

intervals to the Forth, near Bridge of Allan. The ordinary sedimentary conglomerates are frequently very coarse, containing both water-worn and subangular fragments of the underlying rocks from the waste (denudation) of which it has been formed. Some of the fragments I have observed of a yard in diameter, in the great band of conglomerate that lies at the foot of the Grampian Mountains, and others, true boulders, of equal size, on the north coast of Scotland, east of Strathie in Caithness. The Silurian gneiss of the Grampian Hills and of the Highlands in general, is much older than the Old Red Sandstone, and the same may be said of the strata of the Lammermuirs, both of which were disturbed and denuded before the deposition of the Upper Silurian rocks. Later denudations of the same rocks formed the vast conglomerate of Old Red rocks south of Dunbar.

Some of these conglomerates possess a character which unmistakably marks them as glacial boulder clays. The stones are of all sizes, and not mere pebbles, and they are generally sub-angular, just like those of many of the boulder clays of the last Glacial Epoch. Like some of these boulder clays also, the stones are imbedded in a red marly paste, once unconsolidated clay, and in similar conglomerates in the Cumbrian region, scratched stones have been found in some cases unmistakably resembling those which are allowed by all to have had their markings produced by the agency of glacier ice. A bold man might even go further, for opposite the mouth of the valley of Ullswater, at the outlet of the lake, there are great heaps of angular boulder-conglomerate, culminating in the big mound-like hills of Mell Fell and the neighbourhood, the stones cemented in a marly base. It is an obvious fact to skilled