

Northward they are deflected in a N.N.W. direction across Caithness and the Orkney Islands, pointing to the influence of the Scandinavian ice-sheet. On the south side of the basin, they run E. by S., and at last S.E., on the northeast of Aberdeenshire, showing that the ice there turned southward into the North Sea, until it met the N.E. stream from Kincardineshire and the valleys of the Dee and Don, with which and with the ice from Scandinavia it turned southward into the basin of the North Sea. The great mass of ice which crept down the basin of the Firth of Clyde was joined by that which descended from the uplands of Carrick and Galloway, and the united stream filled up the Irish Sea and passed over the north of Ireland. At that time England and the northwest of France were probably united, so that any portion of the North Sea basin not invaded by land-ice would form a lake, with its outlet by the hollow through which the Strait of Dover has since been opened.

When this glaciation took place the terrestrial surface of the northern hemisphere had acquired the main configuration which it presents to-day. The same ranges of hills and lines of valley which now serve to carry off the rainfall served then to direct the results of the snowfall seaward. The snow-sheds of the Ice Age probably corresponded essentially with the water-sheds of the present day. Yet there is evidence that the coincidence between them was not always exact. In some cases the snow and ice accumulated to so much greater a depth on one side of a ridge than on the other that the flow actually passed across the ridge, and detritus was carried out of one basin into another. A remarkable instance of this kind has been observed in the north of Scotland, where so thick was the ice-sheet that fragments of rock from the centre of Sutherland have been carried up