

Memorial to Erling Dorf

1905–1984

SHELDON JUDSON

*Department of Geological and Geophysical Sciences,
Princeton University, Princeton, New Jersey 08544*

Erling Dorf was born in Nystad, Nebraska, July 19, 1905, the son of Alfred Thorkil Dorf, a Lutheran minister, and Thyra Axelsen-Drier Dorf. He died in Princeton, New Jersey, April 16, 1984.

Erling's parents were Danish and had come to the United States to run a small Danish Lutheran college in Nystad. When his father was called back to Denmark, the rest of the family—which then included Erling's mother and older brother Axel—went too. Danish was no problem for Erling for it was spoken in the family. In fact, Erling continued throughout his life to be proud of being able to speak the language.

Erling's sister Ruth was born in Denmark and came to the States when the Reverend Dorf took a parish in Perth Amboy, New Jersey, where Erling's younger brother Sven was born. Somewhat later, Erling's father was called to Chicago, and there his fifth child, Helga, was born. There, too, Erling completed his formal education—first in high school and then at the University of Chicago. At the university he was captain of the swimming team, Big Ten diving champion, teammate of Johnny Weismuller (whom he occasionally beat) and Richard Foster Flint, and in 1925, recipient of a B.S. degree.

Erling's early interests were botanical, but the influence of such teachers as Ralph Cheyny, J Harlan Bretz, Rollin Chamberlin, and Paul MacClintock turned him toward geology. He focused his professional energies on paleobotany and stratigraphy, and a study of the pliocene floras of California formed the basis for his Ph.D. dissertation.

When Erling began graduate work at Chicago in 1925, he had in mind a career with the newly developing oil industry. But one of his professors urged him to consider an academic career, commenting, "Who knows? You may like teaching." So in 1926, after a year of graduate work at Chicago, Erling accepted an instructorship in the Department of Geology at Princeton University. In 1930, after an additional year of residence at Chicago, he was awarded the Ph.D. degree and returned to Princeton as an assistant professor. He was promoted to associate professor in 1940 and full professor in 1946; he retired in 1974 after 48 years on the Princeton faculty.

Erling conducted field work in India, Venezuela, Mexico, Colombia, and Denmark, but the greatest amount of his field time was spent in our western states. In fact, beginning in 1926 and continuing to a year before his death, he spent a total of 44 summers in field work in the western states, favoring North Dakota, Colorado, Wyoming, Montana, Idaho, and California. His first trip to the area was with Ralph W. Cheyny, of the Carnegie Institution of Washington, who was studying the fossil plants of Yellowstone Park. His last was to lead a Princeton University Alumni College trip out of Red Lodge, Montana, and to collect fossil plants from the nearby Fort Union Formation.

It was the Yellowstone-southern Montana region that was Erling's real love. It was here that much of his best known research was based. His paleostratigraphic study of the Cretaceous–Paleocene boundary remains a landmark paper on a geologic moment that continues to receive enormous attention. Perhaps better known (but to a much different audience) is his popular account of the petrified forests of Yellowstone National Park, published in 1964 and revised in a 1981 edition.



In 1930, Taylor Thom, of the Princeton faculty, established the Princeton Research Camp at Red Lodge, Montana. Erling went along as Thom's assistant. It was at this time that Erling carried out his study of the Devonian rocks in Beartooth Butte on Beartooth Lake just south of the Wyoming-Montana border. The formation yielded an excellent collection of armored fish as well as a warrant for Erling's arrest. The game warden thought the fish were coming out of Beartooth Lake, a misunderstanding that was straightened out over a bottle of Prohibition whiskey.

Out of the Princeton Research Camp developed the Yellowstone-Bighorn Research Association (YBRA), a collaborative organization that built and maintained a research camp on the north slope of the Beartooth Mountains looking out over the coal-mining town of Red Lodge and the valley plains of the Yellowstone River beyond. Known as the "Princeton Camp" from its inception, the YBRA became Erling's second home and an organization to which he unselfishly contributed in many different ways.

The YBRA became the base for Erling's summer field work, and for that of his students, both graduate and undergraduate. It was always Erling's practice to take students with him to serve as his field assistants. This was not unusual in itself. What was unusual was the number of students who served in this capacity over the years—108, excluding repeats. A good many of these were able to gather data for their junior papers or senior theses or to begin work on their Ph.D. dissertations.

The summer course in geologic field methods was taught each year at the YBRA camp, with a major portion of the curriculum under Erling's direction. He also served there for a number of years as director of a highly successful annual summer geology institute, supported by the National Science Foundation, which drew high school teachers from all over the United States. When NSF funds dried up, he turned his talents to a "college" for Princeton alumni and their families, with whom he shared his love and knowledge of the area. Among the many activities of the last summer of his life, he visited, with the students of that year's "college," a small glacial lake on the Beartooth Plateau that had just been named in his honor.

During the academic year, Erling taught the introductory historical geology course at Princeton, as well as providing instruction in stratigraphy and paleobotany for both graduate and undergraduate students. Beyond the Princeton campus, he offered for years a four-semester cycle of courses at the Wagner Free Institute of Science in Philadelphia. For eight years he taught a Saturday course for secondary school teachers at Villanova University. Of course, there was also his adult education course at the Princeton High School.

Outside the classroom, Erling's time and services were much sought after by the "town" portion of the Princeton town-gown community. He served on innumerable committees and commissions, including the Board of Health, the Environmental Commission, and the Flood Control Committee. For many years, he headed the Blood Donor Bank of the Princeton Red Cross.

Of the honors that came to Erling, those he most valued were in recognition of his work with students. On the occasion of his retirement, friends and former students at Princeton established an endowment in his honor which supports geological field studies by undergraduates. In 1963, The National Association of Geology Teachers presented Dorf with the Neil Miner Award for distinguished teaching. In 1967, he received the Ralph Digman Geology Service Award of the Eastern Section of the National Association of Geology Teachers for "notable contributions to layman-directed or pre-college teaching and writing."

Dorf is survived by his wife, Ruth Kemmerer Dorf, whom he married in 1934. They had four children, Thomas Alfred (deceased), Norman Kemmerer, Robert Erling, and Martha Drier Dorf. He is also survived by his sister, Helga, and five grandchildren. At Erling's request, a portion of his ashes was scattered by air over Beartooth Butte, Wyoming, and a portion interred in the Princeton, New Jersey cemetery.

SELECTED BIBLIOGRAPHY OF ERLING DORF

- 1933 Pliocene floras of California: Carnegie Institution of Washington Publication 412, 112 p.
- A new occurrence of the oldest known terrestrial vegetation, from Beartooth Butte, Wyoming: *Botanical Gazette*, v. 95, p. 240–258.
- 1934 A lower Devonian flora from Beartooth Butte, Wyoming: *Geological Society of America Bulletin*, v. 45, p. 425–440.
- Stratigraphy and paleontology of a new Devonian formation at Beartooth Butte, Wyoming: *Journal of Geology*, v. 42, p. 720–737.
- 1936 A late Tertiary flora from southwestern Idaho: Carnegie Institution of Washington Publication 476, p. 73–124.
- 1938 Upper Cretaceous floras of the Rocky Mountain region; I. Stratigraphy and paleontology of the Fox Hills and lower Medicine Bow formations of southern Wyoming and northwestern Colorado: Carnegie Institution of Washington Publication 508, p. 1–78 (preprint).
- 1940 Relationship between floras of type Lance and Fort Union formations: *Geological Society of America Bulletin*, v. 51, p. 212–236.
- 1942 Application of paleobotany to the Cretaceous–Tertiary boundary problem: New York Academy of Sciences Transactions, Series II, v. 4, p. 73–78.
- Upper Cretaceous floras of the Rocky Mountain region; II. Flora of the Lance Formation at its type locality, Niobrara County, Wyoming: Carnegie Institution of Washington Publication 508, p. 79–159.
- 1952 Critical analysis of Cretaceous stratigraphy and paleobotany of the Atlantic Coastal Plain: *American Association of Petroleum Geologists Bulletin*, v. 36, p. 2161–2184.
- 1955 Plants and the geologic time scale, in Poldervaart, Arie, ed., *Crust of the Earth*: Geological Society of America Special Paper 62, p. 575–592.
- 1959 Climatic changes of the past and present: Contributions from the Museum of Paleontology, University of Michigan, v. 13, p. 181–210.
- 1964 The use of fossil plants in palaeoclimatic interpretations, in Nairn, A.E.M., ed., *Problems in palaeoclimatology*: New York, Interscience Publishers, p. 13–31.
- The petrified forests of Yellowstone Park: *Scientific American*, v. 210, p. 106–114. Reissued in revised forms in 1964 and 1981 in the National Park Handbook Series: Washington, D.C., U.S. Government Printing Office.