**PHI1010**

**Essay**

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**Introduction**

From the earliest thinkers of Miletus, Thales, Anaximander, and Anaximenes were considered the genus of their times. These thinkers were held to be the first scientists, the first geographers, the first astronomers and the Greek mathematicians.

According to Thales, the fundamental principle is water, according to Anaximenes, air, according to Anaximander, neither one, but apeiron, the unlimited or indefinite elements representing everything. According to sources, Anaximenes was the student of Anaximander who was a student of Thales.

What are their accomplishments?

**I- Thales**

Thales was born around 625 BC at Miletus in Asia (now Turkey). Considered one of the seven sages of antiquity, he is at the same time a mathematician, an engineer, a philosopher and a politician, but his field of predilection is astronomy.

He would have predicted with great precision the eclipse of the sun of 28 May of the year 585 BC. Perhaps this is only a legend, Thales explains the phenomenon.

Thales of Miletus was more concerned with seeking natural causes and turned their backs to the speculations of "theologians" resorting to myths and supernatural explanations. Thales was always regarded as a great scholar and a wise man. Three well-known anecdotes make him pass for a dreamer, sometimes for a man endowed with a great practical sense.

The first anecdote is found in the writings of Plato: Thales watched the heavens and, absorbed in the contemplation of the stars, Did not see a well in front of him, and he fell, which earned him the mockery of an old woman witnessing the scene: "How can you pretend to know what is going on in heaven when you are Unable to see what is at your feet?” 1.

The second anecdote, recounted by Aristotle, presents Thales as the first speculator of history: as one discussed about his poverty, which was regarded as a proof of the uselessness of philosophy. History tells us that He had planned an abundant harvest of olives with astronomical observations. He rented all the oil presses of Miletus and at low prices. When the time came, the demand for presses was such that he could sublet them with a high margin of profit. This fortune he had made to prove to those who blamed him of being poor, that it was easy for philosophers to enrich themselves when they wished, although this was not the object of their ambition. Thales became rich, putting an end to the ideas that philosophers must live in poverty and in total disinterest. 2

The third anecdote also came from Aristotle. Thales declared water as a principle at the origin of all things. He considered water above all as the original essence of all bodies. For him, this was a conceptual element that embodied sensitive qualities (fluidity, energy, etc.). He also attributed to water to the origin of life, earth according to Aristotle's statement in his Metaphysics, he thought that the seed that gives life is moist: "perhaps he admitted this theory by finding that All nourishment is moist, and the warmth itself in generation is life (Now, what generates is the principle of all things); This led him to admit this theory, and also the fact that the seeds of all things have a moist nature; But inspired by his Indo-European culture, he envisioned water in its purity, similar to that of the diamond: "the primordial water" on which the Earth floats. Thales declared that the earth rest on water. 3

After Thales come Anaximander who, with sources went to Thales school.

**II – Anaximander**

Anaximander of Miletus is a pre-Socratic Greek philosopher. He succeeded Thales as master of the Milesian school, and counted Anaximenes and Pythagoras among his students.

According to Themistius, Anaximander is "the first of the Greeks known to publish a work written on nature," and by this very fact his documents would have been among the first Greek texts written in prose.

The Lives, Doctrines and Sentences of Diogenes Laertius' illustrious philosophers report an amusing anecdote about him: “having learned that the children were laughing at him when he sang, he would have replied that he would then have to learn to better to sing for children.”

Anaximander is the first philosopher to use the term ‘arkhe’ in a philosophical sense. The latter had hitherto meant the "beginning", the "origin"; From Anaximander, it is no longer a question of a point in time, but of a perpetual origin, which can continually give rise to what will be. Anaximander thus placed the apeiron (which is endless, unlimited), as the original substance or principle, source, receptacle of everything, eternal and indestructible, the complete cause of the generation and destruction of all. 4

For Anaximander, therefore, the principle of things is not determinate; it is not one of the elements, as what was the case with Thales. Neither is it intermediate between air and water, or air and fire, denser than air and fire, and more subtle than water. He explained how the four elements of ancient physics (air, earth, water and fire) are formed.

According to Anaximander, the universe derives its origin from the separation of the opposites from the essential matter. Thus, the heat moved upward, separating from the cold, and then the dry separated from the wet. He also maintained that everything that dies returns to the element from which it is derived (apeiron).

According to Anaximander, “the destruction of things takes place, according to the obligation, because they render one to the other justice and repair of their injustice, according to the assignation of time."

This idea of ​​returning to the original element was frequently repeated later, especially in Aristotle (Metaphysics, I, 3, 983 b 8-11, Physics, III, 5, 204 b 33-34) or Euripides “What comes from the earth must return to the earth ", The Suppliants, v. 532). It recalls even the Judeo-Christian expression: "You are born dust and you will return to the dust." 5

Anaximander’s disciple, by the name of Anaximenes, had the same perspective.

**III- Anaximenes**

Anaximenes was the last disciple of the Milesian school founded by Thales. He was said to be the student of Anaximander. His writings, apart from few sections, have disappeared.

Anaximenes combined Thales and Anaximander, except that instead of water he took the air, which he considered to be "infinite." The air would vary, through rarefaction and condensation, thus constituting the primordial matter.

Anaximenes believed that the stars were nailed to the celestial vault, which made them the elements furthest removed from the Earth. Slightly closer were the planets, then the Sun and finally the Moon. He asserted that air is at the origin of everything: dilated to the extreme, this air becomes fire; compressed, it turns into wind; It produces clouds, which give water when they are compressed - a stronger compression of water transforms it into earth, the most condensed form of which is stone. 6

He sought, like all the Ionian philosophers of nature, the principle of all things, the origin and structure of the universe. He maintained that air forms the first substance, which is comparable to the cosmology of Anaximander, which had brought the concept of apeiron. All that exists in the world was nothing more than rarified or condensed air. Thus, by the rarefaction, heated air changes into fire, forming celestial bodies such as the Sun. By condensation, it cools and becomes successively wind, clouds, water and earth. 7

**Conclusion**it’s important to note that Thales, Anaximander and Anaximenes have attempted to demonstrate their conception by studying reality, especially with astronomy. Their researches are still relevant in today world.

**References**

1- Plato, Theaetetus 174a

2- Aristotle, Politics 1.11 1259a9-18

3- Aristotle, On the Heavens 2.13 294a28-34; tpc

4- Simplicius, Commentary on Aristotle’s Physics 24.13-21

5-Hippolytus, Refutation of All Heresies 1.7.4-6

6- Theophrastus, quoted by Simplicius, Commentary on Aristotle’s Physics 24.26-25.1

7- Hippolytus, Refutation of All Heresies 1.7.1-3