

the duty of science first to try to ascertain what evidence there is in the earth itself that will throw light upon the history of the planet. Instead of invoking conjecture and hypothesis, he proceeded from the very outset to collect the actual facts, and to marshall these in such a way as to make them tell their own story. Unlike Werner, he had no preconceived theory about the origin of rocks, with which all the phenomena of nature had to be made to agree. His theory grew so naturally out of his observations that it involved no speculation in regard to a large part of its subject.

Hutton started with the grand conception that the past history of our globe must be explained by what can be seen to be happening now, or to have happened only recently. The dominant idea in his philosophy is that the present is the key to the past. We have grown so familiar with this idea, it enters so intimately into all our conceptions in regard to geological questions, that we do not readily realise the genius of the man who first grasped it with unerring insight, and made it the chief corner-stone of modern geology.

From the time of his youthful rambles in Norfolk, Hutton had been struck with the universal proofs that the surface of the earth has not always been as it is to-day. Everywhere below the covering of soil he found evidence of former conditions, entirely unlike those visible now. In the great majority of cases, he noticed that the rocks there to be seen consist of strata, disposed in orderly arrangement parallel with each other. Some of these strata are formed of pudding-stone, others of sandstone, of shale, of lime-