

must know them both well before we attempt the serious task of determining the manner of their union.

*a.—Erratic Block Group.*

In the British islands, very considerable tracts of country have been traversed since the land had its present general aspect of hill and dale, and was inhabited by large quadrupeds, by currents of water due to some unknown cause, which transported rock masses with so great a degree of force, to points so elevated, in such directions, and at such distances, that we cannot avoid feeling extreme astonishment, and look around in disappointment on the physical processes now at work on the earth, for any thing similar. But it is only in particular tracts that the magnitude of the transported rocks is such as to deserve the title of erratic blocks; and, among several examples, we know of none which more strikingly exemplify the phenomena, as the dispersion of granite, slate, porphyry, &c. from the vicinity of the English lakes, because the nature of the rocks and the limited extent of that region render the observations and inferences more precise than when reference is made to the Grampians, Lammermuirs, or mountains of Wales.

Many, perhaps most, of the Cumbrian mountains have yielded detritus to the diluvial currents (a term we here employ for its convenience, without wishing to convey any hypothetical notion beyond that of the force of their movement); but certain of them contain rocks so remarkable, that wherever fragments of these are seen in the gravelly deposits of the neighbouring regions, an experienced eye may at once refer the pebbles to their parent site. Such are the granites of Ravenglass and Devock lake: in a still higher degree the porphyritic granite of Shap fell, the sienitic and hypersthenic rocks of Carrock fell, the amygdaloidal slaty rocks of Borrowdale, some kinds of slaty rocks full of fragments about Grasmere, certain felspathic rocks at the base of Helvellyn. It appears to be certain that, in the dispersion of boulders of these rocks, the present