

craft's mountain, near the town of Hudson, and other related cases, must not be forgotten.

When geologists abandoning the hypothesis of Mather recognize the fact that in the area mapped by him and his disciples as belonging to the Hudson-River group, there exists a great development of more or less fossiliferous strata alike of Cambrian, of Ordovician and, more rarely, of Silurian age,—that the Cambrian strata are greatly disturbed so that their real succession has been frequently misunderstood—and moreover that they are overlaid, unconformably by Ordovician strata, which were affected by later movements, and in the local absence of the massive Trenton limestones are often confounded with the subjacent Cambrian, some of the confusion which now perplexes workers in that region will be removed.

The weighty testimony of James Hall in this connection in 1862 should not be lost sight of. Referring to the evidence of organic remains then recently found in the Hudson-River slates in Vermont and Canada he remarks that they “prove conclusively that these slates are to a great extent of older date than the Trenton limestone” adding that “the occurrence of well known forms of the second fauna—*Leptæna sericea*, *Orthis testudinaria*, *Asaphus* (*Isotelus*) *Trinucleus*, etc.—in intimate relation with and apparently constituting a part of the series along the Hudson river, requires some explanation. Looking critically at the localities in the Hudson valley which yield these fossils we find them of limited and almost insignificant extent. Some of them are at the summits of elevations which are synclinal axes * * * * where the remains of newer formations would naturally occur. Others are apparently unconformable to the rocks below, or are entangled in folds of the strata, * * * * while the enormous thickness of beds exposed is almost destitute of fossils.” The graptolites of the Hudson valley “which have hitherto been referred to the age of the other fossils found in the small outliers, or to the second fauna, in reality hold a lower position and belong to the great mass of slates below.” Inasmuch then as the Hudson-River strata in their typical localities are, as a body, older than the Trenton limestone, which is itself older than the Loraine shales and the shales and sandstones of Pulaski “the term Hudson-River group can not be properly extended to these rocks, which on the *west side* of the Hudson are separated from the Hudson-River