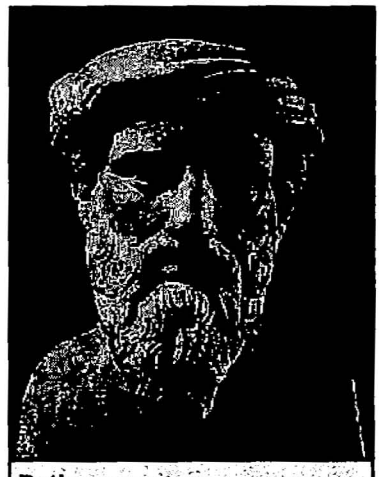
For those interested in the history and evolution of human thought, the question of who was the first to put forward the heliocentric model for the motion of our planetary system has a special place. It is now well established that *Copernicus* was not the first to put forward this model but rather it was *Aristarchos of Samos*, student of *Straton* from *Lampsakos* and head of the *Peripatic School* of thought, around 280 BC. However, scientific and gnosiologic breakthroughs come about after the "painful" and slow accumulation of knowledge through the centuries of human experience. The bases that allowed *Aristarchos* to reach his conclusion should be searched at least to two sources: (a) to the Pythagoreans and especially to *Philolaos of Croton* who lived the 5th century BC in "*Magna Grecia*" and the work of which is said to have influenced the writings also of *Timeus* by *Plato* and (b) to *Heraclides of Pontos* who lived the 4th century BC and who was an offspring of Platos Academy. *Philolaos* (literally meaning *friend of the People*) was a student of *Lysis*, one of the two only Pythagoreans that survived the destruction of the Pythagorean brotherhood in Croton by its ruler. It seems that *Philolaos* himself did not avoid a similar end to his predecessors. He was murdered accused erroneously of wanting to establish tyranny in Croton (a common excuse used to exterminate opponents at those times). *Philolaos* put forward a Cosmological model in which the Cosmos and all it contains are made of infinite and finite things. According to *Stobaios*, in the model of *Philolaos* the *Cosmos* is one and started structuring itself from a center outwards. The center is the *Estia*, the central fire, then is *Antihthon*, then the Earth that moves in a circular orbit around the *Estia* and exactly anti-diametrical with *Antihthon* (for which reason we cannot see this body), then the moon, the Sun that just reflects the light of the *Estia*, and the other cosmic bodies. According also to *Diogenius Laertius, Philolaos* was the first to put forward the notion of the circular motion of the Earth, although he also mentions another possibility of a predecessor to this idea, *Iketas of Syracuse*. In any case it seems that the idea that the Earth moves in an orbit around a hot central object was a necessary prior step that helped *Aristarchos of Samos* to put forward the heliocentric model of planetary motion. Furthermore, the outcome of the studies of *Herclides* gave a further push to *Aristarchos* in forming his model. *Heraclides* found out that Mercury and Venus always appear within a limiting angular separation from the Sun and concluded that this could be only due to their revolution around the Sun and not the Earth, creating therefore the notion of another center of revolution of the heavenly bodies. Furthermore, he also suggested that the apparent revolution of the Cosmos around the Earth could be due to an actual revolution of the Earth around its own axis, if such did exist. Therefore, these two fundamental observations seem to have opened the way for *Aristarchos* to put forward his truly revolutionary theory. Although we do not have direct evidence that *Aristarchos* did prove his suggestion, since his relevant book is lost and we know it only through *Archimedes*, in his book *"Psammites"*, it did have a huge impact to the establishment of his time, which can be compared to the impact that all revolutionary theories have, that of *Copernicus* as well. It created a backclash and a condemnation of *Aristarchos* and his teachings, seen as a challenge to the "theocratic" establishment. For example, it is said that *Cleanthis*, the head of the Stoics in Athens called for the condemnation of *Aristarchos* as an "atheist". The ideological marginalization of Aristarchos was so efficient that only one more of the ancients is known to have supported his heliocentric views, which as we saw before were the ripe fruit of the accumulated knowledge of the previous generations of physical philosophers. *Selefcos of Babylon*, who lived a century later than *Aristarchos*, attempted to establish the heliocentric model but in vain. It took humanity more than 1800 years to put Sun to its rightful position and shift the geocentric view to the so-called *Copernician* world view.



Pythagoras:
Capitoline Museum, Rome Italy (there are no monuments depicting Aristarchos of Samos or Philolaos of Croton).

Ancient Coin depicting Pythagoras

1604

1604
PLIONIS, M.
2002