

is left, enough of it remains to show through how many great geological revolutions the region has passed. We may conceive that when the present drainage-lines began to be traced a large part of the cover of Permian, Carboniferous, and Old Red Sandstone strata still lay thickly upon the Silurian rocks underneath. Probably even from the outset the table-land as defined in its area and height by subterranean upheaval, had a short steep face towards the north-west, and a longer and gentler slope in the opposite direction. On such a south-easterly declivity the drainage would arrange itself into water-courses which would, on the whole, take a south-easterly course. But in the north-eastern part of the region, where the cover of younger formations was probably thickest and remained longest, the slope appears to have been rather towards the north-east and east. Once chosen, the water-channels would be deepened and widened, and as long as the land remained above the sea, would sink farther into it, until the present network of valleys was established.

It is interesting to note that, in some instances, the existing valleys coincide more or less markedly with valleys that were excavated in ancient geological times, and were subsequently buried under piles of debris. The depression that now forms the vale of Lauderdale, for example, is at least as old as the Upper Old Red Sandstone period. Even at that early time, it had been worn out of the Silurian table-land. Masses of gravel and sand, washed down from the slopes on either hand, gathered on its floor. A little volcano, contemporaneous with the larger outbursts of the Eildon Hills and the Merse of Berwickshire, broke out at its upper end, but was at last buried under the accumulating heaps of detritus, which in the end filled up the valley and spread over the surrounding hills. In the course of later geological