http://www.geology.19thcenturyscience.org/books/1833-Bakewell-Geology/README.htm

valleys and cols in the softer beds and strata.* On the whole, the theory of Sir James Hall, affords perhaps the most satisfactory explanation of diluvian agency, that has yet been advanced. But whatever difficulties may oppose the admission of this or any other theory, the fact that the present continents have been subjected to the action of a mighty rush of waters, seems confirmed by many coincident phenomena.

Granting the agency of a deluge, or a succession of deluges, there are still phenomena left, that their action will not satisfactorily explain. In the midland counties of England, for instance, there are beds of gravel, and fragments of rock, scattered over hills, that are not only far distant from the rocks which have supplied the fragments, but which are separated from them by deep valleys, over which it is supposed that the fragments could not have been carried, by any power of diluvian agency; for in England, we have not the glaciers to assist in their transportion. It has not been imagined, that these fragments and beds of gravel, were deposited in their present positions before the intervening valleys were scooped out. But any subsequeut deluge, sufficiently powerful to scoop out valleys must have swept away the loose stones on the surface. The local elevation of the surface would appear to offer a more satisfactory explanation. The blocks of granite torn from Mont Blanc and the adjacent granitic range, are scattered over the calcareous mountains, and in the valleys of Savoy to the distance of 60 miles or more, from the parent rocks, and some of these blocks have traversed the Jura into France a distance of 100 miles. Two hypotheses have recently been formed respecting them: the one, that these blocks of granite were thrown from the mountains by an expulsive force at the period of their elevation; the other, that the calcareous mountains have been subsequently raised with their load of granitic blocks upon them. There are facts opposed to both of these theories, which appear to render them less satisfactory, than that of Sir James Hall before stated.

If any readers of this volume should visit Geneva, I would recommend them to devote a day to visiting the mountains called the

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* Those depressions in a range of mountains which offer the easiest access in crossing from one valley to another, are in the Alps called *Cols*. I observed that these cols were all in the softest beds; and their formation admits of an easy explanation by diluvial action. See Plate II. fig. 2. "A range of mountains, with their beds highly elevated, is extended from *a* to *d d*. At *c c* the beds are of very soft slate or shale, which has been excavated so as to offer a passage over the range, though the highest part is several thousand feet above the valley. Such is the Col de Balm above Chamouni. The beds probably extended, at the period of their elevation, in the direction of the dotted lines. These cols could not be formed by rivers, as very little water flows from them. The valley of Derwent, (see Plate IV. fig. 1. between the hills 3 and 6,) was evidently formed by the erosion of water, and not by the elevation of its sides; as the beds on each side are the same.