

be found in India, we require to be assured that these formations are, in some way, the equivalents of their synonyms in countries better explored. Till this is done, the results of observation in such places would be better conveyed by a nomenclature implying only those facts of resemblance, difference, and order, which have been ascertained in the country so described. We know that serious errors were incurred by the attempts made to identify the Tertiary strata of other countries with those first studied in the Paris basin. Fancied points of resemblance, Mr. Lyell observes, were magnified into undue importance, and essential differences in mineral character and organic contents were slurred over.

[2nd Ed.] [The extension of geological surveys, the construction of geological maps, and the determination of the geological equivalents which replace each other in various countries, have been carried on in continuation of the labors mentioned above, with enlarged activity, range, and means. It is estimated that one-third of the land of each hemisphere has been geologically explored ; and that thus Descriptive Geology has now been prosecuted so far, that it is not likely that even the extension of it to the whole globe would give any material novelty of aspect to Theoretical Geology. The recent literature of the subject is so voluminous that it is impossible for me to give any account of it here ; very imperfectly acquainted, as I am, even with the English portion, and still more, with what has been produced in other countries.

While I admire the energetic and enlightened labors by which the philosophers of France, Belgium, Germany, Italy, Russia, and America, have promoted scientific geology, I may be allowed to rejoice to see in the very phraseology of the subject, the evidence that English geologists have not failed to contribute their share to the latest advances in the science. The following order of strata proceeding upwards is now, I think, recognized throughout Europe. The *Silurian* ; the *Devonian* (Old Red Sandstone;) the *Carboniferous* ; the *Permian*, (Lower part of the new Red Sandstone series;) the *Trias*, (Upper three members of the New Red Sandstone series;) the *Lias* ; the *Oolite*, (in which are reckoned by M. D'Orbigny the Etages *Bathonien*, *Oxonien*, *Kimmeridgien*, and *Portlandien*;) the *Neocomien*, (Lower Green Sand,) the Chalk ; and above these, Tertiary and Supra-Tertiary beds. Of these, the Silurian, described by Sir R. Murchison from its types in South Wales, has been traced by European Geologists through the Ardennes, Servia, Turkey, the shores of the Gulf of Finland, the valley