

to the Thames is equally applicable to the Ouse, the Nen, the Welland, the Glen, and the Witham, rivers flowing into the Wash, all of which rise either on or close to the escarpment of the Oolites, between the country near Buckingham and that east of Grantham, which rocks were once covered by the Chalk.

With minor differences, the same general theory equally applies to all the rivers that run into the Humber. I believe the early course of the Trent was established at a time when, to say the least, the Lias and Oolites overspread all the undulating plains of New Red Marl and Sandstone of the centre of England, spreading west to what is now the sea, beyond the estuaries of the Mersey and the Dee. A high-lying anticlinal line threw off these strata, with low dips, to the east and west; and, after much denudation, the large outlier of Lias between Market Drayton and Whitchurch in Shropshire, is one of the western results. Down the eastern slopes the Trent began to run across an inclined plain of Oolitic strata. Through long ages of waste and decay the Lias and Oolites have been washed away from these midland districts, and the long escarpments formed of these strata lie well to the east, overlooking the broad valley of New Red Marl through which the Trent flows.

The most important affluent of the Trent is the Derwent, a tributary of which is the Wye of Derbyshire. The geological history of the Wye is very instructive. It runs right across part of the central watershed of England, formed by the great boss of the Carboniferous Limestone of Derbyshire. This course, at first sight seems so unnatural, that the late Mr. Hopkins of Cambridge stated that it was caused by two fractures in the strata, running parallel to the winding course of