

Territories, have demonstrated, by proofs which the most sceptical must accept, the potency of denudation in the production of the topography of the land.

To the Huttonian school belongs also the conspicuous merit of having been the first to recognise the potency of glaciers in the transport of detritus from the mountains. Playfair, in his characteristically brief and luminous way, proclaimed at the beginning of last century that "for the removing of large masses of rock the most powerful engines without doubt which nature employs are the glaciers, those lakes or rivers of ice which are formed in the highest valleys of the Alps, and other mountains of the first order. . . . Before the valleys were cut out in the form they now are, and when the mountains were still more elevated, huge fragments of rock may have been carried to a great distance ; and it is not wonderful if these same masses, greatly diminished in size, and reduced to gravel or sand, have reached the shores or even the bottom of the ocean."¹ Here the conception of the former greater extension of the glaciers was foreshadowed as a possible or even probable event in geological history. Yet for half a century or more after Playfair's time, men were still speculating on the probability of the transport of the erratics by floating icebergs during a submergence of Central Europe under the sea,—an hypothesis for which there was not a particle of evidence. No geologist now questions the truth of Playfair's suggestion.

In the whole of Hutton's doctrine he rigorously guarded himself against the admission of any principle

¹ *Illustrations*, p. 388.