

channels of rivers consist of numerous branches, uniting at many successive levels into a main trunk, so as to form a perfect system of drainage. In the mountain, the river is a torrent; if a precipice occurs, it is a cataract; if a valley intervenes, more depressed near the mountain than at its further extremity, its waters spread into a lake; while, finally, it wanders slowly along the level plain till it reaches the sea. But nothing of all this is permanent. The cascade is deserted or destroyed; the torrent becomes the clear and rapid stream of the elevated valley, the lake is either filled, or is drained by the lowering of its exit, and is converted into a plain, while the stream becomes continuous; and the river of the plain for ever changes its place as it protrudes fresh materials to retard its termination in the sea.

Under the distance of time at which the original actions of rivers commenced, it might be supposed that we could no longer trace the first condition of things. But the process is ever new, and ever recommencing from the same point. If ended in one place it is beginning in another; and thus, in examining a river from its sources onwards, we trace that which the channel was when the river first began to flow, as we follow the whole series, to the present hour and to all future days. The sinuosity or the fissure of the mountain rock is the picture of the original surface, which, giving passage to the waters, at length becomes a ravine: its sides gradually crumbling, and, by their friction on the bottom, aiding the water to deepen its bed. Hence, among stratified rocks, that correspondence of the strata on the opposite sides, which equally occurs in wider vallies, since this is the further progress and enlargement of the ravine. Hence have such ravines been idly attributed to earthquakes, or, as is the vulgar phrase, to "convulsions of Nature:" causes as unne-