water of hydration is taken up, and the result is clay. It has been mentioned that submarine clayey deposits are in a far more advanced stage of decomposition, *i.e.* contain far more clay proper, than lacustrine ones. This is due not to a more powerful corroding action on the part of sea-water, but rather to the greater geological age of submarine deposits. The continual transportation of fine suspended argillaceous matter from land into the ocean is also to be reckoned with.

Except in quantities of 1 or 2 per cent. at the utmost, there is no organic matter in deep-sea deposits. The little (mainly animal) that reaches the bottom is rapidly oxidised away or consumed by the bottom-living fauna. The lochs are in a very different case. Here there is a plentiful influx of dead vegetable matter-more than the available supply of dissolved oxygen can cope with. This debris decays as far as the humus stage, instead of being broken down to carbonic acid; the humus accumulates in combination with iron, and becomes in effect the characteristic lacustrine deposit. It is interesting to observe the vicissitudes of iron in the two media. In a loch we find the Clays much paler, that is, less ferruginous than deep-sea Clays, and a continual interchange of iron between the water and the bottom-deposits is going on; whilst the Brown Muds lock up a good deal of iron (and manganese) and tend, if exposed to oxidising conditions, to become ever more ferruginous. The concentration of iron as limonite or siderite in clay-ironstone and bog-ores is in fact peculiar to fresh water. In the sea, on the other hand, if we disregard the minor, and up to the present inexplicable, concentration of iron in glauconite, the career of this element is uneventful and ends with ferruginous Clay.

It is scarcely necessary to point out that in lakes nothing similar to the vast areas of oceanic Red Clay, which substance is produced by the decomposition *in situ* of volcanic silicates, need be expected; indeed, no lake is large enough to contain regions which, with respect to the deposits, might be termed "pelagic."