

demonstrably due to infiltration, as the granite itself had in his opinion been formed from crystallization in the waters of the ancient ocean.¹

Even when he found the vertical conglomerate of Valorsine, and recognized that it must have been originally deposited horizontally, he refrained from hazarding a conjecture as to the reason of its position. "We are still ignorant," he says, "by what cause these rocks have been tilted. But it is already an important step, among the prodigious quantity of vertical strata in the Alps, to have found certain examples which we can be perfectly certain were formed in a horizontal position."²

An important part of De Saussure's work among the Alps deserves special recognition. Profoundly impressed by the power of running water in the sculpture of the mountains, he ridiculed the notion that the valleys had been carved out by the sea. He showed conclusively that they could only have been excavated by melted snow, rain and rivers. He appealed to any map that might first come to hand in corroboration of his opinion that the valley-system of a country is intimately connected in origin with the system of drainage.³ Hutton quotes largely from the *Voyages dans les Alpes* in support of this doctrine, which he made so essential a part of his *Theory of the Earth*, and which he derived from the illustrious geologist of Switzerland.

It is interesting to notice that, among the agenda which De Saussure inserted at the close of his last

¹ Vol. i. pp. 533 *et seq.*

² Vol. ii. § 690.

³ Vol. ii. § 920.