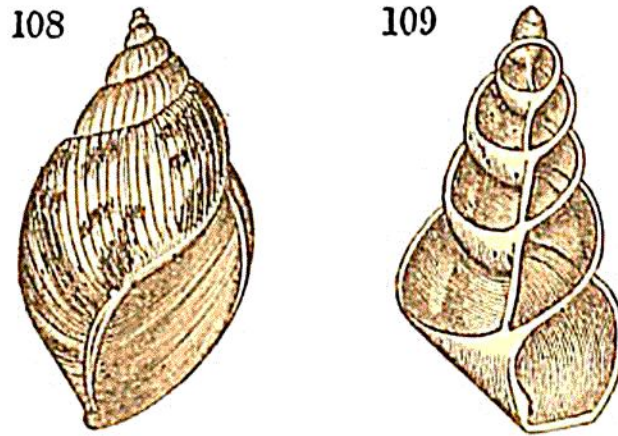


shell of this form. Fig. 108, which represents the shell of the *Achatina zebra*, and of which Fig. 109 shows a longitudinal section, may serve as an example of a shell of this kind. The axis of revolution is termed the *Columella*, and the turns of the spiral are denominated *whorls*. In consequence of the situation of the heart and great blood vessels relative-



ly to the shell, the left side of the mantle is more active than the right side, so that the lateral turns are made in the contrary direction; that is, towards the right.* There are a few species, however, where, in consequence of the heart being placed on the right side, the turns of the spiral are made to the left. Such shells have been termed *sinistral* or *reversed* shells: but this left-handed convolution seldom occurs among the shells of land or fresh-water mollusca.

It results from this mode of formation that the apex both of the simple and of the spiral cone is the part which was formed the earliest, and which protected the young animal at the moment of its exclusion from the egg. This portion may generally be distinguished by its colour and appearance from that which is formed subsequently. The succeeding turns made by the shell in the progress of its growth, enlarging in diameter as they descend from the apex, form by degrees a wider base. During the growth of the animal, as the body extends towards the mouth of the shell, its posterior end often quits the first turn of the spire, and occupies a situa-

* The terms right and left have reference to the position of the animal when resting on its foot; the head being, of course, in front. See Gray, *Zool. Journal*, i. 207.