

In sea-water a large portion of muriate and sulphate of magnesia is found, which gives it that bitter nauseous taste, distinct from its saltness. This difference in the composition of sea-water and of rock-salt, might seem to indicate that rock-salt was not, as some suppose, produced by the evaporation of sea-water; but if it were formed in detached lakes, it is possible that the waters of these lakes did not contain precisely the same salts in solution, as those of the sea. We know that the waters of some of the salt lakes, existing at present, differ in their contents from sea-water. If, however, the evaporation were very slow, the salt of the ocean would separate from all its impurities by crystallization; these impurities, being more deliquescent, might be washed away.

It may deserve notice, that few, if any, remains of marine or other organized bodies are found in the beds accompanying the rock-salt of Cheshire. In the Polish salt mines, bivalve shells and the claws of crabs are met with in the upper strata of marl; and vegetable impressions in the bed covering the lower salt, at the depth of two hundred and twenty five yards from the surface. But some of these mines are now believed to occur in tertiary formations.

The salt formation at Droitwich in Worcestershire, appears to be surrounded by the same kind of red sand rock, and covered with similar beds of gypsum and marl, to that of Cheshire. Here the rock-salt, though its existence has been proved by boring, is no where worked. The salt is procured by evaporating the water, which is nearly saturated with it.

Salt springs rise in some of the coal strata, adjacent to the red marl and sandstone: in all probability the brine is infiltrated from that formation, into the baset edges of the strata overlying coal. There are salt springs in some of the coal mines in Northumberland, Derbyshire, and Yorkshire; and a spring of brine rises in the river Wear, in the county of Durham.

Brine springs, containing from five to six per cent. of salt, rise in the coal mines near Ashby-de-la-Zouch in Leicestershire, at the depth of two hundred and twenty five yards under the surface. A weaker brine also rises in the upper strata: it springs through fissures in the coal, attended with a hissing noise, occasioned by the emission of hydrogen gas.

I examined these mines, belonging to the Earl of Moira, in the summer of 1812: they are situated at Ashby Wolds, in the very centre of England;* and what may appear remarkable in this situation, they are worked one hundred and forty yards below the level of the sea, which is ascertained from the levels of the canal that passes by the pits. Had this circumstance been known, before the attention of geologists was directed to the structure of the earth's

* Baths and hotels are now erected there for the accommodation of visitors: they are called the Moira Baths, near Ashby-de-la-Zouch.