

from expressing my wonder at the puerility of the discussions in which some geologists allow themselves still to indulge, in the face of such a vast amount of well digested facts as our science now possesses. They have hardly yet learned to see that there exists a definite order in the succession of these innumerable extinct beings; and of the relations of this gradation to the other great features exhibited by the animal kingdom, of the great fact, that the development of life is the prominent trait in the history of our globe,¹ they seem either to know nothing, or to look upon it only as a vague speculation, plausible perhaps, but hardly deserving the notice of sober science.

It is true, Palæontology as a science is very young; it has had to fight its course through the unrelenting opposition of ignorance and prejudice. What amount of labor and patience it has cost only to establish the fact, that fossils are really the remains of animals and plants that once actually lived upon earth,² only those know, who are familiar with the history of science. Then it had to be proved, that they are not the wrecks of the Mosaic deluge, which, for a time, was the prevailing opinion, even among scientific men.³ After Cuvier had shown, beyond question, that they are the remains of animals no longer to be found upon earth, among the living, Palæontology acquired for the first time a solid basis. Yet what an amount of labor it has cost to ascertain, by direct evidence, how these remains are distributed in the solid crust of our globe, what are the differences they exhibit in successive formations,⁴ what is their geographical distribution, only those can

(H. G.) *Index palæontologicus*, Stuttgart, 1848-49, 8 vols. 8vo. — See also, KEFERSTEIN, (CHR.) *Geschichte und Literatur der Geognosie*, Halle, 1840, 1 vol. 8vo. — ARCHIAU, (VIC. D') *Histoire des progrès de la Géologie*, Paris, 1847, et suiv, 4 vols. 8vo.; and the *Transactions, Journals, and Proceedings of the Geological Society of London, of Paris, of Berlin, of Vienna, etc.*; also, LEONHARD and BRONN's *Neues Jahrbuch*, etc.

¹ AGASSIZ's *Geological Times*, etc., q. n., p. 25, note 2. — DANA's *Address to the Amer. Ass. for Adv. Sc.* 8th Meeting, held at Providence, 1855.

² SCILLA, (AG.) *La vana speculazione desin-gannata dal senso*. Nupoli, 1670, 4to. fig.

³ SCHEUCZER, (J. J.) *Homo Diluvii testis et Θεόδοκος*, Tiguri, 1726, 4to. — BUCKLAND, (W.) *Reliquiæ diluvinae, or Observations on the Organic Remains attesting the Action of an Universal Deluge*, London, 1826, 4to. fig.

⁴ For references respecting the fossils of the oldest geological formations, see the works, quoted above, p. 23, note 1. Also, MCCOY, (F.) *Synopsis of the Silurian Fossils of Ireland*, Dublin, 1846, 4to. fig. — GEINITZ, (H. D.) *Die Versteinerungen der Grauwackenformation*, Leipzig, 1850-53, 4to. fig. — And for local information, the geological reports of the different States of the Union, a complete list of which, with a summary of the Geology, may be found in MARCOU's (J.) *Résumé explicatif d'une carte géologique des Etats-Unis*, Bull. Soc. Géol. de France, Paris, 1855, 2de sér. vol. 12. — For the *Devonian system*: PHILLIPS, (JOHN) *Figures and Descriptions of the Palæozoic Fossils of Cornwall, Devon, and Westsomerst, etc.*, London, 1841, 8vo. — ARCHIAU, (VIC. D') and VERNEUIL, (ED. DE.) *Memoir on the Fossils of the Older Deposits in the Rhenish Provinces*, Paris, 1842, 4to. fig. — SAND-BERGER, (G. UND FR.) *Systematische Beschreibung*