

spread over a considerable area, which is bounded on the south by the North Downs; extends on the west beyond High-elm hill, in Berkshire; and on the north-west is flanked by the Chalk hills of Wiltshire, Berkshire, Oxfordshire, Buckinghamshire, and Hertfordshire. On the east it is open to the sea; the Isle of Sheppey, situated in the mouth of the Thames, being an outlier of the same deposit.* It spreads over Essex, a considerable part of Suffolk, Epping and Hainault forests, the whole of Middlesex, and a portion of Bucks. In the immediate vicinity of the metropolis, a stiff clay of a bluish-black colour, abounding in marine remains, constitutes the great mass of the materials which fill up this ancient gulf of the ocean. Immediately upon the chalk, however, there occur thick beds of sand and clay, called Plastic clay (from its analogy to the *Argile Plastique* of the Paris basin), in which fresh-water shells, plants, and drifted wood, have been found in some localities. In other instances, layers of green sand lie upon the chalk, which at Reading contain immense quantities of oyster-shells: a similar accumulation of shells has been observed at Headley, in Surrey, a few miles from Reigate, by Mr. Peter Martin, jun. of that town. At Bromley, in Kent, there is a bed of oyster-shells with pebbles of chalk-flints, which are cemented together by a calcareous deposit into a remarkable

* See Mr. Webster's paper in the Geological Transactions; and Conybeare and Phillips's Geology of England and Wales.