

of any of the strata ; other granite has been melted or re-melted at various later periods ; granite may yet be forming in the deeper parts of the earth, round the centres of volcanic fires ; but, in general, we must look on this rock as characteristic of particular circumstances accompanying igneous action, not as belonging to particular periods of geological history.

These circumstances appear, however, to have occurred universally, if not simultaneously ; and the tendency to produce fluid compounds which subsequently admit of granitic crystallisation, is a characteristic effect of subterranean heat in all past geological periods. It appears, therefore, a probable inference, that the formation of granite was a process which began before the production of any of the strata ; was continued during the accumulation of primary, secondary, and tertiary rocks ; and is yet in action under particular circumstances in the deep parts of the earth. One of the most remarkable speculations of modern geology is that advocated by Mr. Lyell, who, in his "Principles of Geology," defends the somewhat startling speculation, that the granitic floor of the stratified crust of the earth, is nothing else than the fused and re-consolidated materials of older strata than any which are now visible,—that at this time granite is forming in the same manner by the fusion of the lower portions of the strata,—and that as new stratified rocks, the fruit of water, are slowly deposited above, the older ones which they cover are slowly re-absorbed by the antagonist element of interior heat, and converted to crystallised granite.

Those who adopt this view must of necessity look on the stratified rocks as an incomplete series of monuments of watery action, the earliest being wholly consumed by heat. According to them, the history of the globe must unavoidably be imperfect ; it can, as Dr. Hutton remarked, show no trace of a beginning, no prospect of an end ; the appointed agencies of terrestrial nature are bound in a perpetual circle of compensation