

CHAPTER-2

DOES SPACE HAS ABSOLUTE-NOTHING ANY WHERE?

Highlights about the chapter DOES SPACE HAS ABSOLUTE-NOTHING ANY WHERE? in MATERIALISTIC UNIVERSE by Ramesh Varma.

Note: Chapter over DOES SPACE HAS ABSOLUTE-NOTHING ANY WHERE? Is not an encyclopedia. Challenger has illustrated only which relates to the new or contrary findings/understandings with some existing references to make the subject understandable.

- There is no place in the Universe, which is empty (absolute-nothing). Aristotle was correct that Nature dislikes vacuum i.e., absolute nothing.
- Space is filled/occupied with a state of the matter i.e., particles of light rays and of other kinds of the rays; called by the challenger as white-matter. White-matter forms the medium, which has the mass and poses resistance to celestial bodies.
- There is nothing like speculated Dark-matter; Dark-matter has been falsely understood in the absence of correct knowledge about white-matter (light/rays).

CHAPTER-2

DOES SPACE HAS ABSOLUTE-NOTHING ANY WHERE?

An article was published in a leading Indian newspaper on 27th February-1993. Contents of which have been printed below.

WHAT THE WORLD KNEW PRIOR TO PUBLICATION OF THIS BOOK?

FROM NEWSPAPER, YEAR-1993

Nature dislikes vacuum !

WHEN democracy degenerates into powerless, petty, quarreling men, nature throws up a dictator, for nature abhors vacuum. In society as in science, the diotum of the Aristotle seems to be true, that nature hates vacuum.

This was the idea which reigned over men's mind for close to 2,000 years till seventeenth century when men like Evangelista Torricelli, pascal and perier dared to experiment. They overturned the sacred gospel of the ages that nature dislike vacuum.

Torricelli created vacuum and showed that the nature is neutral, it has no likes or dislikes. Nature gives away its secrets to those bolder spirits who dare to experiment in humility and wait for the revealing light.

Galileo imparted his touch to his disciple Torricelli with whom he spent his last three months in isolation.

Galileo was given a problem by Grand Duke of Tuscany. He had a palace on high ground and wanted a well to be dug for it. Men struck water at the depth of 40 feet. Suction pumps were installed but no water came out.

Persistent efforts to draw the water indicated that the conventional pumps could raise water only upto 33 -feet . No one had any clue as to why the pump failed at this magical number of 33 feet.

Aged Galileo was in no mood for exertions and put his faithful boy on the job, after lazily suggesting, that perhaps nature has put the limit of 33 feet for pulling water with the help of lift pump. What can man do but accept the limit.

The functioning of water pumps were explained on the Aristotle's axiom that when piston is pulled out, it creates vacuum in the pipe and water rushes in the pipe and water rushes into fill the vacuum for nature abhors emptiness. Here this explanation failed. Why should nature stop at 33 feet?

Torricelli presented the solution after two years of experiments. He began experimenting with mercury in the laboratory.

He reasoned that since mercury is about 13.6 times heavier than water, a suction pump will not lift mercury more than 30 inches (33 feet divided by 13.6).

Torricelli created vacuum for the first time. Simply by inverting a glass tube filled with mercury in a tray full of mercury. Mercury stood at 30 inches height in the tube above the tray level.

Torricelli explanation in his words:

"We live submerged at the bottom of an ocean of air, which by experiment is known to have weight. On the surface of the liquid in the bowl, a 50 mile column of air presses down. It is, therefore, not to be wondered, that in the tube , with nothing to oppose its entry, it rises until it balance the weight of the air on the outside, which supports."

After Torricelli, man found vacuum everywhere. As man moves out of the dense atmosphere of the earth, it is emptiness all around. The universe now presents a formidable void, a vacuum with galaxy thrown in here and there, when man investigated each atom, he found vast empty space within the tiny atom.

Barometer, the instrument for measuring density of air, is based on Torricelli's discovery though pascal named it and carried on the work from where Torricelli left.

Torricelli died young, in 1647 at the age of 39.

1. WHAT IS THE DIFFERENCE BETWEEN VACUUM AND PERFECT -VACUUM (ABSOLUTE-NOTHING)?

Author had given the name 'Perfect-vacuum' (absolute-nothing) to a space where no white-matter particles exist. Meaning of the 'vacuum', World understands well i.e. space with no gas/air. Writer of the Newspaper article as well as the World had/has not understood that what Aristotle observed in true sense. His observation was not

related to the air or gas. How he could have understood centuries ago sucking of air from a jar to create vacuum which the present World has understood. Just a few centuries before World by calling light/rays (white-matter particles) energy, has lost the sense to understand light and other kinds of rays as matter, which are everywhere in space and are in every corner of the atom.

What Aristotle had said more than 2000 years ago was correct that Nature dislikes vacuum. Vacuum means 'perfect-vacuum' i.e., absolute-nothing with no white-matter particles. But the present World is using the word 'vacuum' where no gas exists. Space is filled with white-matter particles (white-matter), there is no **perfect-vacuum (absolute-nothing)** any where. **It is true that Nature dislikes vacuum (perfect -vacuum i.e., absolute-nothing).**

2. DARK MATTER:

During the year 1930s Physicists speculated presence of a state of the matter other than the known three states of the matter in galaxies, and called it 'Dark-matter'. Author has illustrated under the relevant chapter that this 'Dark-matter' is nothing else but particles the white-matter i.e., light and other rays as stated and illustrated ahead under the relevant chapter.

CONCLUSION:

Space is not empty; there is no place in the space which has absolute nothing. Space is filled with white-matter i.e., white-matter particles (particles of light-rays and other kind of rays) and there is nothing like speculated Dark-matter. White-matter being a state of the matter has density thus poses resistance to any body (even to particles of the rays) and also has the mass.

SPACE IS NOT EMPTY; IT IS FILLED WITH WHITE-MATTER PARTICLES:

PROOF:- This has already been stated and clarified under the relevant chapter and also under some chapters/paragraphs that space is not empty, it is filled with materialistic (matter) i.e., White-matter particles, but now with more proof.

Tail of the comet proves this; comet when reaches near the Sun, it develops two tails from already formed one tail. One tail is in the direction in which comet moves and another is formed by the high intensity Sun white-matter particles' rays in the direction of the Sun rays. Tail of the comet is nothing but matter arranged in such a way that the dense and big objects near the comet's core and lightest and the smallest-particles at the end, all others in between. This arrangement develops when medium poses resistance or thrust over the moving matter with the principle of mass/density and surface area ratio. (If there was no resistance in space, however fast speed of the comet might be, it could not form tail.) Tail formed along the path of the comet proves that Space is filled with something materialistic and that is white-matter particles. Example: If we drop a mixture of fine dust to course along with some large particles from a height when air is stationary; we would find a column of particles developed along the path of matter going towards the earth. Finest would be following the largest. This all has been developed due to air medium resistance with the principle of mass/density and surface area ratio. As air posed resistance to the dust particles similarly white-matter particles present in the space are posing resistance to mater which forms the tail of comet.

Secondly glowing or burning of the comet-core/nucleus much before approaching near the Sun where other planets do not get such heat/glow is self explanatory that glow or burning of comet nucleus is due to resistance (friction) posed by the medium i.e., white-matter particles present in the space and also white-matter particles emitted by the Sun. This all proves that space is not empty but filled with materialistic (matter) i.e., white-matter particles.