

own feeble means. But how diminutive and circumscribed are the changes produced in the configuration of the globe, compared with the long and broad valleys which furrow in vast numbers the immense surface of the earth, and to the formation of which neither the torrents nor great rivers which exist at the present day have in any way contributed, as we shall presently demonstrate.

2. *Action of Rivers.*

THE action of *rivers* must be examined under two very different circumstances, or at two different parts of their course.

First, When they are compressed between mountains, whether at no great distance from their source, or even at the middle of their course.

Secondly, When they have reached broad valleys, whose declivity is slight, or plains which commonly surround their mouth.

In the first case, these rivers partake of the impetuosity and power of torrents. They often run with rapidity, and in great quantity, at the bottom of narrow and deep valleys: they are as it were inclosed in channels, whose vertical walls appear as if cut by art. The first idea which presents itself to all who have seen these appearances for the first time, and who are satisfied with first impressions, is, that these streams, which are pretty powerful and always very impetuous, have dug these deep grooves; and if sometimes the hardness of the rocks and the height of the precipices which form their sides,