

pollen on the other; and we may hope soon to see the mystery of this function cleared up by the valuable labours of authors of other nations, and particularly of our own, developing and extending those which he has published.

“To recall the principal claims of Mr. Brown to the admiration of botanists as a classifier, a describer, an anatomist, and a physiologist, is to enumerate those qualifications which obtained for him the suffrage of the Academy. Let us congratulate ourselves on having found this fortunate opportunity of placing his *éloge* before our readers; that of other botanists is commonly only the expression of our regret, and we occupy ourselves with their lives only when they have ceased to exist. Since we have now the good fortune to speak of a life still full of faculties and of activity, let us close by expressing a hope that it may continue to bear fruits and to multiply them, and by reminding Mr. Brown himself that several of his labours still wait for their completion, which ought not to be left to other hands than his own.”

*On the Anatomy of Terebratula australis.* By P. GRATIOLET.

M. Gratiolet's memoir, although published two months after that of Mr. Hancock on the organization of the Brachiopoda, was prepared long before the publication of the latter. Without entering into a detailed analysis of M. Gratiolet's work, we may remark, that the sketch of the circulation of the blood given by him does not at all agree with that furnished by Mr. Hancock. M. Gratiolet considers as the centres of the circulation the two organs which, since the investigations of Cuvier upon *Lingula anatina*, have by common consent been denominated *hearts*. According to Mr. Hancock, on the contrary, these organs have nothing to do with the circulation, but serve probably for the emission of the eggs, the true heart being a single organ. It is clear that so fundamental a difference cannot be reconciled in any way; but it is as well to remark, that M. Gratiolet has only had *Terebratulæ* preserved in spirit at his disposal.

Mr. Hancock denies the existence of the anus in the Brachiopoda, in opposition to Prof. Owen, who admits the presence of an anal orifice. It is consequently interesting to find that M. Gratiolet has been unable to discover the anus of *Terebratula australis*. However, he is more cautious than Mr. Hancock, and does not deny its existence because he has not seen it; far from this, he regards its existence as probable, but asserts that it must be very small.

M. Gratiolet has also closely investigated the mechanism of the muscles of the shell and peduncle of *Terebratula australis*. In common with Woodward, Davidson and Hancock, he has recognized the system of muscles which serve to open the shell; these he denominates *diductor muscles*; they are the *cardinal muscles* of the two former writers, and the *divaricators* of Hancock.—*Journal de Conchyliologie*, Oct. 1857, and *Bibl. Univ.* June 20, 1858, p. 176.





Gratiolet, Pierre. 1858. "On the anatomy of Terebratula australis." *The Annals and magazine of natural history; zoology, botany, and geology* 2, 82-82.

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