

this *Spirula*,¹ often reproduced, but this precious specimen disappeared without having been further studied.²

The English Expedition to the Congo procured a fragment of *Spirula* (the posterior extremity with the shell), which was deposited in the British Museum.³ In 1836, several *Spirulæ*, not so complete as that of Péron, were taken by the French corvette "La Recherche,"⁴ upon the most perfect of which the first anatomical sketch of the genus, by de Blainville, was based;⁵ he recognised especially the existence of a single pair of gills. The first work of Owen⁶ does not add much to the discoveries of de Blainville, his observations being likewise exclusively based on fragments.

A single specimen almost entirely intact had been collected at this time; it had already been figured by Gray⁷ and by Reeve,⁸ but it was only at a relatively recent period that the collector to whom it belonged would permit Owen to study its organisation. His memoir⁹ is then the first description of a complete *Spirula*. Unfortunately, there are, in the text as well as in the illustrations of this work, not only a considerable number of important gaps, but a regrettable absence of even approximate precision, which render the results much less important than we would have expected, all the more so, as in the work there is a complete absence of the present ideas, tendencies, and pre-occupations of Zoology. This memoir has, however, remained the only one containing an anatomical description of a complete individual, for if Owen had the exceptional good fortune of dissecting a second complete *Spirula* (male), his observations were limited to making known, with as little precision, the sexual characters.¹⁰

Another complete individual was collected in 1865 near Port Jackson, but it was

¹ Freycinet, Voyage de découvertes aux terres australes, pl. xxx. fig. 4, Paris, 1816.

² "Malheureusement le seul et précieux spécimen qu'ils rapportèrent conservé dans la liqueur, et trouvé mort et flottant en mer, s'est perdu au Muséum, où ils l'avaient déposé, avant même qu'une bonne description pût nous consoler de cette perte" (Férussac et d'Orbigny, Histoire naturelle des Céphalopodes acétabulifères, p. 55, Paris, 1848).

³ Gray, Catalogue of the Mollusca in the British Museum, Part I., Cephalopoda antepedia, 1849, p. 116.

⁴ Lettre de M. Robert sur les Spirules, sur le lamentein du Sénégal et sur l'existence dans cette région de l'Afrique de l'hyène tachetée (*Comptes rendus Acad. Sci. Paris*, t. ii., 1836, pp. 362, 363; *id.*, in *Ann. Sci. nat. [Zoologie]*, sér. 2, t. v. pp. 226, 227, 1836).

⁵ De Blainville, Quelques observations sur l'Anatomie de la *Spirula* et sur l'usage du siphon des coquilles polythalamies (*Ann. franc. et étrang. d'Anat. et de Phys.*, t. i., 1837, pp. 369-382).

⁶ Owen, Description of two mutilated specimens of *Spirula peronii*, with some observations on *S. australis* and *S. reticulata* (Zoology of the voyage of H.M.S. "Samarang," Mollusca, part i. pp. 6-17, pl. iv., 1848).

⁷ Gray, On the Animal of *Spirula* (*Ann. Mag. Nat. Hist.*, ser. 1, vol. xv., 1845, pp. 257-260, pl. xv.).

⁸ Reeve, Elements of Conchology, 1846, p. 16, pl. A, figs. a-f.

⁹ Owen, Supplementary Observations on the Anatomy of *Spirula australis*, Lamarck (*Ann. Mag. Nat. Hist.*, ser. 5, vol. iii., 1879, pp. 1-16, pls. i.-iii.).

¹⁰ Owen, On the External and Structural Characters of the Male *Spirula australis*, Lam. (*Proc. Zool. Soc. London*, 1880, p. 352, pl. xxxii.). Owen reports that this specimen was taken during the voyage of the "Bonite." Souleyet, however, who was on board this ship, says expressly that they had not succeeded in capturing a *Spirula* (*Voyage autour du monde . . . sur la corvette la "Bonite," Zoologie*, t. ii. p. 8, 1852).