

And different from either are the rounded knolls of the shale which occur in the country of Ribblesdale.

The combination of these forms into groups occasions quite different pictorial effects. Compare, for example, the scene from the Buttertubs Pass between Muker and Hawes (Pl. IV.), in which alternating limestones and gritstones give the most prominent effects, with contours of the Craven district near Skipton (Pl. III. fig. 1), the bold edges being made of thick gritstone (*g*), and the lower swelling hills of shale (*s*).

Or contrast the abrupt outlines, such as those of Oliver's Mount and the Nabs near Scarborough (Pl. III. fig. 3, *n*), with the easy and flowing curves which everywhere mark the edges of the chalk wolds (*w*).

In the former case a *hard* rock, calcareous grit, guards the brow, and the slope below is clay, alternating with easily disintegrated sandstone; in the latter case, the chalk, in great thickness and full of small fissures, yields rather easily to degradation, and nowhere preserves abruptness of parts, however bold may be the general effect.

The great inland cliffs, which are among the most striking phenomena of Yorkshire, only differ from sea cliffs, because the water no longer beats against them. The Hambleton hills, the Wolds, no less than Giggleswick Scar, were cliffs against a wide sea. Kilnsey Crag was a promontory overhanging the primæval sea-loch, which is now the green valley of the Wharfe; and the mural precipices which gird the bases of Whernside, Ingleborough and Penyghent, formed bold margins to similar branches of the sea, which extended up Chapeldale and Ribblesdale.

The softer strata are more worn away on the slopes of hills than the harder rocks, and for that reason appear in concave surfaces there; for the same reason valleys are often widened into expanded hollows in these strata, and contracted between cliffs where the sides are formed of firmer materials. For the same reason, on the sea-coast, the far-extended promontories