

a prolonged period, for purposes of comparison, portions of most of the Hexactinellida which he has described, and also a very large number of microscopical preparations. From Dr. Marshall of Leipzig I likewise obtained the use of portions and preparations of all the specimens which formed the basis of his own Hexactinellidan observations. I have been similarly assisted by Hofrath Director A. B. Meyer of Dresden, Professor Semper of Würzburg, Professor von Martens of Berlin, and Professor Moseley of Oxford. In the important work of determining forms, a visit which I paid to London was of much value, since, through the Challenger Expedition Commission, I was enabled to study the original specimens of several Hexactinellida described by Owen, Gray, Bowerbank, Carter, and others. During my work in London, not only were the rich treasures of the Museum made accessible to me in the most liberal way by Dr. Günther, Director of the Zoological Department of the British Museum, but I was also accommodated with a private work-room in the new building of the British Museum in South Kensington. There I enjoyed the most attentive and friendly assistance of Mr. S. O. Ridley.

I had valuable assistance of another kind from Dr. Vosmaer of Naples, who had the great kindness to place at my disposal the manuscript of that portion of his great Spongiological Bibliography (in course of preparation) which dealt with the Hexactinellida.

In the preparation of the numerous plates I have been ably helped by my assistant, Dr. von Mährenthal, who has photographed a number of objects, and by Mr. G. Firtsch, one of my students, who has executed numerous drawings from my sketches and according to my directions.

It is my pleasant duty to return my best thanks to all the gentlemen whom I have named, but especially to the Director of the Challenger Office, Mr. John Murray.

With regard to the figures given in the plates, I have still to note the following points. From the scientific papers belonging to Sir Wyville Thomson, sixteen lithographed plates have been handed over to me, all of which have been incorporated in the present work, viz., Pls. I., II., V., VII., VIII., IX., X., XV., XXXI., XXXV., XL., XLV., XLVI., LI., LXVI., and LXVII. As these had not yet been printed off when I received them, I was able to make several corrections, though I have preferred to leave most of them unaltered. Only from Pls. XXXI. and LXVII. a few figures have been removed, which represented spicules not really belonging to the Sponges figured. Every authority will admire the beautiful and life-like figures both of the entire Sponges and of the separate preparations which are found in Sir Wyville Thomson's plates. I was not able, however, to follow the method illustrated in these plates, since I could not confine myself merely to the general form of the Sponge, nor to the structure of the skeletal elements, but had also to give representations of the soft parts. It seemed to me, further, especially desirable to display the internal architecture