

looked upon as a portion of the Woolwich and Reading series, which partly consists of a few saltwater beds, interstratified with a preponderance of fresh-water deposits. Excepting that the Thanet Sand is altogether marine, it is possible that it might have continued still to be classed simply as one of the minor marine portions of the Woolwich and Reading series.

The *Woolwich and Reading beds*, formerly called the *Plastic Clay* (*Argile plastique* of the Paris basin), overlie the Thanet Sand, and rest directly on the Chalk, when, as in the greater part of the London basin, and in Hampshire and the Isle of Wight, the Thanet Sand is absent. They may be broadly described as consisting of many wedge-shaped interstratifications of mottled clays, light-grey sands, and pebble-beds, made of chalk flints, which are sometimes loose and gravelly, and sometimes hardened into conglomerates. From west to east the strata vary from 15 to 90 feet thick in the London basin. In the Hampshire basin they are still less developed (fig. 47), and the whole consists of mingled marine, estuarine, and often of purely fresh-water strata, marking the first obvious signs of the influx of a great river, formed by the drainage of a continent, the result of the upheaval above the sea of large areas of Chalk and other older rocks in what is now Britain and the nearest parts of France. There can be no doubt, however, that the Thanet Sands are the result of the same set of conditions, only they were deposited further from shore in a comparatively open sea.

More than 100 species of fossils are known in the Woolwich and Reading strata, including an herbivorous mammal of the genus *Coryphodon*, allied to the modern tapirs of South America, which live on the banks of the Amazons and other great rivers, also the bones of a bird,