

known, and has been traced in detached areas over the centre and west of Europe, from Saxony and Franconia to the north of Ireland, and from Basel to the Germanic plain, re-appearing even among the Eastern States of North America, it must be looked upon as a local phenomenon. This assertion commends itself to our acceptance, when we reflect upon the nature of the strata of the central European Triassic basins. These rocks consist for the most part of bright red sandstones and clays or marls, often ripple-marked, sun-cracked, rain-pitted, and marked with animal footprints. They contain layers, nodules, or veinings of gypsum, beds (and scattered casts of crystals) of rock-salt, and bands or massive beds of limestone, often dolomitic. Such an association of materials points to isolated basins of deposit, or salt-lakes or inland seas, to which the outer sea found occasional access, and in which the water underwent concentration, until its gypsum and salt were thrown down. That the intervals of diminished salinity, during which the sea renewed, and perhaps maintained, a connection with the basins, were occasionally of some duration, is shown by the thickness and fossiliferous nature of the limestones.

It is evident, however, that in this, as in all other geological periods, the prevalent type of sedimentation must have been that of the open sea. The thoroughly marine or pelagic equivalents of the red rocks of the basins have now been traced over a far wider portion of the earth's surface. In the Alps and thence eastward through the Carpathian Mountains and southern Russia into the heart of Asia and northern India, as well as southward into Italy and Spain, the deposits of the open Triassic sea are well developed. Masses of limestone and dolomite, attaining sometimes a thickness of several thousands of feet, are there replete with