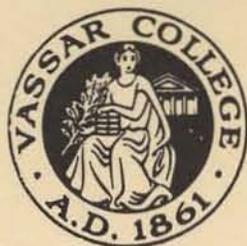


FIELD GUIDE BOOK

New York State
Geological Association



48th Annual Meeting



VASSAR COLLEGE
POUGHKEEPSIE, NEW YORK
OCTOBER 15 - 16, 1976

The organizer of the field trips described
in this volume, and of the meeting at which
they were given, is

Professor John H. Johnsen, Chairman
Department of Geology & Geography
Vassar College
Poughkeepsie, New York 12601

Copies of this guidebook may be purchased from
the Executive Secretary of the New York State Geological
Association: Dr. Daniel F. Merriam, Chairman
Department of Geology, Syracuse University, Syracuse
New York 13210.



Frontispiece - A. Scott Warthin Jr., Professor Emeritus of Geology, Vassar College, dean of Hudson Valley Geologists and expert on Dutchess County geology, examining block of Wappinger dolostone in deformed Snake Hill Shale, visible between Stops 3 and 4 on Trip B-6, south side of Spackenkill Road near Cedar Valley Road. Photograph by Donald W. Fisher, 1975.

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PREFACE

The area surrounding Vassar College provides a wealth of material for the geoscientist. It is classic ground in the study of geology - the Taconics, Hudson Highlands, Shawangunks, Catskills and the Hudson Valley each provide wonderful and exciting outdoor classrooms. Because most major rock types lie within one or more of these areas, it was possible to schedule a number of excursions into igneous, sedimentary and metamorphic terrains which exhibit simple to intensely deformed structures as well as geologically-oriented trips related to recent environmental concerns in part brought on by the presence of these structures. Each of the leaders invited to participate is either involved in current field research or has had a great deal of recent field experience within the area of his trip so that much new significant data heretofore unpublished are made available in this guidebook. The field program is sufficiently diverse in locale and content to provide something of interest for everyone.

To celebrate the Bicentennial of our country, we depart from tradition by offering a limited enrollment extra-cost trip on the Hudson River from New York City to Poughkeepsie on the first day of the meeting to view the geology along its east and west banks and to learn something of the colonial and revolutionary history that was made along its course and, on the final day, a walking trip through historic Fishkill, New York. A separate guidebook has been prepared for the participants of the river trip, but a limited number will be available for sale. In addition, the Lamont-Doherty Geological Observatory at Palisades, New York, will host an open house on the first day of the meeting to provide an opportunity for members of the New York State Geological Association to tour the facilities and meet with a number of the scientists conducting research there.

Lack of secretarial assistance and increased costs made it impossible for articles to be retyped on the same machine. By prior mutual consent, each author agreed to use one of several similar type styles and to review their manuscripts before submission. No editorial changes were made.

The Editor wishes to express his thanks, on behalf of the NYSGA, to Vassar College for serving as host to its 48th Annual meeting, to each of the authors who graciously accepted full responsibility for organizing and leading his trip, to A. Scott Warthin Jr., who ably took over the reins for me during the summer of 1976 while I was on the other side of the world and to those colleagues and majors in my department that gave so generously of their time.

Welcome to Vassar College and the historic Mid-Hudson Valley. We hope you thoroughly enjoy your brief study of this region.

John H. Johnsen
Editor

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* The 48th Annual Meeting of the New York State Geological Association also includes two field excursions, Trips A-1 and A-2, not included in this guidebook. Trip A-1, GEOLOGY AND BICENTENNIAL HISTORY OF THE LOWER AND MIDDLE HUDSON VALLEY, an all-day boat trip up the Hudson River from New York City to Poughkeepsie organized and led by John H. Johnsen, was issued in a separate limited-edition guidebook. Trip A-2 was a guided tour of the Lamont-Doherty Geological Observatory at Palisades, New York.

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