

beyond the central part, still retaining the black colour of the internal part of the flint, it is clear that it was not a coating; but on the contrary, this circumstance seems to furnish strong, if not conclusive evidence of its being the consequence of disintegration, proceeding from causes that have not hitherto been explained. The alluvium of the surrounding country corroborates the supposition; every where it includes a multitude of fragments of flint, the broken surfaces of which always exhibit the same appearance of disintegration.

It is also to the progress of disintegration that we are to ascribe the existence of the white opaque coating by which the mass of every flinty stratum is more or less covered, while yet in its natural bed. In no instance did there appear any well defined line of separation between the flint and the opaque coating, which not unfrequently is half an inch thick, and which by exposure to the sea becomes more compact, and hard enough to admit of a conchoidal fracture. Between its outer surface and the black flint, it is not uncommon to observe two or three thin bands of flint. If the white substance be the consequence of disintegration, it seems remarkable that these bands should have been thus left untouched. In order to ascertain the nature of the white substance surrounding the flint, three portions were selected with care. One from without the band—another from between the band and the flint—and the third of one in which there was no band. These my brother took with a view to determine what proportion of each consisted of lime, in case any should be found. The two first consisted wholly of siliceous matter; the last of 86 per cent. of silica and 14 of carbonate of lime. All the fragments were of a granular texture, and sufficiently hard to cut glass; each also left a whitish streak on the finger when rubbed with considerable pressure upon it; the last in the greatest degree.

Large fragments of striped flint of a grey colour are often discoverable among those which have been taken from the inferior beds in the upper chalk, but they frequently contain a nucleus of black flint, from which the grey stripes diverge as from a common centre.

Such flints as are interspersed in the chalk of the stratum with numerous flints, have usually some organic appearance. They are occasionally found in pear-shaped masses resembling the head of the alcyonium; sometimes in the form of nearly perfect spheres, which are solid, and do not commonly exceed half an inch in diameter, and are often much less. Others of no particular external form, have internal cellular or ramifying cavities which seem to indicate the same origin. Others again seem so decidedly to have been formed around sponges, that