

thick over chalk. In valleys the soil is accumulated from the waste of the hill sides: the surface of many (especially primary) mountainous regions is devoid of soil. In particular districts the soil is not merely formed by decomposition of the rocks beneath; it contains sand, pebbles, &c., brought from a distance, either by actual streams or some extraordinary force of water. Thus, in many instances, a mixture of substances takes place very beneficial to the fertility of the soil.

Beneath this thin and irregular layer, in some countries, the solid rock appears; but in others masses of loose sands, clays, gravel, &c., are found, which lie in hollows, or on the surfaces of the subjacent rocks, 10, 50, 100, or more feet in depth. These have evidently been *drifted by water*, and deposited from it, but yet they do not properly enter into the structure of the crust of the earth, but must be viewed as superficial and local accumulations, produced under circumstances considerably different from those which determined the formation of rocks. To these accumulations the names of alluvial and diluvial deposits have been applied: it appears desirable at present to use, for them and the soil collectively, the term *superficial accumulations*.

*Rocks, and the substances which they enclose*, lie beneath the superficial accumulations, and constitute the *crust of the earth* as known to geologists. The term "*rocks*" is apt to mislead beginners; for under this title geologists rank clay, sand, coal, and chalk, as well as limestone, granite, slate, and basalt, and other hard and solid masses, to which the use of the term is generally restricted: and they do so because they are all and equally constituent parts of the crust of the earth; and this crust is generally of a rocky consistence. The embarrassment which may be felt from this unusual employment of the term will diminish as we proceed, and find ourselves led to adopt various other modes of designating, in detail, the masses which it will yet often be convenient to speak of together under the vague term of *Rocks*.