and its development was, in the main, correct, *i.e.*, the apophysis of *Waldheimia* is at an early stage fastened in a threefold manner; firstly, the lamellæ are connected to the hinge-plate by the crura; secondly, the lamellæ are connected with a septum; and, finally, the reflected part of the loop is connected with the lamellæ and the septum by two vertical walls placed close together; as the shell is enlarged the loop expands in breadth, the united lamellæ split from below backward, dissolve connection with the septum, and the lateral walls vanish. In this representation, no correction is to be made; but, besides being now enabled to proceed one step further into the development, I can also replace my earlier simple drawings by better and more complete illustrations." Herr Friele then proceeds to describe in detail each modification assumed by the loop from its complicated condition up to its simple adult form in which it is attached only by its crura to the hinge-plate. He adds: "The history of the development of the Brachiopoda has until recently been very little known, and it was not till 1871 and 1873 that Prof. Morse published a complete description of that of *Terebratulina septentrionalis*, Couth.[1] By comparing the manner in which the formation of the apophysary system takes place in the latter, with the above described in *Waldheimia*, an essential difference is observed. *Terebratulina* proceeds with deviation direct towards the form that characterises the genus; *Waldheimia*, on the contrary, forms first a very complicated loop, and passes then to a more simple construction.

In the Proceedings of the Zoological Society for 1878, Dr Gwyn Jeffreys corroborates the observations of H. Friele, and I have likewise perceived from the Challenger material that a similar development of the loop, as that observed in *Wald. cranium* and *W. septigera*, takes place in *Wald. kerguelenensis* and *W. flavescens*, and that this is probably the rule in every species of the genus. A similar modification of the loop takes place in *Wald. lenticularis*, a species nearly related to *Wald. kerguelenensis*.

I also question very much whether *Magasella*, Dall, is a good genus or even subgenus. From the study of a series of the so-termed *Magasella evansi*, I am convinced that this last is only the young stage of *Terebratella cruenta*, and it is probable that in the young of *Terebratella* the septum was comparatively much larger and more elevated than it became afterwards in the adult form. These important questions and investigations, relative to the development of the loop in different genera, are, as it were, a new study, which, when properly followed up, will eventually lead to the most important results. It will now, therefore, be very desirable to obtain and examine large series of specimens of the same species, at different stages of growth (as has been done by H. Friele for *W. cranium* and *W. septigera*), a study that will repay those naturalists who may be able to procure the necessary material.

[1] Early Stages of *Terebratulina septentrionalis*, &c., Mem. of the Boston Soc. of Nat. Hist., vol. ii. parts 1 and 3.