

of a later period were to be established. They appear now, like a prophecy in those earlier times, of an order of things not possible with the earlier combinations then prevailing in the animal kingdom, but exhibiting in a later period, in a striking manner, the antecedent considerations of every step in the gradation of animals.

This is, however, by no means the only, nor even the most remarkable case, of such prophetic connections between facts of different dates.

Recent investigations in Palæontology have led to the discovery of relations between animals of past ages and those now living, which were not even suspected by the founders of that science. It has, for instance, been noticed, that certain types which are frequently prominent among the representatives of past ages, combine in their structure, peculiarities which at later periods are only observed separately in different, distinct types. Sauriod Fishes before Reptiles, Pterodactyles before Birds, Ichthyosauri before Dolphins, etc.

There are entire families, among the representatives of older periods, of nearly every class of animals, which, in the state of their perfect development exemplify such prophetic relations, and afford, within the limits of the animal kingdom, at least, the most unexpected evidence, that the plan of the whole creation had been maturely considered long before it was executed. Such types, I have for some time¹ past, been in the habit of calling *prophetic types*. The Sauroid¹ Fishes of the past geological ages, are an example of this kind. These Fishes, which have preceded the appearance of Reptiles, present a combination of ichthyic and reptilian characters, not to be found in the true members of this class, which form its bulk at present. The Pterodactyles² which have preceded the class of Birds, and the Ichthyosauri³ which have preceded the appearance of the Crustacea, are other examples of such prophetic types. These cases suffice for the present, to show that there is a real difference between *embryonic* types and *prophetic* types. Embryonic types are in a measure also prophetic types, but they exemplify only the peculiarities of development of the higher representatives of their own types; while prophetic types exemplify structural combinations observed at a later period, in two or several distinct types, and are, moreover, not necessarily embryonic in their character, as for example, the Monkeys in comparison to Man; while they may be so, as in the case of the Pinnate, Plantigrade, and Digitigrade Carnivora, or still more so in the case of the pedunculated Crinoids.⁴

Another combination is also frequently observed among animals, when a series exhibits such a succession as exemplifies a natural gradation, without immediate

¹ AGASSIZ, (L.) Poiss. foss., vol. 2, part 2.

² CUVIER, (G.) Oss. foss., vol. 5, p. 2.

³ CUVIER, (G.) Oss. foss., ns q. n.

⁴ See above, Sect. 25.