

salient angle, — for it is always observed among the common daily effects of inundations, that such terrace-like levels are only marked on the projecting land, while the re-entering angle is excavated to vertical or steep faces.

FLUVIATILE DEPOSITS.

To discuss fully the origin and history of valleys, is an object reserved for a later section ; we may now proceed to consider the effects produced, in valleys already formed, and partially filled with old detritus, by the water running therein. This is a large subject ; for, besides the mechanical and chemical actions of the rivers and brooks, which vary according to the hardness and nature of the rocks, there is to be examined the influence of atmospheric vicissitudes, heat and cold, moisture, dryness, frost, &c. ; and all the complicated effects thus occasioned are, in relation to the valleys, further modified by the form and slope of the surface, the occurrence of lakes, and other circumstances. Streams flowing along a valley under the various conditions which we observe, are to be considered both as eroding and transporting agents ; and it is not only conceivable from the admitted instability of the level of land and sea, but perfectly demonstrated by observation, that these seemingly opposite effects have been exhibited at different times by the same river, at the same points of a valley. Moreover, in the course of the changes of level of land and sea, some rivers appear to have quitted their ancient valleys entirely, and to have taken up new courses corresponding to the new conditions ; and this, not merely in marshy countries, where a river's course is almost accidental, but in hilly and rocky districts like the vicinity of Ludlow or the borders of Teesdale. It will, therefore, be proper to present as full an account of the phenomena relating to the actual configuration of valleys under different circumstances, as a due regard to reasonable limits will allow. The first thing to be con-