

§ vii. A Description of the more Important Rocks of the Earth's Crust

Full details regarding the composition, microscopic structure, and other characters of rocks must be sought in such general treatises and special memoirs as those already cited (pp. 160, 172, 193). The purposes of the present text-book will be served by a succinct account of the more common or important rocks which enter into the composition of the crust of the earth.

I. SEDIMENTARY

A. FRAGMENTAL (CLASTIC)

This great series embraces all rocks of a secondary or derivative origin; in other words, all formed of fragmentary materials which have previously existed on or beneath the surface of the earth in another form, and the accumulation and consolidation of which gives rise to new compounds. Some of these materials have been produced by the mechanical action of wind, as in the sand-hills of sea-coasts and inland deserts (*Æolian rocks*); others by the operation of moving water, as the gravel, sand and mud of shores and river-beds (*Aqueous sedimentary rocks*); others by the accumulation of the entire or fragmentary remains of once living plants and animals (*Organically-formed rocks*); while yet another series has arisen from the gathering together of the loose *débris* thrown out by volcanoes (*Volcanic tuffs*). It is evident that in dealing with these various detrital formations, the degree of consolidation is of secondary importance. The soft sand and mud of a modern lake-bottom differ in no essential respect from ancient lacustrine strata, and may tell their geological story equally well. No line is to be drawn between what is popularly termed rock and the