## NOTES ON THE SILURIC OR ONTARIC SECTION OF EASTERN NEW YORK

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The Ontaric section of central and western New York, as developed west of the Helderberg is subdivided into 10 divisions,<sup>1</sup> and it is from this section of the State that all but one of the locality names applied to these divisions are derived. Each of these divisions is more or less distinctly characterized by differential lithologic features and all are fossiliferous.<sup>2</sup>

On the east side of the Helderberg and including the section extending from Ulster county southwest to New Jersey, the Ontaric lacks several members of the group, while the fossils found are of an age not earlier than late Salina, the lower members of the Ontaric where present being entirely without fossils. The fact that the Manlius and Rondout formations alone of the entire Siluric series have stratigraphic continuity across the Helderberg, has left the outcrops of the Siluric rocks in New York divided into two nearly distinct geographic areas.<sup>3</sup>

While the main purpose of this paper is to bring out the relations of the Cobleskill formation as developed in eastern and southern New York, it will also attempt to show certain relations of the lower members of the Ontaric formation in so far as they have come under the observation of the writer. The lower members of the Ontaric section in this portion of the State are entirely unfossiliferous and confusing in their lithologic features, and it will still require considerable study to accurately locate their correct position in the geologic series. This condition is brought about by the discovery that the Cobleskill horizon is above the Salina deposits, a fact which suggests that the Shawangunk grit and red shales above it may possibly represent a later age than that to which they have been usually referred.

<sup>&</sup>lt;sup>1</sup>Clarke. N. Y. S. Mus. Handbook 19, July 1903. Table 1, p. 9.

While the Salina beds are sometimes regarded as being nonfossiliferous, it will be observed that the Salina as now defined includes at its base the Pittsford shale and at its top the Bertie waterlime. Both of these formations are characterized by an Eurypterus fauna.

<sup>&</sup>lt;sup>3</sup>A third area is developed in Rensselaer county. The Ontaric is here represented by a single member known as the Rensselaer grit. This is generally considered the equivalent of the Oneida or of the Shawangunk grit.