

NORMAN J. “JEFF” HOLTER (1914–1983)

“THE RENAISSANCE SCIENTIST”

“Serendipity and coincidence play a large part in what anyone does in life. The formation of ideas follows a quite circuitous path and often leads to results never originally visualized or planned.”

—Jeff Holter, 1981

a fourth generation Montanan, Norman J. “Jeff” Holter founded the Holter Research Foundation in Helena and became a globally recognized biophysicist. As well, he embraced the humanities, the arts, and the world of practical invention—becoming a true *“Renaissance scientist.”*

Jeff was the son of Norman B. and Florence Holter. He graduated from Helena High School in 1931 and the University of California in Los Angeles in 1937. Holter then earned Master’s degrees in chemistry and physics, and continued his education by completing postgraduate work at the University of Heidelberg (Germany), the University of Chicago, the Oak Ridge Institute of Nuclear Studies, and the University of Oregon Medical School.

During World War II, Jeff served as senior physicist in the U.S. Navy, studying the characteristics of waves. In 1946 he headed a government research team involved in the atomic-bomb testing at Bikini Atoll. Throughout his career, Holter warned against the unbridled use of atomic energy for militaristic purposes.

In 1947 Holter returned to Helena to establish the non-profit, non-commercial Holter Research Foundation (HRF)—dedicated to the public good. While managing the HRF, Jeff periodically took positions with the military and with universities. For example, in 1952 he worked for the Atomic Energy Commission on the hydrogen-bomb project in the Marshall Islands. And, in 1964, he became a full professor at the University of California in San Diego, coordinating activities at the Institute of Geophysics and Planetary Physics.

Holter’s belief in “non-goal-oriented research” produced such HRF discoveries as square raindrops, nuclear-explosion detectors, and a miniaturized heart monitor. Jeff’s research colleague was Wilford R. “Bill” Glasscock. Their late-1950s, not-for-profit development of the Holter Heart Monitor revolutionized the treatment of coronary disease and spawned a billion-dollar industry.

A linguist, a photographer, a musician, and a sculptor of *“explosion art,”* Jeff Holter inspired scores of young Montanans to integrate the arts, the humanities, and science to produce unforeseen results. Montana’s *“Renaissance man”*—a biophysicist who earned worldwide honors for scientific development—always remained dedicated to his state and its people.

