

50 feet lower, which must be near the fact, we shall assume it to be in that place, 340 feet high. From this place, the cliff, generally speaking, declines in height gradually towards Deal, terminating about a mile from that place, and disappearing near Walmer Castle, beneath rubble and alluvial matter with which it is there covered to the depth of 15 or 20 feet.\*

In this long range of cliffs, which in many places forms an immediate barrier to the sea, it is not to be expected that every part should be equally accessible to investigation. Between Deal and Dover there is but little difficulty, nor for nearly half the way from Dover towards Folkstone; but in the latter half of that distance, an immense fall, or rather, it should seem, repeated falls have taken place; so that that part of the cliff of which the beds remain *in situ*, is, at its extremity beneath the signal-house, nearly a mile from the shore. The ruin lying between this cliff and the sea, for about three miles in length, affords scenery inferior in beauty to the "Undercliff" of the Isle of Wight, only because from its want of soil, it is less susceptible of cultivation; while from the same cause its grandeur is more striking. The greater part of it, however, is sufficiently covered by herbage to have become a pasturage for cattle. The cliff, bounding this ruin towards the sea, is from its position, evidently not *in situ*, and it is equally clear that the enormous masses of which it is composed, have fallen forward from near the summit of the cliff *in situ*.

In the less precipitous parts of the cliff, and particularly along that part of it, between which and the sea the ruin lies, it is in a considerable degree covered by herbage; which however does not prevail so greatly as to prevent the observation, that it is, throughout its whole length from Walmer Castle to Folkstone, very distinctly stratified; that the strata are numerous, regular, and perfectly defined, although from the nature of the cliff it is not possible every where to trace

\* Almost the whole line of these cliffs is more or less covered by alluvium, but of two sorts; one consisting of a red sand or sandy marle, occasionally containing spangles of mica and very considerable quantities of broken flint, detached doubtless by remote causes from the beds of the upper chalk which once enclosed them, and which have been destroyed. This alluvium prevails most near the signal-house on the summit of the cliff above Folkstone: and it is seen in many places filling up the gullies or deep indentations made below the surface of the chalk, most probably by the action of water. The other variety of alluvium consists of greyish earth, enclosing small rounded portions of chalk and occasionally of flint; but between this latter and the chalk *in situ*, are occasionally visible considerable deposits of chalk rubble, as on the summit of the low cliff on the west of Dover, and near St. Margaret's bay on the east. (G. T. vol. v.)