

## 1. ORISKANY PERIOD.

## ROCKS — KINDS AND DISTRIBUTION.

The Oriskany sandstone in eastern North America has nearly the limits and distribution of the Lower Helderberg formation. It occurs over the eastern half of New York, between Cayuga Lake and Albany, and reaches northward to Oriskany Falls, northeast of Utica, having a thickness seldom exceeding 20 or 25 feet. It overlies the Lower Helderberg in Becrafts Mountain, and abounds in fossils. It extends southward along the Appalachian region, with increasing thickness, being 200 feet or more at Port Jervis, 150 to 200 feet along the western border of New Jersey, and eastern of Pennsylvania, and of still greater thickness in western Maryland (at Cumberland), West Virginia, and Virginia. It occurs also in eastern Canada, at Gaspé, and in Maine along the Gaspé-Worcester trough, over Parlin Pond and the northern part of Moosehead Lake, where it is reported to be several thousand feet thick (C. H. Hitchcock). It is found also in Ontario, west of Niagara, and in southern Illinois, where, in Union and adjoining counties, its maximum thickness is 250 feet.

The rock is usually a rough calcareous sandstone, or arenaceous limestone, becoming, where weathered, porous and full of holes, from the dissolving away of its many fossils by percolating waters. It is sometimes cherty limestone, a pebbly sandstone, and in part a shale. In its distribution, its great abundance of fossils, and its usually calcareous or semi-calcareous character, it is widely different from the grits which follow it, and bears a close relation to the Lower Helderberg series of impure limestones. At Becrafts Mountain the beds represent the Lower Oriskany, and the rock is a hard, cherty, arenaceous limestone. A similar rock exists at Port Jervis.

A sandstone containing what appear to be Oriskany fossils has been observed by C. W. Hayes in the highly disturbed region of northern Alabama, in Frog Mountain, between Weisner and Indian mountains. It rests on Lower Silurian and Cambrian unconformably; but the unconformability, though extensive, is described as due to overlap. No intervening Upper Silurian beds occur in the region. The Clinton group (Rockwood beds) exists to the south, but not at that locality (1891, '94).

The geological connections of the Oriskany are with the Lower Helderberg formation, its beds thickening to the eastward as in the Lower Helderberg. It is, however, pronounced Devonian in its fauna and flora, and hence belongs in the Devonian era.

## LIFE.

The Oriskany fauna, although the rocks are rarely pure limestones, included a few Crinoids, of the genera *Melocrinus*, *Mariacrinus*, *Technocrinus*, *Edriocrinus*, etc., common fossils in western Maryland, but not in New York; some Cystoids; numerous Brachiopods, of which the two represented