

the proposed publication were arranged. For the past ten years the work has been continuously carried on, and in the interval we have published preliminary papers dealing with our results.¹

At the outset it was proposed to give a detailed description of every sample of deposit from depths greater than 100 fathoms, together with all that was known of the physical and biological conditions of the waters at the Stations from which the specimens were obtained. Nearly all the Challenger samples, and a very large number of samples collected by other Expeditions, were in fact thus examined and largely prepared for publication, with names of the species of organisms and all other particulars. It, however, became necessary to curtail the descriptions, and to limit them to the Challenger collections, so that the work ultimately assumed its present form.

The details with reference to the various samples of deposits collected by the Expedition are presented in tabular form in Chapter II. The more general conclusions and descriptions are given in a series of chapters dealing with the composition and distribution of the different types of deposits, and in the preparation of these chapters we have made use of all the materials in our possession. Professor Renard thinks it should be stated that Chapter IV., dealing with the materials of organic origin, has been written wholly by Mr. Murray.

We are much indebted to our friends, Sir William Turner and Mr. Robert Irvine, for reading different portions of the proofs, and giving us the benefit of their suggestions, and we have to thank the various analysts and other scientific men for valuable hints during the progress of the work. We desire to acknowledge our indebtedness to all those assistants who have aided us in the practical examination of the deposits, especially to Mr. Frederick Pearcey, who accompanied the Expedition and was afterwards assistant in the Challenger Office, and to Mr. James Chumley, who not only helped in the practical examination of the specimens, but has also rendered great assistance in the preparation of this volume for the press.

¹ "On the Microscopic Characters of Volcanic Ashes and Cosmic Dust, and their Distribution in Deep-Sea Deposits," *Proc. Roy. Soc. Edin.*, vol. xii. pp. 474-495, 1884; "On the Nomenclature, Origin, and Distribution of Deep-Sea Deposits," *ibid.*, pp. 495-529.