

borne along under the ice : and in the Arctic regions the sea is sometimes discoloured for miles from shore by the mud ground down from the surface of the land. In the Highlands, too, the impressiveness of the evidence from rock-striation as to the former presence of land-ice is greatly increased by the testimony of the abundant detritus which is strewn so thickly over the slopes of the hills and the bottoms of the valleys.

Away from the mountains, in such flat tracts as Caithness, the shores of the Moray Firth and of its tributary inlets, and the low land bordering the North Sea, the solid rocks are to a large extent covered with a stiff clay full of stones varying in size up to boulders a yard or more in diameter. To this deposit the name of Boulder-clay or Till has been given. It attains its chief development in the great Midland valley. Hence, perhaps, its detailed description had better be deferred until the surface of that region comes before us for examination. Its origin was long involved in mystery, and though now more clearly understood, still presents difficulties which have not yet been completely explained. The older geologists called it diluvial, and regarded it as a proof of a violent flood, or a series of floods, which, sweeping across the country, produced the striation of the rocks by driving over them the stones, sand, and clay which now form the till. The introduction of land-ice into the list of agencies concerned in changing the surface of the country gave the clue to the true history of this remarkable superficial deposit. Its internal structure and its striated stones show it to be the debris of the abrasion by the ice-sheet.

The scenery of the districts where boulder-clay prevails, though tame and monotonous, has certain characteristic features of its own. The surface is usually smooth and un-