

masses of this interesting region may hereafter be ranked as metamorphic slates, we cannot predict; but many rocks at the base of Helvellyn and in the Vale of St. John's (some of which contain garnets) appear to the author to deserve examination in this respect.

On a great scale, the alternation of porphyritic and schistose rocks in this region is established by professor Sedgwick's laborious researches, still only partially known to geologists. The results of his corresponding examination of the parallel series of rocks in North Wales appear very similar to those obtained in the Cumbrian mountains. (See *Geol. Proceedings*, vol. i. p. 400.)

The alterations produced upon the argillaceous slaty rocks of Cornwall, by the proximity of granite, are differently reported by different observers; but in general they appear to be inconspicuous, and perhaps cannot be described in a smaller compass than in the words of Oeynhausien and Von Dechen, who say,—“The killas is, at its junction with the granite, rather hornblende slate and greenstone than clay slate. The transition from clay slate into hornblende slate and greenstone is commonly so gradual, that we have not been able to trace any where a line of junction between both rocks.” (*Phil. Mag. and Annals*, 1829.) The slightness of the changes which are remarked near many of the granite veins of Cornwall is not an unusual circumstance elsewhere, among argillaceous slates inclosing greenstones and porphyries; and perhaps the reason may be, that these substances *had already undergone great heat, and suffered a great degree of change from their first condition.*

Speaking with reference to the granite of Cligga point, and the porphyritic elvan courses of St. Agnes, the Rev. J. Conybeare observes,—“The killas, which is traversed and covered by these more crystalline rocks has, for the most part, the character usually ascribed to clay state, and its strata occasionally present singular curvatures; in many places it passes into chlorite slate,