

"Organic remains from near Castello Arquata, in the neighbourhood of the ancient Velleja, in the district of Placenza.

"A pretty extensive collection of shells.

"A small whale, entire.

"A portion of another whale, of a larger species.

"The entire skeleton of an elephant, united together.

"The head of a rhinoceros, with some bones.

"Two skeletons of dolphins.

"They were all found in a confined space, in the midst of marine mud, deposited in a tranquil sea, at the present height of thirteen hundred feet." The director adds, "This singular geological combination, comprehending organic vestiges of every latitude, resembles that recently discovered in New Siberia, at Behring's Straits. Many eminent writers have spoken of it; among others, the brothers Bondi were some of the first who noticed it; and Signor Corlesi, a landed proprietor at Castello Arquata, and author of '*Geological Essays on the States of Parma*;' also Signor Brochi, in his *Sub-Apennine Fossil Conchology*."

The occurrence of the remains of large terrestrial and of marine mammalia in the same deposition, may admit of an easy explanation, by observing what has taken place in some parts of England. On the Sussex coast, there was, at no remote period of history, an estuary extending inland from Newhaven to near Lewes. This estuary is now filled up, and forms a level meadow, through which the river winds its way to the sea. It is not difficult to explain how the filling up of the estuary was effected: the immense mass of loose pebbles or shingles which lie upon the Sussex coast, change their position during violent storms, and are accumulated in new situations. A drift of pebbles, forming a bank or bar near the mouth of the estuary, would prevent the sudden return of the sea after each tide, and retain the water, until it had deposited the mud and sand which it contained. Thus, the estuary would gradually become shallower, and its dimensions would contract from year to year. The waters of the river and rivulets which flowed into the estuary would also contribute their depositions of freshwater mud.

By the joint operation of these causes, the estuary would be first converted into a marsh; and when the drainage was more complete, this marsh was converted into a plain or meadow. By sinking beneath the soil, the various depositions of silt, sand and vegetable matter, prove the means by which the estuary was filled. At a considerable depth, large vertebræ of a whale were discovered, and are now in the museum of Mr. Mantell, at Lewes. Instances of whales entering estuaries at high tides, and being unable to return at low water, are not of very unfrequent occurrence on the coast of Great Britain. Let us suppose the sides of the hills bounding the estuary near Newhaven to have afforded herbage for deer and oxen; their bodies or bones might be washed down into the estuary, and thus we should have all the conditions required for the intermixture