

and rugged, with vast precipitous projections that assume a highly romantic appearance ; others are marked by a smoothness or tameness of outline. Some appear as though they had been formed by the heaping up of immense crystals confusedly upon each other, and others as though they had been produced by the ejection of igneous rocks in a liquid state. These and other forms may be traced to the existence and operation of geological causes. Mountains consisting of granite are generally lofty and rugged ; of gneiss, projecting, but less precipitous. Some of the highest summits in the new world consist of old volcanic rocks ;—Chimborazo and Antisana are capped with vast masses of porphyry ; but the highest mountains of the old continent are composed of granite. A geologist, accustomed to examine the primitive rocks, may often detect the presence of one or another by the appearance of a district, in the same manner as a less experienced observer would, by the form of the hills, convince himself, even at a distance, of the presence of chalk.

Mountains have always a greater declivity on one side than on others, and generally that which is nearest to the sea is the steepest. The Alps has a much more abrupt descent on the Italian than on the Swiss side ; the Himalaya mountains are steepest on the southwest, and the Elboors on that side nearest the Caspian Sea ; and Mount Taurus, in Armenia, has its greatest descent on the north side, but near to the Mediterranean on the south. Almost every other mountain of considerable elevation will give evidence to the same fact. It is also worthy remark, that mountains are commonly most elevated in the interior of the countries in which they occur, and gradually decrease in height as they approach the sea. There are, however, some exceptions, and there is a very remarkable one in the mountains of Spain, which, as they approach the Bay of Biscay, increase in height ; so that Bilboa, a seaport, is actually surrounded by mountains.

A series of mountains, having the same base, is called a chain ; thus we speak of the Uralian, Alpine, or Caucasian chain. But when these chains are united together, they are called a system ; the American mountains, for instance, are spoken of generally as the system of the Andes. But some mountains are insulated, as are many of those in China and in Iceland, and also the rock of Gibraltar. Terms do not always have the same confined acceptation in science as they