

the continuous band of clay-slate which, running diagonally from sea to sea, reclines, at a steep angle on the northern side of the great Lowland valley of Scotland, against the flanks of the Grampians. And, — to conclude the purely historical portion of my subject, — in 1851 Sir Roderick Murchison contributed a paper on the Silurian Rocks of the South of Scotland, accompanied with descriptions and figures of its characteristic fossils (especially of those of the Girvan deposits), which gives us to know, on certainly the highest authority, that whilst the true place of those apparently older members of the Lower Silurian system in Scotland which, represented by what are the first and second of Professor Sedgwick's five great divisions, is, as the Professor himself observes, exceedingly doubtful, there can be scarce any doubt entertained, that in the deposits of Girvan and Kirkcudbright we possess the analogues and representatives of the middle and upper members of the Lower Silurians of England, and the lowest member of its Upper Silurians. For many years we have been accustomed to regard our Scotch Grauwackes and Grauwacke slates as remarkable for their paucity in organisms. Sir Roderick seems, on the contrary, to have been struck by their abundance, and the distinctness with which they tell the story and exhibit the character of the deposits which inclose them. "Fossils abound," says this first of geologists, in describing Mulloch Hill, in the neighborhood of Girvan, "and for the most part their shells are so well preserved, that great was my astonishment when I cast my eye over the surfaces of this rock, and thought of the long time which had elapsed before such unequivocal and really beautiful Silurian types had been made known in Scotland." The perusal of Sir Roderick's paper greatly excited my curiosity. I had visited, nearly seven years before, — guided by the descriptions of his "Silurian System," — the rich deposits of middle England, the Wenlock limestones and shales of