

Or, it may be, there is some mysterious "principle" in the earth which, by some sort of "fermentation," produces these semblances to living forms. Or, still again, as these rocks existed before animals were created, it may be that the Creator moulded these lifeless shapes to serve as "prototypes" or "models" from which the living forms of animals were to be copied. Or, who knows, finally, but the old conjecture of Epicurus may be truth? Since matter must exist in some form, may we not regard these as some of the possible forms under which the particles of matter fortuitously fall?

So reasoned the world prior to the sixteenth century. But this was when the philosopher sat in his closet and argued how things ought to be, instead of going forth to observe how things are. We have learned to contemplate Nature with a different spirit. We have pulled down the house of many a speculatist about his ears. We have demolished many a universe constructed of the cobwebs of logic. We do not despise first principles and necessary deductions, but we have discovered a more direct and a more certain way of arriving at a history of the universe. We interrogate the facts which surround us, and have found them able to narrate a history which never entered the imaginations of the schoolmen. The phenomena of Nature are the premises of our reasoning instead of its conclusions. We have learned to look upon Nature with a profounder respect; and, though the alphabet of our philosophy be trees, and birds, and rocks, and fossils, and other material things which metaphysics affects to despise, we have found that they combine themselves into a language freighted with grand conceptions, and rich in utterances of the unseen, the high, and the holy. It has been revealed to us that the vast system of Nature is the expression of a divine thought—that the wide, blue, restless