

PART V.

NORTH AMERICAN GEOLOGY.

THE history of American Geology commences with the present century. A few collections of minerals and rocks served as the nucleus around which the interest of the public gradually accumulated. The first attempt at exploration was commenced by William Maclure in 1807, who published a geological map of the States then in the Union, giving the old Wernerian classification of the rocks. Great service has been rendered to American geology by the *American Journal of Science and Art*, commenced by Professor Silliman, Senior, in 1818, and continued to this day as the ablest American scientific journal.

An important feature in the history of American geology is the numerous geological surveys that have been executed, or are still in progress, under the patronage and direction of the different State authorities, as well as the United States government. The leading object of these surveys is to develop those mineral resources of the country that are of economical value. But, with a commendable liberality, the legislatures have encouraged accurate researches into the scientific geology, and sometimes also into the botany and zoology of their several States.

The first survey authorized by the government of a State was that of North Carolina, which was committed to Professor Denison Olmsted in 1824. Two small pamphlets embodied its results. A year or two later, Professor Vanuxem was commissioned to explore the geology of South Carolina, but its results were published only in the newspapers.

Massachusetts, in 1830, commenced a geological survey of its territory upon a more extensive scale, under the direction of the senior author of this work. The first report was made in 1832, a pamphlet of seventy pages. In 1833 a full report was made, of 702 pages, with an atlas of plates and a geological map; and in 1841 a final Report of 831 quarto pages, with fifty-five plates. Within ten years the example of Massachusetts was followed by fifteen other States. Nearly every State and Territory in the Union, at the present date (1860), has been more or less explored, or is now conducting a survey.

The survey of New York was commenced in 1836, and has been conducted upon the most liberal principles. Nearly twenty large quarto volumes have been published by her legislative authority upon all the branches of Natural History, including agriculture, at an expense of half a million dollars. In consequence of these accurate researches, the rocks of New York are classic ground for American geologists; and the names employed by the New York geologists, though derived from localities within the State, are applied to contemporaneous deposits over the whole continent.

These Reports relate chiefly to the Silurian and Devonian Systems. The magnificent Report of Professor H. D. Rogers upon the Carboniferous System of Pennsylvania, has laid a foundation for describing all North American coal fields. The New England and Canada Reports describe the azoic rocks more particularly. Morton has given a system to the cretaceous, and Conrad to the tertiary deposits of the country.

Besides the State surveys, scientific societies and associations in the principal cities have done much toward the development of our Natural History.