

entirely altered in form. The unconformity, above exemplified, is the geological proof that the older strata had been disturbed previously to the formation of the newer; and the reason for thinking they had been in many cases actually raised into dry land, is the total absence of any later deposit upon them: the former is a most certain conclusion; the latter is frequently a highly probable inference.

In the British islands we have magnificent examples of these ancient disturbances. The range of the Grampian mountains from Aberdeen to Cantire, and indeed most of the Highlands, appear to have been uplifted at this early period, if not to the surface, yet so as to prevent any depositions upon them; though round the east and west coasts of Scotland, the south border of the Grampians, and in the great valley of the Caledonian canal, the old red sandstone rocks abound. It is supposed that about the same period the Lammermuir hills were raised; and the Cumbrian mountains received one of their great upward movements. It is important to remark in connection with this subject, that along the borders of the Grampian, Lammermuir and Cumbrian ranges, the red conglomerates contain enormous quantities of pebbles, which appear to have been gathered by inundations from the surface of the broken rocks of the neighbouring slates, gneiss, &c.: if in addition we remark the fact that, especially in Cumbria, these conglomerates fill *valleys* at the border of the tract of the slate mountains, we shall see the probability that the slate rocks were raised above the surface to be washed by atmospheric rains, or else so near the surface as to be exposed to the agitation of shallow water. — The former is the most probable view. The slate and mica schist tracts of the Isle of Man, Donegal, Galway, Cork, Wexford, Wicklow, Cavan, and Down, appear to have been similarly raised; and the same is supposed to be true for the Snowdon and Berwyn ranges in North Wales, and the Ocrynian chain of Devon and Cornwall.* We

* Sedgwick, in Address and Memoirs to the Geological Society.