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Reinhard, Christine

Madison, Wis.: Wisconsin Geological and Natural History Survey,
1982

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BIBLIOGRAPHY AND INDEX OF WISCONSIN GEOLOGY 1698-1977

by Christine Reinhard

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by

Christine Reinhard

1982

This work
is dedicated to
Prof. Brian K. McKnight
University of Wisconsin-Oshkosh Geology Department
with whom it all began.

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Geological and Natural History Survey.

*Cover: The Trail thru the Pines. A file photo (No. 1640) from Survey
archives of a forest north of Chippewa Falls. Circa 1916.*

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FOREWORD

The Bibliography and Index of Wisconsin Geology 1698-1977 draws together, for the first time in an organized format, references to the published knowledge on the geology of Wisconsin. This knowledge is essential to government and the private sector for understanding Wisconsin's geologic foundation. It includes the origin, character, and distribution of Wisconsin's rock, mineral, soil, and water resources and the natural processes of weathering, erosion, sediment transportation, deposition, and mountain building which formed them and which affect our lives by their continued operation.

Geologic information is basic to solving many of today's resource and environmental problems and to the management decision-making process. For example, geologic information is critical to problem-solving and decision-making for mineral exploration, ground water supply, pollution control, waste disposal, material storage, construction siting, utility routing, and hazards. It is required by government, industry, and the public for resource and environmental management, mineral and water supply, and educational purposes.

The Bibliography is the culmination of 12 years of commitment to an idea conceived by Professor Brian McKnight (Department of Geology, University of Wisconsin-Oshkosh) and brought to completion by the author, Christine Reinhard. The project was begun on a shoe-string budget in 1970 when Reinhard worked as an undergraduate student hourly employee. In 1971 McKnight and Reinhard came to State Geologist George F. Hanson with a proposal to complete the Bibliography and requested funding support. The size of the task was awesome for one person to undertake, but the need for a bibliography required bold initiative. In spite of very limited budget, the Survey hired Reinhard and was able to fund her work through 1974. Although project salary funds were eliminated at the end of that year, and Reinhard accepted a position in the Office of the State Cartographer, the Survey continued to provide computer, cartographic, and review support services. It is a tribute to interagency cooperation and the dedication of Ms. Reinhard that the project was not allowed to die. The State Cartographer, Arthur Ziegler, recognized the potential value of the Bibliography and agreed to allow Reinhard supplemental time to work on the project. This generous contribution by the State Cartographer's Office, and the great number of hours contributed to the project by Ms. Reinhard over the seven-year period from 1975 through 1982, are gratefully acknowledged by the Survey.

M.E. Ostrom
Director and State Geologist

ACKNOWLEDGEMENTS

I am especially indebted to Larry Lynch (then with the University of Wisconsin-Madison Engineering Library) for his in-depth treatment of the paleontology indexing, to Nancy Crossfield (Geology Librarian, UW-Madison) for proofreading and to Cynthia Bush (then special project assistant, Wisconsin Geological and Natural History Survey) for assistance in gathering 1974-1977 citations. Gwen Schultz (Geographer, Wisconsin Geological and Natural History Survey) and Miriam Kerndt (Geography Librarian, UW-Madison) deserve special appreciation for their continual support and encouragement. I extend my sincere thanks to Howard Mead (UW-Madison Cartographic Lab) who worked tirelessly to computerize the data. I am also deeply grateful to my colleague, Art Ziegler, for his understanding attitude toward the completion of this project during my employment with the State Cartographer's Office.

INTRODUCTION

The Bibliography and Index of Wisconsin Geology 1698-1977 encompasses all fields of geologic research. The geographical scope goes beyond current state boundaries, partly because of the time period covered, but also because entries emphasizing adjacent states are included if parts of their texts are relevant to Wisconsin. The time period spans French missionaries exploring Wisconsin by canoe in the late 17th century to remote sensing by satellite in 1977.

No previous bibliography on Wisconsin geology existed; thus, compilation began with the standard reference works: the Bibliography of North American Geology (later the Bibliography and Index of Geology), Abstracts of North American Geology, Geological Abstracts, Geophysical Abstracts, and the Annotated Bibliography of Economic Geology. The unpublished soils bibliography of Mr. Robert Cheetham, U.S. Department of Agriculture-Soil Conservation Service, provided additional references. In many cases it was not possible to index directly from the original article. However, the lists of references in the articles which were personally reviewed provided a great number of obscure and previously overlooked citations. For example, "Topaz from Texas" by George F. Kunz (1894) discusses diamonds found in glacial deposits in Wisconsin.

Only those theses which are found in Dissertation Abstracts (International) are included. Manuscripts, open-file reports, and other generally unpublished documents were not considered. Nor were guidebooks which had a limited distribution within the scope of this bibliography. Only separately published maps are listed.

The bibliography lists citations alphabetically by author, then chronologically from oldest to most recent. Multiple-author entries follow the single-author entries of the primary (first) author. An entry authored by four or more persons is listed as "primary author (and others)." Letters following dates distinguish between citations having identical authors and dates. Cross references direct users familiar with the second or third author of a work to the entry under the first author's name.

The index uses a hierarchical system consisting of major subject or geographical headings with second- and third-level subheadings. The subject headings are based on those in the Bibliography of North American Geology, tailored to Wisconsin's unique geology. Users should refer to the map for the appropriate subdivision (p. xi) or river basin (p. xii).

Each citation usually has multiple subject headings to help the user gather all appropriate references. However, it still may be necessary to search more than one subject heading to be sure all possibilities are exhausted. Various forms of cross references guide the user to alternative subject headings. Generally, specific topics are grouped under broader categories. A user looking for information on petrified wood will find nothing listed there but is referred by a *see* reference to **GEOCHRONOLOGY**, TWO CREEKS FOREST BED and to **GLACIAL GEOLOGY**, TWO CREEKS FOREST BED. In this case the term petrified wood itself is not used in indexing. A *see* reference to a third-level indexing term works similarly: MASTODONS *see* **PALEONTOLOGY**, QUATERNARY, Mammalia. When the user finds a *see under* cross reference, s/he should look for that specific topic under the major subject heading: KAMES *see under* **GLACIAL GEOLOGY**. A *see also* reference indicates that additional information can be found elsewhere, for example, **BARON COUNTY** *see also* **HYDROGEOLOGY**, CHIPPEWA, ST. CROIX RIVER BASIN; **NORTHWESTERN WISCONSIN**.

The structure of the Bibliography is the result of the Wisconsin Geological and Natural History Survey's decision to automate the project in 1978. Automation required the conversion of all citations and the indexing from a totally manual system into a computer-acceptable format. It continued through four consecutive programmers which created program documentation problems. Considerable effort went into verifying accuracy and checking consistency, but errors will undoubtedly be found. The Publications Editor of the Wisconsin Geological and Natural History Survey welcomes all corrections, additions, and comments.

ABBREVIATIONS

Format Abbreviations

abs.	abstract	inv.	investigation	pt.	part
app.	approximately	misc.	miscellaneous	pub.	publication
anon.	anonymous	mon.	monograph	rpt.	report
art.	article	mtg.	meeting	sess.	session
bull.	bulletin	nat.	natural	sp.	special
circ.	circular	natl.	national	tech.	technical
conf.	conference	no.	number	trans.	transactions
doc.	document	n.s.	new series	univ.	university
ed.	editor	p.	page, pages	v.	volume
illus.	illustrations	proc.	proceedings	Wis.	Wisconsin
inf.	information	prof.	professional		

Serial Titles and Corporate Authors

Abs. North Am. Geol. Abstracts of North American Geology	Am. Nat. American Naturalist
Acad. Sci Paris Academie des Sciences, Paris	Am. Philosophical Soc. American Philosophical Society
Ag. Eng. Agricultural Engineering	Am. Quaternary Assoc. American Quaternary Association
Albany Inst. Albany Institute	Am. Sci. American Scientist
Am. Antiquity American Antiquity	Am. Soc. Agron. American Society of Agronomy
Am. Assoc. Adv. Sci. American Association for the Advancement of Science	Am. Soc. Civ. Eng. American Society of Civil Engineers
Am. Assoc. Pet. Geol. American Association of Petroleum Geologists	Am. Water Works Assoc. American Water Works Association
Am. Bur. Geography American Bureau of Geography	Assoc. Am. Geographers Association of American Geographers
Am. Ceramic Soc. American Ceramic Society	Assoc. Am. Geol. Association of American Geologists
Am. City American City	Assoc. Eng. Societies Association of Engineering Societies
Am. Fish. Soc. American Fisheries Society	Assoc. Pacific Coast Geog. Association of Pacific Coast Geographers
Am. Forests American Forests	
Am. Geog. Soc. American Geographical Society	Boston Soc. Nat. History Boston Society of Natural History
Am. Geog. Soc. of New York American Geographical Society of New York	Botan. Gazette Botanical Gazette
Am. Geologist American Geologist	British Assoc. British Association for the Advancement of Science
Am. Geophys. Union American Geophysical Union	Buffalo Soc. Nat. Sci. Buffalo Society of Natural Sciences
Am. Inst. Mining Eng. American Institute of Mining Engineers	Butler Univ. Bot. Studies Butler University Botanical Studies
Am. Inst. Mining and Met. Eng. American Institute of Mining and Metallurgical Engineering	
Am. Inst. Mining, Metallurgical, Petroleum Eng., Inc. American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.	Can. Min. Metall. Bull. Canadian Mining and Metallurgical Bulletin
Am. Jour. Min. Eng. American Journal of Mining, Engineering, Geology Mineralogy, Metallurgy	Canada Geol. Survey Geological Survey of Canada
Am. Jour. Sci. American Journal of Science	Canadian Inst. Mining Metallurgy Canadian Institute of Mining and Metallurgy
Am. Meteorol. Soc. American Meteorological Society	Canadian Jour. Earth Sci. Canadian Journal of the Earth Sciences
Am. Microscopical Soc. American Microscopical Society	Canadian Nat. Canadian Naturalist
Am. Midland Naturalist American Midland Naturalist	Chicago Acad. Sci. Chicago Academy of Sciences
Am. Mineralogist American Mineralogist	Cincinnati Soc. Nat. History Cincinnati Society of Natural History
Am. Mus. Nat. History American Museum of Natural History	Civil Eng. Civil Engineering
Acad. Sci. St. Louis St. Louis Academy of Science	Colorado-Wyoming Acad. Sci. Jour. Colorado-Wyoming Academy of Science Journal
	Compass The Compass of Sigma Gamma Epsilon
	Davenport Acad. Nat. Sci. Davenport Academy of Natural Sciences

- Denison Univ. Bull. (Sci. Lab. Jour.)
Denison University Bulletin, Journal of the Scientific Laboratories
- Dissert. Abs. (Internat.)
Dissertation Abstracts (International)
- Earth Planet Sci. Letters
Earth and Planetary Science Letters
- Earth Sci. Digest
Earth Science Digest
- Ecol. Monographs
Ecological Monographs
- Econ. Geology
Economic Geology
- Elec. World
Electrical World
- Eng. Mag.
Engineering Magazine
- Eng. Min. Jour.
Engineering and Mining Journal
- Eng. News-Record
Engineering News-Record
- Env. Sci. and Technology
Environmental Science and Technology
- Fed. Inter-Agency Sediment Conf.
Federal Inter-Agency Sediment Conference
- G.S.A.
Geological Society of America
- Geographic Soc. Philadelphia
Geographic Society of Philadelphia
- Geographical Abs.
Geographical Abstracts
- Geol. Assoc. Canada
Geological Association of Canada
- Geol. Mag.
Geological Magazine
- Geol. Min.
Geology of Minnesota
- Geol. Soc. China
Geological Society of China
- Geol. Soc. Denmark
Geological Society of Denmark
- Geol. Soc. London, Quarterly Jour.
Quarterly Journal of the Geological Society of London
- Geol. Survey Pennsylvania
Geological Survey of Pennsylvania
- Geophysical Abs.
Geophysical Abstracts
- Ill. Acad. Sci.
Illinois State Academy of Science
- Ill. Geol. Survey
Illinois Geological Survey
- Ill. State Acad. Sci.
Illinois State Academy of Science
- Ill. State Geol. Survey
Illinois State Geological Survey
- Ill. Soc. Eng. and Surveyors
Illinois Society of Engineers and Surveyors
- Ind. Acad. Sci.
Indiana Academy of Science
- Internat. Assoc. Great Lakes Research
International Association for Great Lakes Research
- Internat. Assoc. Quaternary Research
International Association for Quaternary Research
- Internat. Assoc. Sci. Hydrol.
International Association of Scientific Hydrology
- Internat. Assoc. Theoretical and Applied Limnology
International Association of Theoretical and Applied Limnology
- Internat. Jour. Air and Water Pollution
International Journal of Air and Water Pollution
- Internat. Ser. Mon. Earth Sci.
International Series of Monographs on Earth Science
- Internat. Union Geod. & Geophys.
International Union of Geodesy and Geophysics
- Internat. Verein. Limnol.
Internationale Vereinigung für Theoretische und Angewandte Limnologie
- Iowa Acad. Sci.
Iowa Academy of Science
- Iowa Geol. Survey
Iowa Geological Survey
- Iowa Univ. Studies Nat. History
Iowa University Studies in Natural History
- Iowa Univ. Studies Eng.
Iowa University Studies in Engineering
- Jour. Geochem. Explor.
Journal of Geochemical Exploration
- Jour. Geography
Journal of Geography
- Jour. Geol.
Journal of Geology
- Jour. Geophys. Research
Journal of Geophysical Research
- Jour. Glaciology
Journal of Glaciology
- Jour. Mammalogy
Journal of Mammalogy
- Jour. Paleontology
Journal of Paleontology
- Jour. Petrology
Journal of Petrology
- Jour. Sed. Petrology
Journal of Sedimentary Petrology
- Jour. Thermal Analysis
Journal of Thermal Analysis
- Jour. Urban Plan. Dev. Div.
Journal of Urban Planning and Development Division
- American Society of Civil Engineers
- Jour. Western Soc. Engineers
Journal of the Western Society of Engineers
- Jour. Wildlife Management
Journal of Wildlife Management
- Kansas Geol. Soc.
Kansas Geological Society
- Kansas Geol. Survey
Kansas Geological Survey
- Lake Superior Min. Inst.
Lake Superior Mining Institute
- Lapidary Jour.
Lapidary Journal
- Mich. Acad. Sci.
Michigan Academy of Science
- Mich. Acad. Sci., Arts and Letters
Michigan Academy of Sciences, Arts and Letters
- Mich. Basin Geol. Soc.
Michigan Basin Geological Society
- Mich. Geol. and Biol. Survey
Michigan Geological and Biological Survey
- Mining Cong. Jour.
Mining Congress Journal
- Mining Eng.
Mining Engineering
- Mining Mag.
Mining Magazine
- Minn. Acad. Nat. Sci.
Minnesota Academy of Natural Sciences
- Minn. Geol. Survey
Minnesota Geological Survey
- Minn. Univ. Quart. Bull.
Minnesota University Quarterly Bulletin
- Minnesota State Historical Soc.
Minnesota State Historical Society
- Missouri Weather Rev.
Missouri Weather Review
- Mo. Acad. Sci.
Missouri Academy of Science
- Modern Power and Eng.
Modern Power and Engineering

Nat. Acad. Sci.
 National Academy of Sciences
 Nat. History
 Natural History
 Nat. Park Service
 National Park Service
 Nat. Speleo. Soc.
 National Speleological Society
 Nebr. Acad. Sci.
 Nebraska Academy of Science
 New York Acad. Sci.
 New York Academy of Sciences
 New York Geol. Survey
 New York Geological Survey
 New York St. Geol.
 New York State Geologist

 Ohio Geol. Survey
 Ohio Geological Survey
 Ohio Jour. Sci.
 Ohio Journal of Science
 Oil and Gas Jour.
 Oil and Gas Journal
 Okla. Acad. Sci.
 Oklahoma Academy of Science

 Pan-Am. Geologist
 Pan-American Geologist
 Phil. Mag.
 Philosophical Magazine
 Philadelphia Acad. Nat. Sci.
 Philadelphia Academy of Natural Sciences
 Philos. Soc. Washington
 Philosophical Society of Washington
 Pop. Sci. Monthly
 Popular Science Monthly
 Prof. Geog.
 Professional Geographer

 Rochester Acad. Sci.
 Rochester Academy of Science
 Royal Soc. Canada
 Royal Society of Canada

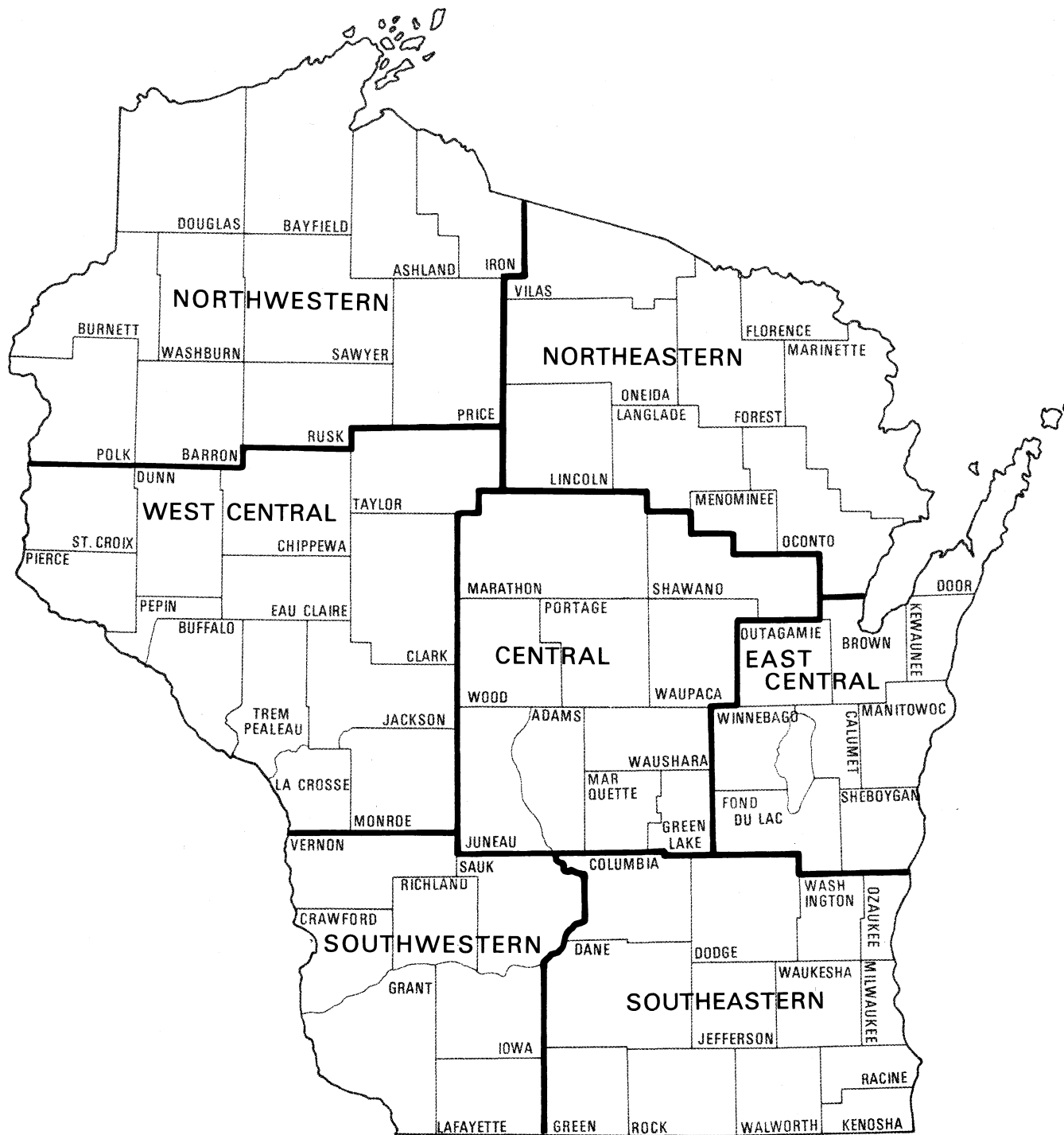
 SEWRPC
 Southeastern Wisconsin Regional Planning Commission
 Scientific Am.
 Scientific American
 Seismol. Soc. Am.
 Seismological Society of America
 Smithsonian Inst.
 Smithsonian Institution
 Soc. Eng. and Surveyors
 Society of Engineers and Surveyors
 Soc. Explor. Geophysicists
 Society of Exploration Geophysicists
 Soc. Geol. France
 Societe Geologique de France
 Soil Cons. Soc. Am., Wis. Chap.
 Soil Conservation Society of America, Wisconsin Chapter
 Soil Sci.
 Soil Science
 Soil Sci. Soc. Am.
 Soil Science Society of America

 Tennessee Acad. Sci.
 Tennessee Academy of Science
 Torrey Bot. Club
 Torrey Botanical Club

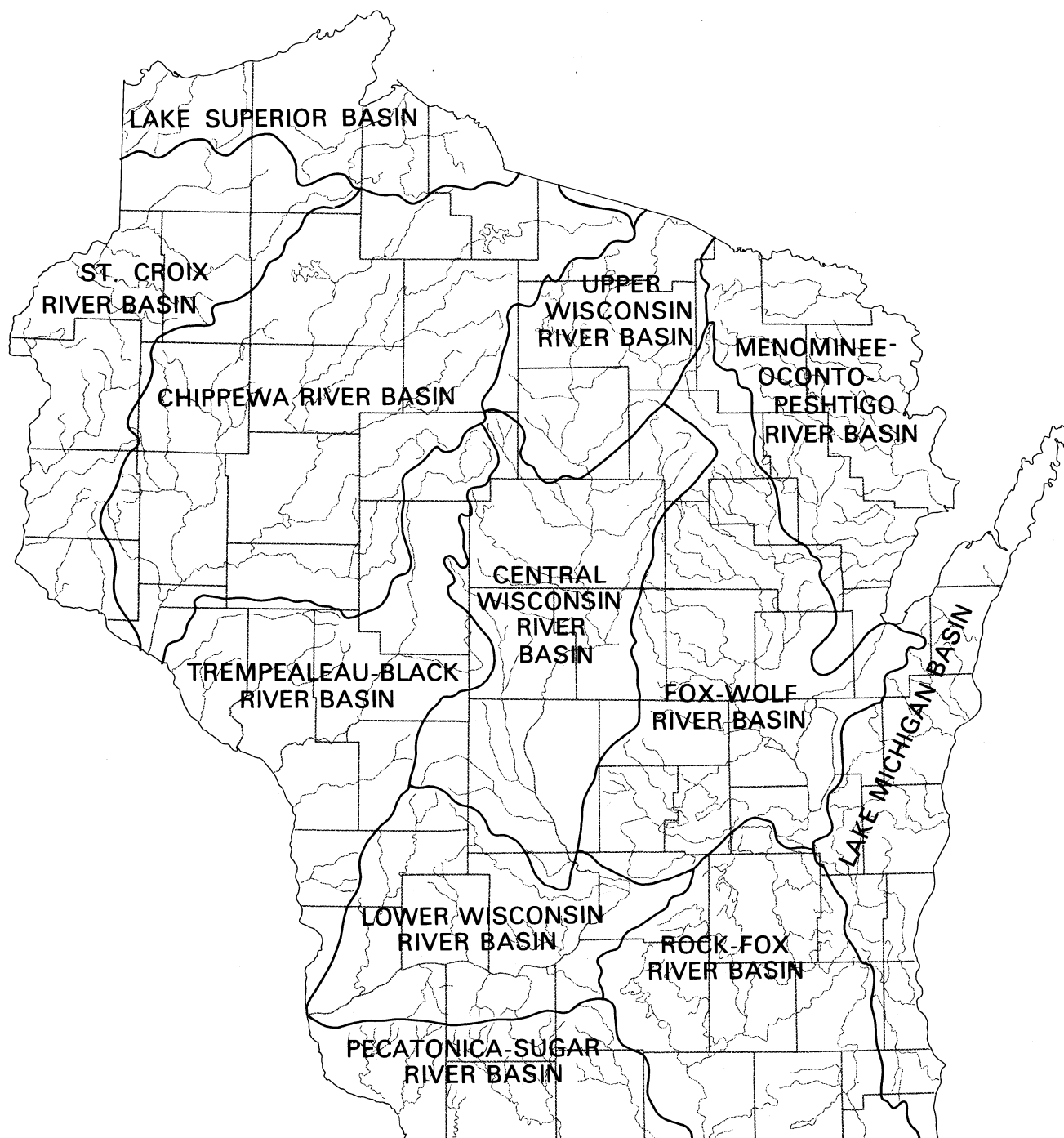
 Tri-State Geol. Field Conf.
 Tri-State Geological Field Conference

 U.S. Atomic Energy Comm.
 United States Atomic Energy Commission
 U.S. Bur. Fish
 United States Bureau of Fisheries
 U.S. Bur. Mines
 United States Bureau of Mines
 U.S. Cong.
 United States Congress
 U.S.D.A.
 United States Department of Agriculture
 Ag. Research Service
 Agriculture Research Service
 Bur. Soils
 Bureau of Soils
 U.S. Env. Protection Agency
 United States Environmental Protection Agency
 U.S.G.S.
 United States Geological Survey
 U.S. Natl. Museum
 United States National Museum
 Univ. Mich., Great Lakes Res. Division
 University of Michigan, Great Lakes Research Division
 Univ. Tenn. Space Inst.
 University of Tennessee Space Institute
 Univ. Wis.
 University of Wisconsin
 College Ag. Life Sci.
 College of Agriculture and Life Sciences
 Dept. Geology
 Department of Geology
 Agr. Experimental Station
 Agricultural Experiment Station
 Eng. Experiment Station
 Engineering Experiment Station
 Univ. Wis. Press
 University of Wisconsin Press

 Wash. Acad. Sci.
 Washington Academy of Sciences
 Washington Philos. Soc.
 Washington Philosophical Society
 Water Works Eng.
 Water Works Engineering
 Wis. Acad. Sci., Arts, and Letters
 Wisconsin Academy of Sciences, Arts, and Letters
 Wis. Comm. Fish. Rpt.
 Wisconsin Commission on Fisheries Report
 Wis. Com. on Water Pollution
 Wisconsin Committee on Water Pollution
 Wis. Cons. Dept.
 Wisconsin Conservation Department
 Wis. Dept. Agr., Div. Land Economic Inventory
 Wisconsin Department of Agriculture, Division of Land Economic Inventory
 Wis. Dept. Natural Resources
 Wisconsin Department of Natural Resources
 Wis. Geol. Survey
 Wisconsin Geological Survey
 Wis. Geol. and Nat. History Survey
 Wisconsin Geological and Natural History Survey
 Wis. Mag. History
 Wisconsin Magazine of History
 Wis. Nat. History Soc.
 Wisconsin Natural History Society
 Wis. State Hist. Soc.
 State Historical Society of Wisconsin
 Wis. State Agr. Soc.
 Wisconsin State Agricultural Society



Geographical Regions used in Index



Major River Drainage Basins of Wisconsin

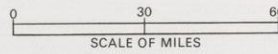
LANDFORMS OF WISCONSIN

Geological and Natural History Survey

George F. Hanson, Director and State Geologist

UNIVERSITY EXTENSION, UNIVERSITY OF WISCONSIN

1971



Relief by David A. Woodward

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of
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 Ostrom, Meredith E. 1970a.

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 Bagg, Rufus Mather. 1913.

RADIUM, GROUNDWATER
 Scott, Robert Clyde; Barker, Franklin Butt. 1962.

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 Chamberlin, Thomas Chrowder. 1883e. Irving, Roland Duer. 1874d.

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