



## Teaching Medieval History: The Age of Light with Dr. Junius Johnson

### Lecture 2: The Medieval Cosmos

#### Outline:

*“If you compare the Medieval picture [of the universe] with the Copernican, Galilean, and even Newtonian pictures, they all have much more in common with each other than with what we now think.”*

#### Medieval vs. Modern Concept of the Universe

- Medieval understanding of the universe is often seen as limited and incorrect.
- However, earlier scientific models (Copernican, Galilean, Newtonian) are closer to Medieval views than modern astronomy.
- The main difference lies in the overall “feel” of the universe:
  - Medieval cosmos is ordered, finite, warm, bright, noisy, and crowded.
  - Modern space is random, functionally infinite, cold, dark, silent, and empty.

*“A nightmare, long engendered in the modern mind by the mythology that follows in the wake of science, was falling off him. He had read of ‘Space’: at the back of his thinking for years had lurked the dismal fancy of the black, cold vacuity, the utter deadness, which was supposed to separate the worlds. He had not known how much it affected him till now—now that the very name ‘Space’ seemed a blasphemous libel for the empyrean ocean of radiance in which they swam. He could not call it ‘dead’; he felt life pouring into him from it every moment.”*

C.S. Lewis, *Out of the Silent Planet*, chapter 5



## The Earth: Bottom of the Barrel

- Earth was considered the center of the universe in both horizontal and vertical dimensions.
  - Modern people envision this wrong because of the solar system model they were taught.
  - They tend to think of outward directionality as “horizontal” from the sun, or “vertical” from Pluto’s elliptical.
- But the earth is not the center, which is instead the point where the Big Bang happened.
- The universe today is spherical, the result of matter rushing away from the center.
- The medieval cosmos, like ours, was also spherical.
  - "Down" was towards Earth, making it the heaviest and least desirable place in the universe, a kind of universal “landfill.”
  - “Up” was any motion away from the earth, traveling towards the moon.
- This is why Dante placed Hell at Earth's center, with Satan at the lowest point.
  - Heaven, or God's presence, was at the periphery, representing the ultimate good.
  - Dante places Purgatory opposite Jerusalem on the globe, creating the “theological poles” of our spiritual orientation.

## Planets and Stars of the Medieval Cosmos

- The moon marked the boundary between our world and the rest of the cosmos.
  - Referred to as the sublunary world
  - The word “planet” comes from the Greek word for “wandering” because of their meandering path when viewed from earth.
- Planets were arranged in nested spheres (a “heaven”), each influencing the sphere below it and becoming more blessed as one ascended.
  - Moon - the first and least noble celestial body
  - Mercury
  - Venus
  - Sun
  - Mars
  - Jupiter
  - Saturn



- Beyond Saturn were the fixed stars and the Primum Mobile (“the first movable body”), which set other spheres in motion.
  - The Primum Mobile itself was set in motion by the Empyrean, what we call “heaven” today.

## Astrology and Astronomy in the Middle Ages

- Astrology and astronomy were closely intertwined, with astronomical charts used to read fates.
- Astrology readings were complex and individualized, based on the exact positions of celestial bodies at birth.
  - This was based on a theological claim: God dwells in the Empyrean.
  - The love of God is the heat or energy that moves the lower spheres, with each sphere communicating something of its own character.
  - Thus, a hierarchy of communication is established; astrology readings reflect this communication at the time of one’s birth.
- Major medieval writers (eg. Chaucer) sometimes pushed back on astrological claims due to their deterministic nature, which conflicted with Christian theology.
  - The Jewish and Muslim world also challenged such claims.
  - On the other hand, Boethius argued that fate is just the way divine providence appears to us, making room for astrology within a Christian framework.
- In summary, the medieval heavens were filled with the light and heat of God’s love and grace, for which literal light was a visible analogy.

*“Now, with a certainty which never after deserted him, he saw the planets [...] as mere holes or gaps in the living heaven—excluded and rejected wastes of heavy matter and murky air, formed not by addition to, but by subtraction from, the surrounding brightness. And yet, he thought, beyond the solar system the brightness ends. Is that the real void, the real death? Unless...he groped for the idea...unless visible light is also a whole or gap, a mere diminution of something else. Something that is to bright unchanging heaven as heaven is to the dark, heavy earths...”*

C.S. Lewis, *Out of the Silent Planet*, chapter 5



## *Harmonia Mundi* (Music of the Spheres)

- The concept dates back to Pythagoras and connects musical intervals with cosmic order.
- Ratios found in music, nature, and the cosmos are the same as in the [Fibonacci sequence](#), thus echoing God's being.
  - This is specifically reflected in the ratio 3:1.
  - This ratio transcends the octave measure, which tops out at 2:1.
  - Thus, the trinitarian being of God grounds but stands outside of all reality.
- So music is a physical representation of the inherent relationships of both physical and spiritual truths.
  - The planets in their orbits would line up according to the ratios of [the monochord](#).
  - In space, they would emit notes, creating celestial harmony.
- This music was considered the original and authentic song of praise, with humans expected to align with it.

## The Crowded Cosmos and Medieval Heaven

- The medieval universe was perceived as full of angels and God's presence.

*“That sense of being in Someone’s Presence which had descended on him with such unbearable pressure during the very first moments of his conversation with the Lady did not disappear when he had left her. It was, if anything, increased. [...] At first it was intolerable; as he put it to us, in telling the story, ‘There seemed no room.’ But later on, he discovered that it was intolerable only at certain moments—at just those moments in fact [...] when a man asserts his independence and feels that now at last he’s on his own. When you felt like that, then the very air seemed too crowded to breathe; a complete fullness seemed to be excluding you from a place which, nevertheless, you were unable to leave. But when you gave in to the thing, gave yourself up to it, there was no burden to be borne. It became not a load, but a medium, a sort of splendour as of eatable, drinkable, breathable gold, which fed and carried you on and not only poured into you but out from you as well. Taken the wrong way, it suffocated; taken the right way, it made terrestrial life seem, by comparison, a vacuum.”*



C.S. Lewis, *Out of the Silent Planet*, chapter 6

- Earthly life was seen as part of a larger, divine-filled cosmos.
- Medieval men would likely view modern space as an extension of the sublunary world.
- True heavens, to a medieval mind, would begin beyond the observable universe's limits—the rest of “space” would really just be “earth”.