

implanted in shallow sockets in the maxillary and premaxillary bones, and are ankylosed to the sockets. For the lower third, the outer surface presents shallow vertical grooves, conformably with the plicated character of the internal structure (Figs. 3, 7, and 10). The upper portion is smooth, and its internal structure presents merely radiating tubes of ivory, and concentric layers. (Figs. 3, 6, and 9). The whole of these characters are regarded as allying the animal with the great crocodilian frogs of the Trias of Europe, first known as *Cheirotherians*, owing to the remarkable hand-like impressions of their feet, and afterwards as *Labyrinthodonts*, from the beautifully complicated convolutions of the ivory of their teeth.

The only additional remains attributable to this creature, found since the publication of Professor Owen's description, are the bone represented in Fig. 12, and the scute or scale represented in Fig. 11. The former may be a scapular or sternal bone, and, if so, would warrant the belief that the creature possessed anterior limbs of considerable size; the proportion relatively to the skull being much the same as in the American bullfrog. The latter is marked in the same way as the bones of the head, and would indicate that *Baphetes* was protected by bony dermal scales, resembling those of the crocodile.

There is one point illustrated by the bone represented in Fig. 12, to which I would earnestly invite the attention of comparative anatomists. It is the distortion to which bones are subjected when imbedded in soft deposits, especially those containing vegetable matter. In modern peat bogs, skulls have been found nearly as pliable as leather, owing to the partial removal of their phosphate of lime; and in clay beds they are often found softer than chalk, from the removal of their animal matter. Human skulls, buried under no great weight of earth, have often been strangely distorted from this posthumous softening. Even teeth are affected in this way. In the remains of the old Indian village of Hochelaga, at Montreal, while the teeth of bears are found in the drier and more sandy soil quite perfect and unaltered, in damp places, and where they are imbedded in organic matter thrown out from the cabins, they are softened, so that a large canine may be easily compressed between the finger and thumb. Changes of this kind have no doubt been experienced by all the bones imbedded in coal, carbonaceous shale, and similar deposits; and in the great compression which the mass has experienced, the bones, yielding with it, have been flattened and dis-