

Red Sandstone formation of New Jersey. This mass, in the sections where I observed it, was about eighteen feet thick, and rudely stratified. Above it lay an unstratified grey loam, partly of coarse and partly of fine materials, with boulders and angular blocks of gneiss, syenitic greenstone, and other crystalline rocks, dispersed at random through the loamy base, the whole being covered with loam eight feet thick. One angular block of gneiss, which I measured, was thirteen feet long, by nine in breadth, and five feet high, but masses still larger have been met with, and broken up by gunpowder. Mr. Redfield, who accompanied me to Brooklyn, suggested that the inferior red drift may have been accumulated first when the red sandstone of the neighbouring country was denuded, and that afterwards, when the land was submerged to a greater depth, and when the gneiss and hypogene mountains of the highlands alone protruded above the waters, the upper drift with its erratics may have been thrown down. I am well disposed to adopt this view, because it coincides with conclusions to which I was led by independent evidence, after examining the districts around Lakes Erie and Ontario, viz. that the drift was deposited during the successive submergence of a region which had been previously elevated and denuded, and which had already acquired its present leading geographical features and superficial configuration.

At South Brooklyn, I saw a fine example of stratified drift, consisting of beds of clay, sand, and gravel, which were contorted and folded as if by violent lateral pressure, while beds below of similar composition, and equally flexible, remained horizontal. These appearances, which exactly agree with those seen in the drift