous and swamps and pursued his Ph.D. at The Ohio State University where he concentrated on the geology of the Appalachians in Pennsylvania and New Jersey. Through his entire career, he maintained interest in the areas he had worked in, including the Black Hills, Yellowstone National Park, and the central and northern Appalachians; however, not the Louisiana bayous. Beginning in graduate school, Jack observed color differences in microfossil conodonts, and continuing through the 1970s, he collaborated with Anita's development of the conodont color alteration index (CAI) as a tool for assessing paleothermal conditions in Paleozoic rocks.

Jack's contributions to the USGS centered on applied science where geologic studies were linked to societal issues. As he worked in the Washington, D.C., area for the USGS, he was an important liaison to other federal agencies and was sought out by the National Park Service, Fish and Wildlife Service, and Forest Service for geologic studies for land management. Jack was selected by the National Park Service in 2000 to be a representative to the newly formed National Cave and Karst Research Institute (NCKRI), Federal Working Group to establish conservation of

caves and karst on federal lands. His love of National Parks and the outdoors led to long relationships with parks in and around the Black Hills of South Dakota and Wyoming (including Devils Tower, Wind Cave, and Jewel Cave), the Delaware Water Gap, New Jersey and Pennsylvania, and Shenandoah National Park and the Appalachian Trail.

Jack's career as a public servant was highlighted by interactions with other federal and state agencies. He cooperated with the Pennsylvania Geological Survey; was a member of the Department of Interior Resource and Land Information Program; was a program manager of the National Environmental Overview Program; and managed preparation of the National Atlas of geologic hazards, resources, and environmental constraints, to name a few. Over the years, Jack was a productive project chief for the USGS and served as chief of the Branch of Eastern Regional Geology from 1994 to 1996. He was a willing and insightful peer reviewer of innumerable manuscripts for colleagues both in and outside of USGS.

Although Jack spent most of his career at the USGS National Center in Reston, Virginia, he traveled much around the United States leading numerous field trips for the profession and for the public. Jack had a wonderful gift of translating science to the lay person. He was a master of preparing field trip guidebooks that could be used for decades to come, and his road logs were unmatched.

Jack's passion for geology was passed on to many students of the science. He was a mentor to many young, and not so young, geologists as he eagerly and unselfishly shared his knowledge and wisdom. Perhaps Jack's most genuine characteristic was his sense of humor. Jack was a modest man with a wonderful sense of humor. The humor showed itself in every talk he ever gave, on field trips and in many starring roles in the USGS Pick and Hammer Shows. Through many stressful times, he knew how to break the tension and teach others that there are times not to be taken too seriously. Jack's passion, vision, inspiration, and humor will be missed, and we recognize his dedication to geology, but even more so his dedication to those he touched and mentored. He is survived by his two daughters, Dr. Laura Neustater of Fort Lauderdale, Florida, and Cyndi Morgan of Great Falls, Virginia.

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- See also: Hebgen Lake Earthquake podcast, “The Night the Earth Shook! 1959 M 7.3 Hebgen Lake Earthquake and Madison Canyon Landslide west of Yellowstone National Park,” <https://earthquake.usgs.gov/contactus/menlo/seminars/576>.