

Greek Atomism and subatomic particles. 'Atomos' and 'Ameres'

Post by "Joshua" of October 30, 2023 at 1:31 AM

A lot of it was fairly impressive for it's time. Compare, for instance, the atomism of Epicurus and Democritus with the cosmos of Aristotle's elements or essences;

	Atomism	Aristotelianism
Law of Inertia	Correctly intuited that Force equals Mass times Acceleration. The atoms are in constant motion. Force is only required to accelerate or decelerate bodies, or to change their course. *Note that the swerve of the atoms is not consistent with this general principle.	Wrongly inferred that Force equals Mass times Velocity. Matter is naturally at rest; Motion ceases shortly after force is no longer applied.
Matter Falling	The speed of atomic motion is uniform.	Heavier objects fall faster than lighter ones.
Description of Matter	Of the atoms, there are an infinite number of each kind of atom, but the kinds are merely innumerable. All atoms have three properties inseparable from their nature as atoms--weight, shape, and size.	Objects are made of one of the five classical elements. Air, fire, and aether naturally rise. Earth and water fall.
Extraterrestrial bodies	Everything that exists everywhere is composed of atoms and void. There are other worlds like ours, and other living things spread across the cosmos.	The heavenly bodies are made of aether, the quintessence or fifth essence, and aether is perfect. It gives to those bodies the most perfectly rounded shape--the sphere.
Nature vs Mind	"There is no purposiveness in Nature, but in the processes of nonpurposive creation she has brought into being a purposive creature, man. For him, being capable of reason, a telos is conceivable." -Norman DeWitt	"It is manifest that the soul is also the final cause of its body. For Nature, like mind, always does whatever it does for the sake of something, which something is its end." -Aristotle, <i>On the Soul</i>