ANCIENT GREEK BELIEFS ABOUT THE EARTH AND THE ENVIRONMENT

T.P. Tassios Nat. Tech. Univ., Athens

Introduction

- a.- We are used to believe that "Ancients Greeks said it all". However, we certainly don't think that ancient Greeks talked about major environmental issues. The natural wealth available at the time was abundant, and human needs were rather limited. Thus, quite reasonably, ancient Greeks did not have to deal much with today's environmental problems.
- **b.-** Nevertheless, we should not rule out that local phenomena of tangible environmental damage might have occasionally emerged in ancient times too damage that forced ancient Greeks to react. Such phenomena attract our attention.

1.- IN MYTHOLOGY

a.- It is well known that ancient Greeks thought the Earth was of paramount importance: Pausanias in his work entitled "Attica", 31.4 writes "Earth [...], whom they name the Great goddess". It should be noted that Gaea (Earth) was the only goddess of the Greek pantheon who survived all theomachies (battles among gods), only to become an eternally venerable Mother: "pherésbios (life-bearing)" was called. (Aristotle, On the World, 2-391b), "Mother of All, and good trophós (nourisher) (Menander, Gn. Mon.617), etc. Quite reasonably, if we bear in mind that Earth have also given birth to the three components of deity: Spirit (the Titans), Natural Forces (Hecatoncheires, i.e. the Hundred-Handers) and Technology (the Cyclops). A remarkable trio, which will be preserved (understandably) after the theomachy, with the 12 Titans being replaced by the 12 Olympians – while the Cyclops and the Hecatoncheires would make an alliance with Zeus and retain their status unaltered.

That's why the Homeric Hymn 30 entitled "To Gaea, the Mother of All" starts with the following worshiping line: "I will sing of well-founding Gaea (Earth), mother of all, eldest of all beings."

So, we should note this ancient Greek worshiping attitude towards Gaea – even in this broader sense.

- **b.-** A rather direct environmental insult, stemming from human activities, is a disrespect to trees planted in sanctuaries (sacred groves) across ancient Greece. Here are some examples:
 - An ancient inscription placed at Apollo's sacred grove located in Attica (Queen Amalia Tower) reads: The priest of Apollo Erithaseos announces and forbids [...] that in the sanctuary of Apollo there be any cutting or carrying out of the sanctuary of wood or branches-with-leaves or firewood or fallen leaves

 Aelianus writes about the Sacred Grove of Heroes in Athens, noting that "those who cut an evergreen oak were sentenced to death".

The myth of king Erysichthon unfolds in a similar, yet more dramatic, context. The king once ordered that all trees in the sacred grove of Demeter be cut down to build his palace (Hellanicus, Ath.I 416a). While watching the cutting of the trees, the king was seized with an insatiate hunger and started to eat his own flesh. One cannot interpret this story as an environmental concern, but the story may provide us with a mythological message of a prelude that echoes our own troubles.

2.- IN PRESOCRATICS

What interest us from the turn of Ionian thinkers to the newly born Science, is the attitude of Man towards Nature and the Universe – to the extent that this attitude could have an impact on our views about environmental problems. Here are some examples:

Thales: "...everything is full of gods" [Aristotle, On the Soul (De Anima), 411 a8]. Such a panpsychism could actually be regarded today as eco-friendly.

Anaximenes: "The material principle was air and the infinite (Diogenes Laërtius, II3). Who would actually dare to pollute the very raw material of which ourselves are made...

Heraclitus: "The awake share a common world, but the asleep turn aside into private worlds". (D.K. 89). It would be great if we also woke up one morning from our autistic condition, and realized that we belong to a Whole!

Therefore, my impression is that Presocratic philosophers continued to believe that there was a single enduring material stuff, a common substance, from which man is made of and so, man organically belonged to a cosmic **Whole** – that is the first lesson on an environmental and existential consciousness.

3.- SOCRATES AND PLATO

a.- And then it was time for a new turning point in the ancient Greek philosophy Socrates said: "Wise men claim that partnership and friendship [orderliness, self-control] and justice hold together heaven and earth, and gods and men" (Gorgias, 507e-508a).

I believe that this all inclusive participation that brings cohesion to Cosmos, is of fundamental importance, both in philosophical and practical terms – as long as you are initiated in its significance.

Despite the apparent generality of such rationales, I believe that they encourage our introduction in an ethical category, that is the **pleasure** that stems from an environmentally friendly attitude.

b.- In support of this concept of "community", the platonic Socrates will explicitly deny any difference between Man and Animals, between human and animal soul; and it doesn't matter if he does so by using the theory of

reincarnation – what is, indeed, important is **the result:** "Thus, both then and now, living creatures keep passing into one another in all these ways, as they undergo transformation by the loss or by the gain of reason and unreason" (Timaeus 92c).

Besides, Socrates will classify both humans and beasts in the common general category of "animals", since he admits (Statesman, 263c) that

"(and said with great readiness that) there were two kinds of living beings, the human race and a second one [...] the beasts"

Based on that, the cosmic "community" we mentioned in the previous paragraph, turns into a community of living beings on earth – that is the second, and most essential, lesson on the (so-called "bestial") instincts reportedly present in some "humans" ...

- **c.-** I urge you to think for a while this rather advanced platonic belief: Plants are nothing but "another kind of animals" which contain "a substance relative to human nature"! Surprising statement, indeed. We should also notice that Plato uses the term "senses" of plants. This more revolutionary view is not very far from the scientific knowledge of our times, which claims that the five senses of animals are present, though rudimentarily evolved, in some plants.
- **d.-** Plato, however, in his last dialogues seems to favor more direct ecofriendly views. In his *Laws* (V 740a) for example, he says that we should tend the fields, which is our ancestral home, more diligently than a mother tends her children, inasmuch as Earth being a goddess, is mistress over its mortal population Well, this sounds nothing if not deep ecology to me! In Plato's *Laws* (X, 906a) we also read that human "iniquity, insolence combined with folly" bring disorder in nature...
- **e.-** Finally, we should say a few things about the famous platonic concern for the deforestation of Attica and its consequences on soil erosion. First of all, he reminisces about the good old days: "But at that epoch the country was unimpaired, and for its mountains it had high arable hills, and in place of the "stonelands," as they are now called, it contained plains full of rich soil, and mountains full of forests" (Critias, 111c). Then, he goes on to describe the subsequent water losses, and the water which is transported to the sea due to soil erosion: "(then)... Moreover, it was enriched by the yearly rains from Zeus, which were not lost to it, as now, by flowing from the bare land into the sea; but the soil it had was deep, and therein it received the water. He even describes how the water is stored into the ground "...storing it up in the retentive loamy soil and [...] drawing off into the hollows from the heights the water that was there absorbed".

I believe that we can justifiably conclude that the platonic dialogues provided us with certain substantial foundations, enabling us to contemplate today's environmental challenges:

- He discusses of Part and Whole, and indicates a priority of the latter (cohesion, order, philotēs-friendship)
- He denies any substantial difference between the three categories of living beings (man, animals, plants).
- He acknowledges the action of natural mechanisms resulting in environmental degradation due to deforestation, soil erosion and water losses (runoff water).

I presume this is enough to refute all those who cannot stop exclaiming "pay no attention to Plato, the idealistic aristocrat he is."

4.- ARISTOTLE AND HIS SUCCESSORS

a.- We should first begin with Aristotle's idea about the "common substance" of all living beings, a view we also found it the platonic dialogues:

Aristotle, with his own definition, will arrive at the same conclusion: "It seems also that the first principle (archē) found in plants is also a kind of soul; For this is the only principle which is common to both animals and plants". [On the soul (De Anima), I5, 411b, 27-29]. In fact, this consensus between Aristotle and Plato did not have to resort to reincarnation – a theory which Aristotle refutes [On the Soul (De Anima) Iε, 407b, 13-30].

Overall, Aristotelian views (as general as they may be) appear to be as eco-friendly as those of Plato. Besides, Aristotle described Earth with the same adjectives *pherésbios* – life bearing and *métēr*, (Mother) (On the Cosmos).

But before we leave Aristotle, we should refer to his remarkable comment on a broader circular change in meteorological conditions, which could turn a moist region into a dry one – without, of course, any human intervention (e.g., long winters reported in his "Meteorologika").

b.- And now, let's have a brief and rather sketchy look at some of Aristotle's successors.

His pupil, Theophrastus, provides us with an explicit legalization of Technology with a rather modern definition: "Because an improvement of Nature takes place when Technē (Technology) makes up for Nature's imperfections" (On the Causes of Plants, A16.11). This is daresome and really modern. However, any side effects stemming from his rather fine agricultural technology never bothered him, although he insightfully noted that "anything which is contrary to nature is dangerous" (Enquiry into Plants, D. XIV).

Finally, regarding the famous saying of Epicurus: "One *must not force Nature, but persuade her*" (VS 21). I have to admit that such pompous (quasi-metaphysical) language is also used today by some (rather apolitical) ecologists, who work on an empty, non-empirical space.

5.- PLANET EARTH IN ANCIENT GREEK ASTRONOMY

This last short part aims at underlying the importance of a long and persistent Greek tradition that considers the Earth's rotation about its axis and its trajectory around the Sun, as a contribution to human modesty – contrary to the geocentric model of a flat and immobile Earth, as a Man's rancho (alas, as an exclusive offer made by god!).

- **a.-** Much evidence points to this direction; Early Pythagoreans thought that the Earth was "round", but it seems that the one who took the first definite step was Parmenides
- **b.-** The second step took place when ancient Greek philosophy made a, literally, revolutionary discovery and found that not only this flat garden of ours, considered to be flat for thousands of years, belongs to a sphere, but also this sphere rotates about its axis! Late Pythagoreans such as Hicetas (5th century BCE) and Ekphantus (4th century BCE) stress that the Earth indeed rotates about its axis (Dox. Gr. 378) and Heraclides Ponticus agrees with them in the early 4th century BCE.
- **c.-** The third and more decisive step was taken by the great Pythagorean Philolaus (530-470 BCE)

That said, ancient Greek science forms a comprehensive concept of a spherical Earth during 5th century BCE, an Earth that rotates about its axis, while also rotating, along with other planets, around another center, "a source of fire". We know that finally Aristarchus formed the modern heliocentric theory, based on his own mathematical calculations.

Finally, I will stress once more that these ancient Greek astronomic ideas paved the way for broader scientific developments, but at the same time I think that they undermined the prevailing geocentric (and thus, anthropocentric) belief about a natural genus the members of which always felt that God put them at the center of the world to do whatever they liked – sheer arrogance! What I want to say is that, knowing that we suddenly appeared on a small **planet** which wanders in space, may make us more existentially modest and environmentally fairer – at least in the name of the next generations that have no representatives in our parliaments to fiercely advocate their rights for a planet that we all share.