
BIFRÖST (THE RAINBOW BRIDGE) AND THE NORÐRLJÓS (THE NORTHERN LIGHTS) IN NORSE MYTHOLOGY

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Abstract

This paper outlines an investigation into the correlations between ‘Bifröst’ - the so-called ‘Rainbow Bridge’ of Norse Mythology - and various natural features and phenomena that have been the focus of a scholarly discussion over what the references to the ‘Rainbow Bridge’ are based upon. Over the years, scholars have suggested that the passages found in the old Scandinavian texts are referring either to the sightings of rainbows, or observations of the Milky Way, in their descriptions of ‘Bifröst’. However, a critical comparison of the features of the Milky Way and of rainbows demonstrates that they do not fully conform to the descriptions of ‘Bifröst’ found in the extant literature, and therefore, any correlation between these natural features and the ‘Rainbow Bridge’ seem to be incorrect. Consequently, the descriptions of ‘Bifröst’ must be based upon something else. A close examination of the texts indicates that the mythic bridge to the home of the Norse gods was based upon sightings of one of nature’s most spectacular displays: the Aurora Borealis or ‘Northern Lights’.

Keywords: aurora borealis, Milky Way, Norse mythology, rainbows, Vikings

1. Introduction

Bifröst (also called *Bilröst* or *Ásbrú* (Old Norse for ‘Æsir’s Bridge’)), the so-called ‘Rainbow Bridge’ that connected Midgard (the land of mortals) to Asgard (the realm of the gods), is a cornerstone of Norse mythology. It is the pathway that the spirits of fallen heroes take on their way to Valhalla, and it is the means by which the gods will descend back to Earth at the onset of the Age of Ragnarök. Despite its place of prominence within these tales, no references to *Bifröst* exist in the extant Viking texts. The first references to the bridge appear in texts composed nearly two centuries after the end of the Viking Age. These scant references have led to several interpretations of what *Bifröst* actually was being forwarded in modern scholarship - with either observations of the great arc of the Milky Way, or to rainbows, being the most common. However, a critical examination of the texts indicates that what was taken by the Norse to be *Bifröst*

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was actually sightings of the Aurora Borealis and that this majestic natural phenomenon may have influenced the composition of some of the greatest extant Scandinavian medieval texts.

2. Textual references to the ‘rainbow bridge’

The first references to the ‘Rainbow Bridge’ are found in the *Poetic Edda* - a collection of anonymous verses - and the *Prose Edda* by Snorri Sturluson [1, 2]. While both texts are dated to the thirteenth century (c. AD1220), the *Poetic Edda* is mostly likely older than the *Prose Edda* and draws upon older traditions and texts [3]. Within the *Poetic Edda* the bridge is referred to as *Bilröst* in the poems *Grímnismál* (‘The Ballad of Grímnir’) and *Fáfnismál* (‘The Ballad of Fáfnir’). In one part of *Grímnismál* (ch. 44), the god Odin (disguised as Grímnir) gives ‘cosmological knowledge’ to Agnarr including saying that *Bilröst* is the best of bridges [4]. This passage is one of the first clues in the identification of what the rainbow bridge is: the fact that its description is part of ‘cosmological knowledge’ suggests that it is something that is seen in the night sky. Earlier, in *Grímnismál* (ch. 29), Odin describes *Ásbrú* as ‘burning with flames’ [4, p. 96]. This passage provides yet another descriptive clue about the nature of the ‘Rainbow Bridge’: it seems to be quite red in colour and flickers like fire. This interpretation is confirmed in another poem found within the *Poetic Edda*. In *Helgakviða Hundingsbana II* (Helgi Hundingsbane’s Second Poem) the bridge is called the ‘rodnar brautir’ (‘The Reddened Ways’) [5]. The poem *Fáfnismál* contains no description of the physical characteristics of the bridge, only a reference (ch. 15) where Fáfnir tells Sigurd that *Bilröst* will break apart at the onset of the Age of Ragnarök [4, p. 376].

In the *Prose Edda*, the bridge is referred to as *Bifröst* in the books *Gylfaginning* and *Skáldskaparmál*. In *Gylfaginning* (ch. 13) the figure Hárr tells Gangleri that the gods built a bridge connecting Heaven and Earth called *Bifröst* (*gvðin gerðu bru af iorðu til himins, er heitir Bifravst*) [6]. The *Poetic Edda* (*Grímnismál*, ch. 13) states that the bridge ends at Himinbjörg - the home of the god Heimdall who guards the bridge against the Jötnar (giants) [4, p. 90]. Hárr says (*Gylfaginning*, ch. 13) that he finds it unbelievable that Gangleri had not heard the tale of the bridge before, nor seen the bridge himself [6]. This passage indicates that not only was there an established tradition in circulation about the nature of *Bifröst*, what it was, and where it led, but also that it was quite common to see it. In other passages (ch. 13), Hárr says that *Bifröst* has three colours, and that Gangleri may have called it a rainbow (*kan vera, at kallið er regnboga*) [6]. This is an important passage for the determination of what had influenced the references to the ‘Rainbow Bridge’. Firstly, it gives specific details that the bridge contains three colours (but, unfortunately, does not say what the colours are), and secondly, it outlines that, while it may look a bit like a rainbow, it is not necessarily a rainbow. So *Bifröst* may be arced in shape. One of the colours seems to be confirmed in the passages found in the *Poetic Edda* where the bridge is described as burning with red flames. Similarly, in

Gylfaginning (ch. 15) the bridge is also called *Ásbrú*, and Hárr says that the red colour in the bridge is burning fire [6, p. 27]. In *Skáldskaparmál* (ch. 16) the bridge is referred to only once, citing an earlier work by Ulfr Uggason from the 10th century, where it is simply referred to as ‘the powers’ way’ [6, p. 115]. While not as descriptive as other references to the bridge, the passage in *Skáldskaparmál* confirms the existence of much earlier traditions about *Bifröst*, and indicates that it has some connection with great power - either that of the gods, or of its own, or both.

The somewhat vague, and scattered, references to the ‘Rainbow Bridge’ across extant Scandinavian literature has led to a number of theories being forwarded by scholars in regard to what these traditions may actually be describing. Some scholars, for example, have suggested that references to the bridge are based upon observations of the Milky Way [7, 8]. Alternatively, other scholars have suggested that the references to the ‘Rainbow Bridge’ are to actual rainbows. Orchard, for example, suggests that the term *Bifröst* means ‘shimmering path’ [9]. Orchard suggests that the first syllable *Bil-* (which means ‘moment’) from the alternate name for the bridge, *Bilröst*, ‘suggests the fleeting nature of a rainbow’ [9]. Orchard also connects *Bil-* with *Bifa-* (meaning ‘to shimmer’), the first element of the name *Bifröst*, to support his conclusions [9]. Similarly, Simek (also citing the first element *Bifa-*) says that *Bifröst* means ‘the swaying road to Heaven’, but also says that *Bilröst* is mostly likely the original form of the name and means ‘the fleetingly glimpsed rainbow’ [8]. Somewhat interestingly, neither of these conclusions have considered that the Norse term for ‘rainbow’ (*regnboga*) is not part of the make-up of the names for the bridge.

The key to understanding what *Bifröst* actually is (or to understanding what has inspired the tales around it) comes from a critical and comparative analysis of the descriptions of it found in the old texts. From the passages from the extant literature outlined above, several criteria can be used comparatively against the modern models to ascertain conformity between a naturally occurring event or object (Milky Way and rainbow) and the descriptions of *Bifröst*. In such a comparative analysis, in order for any event or object to be considered a likely candidate for *Bifröst*, it must:

- 1) be cosmological in nature (as per *Grímnismál*);
- 2) appear to be burning with flames (as per *Grímnismál* and *Gylfaginning*);
- 3) have a strong element of red within in (as per *Gylfaginning* and *Helgakviða Hundingsbana II*);
- 4) seem to flicker or shimmer (as per *Grímnismál*, *Gylfaginning*, and *Bil-/Bifa-*);
- 5) contain three colours (as per *Gylfaginning*);
- 6) appear ‘like a rainbow’ (as per *Gylfaginning*);
- 7) be arced in shape (as per *Gylfaginning*);
- 8) seem to possess great power (as per *Skáldskaparmál*);
- 9) must be semi-regularly visible (as per *Gylfaginning*).

3. The case for the Milky Way

In regard to the theory, that had been proposed by scholars such as Lindow and Simek, that *Bifröst* was the Milky Way, not all of the above criteria are met. The Milky Way is the view towards the centre of our galaxy - looking through the plane of its disc. It is seen as a band of hazy white light, approximately 30° wide, arcing across a dark night sky. The light seen within the band comes from all of the stars and other luminous materials such as nebulae situated along the galactic plane. Other, darker, regions within the visible Milky Way are the result of large pockets of interstellar dust that block the light from more distant stars [10].



Figure 1. The Milky Way over San Pedro de Atacama, Chile, on 27 April 2014. Image courtesy of Narayan Mukkavilli from the Western Sydney Amateur Astronomy Group.



Figure 2. The Milky Way over Tianjara Falls, Australia, in October 2023. Image courtesy of Thomas Kirkpatrick from the Western Sydney Amateur Astronomy Group.

The galactic plane is inclined by approximately 60° to the plane of Earth's orbit (the ecliptic). Because of this high level of inclination, how the Milky Way appears in one location will vary across the time of a year and it may arch either

Bifröst (the rainbow bridge)

low on the horizon, or high across the sky, depending upon the season and the latitude of the observer. When arching across the sky, the Milky Way does take on the appearance of a bridge (Figures 1 and 2).

Consequently, the Milky Way does meet some of the criteria for comparison with *Bifröst*. It is clearly cosmological in nature (criteria 1), can be arced in shape (criteria 7), is awe-inspiring enough to believe that it is endowed with great power (criteria 8), and is commonly visible under dark-sky conditions as would have existed in the Viking Period and early Middle Ages (criteria 9). However, the Milky Way does not appear to be burning with flames (criteria 2), nor does it have a strong element of red within it - although it does contain some red stars (criteria 3). The Milky way also does not seem to shimmer or flicker (criteria 4) except due to atmospheric disturbances, does not contain three distinct colours (criteria 5), and does not look ‘like a rainbow’ other than in its arced shape (criteria 6). As a result, the Milky Way only meets four out of the nine comparative criteria. This makes it unlikely that what the Norse texts are describing is the Milky Way in their references to the ‘rainbow bridge’.

4. The case for rainbows

Similarly, the notion that *Bifröst* is an actual rainbow does also not meet many of the comparative criteria. A rainbow is formed when sunlight is refracted, reflected, or dispersed by water droplets in the air (rain, mist, spray) which results in the creation of a spectrum of light appearing - in the shape of a multi-coloured arc - which separates the light into concentric bands of red, orange, yellow, green, cyan, blue and violet [11]. The altitude angle of the Sun, relative to the observer, needs to be quite low, and rainbows are more commonly seen in either the early morning or early evening (Figure 3).



Figure 3. Image of a double rainbow taken at Penrith Observatory, Sydney on 20 Oct 2018 at 18:55. Author’s photo.

As with the case for the Milky Way, rainbows do not meet all of the criteria for comparison to *Bifröst*. As they are caused by the refraction of sunlight, rainbows can hardly be considered cosmological in nature (criteria 1) as they are visible during the day. Nor do rainbows appear to be ‘burning with flames’ (criteria 2). Rainbows do possess a red layer within their scattered spectrum, but it is not a dominant colour (Figure 3) and so a rainbow cannot be considered a ‘reddened way’ (criteria 3). Rainbows are somewhat transient, and can appear to shimmer or flicker, so they can meet criteria 4, and while they do look ‘like a rainbow’ (because they are) (criteria 6), they contain seven distinct colours rather than three colours (criteria 5). Rainbows are arced in shape (criteria 7), and it could tentatively be argued that they are spectacular enough to be considered to be imbued with some form of power (criteria 8). They are also commonly visible (criteria 9). Indeed, the commonality of rainbows would, in itself, seem to be grounds for their dismissal as a potential source for the descriptions of *Bifröst*. Not only do rainbows appear in the sky, but they appear anywhere where there is moisture temporarily suspended in the air - such as in the spray beside waterfalls or in mist. The small rainbows formed beside waterfalls are unlikely to have been taken by the early Scandinavians to be the bridge that led from the Earthly realm to the home of the gods. In many such instances the ends of the small rainbow can be seen, and it is similarly unlikely that the early Scandinavians thought that the home of the gods existed in a cliff-face or other nearby natural feature. Similarly, in Figure 2, both ends of the rainbow appear to be extending into the ground, rather than one leading to the heavens. The *Prose Edda* distinctly states that one end of *Bifröst* is situated in Himinbjörg, so the ‘rainbow bridge’ cannot be an actual rainbow unless it is presumed that the early Scandinavians thought that this location constantly moved. Furthermore, the references to *Bifröst* suggest that it is only to be seen in one location (presumably the sky) and not scattered about the countryside and visible in different places, such as near waterfalls, in stormy skies or on misty mornings, etc., on different days depending upon the conditions. As such, rainbows clearly meet four out of the nine criteria for comparison with *Bifröst* (criteria 4, 6, 7, 9) and tentatively meet another (criteria 8). Despite this failure to meet many of such criteria, *Bifröst* is still commonly referred to as the ‘rainbow bridge’. Turville-Petre suggests that the passage in *Gylfaginning* where Hárr tells Gangleri that he ‘may have called it a rainbow’ has been taken by many to mean that the bridge is an actual rainbow [12]. However, based upon a correct reading of the passage, and a comparison to the descriptions to *Bifröst* in the extant literature, this seems highly unlikely.

5. The case for the northern lights

There is, on the other hand, another contender for the inspiration behind the references to *Bifröst*: the Aurora Borealis or ‘Northern Lights’. Aurorae are dynamic displays of colour in the form of a mild glow, luminous patches, arcs, rays, coronas and curtains seen at high latitudes that can, sometimes, cover the

whole sky depending upon the observer's location [13-16]. One of the earliest European references to the Aurora Borealis dates from the fifth century BC, later recounted by Plutarch, in which it is stated: "there was seen in the heavens, a fiery body of great size, as if it had been a flaming cloud, not resting in one place, but moving with intricate and irregular motion, so that fiery fragments, separated from it by its plunging and erratic motion, were carried in all directions and flashed fire, just as shooting stars do" [17].

A century later Aristotle would recount: "Sometimes, on a clear night, a number of apparitions can be seen forming shapes in the sky, such as 'crevices', 'trenches', and blood-red colours. These again have the same cause. For we have shown that the upper air condenses and takes fire and that its combustion sometimes produces the appearance of a burning fire.... The cause of the brief duration of these phenomena is that the condensation lasts only for a short time." [18]

Aurorae would continue to be recorded and commented on in Roman times [19-21]. In later, northern European, traditions, the term 'Northern Lights' (*Norðrljós*) appears only once in Nordic texts - in the Norwegian *Konugs Skuggsjá* ('The King's Mirror') from the 13th century (c. 1230) where it says that it only appears in Greenland [22]. The term 'Aurora Borealis' was coined by Galileo in 1619 by combining the name of the Roman goddess of the dawn (Aurora) with the Greek name for the North Wind (Boreas) [23].

In 1778 Benjamin Franklin theorised that the aurorae were formed by a concentration of electrical charges in the polar regions that were intensified by moisture in the air [24]. In the following century, Loomis (1860) [25], Fritz (1881) [26] and Tromholt (1881) [27] established that the aurora appear in an 'auroral zone'. This 'zone' is a region 3°-6° of latitude in width between the latitude of 10° to 20° from the poles. A region within this zone that is currently experiencing an aurora is called an 'auroral oval' [28]. Aurorae become visible at lower latitudes when a geomagnetic storm temporarily enlarges the auroral oval. This most commonly occurs during the peak of the 11-year sunspot cycle and within the 3 years following this peak [10, 29, 30]. In 1892, Riccó determined that terrestrial magnetic storms occurred approximately 40-45 hours after the passage of large clusters of sunspots, and further suggested that the storms are caused by something travelling out of the sunspots at roughly 1,000km/sec. In 1896, Birkeland suggested that electrically charged radiation was drawn towards the poles by the Earth's magnetic field to cause an aurora [31].

Aurorae are the result of disturbances in the Earth's magnetosphere. Variations in the solar wind caused by coronal holes and coronal mass ejections charge accelerated particles (electrons and positive ions) that become trapped in the magnetosphere and, if the particle is charged with enough energy, it can follow the lines of the magnetic field down into the upper atmosphere (the thermosphere and exosphere) where it collides with atmospheric atoms and molecules which causes them to become 'excited', to move and to radiate light [10, 32]. The resultant excitation and ionization of different atmospheric

particles causes them to emit light at different wavelengths, which result in displays of different colours. Above altitudes of 80km, ionized nitrogen atoms regain electrons, which cause them to emit light, while oxygen atoms and molecular nitrogen return from an excited state to their ground state either by emitting a photon of light or by colliding with another atom or molecule. The form that the aurora will take (arc, ray, spiral, curtain, etc.) is a result of the amount of energy that is transferred from the solar wind to the atmospheric particles.

Most auroral light is produced between altitudes of 90-150km but can extend as high as 1000km [33]. Due to the different densities of atmospheric atoms and molecules and different altitudes, the interactions between solar wind particles and different levels of the atmosphere result in the production of photons of light of different colours. Aurorae come on three primary colours within the visible spectrum. At the highest altitudes (> 241.4km) excited atomic oxygen emits light at the 630nm (red) wavelength. Concentrations of atoms at this altitude are low, and the human eye has less sensitivity to this wavelength, which makes red aurora somewhat rare. At lower altitudes (up to 241.4km), the higher concentration of atomic oxygen results in more frequent collisions (sometimes between molecular oxygen and molecular nitrogen) which suppress the 630nm emissions and light emitted at the 557.7nm (green) wavelength is more dominant. Oxygen can take 0.7sec to emit green light at 557.7nm, or up to 120sec to emit red light at 630nm. Due to the lower density of atoms at higher altitudes, 'collisional quenching' (particle collisions which would absorb the excitation energy) is rare and this provides the oxygen atoms with sufficient time to emit red light. At lower, denser, altitudes, collisions are more frequent and red emissions do not have the required time to occur. This explains the colour differential with altitude. Greater sensitivity of the human eye to the green wavelength also makes this type of aurora more commonly visible. Red and Green auroral light can also mix to produce a pink hue in the aurora. Below 100km the concentration of atomic oxygen greatly diminishes, and this can result in abrupt-looking lower ends/edges to the aurora. At even lower altitudes (up to 96.6km) atomic oxygen is uncommon and excited molecular/ionized nitrogen emits light predominantly at the 428nm (blue/purple) wavelength. Due to the lower altitude, any solar particle requires a large amount of energy to travel into the lower atmosphere. Consequently, blue aurorae require the highest levels of solar activity. Aurorae can also emit light in the ultraviolet and infrared ranges of the spectrum, but these are not visible with the human eye.

Due to the dynamic nature of the interaction of the solar wind and the atmospheric particles, aurorae will seem to flicker and move. Motion can occur over a timescale almost too slow to perceive, or rapidly over periods of 2-20 seconds. Rapid motion is usually the result of higher-than-average solar wind velocities (> 500km/s) [15, 34]. Aurorae seen from within the 'auroral oval' will appear overhead. However, if viewed from outside the boundaries of the 'oval', they will be visible on the poleward horizon [35]. This is an important consideration when examining whether the Aurora Borealis has a connection

with the references to *Bifröst*. It has been suggested that *Bifröst* is not the Aurora Borealis as Northern Lights normally occur in regions that are further north than the areas that were predominantly settled by the Vikings. (This is mentioned (and unreferenced) in a number of online chat forums which were found by putting the term ‘Bifrost Northern Lights’ into an internet search engine.) However, there are a number of issues with such claims. The first is that the Vikings had settled parts of Iceland, Greenland, and Newfoundland - all areas where aurorae are readily visible - long before the time when texts like the *Poetic Edda* and the *Prose Edda* were written. Even if the *Norðrljós* was not readily visible in places like southern Norway (which they were - see following), accounts of it would have certainly made their way into Norse culture. That there is an actual word for the aurora (*Norðrljós*) (which literally translates as ‘Northern Lights’), and based on passages in Norwegian texts such as the *Konungs Skuggsjá* referring to them being visible in Greenland, attests to this fact.

Furthermore, during periods of strong solar activity, the aurora is visible not only in southern Norway, but also much further south as well. The intensity of geomagnetic activity in an area is quantified using the K-index. The K-index is an indication of the level of disturbance in the horizontal component of the Earth’s magnetic field. Measurements are taken over a 3-hour period using a magnetometer and the resulting fluctuations are graded on a scale from 0 to 9. Measurements taken at different locations can then be used to plot the ‘boundaries’ of areas with similar geomagnetic activity on maps using lines similar to the isobars on weather charts. A rating of 5 or higher in a particular area is indicative of the presence of strong geomagnetic storm activity.

In 1859, the aurora was visible in England as far south as London (latitude 51.5°N) for more than a week [36]. This would have required extremely high K-index levels. On October 28, 2011, a boundary of geomagnetic activity, with a K-index of $K_p = 9$ (meaning extreme levels of geomagnetic activity), also ran through London, Holland, Northern Germany and Poland. On the same day, the K-index in southern Norway was $K_p = 5$. In April 2023, aurorae were visible in northern Texas (latitude 36.5°N) and in southern Spain [37]. This means that the auroral zone had moved considerably southward for this event due to the strong geomagnetic activity. Had similar events taken place during the Viking Age, aurorae would have been clearly visible over most of Scandinavia. As recently as November 2023, a pink-green aurora was visible in Tungenes in southern Norway (Figure 4).

Tungenes (latitude 59°02’N) is approximately 31° from the pole, and sits well outside the normal ‘auroral zone’. Interestingly, Tungenes is not far from Hafrsfjord (Latitude 58°56’N, and separated from Tungenes by a linear distance of 11.6km) - the site where, in AD872, the forces of king Harald Fairhair defeated the combined armies of Eastern, Western, and Southern Norway, united all of the regions, and was crowned Norway’s first king during the first century of the Viking Age. Thus, it is clear that the Aurora Borealis would have been visible in areas inhabited by the Vikings, even if only occasionally, and the idea

that it was not visible in these regions may be solely based upon the passage from the *Konugs Skuggsjá* which states that the *Norðrljós* was only visible in Greenland.



Figure 4. A pink-green aurora visible from Tungenes, Norway, on 25 November 2023 at 20:40. Author's photo.

Additionally, during the Viking Age, solar activity was weaker and therefore red (rather than green) would have been the more dominant colour for the aurora because the particles from the solar wind would not have possessed enough energy to travel into the lower levels of the atmosphere, and aurorae overall may have been less frequent [38].

In regard to the literary comparison, the Northern Lights meets all criteria for the descriptions of *Bifröst*. The Aurora Borealis is clearly cosmological in nature (criteria 1), and its shapes (arcs, rays, curtains, etc.) appear like flames in the sky (criteria 2). Due to the weaker solar activity during the Viking age, the most common form of aurora would have been red (criteria 3) adding to its flame-like appearance as a ‘reddened way’. The dynamic nature of the interactions between the solar wind and atmospheric particles make the aurorae move, flicker and shimmer (criteria 4) - again making it very flame-like. Dependent upon the levels of energy within the solar wind particles, atmospheric particles at lower altitude may also become excited and emit light at green and blue wavelengths - so the aurora has three colours (criteria 5). Thus, the aurora is multi-coloured ‘like a rainbow’ (criteria 6), and many of its features form arcs in the sky (criteria 7). The aurorae are magnificent enough, and dynamic enough, to be easily considered to be the possessor of some form of power (criteria 8), and they would be visible on a semi-regular basis (criteria 9). Evidence shows that solar activity declines around the time of the end of the Viking Age - when Harald Hadrada was defeated at the Battle of Stamford Bridge in AD1066 - but there was a solar maximum around AD1056 and again in AD1067. Interestingly, taking the next solar maximum to be 2024 [37], and working backwards in the 11-year blocks of the solar cycle, there would have also been a solar maximum around AD1221 - the time the *Prose Edda* and other references to *Bifröst* were composed. It is possible that the references found within these texts were the result of observations of increased auroral activity around this time.

6. Conclusions

Bifröst, or the ‘rainbow bridge’ features heavily in Norse mythology. The bridge plays a pivotal role in Viking beliefs of where their fallen heroes went and how the world will end. Over the years, many scholars have forwarded ideas as to what the references to *Bifröst* that are found in old Scandinavian texts are actually referring to - with the two most common theories being either the Milky Way or to a rainbow. However, a critical and comparative analysis of these phenomena with the descriptions of *Bifröst* demonstrates that the bridge of Norse myth is unlikely to be either our galactic plane or the refraction of light by atmospheric moisture as they do not fully conform to the descriptions of the ‘rainbow bridge’. However, another possibility exists - that the passages referring to *Bifröst* are based upon observations of the Aurora Borealis (the ‘Northern Lights’ or *Norðrljós*). Not only do the characteristics of the aurora match every single descriptive passage of *Bifröst* found in the extant texts, but a period of weaker solar activity during the Viking Age, one that makes a red

aurora more common, created the exact conditions for making what the Vikings saw in the sky to be interpreted as a fiery bridge to the home of the gods. Thus, the *Norðrljós* has been forever enshrined in our collective memory as the magnificent ‘rainbow bridge’ of the Vikings.

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