

been done away with. It is more probable that the same agencies have acted which are now changing the aspect of the globe; and these changes are slow, as far as we know them—at least, as far as the formation of sedimentary strata is concerned, and these alone we have to deal with. Various calculations have been made, based upon the denudation of the mountains, the filling up of the valleys by the débris, the formation of deltas, etc. The results give enormous stretches of time, but all of them unsatisfactory, because the methods are so very local in their application.

The least objectionable attempt is that which, based upon astronomical calculations, tried to fix the height of the last Glacial epoch* at about 200,000 years ago, and asserted that since its beginning in the Pliocene epoch as many as 270,000 years have elapsed. The duration of the whole

* James Croll: 'On Geological Time, and the Probable Date of the Glacial and Upper Miocene Period,' *Philos. Magazine*, xxxv., 1868, pp. 363-384; xxxvi., pp. 141-154; 362-386.