

nature, has been purchased at the cost of the plainness and accessibility which it is imagined should attend the interpretation of phenomena so obvious as those in the crust of the earth: but in reality no branch of the study of external nature is less loaded with technical impediments. The thousands of organic remains which have been cited as witnesses of the ancient character of land and sea, are called by the names which have been assigned them by zoology and botany; the mineralogist has given the titles of rocks and individual minerals; chemists and mechanicians supply the laws of corpuscular actions and movements among the larger masses of matter; and all these parts of knowledge must enter into the consideration of any one who may think himself equal to *propose a general geological theory*. But equal difficulties and not greater facilities belong to the highest paths in every other branch of knowledge; while in the *collecting of facts* for the foundation and confirmation of such a theory, men of ordinary mental power and application can hardly fail to be usefully and most agreeably occupied; nor do they need, for this valuable purpose, to become profoundly versed in any other art or science than that of observation.

At the same time it is to be stated, that observations of most value in every field of human inquiry, have been made by those whose minds, previously directed to the true bearings of the questions in progress, have been ready to perceive and embrace the occasion of adding *new and appropriate* truths to the stock already gathered. It is therefore most important that as much of the *interpretation of geological phenomena* as can be correctly advanced, should be openly and frequently communicated to the public at large; since by this means the mass of ignorance and prejudice, which it is the function of science to remove, will be attacked at all points, and thousands of valuable facts disclosed in railways and canals, in wells, collieries, and mines, will be saved from that oblivion into which all the merely experimental acquirements of practical men too easily and quickly fall.