

containing, along with fine amorphous matter, all the above-mentioned minerals and organisms.

*Bahia to Tristan da Cunha.*—Between the coast of America and Tristan da Cunha (see Chart 16 and Diagram 6) the greatest depth obtained was 2350 fathoms. There were many indications of an extensive plateau surrounding the Tristan group, with depths varying from 1425 to 2000 fathoms.

The deposits in depths less than 2100 fathoms on the Tristan plateau, except when close to the islands, contained from 85 to 95 per cent. of carbonate of lime, which was almost wholly composed of the shells of pelagic organisms. The three soundings in depths greater than 2100 fathoms towards the American coast contained from 35 to 55 per cent. of carbonate of lime. The deposit was a Globigerina Ooze throughout the section. The carbonate of lime came from pelagic Foraminifera, but it was observed that as the ship proceeded southward the Foraminifera in the deposits became dwarfed, and some tropical species disappeared. There were quartz fragments in the deposits near the American shores, but these disappeared or were exceedingly rare in the deposits towards the centre of the South Atlantic. The mineral particles were very few and very small, never exceeding 1 per cent. and a mean diameter of 0.10 mm.

*Around the Tristan da Cunha Islands.*—Many hauls of the dredge and trawl were taken around and between the islands of the Tristan da Cunha group (see Chart 17) in depths of 60 to 1100 fathoms. There was generally a coarse shelly bottom, composed of fragments of Polyzoa, Lamellibranch and Gasteropod shells, Brachiopods, Echinoderms, Pteropods, *Serpula*, and a few pelagic and other Foraminifera. In 360 fathoms close to Tristan the deposit was a Volcanic Sand composed essentially of mineral particles, with about 7 per cent. of carbonate of lime. The minerals were exclusively of volcanic origin, and had a mean diameter of 0.5 mm. Mineral particles of the same nature but smaller were present in the shelly bottoms around Nightingale Island.

*Tristan da Cunha to Cape of Good Hope.*—Between the Tristan plateau and the Cape of Good Hope there is a wide and deep depression (see Chart 16 and Diagram 6), where depths of 2550 and 2650 fathoms were obtained. The deposits at these depths contained 35 and 26 per cent. of carbonate of lime, consisting of pelagic Foraminifera and their broken parts. The mineral particles consisted of rounded and angular fragments of quartz, orthoclase, hornblende, tourmaline, and augite. These mineral fragments, a few of which were fully 1 mm. in diameter, indicate that these soundings are within the area which is occasionally affected with Antarctic ice. The two soundings in 2325 and 1250 fathoms, near the coast of Africa, contained 47 and 50 per cent. of carbonate of lime. The mineral particles seldom exceeded 0.15 mm. in diameter, and consisted of quartz, glauconite, felspar, augite, and magnetite. About 1 per cent. of these deposits was made up of Radiolaria, Diatoms, and Sponge spicules; glauconitic casts were observed after treatment with dilute acid, but these were not in sufficient abundance to warrant the