

abstruse and technical subjects much of the personal charm which contact with strenuous, patient, and enthusiastic natures never fails to reveal. Moreover, it has a double value in its bearing on the progress of those who are engaged in original research. A retrospect of this kind leads to a clearer realisation of the precise position at which they have arrived, and a wider conception of the extent and limits of the domain of knowledge which has been acquired. On the other hand, by enabling them to comprehend how, foot by foot, the realms of science have been painfully conquered, it furnishes suggestive lessons as to tracks that should be avoided, and fields that may be hopefully entered.

In no department of natural knowledge is the adoption of this historical method more necessary and useful than it is in Geology. The subjects with which that branch of science deals are, for the most part, not susceptible of mathematical treatment. The conclusions formed in regard to them, being often necessarily incapable of rigid demonstration, must rest on a balance of probabilities. There is thus room for some difference of opinion both as to facts and the interpretation of them. Deductions and inferences which are generally accepted in one age may be rejected in the next. This element of uncertainty has tended to encourage speculation. Moreover, the subjects of investigation are themselves often calculated powerfully to excite the imagination. The story of this Earth since it became a habitable globe, the evolution of its continents, the birth and degradation of its mountains, the mar-