

The subterranean movements that caused the displacements and metamorphism acted in a general direction from south-east to north-west, or from a little south of east to a little north of west. By each upthrust and plication, the rocks were driven forward in that direction. Hence, throughout the Highlands they have a prevalent strike from north-east to south-west. This is the general line of their outcrops, and also of the axes of the arches and troughs into which they have been folded—a structure that has not been without great influence in the subsequent sculpture of the topography. Let me add, that after the great plication and metamorphism, vast intrusions of granite, diorite, diabase, and other eruptive rocks took place over the Highland region, and that subsequently, during a later series of commotions, these intrusive masses were themselves partially crushed and converted into schists.

Now it is important for the student of the topography of the Highlands to note that these terrestrial disturbances took place before the time of the Lower Old Red Sandstone, for that formation, which like a frame encircles the Highlands on the north, east, and south, lies upon the upturned worn edges of the schists, and contains abundant fragments of them. Regarding the Old Red Sandstone itself, fuller reference will be made in the following chapter in connection with the denudation of the region. I will only say here that it appears to have been deposited in great lakes, of which the Scottish Highlands formed part of the boundaries; that it attained a depth of at least 15,000 or 20,000 feet, and that it certainly extended at one time over wide tracts of the Highlands, from which it has since been removed by denudation.

Besides the frame of Old Red Sandstone that partly encloses the region of the Highlands, some other later geo-