

over the low plains of Caithness, pushing along, in its progress, the mud, stones, and shells that lay on the sea-floor, and which are now found in the boulder-clay all over Caithness. The glacier that moved down the Firth of Clyde also ground up the clay and shells of the sea-floor, as is shown by the shelly boulder-clay of the south of Arran, and the coast of Carrick and Wigtownshire.

It would be beyond the scope of the present volume to enter farther into the history of the boulder-clay. Enough has probably been said to let the reader see how much geological interest there is in a deposit which spreads so widely over the Lowlands of Scotland, and so largely influences the character of their landscapes.

Of later date than the boulder-clay, but still belonging to the Ice Age, is another group of deposits which, though they only slightly affect the scenery, in the Clyde and a few other parts of the Scottish coast, are of such importance from the light they cast upon one aspect of the country during its glacial condition that brief allusion may be made to them here. They consist of certain beds of brick-clay, well seen along the low grounds on the banks of the Clyde below Glasgow, and on the shores of many of the sheltered bays and sea-lochs of the west of Scotland. They occur also along the eastern shore, at intervals, from the Forth to the Moray Firth. Their chief interest to the geologist arises from the fact that they contain an abundant series of shells, from which strong additional evidence is obtained as to the former intensity of the climate. Half a century has passed away since the occurrence and true character of these organic remains were ascertained by the late Mr. James Smith of Jordanhill.¹ Cruising with his yacht among the kyles and

¹ *Proc. Geol. Soc.* 1839. For many years no man was better known or more highly esteemed on the Clyde than this veteran yachtsman. It