

ra, were found by myself on Snowdon, but no *distinct* traces of plants. The number of species of this early fauna is extremely small, but there is about them no mark of inferiority, no extraordinary simplicity.

“ From this [apparent] origin of organic life, there is no break in the vast chain of organic development, till we reach the existing order of things: no one geological period, long or short, no one series of stratified rocks, is everywhere devoid of traces of life. The world, once inhabited, has probably never, for any ascertainable period, been totally despoiled of its living wonders. But there have been many changes in the individual forms; great alterations in the generic assemblages; entire revolutions in the relative number and development of the several classes. Thus the *systems* of life have been *varied* from time to time, *to suit* the altered condition of the planet, but never *extinguished*. The earth, once freed from its early inadequacy to support life according to the appointed laws of life, has since been prolific of vegetable and animal existence.

“ The *proportionate number* of organic forms has gone on, even gradually; augmenting from the dozen species of the Snowdon slates, through the twelve hundred and more species of the Oolite, the four thousand forms of the tertiary eras, to the multitude of [now] existing things. The *change* of organic structure is also, in some degree, *proportioned* to the time elapsed. Tried by the Cephalopodous Mollusca, we see perish, first the Orthoceratites, then the Belemnites and Ammonites; while Nautilus and Sepia exist to represent this class in [the present families of] existing nature. The development of the different *classes* of animals is usually thought to exhibit a similar relation; as if nature had been continually improved, from the moment of the origin of life: but this opinion is, if taken generally, one of the least certain of all the general notions now current, because of a radical defect in the reasoning. This defect consists in assuming into one induction, the terrestrial and the marine races of animals. Now, as the higher forms of life are terrestrial, and the remains of terrestrial things are only by accident mixed with the spoils of the sea, it is no wonder that mammalia and birds are rarely even suspected to occur among the buried spoils of the ocean. However, the Didelphys of Stonesfield is enough to cast a doubt on this notion, which should be more critically examined by a logical process.* It

* This very curious and perplexing subject has been recently investigated, with exquisite science and labour, by MM. Valenciennes and De Blainville, and by distinguished men in our own country: in particular Mr. Owen, who appears to have brought the completing evidence in favour of Dr. Buckland's opinion. S.