

specially directed; the circulation, the entrance of water into the blood, pori aquiferi, and the like, have mainly occupied attention. Thus it is that our notions of the mutual relations of the different groups of Pelecypoda are still very imperfect.

In order to reach a completer view of the class, it would be necessary to have material from all parts of the world, and representative of all the principal types, and then in such a museum to resume the labours of Poli and Deshayes with the light of the phylogenetic conceptions which were unknown to them.

But although there are great lacunæ in our knowledge of the morphology of Pelecypoda, I do not think that it is necessary to abstain from already seeking to discover the mutual relations of the different groups, or, in other words, to sketch their phylogenetic or natural classification.

Indeed, however imperfect the result of any such endeavour may be, it cannot but be of use in attracting discussion and criticism, and thereby suggesting new researches. From this point of view one cannot help regretting that there are so few synthetic works among the multitude of analytic or descriptive memoirs which see the light, and so few ideas amid so many accumulated facts. For every new idea is a progress; and even when synthetic attempts or theoretical ideas are pushed to an extreme, as, for example, in the great work of von Jhering on the nervous system of Molluscs, they do not by any means remain barren of results, even if they only serve to incite to research and to provoke discussion.

But even von Jhering has not attempted to sketch the phylogenetic classification of the Pelecypoda. The only attempt of the kind, and that from an exclusively conchological and palæontological point of view, is due to Neumayr.<sup>1</sup>

While I share the opinion of Fischer<sup>2</sup> as to the limited value of the hinge in classification, I cannot, on the other hand, ignore the work of Neumayr, or the results of his conchological and palæontological researches. For although Professor Gaudry has described Palæontology as "grandeur et misère," it must be allowed that as regards Mollusca (except from some points of view in respect to Cephalopods), Palæontology is hardly anything but "misère." In spite of the perfect fossils that remain, nothing of the real structure is revealed beyond certain peculiarities of the mantle.

Therefore I limit myself here simply to the living Pelecypoda, and exclusively to the study of their soft parts. In the following table, only the great groups are indicated. Except in the case of a few important families, I have omitted the smaller groups which gravitate round the larger. It must be noted, furthermore, that this table is only a sketch, designed especially to indicate the successive modifications of the gills, and to summarise the facts which have been discussed above.

<sup>1</sup> Zur Morphologie des Bivalvenschlosses, *Sitzungsb. d. k. k. Akad. Wiss. Wien*, Bd. lxxxviii. p. 413.

<sup>2</sup> Une nouvelle Classification des Bivalves, *Journ. de Conchyl.*, t. xxxii. p. 121.