

Rivers have always shaped the development of human society,

their flows of water and sediment influencing food production, transportation, industrial activity, and power generation. Extreme flows that cause flood and drought, erosion, and sedimentation have brought widespread damage and untold misery. Since ancient times, people have known that river flows transport sediment, but not until the start of the 20th century did engineers and scientists begin to understand the complex interaction of flowing water and sediment.

In this biography, Robert Ettema and Cornelia Mutel engagingly describe the work of one man—Hans Albert Einstein—and his search to understand and unravel the complexities of rivers. The son of Albert Einstein, Hans Albert developed theoretical insights and practical methods that helped lay groundwork for our current understanding of how flowing water transports sediment. Hans Albert's career was shaped by his early life and formal education in Switzerland, his move to the United States in the 1930s, and growing U.S. concerns about an array of sediment problems. The dynamic relationship with his famous father was played out against a backdrop of family quarrels and illness and political tensions. Though working in different fields of science, Hans Albert and Albert each stood at a scientific frontier. This shared circumstance enriched their relationship.

Hans Albert Einstein: His Life as a Pioneering Engineer is a chronological walk through Hans Albert's life and his contributions to our understanding of river behavior. It includes the first published discussion of his personal interactions with his parents and brother, as well as his relationships with his wives and children. These details of family life parallel the examination of Hans Albert's search for formulas relating sediment transport and water flow in rivers. Hans Albert's research is positioned within the broader history of river engineering. This book gives a taste of the centuries-old efforts to define order in river behavior. Such efforts continue to the present day.

ROBERT ETTEMA is a professor at the University of Wyoming, where he served six years as dean of its College of Engineering and Applied Science. Before he went to Wyoming, he was a professor at the University of Iowa. His field of expertise is civil engineering, touching especially on rivers, hydraulic structures, and cold regions. In addition to research and teaching activities, he extensively consults for agencies and industry and has served as editor of ASCE's *Journal of Hydraulic Engineering*.

CORNELIA F. MUTEL, a senior science writer at IIHR-Hydroscience & Engineering, the University of Iowa College of Engineering, has written a dozen books and numerous articles on a variety of science-related topics, ranging from natural history to ecological restoration to the history of engineering. She is a frequent speaker on Midwestern ecology. She also maintains the archives at IIHR and writes on the institute's history. This is her first biography.