

south base of the Alps were being examined by A. Guyot. Agassiz had asked him to study the former extent of the glaciers and the erratic blocks. The original intention was to publish a work in common which should comprise the results of all the participants in the glacier researches; Agassiz was to write the first volume on the glacier phenomena proper, Guyot was to write the second volume on the erratic blocks in the Alps, and Desor was to contribute a third volume on extra-Alpine material. Only the first volume was ever published, Agassiz' *Système Glaciaire*, 1847, with three maps and nine folio plates. Guyot went to Princeton, in North America, and placed his 5000 samples of erratic blocks in the Museum there. The most important results of his researches were published, 1843-47, in the *Bulletin de la Société des Sc. nat. de Neuchâtel*.

When Agassiz had, in 1840, made known his Ice Age theory, he knew the Northern Diluvium only from the literature. A visit to the Glasgow Meeting of the British Association in 1840 afforded him the opportunity of studying the erratics in the Scottish Highlands. Together with his former opponent, Buckland, whom he completely converted to his views, Agassiz found signs of glacier action widely distributed, old moraines, glacier scratches, roches moutonnées, and he identified in the Scottish "Till" (boulder-clay, ground-moraine) scratched pebbles and the fine clay and sand material which glaciers push forward on the ground as they move. The importance of the scratched pebbles as indications of glacial formations was thus recognised for the first time.

In his *Glacial System*, Agassiz moderated his views on a connected polar ice-mantle over the greater part of Europe; he allowed that the glaciation of the Alps had been distinct from that of the northern lands, and that it had taken place after, and not before the upheaval of the mountain-system. He also accepted the testimony of Rendu and Forbes on the plasticity of glacier-ice, and referred the movement of glaciers to a combination of physical causes of which dilatation was only one.

The enthusiasm of the Neuchâtel glacialists was infective, and for some years glacial studies were highly popular. The physicist, James Forbes, from Edinburgh, went for three summers in succession, 1842-44, to Switzerland to study the movement of glaciers. His results appeared from time to