

North and South Downs, a tract of country traversed daily by hundreds of intelligent persons from the metropolis, their peculiar characters were entirely unknown fifteen years ago;* the whole group being supposed by geologists to belong to a series of marine clays and sands below the chalk.†

Before entering upon the description of these strata, I would remind you of what has been stated in a previous lecture, of the effects of rivers, and the nature of modern fluviatile deposits (pp. 39, 40). We found the deltas of rivers to consist of clay (or indurated mud), alternating with beds of sand and sandstone (or consolidated sand), and containing leaves, branches, and trunks of trees, fresh-water shells, works of art, bones of man, and of land

* "Until the appearance of Dr. Mantell's works on the Geology of Sussex, the peculiar relations of the sandstones and clays of the interior of Kent, Sussex, and Hampshire, were entirely misunderstood. No one supposed that these immense strata were altogether of a peculiar type, and interpolated amid the rest of the marine formations, as a local fresh-water deposit, of which only very faint traces can be perceived in other parts of England."—*Professor Phillips, Ency. Met.* p. 631. Art. *Geology*.

† "It was not until the appearance of Dr. Mantell's Illustrations of the Geology of Sussex, in 1822, that the full value of the evidence which this district affords was made to appear. In that work the author clearly showed that the extraordinary remains which he had discovered in the beds of Tilgate Forest must have originated in a lake, or estuary, and have been the produce of a climate much warmer than that which is now enjoyed in England."—*Dr. Fitton's Geology of Hastings*, p. 14.

† See Conybeare and Phillips' *Outlines of the Geology of England and Wales*, pp. 140, 155.