

liable to continued removal and transportation farther down.

The fragmentary material that is accumulated along the margin of the sea is, in Guettard's view, derived either from what is borne down by rivers, or from what is made by the sea itself, the whole being ground into powder by the long-continued beating of the waves. The sea not only acts on its shores, but on submerged rocks, and the detritus thus produced is mingled with the triturated remains of corals, shells, fish-bones and marine plants.¹

Comparatively little information had been gathered in Guettard's time as to the condition of the sea-bottom. There is thus a peculiar interest in noting the ideas which he expresses on this subject. He thinks that, besides what is laid down upon the shore, another portion of the detritus is borne away seawards, and gradually settles down on the sea-floor. As the nature of the part so transported must depend on that of the material on the shore, he is led to enter upon a minute examination of the mineral constitution of the coast-lines of France, both on the Atlantic and Mediterranean margins of the country.²

He recognises that soluble substances may be carried for great distances from the land, and may remain dissolved in the sea-water for a very long time. He even conjectures that it is possibly these substances that impart its salinity to sea-water.³

From all the soundings available in his day, he concludes that the bottom of the sea is, throughout

¹ P. 328.

² P. 328.

³ P. 360.