

other rocks, they cannot be sufficiently explored, and therefore surveys fall short of the full amount as to magnitude; but enough is exposed to demonstrate an exceedingly great thickness. Professor Phillips, one of the most cautious of geologists, says, "We may believe it to exceed many thousand yards."*

Over the Gneiss, come the beds of Mica Schist, and Slates, to a great amount as to number, and whose thickness is unknown from the causes mentioned, but certainly very great. If we should venture to estimate the united thickness of this class, added to the gneissic, at three or even four miles, we could not be charged with exaggeration. These are the Cumbrian and Cambrian series; and their mode of formation is proved, by the most striking characters, to have been the same as that of the Gneiss, modified by the increase and progressive composition of the materials. The number of strata and their subdivisions is very great. Consequently, the periods of alternating action and comparative repose must have been numerous. Could the reader with his own eyes contemplate the finest exhibitions of them in the precipices of Scotland, Cumberland, and Wales, he would be convinced of the imperfection and poverty of verbal description; and he could scarcely fail to receive the sensible demonstration of indescribable time, as necessary for these mighty operations of the omnipresent Deity. He would see a new beauty in the words of inspired devotion, "Great is the Lord, and greatly to be praised; and his greatness is unsearchable. I will speak of the glorious honour of thy majesty, and of thy wondrous works;—the might of thy terrible acts."*

Upon this class of rocks, an author distinguished for the extent of his labours in actual examination, the late Dr. Macculloch, remarks: "The thickness of these strata we know to be enormous.—These depths are discovered by geological observations and inferences:—that they extend to many miles was also proved.—We have every reason to know, from what is now taking place on our own earth, that the accumulation of materials at the bottom of the ocean, is a work *infinitely slow*. We are sure that such an accumulation as should produce the primary strata, as we now see them, must have occupied a space, from the contemplation of which the mind shrinks."†

It would be with a continued application of similar observations, if we were to pursue our upward course through the numerous beds of siliceous, slaty, and limestone aggregates to which the name

* Treatise (Lardn. Cyclop.) vol. I. p. 117.

† Ps. cxlv.

‡ Syst. Geol. vol. I. pp. 472, 473.