to which the different systems of authors are successive approximations, more and more closely agreeing with it, in proportion as the human mind has understood nature better. This growing coincidence between our systems and that of nature shows further the identity of the operations of the human and the Divine intellect; especially when it is remembered to what an extraordinary degree many *à priori* conceptions, relating to nature, have in the end proved to agree with the reality, in spite of every objection at first offered by empiric observers.

SECTION VII.

SIMULTANEOUS EXISTENCE IN THE EARLIEST GEOLOGICAL PERIODS, OF ALL THE GREAT TYPES OF ANIMALS.

It was formerly believed by geologists and palæontologists that the lowest animals first made their appearance upon this globe, and that they were followed by higher and higher types, until man crowned the series. Every geological museum, representing at all the present state of our knowledge, may now furnish the evidence that this is not the case. On the contrary, representatives of numerous families belonging to all the four great branches of the animal kingdom, are well known to have existed simultaneously in the oldest geological formations.[1] Nevertheless, I well remember when I used to hear the great geologists of the time assert, that the Corals were the first inhabitants of our globe, that Mollusks and Articulata followed in order, and that Vertebrates did not appear until long after these. What an extraordinary change the last thirty years have brought about in our knowledge, and the doctrines generally adopted respecting the existence of animals and plants in past ages! However much naturalists may still differ in their views regarding the origin, the gradation, and the affinities of animals, they now all know that neither Radiata, nor Mollusks, nor Articulata, have any priority one over the other, as to the time

l'organisation et de leurs progrès, Paris, 1847, 3 vols. 8vo. — POUCHET, (F. A.,) Histoire des sciences naturelles au moyen âge, Paris, 1853, 1 vol. 8vo. Compare, also, Chap. II., below.

[1] MURCHISON, (R. I.) The Silurian System, London, 1839, 1 vol. 4to. — MURCHISON, (SIR R. I.) Siluria. The History of the Oldest Known Rocks containing Fossils, London, 1854, 1 vol. 8vo. — MURCHISON, (R. I.) DE VERNEUIL, (ED.) and KAISERLING, (COUNT ALEX. VON,) The Geology of Russia in Europe, and the Ural Mountains, London, 1845, 2 vols. 4to. — HALL, (JAMES.) Palæontology of New York, Albany, 1847–52, 2 vols. 4to. — BARRANDE, (J.,) Système silurien du centre de la Bohème, Prague and Paris, 1852, 2 vols. 4to. — SEDGWICK, (A.,) and MCKOY, (FR.,) British Palæozoic Rocks and Fossils, London, 1851, 4to. 2 fasc.; not yet complete.