

tend at least as far as the Irish, Scotch, and Scandinavian coasts; and a great oceanic current from the north or north-west, if possible and applicable in the case of Shap and Stainmoor, must be supposed to have left traces of its power on other mountain ranges. It is unnecessary to extend these reflections arising from the phenomena of the dispersion of Cumbrian rocks farther than to observe, that the line followed by the blocks southward from Shap through Lancashire, and northward to Carlisle, is in a great depression parallel to the fault of the Penine chain; and that the depression on Stainmoor, and that farther north near Brampton, by which similar blocks have gone eastward, are occasioned by cross faults which break the continuity of that same chain. These circumstances are obviously important.

The most prevalent direction in which the blocks have been transported in the British isles, is from north to south; but, in general, the natural configuration of the ground appears to have had considerable influence in determining many minor currents. The same conclusion, of the influence exercised by the local configuration of land, results from the laborious examination of the phenomena of the dispersed blocks of the rocks of the Alps. The existing valleys are the lines by which the fragments of the mountains have been drifted away to the lower grounds of France, the Pays de Vaud, Switzerland, the great vale of the Danube, and the plains of Lombardy. Not that the rock masses are carried along the course of the actual stream, or even confined to the course of the valley; for mountains lying in the *main direction* of the valley, through 3000 or 4000 feet high, are as thickly, and even, in the case of the Salève and Mont Sion near Geneva, more thickly, covered than the hollow of the Arve, or the banks or bed of the Rhine and Lemman Lake. It appears, therefore, that some great violence of water acting along the line, but not limited to the level, of the present drainage, has brought the blocks from the western Alps, by