vation. On the other hand, it may have been subjected to a depression of such an extent that the region became again the site of the open sea; and sediments of later date were accumulated upon the top of strata inclosing rock-salt and gypsum.

The preservation of the saline constituents of a formation thus originated must be conditioned on the vicissitudes to which it was subsequently subjected. It is obvious that the original conformation of the saliferous strata must have been somewhat dish-like or depressed in the centre, with the borders elevated. In the uplift of the continent, all portions may have been simultaneously raised, or the formation may have become decidedly tilted. In the filtration of surface waters through the interstices of the strata, it is obvious that any formation so posited as to permit a flow of water through it, either vertically or laterally, must have all its soluble constituents dissolved out. A vertical leaching may simply transfer these constituents to some lower formation underlaid by an impervious floor. A lateral drain may discharge the soluble contents at the surface of the earth, and thus, by degrees, restore them to the ocean, their ancient home. Hence many strata now destitute of either salt or gypsum may have embraced both at the time of their origin. In others we witness these substances—especially the gypsum—in process of disappearance.

In case the gypseo-saliferous formation has retained its centrally depressed conformation (compare Fig. 91), it is apparent that the saline constituents held must be unable to escape by drainage. Surface waters will fall upon the belt of outcrop of the formation, and may find their way to the interior in sufficient quantity to redissolve the soluble matters. This having been done, however, the saturated solution will charge the interstices of the formation, and