

The Cosmography of Confused Dimensions: Mapping Milton's Universe in *Paradise Lost*

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Abstract:

This paper will analyze the main constituents of the universe of *Paradise Lost* which are both well-known and largely controversial. Milton's heaven, hell, chaos and cosmos have been widely analyzed, and while there is disagreement over some details, the overall shape of his world is largely the subject of consensus. Today the heliocentric view of the solar system and many more, at times baffling, theories about the universe and its creation are accepted without question. The geocentric or heliocentric debate is but one small part of the cosmos that Milton presents in *Paradise Lost*. In general terms, Milton describes a universe with Heaven at the top, Hell at the bottom and Chaos in between. By the end of the epic, a bridge connects Hell to Earth. To grasp the significance of this view of the universe, one must examine each part of Milton's universe separately and compare the fictional or theological construct with the scientific knowledge of Milton's day.

Keywords : Heaven. Hell. Chaos. Paradise Lost. Cosmology. Geocentric. Infinitude. Ptolemaic Theory.

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“Considerate la vostra semenza:

fatti non foste viver come bruti,

ma per seguir virtute e canoscenza.”

Dante Alighieri, *The Divine Comedy*

John Milton used the conception of universe for composing his epic poem, *Paradise Lost*. Here in *Paradise Lost*, Milton uses the Ptolemaic Theory, commonly known as the Geocentric Model, which states that the Earth is at the centre of the universe and other celestial bodies revolves around the earth. This Ptolemaic theory as suggested by Ptolemy was far different than the Copernican theory as suggested by Nicholas Copernicus that the sun is at the centre of the universe and other celestial bodies including the planets revolves around the sun. Later scientists accepted the Copernican Theory of Astronomy and rejected the Ptolemaic theory which suggested the opposite theory as compared to the Copernican theory. Copernicus brought to the public what we would describe today as a revisionist picture of the world, which rendered the old Ptolemaic geocentric model problematic. But John Milton, instead of knowing the Copernican theory of astronomy, used and applied the Ptolemaic theory for composing his greatest epic poem in English literature, *Paradise Lost*. He founded it more suitable to describe the cosmos (universe) in the epic poem. The Catholic church had condoned supporting any other theory. So, Milton complied with societal demands in his decision chose the Ptolemaic model the church had supported. This Ptolemaic Theory is also known as the Pre- Copernican Theory. The Copernican system was at first imperfect in its details, and included several of the Ptolemaic, doctrines which rendered it less intelligible, and retarded its acceptance by persons who would otherwise have been inclined to adopt it. Copernicus believed that the planets travelled round the Sun in circular paths. This necessitated the retention of cycles and epicycles, which gave rise to much confusion;

nor was it until Kepler made his great discovery of the ellipticity of the planetary orbits that they were eliminated from the system. It was thus in his earlier years, when Milton devoted his time to the study of literature and philosophy, which he read extensively when pursuing his academic career at Christ's College, Cambridge, and afterwards at Horton, where he spent several years in acquiring a more proficient knowledge of the literary, scientific, and philosophical writings of the age, that he found the beliefs associated with the Ptolemaic theory adopted without doubt or hesitation by the numerous authors whose works he perused. His knowledge of Italian enabled him to become familiar with Dante Alighieri — one of his favourite authors, whose poetical writings were deeply read by him, and who, in the elaboration of his poem, the *Divina Commedia*, included the entire Ptolemaic cosmology. The adoption of the Ptolemaic system by Milton afforded greater scope for the exercise of his imaginative powers, and enabled him to bring within the mental grasp of his readers a conception of the universe which was not lost in the immensity associated with the Copernican view of things.

Ptolemy was skilled as a mathematician and geographer, who also excelled as a musician. His chief discovery was an irregularity of the lunar motion, called the '*evection*.' He was also the first to observe the effect of the refraction of light in causing the apparent displacement of a heavenly body from its true position. Ptolemy, however, claimed to have derived his geometrical models from selected astronomical observations by his predecessors spanning more than 800 years, though astronomers have for centuries suspected that his models' parameters were adopted independently on observations. Ptolemy has been referred to as "a pro-astrological authority of the highest magnitude". According to the Ptolemaic Theory, the nearest sphere to the earth is the sphere of Moon, the next is that of Mercury and the other succeeding spheres are Venus, The Sun, Mars, Jupiter, Saturn and the sphere of the fixed stars. The sphere of the fixed stars was called the firmament, because it was believed to impart steadiness to the inner spheres, and, by its diurnal revolution, to carry them round the Earth, causing the change of day and night. Beyond this last sphere there was believed to exist a boundless, uncircumscribed region, of immeasurable extent, called the Empyrean, or Heaven of Heavens, the incorruptible abode of the Deity, the place of eternal mysteries, which the comprehension of man was unable to fathom, and of which it was impossible for his mind to form any conception.

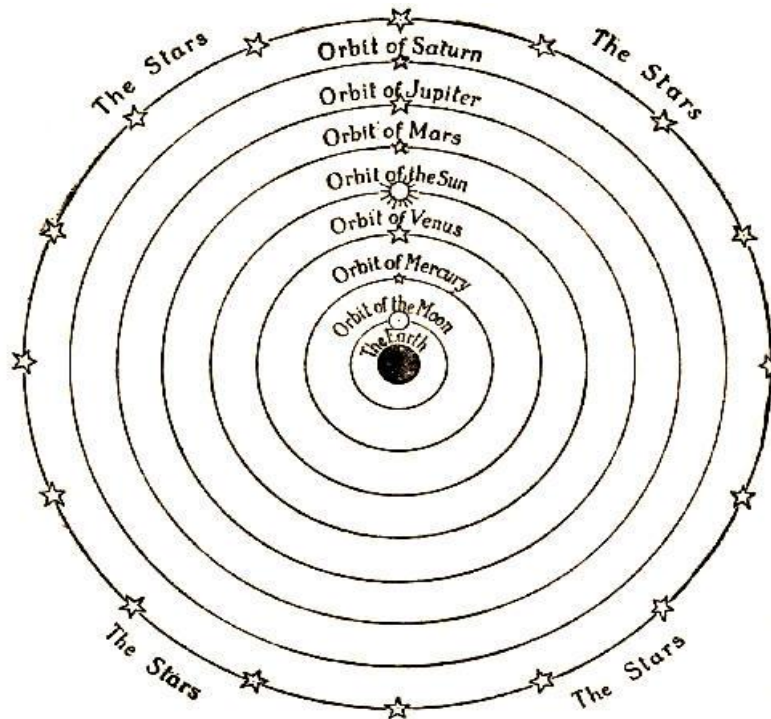


Figure 1: *The Ptolemaic Theory of Astronomy*

The scientific upheaval during Milton's time is unquestionable. An erudite poet such as the poet could not have remained outside topical debates focusing on some of the new scientific discoveries. A good summary of the spirit of Milton's time is provided by Thomas Orchard:

In the lifetime of the poet, astronomy made rapid progress; many brilliant discoveries were announced and important controversies were finally settled. With those Milton was fully conversant, and the frequency with which he alludes to them in his poems bears ample testimony to his being well abreast of all the science and philosophy of his age.

Milton incorporates the geocentric belief that the Earth is completely upright and stationary in *Paradise Lost*. Before the fall of mankind, the earth was upright and was in a perpetual spring. The weather and climate were ideal and Adam and Eve were comfortable living there. After Adam and Eve had the fruit of the Forbidden Tree, as part of their punishment, God sent his angels to tilt the Earth. After the tilt occurred, the weather changed drastically on Earth and with the tilt came harsh weather and seasons. In Milton, the Heaven is flat. It is not literally two-dimensional but functionally so. As Walter C. Curry correctly points out, the "Heaven of Heavens has no sky", there can be nothing "above" Heaven, which is the topmost part of

Milton's world. It is "up" with respect to all other parts of the universe, and everything is down from there. Rebel angels fall from it, and Satan has to find his way upward through the chaos to reach it. The entire cosmos is below it. Heaven has no sky, and Hell is at the opposite end of the universe, and is domed over. The Hell is created by God in the depth of the chaos, where Satan and his fallen angels took nine days and nights to fall from Heaven to Hell. In the midst of the bottomless lake of fire, there are five important rivers of Hell – Styx, Acheron, Cocytus, Phlegeton and Lethe. The physicality of Hell is unique in *Paradise Lost* in terms of its location within the universe. Hell is thus established as a place of eternal punishment for the devils, now subject to pain for the first time, and this torment attacks all the senses, not just the soul. The hierarchy of Hell is not a real arrangement based on superiority and inferiority. Satan has taken control as he led the rebellion against God, but in actuality all the fallen angels are essentially the same, a point made clear when they are all turned into snakes and both their importance in the universe and their degrees in Hell vanish. In Heaven, the hierarchy is real; in Hell, it is a sham.

Several visual representations of Milton's universe have been produced, but four such representations stands incomparable in order to map the concept of Milton's universe in *Paradise Lost*. The four representations are – David Masson's diagram of the Universal Infinitude (1874); Thomas Orchard's diagram of the scheme of *Paradise Lost* (1977); John Andrew Himes' revised diagram of Milton's Universe by William Warren (1915); and, Walter Curry's diagram suggesting the relationship between God, who is infinite light and the total space with its content of emanated and created reality (1957).

One of the most eminent and experienced of English professors of literature, the late David Masson, well says, "To every edition of the Divina Commedia there ought to be prefixed a diagram, however vague and crude, of the cosmological scheme adopted in the poem, or invented for it." In his opinion, students of Milton equally need a diagram of the Miltonic universe. Accordingly, he prepared and published one with careful explanations of Milton's cosmological terms and references; and his example has been followed by John Andrew Himes, Homer Sprague and Thomas Orchard.

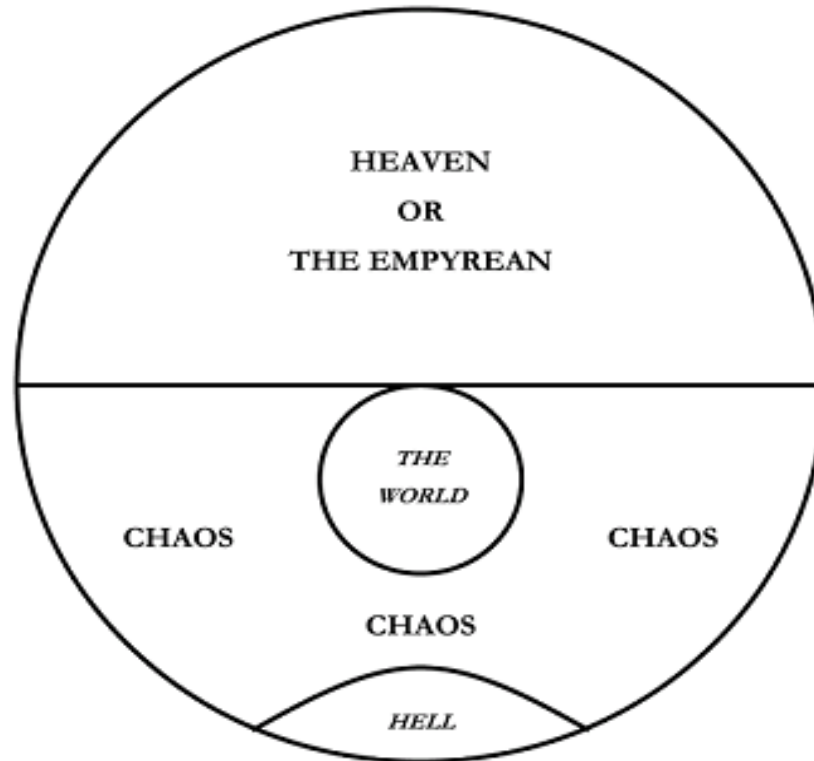


Figure 2: *David Masson's diagram of the Universal Infinitude*

David Masson is regarded as the first literary critic to draw a diagram of the Universal Infinitude. The illustration by Masson concentrates on the universe after the fall of Satan from Heaven to Hell. The diagram also shows the chaos on the three sides of the world squeezed to the sides by a large universe with the Heaven at the topmost part of the universe, and the Hell, created out by God from the chaos, is at the rock bottom of the universe where Satan and his fallen angels were thrown headlong from Heaven. Masson's figure is the oldest and the simplest.

Other Representations:

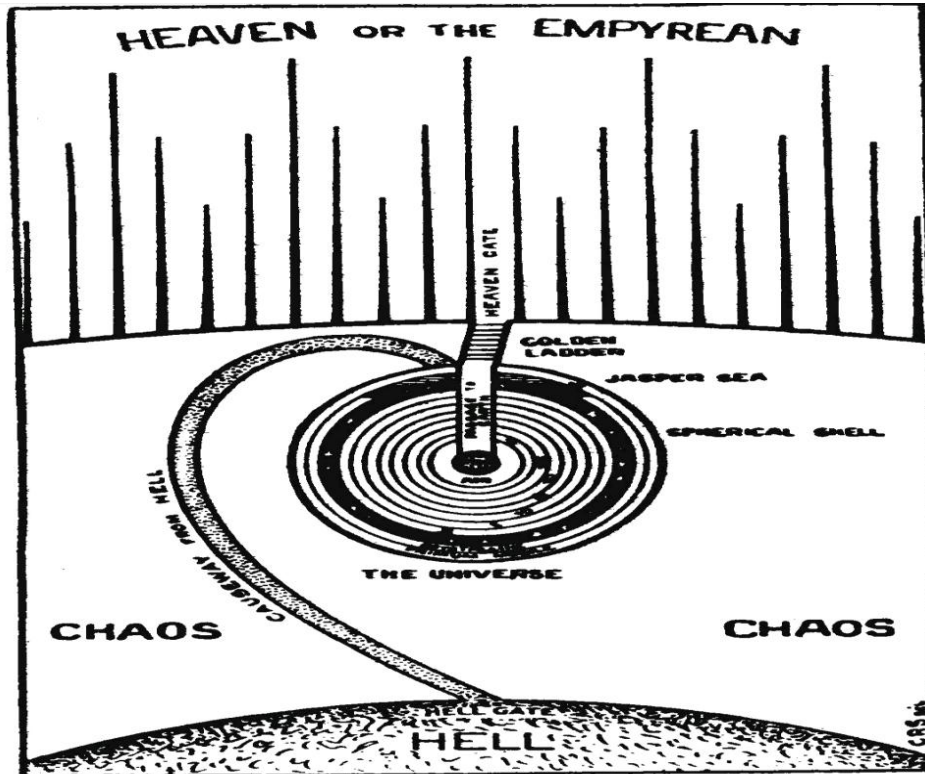


Figure 3: Thomas Orchard's "Scheme of Paradise Lost"

In Thomas Orchard's diagram of "the scheme of *Paradise Lost*" (1977), Heaven is in the upper half and Hell at the bottom, with chaos, from which the cosmos is carved out near the lower part of the Heaven., separating them. Orchard's greatest novelty, apart from the internal structure of the cosmos, is the inclusion of the ladder and the causeway connecting the orifice to the Heaven's and the Hell's gates, respectively. Orchard's diagram is more elaborative as compared to Masson's diagram of Universal Infinitude.

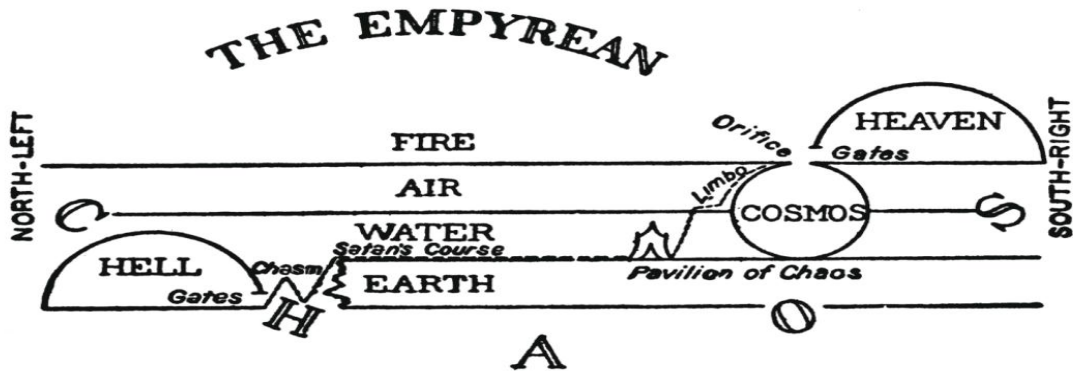


Figure 4: John Andrew Himes' revised diagram of Milton's Universe by William Warren (1915)

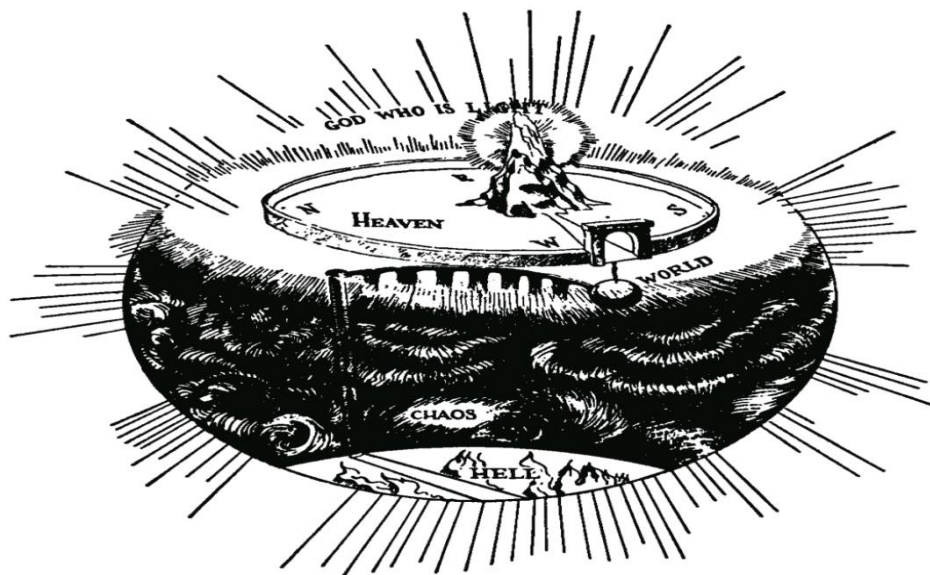


Figure 5: William Curry's "diagram suggesting the relationship between God, who is the infinite light, and total space with its content of emanated and created reality." (1957)

In the early twentieth century, William Warren reproduced a third diagram of Milton's Universe by John Andrew Himes (Figure 4). It is a two-dimensional cross section. Hell is in the bottom left corner of the diagram, across from Heaven in the top right. The whole space is vertically

structured by layers of the four elements – earth, water, air and fire in their appropriate order. Satan is moving in both a spatial and a moral universe, and his journey is traced with precision in the diagram. On the other hand, in Walter Curry's diagram (*Figure 5*) the image of Heaven, Hell and Chaos has been depicted in an artistic way. It depicts a round but flat Heaven with God's mountain in the middle and relatively low walls around. Curry himself claims that "there are geographical directions in Heaven." God, who is the infinite light has been represented as the varying sizes of straight lines around the diagram. *A Milton Encyclopedia* picks Walter Curry's representation as "a workable diagram".

In his *Preface to Paradise Lost*, C. S. Lewis wrote, "Every poem can be considered in two ways — as what the poet has to say, and as a thing which he makes. From the one point of view it is an expression of opinions and emotions; from the other, it is an organization of words which exists to produce a particular kind of patterned experience in the readers". Nothing less than the creation and ordering of the universe defines the scope of *Paradise Lost*. Milton was not a scientist but a theorist, and he did not contribute to scientific knowledge so much as to an understanding of what new scientific ideas might mean to traditional Christian cosmology. In the end, John Milton's cosmos is one of the great imaginary cosmographies of Western literature. It is a fictional world that presumes to represent the real world. As such, it is an achievement that is almost as impressive as the epic for which it was created.

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