

place *previous* to the upheaval of the Alps; enormous masses of ice had been formed and had extended over the surface as far as erratic blocks and the scratched and polished rocks could now be observed.

Schimper took umbrage that the priority of the Ice Age Theory should, in his opinion, have been stolen from him by Agassiz, and the friendship of the two Alpinists was broken. Schimper afterwards confined himself to the publication of his Ode and of a scientific communication, which he made to the Annual Congress when it met in Neuenburg. Agassiz, however, continued the researches with unabating zeal; in company with Desor and Studer, he visited the glaciers of the Bernese Oberland, the Mont Blanc group and the Monte Rosa group, and published the results of his investigation in 1840, in a work written in French, and immediately translated into German by Carl Vogt.

This work, which Agassiz suitably dedicated to the founders of modern glacial research in Switzerland, Venetz and Charpentier, contains the first general exposition of glacial phenomena in the Alps. For much of his information Agassiz relies upon Saussure and Hugi, but he devotes far closer attention to the moraines and introduces the terminology now in common use (end moraines, lateral moraines, median moraines).

Agassiz explains the formation of median moraines through the junction of two lateral moraines, but, like previous authors, he fails to appreciate the existence of ground-moraine, although he clearly explains the etching action of sand-grains on the rocks at the bottom of the glacier. With respect to the formation of glaciers from descending firn, Agassiz agrees with the conclusions previously arrived at by Scheuchzer, Saussure, and Hugi. He regards Scheuchzer's infiltration and dilatation theory as the best explanation of glacier movement.

Agassiz recognises the great merit of Charpentier in having drawn attention to the scouring, furrowing, and polishing of rocks effected by glaciers, and strongly emphasises the work of denudation effected by glaciers on the rocky floor over which they move. He describes the hummocky bosses of rock exposed to view on the retreat of a glacier, and notes their characteristic striated appearance, and the parallelism of the striæ and grooves on their surface, with the direction that had been followed by the glacier.