

often venture so far to trust their principles as to infer from them propositions beyond the domain of sense. Thus, the principle that each element seeks *its own place*, led to the doctrine that, the place of fire being the highest, there is, above the air, a Sphere of Fire—of which doctrine the word *Empyrean*, used by our poets, still conveys a reminiscence. The Pythagorean tenet that ten is a perfect number,⁷ led some persons to assume that the heavenly bodies are in number ten; and as nine only were known to them, they asserted that there was an *antichthon*, or *counter-earth*, on the other side of the sun, invisible to us. Their opinions respecting numerical ratios, led to various other speculations concerning the distances and positions of the heavenly bodies: and as they had, in other cases, found a connection between proportions of distance and musical notes, they assumed, on this suggestion, *the music of the spheres*.

Although we shall look in vain in the physical philosophy of the Greek Schools for any results more valuable than those just mentioned, we shall not be surprised to find, recollecting how much an admiration for classical antiquity has possessed the minds of men, that some writers estimate their claims much more highly than they are stated here. Among such writers we may notice Dutens, who, in 1766, published his "Origin of the Discoveries attributed to the Moderns; in which it is shown that our most celebrated Philosophers have received the greatest part of their knowledge from the Works of the Ancients." The thesis of this work is attempted to be proved, as we might expect, by very large interpretations of the general phrases used by the ancients. Thus, when Timæus, in Plato's dialogue, says of the Creator of the world,⁸ "that he infused into it two powers, the origins of motions, both of that of the same thing and of that of different things;" Dutens⁹ finds in this a clear indication of the projectile and attractive forces of modern science. And in some of the common declamation of the Pythagoreans and Platonists concerning the general prevalence of numerical relations in the universe, he discovers their acquaintance with the law of the inverse square of the distance by which gravitation is regulated, though he allows¹⁰ that it required all the penetration of Newton and his followers to detect this law in the scanty fragments by which it is transmitted.

Argument of this kind is palpably insufficient to cover the failure of the Greek attempts at a general physical philosophy; or rather we

⁷ Arist. *Metaph.* i. 5.

⁸ *Tim.* 96.

⁹ 3d ed. p. 83.

¹⁰ *Ib.* p. 88.