

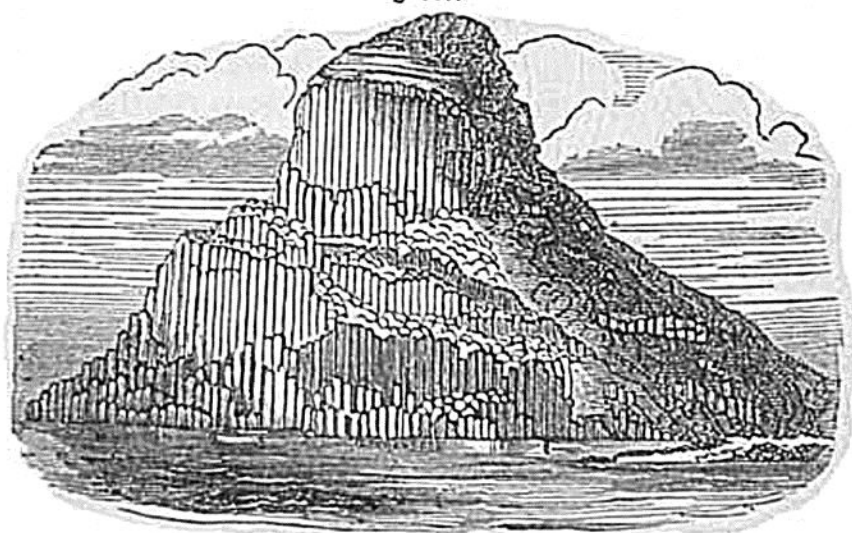
origin of such conglomerates is explained by observing the shingle beaches composed of trap pebbles in modern volcanic islands, or at the base of Etna.

*Post-Pliocene Period (including the Recent).*—I shall now select examples of contemporaneous volcanic rocks of successive geological periods, to show that igneous causes have been in activity in all past ages of the world, and that they have been ever shifting the places where they have broken out at the earth's surface.

One portion of the lavas, tuffs, and trap-dikes of Etna, Vesuvius, and the Island of Ischia, has been produced within the historical era; another, and a far more considerable part, originated at times immediately antecedent, when the waters of the Mediterranean were already inhabited by the existing species of testacea. The southern and eastern flanks of Etna are skirted by a fringe of alternating sedimentary and volcanic deposits, of submarine origin, as at Adernò, Trezza, and other places. Of sixty-five species of fossil shells which I procured in 1828 from this formation, near Trezza, it was impossible to distinguish any one from species now living in the neighbouring sea.

The Cyclopiian Islands, called by the Sicilians Dei Faraglioni, in the sea-cliffs of which these beds of clay, tuff, and associated lava are laid open to view, are situated in the Bay of Trezza, and may be regarded

Fig. 660.



View of the Isle of Cyclops, in the Bay of Trezza.\*

as the extremity of a promontory severed from the main land. Here numerous proofs are seen of submarine eruptions, by which the argillaceous and sandy strata were invaded and cut through, and tufaceous breccias formed. Inclosed in these breccias are many angular and hardened fragments of laminated clay in different states of alteration by heat, and intermixed with volcanic sands.

The loftiest of the Cyclopiian islets, or rather rocks, is about 200 feet in height, the summit being formed of a mass of stratified clay, the laminae of which are occasionally subdivided by thin arenaceous layers.

\* This view of the Isle of Cyclops is from an original drawing by my friend the late Capt. Basil Hall, R. N.