

copper and cobalt, and masses of sulphate of barytes; but it is probable that these ridges may not belong to the same formation as the red marle of the vallies, but may consist of elevated portions of some of the older sandstones. This is a point which at least deserves inquiry: if the rocks composing them are found to be thrown up at a considerable elevation, and to possess a considerable degree of consolidation, this suspicion would receive confirmation; but if on the other hand they are horizontally stratified, and of a loose texture, it would be negatived: the same remark also applies to Hawkestone and Pym hill in Shropshire, where traces of copper have likewise been found. Besides the extensive deposite in the valley of the Weaver, Salt springs are likewise found in that of the Mersey, and to the south near Wellington in Shropshire. (C.) The sandstone of the latter country is thus described. It consists for the most part of rather fine grains of quartz, with a few spangles of mica, cemented by clay and oxide of iron. Its colour is generally brownish red, and it has but little cohesion; on which account large tracts of loose deep sand are found in many parts of it. Sometimes it occurs nearly of a cream colour, and is then sufficiently hard to form an excellent building stone: it does not effervesce with acids, and no shells or other organic remains have been found in it. In some places, the loose sand on its surface contains rolled stones of quartz, granite, and porphyry, which also are dispersed over its surface, though they are rarely if ever observed at any considerable depth in the solid rock. (G. T. v. i. p. 192.)

The red marle district continues to range in a northerly direction from the north-west corner of the Cheshire plain, skirting the western coast of *Lancashire*, where a red sandstone occurs in many places; and thus continues to line the western base of the great mountain chain so often mentioned: this district is erroneously coloured by Smith as old red sandstone? In the peninsula of *Furness*, the red marle is seen thus reposing against the foot of the *Cumberland* branch of those mountains; and to the north of this, it may be observed in a similar situation near *Whitehaven* in *Cumberland*, where a very satisfactory section is presented; the magnesian limestone subordinate the red marle formation being there seen reposing on the coal formation, and covered by the marle beds containing gypsum. (C.)

Further north, the same formation may be seen occupying the coasts of the *Solway Firth*, and the great plain through which the river *Eden* flows, and which here forms a kind of bay of low country, separating the *Cumberland* group of mountains from the prolongation of the central chain by *Cross*