STRATA

WITH ORGANIZED FOSSILS.

THE eastern and south-eastern half of England, as far inland as a curved line from Exeter to Teesmouth, abounds with organized Fossils, regularly imbedded in the Strata. The vast expanse of red Marl and its Sandstone, has none of them, but they are very abundant in the Limestones which accompany it.

These, however, occupy but a small portion of the island, compared to the great extent of Strata before-mentioned, and when it is considered that in the remainder of the Strata, Red and Dunstone, Killas and Granite, organized Fossils are not found, or very rare; they seem chiefly confined to the district before described, and to the Coalmeasures, the former nearly all animal, and the latter chiefly vegetable. The Muscles and Ammonites found in Ironstone of the Coalmeasures, and the bituminized wood of blue clays, in the other district, being trifling exceptions to general rules so extensive.

The eastern side of the island is, therefore, best for the commencement of regular observations on the organized Fossils which are illustrative of its Geology. It is also necessary that the series of British Strata, for the simplification of science, should be considered in classes. The part above the Chalk is one, and the principal divisions of which it is susceptible, are reducible to two---a great Sand and a great Clay, with a general parting of Crag; but each of these is subject to considerable variations.

The Sand lies next the Chalk, and the clay over that forms insular hills.

The great Sand is in many places interspersed with Clay, or Brickearth, and the Clay as frequently with Sand and Loam. Pebbles are common to both, but to what depth beneath the surface may be difficult to determine.

The chief partition Strata have not always the same appearance. The Crag being, in some parts of its course, composed of shells and sand, in some places of shells and clay, and in others of shells and coral, united in a soft stoney rock, which about Orford is used in building. In other places the shells are filled with, and imbedded in a hard blue grey Sandstone, and in some parts of their course they appear to be deficient, or found only thinly interspersed with a blue grey concreted loam, or indurated Brickearth. The alluvial Pebbles, Clay, and Sand spread over great breadths of the plains formed by the surface of these thin partition Strata, much increases the difficulty of tracing their outcrops.

The greatest breadth of the Clay is in Essex, and the vicinity of London, as described in my delineation of the Strata by the dun or dark blue colour, and the localities of the most remarkable sites of its organized Fossils, are noted in a list which accompanies the explanation of the plate.

The other great division of Sand and Brickearth, is represented on the map by yellowish brown, and the sites of its peculiar Fossils under the head of Crag, similarly described---but the partition Strata which produce these shells, vary so much in hardness, colour, consistence, and uses, as to render a local description of one part, almost unintelligible to those who are acquainted with it in another. For on a cursory view of these shelly Strata in their course through