

England—from the borders of South Staffordshire and Warwickshire to the neighbourhood of London—we discover that the whole series is made of strata, arranged in successive stages more or less in the manner which I have already described, and they consist of similar materials. Thus, through Warwickshire and South Staffordshire, we have rocks formed of New Red Sandstone. The red sandstone dips to the east, and is overlaid by New Red Marl; the red marl dips also to the east, under beds of blue clay, limestone, and brown marl, forming the various divisions of the Rhætic beds and Lias; these pass under a great succession of formations of limestones, clays, and sands, &c., known as the Oolites; these, in their turn, are overlaid by beds of sand, clay, and chalk, named the Cretaceous series; which again, in their turn, pass under the Tertiary clays and sands of the London Basin. All these pass fairly under each other in the order thus enumerated. Experience has proved this, for though there are occasional interruptions in the completeness of the series, some of the formations being absent in places, yet *the order of succession is never inverted*, except where, by what may be called geological accidents, in some parts of the world, such as the Alps, great disturbances have locally produced forcible inversions of some of the strata. The Oolites, for example, in England, never lie *under* the Lias, nor the Cretaceous rocks under the Oolites.

Observation of the surface in cliffs, railway cuttings, and quarries, therefore proves this general succession of formations, and so does experience in sinking deep wells and mine shafts. If, for example, in parts of the midland counties we sink through the Lower Lias, we pass question. Some minor formations known further inland are added to make the series more complete.