

melted matter, the eruption of which to the surface through volcanic rents, produced the lava-flows and ashes already mentioned. The ashy beds are sometimes coarse and tufaceous, but were also often formed of fine volcanic dust, which being now consolidated into hard felspathic rocks, are at first sight somewhat difficult to distinguish from the associated lavas. Practice, however, renders it comparatively easy, and in distinguishing the difference, the observer is aided by the circumstance, that *underneath* each lava current the slates, once beds of mud, are apt to be baked and porcellanised at the point of junction with the originally hot lavas, which having in the meanwhile cooled, the slaty beds that *rest on them* are in that respect unaltered.

The second series of eruptions may be traced as follows. Near Bala, not far below the limestone, there are a few thin bands of volcanic ashes. These, as we go northward to the rivers Machno, Lledr, and Conwy, gradually thicken, and by-and-by get mingled in that slaty area with numerous thin and thick bands of felspathic lavas, the importance of which as large masses, culminates in Snowdon and the surrounding area, going northward by Glyder-fawr, Glyder-fach, Carnedd Dafydd, and Carnedd Llewelyn, and so on to Conway. South of Snowdon the same kinds of lavas and ashes are seen in force on the sides of Moel Hebog, and the great mass of Llwyd-mawr near Dolbenmaen.

Other large bosses of *intrusive* rocks, mostly felspathic, occur on Y-Foel-frâs, between Snowdon and Conway, another between Llanllyfni and Bethesda, a third near the eastern shore of Menai Straits, and many more including the beautiful mountains of Yr Eifl, or The Rivals, in the north horn of Cardigan Bay,