

“articulare” (*ar.*) is for a long while—as in the Batrachia—distant from the articular end of the cartilage on which it ultimately grafts itself; and this cartilage, as in certain Frogs and Toads, ossifies by itself first, independently.

Hence it is easy to make this mistake, viz., to count six bones in the mandible of a Chelonian, especially in half-grown specimens of this kind, although there is no splenial; the outer and inner bony elements of the articular region being so long before they unite.

*Seventh Stage. Ripe embryos; total length, 4 inches; length of head, 11 lines.*—The investing bones at this stage scarcely need be described again; they are much more solid, fit better together, and come much nearer to their well-known condition in the adult. The parietals (Pl. XI. fig. 4, *p.*) are now united together, meeting at the sagittal suture, which remains open in this species.

The relative thickness of the outer bones, and the part they take in this organic building, will be seen in the transverse sections (Pls. XII. and XIII.).

The primordial skull is now chondrosteous (Pl. XII. figs. 1–3), and so it remains throughout life; there is but little change seen after hatching. Even in the very large and old adults the synchondroses become relatively narrower, but they are nearly all persistent.

In front of the basisphenoid, the endocranium remains unossified. As to the method of ossification, I note this, namely, that the endosteal growths are late, and show little until after the cartilage has been invested by its ectosteal layer.

What I have just mentioned as to the distinctness of the two bony sources of the “articulare,” is the most Batrachian thing, in this respect, in this type; whereas in the Lacertilia the cartilage, as in the Batrachia, is very apt to become calcified independently; in them, however, the deposit is sub-central and not on the surface.

The occipital arch is now composed of its four normal elements, namely, the basioccipital, the two exoccipitals, and the superoccipital (Pls. XI. and XII., *b.o., e.o., s.o.*); The basioccipital (*b.o.*) is now reaching on to the basisphenoid in front, and into the substance of the condyle (*oc.c.*) behind; it is a broad, two-winged bone, bi-convex below, hollow above, and has to carry its own arch and the “opisthotic” part of the auditory capsule (*op.*). The exoccipitals (*e.o.*) are large bones, with a concave inner edge, and an outspreading wing running into the “paroccipital” region; the ninth and tenth nerves run out in front of these bones, but they are pierced by the twelfth (9, 10, 12), behind which a vein runs through the “posterior condyloid foramen.” The superoccipital (*s.o.*) is now a case of bone to the crown of the arch, it is wide, from side to side, forms the upper third of the foramen magnum, and is extensively connected with the auditory capsule, through its articulation, and subsequent ankylosis, with the “epiotic” bone (*ep.*). As yet (Pl. XII. fig. 3, *s.o.*), the occipital roof is partly soft in front; this region is apiculated both in front and behind.