

either flank of Aran Mowddwy. Further west, swelled by all the snows of the Manods and the Moelwyns, a great ice-stream flowed south-west, into what is now the broad flat of Traeth Bach, there to be joined by another tributary which, partly descending Cwm Llydaw and Cwm-llan from the high eastern slopes of Snowdon, filled Nant Gwynant, and debouched into the area now occupied by the marshy flat of Traeth Mawr. In all of these the directions of the striations necessarily conform to the trend of the valleys—easterly, southerly, or south-west, as the case may be. And this must have been the case even though it happened that the mountain valleys and broader amphitheatres were filled to the very brim, and overflowing with ice and snow in such a manner that, had there been human eyes to look on the scene, it would have been impossible to have specialised each individual glacier. In such a case, however, there were many deviations consequent on under and upper ice-currents, the upper parts of glaciers diverging from the direction of the under-flow, and passing across what are now low watersheds, like that of Llyn Cawlyd, which lies between the valley of the Llugwy, and that of the Conwy—a circumstance to which special attention has been called by the Rev. W. T. Kingsley.

On the north-west slopes of the Snowdonian range,<sup>1</sup> great glaciers poured their ice-streams down the valleys of Llyniau Nant-y-llef to the west, and of Llyn Cwellyn, Llanberis, and Nant-ffrancon, the last deriving additional power by aid of the tributary ice-flows of Cwm-llafar and Afon-gaseg, the chief gathering grounds

<sup>1</sup> I use the word *range* as a convenient term. There is no range of mountains in North Wales. Taken collectively they form a group.