

clusively answer. But the fact that the endosiphocoleon is also here in the earliest successive sections of the siphuncle [see pl.11, fig.5, 6] supported either by continuous membranes proceeding from its corners or by longitudinal series of closely arranged endosiphofunicles would argue for a derivation of the endosiphofunicles from the endosiphoblades. That indeed in the apical portion of the siphuncle one of the two mentioned modes of suspension prevailed is to be inferred from the fact that in the above cited succeeding sections—and as well in the sections found on the other side of the cutting planes and separated from them by about 1mm—the dark lines which are the sections of the suspensories, retain the same position throughout.

The arrangement of the endosiphofunicles and endosiphoblades in the sections [pl.11] shows quite conclusively that the side of the siphuncle which is the upper in the drawings was also the upper side during the life of the animal. In the longitudinal section [pl.13, fig.3], which exhibits a series of endosiphofunicles the direction of the latter is of still further interest as giving a hint as to the direction in which the animal carried its conch. We notice that if we give the endosiphofunicles a perpendicular position, such as they should have according to their function as suspensories the conch assumes a direction which is obliquely ascending under a small angle. This stands in full accord with what we know thus far as to the dorsal and ventral sides of the animal; the siphuncle being in contact with the ventral wall of the conch, while the chambers form on the upper (dorsal) and lateral sides.¹ The fact brought out by the outline of a large specimen given by Whitfield that the ventral side is nearly straight,

membrane of the septal chambers; while Hyatt [1883, p.272] believes with Barrande that they did not penetrate the true external wall of the siphuncle. If Barrande and Hyatt are right in this contention and Hyatt also in his view that the "rosettes" or endosiphuncular deposits of *Actinoceras* are strictly homologous to the endosiphosheaths of *Endoceras* and *Piloceras* [1883, p.27] the endosiphofunicles of *Piloceras* *explana*t*or* may indeed be homologous to the "tubuli," and their function identical, viz, that of suspensories for the siphon, whose outer membranes have become calcified.

¹In the section the chambers of course appear only on the upper (dorsal) side.