

wind-borne particles, carried by the Harmattan and other winds from the coast of Africa. The Red Clay found in the greater depths was almost entirely composed of amorphous and clayey matter and fine mineral particles not exceeding 0.05 mm. in diameter. In the dredging on the 7th March in 2435 fathoms, there were several round compact manganese nodules, several millimetres in diameter, and three or four sharks' teeth coated with peroxide of manganese.

With reference to the distribution of the deposits in this section the Red Clays occupy two areas of the ocean bottom, one to the east and one to the westwards, separated by an elevated area known as the Dolphin Rise, covered with Globigerina Ooze. A general idea of this section, with the relation of the percentage of carbonate of lime to depth and the distribution of the deposits, can be formed from Diagram 1.

*Off Sombrero Island.*—Three soundings were taken off Sombrero Island, in 450 to 590 fathoms (see Chart 7). These were designated Pteropod Oozes, for, although containing a large percentage of pelagic and other Foraminifera, there was also present a relatively large number of Pteropod and Heteropod shells. The average percentage of carbonate of lime was 84.27. The mineral particles were similar in quality and quantity to those in the deposit in 1420 fathoms in the preceding section.

*St. Thomas to Bermuda.*—In the section from St. Thomas to Bermuda (see Charts 6 and 7), the deposits at the depths of 625 and 390 fathoms on the plateau to the north of the Virgin Islands were Pteropod Oozes, with 69 and 74 per cent. of carbonate of lime, containing a few small mineral particles and some amorphous matter. These deposits resemble in most respects the deposits in similar depths off Sombrero, and, although named Pteropod Oozes, differ considerably from deposits bearing the same name obtained at greater depths far removed from dry land. The deposits from depths greater than 2700 fathoms contained from 4 to 18 per cent. of carbonate of lime, which consisted of broken shells of pelagic Foraminifera; these were mostly confined to the surface layers. A few inches beneath the surface the deposit showed only a very slight sign of effervescence when treated with dilute acid. There is a gradual decrease in the depth from 2960 fathoms, north of St. Thomas, onwards to Bermuda, and the corresponding increase in the percentage of carbonate of lime is strikingly exemplified. At 2960 fathoms there was 3 per cent. of carbonate of lime, at 2859 fathoms there was 18 per cent., at 2700 fathoms there was 22 per cent., at 2600 fathoms 29 per cent., at 2475 fathoms 54 per cent., at 2250 fathoms 70 per cent., at 1820 fathoms 82 per cent., and at 950 fathoms 89 per cent., while the deposits immediately surrounding the island of Bermuda in some instances contained as much as 93 per cent. of carbonate of lime, the percentage being greater the nearer the reef and the less the depth. The mineral particles in all the deposits in this section were exceedingly minute, rarely exceeding 0.07 mm. in diameter, and consisted of fragments of pumice, felspars, magnetite, and augite. The relation of depth and percentage of carbonate of lime is seen at a glance by referring to Diagram 2.