

One result, however, stands now unquestioned: the existence during each great geological era¹ of an assemblage of animals and plants differing essentially for each period. And by period I mean those minor subdivisions in the successive sets of beds of rocks, which constitute the stratified crust of our globe, the number of which is daily increasing, as our investigations become more extensive and more precise.² What remains to be done, is to ascertain with more and more precision, the true affinities of these remains to the animals and plants now living, the relations of those of the same period to one another, and to those of the preceding and following epochs, the precise limits of these great eras in the development of life, the character of the successive changes the animal kingdom has undergone, the special order of succession of the representatives of each class,³ their combina-

(Vro. d') et HAIME, (J.) Description des animaux fossiles du groupe nummulitique de l'Inde, Paris, 1853, 4to. fig. — LEUCOKART, (F. S.) Ueber die Verbreitung der übriggebliebenen Reste einer vorweltlichen Schöpfung, Freiburg, 1835, 4to.

¹ Geological text-books: DELABEONE, (Sir H. T.) Geological Manual, London, 1833, 1 vol. 8vo.; German Trans. by Dechen; French by Brochant de Villers.—The Geological Observer, London, 1851, 8vo.—LYELL, (Sir C.) Manual of Elementary Geology, London, 1851, 1 vol. 8vo.—Principles of Geology, etc., London, 1830, 2 vols. 8vo.; 8th edit., 1850, 1 vol. 8vo.—NAUMANN, (C. Fr.) Lehrbuch der Geognosie, Leipzig, 1850-54, 2 vols. 8vo. Atl. 4to.—VOGT, (C.) Lehrbuch der Geologie und Petrefaktenkunde, Braunschweig, 1854, 8vo. 2 vols., 2d edit.—Text-books on Fossils: BRONN, (H. G.) Lethæa Geognostica, Stuttgart, 1835-37, 2 vols., 8vo. Atl. fol.; 3d edit. with Fr. RÆMER, 1846, et seq.—PICTET, (F. J.) Traité élémentaire de Paléontologie, etc., Paris, 1844-45, 4 vols., 8vo. fig.; 2de édit. 1853 et seq., 8vo. Atl. 4to.—ORBIGNY, (ALC. d') Cours élémentaire de Paléontologie, Paris, 1852, 3 vols., 12mo.—GIEBEL, (E. G.) Fauna der Vorwelt, Leipzig, 1852, 2 vols. 8vo.—Allgemeine Palæontologie, Leipzig, 1852, 1 vol., 8vo.—QUENSTEDT, (F. A.) Handbuch der Petrefaktenkunde, Tübingen, 1852, 8vo. fig. Unfortunately, there exists not a single English text-book of Palæontology. A translation of Pictet's and Bronn's works would be particularly desirable.

² At first, only three great periods were distinguished, the primary, the secondary, and the tertiary; afterwards, six or seven, (DeLaBèche); later, from ten to twelve; now, the number is almost indefinite, at least undetermined in the present stage of our knowledge, when many geologists would only consider as subdivisions of longer periods, what some palæontologists are inclined to consider as distinct periods.

³ The principal Monographs relating to special classes or families, are the following; *Polyps* and *Infusoria*: MICHELIN, (H.) Iconographie Zoophytologique, Paris, 1841-45, 4to. fig.—EDWARDS, (H. MILNE,) et HAIME, (J.) Recherches, etc., q. u., p. 31.—Polypiers fossiles des terrains paléozoïques, Arch. Mus., vol. 5.—Monograph of the British Fossil Corals, Palæont. Soc., London, 1850-55, 4to. fig.—LONSDALE, (W.) On the Corals from the Tertiary Formations of North America, Journ. Geol. Soc., I., p. 495; Sill. Journ., 2d ser. IV., p. 357.—McCoy, (FR.) Contributions to British Palæontology, Cambridge, 1854, 1 vol. 8vo. fig.—References to all minor papers may be found in Edwards and Haime's Recherches.—EHRENBERG, (C. G.) Mikrogeologie, Leipzig, 1854, fol. fig.—*Echinoderms*: MILLER, (J. C.) A Natural History of the Crinoidæ, Bristol, 1821, 4to. fig.—ORBIGNY, (ALC. d') Histoire naturelle générale et particulière des Crinoides vivans et fossiles, Paris, 1840, 4to. fig.—AUSTIN, (TH. and TH. JR.) Monograph on Recent and Fossil Crinoidæ, Bristol, 4to. fig. (without date.)—HALL, (J.)