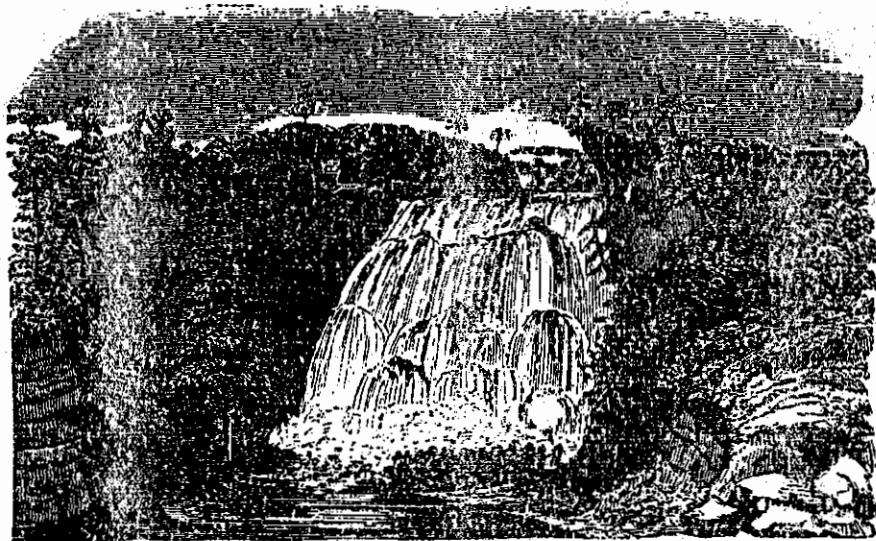


**NEW YORK STATE  
GEOLOGICAL ASSOCIATION  
58TH ANNUAL MEETING**

**FIELD TRIP GUIDEBOOK**



*Fall creek, near Ithaca. From a sketch by Mrs. HALL.*

**CORNELL UNIVERSITY  
ITHACA, NEW YORK**

**OCTOBER 10-12, 1986**

**NEW YORK STATE  
GEOLOGICAL ASSOCIATION**

**58TH ANNUAL MEETING**

**FIELD TRIP GUIDEBOOK**

**Department of Geological Sciences  
and  
Institute for the Study of the Continents**

**CORNELL UNIVERSITY  
ITHACA, NEW YORK**

**OCTOBER 10-12, 1986**

*Published by the New York State Geological Association.  
Additional copies available from Manfred P. Wolff,  
Executive Secretary, New York State Geological  
Association, Geology Department, Hofstra University,  
Hempstead, New York 11550.*

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection practices and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the implementation of data-driven decision-making processes. It provides a detailed overview of the steps involved in identifying key performance indicators (KPIs) and using data to inform strategic decisions.

4. The final part of the document discusses the challenges and opportunities associated with data management and analysis. It offers practical advice on how to overcome common obstacles and leverage data to drive organizational growth and success.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

## PREFACE AND ACKNOWLEDGMENTS

It is a pleasure to welcome all of you to the 58th annual meeting of the New York State Geological Association and to Cornell University.

Ithaca and the Finger Lakes region offer much to satisfy a wide range of geological interests. Field trips have been arranged to show this diversity. Topics include general geology, geomechanics, geomorphology, glacial geology, kimberlites, paleobiology, paleoenvironments, petrology of continental basement and the mantle, sedimentary petrology, stratigraphy, structure, and tectonics. I hope the field guide proves as lastingly useful as the one from the 1959 meeting, when NYSGA last met at Cornell.

I want to thank the field trip leaders and other contributors for their efforts on behalf of NYSGA.

John L. Cisne, President  
New York State Geological Association  
Department of Geological Sciences and  
Institute for the Study of the Continents  
Cornell University  
Ithaca, New York 14853



TABLE OF CONTENTS

	Page
PREFACE AND ACKNOWLEDGMENTS . . . . .	iii
GEOLOGICAL SUMMARY OF THE CAYUGA REGION by D.E. Karig and L.T. Elkins . . . . .	1
SUBMARINE EROSION ON THE DYSAEROBIC SEAFLOOR: MIDDLE DEVONIAN CORRASONAL DISCONFORMITIES IN THE CAYUGA VALLEY REGION by Gordon C. Baird and Carlton E. Brett . . . . .	23
SEDIMENTARY CYCLES AND LATERAL FACIES GRADIENTS ACROSS A MIDDLE DEVONIAN SHELF-TO-BASIN RAMP, LUDLOWVILLE FORMATION, CAYUGA BASIN by Carlton E. Brett, Gordon C. Baird and Keith B. Miller . . . . .	81
THE USE OF JOINT PATTERNS FOR UNDERSTANDING THE ALLEGHANIAN OROGENY IN THE UPPE DEVONIAN APPALACHIAN BASIN, FINGER LAKES DISTRICT, NEW YORK by Terry Engelder . . . . .	129
FACIES AND FOSSILS OF THE ONONDAGA LIMESTONE IN CENTRAL NEW YORK by Howard R. Feldman and Richard H. Lindemann . . . . .	145
STRATIGRAPHY AND PALEONTOLOGY - AROUND CAYUGA LAKE ONCE AGAIN by Thomas X. Grasso, Jonathan W. Harrington, and William T. Kirchgasser . . . . .	167
PALEOENVIRONMENTAL ANALYSIS OF THE FIDDLERS GREEN FORMATION (LATE SILURIAN) IN NEW YORK STATE by Richard D. Hamell and Samuel J. Ciurca, Jr. . . . .	199
KIMBERLITES OF THE FINGER LAKES REGION by Suzanne Mahlburg Kay and Brayton P. Foster . . . . .	219
ICE READVANCE IN THE VALLEY OF FIVEMILE CREEK, STEUBEN COUNTY, NEW YORK AND THE EFFECT OF THE RESULTING DEPOSITS ON POSTGLACIAL STREAMFLOW by Allan D. Randall . . . . .	239
GEOMORPHOLOGY OF THE CAYUGA LAKE BASIN by Arthur L. Bloom . . . . .	261

