

away the loosened grains of every kind, rills collect, and rivers carry away the accumulated detritus, and the rough old sea channels, in some places filled up by these deposits, and in others worn still deeper, are changed into those smooth dales or picturesque glens, which are the boast and charm of the North.

*Rivers run in valleys which the sea made for them.*

The rivers, therefore, in their higher parts, for the most part run with the inclination of the strata. Hence easterly and south-easterly courses of the streams are the most common in Yorkshire, but when the dip of the strata is eastwardly in one part and southerly in another, the rivers run in one part to the east, and in the other to the south. The Derwent which rises by many branches on the north side of the Vale of Pickering, is a striking example. The main ridges of hills do not necessarily run *between the rivers*: they more frequently range parallel to the axes of elevation, which are for the most part summits of drainage; but ranges of high ground also, not seldom, cross the courses of many rivers, in terraces which are escarped toward the source of the stream, on the north or the west, but have longer, easier, and less picturesque slopes to the east or the south. The explanation of this circumstance is found in the nature of the alternating strata. In such hills, the edge of the escarpment is usually the termination of a broad area of *hard* or well-consolidated rock, while softer clay or shale appears below. Such materials being brought by the upward movement of the sea bed within the action of the water, would be wasted unequally—the soft beds more, the hard beds less; so that deep hollows would be produced in a direction across the line of the main channel or sea valley. These hollows often suggest at the present day the notion of former lakes with barriers situated at the gorge formed by continuous rocks, which barriers the river now flowing is supposed to have cut through and thereby to have drained the lake. Such effects may have happened, but the general explanation is that given above.

Thus were formed the remarkable escarpments or ‘nabs’