

God Of War's Greek Cosmology

Forged inside the Sun's core, [The Hyperion Spear] possesses the strength to bear the weight of the cosmos. (God of War: Ascension.)

(EDIT 8/31/2024: This document's conclusion has been heavily revised following discussion.

My previous conclusion was that the universe scaled to the Milky Way galaxy. My new conclusion is that it most feasibly scales to the determination of [Ptolmey's Ptolemaic System](#), [20,000 Earth Radii](#). Thank you!)

Little research has been done into the Ancient Greek astronomical and mythological models which are invoked within the God of War series. Instead, discussions either rely on using our current universal model for simplicity's sake, or on a statement from the God of War novelization with all information except for the use of the word "infinite" stripped out. This has led to a broad misunderstanding of God of War's Greek cosmology.

Over the course of this document, I analyze the novel of the original God of War's depiction of the Greek Universe, compare and contrast several Ancient Greek mythological and astronomical models of the universe, and examine the Antikythera Mechanism, to determine the size of the God of War Greek Universe. Ultimately, I determine that it is most mythologically and historically accurate to scale it exactly to 20,000 times the radius of Earth. This is thanks to evidence presented via the inclusion of Antikythera Mechanism, which allows us space to analyze the astronomical discoveries made by Hipparchus shortly before the end of the Hellenistic Period, which would have made use of the discoveries made via the use of the mechanism. This work was ultimately expanded upon by Ptolmey in the Almagest, which made use of these theories to determine the size of the universe to the Ancient Greeks.

What's in a statement?

The God of War Franchise features deep lore and a rich tapestry of information about its fantastic setting. The nature of the "Greek World," a part of the universe formerly occupied by Kratos, his family, the Olympians, and the fantastical mythology of Ancient Greece, is one such topic. Over the course of seven games, two novelizations, and a panoply of concept art and other such additional information, the universe has come to life, invigorating the imaginations of millions worldwide. A question arises, one which has peculiarly not been answered in much detail.

How big is it?

One quote from the *God of War* novelization is relied upon to settle the matter, and it appears to do so quite efficiently. [The skies](#), which are equal to the heavens, which are equal to the universe, thanks to [Ouranos, the Primordial of the Heavens](#) (as established in *God of War: Ascension*) are "[infinite](#)." The scene itself, found in Chapter Two of the *God of War* novelization, has not been

altered in any way. I can confirm that the scene exists, that Poseidon comes to Athena in such a manner, and that he does indeed mate the infinite skies with the water from his endless shores on Earth, complete with explicit mention of Egypt's Mediterranean shore. His rage over the conversation, which ranges from "Poseidia" to Atlantis, threatens to shake the Earth, and Athena beseeches him to not vent his wrath on Ares by effortlessly smiting him. After all, there "is no shame in being bested by great Poseidon, ruler of two-thirds of all that is." The sky is a part of all that is. It is infinite, yet is smaller than our Earth.

How can this be?

The Previous Problem With Measuring the World, Cosmos, Heavens, and Sky

[Earth's surface is approximately 71% water. The oceans make up 96.5% of that water.](#) This is an awesome statistic, but we can do better: The total weight of all that water has been helpfully broken down into spheres (theoretically, I promise it's still out there physically) by the United States Geological Survey. The total volume of all the saltwater and freshwater together would make a sphere that was about [1,029.5 miles in diameter](#). This is an awe inspiring size. The Earth is approximately [7,926 miles](#) in diameter. Poseidon, who rules over about 13% of that, is truly the ruler of the universe, which appears to be about 1/5th the size of Earth. This is a strange statement, but is curiously not challenged by the narrator, who has established the skies, which we can reasonably conclude are part of "all that is" being that they are part of all that is, are infinite in size, which surely must equate to [being literally endless, without limits](#), as a majority of definitions of the word implies. Indeed, taken without Athena's second, curious statement, which the narrator presents in conjunction with the existence of an infinite sky and endless shoreline without question, the "infinite sky" statement would reasonably imply that the universe was indeed endless.

The problem arises when alternate definitions of the word are taken into account.

Poseidon, we should note, does mate the sea with the infinite sky. The most common definition [of this word is that a sexual act](#) has been performed between the sea and the infinite sky and they have produced offspring as a result. Given that Athena and Poseidon callously ignore the needy youth (as does the narrator, shame on them), we can conclude that the surviving offspring will be Kratos' opponent in the next *God of War* saga. We can, however, reasonably conclude that the term was meant in an alternative way which would still be a legitimate definition of the verb "mate": Poseidon seemingly joined together the sea and infinite sky, not literally, but briefly.

The waterspout created by his coming was "mountainous," not "infinite." The sky is infinite, the waterspout rising to meet it is meant to emphasize that Poseidon created a large waterspout, not that it was literally infinite in size, or that it was literally a mountain made out of water. We're

not engaging with a legal document filled with literal measurements and terminology which strives to have but one objectively valid interpretation. We're engaging with a novel that is meant to be entertaining, to get along ideas and feelings more so than absolute scientific accuracy. Poseidon's endless shoreline is likewise the same way: all the land on Earth is surrounded by ocean. It is endless not in the sense that it is literally infinite, but that the perimeter it draws around the land creates an endless shoreline (so long as you don't try to move inland). I can guarantee, however, that Poseidon would rather think of it as endless as compared to puny.

That was an awful lot of words to say that the word "infinite" does not equate to one definition of the word. (You can even see that in how I wrote this. I am using the phrase "literally infinite" to distinguish something which is just very large and hard to measure from something that is greater than any quantification could encapsulate.) What it does equate to in this case is that the sky is "very large and hard to measure." You could argue that the sky, earth, and Hades' underworld are all infinite in size... But then the question becomes, how would Hades rule two thirds of all there is if that was the case? We can't even finagle it with definitions, the phrase is weirdly ironclad. (Even arguing that she meant "[everything possible](#)" doesn't work - to the Olympians, if it exists, they can rule it. Who's going to stop them?)

Ruling one of three infinite realms would work out to be one-third of all there is. You could get into cardinal sets, maybe there's some theoretical argument to be made there, but there's a reason nobody's done it with *God of War*: It would be introducing a concept which otherwise has never been hinted at within the series. Even if you argued that Poseidon ruled the Earth and Oceans and both were infinite compared to the infinite skies/heavens/cosmos and the infinite underworld, that'd only be half of the infinities we are now talking about in *God of War*, and I can tell you that the word "infinities" does not come up in any official *God of War* media, and has come up far too frequently here already.

It is easy when analyzing this to stop at talking about literal definitions of words versus more informal definitions. The problem, which is one I shamefully contributed to, is that it doesn't answer the underlying question. How big is the *God of War* universe anyway? What is Athena talking about when she says Poseidon is the ruler of two-thirds of all there is? Even looking at our current model of the Earth and its place in the universe, it makes no sense, and the problem is that our understanding of the God of War universe begins and ends with assuming that everything is infinite based on isolating the context of that singular statement from the novels. There's a lot of work to be done to understand what Athena's talking about and what the *God of War* Cosmology (at least within the Greek universe) is like. The solution to this is to realize that we're not the only ones with models of the Earth and the Universe.

The Ancient Greeks had them too, and God of War (particularly *God of War: Ascension*) directly utilizes them to build the universe. The next section is going to go into detail about all of that. If

you want to skip past all the research and explanation, please feel free to do so. They're there if you want to know where I got my numbers from.

Ancient Greek Cosmology and Mythology (500-300 BCE)

There's a pretty overwhelming number of Greek astronomers, philosophers, and varied academics with their thoughts on the nature and composition of the universe. These range from names you might be more familiar with (Aristotle, Democritus) to names you probably aren't as familiar with (such as Thales of Miletus, Anaximander, Aristarchus of Samos, Eratosthenes, and Hipparchus). Thankfully, we're not going to get too much into more philosophical musings of the nature of reality and life, so this list isn't going to be as exhaustive as it could be. We're predominantly concerned with the nature of the ordered cosmos Uranus created (or got knocked out of him).

I'm using 500 BCE as a bit of a fungible point because that's around the time Kratos was born in the *God of War* universe. He was probably in his late twenties/early thirties during the time he made his pledge to Ares. That being said, if you want to imagine him as an anime protagonist by saying he was twenty-five or so when he made his pledge to Ares (giving him theoretically enough time to marry and have Calliope at 18) or as a wizened warrior in his early fifties, go for it. 500+/- 20 BCE is a fine time range, I think.

We can date Kratos back to this time because he [explicitly mentions that he once wished](#) he had fought and died at [Thermopylae](#). Given that Kratos is likewise fighting Persians in *Chains of Olympus* and monsters from Persian mythology such as the Manticore appear in *God of War: Ascension*, we can say that Sparta was dealing with this while Kratos was active. (You can also argue that Kratos didn't explicitly state that he was unable to fight at the Hot Gates, and that he's more somebody who was born in 1990 and wishes they could have died fighting in World War 2, but I don't think that's as reasonable an interpretation. That's just me, though.)

This is around the time of Thales of Miletus (who would have passed away around 538 BCE), [whose theories on the nature of Earth and the cosmos](#) played an exceedingly large role in establishing *God of War*'s cosmology. The first, most striking example is obvious: He theorized that the Earth was "a flat disk floating on a vast sea," with water serving as the origin of all matter in the universe. While the vast sea isn't present in the concept art of the world of *God of War III*, the [Earth itself is a flat disk](#), with the underworld underneath, the Earth is held up by Atlas and stone pillars, and is notably not infinite. Yes, [there is also a trailer for God of War: Ascension which shows the sun accurately and the Earth as a sphere](#). Curiously enough, it [may have been Anaximenes, one of Thales' students](#), who actually believed in a disk-shaped Earth, that has led to his teacher being considered a supporter of that model. In fact, [evidently the Earth being spherical was a commonplace idea around this time](#), and Thales might not have held this

view at all. Regardless, the flat-disk Earth theory is most broadly attributed to Thales, so I am sticking with him. (That, and it looks like the biggest difference between him and Anaximenes is that [Anaximenes thought air was the supporting element in the universe](#), not water.)

Anaximander was the first philosopher to put all of this together into a cosmological model sometime before 550 BCE. He ascribed the creation of the cosmos to something known as the Boundless, which would be beyond all things as the origin of all things, rather than something that came from the origin itself. This would be incredibly exciting if the cosmos was equal to this Boundless, but alas, it is not. Far from being boundless, [his cosmological model tops out at 28 of his celestial units](#), which was the diameter of the Earth. Curiously, in his model, the fixed stars are closer to the Earth than the sun and moon. Even more curiously, his Earth is flat, [but is more like a drum/cylinder than a flat disk](#). This also matches the *God of War III* concept art better than just the flat disc model. Humorously, if Anaximander ever tried to calculate the diameter/radius of Earth, that information has been lost to history as of the time of my writing this.

What is most exciting for our purposes would be the perspective of Democritus, another flat-disk Earth supporter who lived around 400 BCE, [whose theories on atomism](#) would have made the Greek *God of War* universe perhaps the most unique in all of video-gaming. According to his theory, collisions of atoms create matter, and while the atoms themselves are eternal, the things they create are doomed to fade eventually, returning again to the infinite void that was Democritus' universe. Most interestingly about his theories is the idea that these atoms could theoretically be cosmos' into themselves. Forget Uranus being larger than the universe, imagine a single atom in the *God of War* universe being larger than our visible universe. Sadly, I do not believe atoms are ever explicitly discussed in the *God of War* franchise, and this probably would have wreaked havoc with the Norse saga. Just imagine Kratos being larger than Yggdrasil and trying to squeeze into a realm...

The problem is, for as much as we might understand about the size of the universe in Ancient Greek models, we still have no idea what Athena was talking about when she compared Poseidon's domain to "two-thirds of all there is." Fortunately, where science lacks, mythology provides, so we can turn to Greek Mythology instead. [Book One of the Argonautica](#) (recorded in about 300 BCE by Apollonius Rhodius) features Orpheus, who sings of the history of the world.

Thus in wrath Idas reviled him, and the strife would have gone further had not their comrades and Aeson's son himself with indignant cry restrained the contending chiefs; and Orpheus lifted his lyre in his left hand and made essay to sing.

He sang how the earth, the heaven and the sea, once mingled together in one form, after deadly strife were separated each from other; and how the stars and the moon and the paths of the sun ever keep their fixed place in the sky...

([An alternate translation](#) makes this relationship more explicit: “He [Orpheus] sang of that past age when Gaia (Gaea, Earth) and Ouranos (Uranus, Sky) and Pontos (Pontus, Sea) were knit together in a single mould; how they were sundered after deadly strife.”

What Orpheus is talking about is the role Uranus (or Ouranos, I’m more inclined to stick with Uranus) played in Greek mythology. *God of War: Ascension* presents Uranus as a Primordial, he is referred to as such (or *Protogenoi*, both terms essentially mean the same thing) and the *God of War* novelization, published in 2010, years before *God of War: Ascension*, describes him as an elder god instead. He is born of Gaia, mates with her, and is an awful father whose children turn against him. From his blood (and possibly severed genitals), the Furies and Aphrodite are born. (The *God of War* novelization has Athena think back to this sordid state of affairs when speaking with Aphrodite herself.) This course of events is noticeably absent in *God of War: Ascension* (more on that later), but as of now, the novelization wherein the “infinite sky” is discussed is adhering quite faithfully to Greek mythology. We can finally discover, once and for all, what in the world Athena is talking about with Poseidon.

The first thing is that we do have a concrete value from the mythology for how high the sky is over the earth. [Hesiod’s Theogony](#) includes the following passage:

For a brazen anvil falling down from heaven (ouranos) nine nights and days would reach the earth (gaia) upon the tenth: and again, a brazen anvil falling from earth nine nights and days would reach Tartaros (Tartarus) upon the tenth.

This is an easy conversion, as it takes somebody three days to fall from the top of Mount Olympus to the Earth below. The height of Mount Olympus has been most accurately calculated at 13,904,732.16 meters. Multiplying that by 3.3 gives us a height of 46,302,758.0928 meters, or ~28,771 miles. If Los Lonely Boys are reading this by any chance, [there’s your answer](#). (Assuming they’re in the Greek series games of God of War, in which case, I’d recommend they head North and hope for the best.) This brazen anvil calculation [also theoretically played a role in developing Anaximander’s model of the universe](#).

With all that said, Zeus actually does [give an alternate explanation of where Tartarus is](#). According to what he says in *The Iliad*, it is “as far beneath Hades as heaven is above earth.” In which case, from heaven to Earth is ten days, from Earth to Hades is another ten, and Earth to Tartarus would be another ten. This makes the calculation simple, 139,047,321.6 meters, which would be 86,400 miles. (Weirdly enough, that’s the same number of seconds in a day.) I’m not sure if that would be the diameter of the sphere or how it would work out, I’m sure it’d be fun for somebody else to calculate.

The second thing is that... we don't have such a number for the size of the Earth (Gaia) itself. The Ancient Greeks were able to get extremely close to determining the circumference of the Earth, but alas, such a number does not appear in the mythology. The only thing I can say is that it was not boundless, as its ends began where it was [bordered by Oceanus](#), who provided the waters upon which the Earth was buoyed upon, as per Thales' model. (Dr. Ethan Adams, a Classics Professor, also specifically notes this in "[From Myth to Legend](#):" *"Poseidon is in charge of all the seas, and all the oceans, and everything in them... because, in the Greek perspective, the oceans sort of held up the lands, so Poseidon is also in charge of earthquakes."* In fact, David Prather in the documentary [goes into detail about how specifically Poseidon does this](#): *"He's got a trident, this three pronged spear, and... sort of like Zeus with his lightning bolt, you don't want to mess with Poseidon, because when he gets stirred up, the whole world gets stirred up, because he just takes his trident, and he just starts churning that sea..."*) Interestingly enough, Zeus calls Oceanus the "least" of the Titans in the *God of War II* novelization... unlike Cronos. Notably, this is when the evils released by Pandora's box are warping the gods and their emotions, a fact noted by Athena during the scene, so this was more likely an emotional outburst on Zeus' part than anything else.

This, interestingly enough, does provide more information on what Athena was talking about when she called Poseidon the ruler of "two-thirds of all that is." If she is discussing those waters in addition to the Earth (both of which Poseidon is considered to have dominion over in Greek mythology, [as the gaiêochos, the god who holds the Earth](#) in the water), then the claim suddenly makes a lot more sense. (It's the Earth, water, and the waters as part of the universe that holds the Earth that Poseidon holds domain over, after all.) up Do we see or interact with these waters at all in the *God of War* series? Unfortunately, no, although Kratos does see water "crashing into oblivion" off the edges of the world in the novelization of *God of War II*. The heavens, Uranus, which were envisioned as a brass dome upon which the fixed stars lay, stretched over this expanse and met with the Underworld. [This actual meeting place was Hades, and Tartarus](#) descended as far below Earth as the sky rose above it.

He also wasn't the first being to come into being. According to the *Theogony*, he came after Chaos and after Gaia. In fact, Gaia created him, and he was "[equal to herself](#)." That is the final thing about Greek mythology: Uranus didn't play a role in creating the universe. Far from bringing order to the universe, or creating it, as *God of War: Ascension* states, he just sort of was a bad lover/dad and got draped over the Earth.

The good news is, if we tell Oceanus and his waters to take a hike, then we can just work with an Earth that's 86,400... I dunno. I'm not a math guy. But that seems like a big Earth. Its circumference would be about 3.5 times larger than our Earth's, and its shape aside, it seems like it'd be larger on the whole because of it? It'd make the Atlas hammer more powerful, I bet.

There is one more topic to note with the Greek underworld. Citing it as merely a meeting place between boundaries is disingenuous. Tartarus falls within its bounds, and it clearly is a realm by itself within *God of War*, even back to the original game. Why does Athena not invoke it in her cosmological model, when she proclaims Poseidon the “ruler of two-thirds of all there is?”

The Underworld, the Unseen Realm

The best explanation of this I could find came from *The Odyssey*. Homer, the poet to whom the poem (as well as *The Iliad*) is attributed, presents knowledge as stemming from sight. If it cannot be seen, it cannot exist, and far more interestingly, if it cannot see, it cannot exist.¹ Dying in darkness is thus something heroes want to avoid. It is by dying in the sun, in full view of others, that they earn glory. The Underworld, and by extension Hades, are associated with the lack of sight, of invisibility, of existence outside of existence.

Hades’ cap makes an appearance in *The Iliad*, when Athena puts “[on the cap of Hades, to the end that mighty Ares should not see her.](#)” Players can equip his helmet in the *God of War: Ascension* multiplayer, which [likewise grants invisibility. Hades appears from the darkness to launch a sneak-attack against Kratos](#) to start his boss battle. The association of Hades and the Underworld with darkness and lack of sight holds true in the *God of War* series, and while it may not have originated with Homer’s poems, it’s here that the concepts are perhaps best illustrated. To Homer, the invisibility possessed goes beyond invisibility as a means of preventing sight, and invisibility as something which possesses an innate wrongness which should remain beyond sight. [The following passage occurs in *The Iliad*, when the gods enter the Trojan War:](#)

“And seized with fear in the world below was Aidoneus [Hades], lord of the shades, and in fear leapt he from his throne and cried aloud, lest above him the earth be cloven by Poseidon, the Shaker of Earth, and his abode be made plain to view for mortals and immortals -- the dread and dank abode, wherefor the very gods have loathing...”

Hades, notably, does not take part in the battle of Troy. His fear is that the conflict will expose his realm to the sight of mortals and gods and thus shake the composition of the Greek cosmos (Georgios, p. 38). The Underworld isn’t presented as a place which exists within the world of gods and men, but rather someplace below, outside of their scope (Ibid, p. 14). It is a world below, a place outside of the norm, which even the gods loathe and must remain separate lest the

¹ GAZIS, GEORGIOS (2015) *Homer and the Poetics of Hades*, Durham theses, Durham University. Available at Durham E-Theses Online: <http://etheses.dur.ac.uk/11182/> This information comes from pages 8-9. The resource requested a full citation, so I am making certain that I include that here. I will be switching to only noting the page numbers for this paper for the rest of this document (Georgios, p. 8-9). While it was published after the release of the *God of War* games set in the Greek Universe, I thought it laid out these centuries-old concepts in a manner which was most readily digestible. The ideas within most certainly date back to before 2015.

order established be torn asunder and all return to chaos. (Fascinatingly enough, the collapse of the World Pillar in *Chains of Olympus* would accomplish much the same thing.)

We can also note that, Orpheus, in the *Argonautica*, does not include the Underworld in his telling of the origins of the world. There is the Earth, Heaven, and the Sea, and while Hades appears numerous times in the *Argonautica*, it does not have a physical place within Earth, Heaven, or the Sea, but is instead invoked as the ever-presence of death surrounding the heroes on their journey.

Athena, in calling Poseidon the ruler of two-thirds of all that is, isn't disregarding Hades' existence. She is instead invoking the distinction between Zeus and Poseidon's realms as ones of life, existence, and the gods, rather than realms of hiding and confinement (Ibid, p. 35). Does Hades exist as part of all that is? Yes and no. It's complicated, and to Athena and the other gods, the answer would be that, as part of the ordered cosmos, it does not in the same way as does everything else. That also makes Zeus reaching into it via the use of a block and rope a lot more impressive.

God of War's universe is not actually infinite.

Athena, in calling Poseidon the ruler of "two-thirds of all that is," is calling upon the cosmological model written about by Hesiod in the *Theogony*. The sky and heavens are but one piece of the cosmological model, which features the flat disc Earth, which is a feature of the *God of War* series (most notably a piece of concept art for *God of War III* and the *God of War II* novelization) its waters, and what are essentially cosmic waters which keep it afloat in the void. The sky/heavens stretch over these waters as well, and form their borders/the edge of the universe, but whereas one can dig into the Earth, the skies are a bronze dome, the castrated horror of Uranus, stricken down and raised up to forever separate him from Gaia. This model was supported by early Greek philosophers and astronomers, most famously, Thales of Miletus. The Underworld (Hades/Tartarus) exists in a very interesting liminal state, as part of an unseen realm that is not quite part of all that is.

The final question here is, considering that the size of the universe isn't infinite in Ancient Greek mythology or older philosophical texts, and considering that, while we now know what the authors of the *God of War* novel envisioned when they were talking about the infinite skies, we can return to the question that started this document.

How big is it?

Anaximander's model of the universe imagined it as being 28 times larger than the Earth, which does not have a concrete numerical value assigned to its size in his works. You could end it here

by saying that, since there's no concrete numbers, that everything is theoretically infinite, but that's not an answer which sits well with me. For one thing, Kratos encounters the edge of the world in the *God of War II* novelization, which matches the concept art for *God of War III* depicting the edges of the Earth. For another, real life locations such as Egypt's Mediterranean shore are mentioned, and the reasonable conclusion there is that the world is largely meant to be our world (albeit a little flatter), not that everybody can walk/sail at literally infinite speeds. Thankfully, Archimedes did offer an answer around 350 BCE or so as to how large the Earth was: [he determined its circumference was about 45,500 miles](#). This would mean that the size of the universe would be 1,274,000 miles in diameter.

Thankfully, Archimedes' reimagining of Greek cosmology does not end at modeling the size of the Earth. He continues on to model the universe as well, and this model comes from Archimedes' *The Sand Reckoner*. Written around 250 BCE, it uses the current model of the universe during that time period (and that is a fascinating way to word that statement, because of the influence of Aristarchus of Samos' heliocentric model in the work) to estimate how many grains of sand it would take to fill it. Suffice to say, there is an answer given as to the diameter of the sphere of the universe. Its diameter is...

Two lightyears. We can double it to account for Tartarus and call it four lightyears. I think you could debatably call that infinite.

That being said, this number is up to some contention. Hesiod and Anaximander's imagining of the universe appears to be what was used for the *God of War* novel, and neither of their works has a concrete number attached to the size of the Earth. Concluding that it is all literally infinite from the novel would be valid... if not for the fact that nobody in the universe scales to it. The Primordials are not even mentioned in the *God of War* or *God of War II* novelizations, and Ouranos is an "elder god" who brought order to Chaos, not somebody who had the universe punched out of him.

All of our answers so far have gotten us nothing more than more ambiguity. Thankfully, we haven't yet covered *God of War: Ascension*, and it is there where things get really interesting for *God of War's* cosmology. It is this game's lore which provides an explicit object which informs us of the Greek models of the universe upon which the game's setting is predicated. It all comes down to one little piece of *God of War: Ascension*, something that doesn't even alter the gameplay until starting new game plus.

The Antikythera Mechanism.

The Antikythera Mechanism and the Solar System

In *God of War: Ascension*, Kratos can find a mysterious item known as the “Antikythera Mechanism.” It is a “gear mechanism used by Archimedes to track the Heavens. Beat the game to use this item.” This mechanism was not created for the game. It actually does exist and can be seen at the National Archaeological Museum in Athens, albeit not in a usable fashion. The existence of this item is exciting: Through it, we have a concrete picture of what was intended by the developers to be the Heavens Uranus created (or had knocked out of him). The Antikythera Mechanism is still being studied today, so for this portion of the document, I am going to be relying on information available about it before the release of *God of War: Ascension*. (For example, the developers would not have known about [the computer model of the mechanism made in 2021](#), for obvious reasons.)

The Antikythera Mechanism [analyzed cycles of the solar system](#) and was dated back to around 100 BCE. This has been revised back a few hundred years, but for the purposes of this document, those new theories won’t be discussed. Crucially, this article theorizes that there’s a strong link between the Antikythera Mechanism and Archimedes, the astronomer utilizing it in *God of War: Ascension*. Before this, Ancient Greek astronomers and scientists were getting better at determining the size and shape of the Earth, [with Eratosthenes’s calculations getting within single percentages of the true radius of Earth](#) around 200 BCE. (Eratosthenes also determined that the distance from the Earth to the Sun was about 93 million miles, which is just about right.) This also gives a reason as to why the Earth and Sun are depicted realistically in the advertising for *God of War: Ascension*. Ancient Greek scientific progress had gotten to the point where they’d feasibly know that the Sun and Earth were spherical, even if they didn’t have the same satellite imagery that we enjoy today. Pivotaly, the concept of a geocentric universe was increasingly challenged by new ideas. Archimedes’ *The Sand Reckoner* [relied upon Aristarchus of Samos’ heliocentric model](#) to present a universe that could be filled with sand. Additionally, Archimedes and Eratosthenes were also friends (at least, [according to Wikipedia](#)).

This idea of a Heliocentric universe was likewise invoked in part in the marketing for *Chains of Olympus*. There was an accompanying site, the [Temple of Helios](#), which had special unlockable novel entries. Some of the information within them has been contradicted by *God of War: Ascension* (notably that [the Protogenoi \(Primordials\) existed before time itself](#), Gaia’s [narration in the opening cutscene to God of War: Ascension starts with “in the time...”](#)) (The question then would theoretically become what led to the creation of time in between their existing and warring amongst each other?), but one of them, the [Tale of Helios](#), curiously mentions that Helios is "only behind the King of the Olympians himself in terms of worship." Considering that Helios is never really mentioned in the novels or games as being anywhere near Poseidon/Hades’ prominence, this is most likely a reference to this increasingly heliocentric cosmology (or perhaps there’s something I missed, definitely feel free to let me know).

What does this mean for *God of War*'s cosmology? It means that the cosmos are significantly smaller than believed, especially after taking the infinite misinterpretations out of the discussion. Archimedes is shown as using the Antikythera Mechanism to "track the Heavens," the Heavens in the game [clearly equating to Uranus' creation](#), as is depicted in the artbook. The Antikythera Mechanism focused on cycles of the solar system, or how the sun, moon, and planets moved. Archimedes uses the Antikythera mechanism to track them, they are equal to the heavens, we have an answer. The cosmos, then, the orderly universe/heavens Uranus created, is our solar system. The Ancient Greeks, at the time of its creation and usage, did have essentially its exact size calculated. The Hyperion Spear, mentioned at the beginning of this document, can bear the weight of the cosmos. Those cosmos would then be equal to our solar system. Is this our final answer? Is the *God of War* Greek cosmology equal in size to our solar system and nothing more?

I would argue it's larger. We're not quite done yet.

Hipparchus and Fixed Stars

That wasn't a very good fakeout. As the *God of War: Ascension* opening cutscene shows, more than one star is being thrown up as a result of the fight between Uranus and Ceto. As was mentioned way back in the *Theogony*, and in the imagining of Uranus as a bronze dome, there were fixed stars as well as moving bodies. The fixed stars were always in the same place, and the moving bodies could be tracked (which was the intent of the Antikythera Mechanism). The question then arises. What are fixed stars?

To the Ancient Greeks, there were wandering stars, [celestial bodies which moved throughout the sky](#) and were tracked by astronomers and the Antikythera Mechanism. There were also fixed stars, which were visible and unmoving. Any movement they appeared to make could be explained by the rotation of the Earth, and Anaximander believed them to be closer to the Earth than any other celestial body. The excellent thing is that there is a Greek astronomer who would have been influential around the time that the Antikythera Mechanism was dated back to, Hipparchus, who determined more about the stars than them being simply fixed points in the sky. (Ptolemy would be another candidate for influential astronomers around this time period, but he was born following the [end of the Hellenistic period and Athens' fall to the Romans](#) in 86 BCE. [It wouldn't have been Zeus in Ptolemy's time, but Jupiter.](#) However, Ptolemy did write a summation of Greek cosmological theories following the end of Ancient Greece, [the Almagest](#), which is enormously helpful! More on that later.)

For our purposes, the most important astronomical discovery Hipparchus made was related to those stars. His research led to the [creation of a catalog of 850 different stars](#), which, according to Pliny the Elder, he was inspired to create when he saw a bright light in the sky which is [thought to have been a supernova](#) and believed he had seen the creation of a new star in the sky. The blow struck against Uranus in the *God of War: Ascension*, interestingly enough, looks like a

nebula, which is created following a supernova. This isn't an objective fact and doesn't make a difference either way, but I'd like to think it was inspired by this story. What this most pivotally means is that even as Ancient Greece and its mythologies were coming to the end of their historical period, research was still being conducted which showed that the universe was larger than just the solar system, and that the heavens extended beyond their cosmic neighborhood.

The ultimate answer to all of this comes back to Ptolmey, who determined that the fixed stars were, to the Greeks, the furthest thing from the Earth. He built upon the information that the Ancient Greeks provided to get a distance of [20,000 Earth radii](#), or about 79,263,812 miles. If we look at Ptolmey's work as a fulfillment of everything the Ancient Greeks researched, of the heights they reached in scientific modeling before Ancient Greece fell, then that's almost certainly the most accurate model of the universe possible.

A Cohesive Greek Universe

The *God of War* universe has not been well researched before this point. Little research was done into the Ancient Greek astronomical and mythological models which are invoked within the games themselves. Instead, discussions ended with a statement from the *God of War* novelization with all information except for the use of the word "infinite" stripped out, or with comparatively reasonable comparisons between it and our own physical universe. While helpful starting points to begin analyzing the cosmology of the Greek portion of the series, taking all available information into account can only help provide an accurate, comprehensive look at the unique universe that Santa Monica Studios has crafted.

The Greek universe in *God of War* was created by Uranus, over the course of his battle with the other Primordials. Perhaps it was punched out of him over the course of seconds, or countless years of battle, perhaps he formed it alongside the other Primordials, the important thing for the purpose of this document is its size. It is equal to 20,000 Earth Radii, and while that seems small by today's standards, it was a size determined by the culmination of many brilliant men and their beliefs, whose shoulders we stand upon today as we stand tall and look to the same heavens they did so many years ago.

Please let me know if you have any critiques or comments, and thank you so much for reading!

Links to my other documents:

[Lore Kratos Pretty Much Never Existed](#)
[Let's Keep Talking about God of War](#)