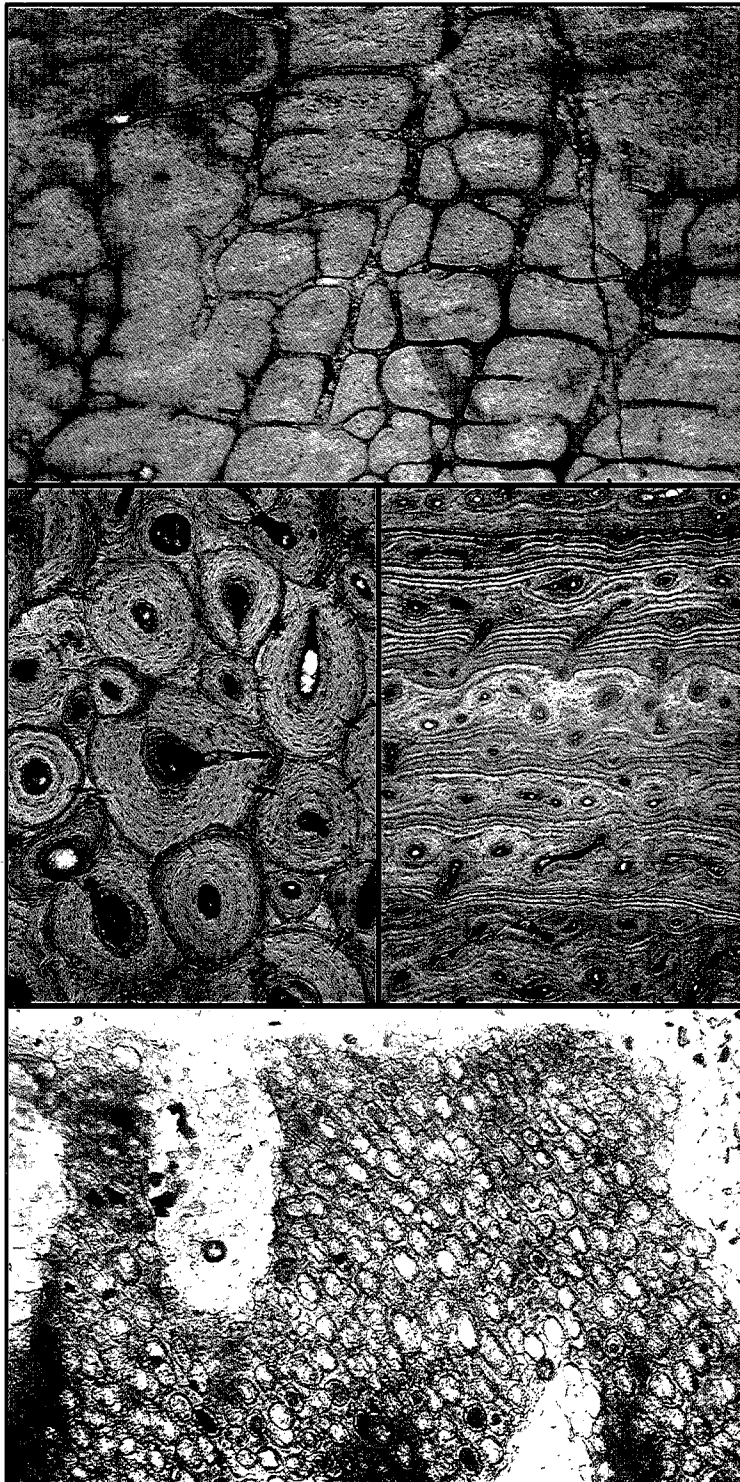


BRIGHAM YOUNG UNIVERSITY

# GEOLOGY

S T U D I E S



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# BRIGHAM YOUNG UNIVERSITY GEOLOGY STUDIES

Volume 41, 1996

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*Cover: Fossil tissues from Cleveland-Lloyd allosaurs.*

*Top: Uniform periosteal bone with reticulating primary vascular canals, some of which are aligned longitudinally (left to right) and radially. Caudal vertebra, centrum; longitudinal section; C-LQ 087.*

*Middle left: Vascular zonal bone with lamellated annuli and non-lamellated zones. Local development in a right radius; transverse section; C-LQ 109.*

*Middle right: Dense Haversian bone showing secondary osteons, secondary vascular canals at their centers, and the concentric arrangement of osteocyte lacunae (small dark bodies) around them. Dorsal rib; transverse section; C-LQ 106.*

*Bottom: Calcified cartilage showing the rounded form of the spaces (lacunae) once occupied by chondrocytes. Proximal end of a fibula; longitudinal section; C-LQ 014.*

*In all sections the direction of the external surface is upward.*

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## William Lee Stokes

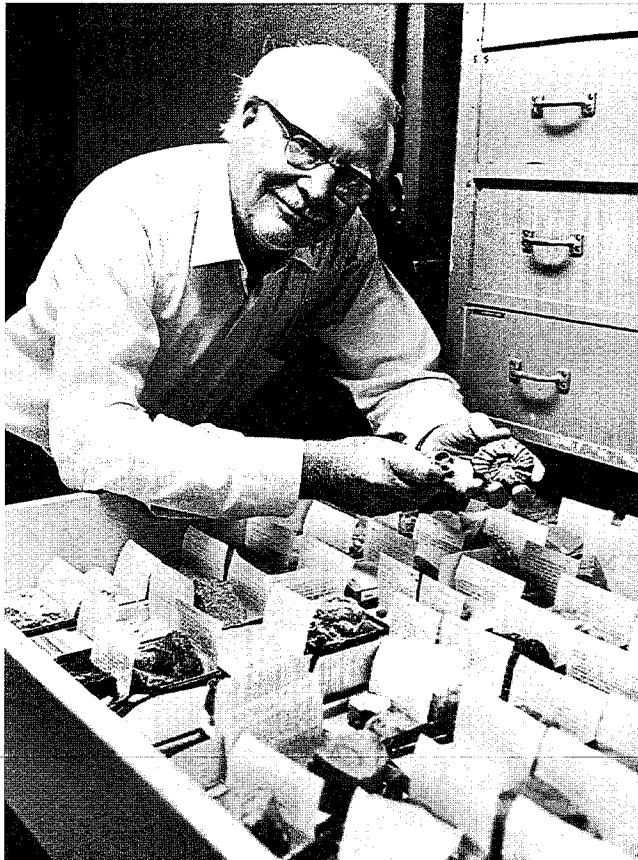
### 1915–1994

In honoring Dr. William Lee Stokes, we pay tribute to one of our most distinguished alumni. Lee earned his B.S. and M.S. degrees in geology from Brigham Young University in 1937 and 1938. He was awarded his Ph.D. from Princeton University in 1941. It was while teaching a lab as a graduate student at BYU that he met his future wife, Betty A. Curtis.

The Brigham Young University Geology Department and the university are rightfully proud of their association with Lee Stokes. With his broad interests in geology, his dedication to students, and an exceptionally fine mind, he achieved uncommon excellence as a teacher and researcher. Brigham Young University honored Lee Stokes in 1985 with an Alumni Achievement Award representing a distinguished alumnus from the College of Physical and Mathematical Sciences.

Lee's interest in the geology of his native Utah started when he was a small boy in Cleveland, a very small eastern Utah farming community. It was there that he formed his interest in rocks and fossils, and especially his interest in the locally well-exposed Morrison Formation and Jurassic dinosaur fossils abundant in his backyard, both of which remained important in his research throughout his career. From what would later become the Cleveland-Lloyd Dinosaur Quarry, Lee, his brother, Grant, and Don Hansen, all young men at the time, collected parts of a specimen of *Allosaurus* that is still on exhibit at Princeton University.

His work on Utah geology continued during his employment with the U.S. Geological Survey from 1942–1947, when he worked on vanadium and uranium deposits in the Colorado Plateau. His endeavors on this project involved him in the mining of what became the raw material of the earliest atomic bombs. In 1947 he began a thirty-six-year career as a professor of geology at the University of Utah in Salt Lake City, lasting until his retirement in 1983. For thirteen years he was chairman of the University of Utah Geology Department. While teaching he continued to contribute to our understanding of Utah's geology. Although his interests were broad, ranging from dinosaurs to structural geology, it was in stratigraphy that he made his most significant contributions. During his career he named thirteen stratigraphic units in Utah, mostly in Mesozoic



strata. His encyclopedic knowledge of Utah geology, especially the eastern part of the state, led him to write numerous papers and several books, all composed in his exceptionally thorough and clear style.

A commitment to teaching, as well as research, is illustrated in his remarkable record of never having missed a class due to illness. He supervised more than forty graduate theses at the University of Utah and influenced innumerable other students both as an extraordinary lecturer and as the author of two widely used and highly respected textbooks: *Essentials of Earth History: An Introduction to Historical Geology* (four editions) and *Introduction to Geology: Physical and Historical Geology* (with two coauthors). His textbooks sold approximately one million copies, and through them his strong influence in geology was extended throughout the nation and beyond.

Lee was the driving force behind the compilation and production of what became an outstanding example of a state geologic map. The Geologic Map of Utah, published in 1961–64, is one of the truly fine state maps available in this country. He further influenced readers throughout the world with his fifteen annual geology summaries in the *Encyclopedia Americana*, informing his readers of new theories and timely geologic events.

In his later years he devoted much of his time and limited energy, due to a lingering illness, writing for faithful LDS (Mormon) Church members. His goal was to resolve the science-religion debate among Church members and teach them, as he believed, that there was harmony between the scriptural account and the scientific understanding of the earth's creation.

William Lee Stokes died December 12, 1994, rich in the respect and admiration of his colleagues, students, and friends. The Department of Geology at Brigham Young University is proud to dedicate this volume in his honor.

—Morris Petersen