

## PREFACE.

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DURING the Voyage of the Challenger, the collection, examination, and preservation of all the samples of deposits were undertaken by Mr. Murray. Mr. Murray had also charge of all the work carried on by means of tow-nets in the surface and sub-surface waters of the ocean, and gave much attention to the part played by pelagic organisms in the formation of marine deposits. During the voyage he submitted the results of his work in this direction to Sir Wyville Thomson, and the results are referred to in several of the Reports of Sir Wyville to the Hydrographer of the Admiralty, published in the Proceedings of the Royal Society of London.<sup>1</sup>

Towards the close of the Cruise a Preliminary Report was prepared by Mr. Murray on the Deposits and Surface Organisms, and published in the Proceedings of the Royal Society of London.<sup>2</sup>

On the return of the Expedition to England, Mr. Murray continued the examination of the large collections that were brought home, and published some papers dealing with the results of his work.<sup>3</sup>

In the year 1878 Professor Renard was invited by Sir Wyville Thomson to assist Mr. Murray in the examination and description of the Challenger collection of marine deposits, especially with reference to the mineralogical and petrographical aspects of the subject. Subsequently it was arranged that a Report on all available samples of Deep-Sea Deposits, whether collected by the Challenger or otherwise, should be published conjointly by Mr. Murray and Professor Renard.

During the years 1881 and 1882 Professor Renard spent several months in Edinburgh, when a large number of the deposits in the collection were examined in great detail, and the methods of examination and the order of

<sup>1</sup> See *Proc. Roy. Soc.*, vol. xxii. p. 423; vol. xxiii. pp. 32 and 245; vol. xxiv. pp. 33, 463, and 623.

<sup>2</sup> *Proc. Roy. Soc.*, vol. xxiv. pp. 471-544, 1876.

<sup>3</sup> "On the Distribution of Volcanic Debris over the Floor of the Ocean," &c., *Proc. Roy. Soc. Edin.*, vol. ix. pp. 247-261, 1876; "On the Structure and Origin of Coral Reefs and Islands, *ibid.*, vol. x. pp. 505-518, 1880.