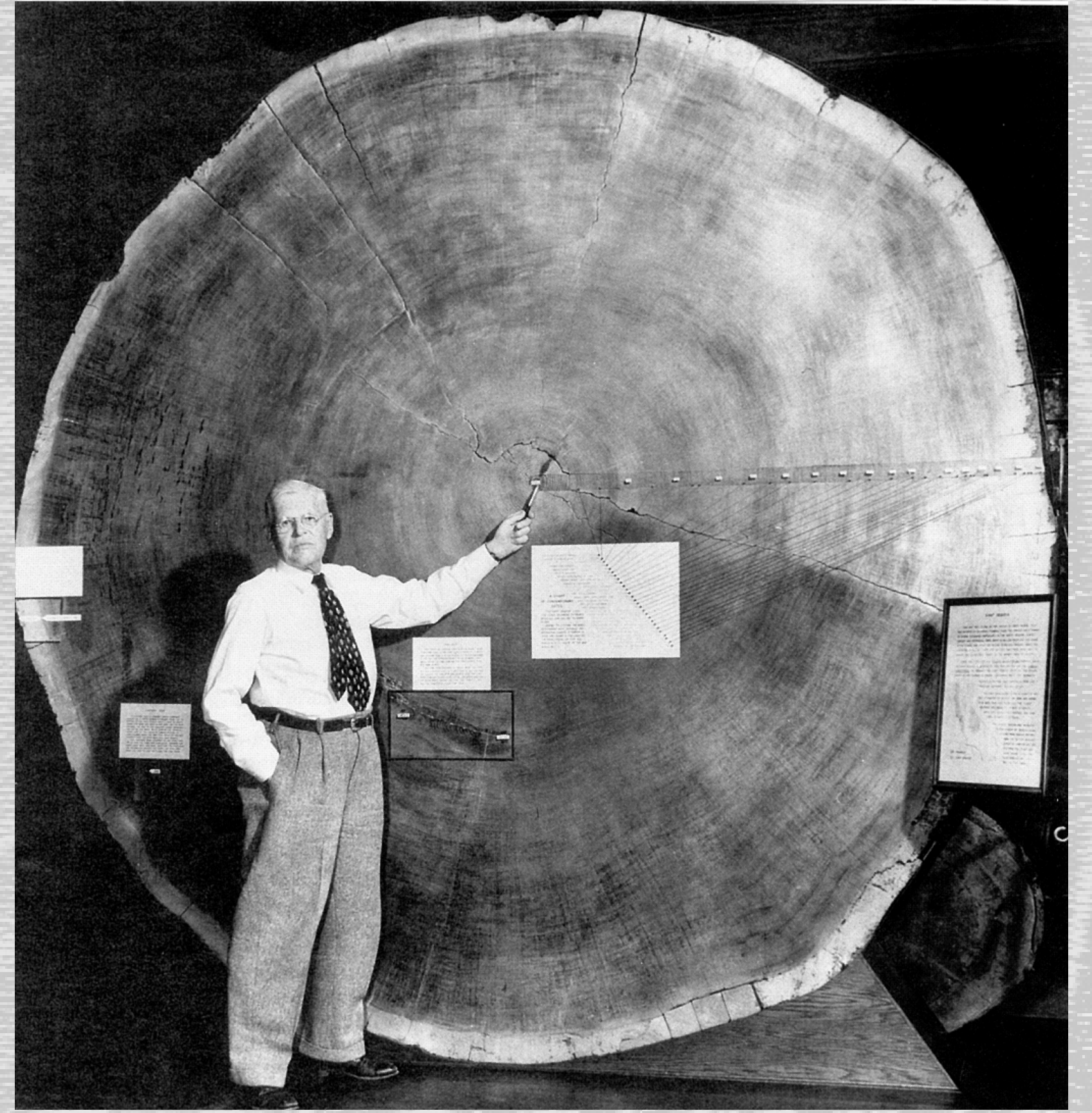


Laboratory of Tree-Ring Research

Studying the Past to Understand the Present



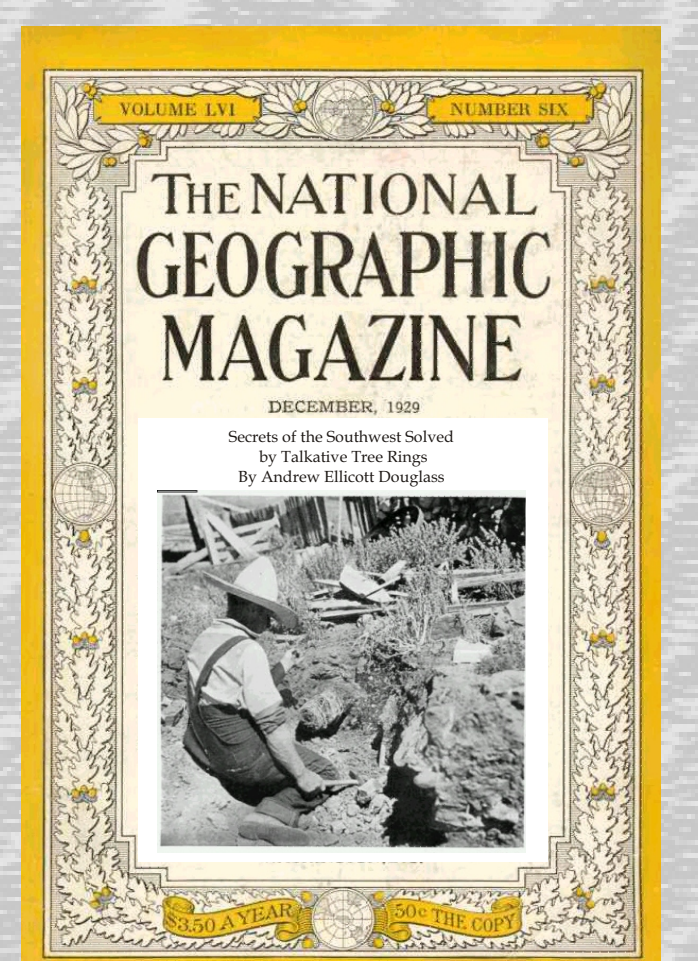
The Laboratory of Tree-of Tree-Ring Research was established in 1937 as the first laboratory in the world dedicated to the study of environmental and cultural change using tree rings. Many outstanding discoveries and accomplishments by Tree-Ring Lab scientists have brought fame and recognition to The University of Arizona. One of the first internationally acclaimed scientific breakthroughs from our University was the dating of the ancient Anasazi cliff dwellings by A. E. Douglass. This remarkable achievement has been called the “single most important archaeological discovery in the Southwestern United States”.



The founder of the Laboratory of Tree-Ring Research, Andrew Ellicott Douglass, began a long tradition of discovery, innovation, and creativity. Here, Douglass stands before the giant sequoia cross section that is currently housed in the Arizona State Museum. Douglass began his studies of sequoia in 1918 and by the 1920s he had developed a 3,200 year long tree-ring chronology from this species which he used to study climate and sunspot cycles.



When Douglass and his colleagues first began working on the dating of the ancient beams from the cliff dwellings they could not link these tree-ring records to the present because tree-rings in living trees did not extend far enough back in time. For more than a decade Douglass and his assistants (shown to the left in a National Geographic car) roamed the wild country of the 4 corners area of the Southwest, searching for the ancient tree-ring specimens that would “bridge the gap” between the living trees and the ancient beams. In 1927 a beam was excavated at an archaeological dig in Show Low, Arizona that enabled Douglass to bridge the gap, and determine the exact construction dates of Southwestern ruins. He reported his discovery in National Geographic magazine (right).



Douglass' colleague, Edmund Schulman, continued the tradition of discovery when he found the ancient bristlecone pine trees in the White Mountains of California, the oldest living trees in the world. Schulman's successors at the Tree-Ring Lab continued this work, ultimately producing measured tree-ring chronologies exceeding 9,000 years in length. These chronologies were used for calibrating radiocarbon dating estimates, and in recent years, for reconstructing climate history over many millennia.

