

Man, Galloway, Isla, the Hebrides, Orkneys, Aberdeenshire, Norfolk, plainly denote. The direction from N.E. to S.W. is the most prevalent one in England, Wales, and Scotland; in Ireland, several directions of strata appear, and the tendency to form promontories and bays is correspondingly varied.

Passing to more precise inquiry, we find that the *position* of the rocks in anticlinal and synclinal axes is a fertile source of local and general irregularity of outline. The Hebrides may be viewed as the tops of one long anticlinal range of gneiss mountains; nearly parallel to these are the loftier chains of the North-western Highlands, from Mull to Caithness, and the broader band of the Grampians, both running out into vast projections; while between these severally, in synclinal lines and newer strata, are a parallel channel of the sea, and a parallel vale which unites the opposite bays of the Moray Frith and Loch Linnhe. Another anticlinal ridge in a north-east and south-west direction forms the Lammermuir and other mountains from St. Abb's Head to the Mull of Galloway, and between these and the Grampians sinks the synclinal axis of the retiring coasts of the Forth and Clyde. In all these cases, the outline of land and sea is obviously the necessary result of the intersection of parallel ridges and hollows by the general sea line.

Farther south we find, on the eastern coast, the influence of *unequal hardness* in the rocks which front the sea. The straight line of the Northumberland coast presents a series of carboniferous rocks which waste slightly and equally; the hollow at the mouth of the Tees is in soft and perishing red sandstones and clays; the prominent points of Whitby Abbey, Scarborough Castle, and Flamborough Head are feebly guarded by oolitic limestones and sandstones, and hard chalk; while the bays of Filey and Bridlington are excavated principally in diluvial clays and sands. Vast areas of clays underlay the wide levels of the Fens of Lincolnshire and Cambridgeshire, which mark the ancient indraught