

outwards and downwards to the shore. These paths, once chosen, would be deepened and widened, until the table-lands, like a sandy beach on the recession of the tide, were hollowed out into a system of valleys, every shower of rain, every spring, every frost, every stream contributing its share in the general waste.

I have endeavoured to show what an admirable relation of size and direction is maintained between the streams and the valleys in which they flow, and to prove that this relation can only be explained on the supposition that the valleys were excavated by the streams. The frequent want of connection between the line of the valleys and the geological structure of the ground which they traverse, indicates that they were probably determined before the rocks now visible at the surface influenced, as they at present do, the superficial topography. In many cases, they appear to have been first traced out upon overlying formations which have since been denuded away. The watershed is in this respect of great significance, serving to indicate where the drainage was or was not influenced by the geological structure of the rocks now forming the surface, and thus helping still further to impress upon us the vastness of the denudation of the country.

In one of the latest geological periods, known as the Ice Age, nature made use of a sculpture-tool no longer to be seen at work in Britain. When the present valleys and hills had been long in existence, the climate gradually became arctic in character, and sheets of snow and ice settled down upon the country. As in Greenland at the present time, an ice-sheet covered the whole of Scotland, and moved seaward in vast icy streams. Creeping over the land for a protracted period, it ground down its surface, removing the angular forms left by the previous sub-aërial