

Gaia, Helios, Selene and Ouranos: the three principal celestial bodies and the sky in the ancient Greek cosmogony

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Abstract. In this article we consider the role of the three principal celestial bodies, the Earth (Gaia), the Sun (Helios) and the Moon (Selene), as well as the Sky (Ouranos) in the ancient Greek cosmogony. This is done by the analysis of antique Greek texts like *Orphic Hymns* and the literary remains of the writers and philosophers like Aeschylus, (Pseudo) Apollodorus, Apollonius Rhodius, Aristotle, Euripides, Hesiod, Homer, Hyginus, Nonnus, Pausanias, Pindar and Sophocles, as well as by the analysis of texts of Roman writers like Cicero, Ovid and Pliny.

Key words: Gaia, Mother Earth, Helios, Sun, Ouranos, Sky, Selene, Moon

Гея, Хелиос, Селена и Уран – трите главни небесни тела и небето в древно-гръцката космогония

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В тази статия ние разглеждаме ролята на трите главни небесни тела – Земята (Гея), Слънцето (Хелиос) и Луната (Селена), както и Небето (Уран) в древно-гръцката космогония. Това е направено чрез анализ на антични гръцки текстове като Орфеевите химни и литературното наследство на писатели и философи като Есхилус, (Псевдо) Аполодорус, Аполониус Родийс, Аристотел, Еврипид, Хесиод, Омир, Хигинус, Нонус, Паусаниас, Пиндер и Софокъл, както и анализ на текстове на римски писатели като Цицерон, Овидий и Плиний.

1. Introduction

Our aim here is to analyze, on the basis of ancient Greek and Roman texts, the role of the three principal celestial bodies, the Earth (Gaia), the Sun (Helios) and the Moon (Selene) as well as the Sky (Ouranos) in ancient Greek cosmogony.

Since the remotest antiquity, human beings worshipped the divine couple of goddess Gaia (Gaea, Earth) and god Ouranos (Uranus, Sky), the primal pair. Hesiod's *Theogony* (1914) begins with Gaia and concludes with the polytheistic reign of the Olympians. The genesis of the elements of nature and the genesis of personified gods behaving like humans proceed in parallel: "in the beginning the gods and Gaia were born" (*Theog.*, 105). Gaia's mate, Ouranos, surrounds her and fertilizes her.

In juxtaposition with Gaia, who is the deification of our planet, Mother Earth is the deification of the ground, whose products support human existence, and which gives the space where they are born, they live and they die.

Beyond the cosmic duo of deities, Ouranos and Gaia / Mother Earth, humans worshipped the light-giver and life-giver Helios (Sun), the source of every life form on Earth. For all people, in all regions of the Earth, the Sun, Sky and Earth are the eternal witnesses of human acts and the natural avengers of the violations of the laws. From the age of the emergence of Greek philosophy comes the theory that the solar rays that fell on the wet Mother Earth created the first living creatures, while mythographers consider as progenitors of all things the Sun and Mother Earth.

The Moon gave primal units for the measurement of time: the definition of the lunar (synodic) month and of the week; its role is therefore crucial in the invention of the first calendars, which served as the foundation for all ancient religions.

In this paper, we will consider and analyze the role of Gaia/Mother Earth, Ouranos, Helios and Selene in ancient Greek mythological Cosmogony.

2. Gaia

According to the cosmogony of the Orphics, Gaia (*Gaea*) pre-existed, along with Chaos and Eros-Phanes, during the Creation of the Universe. These three cosmic beings were born from the cosmic egg, which in turn either originated *ex nihilo* or was produced by Nyx (the Night).

Gaia, one of the primal deities, is a cosmogonical symbol of the material aspect of the Universe, and not just of the earth as a ground (Demetrakos, *Mega Lexikon*, 1964, vol. 3, p. 1534). Chaos symbolizes the space of the Universe and Eros symbolizes the motive and world-creating power that unifies and transforms the Universe.

In the oldest Orphic cosmogony Gaia is born with the intervention ('energy') of this cosmogonic Eros, who "*put together everything*" (*Orphic Fragm.* Kern, 1922, 1). In the later version of Orphic cosmogony Gaia and the Sky (Ouranos, Uranus) are formed from the two halves of the huge cosmic egg born by the timeless Chronos (Time) (*Orphic Fragm.* Kern, 1922, 57).

In Hesiod's *Theogony* (1914), the primal entity of the Universe is Chaos: "... *first Chaos was created*" (*Theog.* 116), which was a formless mass without any structure; an abyss or an 'undecorated' space. After the creation of Chaos, Erebus (= Darkness) and Nyx (= Night) were born; Nyx gave birth to Ether and Hemera (= Day).

Subsequently, the 'broad-chested Gaia', as Hesiod characterizes her, one of the three primeval elements of the Universe -along with Chaos and Eros-, gives birth to Ouranos, Pontos (= sea) and the mountains (*Theog.* 123+).

Another version identifies Chaos with Ouranos proper, thus defining Gaia and Ouranos as the first cosmic-divine couple of Creation. Ancient Greeks begin the genesis of gods and of nature with a feminine entity, Gaia, which appears after Chaos and before Eros. Gaia is both the natural element that

produces and supports the world, and the Mother Earth, with the birth of Ouranos, of the Ocean and other aquatic deities.

Initially, the divine reproduction is asexual, i.e. the fertility of Gaia is not associated with any god. In a second stage, however, Gaia appears to mate with her first-born son Ouranos (*Theog.* 147), while she had produced him without the intervention of a masculine entity. Ouranos (Uranus) was the most appropriate of all mates, as he was surrounding her totally and he was destined to be the abode of the gods. In this way, Gaia and the Sky formed the first divine couple. Whenever Night was succeeding Day, Ouranos was uniting himself with his own mother. Gaia was being fertilized by his raindrops as by sperm, so she gave birth to many children (*Homeric Hymns*, 1914, 30, 17 and *Theog.* 127): Six Titans (the Ocean, Creius, Hyperion, Japetus, Coeus and Cronus), six Titanids (Theia, Rhea, Themis, Mnemosyne, Phoebe and Tethys), three Cyclops (Arges and Steropes = lightning, Vrontes = thunder) and the three Hecatonchires, huge creatures with 100 hands each: Vriareos (= powerful), Gyes (= giant) and Cottus (= angry).

Uranus started to worry because of the number and the steadily growing power of his children; he feared that some day they would push him aside. Therefore, he imprisoned them in Tartara, a dark and cold place in the depths of the earth. Gaia, displeased by Uranus' violent behavior against their children and by his violent daily embracing, produced a hard scythe from her interior and gave it to her sons, asking them to mutilate their father, thus depriving him of his reproductive power. Cronus (*Kronos*), the youngest of all Titans, decided to punish his divine father himself, and all his half-brothers and half-sisters except Ocean agreed with that. When night fell, Uranus, full of passion, spread his vast body over Gaia and then Cronus, seizing the opportunity, cut off the genitals of his father using Gaia's scythe. From the droplets of blood that fell on earth from the wound, other creatures were born: the three Furies (Alycto = the non-stopping chaser of the guilty ones, Tissiphone = the punisher of murder, and Megaera = the malevolent), the Giants (Enceladus, Porphyrion, Pállas, Polybiotes, Ephialtes, Clytios, Hippolytus, Eurytus, Gration, Agrios, Theon, Alcioneus, Athos, Vesvicus and Echion) and the Meliades Nymphs, spirits of hatred and violence (*Theog.* 182+). Finally, from the seminal foam and the god's sperm that fell into the sea, emerged Aphrodite on a seashore of Cyprus (*Theog.* 187-206).

Uranus understood the betrayal and realized that he had lost his power: wounded and having lost his reproductive ability (and hence his divine power), he retired high on the celestial vault, where he stayed forever, uttering a curse against Cronus: to also lose his power by his own offspring.

In Homer, the powerful and primeval Gaia is mentioned as overseer of the oaths: she is invoked, along with Uranus and the holy water of Styx, by goddess Hera when she swears (Homer, 1924, *Iliad.* XV 36-38). Homeric heroes, such as Agamemnon, also invoke Gaia in their oaths, along with Zeus, Helios and the Furies (*Iliad* XIX 258-265). Menelaus, before his duel with Paris, asks to validate the oaths of their agreement by sacrificing two lambs, one white and one black, to Helios (the Sun) and Gaia, respectively (*Iliad* III 103+).

Finally, there is a version according to which Gaia, after the 'abdication' of Uranus, joined Ocean and gave birth to gods and goddesses of the waters. However, Gaia and Uranus are not considered just the parents of the gods, but also the parents of humans, as the Homeric Hymn to Gaia, 'the mother of gods', mentions: "*Praise to me the mother of the gods and of all people*" (*Homeric Hymns*, 1914).

Gaia is seldom depicted in a whole-body representation in art. Usually the goddess is shown from waist up, a fact hinting that the rest of her body is the ground or soil, that is the earth itself, whose deification she was.

3. Ouranos (Uranus)

Uranus, whose name comes from the Greek words *oros* and *ano* (Demetrakos, *Mega Lexikon*, 1964, vol. 10, p. 5289), that is who is above the mountains (Aristotle, *On the Heavens (De Caelo)* 400a, 7), was in Greek mythology the personification of the celestial vault or dome, of the primeval cosmogonic force. He was the sovereign of the first generation of beings on Earth. For this reason, Uranus plays an important role in Hesiod's *Theogony*, while according to pseudo-Apollodorus: "*Uranus was the first to rule the entire world*" (*The Library (Bibliotheca)*, 1921, A, 1, 1).

In the Orphic tradition Uranus is mentioned as son of Nyx (the Night) and brother of Gaia, while elsewhere he appears as son of Ether and Gaia or Nyx. In either case, Uranus belongs to the first generation of beings, the oldest of gods and of the elements of nature. According to Hesiod, in the prevailing version, he was the first born son of Gaia, who conceived him when she was sleeping next to Eros, without fertilization, "*to surround her and to be an eternal and safe abode of gods*" (*Theog.* 486). Uranus is the first masculine element, the father of gods in Greek mythology.

We already mentioned how Uranus lost his power and retired on the celestial vault, where he stayed forever. So the word *ouranos* in Greek means the sky or celestial vault, where stars and all celestial bodies are positioned and move: the firmament, stretching from zenith to the horizon, regarded as a hemisphere placed above the surface of the earth and supported on it along the horizon line by columns (*Iliad* VI 108). On *ouranos* all celestial phenomena take place. According to Homer, the stars are attached to it and move along with it: the celestial vault is the one that rotates incessantly (*Iliad* XVII 425). Of course, today we know that this perception is totally wrong: the 'sky' in that sense does not exist.

After taking power, Cronus released all his half-brothers and half-sisters from Tartara. The Cyclops and Hecatonchires, however, started after a while to lay claims upon his power and they became dangerous. Therefore, Cronus threw them again into Tartara and he put a terrible monster, Campe (= caterpillar) to guard them. This period is the second generation of immortal deities, where Cronus reigns with his wife Rhea and Titans impose his power in the world. Yet, the increasing cruelty and injustice of Cronus, who was devouring his own children in order to avoid being dethroned himself, finally led Gaia to help Zeus (the Greek analog of Roman Jupiter) against the Titans, giving him a potion that would force Cronus to disgorge the baby gods he had

devoured. It should be noticed here that the primal Gaia still influences the course of the world, appearing at certain crucial moments to give a solution.

Zeus, after being advised by Gaia, also released the Cyclops and Hecatonchires. The three Cyclops, with their awesome weapons, the lightning and the thunder, and the three Hecatonchires with their 300 hands in total, managed to obtain a decisive victory against the Titans on Mountain Othrys. The Titans were defeated and were thrown deep in the earth, in Tartara, where the Hecatonchires guard them.

According to professor of Geology at the University of Athens Mariolakos Elias: "*The end of the Titans means i) a relative abatement of earthquakes and volcanic activity, and ii) the end of the direct and decisive influence of the natural environment in the life of prehistoric humans. It is the period when the food-gatherers and hunters are turned into farmers and animal breeders* (Mariolakos, E., 2009, *Geomythotopoi*, p. 5).

It should be added that ancient Greek art did not treat the myth of Uranus as a subject; nevertheless, in the Vatican Museums there is an ancient depiction of him on the chariot of Helios (the Sun god).

According to an alternative Greek tradition, probably even older than the prevailing myth, initially Uranus and Gaia were very close. But due to the frequent infidelities and illegitimate children from other females, Gaia as Earth finally detached herself from him and agreed to meet him only in certain time periods. From an astronomical point of view, this tradition is an excellent attempt to explain the cycle of the year's seasons and the place of the Earth in the Universe, as the other mates and children of Uranus were the other moving planets and the stars of the celestial vault (*Helios Encyclopaedia*, 1957, vol. 4, p. 920).

There are also other traditions about Gaia, such as the one mentioned by Diodorus of Sicily (1935), in which Gaia was a beautiful mortal woman, under the name of Titaia. She was loved by Uranus and they had 18 children, named 'Titans' after their mother. As Titaia was a wise and prudent woman, having offered many services to humans, after her death humans deified her and gave her the name of Mother Earth.

4. Mother Earth

A special and important place in worship was held by Mother Earth, the universal mother and supreme goddess, called for this reason by Greeks *Hypertatan Gan*. This worship, however, was addressed to Earth not as a celestial body, neither as a personified deity with a human appearance, but rather as earth-chthon, as a part of nature with its soil, ground and underground, which feeds and sustains humans. Man is 'accused' by tragic poet Sophocles (5th century BC) as the one being that dares to disturb the supreme goddess, since he doesn't hesitate to hurt her by "*ploughing it with his plough, incessantly furrowing her year after year*" (Sophocles, 1994, *Antigone*, Vol. II., verse 330+).

Regarding earth-nature as the omnipotent goddess Mother Earth must have begun in the age when the first agricultural societies and their festivals developed, festivals full of mysticism for the primeval cycle of life (sprouting -



Fig. 1. At the period of Emperor August (1st century AD) people were picturing the Earth as a sweet mother with two children in her lap, inside a flowery natural environment. Later on, Pliny the Elder in his *Naturalis Historia* stressed some ominous points: he wrote that we humans excavate Earth's bowels by digging mining holes upon which we live; we wonder when gaps open or the ground shakes, as if these signs were not the expression of wrath of the holy mother. Inside dark corridors we search for treasures, as if the soil on the surface of the ground were not generous and rich enough.

fruit bearing - maturing - decay - seed - seeding - 'rebirth'). However, starting from prehistoric times, it can be said that the first humans, from the moment they started to observe life on Earth they understood that both they and the rest of animal and plant life were attached to the triptych life-reproduction-death. The survival of humans depended on earth's vegetation, as they and the animals they were hunting were being fed by the gifts of nature (Eliade, 1978).

The primitive humans, by carefully observing the life cycle of plants, the seeding of Mother Earth and subsequent sprouting aided by rain from Uranus, discovered the corresponding cycle of animal sexual reproduction.. Therefore, it was concluded that Earth was alive and in order to give birth 'she' needed to come into contact with the masculine entity. For this reason, humans personified Earth as a feminine entity, while the fertilizing masculine entity was the sky with the rain, or some large river, such as the divine Nile in Egypt (the ancient Egyptian religion is the only one in the world in which the Sky is personified as a female deity, Nout, see Theodossiou 2007, p. 28).

The Mother Earth (Terra Mater), due to the vague character of her worship, is sometimes identified in Greek literature as Rhea, Hestia, Hera, but mostly as Demeter, whose own name comes from Ge-meter = Earth-mother, denoting the womb that encloses the seeds. Indeed, the worship of Gaia as Mother Earth goddess diminishes over time, without disappearing completely, and is replaced by the better-defined worship of Demeter as the goddess of agriculture; Gaia's role is thus reduced to the dream-giving, story-telling, and to the feeding of plants and children.

The miraculous divine union of Uranus-Sky and Earth, out of which gods, humans, and all living things are born, is reflected in the cry of Eleusis Mysteries 'hye, Kye'; with this cry the mysts were calling the Sky to pour his fertilizing rain, so that the earth (here personified as Demeter) could use her womb to produce all kinds of offspring.

As opposed to Gaia, which is the deification of our world-planet, Mother Earth is essentially the deification of soil-ground, whose products sustain humans and which gives them the space on which they are born, live and die.

The presence of Gaia as a primeval element-material and deity is apparent in the founding of the first oracle, which catered only to the gods. Later on, identified with Mother Earth, established her oracle in Delphi; this is why she is also called 'protomantis' = first foreteller (Aeschylus, 1989, *Eumenides*, *Pythias* 2). The Dodone oracle was also dedicated to Gaia; there she was worshipped together with Zeus as "fruit-giver and mother" (Pausanias, 1935, *Phocis* 12, 10).

Finally, Pliny the Elder in his *Naturalis Historia* (1971) wrote that the Sky belongs to the gods, but the Earth belongs to the human race. The Earth welcomes us when we are born, it gives us food to grow and it receives us in her lap when we die. This earth suffers from human actions that destroy its surface and cut into its body as men search for gold, silver, copper and lead; men open wells into its depth in quest for precious gems and excavate its bowels. (Pantermalis, *Ancient Greek mines*, 1995, p. 42).

Finally, the questions about Earth, as they were summarized by Aristotle (*On the Heavens* 1956, II 293a, 15+), were culminating with the question of the place of Earth in the Universe, of its exact shape and of its size.

5. The Couple of Sky and Earth

As a corollary, it can be said that in Greek cosmogony, as in the creation myths of the other Indoeuropean people, the great creation activity taking place continuously in nature is exemplified in the following simple picture: One divine couple, the first of creation, gave and still gives birth to all beings. The fertilizing 'father', in this case Uranus, and the conceiving 'mother', in this case Gaia, who also feeds her children.

This first divine couple is united by Eros, and in the erotic-cosmogonic symbolism the Sky-Uranus embraces and fertilizes Earth-Gaia through the rain. Their union is presented as an omnipotent reproductive ability, which multiplied the number of gods, a fact praised by Orpheus (Proclus in *Tim.* 3, 1820, p. 137, 11) as creation of the primeval Chaos (or Erevo) and of the Day (*Orphic Hymns* IV: *Incense to Uranus*, and XXVI: *Incense to Earth*).

Besides, this same symbolism is hidden in the union of Semele (who personifies Earth) and Zeus, the celestial god who fertilizes his beloved woman with lightning, the harbinger of rain. 'Earthly' Danae is fertilized in the same way, by the 'celestial' Zeus transformed into golden rain. Metaphorically, the celestial god, with his beneficiary waters, softens the parched womb of the earth for the development of life.

Since Mother Earth and Uranus were the progenitors of life, humans (who depended on earth's vegetation) had to either pacify or challenge god Uranus to copulate more frequently with Mother Earth for richer production.

This cosmogonic theme of the primeval couple of Sky and Earth is found not only in ancient Greece, but in almost all ancient civilizations. According to some scientific evidence, many prehistoric societies were matriarchic ('matriarchy' in *The New Encyclopaedia Britannica*, 2007)

The first human societies were intimately aware of nature. They believed that humans, animals, plants, rocks and minerals, all were the descendants of Mother Earth; therefore, everything had a soul and any living creature had the same rights on life.

At the dawn of history human societies respected the other life forms because they knew that their differences were just morphological. People believed that rain was the intercourse of Sky and Earth (the masculine and the feminine). They knew that everything depended on this event, including the survival of the other forms of life on the land.

For pre-Socratic Greek natural philosophers, however, it should be added that Earth and the Sky were regarded as a continuous body, united at the ends of the horizon.

Earth of the Homeric Universe was a circular flat disk surrounded by a huge circular river, the Ocean, a model first appearing in the *Orphic Hymn* 'X. TO PAN, *The Fumigation from Various Odors*', verse 15: "*Old Ocean too reveres thy high command, whose liquid arms begirt the solid land.*" This mythical 'river' is different from the seas: it is something that defines the boundaries of the terrestrial world. Above all, Ocean is the primal and original creative element, the starting point of all things (*Iliad*, XIV 246). This mythical 'river' has no sources, nor estuary, it is 'apsorroos', i.e. cyclically moving or backward-flowing. Its current goes back to where it started in a ceaseless and eternal flux. This Ocean supports the sky, which is above Earth's circular disk as a huge vault.

In the *Orphic Hymns*, the Sky is mentioned as the sovereign of the World, surrounding the Earth as a sphere; it is the abode of the gods and rotates like a spinning-top; personified, he guards everything, not just in his place, but also on Earth: "*Uranus ruler of the world, spinning like a sphere around Gaia, house of the blessed gods, moving with whirlings, guard of everything on both sky and earth*" (*Orphic Hymns*) IV, *Incense to Uranus*).

On the other hand, the Sky was for ancient Greeks a metallic vault made of copper or iron, held up there by very tall columns or, according to another view, by some giant. Homer combines these two views by having Atlas supporting the columns (Homer, 1919, *Odyssey* i 53-54). Hesiod in *Theogony* (1914, 517e) writes that Zeus was the one who had assigned this duty to Atlas. So the sky for them was made of a solid metallic material, called 'polychalcus', that is 'of much copper' (*Iliad* V 504, *Odyssey* ii 458, iii 2, *Iliad* XVI

364, XIX 351), 'copper' (*Iliad* XVII 424-425) and 'iron' (*Odyssey* xv 329 and xvii 565).

The space between sky and Earth, according to the view recorded by Homer, was filled at first by the dense air: aer (*Iliad* XIV 288). Over this layer and towards the direction of the sky there was the clean and transparent 'ether', lighter than the air. Above the ether was the 'polychalcus' sky.

Of course, one should not assume that the Homeric sky was a barren metallic dome; it was, as Homer sings, full of life, the life of the stars that decorate it: he calls the sky 'full of stars' ('asteroeis') (*Iliad* VI 108, XV 371) and star-decorated (*Odyssey* ix 534-535). On this celestial dome, Helios, the god of the Sun, travels on its path, so he is described with the adjective 'uranodromos', that is 'sky-running' (*Odyssey* i 7-9).

6. The Sun and the Sun-god Helios

From prehistoric times, humans admired the starry night sky, with its thousands of naked-eye stars twinkling on its vault. But their joy was greatest at dawn, "the rosy-fingered Eos" (Hesiod, 2006, *Works and Days*, 609), when the diffuse sunlight gradually prevailed over the darkness of the fearful night. They naturally worshipped the light-giving Sun, since they realized that everything on earth owed its existence and life to the influence of its rays.

According to archaeologist Chr. G. Doumas: "*The word 'als' in Homer means the sea when observed from the land. The presence of this root in tablets of Linear B writings as component of other words indicates a long-standing use, during which it evolved into a versatile noun of the third declension that easily makes compounds with other roots. . . the fact that with the original root so many and various needs of the Greek language, e.g. alios / helios [= sun], shows both the close relationship of the aegean society with the sea and the strong influence of the liquid element upon the history and the culture of that age.*" (Doumas, 2010, *The ancient monuments of the names*, p. 16).

"*Indeed, from 'als' (genitive form: alos) came the adjective 'alios', which, even though it is recognized as the doric type of 'helios' = sun, it essentially means the one that is related to the sea... The depiction of the Sun on the proto-Cycladic pan-shaped vessels of the 3rd millennium BC is probably an indication of the importance assigned to it by the Cycladians of that period. The islanders of the Aegean Sea and the inhabitants of the eastern shores of the Greek peninsula see every morning the Sun rising from the sea*" (Doumas, 2008, *The aligenes Aegean Sun*, p.15), as described in the first verses of *Rhapsody iii of the Odyssey*: "*When the Sun, leaving the lake, ascended towards the all-copper sky to shine on both immortals and the mortal people of the life-giving earth. . .*".

The Sun is the 'radiating one', the 'fiery one' and as such it symbolized the celestial representation of the universal father, being essentially the representative of God's spirit (Demetrakos, 1964, vol. 7, p. 3250). The Sun's appearance in the morning, its culmination at noon and its majestic disappearance for the night (or during the eclipses) influenced much human thought. Darkness falling every evening after sunset filled the soul of the primitive human with stressful questions. With time, the savants of the society assigned to

the Sun supernatural divine properties, since as a god 'he' could appear or disappear at will, both daily and during the much more rare eclipses.

All ancient people worshipped the light- and life-giving Sun. The Sun was Samas of the Assurians, Bel of the Semites, Bel-Marduk of the Babylonians, El or Outou of the Sumerians, Baal of the Phoenicians and Chananeans, Moloch of the Ammonites, Chimoch of the Moabites, Ammun-Ra of the Egyptians, Surya of the Indians, Mithra of the Persians, Indi of the Inka, Tonatiuch of the Aztecs, Sol of the Romans, Swarog or Yarila of Slavic tribes, Belenos of the Celts, Helios and Phoebos-Apollo (the symbol of sunlight) of the Greeks. The worship of the Sun god was universal and prevalent, since for ancient humans the Sun was the source of life, light and warmth, a guarantee of the celestial order of the hours of the day and the seasons of the year, a creative force for nature and, more mundanely, an aid for orientation. Besides, the Sophoclean phrase "*everybody adores the rotating solar orb*" (Achilles Tatius, 1917, frag. 672 Nauk2), is true for all ages (Sophocles, 1892, *Trachiniae*, 738, 2).

7. The Sun-Helios in Greek mythology

In Homer's *Iliad* and *Odyssey* (ca 8th century BC) the external aspect of the bright appearance of the Sun is especially stressed along with the notions associated with sunrise and sunset. According to Hesiod, the Sun-god, Helios, was the son of Titans Hyperion and Theia (*Theog.*, 371-372), or of Hyperion and Euryphaessa (*Homeric Hymn to Helios* 31, 2), while his sisters were Selene (the Moon goddess) and Eos (the personification of dawn). Pindar celebrates Theia as the mother of Helios in his 5th *Isthmian Ode* (1997):

"Mother of the Sun, Theia of many names, for your sake men honor gold as more powerful than anything else; and through the value you bestow on them, o queen, ships contending on..."

As Titans, Theia and Hyperion (= he who hovers above earth) belong to the same generation as Cronus; all of them were children of Gaia and Uranus (Patsi-Garin, 1969).

Homer, calling Helios 'Hyperionides' (*Odyssey* xii 176), stresses his concrete bond with life, as since their birth, humans behold the solar 'augeae' (daybreaks): they live "*under the stars of the sky and the light of the Sun*" (*Iliad* IV 45), rejoicing when they see "*the bright light of the Sun*" (*Iliad* V 120). Eventually, when a person dies "he abandons the light of the Sun" (*Iliad* XIX 2).

The Sun for Homer is the god who "*sees everything and hears everything*" (*Iliad* III 277). This characteristic of Helios is stressed by the adjectives 'panoptes' (Aeschylus, 1983, *Prometheus Bound* 91), 'the overseer of everything' (Aeschylus, 1984, *The Libation Bearers*, 982-986), 'the prevailing one by sight' (Sophocles, 1892, *Trachiniae*, 101) and many other references of the ancient Greek tragic poets, who stress that these 'over-seeing' abilities of the Sun render him a guarantor of the keeping of oaths; always Helios was a

witness of truth (*Homeric Hymn* 3, 381, Sophocles: *Oedipus Tyrannus* 660), "index of justice, guardian of oath keeping, eye of justice" (*Orph. Hymn* 16).

In Greek mythology in general, Helios is presented as the god who travels around Earth and watches the administration of justice shedding light on good and evil (Segal, C.P., 1992, pp. 3-29, McCarthy, D.J., 1978, p. 185, West, M.L., 1997, p. 20). Helios was considered a very important god, and Homer reports that sacrifices were offered to Gaia and Helios (*Iliad* III 104, 276). As far as his other attributes are concerned, Helios was worshipped in Corinth (Pausanias, 1918, *Corinth* Book II, 3:2, 4:6 and 5:1) as god of storms, thunderstorms and other sky forces.

Additionally, it has been suggested that the 'Horse monument' (Pausanias, 1935, Book III 20, 9) with the seven "columns. . . . who they say are statues of the planets", was a part of the worship of Helios. Also, in Hermione there was a temple dedicated to Helios (Pausanias, 1935, Vol. II, 34, 10). Indeed, in the Christian church of Taxiarches was found a part of a circular altar of the 3rd century AD with the following inscription: "To Helios the king god, to Hyperion altar. . ." (Jameson, M. and Runnels C.N., 1959, p. 15).

The special place of Helios with respect to the Olympian gods (although Helios is a celestial and not one of the 12 Olympian gods), is connected with his importance for the life of the Olympians. Diodorus (1935, *Bibl. Histor.* V 71) writes that Zeus before the battle with the Giants sacrifices to Helios, Uranus and Gaia. This is why Aeschylus refers to Helios as 'the overseer of everything' (Aeschylus, 1989, *Eumenides*).

From about the 5th century BC and after, Helios loses its status as a distinct deity and begins to mingle with Apollo, the Olympian god of sunlight. After the battle with Giants, Helios was identified with Zeus, who, as a celestial and Olympian god relative to the celestial light included the divine substance of Helios. However the gradual increase in Zeus' strengths forced the Helios part out of his substance which Apollo then usurped to become a deity with many of the characteristics of a pure Sun god. The identification of Helios with Phoebus-Apollo (phoebus = shining) is traced throughout the whole ancient Greek literature after Parmenides and Empedocles (Diels, 1996, *Vorsokratiker*, I2 108, 29.157, 10 and DK -Diels-Kranz, 1996, 28 A 20, 31 A 23), up to Plutarch and Crates Ascondes of Thebes.

Eratosthenes reports this identification of Helios with Apollo (Spandagos, 2002, 24) writing that Aeschylus suggests in one of his works that Orpheus identified Helios with Apollo and placed him at the center of his worship, refusing to offer honors to Dionysus. Similarly, in *Saturnalia* by Macrobius (1969), it is written characteristically: 'Item Orpheus Liberum atque Solem unum esse deum eundemque demonstrans de ornatu vestituque eius in sacris Liberalibus ita scribit' (*Saturnalia* 1.18.22, frag. 238).

Nevertheless, although this Helios-Apollo identification began at least since the 5th century BC, it was not widely accepted until centuries later.

According to Homer, Helios started his trip every dawn from the eastern ocean or from Ethiopia, the land of the 'sun-burned people' (*Odyssey* I 24-26); he crossed the sky with his winged four-horse chariot, pulled by four beautiful fire-breathing white horses: Eous, Aethiops, Bronte and Sterope (Hyginus, 1933, *Fabulae* 183):

"Eous; by him the sky is turned. Aethiops, as if flaming, parches the grain. These trace-horses are male. The female are yoke-bearers: Bronte, whom we call Thunder, Sterope, whom we call Lightning"

These equine names allude to the power of the God, the succession of the celestial phenomena and the maturing of the fruits. Other authors report other names for the Sun's horses: Lampon, Aethops, Aethon and Flegon (Gelling & Davidson, 1969, p. 14+; Glob 1974, pp. 99-103, and Green 1991, pp. 64-66, p. 114+). Every evening, Helios completed his journey and then rested in the West, in the land of Hesperides.

The notion of the 'flaming' or 'fiery' nature of Helios is very common among the Greek tragic poets: *"baked by the fire of the sun"* (Aeschylus, 1983, *Prometheus Bound* 22), *"High o'er the earth, at whose ethereal fire. . ."* (Euripides: *Ion* 34), *"Hot flame of the King"* (Euripides, 1996, *Phaethon* 776). Euripides describes sunrise as follows: *"Now flames this radiant chariot of the sun / high o'er the earth, at whose ethereal fire / the stars into the sacred night retreat"* (Euripides, 2004, *Ion* 82-84). This description has often been compared with a depiction of Helios on a Greek vase of the 5th century BC that is kept in the British Museum; there, Helios is depicted with a ray-surrounded head, riding a winged four-horse chariot, rising from the sea, in which child-like apparitions swim, denoting the stars that go to hide.

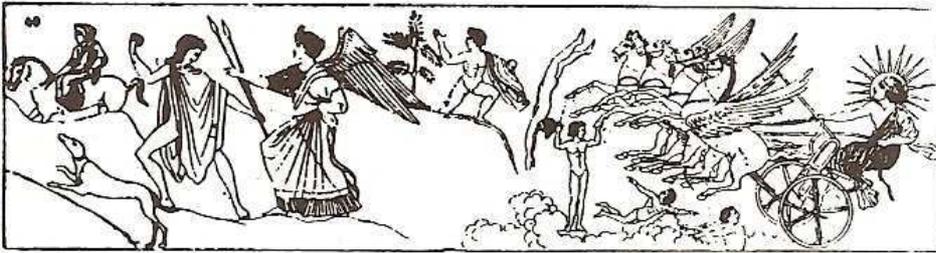


Fig. 2. At the period of Emperor August (Ink drawing: The rise of the Sun with his 4-horse chariot. The vanishing stars of the night are depicted as children sinking in the sea (Greek vase, 435 BC - British Museum).

The Sun, completing his daily (diurnal) course on the celestial vault, rested every night on a golden bed made by the hammer of the god Hephaestus (Vulcan), in order to shine again the following day over the world.

Helios had many sons and daughters. With Oceanid Perseis they had three children: Circe, Passiphae and Aeëtes (Apollonius, 1962, *Argonautica* 3, 1, 2 and Homer: *Odyssey* XII 3). Circe was famous for her magical powers and for her love for Ulysses (*Theogony*, 1914, 957). Passiphae, wife of king Minos of Crete, is identified with the Moon and considered the primeval deity of light, as her name states (passiphaessa = apparent to all). It was due to Passiphae

that the worship of Helios was widely practiced in Crete, where he was adored under the form of a bull (Bekker, 1814-1821, *Anecd. Gr.* 344, 10). The myth of Passiphae falling in love with a bull (the zodiacal constellation Taurus = the Bull) reflects a very ancient tradition, according to which the bull-shaped sun-god and the cow-shaped moon-goddess were united with a holy wedding.

In another myth, Aeëtes was king of Aea, who refused to give the Golden Fleece (a symbol of sunlight) to Jason and the Argonauts.

Helios had two other daughters, Phaethusa and Lampetie, and a son, Phaethon, with Clymene.. Once, Phaethon got permission from his father to cross the sky with his chariot. However, when Phaethon saw the huge constellation Scorpius (the scorpion) he became frightened and lost control of his father's chariot. Its horses bolted and the chariot started to go up and down, threatening the Earth with destruction. Then Zeus saved the world by killing Phaethon with one of his thunderbolts. Phaethon's body fell on the bank of the river Eridanus. His sisters, the Heliads, who mourned him, were transformed into poplars, the holy trees of the god Helios, and their tears became amber.

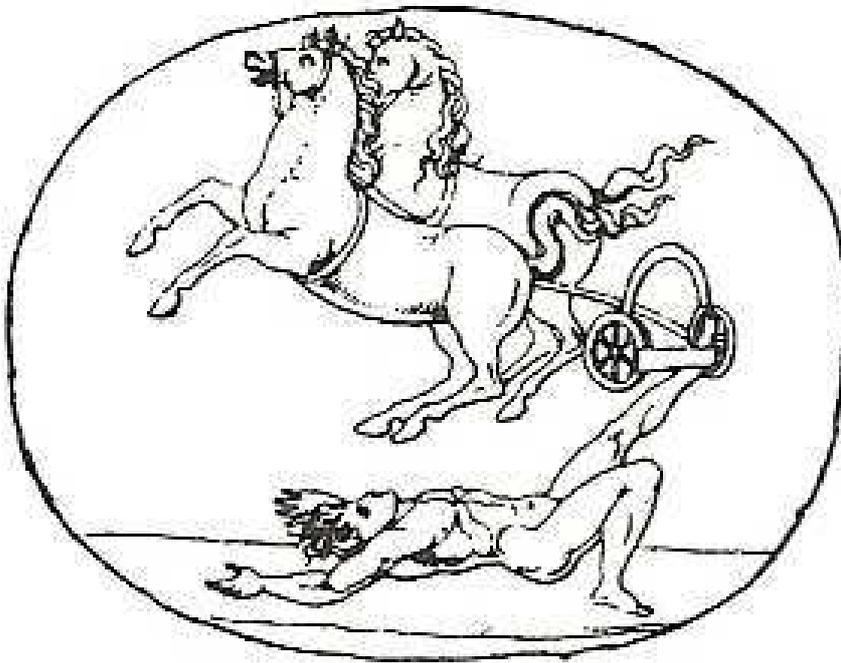


Fig. 3. Ink drawing: The fall of Phaethon.

'Phaethon' was also a name given to of Helios himself because of its radiant light (*Iliad* XI 730, *Odyssey* v 479, xi 15, *Homeric Hymn* 31.2). In his *Theogony* (1914), Hesiod writes of Phaethon and Hyperion as 'substances' of god Helios (*Theog.* 987 and Nagy, 1990, p. 235). Additionally, Phaethon is mentioned by both Nonnus (1940, *Dionysiaka* 38.167) and Ovid (1857, *Metamorph.* 2007, 1.747-79: *Phaethon's parentage, struggle with Epaphos* and 2.42: *Phaethon and his father*).

Helios, according to Greek mythology, also had numerous other affairs with other women; subsequently, he had many other sons and daughters, collectively known in ancient Greek literature as Heliades.

A famous center of Helios worship was Rhodes; as Pindar (1997) reports (*Olymp. Ode* 7, 69), the whole island belonged to him. The famous Colossus was a giant statue of Helios (this statue was one of the 'seven wonders' of the ancient world), an artwork by Rhodian sculptor Chares from Lindos (Pliny, 1971, *Historia Naturalis* 34.63), a student of Lysippus (3rd cent. BC). Every four years a Sun festival was celebrated on the island, called Ali(ei)a or Helieia (Nilsson, 1906, p. 427), during which they offered to Helios a four-horse chariot thrown into the sea. Helios stayed in Rhodes with Nymph Rhodos, a daughter of Aphrodite, and together they had seven sons, named: Ochimios, Cercaphus, Actis, Macar, Candalus, Triopes and Tenages, and their wisdom is exalted by Pindar (1997, *Olymp. Ode* 7, 72-75).

In Greek art the personification of the sun is often depicted as a young man bearing a radiant wreath and a tunic, standing upon a four-horse chariot, as on the metope of the Hellenistic temple of goddess Athena in Ilion (Troy).

Of more astronomical interest is a statue of Helios in the Vatican. He is depicted as a young man bearing a radiant wreath, and has an extra feature: a wide belt with the symbols of the zodiac.

Moreover, there is the tradition, mentioned among others by Homer (*Odyssey* xii 127), that in Trinacria island (Sicily), Helios had seven herds of cattle and seven herds of sheep, each having fifty animals. They grazed steadily every day, never getting more or less. According to the explanation given by Aristotle, the lunar year consisted of 50 weeks, each having 7 days and 7 nights; therefore the 50 times 7 cattle and the 50 times 7 sheep were denoting the 350 days and 350 nights, respectively, which make the lunar year used by ancient Greeks according to the original calculations (Theodossiou & Danezis, 1995, p. 315).

The worship of the Sun-god was universal, while very ancient practices originating in it, such as the orientation of temples of several religions towards the East, were kept until our days in the conscience of people.

8. Selene, The Moon

According to Hesiod's *Theogony*, Selene was the daughter of Hyperion and Theia, and sister of Eos (the Dawn) and of Helios, who illuminates her eternally due to their relation as half-brothers. The word *selene* comes from *selas* = light (Demetrakos *Mega Lexikon*, 1964, vol. 13, p. 6489). In Greek mythology Selene or Selana (Pindar, *Olymp. Ode* 10, 75) is the first and only lunar deity, at least in pre-classic and classic poetry, also called by the adjectives



Fig. 4. An ink drawing of the metope of the temple of Athena in Ilion (Troy) with a relief depiction of ray-headed Helios standing on his chariot, most probably based on an older work by Lysippus (Staatliche Museen, Berlin)

Aegle, Passiphae, Mene, Titanis (as daughter of two Titans) and Phoebe as sister of Phoebos-Helios. As Greek mythology evolved, other goddesses were correlated with the Moon: Hecate, Artemis and Hera.

Selene is usually imaged as a feminine form bearing a crescent as crown, riding a horse or a chariot with two winged horses (diphros). Sometimes she is described as leading a herd of cattle so that her crescent-shaped crown resembles a bull's horns. Her brother Helios rides a four-horse chariot, while Selene rides a two-horse chariot; her two horses have one of their sides white

and the other black, a metaphor meaning that only the one side of the Moon's surface is illuminated by sunlight.

According to various local traditions Selene had one daughter with Aer (air), called Drosos (the morning Dew). In the Attica tradition she gave birth to Pandia, daughter of Zeus (*pan* + *dia* = all-godly), worshipped along with her mother in the Pandion festival. In an Arcadian tradition the Moon was a lover of god Pan and she was worshipped in common with him on Arcadian Mt Lykaio. In Elis and Karia they believed that Selene was in love with a mortal man, Endymion, whom she met every night on Mt Latmos, and had 50 daughters with him, as many as the lunar months of an Olympiad.

In a tradition of late antiquity mentioned by Quintus Smyrnaeus (*Fall of Troy*, 1913, 10. 334 ff), Selene also had a love affair with her brother Helios. The oldest known depiction of Helios in a Greek sculpture is on the eastern gable of the Parthenon, where the birth of goddess Athena is imaged. Helios and Selene also framed the composition of the birth of Aphrodite on the throne of the statue of Zeus in Olympia (Pausanias, 1935, Vol. II, Elis 1, Book 5, 11, 8) and a similar depiction is alluded to by the 'sunset' mentioned by Pausanias on the gable of the temple of Delphi (Pausanias, 1935, *Phocis*, Vol. IV, Book X 19, 4: *The temple at Delphi*).

Selene was worshipped throughout Greece, but especially in Peloponnese. It is known from the history of the Persian Wars that the Spartans, in order to start a military campaign took seriously into consideration the lunar phases. Near the city of Thalames there was a well-known oracle of Selene, where the ephoroi of Sparta stayed overnight asking her advice; a local spring was named after her (Pausanias, 1935, *Laconica*, Vol. II, Book 3, 26, 1).

The pair Helios-Selene was finally correlated with the pair of Olympians Apollo-Artemis, to which similar characteristics were attributed, along with the same symbols: for Selene these were silver, the bull horns and the crescent.

At a symbolic level, the Moon is the feminine component of the creation of the World and the entrance (due to its 'secret' appearance at night) towards the apocryphal nature of humanity and of the Universe, i.e. towards what remains inexpressible from the usual observation of nature. The Moon is the luminous image of cyclical time; representative of the constant flux of everything. The infinite new moons symbolize the infinite time moments of any end that signals a new beginning.

Selene is a chthonic (earth) deity in the antithesis sun-earth, light-darkness. On the other side, Selene is the goddess with the white arms that drives away the darkness of night when it is full. The rosy-fingered Eos (dawn), Selene's sister, brings the first light of the new day. Hecate, the three-form chthonic deity, is another expression of her; Ores, the Hours or the year's seasons, are considered her daughters. Another metaphor of the Moon is a huge luminous *clepsydra*, a water-clock, filled during its waxing phases and emptying during its waning phases. It gave the definite measure of time with the succession of its phases.

The ancient Greek tragic poets presented Selene-Moon as a very beautiful young woman before which all the other stars paled, when its silvery figure appears on the celestial dome.

9. Conclusions

Since the most ancient times, humans worshipped the primal divine couple, goddess Gaia and god Uranus, who were the ancestors of the other gods that gave their names to the planets of the Solar System. Hesiod's *Theogony* starts with goddess Gaia and ends to the polytheistic reign of the Olympian gods.

Uranus surrounds Gaia and fertilizes her. In juxtaposition with goddess Gaia, a deification of our planet, Mother Earth is essentially the deification of ground and soil, whose products sustain humans and offer them the space on which they live and die. The birth of the nature's elements comes in parallel with the birth of gods, who metaphorically behave as people. Cronus symbolizes Time, Rhea the flux and Hera (an anagram of Aer) air along with all the variations of weather.

The light-giving Helios, the Sun, is the source of every life form on Earth. For all people on Earth the Sky, the Sun, the Earth and the Moon (especially the full moon at night) seemed as appropriate eternal witnesses of human acts and the natural avengers of cheatings. On the other hand, the rays of the Sun falling on Mother Earth after the rain-sperm of the Sky created the first living creatures.

Of astronomical importance is the Celestial Dome, where in daytime reigns the all-seeing Helios, and at night the stars and the pale figure of Selene-Moon are observed.

The Moon was the origin, in remote antiquity, of the definition of the month and the week, and of the creation of the first (lunar) calendars; its role was crucial for the invention of the religious calendrical systems of the ancient people, which survive even today in the Islamic world and in the determination of the date of the Christian and Jewish Easter.

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