

which once spread out over the hilly regions on either side, but have since been almost wholly removed thence, have been preserved by having been let down into the hollow. The results of denudation accordingly present themselves here in another aspect.

In order to follow intelligently the progress of evolution in the development of the scenery of central Scotland, it is needful to attend with some care to the character and thickness of the various geological formations that occupy the area, to the manner in which these are now arranged with regard to each other, and to the probable conditions in which they were successfully deposited.

Reverting for a moment to the geological structure of the Highlands and Southern Uplands, the reader will remember that the great terrestrial movements which affected these regions before the Upper Silurian period, threw the deep masses of older Palæozoic sediments into vast plications, ruptured them with innumerable faults, pushed them over each other, tore up vast masses of the underlying platform of Archæan gneiss, and so crushed these and the Palæozoic strata as to give rise to a newer series of gneisses and schists. He will recollect also that these prodigious disturbances in the crust of the earth were directed in a general sense from south-east to north-west, that consequently the trend of the dislocations and of the axes of plication runs from south-west to north-east; and that it is this structure which has determined the prevalent north-easterly course of the great belts of country in Scotland. To these subterranean movements, and to others subsequently continued in the same average direction, the Midland Valley owes its north-easterly trend, and the straight parallel sides which bound it.

If we could clear out all the younger Palæozoic deposits that now fill up the broad central depression of Scotland, we