

theorized under a lively persuasion that a Science of every part of nature was possible, and was a fit object for the exercise of man's best faculties; and they were speedily led to the conviction that such a science must clothe its conclusions in the language of mathematics. This conviction is eminently conspicuous in the writings of Plato. In the *Republic*, in the *Epinomis*, and above all in the *Timæus*, this conviction makes him return, again and again, to a discussion of the laws which had been established or conjectured in his time, respecting Harmonics and Optics, such as we have seen, and still more, respecting Astronomy, such as we shall see in the next Book. Probably no succeeding step in the discovery of the Laws of Nature was of so much importance as the full adoption of this pervading conviction, that there must be Mathematical Laws of Nature, and that it is the business of Philosophy to discover these Laws. This conviction continues, through all the succeeding ages of the history of science, to be the animating and supporting principle of scientific investigation and discovery. And, especially in Astronomy, many of the erroneous guesses which the Greeks made, contain, if not the germ, at least the vivifying life-blood, of great truths, reserved for future ages.

Moreover, the Greeks not only sought such theories of special parts of nature, but a general Theory of the Universe. An essay at such a theory is the *Timæus* of Plato; too wide and too ambitious an attempt to succeed at that time; or, indeed, on the scale on which he unfolds it, even in our time; but a vigorous and instructive example of the claim which man's Intellect feels that it may make to understand the universal frame of things, and to render a reason for all that is presented to it by the outward senses.

Further; we see in Plato, that one of the grounds of the failure in this attempt, was the assumption that the *reason why* every thing is what it is and as it is, must be that so it is *best*, according to some view of better or worse attainable by man. Socrates, in his dying conversation, as given in the *Phædo*, declares this to have been what he sought in the philosophy of his time; and tells his friends that he turned away from the speculations of Anaxagoras because they did not give him such reasons for the constitution of the world; and Plato's *Timæus* is, in reality, an attempt to supply this deficiency, and to present a Theory of the Universe, in which every thing is accounted for by such reasons. Though this is a failure, it is a noble as well as an instructive failure.