

geological theory by introducing for consideration this elegant and consistent speculation.

CONCLUSION.

That the doctrine of progressive cooling of the globe is to be now received as an established theory, those who desire the real progress of geology will prevent themselves from affirming; and perhaps few who have attended to the *inferences* contained in these volumes will hesitate to believe that it will one day become so. It is no small argument in favour of this hypothesis (as it must still be called), that it appears to include, easily and obviously, so many of the leading and general truths established by geological observation. The figure of the earth, its density, the actual temperature of its surface and interior parts; the general floor of igneous rocks below the strata; the repeated formation and uplifting of such rocks; the great and systematic fractures of the earth's crust; are all capable of explanation by this *one consideration*. Moreover, it assigns a reason for the remarkable uniformity and extent of the earliest as compared with the latest deposits of water; and accounts for the characteristic induration of the ancient rocks, the rarity and even total absence of organic remains in them, the changes of climate, and the periods of ordinary and critical action, which observation has established, by *one and the same principle*. The proximity of heated masses to the surface in the early ages of the world, to which these phenomena are easily referred, is indeed hardly doubtful, since it is equally indicated by a full investigation of the sources and distribution of terrestrial heat at this day.

What then is wanted to turn this apparently fortunate speculation into an established general theory? It is the same process which has given stability to the idea of gravitation, and is now employed to sustain the undulatory theory of light. It is the *deduction of cha-*