

rocks (Snowdon), which are also classed among metamorphic rocks: and, *secondly*, as we ascend in the series of strata, organic remains gradually appear (in the clay slate system), and become continually more and more numerous, as the circumstances of the land and sea more approximated to the present. In the actual state of knowledge the most probable conclusion is, that during the deposition of these most ancient rocks the globe was so circumstanced with regard to heat, or some other agency, that organic life, if it had commenced at all, was exhibited at very few points on the surface of the globe. (See Table, p. 80.)

*Extent of Country.*—Within the British islands, it is to the highlands and western isles of Scotland, and to the mountains in the north-west and south-east of Ireland, that we must look for the great masses of gneiss and mica schist. The Hebrides, with Coll and Iona, and nearly all the north-western highlands from Sutherland to the Sound of Mull, a length of 120 miles, are composed of gneiss: if lines be drawn from the head of Loch Awe to Aberdeen, and to the Moray frith, the greater part of the large included area is filled with gneiss resting irregularly on the granites of Ben Cruachan, Loch Rannoch, Dalwhinnie, Cairn Gorum, Aberdeen, and Peterhead. Mica schist lies along the south-east side of the great valley from Fort Augustus to Lismore, spreading around Ben Nevis; a much larger space is filled by this formation on the south east flank of the gneiss, from Stonehaven by Killicrankie and Dunkeld, to the head of Loch Awe and the mouth of Loch Long; it fills all Cowal, the north side of Loch Fyne, Colonsay, and great part of Cantire, appearing likewise in Arran, Bute, and the south-western sides of Islay and Jura. Quartz rocks occupy large spaces (north-east and south-west) in Islay, Jura, and Scarba — range in a narrow line (north-east and south-west) through Breadalbane by Loch Lyon and Schihallion. From Ben y Gloe to Braemar, and between the Spey and the Doveran to Cullen, is a mass of quartz rocks, ramified among the gneiss and