

The succession of events that, through the Rhætic beds, marked the transition from the New Red Marl to the Lower Lias seems to have been as follows:—

In the latter part of the Triassic epoch, as already stated, our Keuper, or New Red Marl, beds were deposited in an area that now forms part of England, and this area was in those days a great salt lake.

This lake gradually got partly filled with sediments, and by-and-by, through change in amount of rainfall, or through increase of heat, it ceased to have an outflow, evaporation being equal to, or greater than, the influx of water. Concentration and precipitation of salts ensued as already explained.

Subsequently, during deposition of the marly sediments, by increase of rainfall, or climatic change of temperature, the water became somewhat less salt, but still sufficiently saline, by evaporation of the moisture on wet surfaces, to produce crystals of salt (now pseudomorphs) in sandy layers interstratified with the marls, together with layers and nodular masses of gypsum, which state of affairs continued up to, and even during, the deposition of recognised Rhætic strata. That Rhætic areas got dried by temporary exposure is certain, for besides the pseudomorphs, sun-cracks are common in the strata.

In our area, sinking of the district took place at or about the time when the lake or lakes got nearly filled with sediment, and a partial influx of the sea over shallow bottoms was the result. The deposits that ensued, accompanied by a small migration of marine forms of life, constitute the Rhætic beds of England.

Many years ago, the late Professor Edward Forbes stated to me that the fauna of the White Limestone of Lyme Regis, then called White Lias, reminded him,