

manganese. The pelagic Foraminifera in the deposit were chiefly shells of *Globigerina* with a few of *Orbulina* and *Pulvinulina*, and all these were very small and dwarfed, in this respect agreeing with those taken on the surface by means of the tow-nets.

The trawl again brought up a large number of animals and some manganese nodules. Some of these latter appeared to have been fragments torn from larger masses, and some had nuclei which seemed originally to have been portions of the ooze itself. This association of manganese nodules with altered volcanic fragments in a *Globigerina* Ooze was frequently observed during the Expedition.

The deposit in 1325 fathoms was a Blue Mud containing 26 per cent. of carbonate of lime, made up of pelagic and other Foraminifera, fragments of Polyzoa, Echini spines, Ostracode shells, and fragments of other calcareous organisms. The mineral particles consisted chiefly of quartz and fragments of rocks and minerals derived from the continent.

*Gulf of Peñas to Sandy Point through Magellan Strait.*—The deposits in the Messier and Sarmiento Channels and Magellan Strait were in all cases Blue Muds containing generally very little carbonate of lime, and consisting mostly of debris from the neighbouring mountains. At Stations 308 and 311 there was 29 and 34 per cent. of carbonate of lime respectively. These deposits were forming in more or less open water, or in water affected by the ocean; the former was situated at the junction of Trinidad Channel with Conception Channel, the latter in the open water of Sea Reach (see Chart 41). Pelagic Foraminifera were only represented by a few stray specimens of *Globigerina*, and on the surface only a few of these shells were noticed, the deposits and surface gatherings in these enclosed channels thus being in marked contrast to what are found in the open sea, at some distance from land. The mineral fragments proper made up from 1 to 75 per cent. of the muds, and consisted of quartz, felspars, hornblende, mica, pumice, magnetite, and lapilli. Casts of organisms were observed in one or two cases.

In addition to the Challenger collections, the deposits from many lines of soundings, carried out by other ships, have passed through our hands; several thousand samples of deposits from nearly all regions of the great ocean basins and from many enclosed seas have thus been examined in the same way as the Challenger specimens. The general results are exhibited on Chart 1, which will be specially referred to when dealing with the geographical and bathymetrical distribution of deposits in a subsequent chapter. However, it may here be pointed out that the examination of these additional specimens confirm all the general conclusions indicated in the foregoing remarks on the Challenger sections across ocean basins and enclosed seas. They indicate a greater abundance of the remains of carbonate of lime organisms in the deposits from tropical regions,—those of pelagic surface-living organisms abounding in the deposits from deep water removed from the shores of continents and islands, and those of bottom-living or attached organisms