

GEOSCIENCE WISCONSIN

**HISTORY OF WISCONSIN GEOLOGISTS:
PROCEEDINGS OF SYMPOSIUM PRESENTED AT THE 31ST ANNUAL MEETING
NORTH-CENTRAL SECTION, THE GEOLOGICAL SOCIETY OF AMERICA**

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The Survey conducts earth-science surveys, field studies, and research. We provide objective scientific information about the geology, mineral resources, water resources, soil, and biology of Wisconsin. We collect, interpret, disseminate, and archive natural resource information. We communicate the results of our activities through publications, technical talks, and responses to inquiries from the public. These activities support informed decision-making by government, industry, business, and individual citizens of Wisconsin.

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PREFACE

As part of its centennial celebration in 1997, the Wisconsin Geological and Natural History Survey sponsored the 31st annual meeting of the North-Central Section of The Geological Society of America in cooperation with the University of Wisconsin–Madison Department of Geology and Geophysics. Because Wisconsin boasts a long list of well known and distinguished geologists, going back more than a century and a half, one of the symposia organized for that meeting was the *History of Wisconsin Geologists*.

This volume is an outgrowth of that symposium. Seven of the papers presented at that session are included here. Two additional papers are represented by abstracts only. An appropriate paper from another symposium at the Madison meeting is also included.

In the first paper, award-winning author Paul Hayes traces the life of Increase Allen Lapham, Wisconsin's first true scientist. Although he may be remembered by many as the founder of the U.S. Weather Service, Lapham's scientific interests were universal. He arrived in Wisconsin in 1836 to work as a surveyor, but he soon turned his attention to the bedrock of the Milwaukee area, collecting fossil and mineral specimens from the "Niagara limestone." He eventually served as state geologist of Wisconsin.

Dr. Donald Mikulic's abstract focuses on the Silurian reef structures of the Milwaukee area—the first recognized fossil reefs in North America. First described by Increase Lapham in the late 1830s, the reefs subsequently attracted the attention of numerous geologists for the next century.

Thomas Chrowder Chamberlin is universally acclaimed as one of America's all-time great scientists. In my paper, I follow Chamberlin's life from his boyhood days in southern Wisconsin through his student days at Beloit, his career as a professor, state geologist, and successful president of the University of Wisconsin to his distinguished professorship at the University of Chicago. I also summarize the lives of two of his students, Rollin D. Salisbury and George Lucius Collie, and emphasize the interrelated personal

and professional lives of these three Beloit College graduates.

Soils geologist John Tandarich traces the development of agricultural geology in the United States and the work of pioneers in this field. Among the investigators with Wisconsin connections were David Dale Owen, Increase Allen Lapham, and Thomas Chrowder Chamberlin. Chamberlin was especially important in that development, with original ideas pertaining to soil mapping and soil erosion.

Professor Robert H. Dott, Jr., discusses the personnel and legacy of the Wisconsin School of Precambrian geology at the University of Wisconsin–Madison during the latter part of the nineteenth century through the first half of the twentieth century. Anchored by R.D. Irving, Wisconsin's first true geologist, C.R. Van Hise, C.K. Leith, and W.J. Mead, each of whom was a protégé of the preceding, the Wisconsin School attained an international reputation for studies in structural, metamorphic, economic, and engineering geology, particularly with regard to Precambrian rocks of the Lake Superior region.

In her abstract, Lois Arnold describes the early life of Florence Bascom, one of America's earliest and most famous female geologists. As a student at the University of Wisconsin, she was attracted to geology by the research of two of the professors described in the previous paper by Dott—namely, Roland D. Irving and Charles R. Van Hise. Dr. Arnold's full paper has been published elsewhere.

In the next paper, Professor Charles W. Byers examines the concept of sequence stratigraphy at the beginning of the twentieth century. He focuses his attention on E.O. Ulrich, specifically on Ulrich's revision of the Paleozoic stratigraphic column and his establishment of two new geologic systems between the Cambrian and the Ordovician based largely on erosional breaks. He concludes that the failure of Ulrich's Ozarkian System in Wisconsin to survive was the result of Ulrich's miscorrelation of unconformities.

Dr. Malcolm Weiss is the generally acknowl-

edged authority on the life and career of Frederick W. Sardeson; his book on Sardeson was published recently as a bulletin of the Minnesota Geological Survey. An accomplished but controversial and paranoid man, Sardeson's career was marked by severe troubles with his professional colleagues in Minnesota. In many respects, Sardeson was 50 years ahead of his time with his work on the Ordovician of Minnesota and Wisconsin and his concept of species that was based on central tendencies and variations in populations, rather than small differences among individuals.

Glacial geologists Lee Clayton and John Attig trace the career of Fredrik T. Thwaites, who lived his entire life in Wisconsin and undoubtedly knew more about Wisconsin geology than any other person, living or dead. As a geologist with the Wisconsin Geological and Natural History Survey and museum curator and instructor in the University of Wisconsin–Madison geology department, Thwaites contributed greatly to our knowledge of the Precambrian and the Paleozoic, but he is probably best remembered for his significant studies of the Pleistocene.

In the last paper, Dr. Donald G. Mikulic and

Dr. Joanne Kluessendorf present a definitive biography of the professional career of Gilbert O. Raasch, recognized by many as Wisconsin's most prominent twentieth century student of Paleozoic geology and paleontology. Raasch's interest in geology began as a hobby, when as a youngster he collected fossils from the Silurian and Devonian strata in his native Milwaukee. The authors trace his professional life, starting with a position at the Milwaukee Public Museum, continuing through his experiences at the university in Madison, as an oil geologist in the Midcontinent, and his positions with the Army Air Force, the Illinois State Geological Survey, the Canadian Stratigraphic Service, Shell Oil, and his own consulting firm.

Both the editor and the publications manager of the Survey are indebted to a fine group of referees, whose helpful reviews significantly improved the quality of the manuscripts.

We are also grateful to The Geological Society of America for graciously providing us permission to reprint some of the authors' abstracts, versions of which were previously published in *The Geological Society of America 1997 Abstracts with Programs*, v. 29, no. 4.

Allan F. Schneider
Editor