

particulars, but agreeing as to general characters. The same observation applies to the families, the genera, and other subordinate groups of living beings.

The more extensive our acquaintance is with the anatomy and physiology of both plants and animals, the more striking do these analogies appear; so that amidst endless diversity in the details of structures and of processes, the same general purpose is usually accomplished by similar organs and in similar modes. So firmly is this principle established, that we may venture with confidence to predict many circumstances relating to an unknown animal, of which only a few fragments are presented to us, from our general knowledge of the characters and economy of the tribe or family, on the type of which it has been modelled. Thus, the discovery of a mutilated portion of the skeleton of a fossil animal, gives to the physiologist, who is conversant with the details of comparative anatomy, a knowledge of the general structure and habits of that animal, though all other traces of its existence may have been swept away, amidst the primeval revolutions of the globe.*

Not only does this tendency to conform to particular types obtain in all organic formations, but farther inquiry leads to the conclusion that the deviations from these standard forms, far from being arbitrary, are themselves referrible to definite laws. The regulating principle of the variations is subordinate to higher views, and has reference to the respective objects and destination of each particular species in the general system of created beings. Nature, as far as we can discern, appears, in conformity with these intentions, first to have laid down certain great plans of functions to which she has adapted the structure of the organs; the minor objects and more subordinate functions being accommodated to this general design. Hence arises the necessary and reciprocal dependence of each organ and of each function on

* See Cuvier's "*Discours sur les Révolutions de la Surface du Globe*," p. 47, prefixed to the first volume of his "*Ossemens Fossiles*."