

near pyrogenous rocks, a *loss* of some portions of their substance.

3. There are cases in which the rocks near igneous dykes have not only been hardened, fissured in a certain manner, and subjected to re-arrangement of their ingredients; but further, there have been introduced into their substance, *minerals* not known in the same rocks elsewhere. This is also found to have a general application to rocks exhibiting like phenomena, but upon a scale so vast as to require the supposition of very general application of heat.

From these facts and inferences we pass immediately and inevitably to the great geological problem naturally arising out of such data, viz. the degree in which the peculiar mineral characters and admitted absence of monuments of organic life among the oldest strata are to be relied on as conclusive testimony concerning the primeval condition of the globe.

Re-arrangement of the Particles of Rocks.

One of the earliest notices of an extensive mass of limestone changed by the action of igneous rock, is that of the district of Strath in the Isle of Skye. Dr. Macculloch's observations in this island led him, in 1816, to believe that certain laminated shelly limestones, which occupy a considerable breadth, and cross the island from Broadford to Loch Slapin, are altered in various ways, by contact with and proximity to sienitic rocks, so as, in a considerable space of country, to have lost all stratification, and in some instances to have assumed the character of a pure white marble of fine grain. In its chemical composition it is generally a pure carbonate of lime; but where in contact with the sienite or the trap veins, becomes overloaded with silica, magnesia, and argil. In such situations it often contains veins and nodules of greenish transparent serpentine, and appears in a variety of colours, grey, dove-colour, dark blue, grey, striped, mottled, veined, pure white. At