

small round corpuscles soluble in acid, which he called Cocoliths, and which he regarded as the skeletal parts of a supposed gigantic Monera—*Bathybius*—wide-spread over the sea-bottom. When dry the deposit looked like chalk, and he observed that the calcareous organisms formed the principal part, *Globigerina* shells making up 85 per cent. of the mass; siliceous organisms were also present, including *Coscinodiscus* and other Diatoms. He considers the *Globigerina* Ooze to be of high scientific interest on account of its extent, depth, and resemblance to the Chalk, and discusses the question of the habitat of the Foraminiferous shells constituting the major part of the deposit. He does not express a decided opinion as to whether the shells have been transported from shallower water, whether the animals lived in the surface waters, from whence, after death, they subsided to the bottom, or whether they actually lived at the bottom in deep water, but seems to prefer the last hypothesis, concluding by saying: "I abstain at present from drawing any positive conclusion, preferring rather to await the result of more extended observations."

Dr. Wallich, in 1860, accompanied H.M.S. "Bulldog" as naturalist when surveying in the North Atlantic for the American cable. In discussing the results of his examination of the deposits obtained¹ he endeavours to trace a connection between the *Globigerina* Ooze and the Gulf Stream, pointing out that the shells are abundant in the deposits between the Faroe Islands and the east coast of Greenland, and in a large portion of the direct line between Cape Farewell and Rockall, but are absent or rare in the deposits between Greenland and Labrador. In the southern hemisphere calcareous deposits had been found on the Agulhas Bank at a depth of 90 fathoms, in which the *Globigerina* shells made up 75 per cent. of the sediment; he suggested that the area covered by this deposit depended on the current flowing round the Cape from the east. Wallich came to the conclusion that many of the fossiliferous strata, hitherto regarded as having been deposited in shallow water, may possibly have been deposited at a great distance from the surface.

A considerable quantity of mud from the North Atlantic, 2500 fathoms, was handed by Huxley to Professor Gümbel,² who found it to consist of Foraminifera, with Radiolarians, Diatoms, Sponge spicules, Ostracodes, and mineral particles. Gümbel expresses the opinion that these mineral particles were transported by currents, and concludes that if such heavy materials could have been conveyed so far from the coasts, clayey matters would have been transported at the same time, and that the clayey deposits of ancient formations might have a similar origin. He confirmed Huxley's observations on Cocoliths, and found similar bodies in numerous geological strata; he also agrees with Huxley as to the existence of the Monera, *Bathybius*.³

¹ The North Atlantic Sea-bed, London, 1862.

² See *Nature*, vol. iii. pp. 16, 17, 1870.

³ *Bathybius* was believed to be a gigantic Monera, covering with a network of organic matter the whole of the sea-bottom in the greater depths of the Indian and Atlantic Oceans (see Huxley, *Quart. Journ. Micros. Sci.*, N. S., vol. viii. p. 203, 1868; *Proc. Roy. Geogr. Soc.*, vol. xiii. p. 110, 1869). Mr. Murray has shown that what was supposed to be a gigantic Monera (*Bathybius*) consisted of the gelatinous sulphate of lime thrown down from the sea-water, with which the specimens of the ooze were impregnated, by the alcohol used in the preservation of the samples (see *Narr. Chall. Exp.*, vol. i. p. 939).