

vonshire there is, as yet, no certainty of the existence of the Tremadoc slates, and these ought to be found overlying the Lingula flags if the whole of the Silurian series were present. Still further, as we approach Caernarvon and Bangor, even the Lingula flags are absent, and the Arenig slates are found *lying directly on the purple slates and conglomerates of the Cambrian series* all the way from Bangor to Caernarvon. This clearly shows that the base of the Arenig slates has overlapped the whole of the Tremadoc slates and Lingula flags, in the area between the Ffestiniog and Portmadoc country and the neighbourhood of the Menai Straits, and an overlap so great means *unconformity* between the strata; or, in other words, in this area the strata of older date than the Arenig slates had been raised above the sea, and subjected to sub-aerial agencies of denudation, while the deposition of the Arenig slates was going on elsewhere. In this manner, therefore, it happens that the Arenig slates are now found resting directly on the Cambrian strata, without the intervention of the missing members of the series, viz., the Tremadoc slates and Lingula flags; and still further north, in Anglesea, these strata are also wanting.

The effect of this episode in the physical geography of the area seems to have been, that at this period a tract of land lay in the north-west of what is now Wales, and probably far beyond that district during the deposition of the Arenig strata on its borders, but what the features of that land were I cannot say, except that it may have extended to Ireland, where there is a similar unconformity, the Lingula flags and Tremadoc slates being also wanting in Wicklow. Probably the whole region was low and unimposing.

The next question that arises is, what was the