

A sample diagram can be seen at:
<http://zebu.uoregon.edu/~soper/Orbits/ptolemy.gif>

Outline

1. Importance of the Title
2. Copernicus and History
3. Authorities
4. Planetoi-Yehudim
5. Toward a Better Understanding
6. Tsvetaeva
7. Ancient Truth

Select Quotations

“I can readily imagine, Holy Father, that as soon as some people hear that in this volume, which I have written about the revolutions of the spheres of the universe, I ascribe certain motions to the terrestrial globe, they will shout that I must be immediately repudiated together with this belief.... Those who know that the consensus of many centuries has sanctioned the conception that the earth remains at rest in the middle of the heaven as its center would, I reflected, regard it as an insane pronouncement if I made the opposite assertion that the earth moves. Therefore I debated with myself for a long time whether to publish the volume which I wrote to prove the earth’s motion.... When I weighed these considerations, the scorn which I had reason to fear on account of the novelty and unconventionality of my opinion almost induced me to abandon completely the work which I had undertaken. But while I hesitated for a long time and even resisted, my friends [encouraged me]...”

Nicolaus Copernicus, Dedication to Pope Paul III, *De revolutionibus orbium coelestium* (1543); quoted in Sources of the Western Tradition, 6th ed., 32-33. [Copernicus allowed the publication of *De revolutionibus* only as he was dying.]

“I hope to show that I proceed with much greater piety than they [the anti-Copernicans] do, when I argue not against condemning [Copernicus’] book, but against condemning it in the way they suggest – that is, without understanding it, weighing it, or so much as reading it. For Copernicus never discusses matters of religion or faith, nor does he use arguments that depend in any way upon the authority of sacred writings which he might have interpreted erroneously. He stands always upon physical conclusions pertaining to the celestial motions, and deals with them by astronomical and geometrical demonstrations, founded primarily upon sense experiences and very exact observations. He did not ignore the Bible, but he knew very well that if his doctrine were proved, then it could not contradict the Scriptures when they were rightly understood.”

Galileo Galilei, Letter to Grand Duchess Christina of Tuscany (1615); quoted in Sources of the Western Tradition, 6th ed., 40. [Galileo was imprisoned and forced by the Inquisition to recant for supporting the Copernican theory.]

“SAGREDO. One day I was at the home of a very famous doctor in Venice, where many persons came on account of their studies, and others occasionally came out of curiosity to see some anatomical dissection performed by a man who was truly no less learned than he was a careful and expert anatomist. It happened on this day that he was investigating the source and origin of the nerves, about which there exists a notorious controversy between the Galenist and Peripatetic [i.e., Aristotelian] doctors.

The anatomist showed that the great trunk of nerves, leaving the brain and passing through the nape, extended on down the spine and then branched out through the whole body, and that only a single strand as fine as a thread arrived at the heart. Turning to a gentleman whom we knew to be a Peripatetic philosopher, and on whose account he had been exhibiting and demonstrating everything with unusual care, he asked this man whether he was at last satisfied and convinced that the nerves originated in the brain and not in the heart. The philosopher, after considering for awhile, answered: 'You have made me see this matter so plainly and palpably that if Aristotle's text were not contrary to it, stating clearly that the nerves originate in the heart, I should be forced to admit it to be true.'

Galileo Galilei, *Dialogue Concerning the Two Chief World Systems – Ptolemaic and Copernican* (1632); quoted in *Sources of the Western Tradition*, 6th ed., 41. [Are we people any different today...?]

"The most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being.... This Being governs all things not as the soul of the world, but as Lord over all.... And from his true dominion it follows that the true God is a living, intelligent and powerful Being."

Isaac Newton, *Principia Mathematica* (1687); quoted in *Sources of the Western Tradition*, 6th ed., 52.

"Aristarchus appears to have arrived at the basic assumptions of the Copernican system almost two thousand years earlier than Copernicus. Aristarchus' original account of his system is lost, but Archimedes, who was only one generation removed from him, describes the system briefly in his *Sandreckoner*.... Plutarch tells us of a religious objection to the theory of Aristarchus... He notes that a certain Cleanthes (d. ca. 232 B.C.) had charged Aristarchus with impiety 'for putting in motion the Hearth of the Universe.'"

Marshall Clagett, *Greek Science in Antiquity* (New York: Barnes & Noble, 1994), 90-91.

"In what respect does the rabbi differ from the rest of the community? There is not a single norm which is applicable only to the rabbi and not applicable to the *ba'alei batim* or the laymen. As for the number of mitzvot that one is obligated to perform, there is no distinction between the rabbi and the layperson. There is not a single mitzvah which is applicable exclusively to the rabbi and has no application to the layman. I do not know of any such mitzvah. "As you all know, I am a descendant of a rabbinic family. Indeed, it is difficult to find a layman among my ancestors on either side for the last century and a half. On both the paternal and maternal sides, they were all rabbis. If you should ask me what the rabbinate stands for, I cannot give you an answer. In my opinion, the rabbinate is not an institution.... "What is a rabbi? I do not know. The question comes up quite often since we ordain rabbis at the Yeshiva [University]. Every year thirty to forty boys receive *semikhah*. I sign these certificates of ordination. I have signed about fifteen hundred or sixteen hundred ordinations over the years. I only hope that I will not receive *malkot* for each ordination that I granted. Perhaps the only question will be whether I get one lash or forty lashes for each certificate."

Joseph Soloveitchik, "What is a Rabbi?" (1972); quoted in Aaron Rakeffet-Rothkoff, *The Rav: The World of Rabbi Joseph B. Soloveitchik*, vol. 2 (Hoboken, NJ: KTAV, 1999), 37-38.

"Muslims were legally obliged to wage holy war against dar al-harb [the abode of war or non-Muslim realm, as opposed to dar al-Islam, the abode of Islam] until it ceased to exist or the world came to an end, whichever would be the sooner. It was commonly held that Jesus would return at the end of times to complete the task by breaking the crosses, killing swine, destroying churches and synagogues, and converting ahl al-kitab [People of the Book] by persuasion or the sword. Or the Mahdi would see to it that everyone on earth became either a Muslim or a tributary, this being how God would fulfil his promise to make Islam prevail over all religion."

Patricia Crone, *God's Rule – Government and Islam: Six Centuries of Medieval Islamic Political Thought* (New York: Columbia Univ. Press, 2004), 362.