

8<sup>th</sup> meeting

President: Harold L. Alling  
Secretary: J. Edward Hoffmeister

NEW YORK STATE GEOLOGICAL ASSOCIATION

FRIDAY,

MAY 13, 1932.

Contributed by  
W. R. Evitt.

STOP 1.

This is Maplewood Park, where a good view of the formations exposed in the Genesee Gorge may be obtained. At the very bottom can be seen the uppermost layers of the red Queenston shale of Ordovician age. Above this is the red Medina sandstone, of basal Silurian, followed by the Clinton group including all formations from the Oneida sandstone to the Rochester shale which is the uppermost formation here. (See figure). Only the lower beds of the Rochester are found here. The section is topped by glacial debris.

Also it should be remembered that this is the post-glacial gorge of the Genesee.

Well defined river terraces can be observed here.

STOP 2.

Brewer's Dock. An opportunity will be given here to see some of the formations at closer range and to collect from them. The Reynales limestone with its characteristic fossil, the large brachiopod, Pentamerus oblongus, tops the section here.

STOP 3.

Mouth of Irondequoit Bay. Here can be seen the spits which divide the Bay from Lake Ontario. This bay is the preglacial channel of the Genesee River.

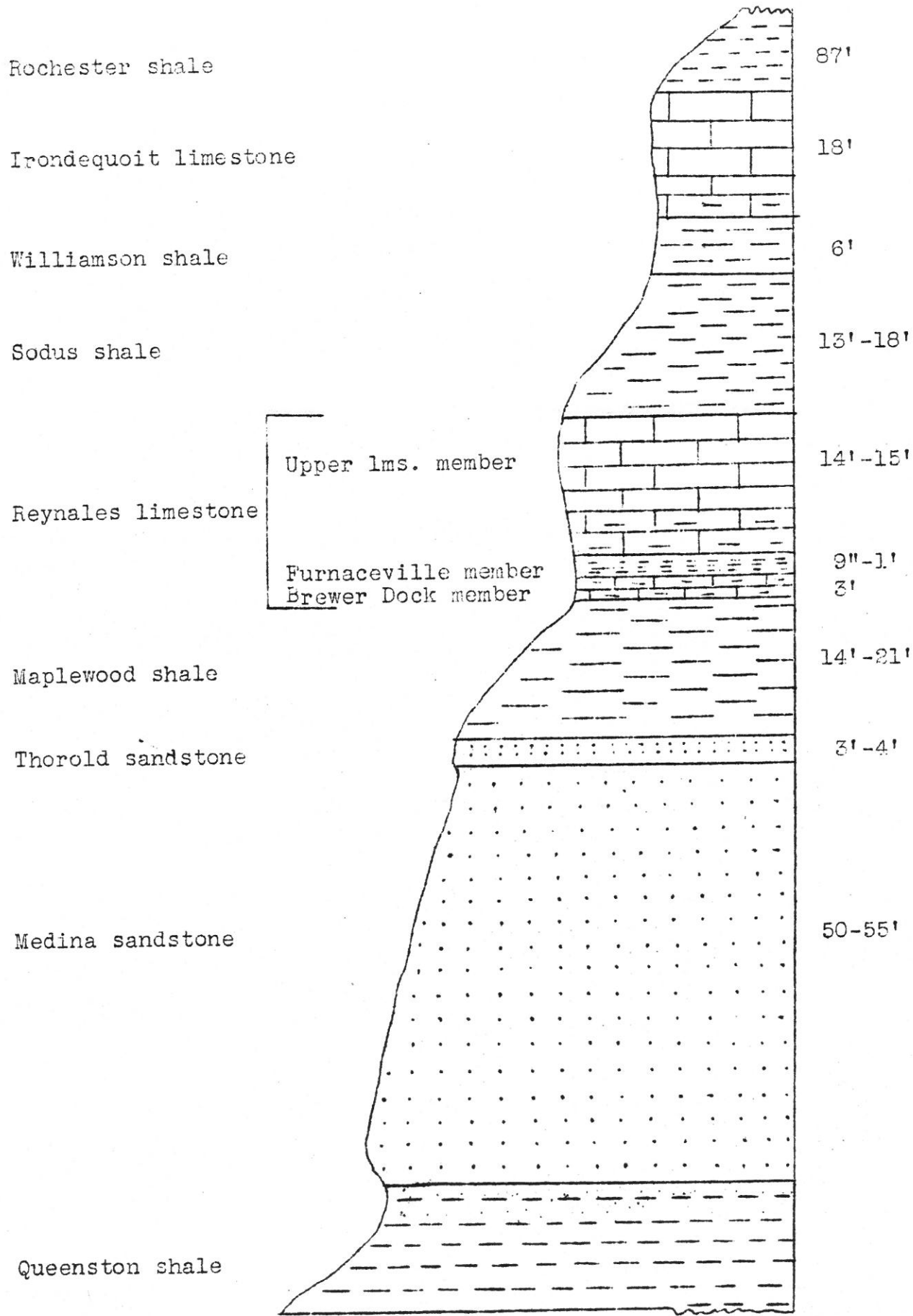
STOP 4.

Inspiration Point. An excellent view may be had here of Irondequoit Bay. Glacial till and lake sands filled up this broad pre-glacial Genesee Valley during the Pleistocene. This caused the river to seek a new channel and the result is the present Genesee Gorge (stops 1 and 2). The small Irondequoit Creek has succeeded in exposing a good deal of the pre-glacial valley to develop Irondequoit Bay. The hard rock sides of the valley, however, are still covered up by the soft glacial debris.

STOP 5.

Glen Edith. This Glen leads into Irondequoit Bay. The small creek has exposed here the hard rock side of the old pre-glacial Genesee. The uppermost bed here is Reynales limestone. One of the features of the section is the absence of the Furnace-fille iron ore.

GENESEE GORGE SECTION  
ROCHESTER, N.Y.



STOP 6.

Pinnacle Hills at Winton Road sand pits. The Pinnacle Hills represent a kame-moraine formed at the southern end of the ice sheet by streams coming from the melting glacier and dropping their materials into the glacial Lake Dana. At this point a good view of the stratified, water laid deposits of the ridge may be obtained as well as the capping of glacial till. This latter is supposed to have been formed by a re-advance of the ice sheet. This interpretation is based upon the evidence of the crushed and tilted strata along the northern side of the row of hills.

STOP 7.

Cobbs Hill. A good view of the Pinnacle Hills is obtained here. To the north is the plain where the glacier was located, to the south stretches the outwash plain or lake bottom of glacial Lake Dana.

-----  
SATURDAY, MAY 14, 1932.

Trip to the Devonian

STOP 1.

Mendon Park. Here can be seen some excellent examples of glacial work. Probably the most striking of all are the kames, Kettles, and esker. The elongated, winding ridge which runs through the center of the area is an esker. These materials were deposited in glacial lake Warren.

En route. On the way to Stop 2, the guides will point out, on the left of the road just before the town of East Avon is reached, outcrops of the Onondaga limestone, which is the basal Devonian formation in this region.

STOP 2.

Jaycox Run. Hamilton group. Here will be given an excellent opportunity to collect from the Moscow shale and the Ludlowville shale. According to Cooper the Menteth limestone (basal Moscow) is present near the top of the section. Beneath it is the Deep Run shale (9 feet), the Tichenor limestone, and the Wanakah shale member, all of the Ludlowville formation. Fossils are plentiful.

En route. Just before Mount Morris is reached the guides will point out the old pre-glacial valley of the Genesee River.

STOP 3.

High Banks near Mount Morris. This is the post-glacial gorge of the Genesee River. It exposes some members of the Portage group. At the top is the Hatch shale, beneath which is the black Rhinestreet shale and Cashaqua shales. In some places may be seen the underlying Middlesex and West River shales at the bottom of the gorge.

En route. On the way to Portage the guides will point out the place where the west branch and the east branch (Dansville branch) of the pre-glacial Genesee met. The road to Portage is located on the divide between the pre-glacial and post-glacial valleys of the Genesee.

STOP 4.

Letchworth Park. Post-glacial Genesee Valley again. The rocks are upper Portage flagstones. At the base of the upper Falls may be seen the Nunda sandstone. The middle Falls and in fact most of the rock section exposed in the Park are made of Gardeau flagstone. Farther downstream can be seen the Grimes sandstone.

Lunch will be had here after which the Association distands.

## BIBLIOGRAPHY

### DRAINAGE

- H. L. Fairchild, N.Y. State Mus. Bull. 256,  
Roch. Acad. Sci., Vol. 6, pp. 217-242.

### ECONOMIC GEOLOGY

- R. B. Earle, The Genesis of Certain Paleozoic Interbedded  
Iron Ore Deposits, Annals New York Acad. Sci.  
Vol. XXIV, pp. 115-170, August 1924.
- A. F. Foerste, On the Clinton Oolitic Iron Ores, Am. Jour.  
Sci., Ser. 3, v. 41.
- C. M. Smyth, Jr. On the Clinton Iron Ore, Am. Jour. Sci.,  
Ser. 3, v. 43, 1892.
- Die Hematite von Clinton in den ostlichen  
Vereinigten Staaten, Zeits. f. prak.  
Geologie, August 1894.
- D. H. Newland and  
C. A. Hartnagel, Iron Ores of the Clinton Formation in  
New York State, N. Y. State Mus. Bull. 123,  
1908.

### GENERAL

- H. L. Fairchild, Geologic Story of the Genesee Valley,  
1928.

### GLACIAL LAKES

- H. L. Fairchild, Glacial Waters in Central New York,  
N. Y. State Mus. Bull. 127, 1908.

### PALEONTOLOGY

- J. M. Clarke and Luther, Stratigraphic and Paleontologic map of the  
Canandaigua and Naples Quadrangles, N.Y.  
State Mus. Bull. 63, 1904.
- N. H. Eaton, Vernon shale (Silurian) fauna, in Central  
New York, N. Y. State Mus. Bull. 253,  
pp. 111-116.
- Prouty, Swartz, Systematic Paleontology, Silurian, Md. Geol.  
Bassler and Ulrich. Survey, Silurian Volume, pp. 395-778.
- R. Ruedemann, Some Silurian (Ontarian) Faunas of New York,  
N.Y. State Mus. Bull. 265, 1925.
- E. O. Ulrich and R. S. Bassler. American Silurian Formations, Md., Geol.  
Survey, Silurian volume, pp. 233-270.



POST-GLACIAL

- H. L. Fairchild, The Rochester Canyon and the Genesee River Base Levels, Proc. Roch. Acad. Sci. 6, pp. 1-55.
- G. H. Chadwick, Lake Deposits and Evolution of Lower Irondequoit Valley, Proc. Roch. Acad. Sci. 5, pp. 123-160.
- H. L. Fairchild, Post-Glacial Uplift of Northeastern America, Bull. Geol. Soc. Am. v. 29, pp. 187-238.

STRATIGRAPHY

- G. H. Chadwick, Stratigraphy of the New York Clinton, Bull. Geol. Soc. Am., vol. 29, 1917, pp. 343-345.
- A. W. Grabau, Early Paleozoic Delta Deposits of North America, Bull. Geol. Soc. Amer., vol. 24, 1913, p. 439.
- D. H. Newland and C. A. Hartnagel, Iron Ores of the Clinton Formation in New York State, N.Y. State Mus. Bull. 123, 1908.
- C. H. Smyth, Jr. Clinton Types of Iron-Ore Deposits: Types of Ore Deposits, Edited by H. Foster Bain. 1911, pp. 32-51.
- E. O. Ulrich, The Ordovician-Silurian Boundary, Congres. Geologique International, Compt. Rendu. de la XII Session, Canada, 1913, p. 630.
- E. O. Ulrich and R. S. Bassler, Paleozoic Ostracoda: Their Morphology, Classification and Occurrence, Md. Geol. Surv., Silurian, 1923, p. 329.
- J. M. Clarke and Luther, Stratigraphic and Paleontologic map of the Canandaigua and Naples Quadrangles, N. Y. State Mus. Bull. 63, 1904.
- R. B. Earle, The Genesis of Certain Paleozoic Interbedded Iron Ore Deposits, Annals N. Y. Acad. Sci., Vol. XXIV, 1913, pp. 115-170.
- A. Eaton, Geological Survey along the Erie Canal. 1824.
- H. L. Fairchild, Beach Structure in Medina Sandstone, Amer. Geol., vol. 28, 1901, pp. 9-14.

- James Hall, Second Annual Report on Fourth District,  
N.Y. State Geol. Repts. 1837-38, p. 287.  
Geology of the Fourth District, New York,  
1843.
- C. A. Hartnagel, Geologic Map of the Rochester Quadrangle,  
N.Y. State Mus. Bull. 114, 1907.  
Stratigraphic Relations of the Oneida  
Conglomerate, N. Y. State Mus. Bull. 107,  
pp. 29-38.
- W. J. Miller, Origin of the Color in the Vernon shales,  
N. Y. State Mus. Bull. 140, 6th Rep't of  
Director, 1909-10, pp. 150-158.
- F. J. Merrill, State Geologic Map of 1901, N. Y. State  
Mus. Bull. 56, 1901.
- C. S. Prosser, The Thickness of the Devonian and Silurian  
Rochs of Western and Central New York,  
Am. Geol., v. 6, 1900.
- C. Schuchert, Medina and Cataract Formations of the  
Siluric of New York and Ontario, Geol. Soc.  
Amer. Bull., vol. 25, 1914, pp. 277-320.  
Silurian-Ordovician Boundary, Geol. Soc.  
Amer. Bull., vol. 36, 1925, pp. 343-350.
- C. K. Swartz, Correlation of the Silurian Formations of  
Maryland with those of other Areas, Md. Geol.  
Surv., Silurian volume, pp. 183-232.
- E. O. Ulrich, Revision of the Paleozoic Systems, Geol.  
Soc. Amer. Bull., vol. 22, p. 392, 1911.  
The Ordovician-Silurian Boundary, Congrés.  
Geologique International Compt. Rendu,  
12th Session, Canada, 1913, pp. 593-669.
- E. O. Ulrich, American Silurian Formations, Md. Geol.  
R. S. Bassler, Surv., Silurian volume, 1923, pp. 233-270.  
Paleozoic Ostracoda: Their Morphology,  
Classification and Occurrence, Md. Geol.  
Surv., Silurian volume, pp. 271-391, 1923.