

whole subalpine valley to Vienna, and may be traced in Hungary and Moravia in detached localities.

In Italy, formations of the same age constitute the subappennine hills occupying the wide expanse of the valley of the Po, and thence forming a zone skirting the shores of the Adriatic even to the point of Otranto; on the west side of the Appenines they occur less extensively, being very generally covered by the products of the volcanoes which have ravaged that side of Italy; they may however be traced in the Val d'Arno, in Rome itself mingled with volcanic products, and in other places. The description of the Italian formations agrees very closely with that of the basin of London, but there is often considerable difference in the species of shells they contain; perhaps not more than one-third can be considered as common to the two districts.

Sicily, Dalmatia, and parts of Greece appear to exhibit similar beds, and Malta to be composed entirely of them.

In Spain, several tracts of fresh-water formation have been observed, but they seem to be of very local and limited occurrence; the deposit of shells at the foot of the hill of St. Julians near Alicant, described by Mr. Townshend, seems to be clearly of this age.

In the north of Europe, Count Von Buch mentions that at the head of several of the Norwegian Firths surrounded by primitive hills, he found small deposits of clay full of shells resembling the recent, but at the height of more than 100 feet above the actual level of the sea; these seem to be the traces, faint indeed, of the action of the causes which have produced more extensive similar deposits in others quarters, and to be referable to the most recent of these deposits.

In Iceland, a deposit of this nature appears to constitute the solitary exception to the general prevalence of igneous products in the composition of that country; for we find a hill of clay, full of shells of the *Venus Islandica*, near Husavik, mentioned as the only instance of the occurrence of marine remains in that island: the shells are of a smaller species than those now found in the neighbouring sea.

In North America, the tract extending between the Atlantic and the Alleghany mountains, appears to be composed principally of formations of this character: organic remains from this quarter are preserved in the Woodwardian collection at Cambridge.

A series of specimens has lately been presented to the Geological Society from the plain at the foot of the Himmaleh mountains, which exhibit a close agreement in character with those of the London clay.