

CHAP. II.

On the particular Objects and Ends of Geological Investigation.

A VERY superficial examination of the objects which surround us, is sufficient to show that the substances which constitute the accessible portions of the globe, are numerous and various, and that their positions and mutual relations are irregular and intricate. Granite and marble, slate and sandstone, furnish the materials of architecture, the metals and coal are the foundation of the arts. The same rocks that constitute the ridge of Jura occupy the plains of England, and the basalts that repose on the granites of the Andes are found beneath the limestones of Sky. A thousand phenomena record the revolutions which these substances have undergone. The fragments of former rocks are reconsolidated to form new mountains, the remains of animals that have existed beneath the ocean are imbedded in the loftiest Alps, and the vegetables that once flourished in the light of day are buried beneath the solid strata.

A very general view of the objects which comprise the immediate pursuit of the geologist, will here be sufficient. The most obvious of these is the nature of the rocks which constitute the accessible portions of the globe; and, in these, it is necessary to distinguish the mineral composition, the peculiarities of structure, the varieties which they may present, and the families or species into which they have been already divided,