

As has been already stated, the residue of a Globigerina Ooze is in all essential particulars the same as a Red Clay from the adjacent regions of the ocean's bed. The trawl and dredge brought up from Globigerina Oozes large pumice stones in 12 instances, manganese nodules 6 times, sharks' teeth and earbones of Cetaceans 4 times, and more rarely phosphatic concretions, pebbles, and aggregations of the deposit. Numerous animals belonging to the fishes and all the invertebrate marine groups have been dredged and trawled from the Globigerina Oozes, life being apparently much more abundant on these than on the Red Clay and Radiolarian deposits.

The following shows the average composition of the 118 Challenger samples of Globigerina Ooze:—

Carbonate of lime,	{	Pelagic Foraminifera, . . . . .	53·10	
		Bottom-living Foraminifera, . . . . .	2·13	
		Other organisms, . . . . .	9·24	
			—	64·47
Residue, . . . . .	{	Siliceous organisms, . . . . .	1·64	
		Minerals, . . . . .	3·33	
		Fine Washings, . . . . .	30·56	
			—	35·53
				<u>100·00</u>

The analyses of a large number of Globigerina Oozes, presented in the table on the next page, support the above views as to the composition of the deposit.

The important role played by the remains of calcareous organisms in these deposits is indicated by the high percentage of the portion soluble in hydrochloric acid, and especially by that in the column  $\text{CaCO}_3$ ; although the carbonate of calcium varies greatly in the different specimens of Globigerina Ooze, the annexed analyses show that it usually forms more than one-half of the whole deposit, and often rises to a much higher limit. This high percentage of carbonate of lime might be said to efface in a manner the small quantity of other substances mixed with the calcareous organisms. However, the columns showing the loss on ignition, silica, alumina, and iron, indicate small quantities of argillaceous and ferruginous matters, associated with the remains of siliceous organisms. It may be observed that the loss on ignition does not augment with the proportion of carbonate of lime, but rather with an increase of silica, alumina, and ferric oxide, so that the larger part of the loss on ignition is rather to be referred to the water combined with these substances than to organic matters. The sulphate and phosphate of calcium in these analyses are to be attributed, as in the case of the Red Clay, to the presence of sea-water salts and of phosphatic organic remains. There does not seem to be any relation between the percentages of carbonate of lime and carbonate of magnesia as might be expected if the carbonate of magnesia played a role in the original constitution