very much the deepest in thickness.* The higher and newer are severally of less magnitude in every dimension. Yet, in no case, must the idea of size or extent be taken upon a trifling scale. Even with the more recent, the area of one formation is often some hundreds of square miles.

VII. Thus are formed the earthy beds called by the general name of *rocks ;* but this term must not be understood as it is in common language, to denote a stony mass necessarily very hard. The consolidation of the formations, is in all degrees, from the loose sand and gravel under our feet, or the friable Hastings sand-rock, and the soft coherent texture of the ink-coloured clay which lies beneath our gravel ; to the finest close-grained marble and the heaviest hornblende. The degree of hardness, the result of consolidation, is upon the whole the greater, the lower we descend ; as must appear probable to the mind of any reflecting person. It is produced by the action and reaction of two opposite forces; the one, derived from the mere weight of the materials, which must press more heavily as the depth is increased; and the other, one whose power is principally exerted upon the lowest class of strata, and which, it scarcely needs to be said, arises from the expanding property of the interior heat. Chemical affinities also have had, and continually have, a considerable share in the producing of texture.

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* On the margin of Prof. Phillips's recently published Geological Map of the British Isles (a model of clearness and beauty) is a proportionate scale of the thicknesses of the whole series of strata ; from which it appears that all the formations from the superficial soil to the lowest part of the New Red Sandstone, constitute but about one-sixth of the entire depth (geologically) of the stratified masses. The remaining five parts are the Carboniferous, the Devonian (Old Red Sandstone), the Silurian, the Cambrian, the Cumbrian, the Chlorite and Mica Schists, and the Gneiss. See Edinb. Rev. July, 1839, p. 434 : part of a valuable article on Mr. Lyell's Elements.