

continuous and extensive is this transformation that it is idle, perhaps, to speculate upon what may have been the earliest configuration of any land-surface. But as regards its denudation, there is no room for doubt or speculation. Even the youngest additions to the breadth or height of a continent bear witness to the ceaseless waste which it has suffered. There usually remain outlying fragments which suffice to prove at least the minimum amount of material that has been worn off the land. But the actual amount is probably always far beyond what is thus shown.

While, then, the facts of denudation are thus easily established, the influence of subterranean movements seems always to elude our search. To that influence we know that the elevation of each terrestrial area on the surface of the globe and the uplifting of each mountain-chain were due. We can realise also that the same cause may from time to time have intervened to accelerate or retard, or even to efface, the work of land-sculpture. But the more we consider the present operations of the sub-aërial denuding agents, the more shall we be convinced that a system of hills and valleys, with all the local varieties of scenic feature that now diversify the surface of the earth, may be entirely produced by denudation, without further help from underground forces than the initial uplift into land. No matter what may be the original configuration of the mass of land, the flow of water across its surface will inevitably carve out a system of valleys, and leave ridges and hills between them.

These general principles find ample illustration in the history of the scenery of Scotland. In this country, the ranges of hills and valleys furnish evidence of some of the greatest terrestrial displacements in Western Europe. Yet these subterranean movements are not conspicuous at the surface by any imposing landmarks. On the contrary, they