

permanent lines of drainage. They would be continually deepened as the water coursed in them, so that, unless where subterranean disturbance came into play, or where the channels were obstructed by landslips, volcanic ejections, or otherwise, the streams would be unable to quit the channels they had once chosen. The permanence of drainage-lines is one of the most remarkable features in the geological history of the continents. The main valleys of a country are usually among the oldest parts of its topography. As they are widened and deepened, the ground between them may be left projecting into high ridges and even into prominent isolated hills.

A chief element in the progress of land-sculpture is geological structure—the character, arrangement and composition of the rocks, and the manner in which each variety yields to the attacks of the denuding agents. Besides the general relations of the so-called hard rocks to resulting prominences, and of soft rocks to depressions, the broader geotectonic characters have had a dominant influence upon the evolution of terrestrial contours. As illustrations of this influence, reference may be made to the marked difference between the scenery of districts composed of stratified sedimentary rocks, and that of areas of massive eruptive rocks, such as granite. In the former case, bedding and joints furnish divisional lines, the guiding influence of which upon the external forms of the mountains is everywhere traceable. In the case of eruptive masses, the rock is split open along joints only, which mainly determine the shapes of crest, cliff, and corry.

Bedding produces a distinct type of scenery which can be traced from the sides of a mere brook up into tall sea-cliffs or into lofty mountain-groups. Moreover, much of the