

Luna Bergere Leopold, whose pioneering work advanced the field of fluvial geomorphology, died at age 90 on February 23, 2006, in his home in Berkeley, California. To the end, he was active as a scientist, father, brother, and friend.

Luna was born in Albuquerque, New Mexico, on October 8, 1915. His mother, Estella Bergere, came from a prominent and colorful New Mexican family, the Lunas. This Santa Fe connection expressed itself throughout his life, in his Spanish guitar music, his interest in the American Southwest, and his love of Navajo silver. His father, Aldo Leopold, was one of the foremost figures in the American conservation movement. From his father, Luna learned the value of observation and careful fieldwork, keeping a journal, good writing, and Dutch oven cooking.

Luna built furniture, fireplaces, and cabins. He hunted and fished, made his own bows and arrows, rode horses, composed music for piano and guitar, flew planes, painted landscapes, wrote poetry, bound books, and acted on stage. He had fun. His special concern, however, throughout his life, was with rivers and their natural hydrologic processes.

Luna graduated from the University of Wisconsin in 1936 with a degree in civil engineering. He started out as an engineer with the Soil Conservation Service, where he had the good fortune to work with various problems of water science in the developing field of hydrology. After Pearl Harbor he joined the Army Air Force Corps of Engineers as a cadet, training in physics and meteorology at the University of California at Los Angeles. That experience resulted in the offer of a job as Chief Meteorologist in the Hawaiian Pineapple Institute, to develop a long-range weather forecasting system for the pineapple and sugar cane plantations in the Hawaiian Islands. From 1950 to 1972, Luna pursued his interests as Hydraulic Engineer and later Chief Hydrologist with the U.S. Geological Survey in Washington, D.C. In 1952, he obtained his Ph.D. from Harvard University during a five-month leave from the Survey. From 1972 to 1986, Luna held a joint professorship in the Departments of Geology and Geophysics and of Landscape Architecture at the University of California at Berkeley.

Luna's first and longest-running projects were concentrated around Pinedale, Wyoming, where he built a cabin that became his fondest venue. While his research focused on rivers in the American West, he traveled widely in Europe, the Middle East, India, and Russia, writing about the nature of rivers and streams, the problems of water and sediment supply, flood control, climate change, environmental planning, ecological restoration, scientific ethics, and the broader relationship between people and nature. His research led to quantitative explanations for the natural form of rivers.

Even after his retirement from UC Berkeley, Luna continued his research and writing. He was prolific, publishing almost 200 scholarly papers and numerous books during a career that spanned 68 years. He was a member of the National Academy of Sciences and received numerous awards and honors, including honorary degrees from six universities, the Penrose Medal of the Geological Society of America, and the National Medal of Science.

In a recent retrospective of his work, Luna wrote that in pursuing science, he followed the inductive method, using a collection of facts observed in nature to propose a hypothesis or tentative conclusion. He felt that hypotheses testing should be understood as a craft; that the techniques of the craft can be taught, but using them requires care, patience, persistence, and practice. Luna took great pleasure in the practice of his craft and shared that enjoyment with those around him: days in the field were routinely rewarded with good camp cooking, original songs, and story telling.

Luna inspired his students and peers through his insightfulness and challenged them to pursue the most complex of problems. In so doing, Luna's significant contributions to science derived not only from his work but from the collective contributions of those he influenced. He was the rarest of researchers, sharing his knowledge with those who

would put the principles into practice. His dedication to a river ethic drove his efforts. He instilled the same ethic in others. He transferred his technology to those responsible for river and watershed management, and in so doing he helped many people, and many rivers.

Luna's death came two years after that of his wife of 30 years, Barbara Beck (Nelson) Leopold. Luna is survived by his first wife, Carolyn Leopold Michaels, and four children: Bruce Leopold (Niki), of Baltimore, Maryland; Madelyn Leopold (Claude Kazanski), of Madison, Wisconsin; T. Leverett Nelson (Ralph Jassen), of Chicago; and Carolyn T. Nelson, of Madison, Wisconsin; three siblings: Nina Leopold Bradley, of Baraboo, Wisconsin; Carl Leopold (Lynn), of Ithaca, New York; and Estella Leopold of Seattle, Washington; Anne Ross, of Madison, Wisconsin; and two grandchildren, Clare and Christopher Kazanski, of Madison, Wisconsin. He was preceded in death by his brother, A. Starker Leopold.

Memorials may be sent to the Luna B. Leopold Geomorphology Fund, University of Wisconsin Foundation, P.O. Box 8860, Madison, WI 53708-9960, or to the Aldo Leopold Foundation, www.aldoleopold.org.

