

compare species together from widely separated localities; and of the mammalia in the tertiary and post-tertiary, Prof. Owen says, "particular forms were assigned to particular provinces, and the same forms were restricted to the same provinces at a former geological period as they are at the present day."

If we only admit the high temperature of the globe in palæozoic days, and that it has since gradually decreased, the facts above stated are just what we should expect. When a tropical climate existed over the whole earth, the same animals and plants essentially would be placed on every part. But as the temperature fell and the diversities of climate now existing came on, the animals and plants would be gathered more and more into provinces, which would gradually approach to, and finally culminate in those now existing.

*Eleventh Law. The fossil animals and plants had the same general structure as those now on the earth, and their modes of living in both classes have been the same.*

Comparative anatomy has not found it necessary to frame any new law to embrace the relations of the extinct to the living races. Physiology, also, finds that these extinct races, although greatly differing in form from existing nature, were sustained by the same kinds of food which was digested by analogous organs. They had the same senses; they breathed in the same modes; they were reproduced in the same manner; they were carnivorous and herbivorous; they suffered and enjoyed, and were subject, like the living species, to accident, disease, and death.

*Twelfth Law.—"The phases of development of all living animals correspond to the order of succession of their extinct representatives in past geological times." (Agassiz.)*

This law represents the extinct adult animal as corresponding more nearly with the embryonic than the adult state of its living representative. In the ancient world the individual, though an adult, did not pass beyond the present embryo state; but among living species the analogous animal passes on to a higher state, or more complete development.

Pictet thinks that this law is not applicable to the whole animal kingdom, but to certain groups. Agassiz, however, regards it "as a general fact, very likely to be more fully illustrated as investigations cover a wider ground." To name a few examples, he regards the Trilobites embryonic types of Entomostracea (a tribe of living crustaceans); the Oolitic Decapods embryonic Crabs; the Zeuglodonts embryonic Sirenidæ; and the Mastodonts embryonic Elephants.

*Thirteenth Law.—Many of the fossil animals had a combination of characters which among living animals are found only in several different types or classes.*

Agassiz very appropriately calls such types *Prophetic Types*. For they form the pattern of animals that were to appear afterward. It is found that almost all the existing animals were thus typified by some characters that existed in the fossil animals. The facts show how completely the whole plan of creation lay in the Divine Mind. We give a few examples:

The Sauroid Fishes were true fishes, yet they had some strongly marked reptilian characters. "The Plesiosaurus," says Buckland, "to the head of a