transported by ice, and a similar explanation was suggested for the exotic blocks in the Alpine and Carpathian "Flysch" formation. From time to time examples of boulder and conglomerate deposits were reported and were dealt with in this way. To mention a few examples: in 1870 Sutherland described breccias with polished blocks in the Karroo Beds of South Africa, and in his explanation of them as glacial in origin he was supported by Griesbach (1871) and Stapff (1899); in Australia, R. D. Oldham explained boulder conglomerates in Carboniferous and Permian time as material transported and stranded by icebergs; Waagen (1887) described scratched pebbles and polished blocks from the Salt Range in the Punjab, and referred them to a Carboniferous Ice Age; Nötling more recently (1896) concludes they belong to a Permian Ice Age; Sir A. Geikie mentioned glacial traces in the Cambrian rocks of Scotland, and Reusch (1891) in the Cambrian deposits of Northern Norway. The conclusion drawn by James Geikie and James Croll is that all the greater epochs in the history of the earth have been marked by a series of glacial and interglacial episodes.

But the number of geologists who accept the teaching of repeated glaciation of wide territories is rather decreasing than increasing. The minute detail in which geological maps are now being prepared tends to show that in many cases all these phenomena of scratched pebbles, and boulders, and polished surfaces may be observed in the sheared and brecciated rock-material occurring along the planes of great crust-movements. And in no case will a cautious geologist be willing to accept an ice age, or even local glacial action, in a remote geological epoch as the explanation of scratched pebbles and the occurrence of exotic boulders, unless he be in a position to investigate the matter for himself, or it can be conclusively proved to him that there has been no history of crust-disturbance. The attitude of present-day geology with respect to the much vexed questions of glacial action is to hold an open mind towards each alleged example.

The Pleistocene ice-mantle had its chief distribution in the north-west of Europe and in the north-east of America; but, with the exception of those large areas covered by inland ice, the evidence of glaciers is found only in mountain ranges which still possess glaciers, or in which a very slight climatic depression would call forth glaciers. Hence the glaciation