lies present marked differences. The Chelonioidæ become Chelonioid; the Chelydroidæ, Chelydroid; the Cinosternoidæ, Cinosternoid: the Emydoidæ, however, assume specific characters before they take on their Emydoid form. Though the Chelonioidæ do not widen as much in proportion to their length as the representatives of other families, the increase in width, as far as it extends in them, takes place chiefly in the anterior part of the shield, so that their form becomes more heart-shaped (Pl. 6, fig. 18–21); or, what is the same, leans already towards the form of the adult.[1] The presence of large epidermal scales upon the shield shows already, at this early age, that this young sea Turtle must belong to the family of Chelonioidæ, and not to that of Sphargididæ. In Cinosternoidæ, Chelydroidæ, and Emydoidæ the shield widens more in the posterior part; especially in Cinosternoidæ, which remain narrow (Pl. 9c, fig. 8) for a longer time than either Chelydroidæ and Emydoidæ,—or, what is the same, the Cinosternoidæ assume earlier than either the Chelydroidæ or Emydoidæ a tendency towards their permanent form. The Cinosternoidæ and the Chelydroidæ are, moreover, impressed with other characters peculiar to their family at an earlier period than the Emydoidæ. Thus the peculiar sculpture of their surface, like the keels of the Chelonioidæ, are seen very early. (See Pl. 9c, fig. 13–17; Pl. 15, fig. 7; and Pl. 6, fig. 18–20.) The Emydoidæ, on the contrary, go on widening, (Pl. 9c, fig. 20, 21, and Pl. 16, fig. 2,) and acquire a perfectly circular form, identical with that of the Trionychidæ at the time of hatching, (Pl. 6, fig. 1–7,) before their most prominent family characters begin to appear. This shows plainly that the circular form is only a transient form with the Emydoidæ, while it marks the closing development of the form of Trionychidæ, and is not even reached by the Chelonioidæ and Cinosternoidæ. In Chelydroidæ, on the contrary, the circular form is already accompanied by all the prominent family characters, (Pl. 15, fig. 1–3,) as in Trionychidæ, long before they are hatched.[2]

[1] The legs also elongate early into a form approximating that of paddles. Pl. 6, fig. 20.

[2] In Part I., Chap. 2, Sect. 8, p. 172 to 176, I have already discussed the subject of the successive development of the characters in a general way. The particular results obtained from the study of the Turtles deserve, however, a special notice. We have seen that, at a very early period, the embryo of Turtles presents all the characteristics of a vertebrated animal. But, even before it can be recognized as a Vertebrate, the germ has already acquired the independence of a new being. It is an individual, free from its parent, before it even shows to what branch of the animal kingdom it belongs. This exemplifies strikingly the importance of individuality as the most prominent feature in every organic development. But individuality is not only characteristic as the primary step in the growth of every living being; it remains also characteristic through life, so much so indeed, that individual peculiarities are superadded even to the highest features of their race, in almost every individual, to whatever species he may belong. Thus Nature herself teaches us the true value and dignity of individuality. This shows plainly how contrary to the law of organic growth must be every restraint, whether natural or artificial, which does not foster the highest development of the species. (Under natural restraint, I would consider the influence of physical