

Each oolitic rock forms an escarpment over the subjacent clays, so that several longitudinal hollows and ridges undulate the area occupied by the oolitic system.

Igneous Rocks.—In Scotland, the Ord of Caithness offers a case of granitic rocks uplifted in a solid form among the oolitic strata, which are in consequence much fractured and displaced. In Yorkshire, the great Whin-dyke of Cockfield fell crosses the lias and lower oolites, and affects the argillaceous and arenaceous beds considerably, both by induration and debitumenisation.

GENERAL REVIEW. — *Oolitic System.*

Perhaps nothing more clearly demonstrates the frequent dependence of geological phenomena upon causes acting at a distance, than the total dissimilitude of the rocks of the oolitic and saliferous periods; for not the slightest unconformity of dip or direction appears at their line of junction, to mark any local disturbance. The repetition of clay sandstone and oolitic limestone observed at least four times in this system, shows the persistence of the new conditions impressed upon the land and sea, while the very local interpolation of grits, shales, and coal, like those of older periods, may be viewed as the result of a temporary restoration of communication from some particular tracts of land to the oolitiferous sea. If, as appears probable from the thickening of the interpolations towards the north, we suppose that the same land yielded the sandstones, shales, and vegetable basis of coal in the carboniferous and oolitic periods, the change of the land plants in the interval from lepidodendra to cycadites is very remarkable, especially when we take into account the exceptional case stated by Dr. Beaumont, of plants of the true carboniferous era occurring above and below beds containing fossils of the true lias at the Col du Chardonnet in Dauphiné.

The Wealden formation suggests inquiries of the same order as to the situation and character of the ancient land, from which it has been assumed that a