

moment they were brought into existence ; and when two rocks are found to be identical in mineralogical composition and character, it is a legitimate deduction that they were produced by the same cause, though it may have been more active, or more continual, in one instance than in another. That rocks are being formed in the present day there is abundant evidence. The beds of rivers and oceans are constantly receiving the *débris* produced by the action of water upon the surface of rocks ; springs deposite in some places large quantities of calcareous and other matter ; and volcanoes pour over the surface of considerable districts immense streams of lava. But rocks bearing a close analogy to these are found to compose the crust of the earth, and it may, therefore, be deduced, that the causes which are now active in the production of rocks, did produce those ancient masses which form the framework of our globe.

2. The construction of the earth's crust must have occupied a considerable period of time, even upon the assumption that the productive agents were then more rapid in the accomplishment of their effects than they are in the present day. Nearly all the mineral masses that come under our notice are stratified, and were evidently formed by the instrumentality of water ; some by the physical power it exerts in transporting the disconnected fragments of pre-existing rocks, and others by a sedimentary process. Of these stratified rocks there are an immense number, some being only a few inches, and others many hundred feet in thickness ; a fact which proves that their formation must have occupied a considerable space of time.

3. The circumstance under which a stratum was produced, and, in some instances, the physical condition of the earth at particular periods, may be determined by an examination of rocks. Many of the stratified rocks contain the remains of animals and vegetables that lived at the time of their deposition ; and these may be generally employed as evidences of the circumstances under which the bed was formed, and the condition of the earth at the time. In some instances, the organic remains are found in a broken and almost triturated state, proving that the catastrophe which imbedded them was somewhat violent, and, perhaps, somewhat prolonged. In other instances, the most delicate structures of shells have been preserved ; and plants are found in such