

ORION: A CELESTIAL ACTOR ON THE STAGE OF NORSE MYTHOLOGY

ORIÓN: UN ACTOR CELESTE EN EL ESCENARIO DE LA MITOLOGÍA NÓRDICA

Ryan Eckerson¹

Abstract: The constellation Orion is visible in the Nordic night sky from autumn through spring, with maximum nightly visibility in the winter months. Its asterisms are some of the most recognizable in the night sky, and cultures across the world have encoded its asterisms and movement into myth. The belt of Orion is called fiskikarlar (fishermen) in the old Icelandic manuscript GKS 1812 4to, which I suggest alludes to the Thor's fishing voyage. Early modern Icelandic manuscripts illustrate Thor in attire which resembles that of Orion in GKS 1812 4to, and his girdle contains three star-like symbols, which parallel the belt of Orion. The belt of Orion has further been associated with three kings High, Just-as-High, and Third in folklore, and other constellations like the Hyades (ulfs keptr or wolf's jaw in GKS 1812 4to) hint to a possible association with Fenrir and Tyr.

Keywords: Norse mythology, Thor, Orion, constellations, old Icelandic manuscripts

Resumen: La constelación de Orión es visible en el cielo nocturno nórdico desde el otoño hasta la primavera, alcanzando su máxima visibilidad durante los meses de invierno. Sus asterismos son algunos de los más reconocibles, y diversas culturas han incorporado su forma y movimiento en mitos y relatos tradicionales. En el antiguo manuscrito islandés GKS 1812 4to, el cinturón de Orión se denomina fiskikarlar (pescadores), lo que podría aludir al viaje de pesca de Thor. Los manuscritos islandeses de la Edad Moderna temprana representan a Thor con vestimenta que recuerda a la de Orión en GKS 1812 4to, y su cinturón contiene tres símbolos estelares que reflejan el cinturón de Orión. Asimismo, el cinturón ha sido vinculado en el folclore con tres reyes –Alto, Tan Alto Como y Tercero–, y otras constelaciones, como las Híades (ulfs keptr o mandíbula del lobo en GKS 1812 4to), sugieren posibles asociaciones con Fenrir y Tyr.

Palabras clave: mitología nórdica, Thor, Orión, constelaciones, manuscritos islandeses antiguos.

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Introduction: (Celestial) Food for Thought

The aboriginal peoples of Australia have the oldest oral-traditional culture in existence.² There is no better place to begin this article by briefly telling you a story from the peoples of the Kokatha Country of the Great Victoria Desert, Australia.

There was a man named Nyeeruna, a proud and skilled club-wielding hunter who wore a feathered headdress, a string belt with whitened tassel, and whose body was covered in red ochre. He took notice of and aggressively pursued the Yugarilya sisters, attempting to lure them with food. But the sisters were fearful and cautious of Nyeeruna and being part of the Mingarri totem (ming-arri were women who wished to remain celibate) turned themselves into thorny devil lizards and ran from his advances. Kambugudha, the oldest sister, taunted Nyeeruna by placing a row of dingo puppies between herself and the great hunter. The puppies in turn ate the food, which infuriated Nyeeruna, and he chanted and produced fire magic in the club which he wielded in his right hand. The Yugarilya sisters became fearful, and Kambugudha produced fire magic in her left foot and advanced toward Nyeeruna. The hunter's cowardice showed, and his fire magic dissipated. A while later, Nyeeruna's magic came back, but Kambugudha was unable to regenerate hers. Instead, she called upon Babba, the father dingo, who came and shook Nyeeruna east to west. Eventually, the oldest sister's magic came back, and she shook her foot at Nyeeruna, causing his fire magic to once again die down (Leaman and Hamacher, 2014, pp. 185 – 189).

Upon hearing the story, elements of social justice and family unity may be most noticeable. If we were to pass this story down, we would expect that after a few hundred years, people might adapt it into books, comics, or even movies. Scholars may conduct research into what fire magic the Kokatha peoples know or the importance of the dingo to the aboriginal society. Yet the key to fully understanding this story is in the stars.

The Kokatha peoples pass down this story with the celestial references intact. The Yugarilya sisters are the Pleiades. Nyeeruna is the constellation Orion, his club is the red star Betelgeuse, and his belt and tassel are the belt of Orion and sword of Orion respectively. Kambugudha is the Hyades and her fire magic is the red star Aldebaran. The dingo puppies make up the shield of Orion. Early 20th century scholar Daisy Bates collected the story and

² <https://www.utas.edu.au/about/news-and-stories/articles/2023/tasmanian-aboriginal-oral-traditions-among-the-oldest-recorded-narratives-in-the-world>.

assured that this Orion story is not a result of cultural contact with western constellations (Leaman and Hamacher, 2014, p. 185).

Duane Hamacher, professor of Cultural Astronomy at the University of Melbourne, published research on this myth which proves that the growing and dissipating fire magic in this story relates to the variability of the red stars Aldebaran and Betelgeuse. This celestial knowledge was observed and maintained in oral tradition long before western science discovered the variability of these two stars (Hamacher, 2018, p. 3).

Based on this information, I know ask: what if the Norse myths are told from a viewpoint by which we as the listeners would understand the celestial references or have a guide to point them out? Could we reverse engineer the stories and trace the elements back to the night sky?

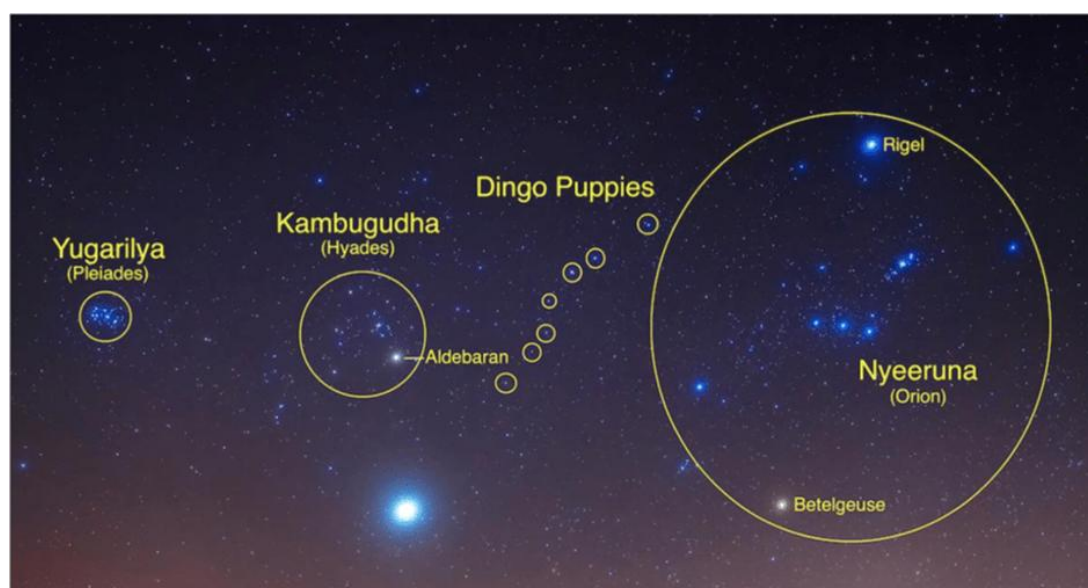


Image 1: Nyeeruna, Kambugudha, and the Yugarilya sisters in the sky (Leaman and Hamacher, 2014, p. 186).

Gylfaginning and the Heavens

Scholars often analyze Norse mythology through a literary lens, which one can presume is because the myths are fossilized in two primary sources: the Poetic Edda and Snorri's Edda. The latter is found in four extant manuscripts, but my article will primarily focus on Codex Regius or R variant. Though no surviving, complete and continuous oral tradition of pre-Christian Scandinavia exists, we can be sure that there was one up through

the time of Snorri Sturluson, to whom credit for the Prose Edda is given. He alludes to the existence of an oral poetic tradition by quoting verses from other skalds and treating them as older than he in his writing. The Church had brought manuscript culture to Iceland, and written texts began to supplement the existing oral traditions (Gísli Sigurðsson, 2018, p. 292). It is only natural that Snorri followed suit and compiled (or dictated) his poetic knowledge into written form.

Snorri's Gylfaginning contains the longest prose narrative of Norse mythology in existence and reading it has been enlightening and enjoyable for many. Yet, after analyzing the 50 or so pages of prose line-by-line, one must question if the 94 direct celestial references are mere cosmic embellishment, or if they indicate a deeper knowledge or underlying theme (Eckerson, 2024, pp. 96-97). There is no extant manuscript which shows that Scandinavia court poets (skalds) passed down their knowledge through writing. As previously stated, Snorri and his predecessors were part of an oral-poetic tradition. It's difficult for us nowadays to imagine passing down a poem – much less an entire mythos encapsulated into poetry – for hundreds of years without the use of writing or some other technology. Gísli Sigurðsson states that the illusion found in Gylfaginning, which he likens to a memory tool, is the method by which Snorri was able to memorize the vast web of Norse mythological elements (Gísli Sigurðsson, 2022, p. 236). The illusion, then, is that the narrative describes what we should see, but only someone with the right knowledge could discern what it is they are looking for.

King Gylfi unveils our illusion when he inquires, "...You are able to give a great deal of information about the heavens. What other chief centres are there besides the one at Weird's well?" (Faulkes, 2005 p. 19). In this question, Gylfi places the gods' places, and by association all elements interacting with those places, in the sky. To reiterate Gísli Sigurðsson's earlier claim, the stars are the key to the illusion. I further suggest that stars could have been used as a visual aid by which to memorize and to generate new poetry and narratives based on celestial placement and movement. The sky is a stage, and the constellations and asterisms are but actors and props – change the names (roles), and you change the story.

Why Orion?

Even if you doubt the millennia of influence the Romans and their leftover traditions had on their neighbors, it is only certain that the Germanic speaking peoples must have noticed Orion. From a purely astronomical standpoint, Orion and its asterisms are among the most recognizable and widely used across indigenous cultures.

GKS 1812 4to is the treasure trove of astronomical texts among the several old Icelandic manuscripts which contain astronomical knowledge. The contents of this manuscript range from the 13th to the 15th centuries and include Oddatal, astronomical models of the planets, and images from an Aratea, which further shows the immense influence the Greco-Roman constellations had throughout the Middle Ages in Europe.³ Latin, Arabic, and even old Norse star names are also present in the manuscript. Orion and/or its belt is listed as fiskikarlar (the fishermen) (Kålund and Beckman, 1914 – 1916, p. 72). Whether the old Norse usage of Orion is due to influence from antiquity or leftover oral traditions of their own makes little difference when astronomically interpreting the myths utilizing this famous star system. I will now demonstrate that the use of Orion and Norse myth (as it presented in *Gylfaginning*) are directly related, regardless of influence by Greco-Roman tradition or older Germanic oral tradition.

In old Icelandic manuscripts SÁM 66, Thor is depicted wielding his hammer and his girdle of might. But a closer observation of the girdle reveals two suns or stars circling his waist; and we can assume there are three by the design of the girdle. In NKS 1867 4to, Thor's three-starred girdle is clearly visible, but in this image, he wields a scepter in addition to his hammer (Image 3). I initially suspected this was a reference to Orion and his belt of three stars. My suspicion of Thor's association to Orion was supported by page 7v of GKS 1812 4to (Image 2). On this page stands an image of Orion with pointed shoes, a club, a scepter, a sword, and his two dogs. Below him slithers a rather peculiar illustration of Cetus, the sea monster constellation, who is depicted as long and slender, much like Thor's nemesis (Image 2).

³ These were a popular illustrated medieval text based on Latin translations of the astronomical poem *Phaenomena* ['Appearances'], written by the Greek poet Aratus of Soli (315–240 BCE) (Etheridge, 2013, p. 70).

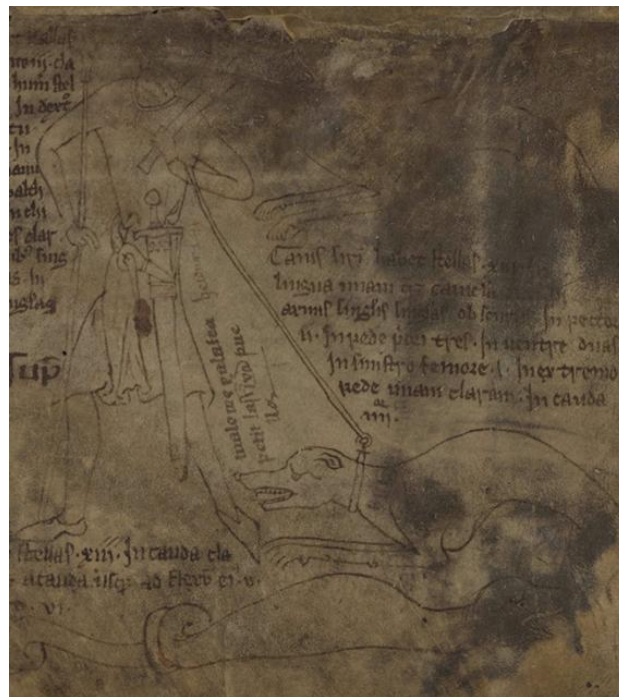


Image 2: Orion, his dogs, and Cetus in GKS 1812 4to, 7v, 13-15th Century.



Image 3: Thor in SÁM 66, 77v (1765-1766).



Image 4: Thor in NKS 1867 4to, 94v (1760).

Besides its obvious correlation with Thor, the constellation Orion is the ideal candidate to play the role of the Juggler in Valhalla which is present upon Gylfi's entry into the hall in Gylfaginning. In GKS 1812 4to, Orion is depicted wearing pointed shoes, much like a stereotypical court jester or juggler. The belt of Orion was known as the three kings during in Germanic folklore, which reflects its association to Christian symbolism and narratives but could lend itself useful to another Norse interpretation of three kings. Orion stands facing the Hyades, which was known as the ulfs keptr (wolf's jaw) in old Norse (Kålund and Beckman, 1914 – 1916, p. 72). The celestial proximity of the sword-bearing Orion and lupine constellation are reminiscent of myths like Tyr losing his hand to Fenrir and Vidar avenging his father. I will now detail my methodology of astronomical observation and then illustrate that the celestial movements, positions, and descriptions of the constellations match those given by Snorri in Gylfaginning.

A Summary of Methodology

Some methods of astronomically interpreting Norse myths have utilized planets to represent the gods in the night sky,⁴ largely due to the planets being named after Norse gods in old Icelandic manuscripts (Gísli Sigurðsson, 2022, p. 240). Some depictions in other Icelandic manuscripts further associate the Norse and Greco-Roman gods (i.e. Tyr = Mars).⁵ Despite these associations, we do not know how long the old Norse names for the planets were in use by the time they were codified (Gísli Sigurðsson, 2022, p. 240).

If we take Snorri's words literally, we should be able to see Thor's wading through rivers daily to the base of the tree (or within the span of an evening when stars are visible). This would not be possible with the planet Jupiter, as its synodic period is 12 years, meaning that it takes 12 years for it to return to a specific spot along the ecliptic through which it travels. As I will demonstrate in other examples, Snorri's descriptions match the movement and location of specific constellations and stars on the outermost sphere of the cosmos (David, 2016, p. 317). Because of this, I suggest that the Norse gods' association to the Greco-Roman

⁴ See Stjárnvísí í Eddum by Björn Jónsson.

⁵ See ÍB 299 4to (1764), 60r.

gods is purely based on shared mythological characteristics rather than an associated celestial movement.

An important note about the method I use: oftentimes the same constellation can take on multiple roles. To those accustomed to Western science, this may seem strange as most constellations typically represent one being or object. Duane Hamacher addresses this by stating “Indigenous constellations can overlap with one another, and they can have different meanings and names throughout the year, depending on their movements and orientations,” (Hamacher, 2022, p. 132). If the star system we associate with Orion was indeed noticed and named by the Norse (which is the case according to manuscriptal evidence), then we can expect Orion to be a celestial actor in the stage of Norse mythology – taking on different roles as the stories dictate.

To conduct this astronomical analysis, I used Stellarium and selected the Arabic al-Sufi and Greek Almagest depictions, as those star maps were both based on Ptolemy’s list of stars and were the most prevalent star maps through the Middle Ages. I set the observation point for Reykjavik, Iceland to ensure the appropriate orientation of the constellations in the medieval Icelandic night sky. I set the year for 1223 and chose the days around the winter solstice (on or about 21 December). I chose the winter because it is difficult to see stars during the summer months in Scandinavia and practically impossible to see them during the summer nights in Iceland. Furthermore, the poem *Völuspá* contains the phrase ‘sól varp sunnan... (sun came from the south),’ which I believe indicates a winter timeframe, because the sun rises southeast and sets southwest in the Northern hemisphere. If we watch the sunset in the southwest, we can watch the fiery sparks of Muspelheim mix with the vapors of Niflheim in the north. After a while, rime ice (stars) begin to appear over Ginnungagap (the sky) (Snorri and Faulkes, 1995, p. 137), and the stage is set.



Image 5: Rime builds over Ginnungagap – the night sky (south to north by west) in Stellarium, year 1223.

The Juggler of Valhalla and the Three Kings

Gylfi travels to Valhalla and sees a hall that is so high he can hardly see over it and with a roof with gilded shields like tiles. If we were to face south after sunset – given there are no city lights to impede celestial observations – we would soon see the high stretching arch of the Milky Way going east to west overhead, which I suggest is the thatched roof of Valhalla. Orion is the perfect candidate for the juggler. He is dressed in pointed shoes in GKS 1812 4to; he stands at the entrance of the hall, which is to say the eastern end of the Milky Way arch; and he faces the Pleiades, the seven sisters,⁶ which I suggest are his seven knives in the air at the same time.

⁶ See Hyginus.



Image 6: The Juggler (Orion/orange) under the roof of Valhalla – the night sky (east to west by south) in Stellarium, year 1223.

The juggler takes Gylfi to see his three kings High, Just-as-High, and Third who sit in thrones one atop the other. Karl Otfriedin Müller claimed that the belt of Orion was associated with the Three Kings of Christ's nativity in 19th century Germanic folklore, though this is not codified (Kuperjanov, 2006, p. 60). Yet, the angle of the stars in the belt fits the description of the kings' seating arrangement in Gylfaginning, and its colocation with the juggler would allow the skald or observer to memorize their mythological association.

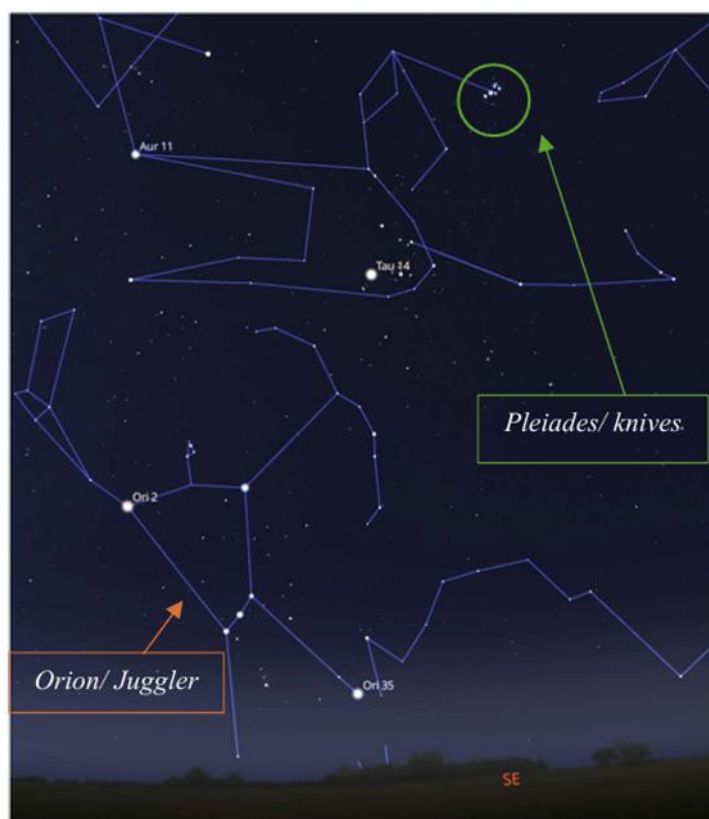


Image 7: Orion (the Juggler) and his knives in Stellarium, year 1223.

Orion and Thor of the Æsir

Orion is the perfect constellation to audition for the role of ásaþórr. Firstly, he possesses a hammer, which can be seen as the asterism above the red star Betelgeuse or even as the red star itself (like in the case of Nyeeruna where the star functions as both a club and hand). Secondly, he has a girdle of might, in this case a belt of three stars. Lastly, he has a pair of iron gloves, which can be seen as the two stars in the shoulders of Orion, echoing Snorri's instruction that the term hand can be used to refer to the wrist or even upper arm (Snorri and Faulkes, 1995, p. 154).

But to truly suggest Thor is Orion, he needs to fit the movement of the god. The Milky Way can take on multiple roles just like constellations. Björn Jónsson was the first to suggest that the Milky Way arch represents Yggdrasil (Gísli Sigurðsson, 2014, p. 190). If we continue with the last scene – looking east to west by south – we can imagine that the roof of Valhalla is now an arching tree, with the base of the trunk due west. Throughout the night, Orion can

be seen rising in the east, reaching its meridian transit due south, and then finally setting in the west – in this case, where the Milky Way sprouted after sunset before it, too, began to move throughout the night (see Image 8).

Thor walks through rivers Örrmt and Körmt and the two Kerlaugar on the way to the tree, which I suggest is river constellation Eridanus that sits at Orion's foot, Rigel. Rudolf Simek stated the name Kerlaugar is strange and may indicate a lost myth about Thor (Simek, 1993, p. 183). Íslensk Orðsifjabók says Örrmt may be derived from *armur* (ON *armr*), which could allude to the meaning of 'wing, side, or side branch.'⁷ Perhaps the name is related to *örmr*, which may allude to a winding river. Though unattested, this would follow suit with other river names in Norse mythology that allude to a physical description, such as *Fjörm* (hurrying) and *Gjöll* (noisy). If Körmt is related to the Icelandic *karmur* (frame), it may also indicate a branching-out or turning motion. If one were to watch the apparent motion of Eridanus from Denmark in the winter, enough of the river would be exposed to see its full winding shape.

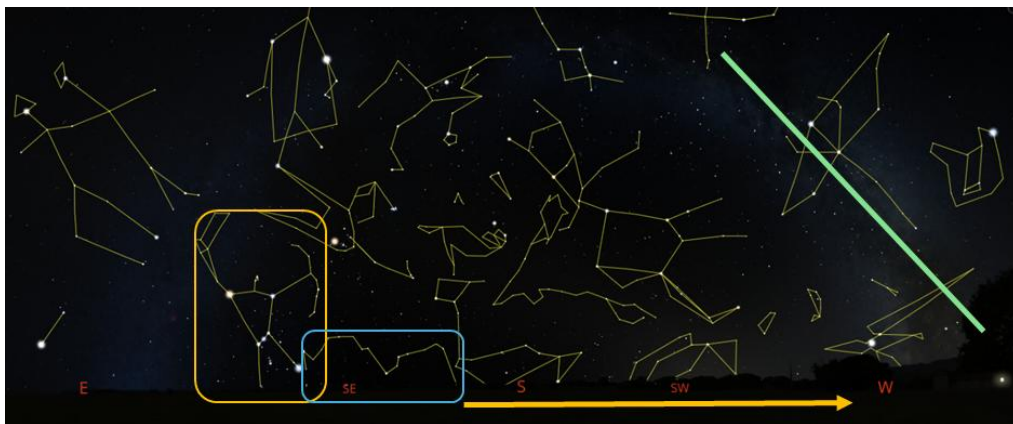


Image 8: Orion (Thor/orange) wading through rivers (Eridanus/blue) to the base of the Milky Way (Yggdrasil/green) - night sky (east to west by south) in Stellarium, year 1223.

⁷ <https://www.ordsifjabok.arnastofnun.is/faersla/24420>.



Image 9: Orion (Thor/orange) and his river(s) (Eridanus/blue) in Stellarium, year 1223.

Thor's Fishing Voyage⁸

If we take seriously the association between Orion and fishermen in GKS 1812 4to, we might be able to watch the story of Thor's fishing voyage take place over the course of a night. To illustrate this, I will simply parallel a summary of the events of the story found in *Gylfaginning* to the movement of Orion and nearby asterisms.

Thor decides to go fishing with the giant Hymir, and he slaughters one of the giant's oxen to use as bait. He takes the head, which is called *himinhjótr*, or 'heaven-flung,' and then the two get in a boat, one seated at the stern and the other at the prow. This plays out celestially in the following manner: at the beginning of the night, the constellation Taurus rises above the horizon, our celestial ox head, followed closely by the now visible belt of Orion on the horizon. The belt, comprised of three stars, may represent the two fishermen at the prow and stern with the oar in the middle.

Next, the two set out to sea. Hymir catches a couple of whales, but Thor wants to continue to deeper waters, despite the giant's warnings about the world serpent that lurks below. When they row out deep enough, Thor tosses the bull head overboard to lure in the serpent. As the night continues to darken, we will see the appearance of Cetus, the whale

⁸ I am paraphrasing the story as translated by Faulkes, 2005. See References.

constellation, facing the fishermen which are rowing towards it. At the same time, the fishermen will be far enough above the horizon to now see the scabbard or sword of Orion directly below it, as though a line has been cast from the boat (the belt). This image is echoed in the Gosforth Fishing Stone⁹, which shows two men in a boat with a lure, reminiscent of Orion's belt and scabbard/sword¹⁰.



Image 10: the 'Fishing Stone', Gosforth 06, Cumberland, 900-950 AD (red added by author).



Image 11: Orion (yellow added by author).

The bait hooks into the serpent's gum, and he thrashes and pulls Thor's hands overboard. Thor tightens his girdle, doubling his god-like strength, and he pushes his feet to the bottom of the boat and to the seabed. He musters the strength to pull the serpent up to the boat before Hymir cuts the line out of fear. The serpent sinks into the sea, but not before Thor throws his hammer and hits it in the head. As aforementioned, constellations may take on separate roles, and here the constellation Cetus no longer represents whales, but the world serpent. The red star Aldebaran is clearly visible among the stars of Taurus, and I suggest one could tie it to the red star in the lower jaw of Cetus, thus linking the the serpent to the bait.

⁹ https://chacklepie.com/ascorpus/catvol2.php?pageNum_urls=95&totalRows_urls183.

¹⁰ <https://www.britannica.com/topic/Orion-Greek-mythology>.

The first stars of Orion that are visible are his hands, and I suggest that their upward movement throughout the night coincides with the serpent pulling Thor's hands overboard. When he becomes angry and manifests his strength to pull the serpent up to the side of the boat, perhaps this is supposed to imply he is putting on his girdle. If this is true, perhaps the belt of Orion is no longer the boat, but the belt of Thor which doubles his strength. This 'doubling' now shifts our focus to the full constellation of Orion, whose feet would now be on the horizon (seabed) directly below the boat (the belt) at this point of the night. Another striking archeological parallel is found by comparing the similar positioning of Thor's foot Altuna runestone¹¹ and the star *Rigel*¹², the brighter of Orion's two feet. By about midnight Cetus sinks back into the horizon, looking up at Orion which looms overhead. The Pleiades, a short-handled constellation near Taurus, follows Cetus down past the horizon (seabed). In Snorri's version of the tale, the serpent lives to fight another day, just as the constellation Cetus will rise night after night to fight Orion throughout the winter.¹³



Image 12: Altuna Runestone
(black added by author).

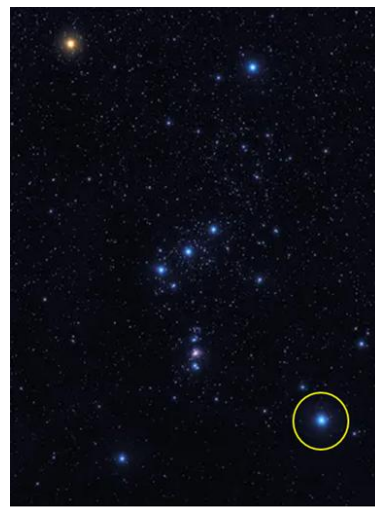


Image 13: Rigel, the brighter foot,
(yellow added by author).

¹¹ <https://www.raa.se/app/uploads/2013/11/Altunastenen-U-1161.jpg>.

¹² <https://www.britannica.com/topic/Orion-Greek-mythology>.

¹³ Images 15 through 17 depict the movement of Orion and relevant constellations throughout the night. Date and time are found at the bottom of each image.

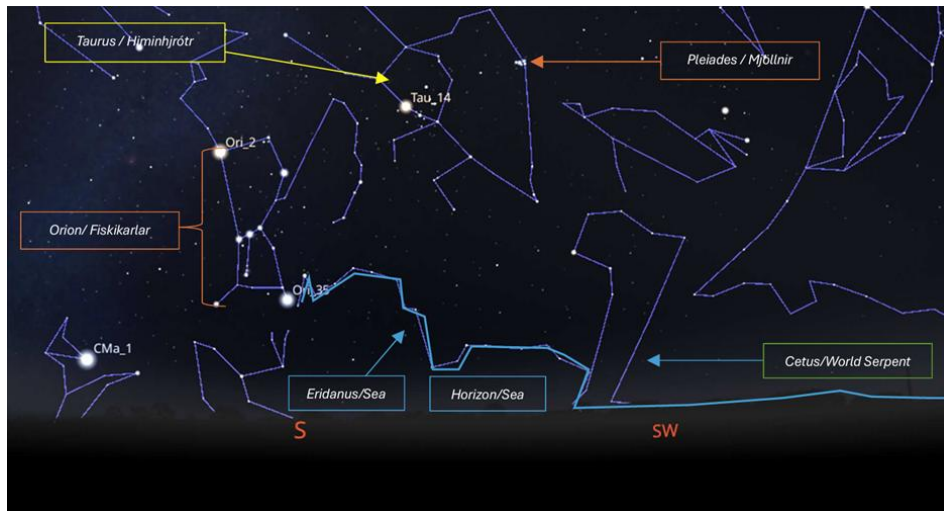


Image 14: Thor's Fishing Voyage (al-Sufi depiction) in Stellarium, year 1223.

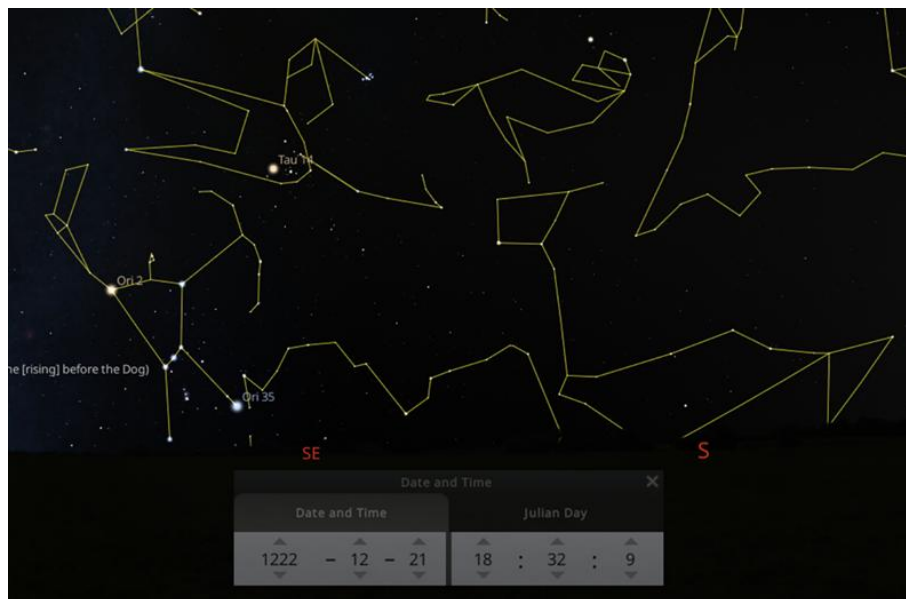


Image 15: Thor vs World Serpent 1 (Algamest depiction) in Stellarium, year 1222.

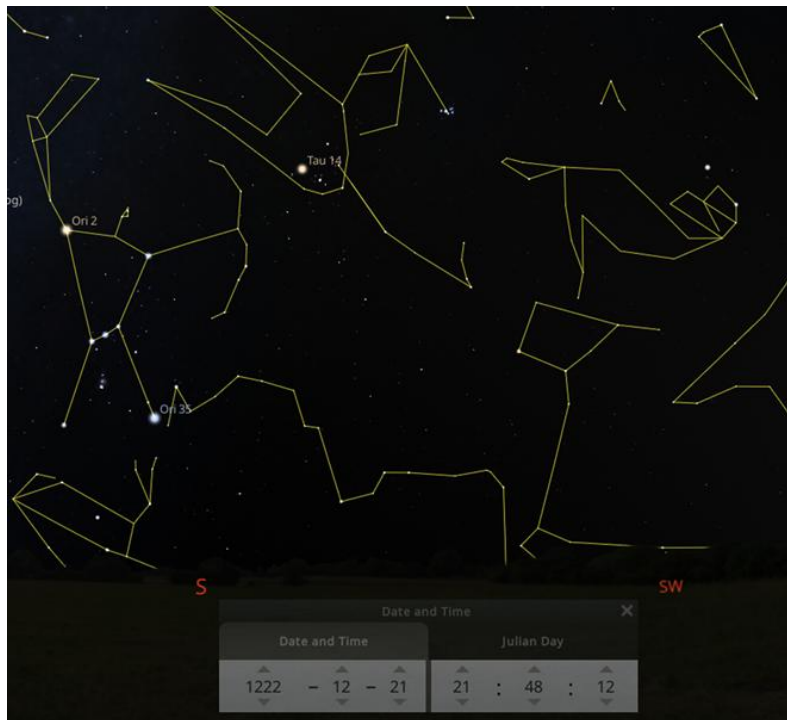


Image 16: Thor vs World Serpent 2 (Algamest depiction) in Stellarium, year 1222.

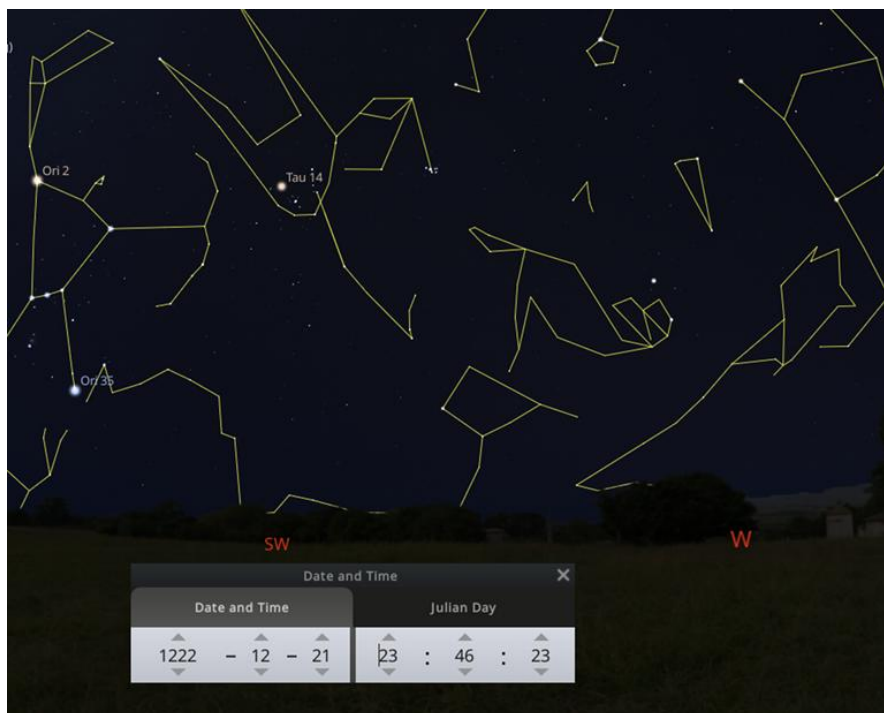


Image 17: Thor vs World Serpent 3 (Algamest depiction) in Stellarium, year 1222.

Conclusion

Several clues point toward Orion's potential role as Thor in the night sky. Firstly, its naming as fiskikarlar (fishermen) in GKS 1812 4to ties may allude to Thor's fishing voyage. Secondly, images of Thor in SAM 66 and NKS 1867 4to depict Thor with a three-stared girdle and a scepter (Images 1 and 3), suggesting a link between the Norse god and the constellation well after the Middle Ages. Even Thor's daily wading through rivers is reflected by Orion's east to west movement in the night sky, with Eridanus, the curving river, at his feet. Lastly, Orion's anatomy is reflected on medieval depictions of Thor's fishing voyage (Images 10 through 13). Besides its association with Thor, Orion also complements descriptions of the juggler in Valhalla and the three kings.

It is not uncommon for mythological narratives to be intertwined with celestial movement. In *Astronomica* by Hyginus, Orion's boast that he could kill any earthly creature angered the gods, and Earth sent a scorpion to kill him. Jove placed the scorpion among the stars to warn mankind against overconfidence, and Diana asked Jove to place Orion in the heavens as well. They were positioned in the sky so that when one rises, the other sets.¹⁴ Their rivalry is forever reflected in the night sky throughout the course of the year. Utilizing this rather straightforward method of interpreting the myths may mean others are visible in the night sky. In *Prymskviða*, Thor goes on a journey to retrieve his stolen hammer, Mjöltnir, which I have likened to the Pleiades. In Greek mythology, Orion is known for his pursuit of the Pleiades, the seven sisters.¹⁵ Would it be too farfetched for this celestial chase to be reflected in Norse mythology?

One more role for Orion comes to mind. The constellation's famous red star Betelgeuse has been used to represent a severed limb in various cultures. This is likely due to its variable brightness, which shifts over the years, and may be linked to a pulsing of blood (Hamacher, 2022, pp. 176 – 177). The Hyades (wolf's jaw/*ulfs keptr*) is relatively close to Orion, and it also has a red star, Aldebaran, which sits in the lower jaw. Could this be Tyr's severed hand? Unfortunately, the small list of star names in GKS 1812 4to leaves many potential astronomical

¹⁴ See § 2.26.2 in Hyginus, *Astronomica*, Book 2.

¹⁵ See § 2.21.6 in Hyginus, *Astronomica*, Book 2.

interpretations of Norse mythology to debate. However, if we look to where Snorri consistently points us throughout *Gylfaginning*, we may be able to see the stories come to life.

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