

Near the junction of the chalk and inferior formations in Swanwich bay, the inclination of the strata decreases, and here exactly the same series of phænomena may be observed as in the Isle of Wight.

Near the east end of the Isle of Purbeck, many singular coves are excavated into the interior, some of them in a nearly circular form, the entrance from the sea being narrow, and opening into a wider basin: this form arises from the greater hardness of the inferior bed, the Portland limestone; which, having offered a stronger resistance to the action of the waves, projects in bold capes; while the inner strata have been more extensively worn away. The back of several of these coves, is cut into the chalk strata, and fine cliffs are thus exposed: this is the case at Worthbarrow Bay, Lulworth Cove, and Durdle Cove; in all these the chalk strata are nearly vertical, and the lower beds are seen in the same order so often alluded to.

From Durdle Cove to Whitenose point, about one mile and a half to the west, the chalky cliffs line the entire coast. This interval is interesting because it presents the termination of the vertical chalk strata, and because it is the last chalky cliff on this part of the coast, the hills of that formation here trending inland.

The termination of vertical beds appears to take place, in consequence of the course of the chalk and the line of the coast trending to the north of the axis of the disturbing force: the manner in which the transition from the vertical to a gently inclined position takes place, will be best understood by consulting the subjoined sketch.



As at Handfast point, the vertical chalk is here hard, the horizontal in its usual state of softness; this seems to indicate some connexion between the inclination and consolidation of the strata.

All the members of the formation are the same as before.

means the case; every gradation being observable, from nodules of the usual shape, only much cracked, to those I have just described. These flints do not frequently fall into fragments in the hand, as those of the Isle of Wight, the parts being firmly imbedded in the chalk; but there is the same variety in the size of the fragments, from large pieces to the finest powder.

The nature of this singular chalk and flint is best examined on the south side of Handfast point, in Swanwich bay, where much of the cliff had fallen down; on the east face it is both more difficult to land, and to get access to it. (W. 166, 167.)