

Before we proceed further it is desirable to inquire what other kinds of characters are available in the present state of our knowledge for the arrangement of Gasteropod Mollusks, and how far we can determine their comparative importance. One of the most obvious characters is derived from the shell itself, its presence or absence, its form, its substance, and its colouring. It is now universally agreed that shells considered without reference to the animals are mere play things altogether destitute of scientific interest, and if valued for their beauty or variety destitute of higher claims on our attention; but when we consider them as a part of an animal—a hard deposit on his surface, moulded on his form, and expressing his external distinctions, we cannot but expect that the study of the hard covering may be also connected with that of the creature—that we may learn to make what can be well preserved an index to much which we have but occasional opportunities of examining, and cannot well retain for reference—nay, even from comparison of the shells, to know the structure of many animals whose organization we have no opportunity of examining at all, though their shells may be in our collection. It is true indeed that form alone is not a constant and certain index to structure, and cases occur in which shells might be placed beside one another, from their very close resemblance, though when we are acquainted with the animal we find that they really belong to widely separated parts of a natural system, but such cases are not common, and in such instances, closer observation furnishes some clue to the discovery of their real affinities.

A Gasteropod Mollusk has a soft elongated body with a calyptriform mantle on which the shell is moulded. Where the cone is short and wide below the shell is nearly or quite simple and limpet-like; where it is high and not very wide at the base, it is usually spirally twisted, so that the shell is turbinated. Monstrosities of some of the snails occur in which the spire is drawn out with only a slight spiral twist, and the normal condition of the Wentletrap (*Scalaria pretiosa*) shows the successive whorls prevented from touching and uniting, so that we see their separation, though the convoluted form is perfect. From these observations we may trace the relation between the most elongated spiral and the simplest expanded cap, and as it is obvious that the same deviations in this respect may occur in families otherwise differently constructed, we understand the phenomenon of a water snail resembling a limpet, and a *Sigaretus*, a Venus's ear, whilst the limpet-like snail occurring in fresh waters and being pulmobranchiate, and the *Sigaretus*