



avantgarde

The roots of the four elements in Empedocles' poem, and similarly veiled in the Hippocratic Oath?

I present the following two original findings:

- (a) I interpret "roots" in Empedocles fragment about the four elements literally as the root or origin or creator of an element and thus arrive at the attribution Zeus-Fire, Hera-Earth, Hades-Air and Nestis-Water, i.e. the same as Aetius according to the majority of surviving sources.
- (b) I interpret the gods and goddesses in the Hippocratic Oath in perhaps the oldest surviving form similarly as the four elements in veiled form: Apollon-Fire, Hippocrates-Air, Hygieia-Water and Panacea-Earth.

Sources and interpretations around Empedocles to date

In *Metaphysics* (book 1, chapter 3) Aristotle mentions that Empedocles would have been the first philosopher to speak of four elements (transl. W. Ross):

Anaximenes and Diogenes make air prior to water, and the most primary of the simple bodies, while Hippiasus of Metapontium and Heraclitus of Ephesus say this of fire, and Empedocles says it of the four elements (adding a fourth—earth—to those which have been named); for these, he says, always remain and do not come to be, except that they come to be more or fewer, being aggregated into one and segregated out of one.

Aristotle lived between 384 and 322 BCE, Empedocles roughly between 490 and 430 BCE. In a work that survived only indirectly, the philosopher Aetius, who lived in the 1st or 2nd century CE, relates Empedocles' mention of the four elements to a fragment (DK31B6) that is usually considered part of a poem by Empedocles titled *On Nature*. Here the fragment, first in the original Greek, then in the translation of William Leonard from *The Fragments of Empedocles* (1908), but with original Greek names for deities instead of the Roman equivalents he used in his translation:

τέσσαρα γὰρ πάντων ριζώματα πρῶτον ἄκουε·
Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἠδ' Ἄιδωνεύς
Νῆστίς θ', ἣ δακρύοις τέγγει κρούνωμα βρότειον.

*And first the fourtold root of all things hear!—
White gleaming Zeus, life-bringing Hera, Aidoneus
And Nestis whose tears bedew mortality.*

Aetius works only survived in several works attributed to different authors. In the majority of them, Aetius would have attributed Zeus to Fire, Hera to Earth, Aidoneus (Hades) to Air and Nestis to Water, in the minority Earth and Air would be flipped between Hera and Hades. Sources in detail from *Die Vorsokratiker*, J. Mansfeld and O. Primavesi, Reclam, 2012: (majority) Stobaios I 10,11b; p. 121,16-20 W. and Qusta ibn Luqa I 3,20; (minority) Ps.-Plutarch, *Placita* I 3,20 (Hss.) and Euseb., *Praep. ev.* XIV 14,6.

Aetius argues as follows: Zeus as boiling and [fiery] aether, Aidoneus [i.e. the invisible] as Air, which has no own light but would be shone upon by sun, moon and stars, Nestis as semen and water.

In *Ancient Philosophy, Mystery and Magic: Empedocles and Pythagorean Tradition* (1995), Peter Kingsley attributes Zeus to Air, Hera to Earth, Hades to Fire and Nestis, who he interprets as Persephone, to Water. He changes the attribution of Zeus due to an apparent change of meaning for aether between Empedocles's time as mainly Air to later on when it would rather mean Fire.

Aristotle used aether as the name of the fifth element, which exists primarily in space and goes in circles. In space you have "Air" as the void and "Fire" as the lights that move periodically around up there, namely sun, moon, planets and stars, which is likely why aether had ambivalent associations, including until at least the times of the Stoics.

Johann Leonard Hug already suggested in 1812 in *Mythos der berühmten Völker der alten Welt vorzüglich der Griechen* that Nestis would have been a variation of the name of the ancient Egyptian goddess Nephthys and that she would thus correspond to the Greek goddess Persephone.

So far, the sources and some interpretations I know of, now to my take.

Should "roots" in Empedocles fragment be taken literally?

My take on Empedocles' fragment (June 2018) is to interpret "root" in the sense of creator, origin, source of the elements rather than as the elements themselves, and to assign gods and goddesses via their explicit or implicit attributes.

Zeus is described as "white gleaming" or "flashing" or "shining", which I would interpret as Fire, especially since Zeus is very prominently known for throwing bolts of lightning, so he creates Fire that way.

His wife Hera is described as "life-bringing" or "life-bearing", which I would interpret as pregnant and thus as creating Earth, as creating new living matter in form of a newborn child.

Aidoneus is simply a well-known variant of Aides, Hades, and has no attributes in the poem, so let me skip Hades for a second.

Nestis is a goddess about which close to nothing seems to be known, but her attributes "tears" and "dew" leave almost no choice but to associate her with Water, a goddess who creates Water, in the form of dew or tears (rain?).

Hades has no attributes, but maybe his name is the attribute? His name means "invisible" or "unseen", while in Plato's dialogue *Cratylus* Socrates proposes "knowledge of all noble things". Let me simply assume that in this case,

since there are no attributes, the name is the attribute, which would fit well with invisible Air and also with the fact that in astrology Air is related to thinking.

All in all, this would yield exactly the same attributions as the ones of Aetius, as reported by the majority of variants in which his work survived.

Hug/Kingsley suggest that Nestis would be Persephone, so that Empedocles would have listed two divine couples: Zeus ☉ Hera high up on Mount Olympus, Hades ☾ Persephone deep down in the underworld.

Kingsley also suggests that Empedocles would not have been a philosopher in today's usual meaning, but would have had a background in more "magical" and especially also "medical" practices. This would also reflect in the oaths that presocratic philosophers of some schools would apparently take, which would apparently have included vows to to keep some knowledge secret.

The four elements in the Hippocratic Oath?

So, let me look at the beginning of the Hippocratic Oath, the oath still sworn by doctors in modified form today, in perhaps the oldest surviving form (as found in Oxyrhynchus Papyrus 2547, around 275 CE):

I swear by Apollo the healer, by Asclepius, by Hygieia, by Panacea, and by all the gods and goddesses, [. .]

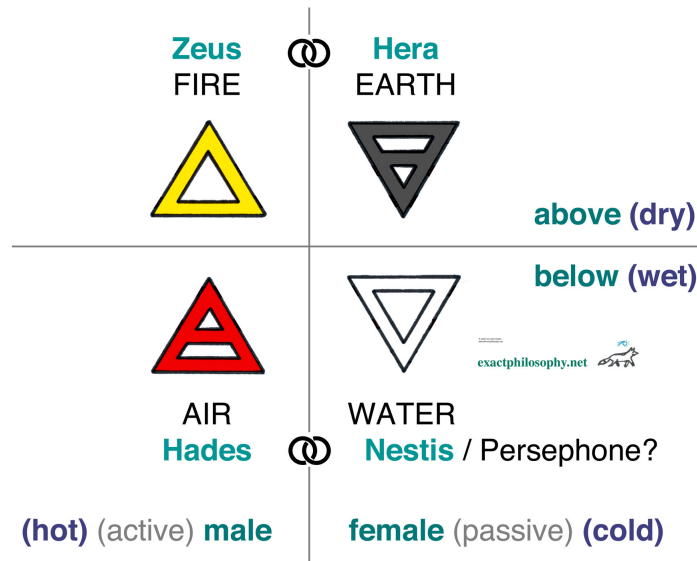
My take (November 2018) is that the sun god Apollon would be most strongly associated with Fire. His son Asclepius, as a wise doctor, would fit well with Air. Asclepius' daughter Hygieia would fit well with Water, as she is often shown with a snake that drinks from a bowl in her hands (and with hygiene, of course, which often involves liquids for disinfection). Panacea, another of Asclepius' five daughters, would most likely be Earth, as she used to heal with plants.

So, did doctors implicitly take an oath on the four elements, more so than on the explicitly named gods or saints? Did Empedocles essentially do the same in an older form, maybe in both cases in order to "blend in" by superficially alluding to mainstream divinities at the time, while secretly only feeling bound to the four elements, or in some sense the laws of nature? Would in both cases, as, I guess, Kingsley also suggests, secret traditions be involved, where knowledge was maybe passed on only orally from master to pupil?

Visualizations

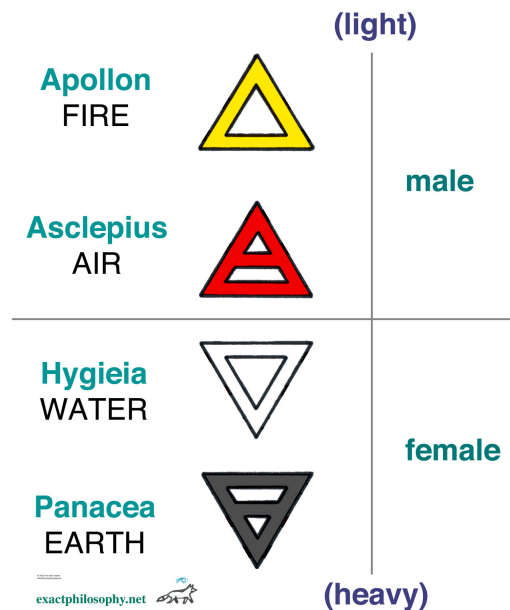
In order to get a bit closer to an answer, let me illustrate my proposed assignments to elements in Empedocles' fragment, see the following page.

Most surprising is that the female goddesses would be associated exactly with the elements that are now considered female in astrology, Water and Earth, and the male gods with the ones that are now considered male, Fire and Air. This is so surprising because this attribution appears usually to be dated to roughly the 2nd century CE in astrology (Vettius Valens's *Anthologia*, and hints in earlier texts by Dorotheus of Sidon and Marcus Manilius), with precursors that attribute passive/active to the same pairs of elements going apparently back to the Stoics, but Xeno founded Stoicism only in 301 BCE, more than a century after Empedocles lived and died. Or am I missing something here?



Around 350 BCE, Aristotle categorized Water and Earth as cold, Fire and Air as hot. He also categorized Fire and Earth as dry, which would here be the couple Zeus \odot Hera above ground, and Air and Water as wet, which would here be the couple Hades \odot Nestis below ground (if you follow Hug/Kingsley's suggestion that Nestis would be Persephone).

Now let me take a similar look at the elements in the Hippocratic Oath:



Again, the male elements would be the male gods, the female elements the female goddesses, which is no longer that surprising at that time, of course.

Elements are listed in the order from light to heavy, in exactly the way Aristotle and others sorted them. That both men are listed first and that both women are daughters of Asclepius, who, in turn, is a son of Apollon, gives this list a more patriarchal touch compared to the pair of couples in Empedocles' list, even though he did list men first in each couple.

Quick wrap-up and outlook

Were the four elements something that some people had known about in closed circles for maybe many generations before this came out publicly? Empedocles would have been very close to what became mainstream in astrology several hundred years later in my attribution to elements. Maybe even psychological associations would not be too far fetched for Empedocles' fragment, with Nestis and tears close to feelings, like Water in astrology? Even the couples would be between elements that are usually considered to go well together in astrology. The two couples Zeus ⚔ Hera and Hades ⚔ Persephone remind a bit of Isis ⚔ Osiris and Seth ⚔ Nephthys from the ancient Egyptian Heliopolis creation myth, especially since "Nephthys" reminds of "Nestis", as already mentioned further above. Quite generally, creation myths world-wide practically always involve the elements in some form. But let me leave it at that.

How far do things really go back, what was just made up later? And, again, am I missing something crucial here? Is it certain that Empedocles' fragment is genuinely from him in this form?

Thanks to Peter Kingsley, John Opsopaus and Catherine Rowett for their public contributions to the riddle around Empedocles and the elements.

See also the leads under "[greek philosophy](#)", and subsequent sections.

The idea how to assign elements in Empedocles' fragment is from June 2018, shortly after I took a closer look at the fragment for the first time; the idea to assign elements in a similar way to goddesses and gods in the Hippocratic Oath is from November 2018. I wrote to Kingsley and Opsopaus twice about these ideas, shortly after each finding, and got no answers, to Catherine Rowett once shortly after the second finding, and got a thank you the same day! Thanks, too! This version is dated January 2019, except for possibly tiny later fixes.