

deeper hauls with the surface tow-nets. Some of the spines on the *Globigerinæ* were very long and delicate, being eleven times the diameter of the shell.

*Sulu Sea.*—The two soundings in the Sulu Sea at 2550 and 2225 fathoms (see Chart 31 and Diagram 14) were Blue Muds, containing in the former a trace, in the latter 15 per cent., of carbonate of lime, derived principally from pelagic Foraminifera. The greater part of the deposits is made up of amorphous and clayey matter. At 2225 fathoms there were two layers, upper red, lower blue; little difference could be detected between them except that of colour. There was evidence of the same arrangement in layers in the deposit in 2550 fathoms.

*Passages among and between the Philippine Islands.*—Several soundings were taken in these passages in October and November 1874 and January 1875 (see Chart 31 and Diagram 14). At 700 and 705 fathoms the deposit was a Blue Mud, with 3 to 11 per cent. of carbonate of lime. The mineral particles were larger and more numerous in the latter than in the former. The deposit from 375 fathoms was a Green Mud containing 36 per cent. of carbonate of lime largely made up of the shells of pelagic Foraminifera; glauconite, numerous casts, and many oval arenaceous bodies, believed to be the excreta of Echinoderms, were observed. The minerals were few and small, and embraced feldspars, augite, hornblende, magnetite, and altered volcanic rock fragments. At 100 and 115 fathoms the bottom consisted of Green Mud with from 50 to 56 per cent. of carbonate of lime, derived from shells of pelagic Foraminifera, fragments of Gasteropods, Lamellibranchs, Echinoderms, and Polyzoa. The mineral particles were of a similar nature to those at 705 fathoms with the exception of glauconite, which is absent in the greater depth but present in considerable quantities in these Green Muds. These mineral particles make up from 30 to 40 per cent. After treatment with dilute acids a great many pale and dark green casts of the organisms were observed. These with Sponge spicules, Radiolaria, and arenaceous Foraminifera were estimated to form 3 to 4 per cent. The deposit in 95 fathoms was a Blue Mud containing about 36 per cent. of carbonate of lime, which consisted of a large number of pelagic and other Foraminifera, fragments of Echinoderms, Molluscs, and Polyzoa. This and the following station are within an area known as the *Euplectella* ground, where the greatest number of these Sponges was obtained. The siliceous organisms formed fully 10 per cent. Glauconite is found among the minerals, while abundant casts of the organisms remain after treatment with dilute acid. This seems to be a Green Mud in process of formation and resembles that obtained off the coast of Australia, near Sydney.

*China Sea.*—In the voyage to Hong Kong and back two soundings were obtained in 2100 and 1050 fathoms (see Chart 31 and Diagram 14). The deposits were Blue Muds, containing in the former a trace, in the latter 22 per cent., of carbonate of lime chiefly composed of pelagic organisms. The mineral particles made up from 5 to 10 per cent., consisting of quartz, feldspars, hornblende, augite, magnetite, and volcanic glass;