

The Pelagic Deposits are formed in the deep water of the central regions of the great ocean basins, and consist of organic oozes and a reddish clay. They are chiefly made up of the calcareous and siliceous remains of organisms that have fallen to the bottom from the surface waters, along with clay and volcanic debris in a more or less advanced state of decomposition. There is little or no trace of mechanical action on the components of these Pelagic Deposits, their accumulation is relatively slow, and among them there do not appear to be any accumulations of materials identical with the marine stratified rocks of the continental areas. It seems doubtful if the deposits of the abysmal areas have in the past taken any part in the formation of the existing continental masses.¹

An inspection of Chart 1, showing the horizontal distribution of deposits, and an examination of the accompanying descriptions, will show that the various types of deposits pass insensibly the one into the other, and that a slight alteration in the depth is frequently sufficient to produce a marked difference in the character of the deposit, the other conditions remaining unchanged. So slow does the growth of the deposit in some red clay areas appear to have been that not more than a few inches have accumulated since the Tertiary period. The various components have consequently undergone much alteration, and numerous new secondary products have been formed. In these abysmal deposits, as well as in those close to the coasts, it will be seen that synchronous deposits may thus differ widely in their mineralogical and biological composition, even when the conditions at the surface of the ocean are almost identical.

¹ We have examined hand specimens of Tertiary or recent rocks from the Barbados, the Solomon Islands and other oceanic islands of the Pacific, which approach closely in character to Pteropod Ooze, Globigerina Ooze, Red Clay, and Radiolarian Ooze (see Harrison and Jukes-Browne, "The Geology of Barbados," published by authority of the Barbadian Legislature, 1890; H. B. Guppy, "Observations on the recent calcareous formations of the Solomon group made during 1882-84," *Trans. Roy. Soc. Edin.*, vol. xxxii. pp. 545-581, 1885).