

it from behind, as is shown in Fig. 215, we soon discover that the real cavity in which the brain is lodged, and to which the aperture at *r* leads, is very small, only just admitting the end of the finger, and that the broad plates of bone, *p*, *p*, which form the upper surface of the skull, have no relation to this cavity, and are merely extended over the temporal muscles, which are of very large size, occupying the whole of the spaces *s*, *s*; which spaces are completely surrounded by these bones. It would appear that the same tendency to lateral expansion, which exists in the spinous processes of the dorsal vertebræ, prevails, also, among those which contribute to form the skull. The parietal bones, which represent the spinous processes of the second cranial vertebra, after having performed their primary office of protecting the hemispheres of the brain by closing over them, still proceed in their development, forming first a crest on the upper part of the real cranium, and then separating to the right and left, and expanding horizontally into the upper roof (*p*, *p*.) already mentioned, for the protection of the temporal muscles. This great breadth of the head in the turtle gives the animal an aspect of superior intelligence, to which character, from the really diminutive size of its brain, it is, in no respect, entitled. As the turtle is unable to withdraw its head within the carapace, such extraordinary protection appears to have been necessary; for it is not met with in the tortoise, which has a carapace sufficiently capacious to give shelter to the head whenever occasion may require.*

This arrangement of the expanded spinous processes and ribs in the *Chelonia* gives rise to a singular inversion in the position of the scapula; for it is here placed on the inside of the ribs and sternum, that is, between the carapace and plastron.†

* The analogy of the spine of the occipital bone with that of a vertebra is farther shown by this bone extending backwards to a considerable length, exactly in the manner of the spinous processes of the cervical vertebræ in other animals.

† The anomalous situation of these bones, and the strangely disguised forms which their several parts assume, render it very difficult to recognise