

gone many changes of its surface, through periods of time utterly beyond human power to assign. That evidence is of distinct and independent kinds, chiefly derived from the appearances of stratification and the remains of animal and vegetable life: and, to at least the most of those who have taken pains to become competently acquainted with its nature and variety, it produces the effect of an overpowering ocular and tangible demonstration. At the same time, there is extreme difficulty in communicating such a knowledge of the facts, to persons who have not the sensible perceptions upon which it rests. I have therefore felt it to be necessary, in the preceding lectures, to rest my repeated assertions in reference to this subject upon authority; pleading that the authority is of a kind sufficient to be the ground of certainty, on account of the moral and intellectual character of the witnesses, their scientific qualifications, their opportunities for investigation upon the largest scale, their original prepossessions against this conclusion, and finally their number and diversity as to country, party, religious denomination, and other circumstances which are rational guarantees against prejudice. But this is not sufficient to satisfy all. Some of our friends persist in rejecting the conclusion, resting chiefly upon the fact of its denial by persons, who, though a very few in number, possess some geological knowledge and opportunities for personal observation. The difficulty is perhaps increased, and advantage is given to the objector, from the fact that our most distinguished philosophers avowedly, and much to their honour, decline the task of laying down any common measure between geological time and our ordinary enumerations of years and centuries. The best writers abound in general expressions; such as, "immense periods of time,—undefined—yet countless—ages,—a duration to which we dare not assign a boundary,—a work infinitely slow, a space of time from the contemplation of which the mind shrinks;—a long succession of monuments, each of which may have required a thousand ages for its elaboration;—successions of events, where the language of nature signifies millions of years:—it is evident that no greater folly can be committed, than to think to serve the cause of truth by contracting the long periods of Geology into the compass of a few thousand years."*

Opponents have not been backward to take notice of this style of expression, and to make use of it for their own purposes. In so doing,

* Mantell's *Wonders of Geology*, i. p. 6, ii. 247, Macculloch's *Geol.* i. 455, 473. Sedgwick on the *Studies of Cambridge*, p. 26. Lyell's *Principles*, i. 116. Phillips's *Treatise in the Encycl. Brit.* 293. Similar passages might be quoted indefinitely.