

Episode One Hundred Sixteen - Letter to Herodotus 05 - More Fundamental Physics

Post by "Don" of April 8, 2022 at 10:17 PM

Also the discussion of "down" comes up in [60]:

[60] "Further, we must not assert `up' or `down' of that which is unlimited, as if there were a zenith or nadir.⁹² As to the space overhead, however, if it be possible to draw⁹³ a line to infinity from the point where we stand, we know that never will this space --or, for that matter, the space below the supposed standpoint if produced to infinity--appear to us to be at the same time `up' and `down' with reference to the same point ; for this is inconceivable. Hence it is possible to assume one direction of motion, which we conceive as extending upwards ad infinitum, and another downwards, even if it should happen ten thousand times that what moves from us to the spaces above our heads reaches the feet of those above us, or that which moves downwards from us the heads of those below us. None the less is it true that the whole of the motion in the respective cases is conceived as extending in opposite directions ad infinitum.

[61] "When they are travelling through the void and meet with no resistance, the atoms must move with equal speed. Neither will heavy atoms travel more quickly than small and light ones, so long as nothing meets them, nor will small atoms travel more quickly than large ones, provided they always find a passage suitable to their size, and provided also that they meet with no obstruction. Nor will their upward or their lateral motion, which is due to collisions, nor again their downward motion, due to weight, affect their velocity. As long as either motion obtains, it must continue, quick as the speed of thought, provided there is no obstruction, whether due to external collision or to the atoms' own weight counteracting the force of the blow.