How Gylfi's Illusion Breathes Life into the Sky¹

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ABSTRACT: To date it has mostly been overlooked that the illusion in 'Gylfi's Illusion' is based on a metaphor, where what we can literally see in the sky is transformed into mythological phenomena through the magic of storytelling. By taking this idea at face value it becomes possible to look at the sky as a memory tool for the world of the gods. Thus everything we have above us in the sky has a mythological name and often a story attached to it, making it easier to remember all the details of the mythology as well as knowing your way around the sky. This approach to the mythology of Gylfaginning puts us on firm ground as we read it for what it is: a reflection of contemporary and traditional terminology about the sky as it was known to northern peoples from long before Christianity.

RESUME: Hidtil er det blevet næsten overset, at illusionen i 'Gylfis illusion' er baseret på en metafor, hvor det, vi bogstaveligt talt kan se på himlen, forvandles til mytologiske fænomener gennem fortælling. Ved at tage denne idé bogstaveligt bliver det muligt at se himlen som et hukommelsesværktøj for gudernes verden. Alt, hvad vi har over os på himlen, har således et mytologisk navn og ofte en historie knyttet til sig, hvilket gør det lettere at huske alle mytologiens detaljer samt at finde vej rundt på himlen. Denne tilgang til mytologien i Gylfaginning giver os fast grund under fødderne, når vi læser den for, hvad den er: en afspejling af samtidig og traditionel terminologi om himlen, som den var kendt af nordiske folk længe før kristendommen.

KEYWORDS: Memory studies; Astronomy; Snorri Sturluson; Snorra Edda; Gylfaginning

Endless scholarly ink has been spilled over the source value of Snorri's *Edda* and the eddic poems for our understanding of Norse mythology, and even religion, in the North before the coming of Christianity after around the year 1000. The two eddas are

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products of the explosion of literacy in Iceland in the 13th century and are closely associated with the poet and chieftain Snorri Sturluson (1178/9-1241) of Reykholt in the west of Iceland. Snorri had grown up in the south, at Oddi in Rangárvellir, under the tutelage of Jón Loftsson, among young men destined for the priesthood. Jón's mother was the daughter of the Norwegian king Magnús Barefoot and the education Snorri received at Oddi plainly included oral training in the poetical arts of the skalds along-side the legal training he would need to operate as a chieftain in the public arena (Gísli Sigurðsson 2018).

It is something of a mystery why a man being raised to take a full and active part in the workings of society at its highest levels around the year 1200, when the Christian Church had long been a major force within this society, appears to have had such a wealth of ideas and stories grounded in the conceptual world of Norse mythology at his fingertips. It is unthinkable at this time—and least of all among sophisticated and educated chieftains like Jón Loftsson of Oddi, where the Church trained its priests—that some kind of heathendom was still in practice, together with the associated rituals that we believe to be the natural cultural context for myths and poems where they live on the lips of heathen folk.

In his *Edda* Snorri gives a partial answer to this puzzle by warning readers against taking the stories at face value and pointing out the necessity faced by prospective poets to assimilate the learning bound up in the stories and poems:

En þetta er nú at segja ungum skáldum þeim er girnask at nema mál skáldskapar ok heyja sér orðfjǫlða með fornum heitum eða girnask þeir at kunna skilja þat er hulit er kveðit: þá skili hann þessa bók til fróðleiks ok skemtunar. En ekki er at gleyma eða ósanna svá þessar sǫgur at taka ór skáldskapinum for[nar ke]nningar þær er hǫfuðskáld hafa sér líka látit. En eigi skulu kristnir menn trúa á heiðin goð ok eigi á sannyndi þessar sagnar annan veg en svá sem hér finnsk í upphafi bókar er sagt er frá atburðum þeim er mannfólkit viltisk frá réttri trú... (*Skáldskaparmál* 5)

But these things have now to be told to young poets who desire to learn the language of poetry and to furnish themselves with a wide vocabulary using traditional terms; or else they desire to be able to understand what is expressed obscurely. Then let such a one take this book as scholarly inquiry and entertainment. But these stories are not to be consigned to oblivion or demonstrated to be false, so as to deprive poetry of ancient kennings which major poets have been happy to use. Yet Christian people must not believe in heathen gods, nor in the truth of this account in any other way than that in which it is presented at the beginning of this book, where it is told what happened when mankind went astray from the true faith... (Faulkes 1987, 64-65)

In his *Edda* Snorri presents his knowledge of the Norse gods, their deeds and dwellings, in a highly systematised form. It is not known how this knowledge was organised before Snorri decided to put it down in writing and divide his previously oral learning up between the *Edda*'s constituent sections: *Gylfaginning* ('Gylfi's Illusion' or 'The Deluding of Gylfi'), *Skáldskaparmál* ('Poetic Diction'), *Háttatal* ('Inventory of Metres'), plus a *Prologue*. A great part of Snorri's achievement lies in having seen how it might be possible to use written text as a medium to capture the protean lore he grew up with, and which he himself first met as oral wisdom on the lips of mentors who could link

this oral body of learning with references to the environment – the sky in particular for the mythological material – as is customary in oral tradition. One of the four medieval manuscripts of Snorri's *Edda*, the *Codex Upsaliensis*, contains a list of skalds and the chieftains they composed for, and gives us an idea of the memory system of the oral society which Snorri is likely to have grown up with. This system allowed the establishment of chronology back into the distant past, to the start of the Viking Age: the line of chieftains was associated with memories of the skalds, and so with their poems, which preserved the fame of these chieftains and were linked to stories about them (Solovyeva 2019). Snorri is not creating stories about the Norse gods; rather, he is presenting what he already knows about them in a new and structured form, a form determined by the potentialities and nature of the book text, with a beginning, a middle and an end (Gísli Sigurðsson 2018).

Myths like the ones Snorri records in his Edda are memorable in themselves and it needs no great effort of the imagination to see how many of them can live on from man to man, shorn of any association with religion or religious practice. They can happily be told to children and others for pure entertainment, and many of them have indisputable value as stories alone. Harder to explain is how Snorri came to have ready access to the entire cosmology, and the terminology and concepts behind it, that he sets out in Gylfaginning, and how he is able to furnish so many words for divine beings and the locations of various phenomena in the worlds they inhabit. This is, it appears, an entire adventure world that has provided many artists with creative inspiration. Those of us who have immersed ourselves in Norse mythology are all too well aware that it is not easy to remember all those names for divine beings, staðir ('places') and salir ('halls') that Snorri serves up so effortlessly— if we have no more to go by than our imagination for how things might look in the world of the gods. To us, memory technique has mostly been replaced by being able to look things up in a book—or on the web. We can perhaps draw a sketch on paper giving some kind of idea of these otherworlds to help us envisage them and put all the material into some kind of order-even try and represent the cosmology visually with the Ash at its centre as it might appear from outer space. But how did Snorri and his predecessors go about memorising the vast store of ancient wisdom that we find in Gylfaginning before it was captured on a page that could be read and consulted time and time again? When we consider this question we need to keep constantly in mind that, before the acceptance of the heliocentric system, people's world view was constructed on the basis of the centrality of us who live down here on Earth. Before the Earth became a planet in the solar system, it did not occur to men to go out into space and view the world from the outside in the way that has become so familiar to us today.

The myths of mankind are reflections of different interpretations of the world and how it appears to people untouched by modern science. The cosmos is peopled by a host of different beings, each with their own domain. The surface of the earth is the home of mankind; there are other creatures inhabiting the nether regions beneath the surface; and divine powers are active in the sky above, beyond our reach. These divine powers are manifest to us as the moveable heavenly bodies—the five visible planets

plus the Sun and the Moon, seven in all. These seven bodies move about against the revolving backdrop of the fixed stars—and therefore appear to act in front of the firmament. For as long as we know, people from different cultures have grouped the fixed stars into patterns and interpreted them as images of particular entities—the constellations. These constellations differ of course between cultures but they are universally divided into two types: the ones that lie along the ecliptic—the path of the moveable planets/main divinities—known to us as the signs of the Zodiac; and those that lie above or below the path of the Sun and other planets across the sky (Selin 2000). In Old Icelandic astronomical texts these two types are known as sólmǫrk and stjǫrnumǫrk respectively, the earliest such text being a translation found in manuscript Gks 1812 4to from around 1200 (with marginal and additional notes from slightly later) and reworked in several younger manuscripts, published as Rím I-III and Rímbegla in Alfræði íslenzk. Far away, beyond the horizon where the sky and earth meet, beyond the far shore of the outer ocean and the uninhabited regions, the gods are engaged in their continuous and eternal battle against the forces of chaos.

Since time immemorial all peoples have assembled precise and systematic data about celestial phenomena. The difference from the astronomy of modern times is that the measurements and observations were interpreted using a different paradigm from the one we use today; where we use scientific method, our ancestors judged what they observed against the language and terminology of various mythologies. This provided their accepted frame of reference. People in the northern hemisphere saw the same things going on in the same arch of the heavens—the data was the same—but each group interpreted it according to the mythological terms and stories of their own culture (Chamberlain *et al.* 2005; Campion 2012).

From archaeological remains it is clear that throughout the world people have observed and studied the turning of the celestial sphere and the movement of the planets, Sun and Moon. A knowledge of these movements was necessary to keep track of the passage of time and to navigate the surface of the earth, on both land and sea. Religious practices involving some kind of ritual observance in connection with this learning are thus just one aspect of their cultural significance. The knowledge gained can thus live on long after the religion has died out; people remain familiar with the names of phenomena they see in the heavens even if the beliefs about them have changed. These names survive until superseded by another system—in Iceland the system brought to the North by the Church and its book learning and first translated into Icelandic around the year 1200, around the time that Snorri was reaching maturity. As will be shown, it is clear from the translation that people were perfectly well aware that their pre-Christian forefathers had different words for the same phenomena and envisaged different divinities in the heavens from the peoples of the Mediterranean. The learned nomenclature introduced by the Church was, to be sure, still based on pagan names for celestial phenomena, the planets, salir and staðir—but there was never any idea that, in studying astronomy, Icelandic scholars had turned to the ancient paganism of Greece or Rome. It was not until many centuries later that the Church attempted, unsuccessfully, through Julius Schiller's Coelum Stellatum Christianum in 1627 (backed by the best astronomers of his time, Tyco Brahe, Johannes Beyer and Johannes Kepler), to Christianise the sky by issuing star maps in which the heavens were interpreted in Christian terms—the twelve apostles situated in the *salir* of the Zodiac, the Swan turned into the Cross, etc. (Snyder 1984: 96)

Advances in memory studies in recent decades have shown that preliterate societies almost invariably develop and cultivate powerful memory techniques without the support of books and writing. Classical orators, for example, describe how they learned their speeches by associating their text with familiar buildings that they could then 'travel through' in their minds while delivering the speech (Glauser 2014). This technique is by no means restricted to the orations of ancient Greeks and Romans and some version of it appears to be almost universal. At heart, all memory techniques and strategies are based on associating what the person needs to learn with something they already know. The same basic principle applies in oral societies in which people cultivate their knowledge without recourse to writing. In such circumstances, words, names and stories are generally linked to people and the environment, either real or imaginary. People are then interconnected through links of kin and friendship, in this way bit by bit building up a web of knowledge that infuses the landscape that people know and travel over, and which is ordered according to the generations that have lived there. Similarly, ideas and information about travel routes and faraway regions can be passed on by recounting the journeys of people who fall within this genealogical web, so expanding the horizon of listeners here on earth. Places and itineraries acquire significance through their names and the stories told about them; poems are composed about individuals who feature in the web of events stories recount, and thus the poems establish the stories and fix them within an interactive system. People never just learn bare genealogies, placenames or poems: these things always have a context within a broader system. A place or placename calls up events that are associated with someone who lived there or composed a verse to commemorate what had happened to them— "as the story relates...". This is then all passed on together as part of the oral web of knowledge (Gísli Sigurðsson 2018a; 2018b; 2018c).

Stories and genealogy thus constitute a living text in a physical environment that operates like a book; the memories are linked to places that call them up as people travel past them on their journeys, either real or in their imagination. The preservation of oral memories in this way can be unbroken, and fairly reliable, for generations on end. In Norse studies we do not have to look far to find examples of closely woven webs of knowledge based on these basic principles: Landnámabók (The Book of Settlements), Íslendingasögur (family sagas), the fornaldarsögur (sagas of ancient times), konungasögur (kings' sagas) and samtíðarsögur (contemporary sagas) are linked together in this way through families, places, and routes. Taken together, these narratives constitute an integrated and internally consistent conceptual world of human life and local conditions in the parts of the world Scandinavians were familiar with from the Viking Age up to the time when the accounts were written—viewed from an Icelandic perspective. As with Snorri, it was the achievement and good fortune of the Icelandic saga writers that they were able to use the literacy, culture and training that

the Church provided them with to capture on parchment the oral fund of knowledge and stories that was still alive on people's lips when the sagas were written—to be sure with various political purposes and in a different literary context, just as we often have pointed out in our scholarship.

Well-known characters and the earth itself that we see before our eyes, with its places and placenames, are the glue that holds the story web together. So this raises the question: How can we apply this picture of the memory techniques of oral societies to the entire mythological web that Snorri carried around in his head and passed on to us so articulately in the *Edda*? How did he go about remembering all these bits of information and linking them together?

Snorri answers this question himself with the illusion in Gylfaginning, although most scholars seem to have missed his answer, possibly because they "understand everything with earthly understanding and are not granted the spiritual wisdom" (Faulkes 1987, 2)—to adapt Snorri's own words in the *Prologue*. Putting aside any questions and speculations about the source value of Snorri's Edda for what the people of the North believed in the centuries before Christianity, in one respect at least the Edda has unequivocal and indisputable source value—as evidence of the ideas of the person who was behind the writing of this book about the world of heathen gods, and beings, and the stories about them. Every indication is that it makes more sense to assume that these stories and ideas come from the body of oral lore held in the mind of the person who had them set down on parchment, rather than that they are some kind of creative fabrication or a compilation and adaptation of bookish learning and tales culled from ecclesiastical texts. Equally, we can assume that by the time of writing, the book culture that was all-embracing within the Church had shaped and modified secular oral ideas outside the Church and, equally, the composition of secular texts not directly connected with the operations of the Church—as scholars have demonstrated in various contexts (Baetke 1950; Dronke 1977; Clunies Ross 1987; Weber 1987;1993; Beck 1993).

Let us try to put ourselves in the position of Snorri's pupils who got to sit with him in the hot tub at skaldic school at Reykholt and listen on as he expounded the material we find in Gylfaginning. Snorri begins by telling them that once upon a time there was a Swedish king called Gylfi who set off on a mission into the unknown. This Gylfi then meets three divine beings who are amazed at his ignorance (as with the students in the hot tub), and start to explain to him how the world and everything visible was created. The world in this sense is not the surrounding mountains or the riding tracks down the Reykholt valley, but rather the whole world that lies under full expanse of the overarching heavens, to which teacher Snorri now has the divine beings direct the eyes of the Swedish king-now calling himself Gangleri. The sky is made from the skull of the giant Ýmir, and here the planets were fixed in place, Nótt (Night) and Dagr (Day) are raised to the heavens, also Sól (Sun) and Máni (Moon), and two children are lifted from this world and sent to accompany Máni, "as can be seen from earth" (Faulkes 1987: 14; svá sem sjá má af jorðu, Gylfaginning, 14). This description, presumably, applies to us as we lie with Snorri in the hot tub and so we ought to be able to see the things he is talking about ("from earth", af jorðu). Going further, Snorri describes how there

are wolves running before and after the Sun, seeking to capture it. This is strikingly reminiscent of the account of parhelia "as can be seen from earth" (svá sem sjá má af jǫrðu) either side of the Sun that we find in 19th-century Iceland, recorded in Jón Árnason's collection of folk tales, and similar to the spots of light that can sometimes be seen on either side of the Moon, often with a line between them (Árnason 1862, 658-659). In English these spots of light are known as "sundogs" and "moondogs"; in the conceptual system of Norse mythology it is the wolves Hati and Skoll that run before and after the Sun, and the children Bil and Hjúki that carry the Moon between them in the pail Sægr, which hangs from the pole Simul. Between the "dogs" on either side of the sun/moon there is often a line of light, interpreted as the pole Simul in the myth about the siblings. Icelanders of the 19th century still understood this mythology as a description of real light phenomena that can be seen from time to time in the sky around the Sun and Moon. This language continuity in Iceland means that it is not farfetched to posit such a literal and straightforward interpretation for these fanciful mythological stories (Gísli Sigurðsson 2014). And there is a strong case for extending this kind of interpretation of the visible sky through the telling of myths to other details of the mythology in *Gylfaginning*.

By this point in Snorri's lesson in the hot tub at Reykholt, Gangleri has become so curious about the sky that he asks how one can get there. The godly beings are unimpressed by his ignorance: the only way is by the bridge Bifrost, which we earthlings call the rainbow. This reminds us of the passages of traditional lore found in *Alvíssmál*, in which various phenomena are designated by different names according to who is talking about them—men, gods or other beings. This bridge is impassable for us, but the gods ride up along it on their horses to the judgement site (dómstaðr) by the well of Urðarbrunnr "in the sky" (á himni, Gylfaginning, 17-18). In the hot tub, our eyes turn again in wonder to the sky and Snorri goes on to tell us about the focal point and chief holy site of the gods "in the sky", the ash tree Yggdrasill itself. It is "of all trees the biggest and best. Its branches spread out over all the world and extend across [lit. above] the sky" (Faulkes 1987, 17). As Snorri continues his narrative, Gangleri learns that there are many beautiful staðir in the sky protected by a divine force. Below the ash at Urðarbrunnr there is a lovely salr from which come three "maidens", the norns Urðr, Verðandi and Skuld. In chapter 16 we are told many more momentous tidings about the ash and the heavens: in its branches sits an eagle; between the eagle's eyes sits the hawk Veðrfǫlnir; the squirrel Ratatoskr runs up and down the heavenly tree, from the eagle down to the serpent Níðhoggr, who gnaws at one of the ash's three roots from below and is surrounded by a myriad of serpents or dragons (ormar). Also named are four deer that feed on the foliage, and the norns douse the tree with white mud from the well. (Called aur in Gylfaginning, the same word as is used in Alvíssmál 10 when the gods in heaven (*uppregin*) describe the earth (*jörð*).) In the well live a pair of swans. The water is so holy that everything that comes into contact with it becomes "as white as the translucent membrane of an eggshell" (sem hinna sú er skjall heitir, er innan liggr við eggskurn, Gylfaginning, 19).

After this powerful description of what can be seen in the sky from Snorri's hot tub, Gangleri exclaims: "You are able to give a great deal of information about the heavens" (Faulkes 1987: 19; Mikil tiðindi kannþu at segja af himnum. Gylfaginning, 19). It does not need a great stretch of the imagination to accept Björn Jónsson's suggestion (1989; 1994) that this translucent white tree in the sky should be understood as a mythical analogue of the Milky Way. The Milky Way/Ash of Yggdrasill then serves as a



Figure 1. The Milky Way over Southwest Iceland on the evening of September 18th 2012. Photograph: Ómar Örn Smith.

visible memory tool in the sky, around which all the mythological lore in *Gylfaginning* is structured, similar to the way a modern naked-eye stargazer starts by identifying a fixed reference point, something easily detectable, like the Milky Way—or at least did, before the days of light and atmospheric pollution. Modern man in the western world rarely gets to experience the Milky Way in all its glory, and so it is difficult—if not impossible—for us to appreciate this aspect of Gylfi's illusion. Snorri's pupils, on the other hand, reclining in the hot tub at Reykholt on a bright winter's evening as they listened to their master's teaching, could hardly have failed to realise that Snorri was here describing the translucent white belt that arched over them in the sky and that we call the Milky Way (fig. 1).

Many scholars, including many of the most eminent, it seems to me, have failed to notice, or at least appreciate, what it is that Snorri actually says: that all these phenomena are located, quite literally, "in the sky", and therefore in the sight of us all, if we acknowledge the premises behind the illusion practised upon Gylfi. Snorri's world of the gods is thus not an imaginary adventure world in another dimension but rather placed securely in the sky as a terminological system to describe phenomena that we can actually see, not only imagine (or believe in). The only possible way disputing this fundamental point is to come up with some other credible sense for the words "in the sky" (á himni) than "in the sky" (á himni). Just because the scholars themselves have previously overlooked this literal and obvious interpretation, it is not enough to stamp their foot and say "No, no, no" (as I was once witness to at a mythological conference in Aarhus in 2014) and to think that thereby the sky is superfluous to our reading of Snorri's Edda—as irrelevant to our understanding as the heaven in "Our father, who art in heaven" in the Lord's Prayer. Many have even said, and apparently believed it, that references to celestial phenomena in Snorri's Edda are limited to the obvious and well-known examples of Þjazi's eyes being turned into a pair of stars in Skáldskaparmál, ch. 17, and the star "which is called 'toe of Aurvandill'" (bá er heitir Aurvandilstá) in the same chapter, whose identity and location remain a mystery.

There is much more "in the sky" in Snorri's *Edda* than the eyes of Þjazi and Aurvandilstá—in addition to the half-transparent white trunk of the ash Yggdrasill and everything connected with it. In *Gylfaginning* Gangleri is told that in the beginning lights were assigned a *staðr* (place) and a path in the sky. Their movements marked the passage of time (ch. 8). The Sun is given *salir* (halls) and the stars *staðir* (places), as we hear in *Vǫluspá*: "Sól þat ne vissi / hvar hon sali átti. [...] Stjǫrnur þat ne vissu / hvar þær staði áttu" (*Gylfaginning*, 12. The Sun did not know where her *salir* were. [...] The stars did not know where their *staðir* were). These are the key terms in *Gylfaginning* for celestial locations and phenomena.

There are more *staðir* beyond these in *Gylfaginning*, most of them specified as being situated in the sky: Álfheimur, the dwelling of the *ljósálfar* (light elves); Breiðablik, the home of Baldr (referred to as a *salr* before ragnarǫk); Glitnir, all swathed in gold; Himinbjǫrg at the end of the sky, the abode of Heimdallr, where the rainbow Bifrǫst meets the heavens; Gjallarhorn ("horn of Heimdallr"); and Valaskjálf, which belongs to Óðinn and is clad in pure silver. Søkkvabekkr, the home of Saga, is also called a

staðr, but it is not said specifically that it is in the sky. The text also locates most of the other salir in the sky: Hliðskjálf, Óðinn's throne, is in a salr; Gimlé at the southern end of the firmament, in the third sky called Víðbláinn, is most beautiful of all and brighter than the Sun (referred to as a staðr after ragnarǫk); Sessrúmnir is the salr of Freyja in her bær (farm, dwelling) in the sky; Freyja also rules Fólkvangr, said to be a salr in Grímnismál; Glitnir, the home of Forseti, is also referred to as a dómstaðr (place of judgement) among gods and men. The text mentions other salir without placing them specifically in the sky—Brimir on Ókólnir; Bilskirnir; Fensalir, the home of Frigg; Sindri on Niðafjǫll; and a nameless salr on Nástrǫnd.

In addition to staðir and salir, the Edda places other entities in the sky. Njorðr "lives in the sky at Nóatún" (býr á himni þar sem heitir Nóatún; ch. 23). The ox with whose head Pórr fishes for the World Serpent is named as Himinhrjótr (ch. 48), himin- ("sky") suggesting celestial location. The upper jaw of the wolf Fenrisúlfr reaches up to the sky (ch. 51). Interestingly, at one place a staðr is said to be "í lopti" (in the air), viz. Óðinn's high-seat Hliðskjálf: "There the gods and their descendants lived and there took place as a result many events and developments both on earth and in the air. There is one place called Hlidskialf..." (trans. mine. on the basis of Faulkes 1987: 13; Par bygðu guðin ok ættir þeira ok gerðusk þaðan af morg tíðindi ok greinir bæði á jorðunni ok í lopti. Þar er einn staðr er Hliðskjálf heitir...; Gylfaginning, 13). The meaning of the name Hliðskjálf is obscure (Holtsmark 1964, 39-42) but the obvious interpretation is as a compound of hlið (side) + skjálf- (quiver, tremble), perhaps allowing us to make a connection with the trembling parallel lines in the atmosphere that are a common feature of the northern lights. From Hliðskjálf Óðinn can look over the whole world and see all things—as a being imagined as riding the aurora "in the air" (as opposed to "in the sky") would be able to do. Once the reader starts noticing all the literal and explicit locations in the sky ("á himni") in Gylfaginning it becomes natural to assume that all the other phenomena should be placed there too, even if the text does not say so every time. This is where Snorri's students are looking and where their master is pointing as he explains the mythological world to them from the hot tub at Reykholt.

In modern western languages the five visible planets bear the names of Roman gods. When continental astronomical texts started to be translated into Icelandic around 1200 (in the manuscript Gks 1812 4to), we find these names replaced by those of Norse gods (as with the names of the days of the week): Mercury becomes Óðinn, Venus Freyja, Mars Týr, and Jupiter Þórr. However, regarding Saturn, the text says that no day is dedicated to this planet in the Norse language (*Alfræði íslenzk*, Rím I, 79, l. 2-14, 63). Scholars from Jacob Grimm onwards have attempted to put a date to when the days of the week in northern Europe were first given names equivalent to those of the planets' or gods' names in southern Europe; some have argued for an early date, others for close to the coming of Christianity to the North (Sonne 2014). The problem is, of course, lack of sources. But it seems almost inconceivable that the pre-Christian Norse never had names for the planets, and we have no real reason to think that the ones they used were different from the ones we find recorded in the earliest available sources. Nor is there any reason to think that somebody consciously undertook the

task of making up new names for something as salient and visible to all as the planets. So it seems fairly safe to assume that terminology for the planets had a long oral history behind it when it first appears in the texts—as with the rest of the Icelandic vocabulary.

Moreover, Alfræði íslenzk actually talks about "heathens" in earlier times giving names to the sun signs that they felt reflected the changing climatic and vegetation conditions of the relevant months (Heidner menn gafu nofn solmerkium efter bvi sem beim botti vedrattu farit eda groda hvern manudh; Alfræði íslenzk, Rím I, 53). Further evidence for a pre-existing indigenous astronomical terminology having been taken over in the translation appears in what the text says in a gloss about Andromeda being in the Milky Way "par sem ver kollym ulfs kiopt" ("where we call the wolf's maw"; Alfræði íslenzk, Rím I: 74): This "maw" is identified as the Hyades, which form a prominent Vshape lying flat along the Sun's path, in a list of astronomical glosses in Gks 1812 4to (Alfræði íslenzk, Rím I, 72). People who saw the Hyades as the jaws of a wolf are likely to have thought that the Sun emerged from this mouth once a year, and would continue to do so until the day the jaws finally snapped shut and swallowed the Sun. The old terminology also places rivers in the sky when describing the constellation "er ver kollvm vagn ok kvennavagn, ok ormr sa, er liggr imillvm þeira ok vm þær sem kroccot áá" ("that we call the wain and women's wagon [Ursa minor], and the serpent that lies between them and around them like a winding river"; Alfræði íslenzk II: 250). Other familiar indigenous terms for stars and constellations include Fiskikarlar (lit. 'Fishermen'; i.e. Orion's Belt), Leiðarstjarna (Pole Star) and Karlsvagninn (the Plough, Big Dipper).

The world of the gods, then, is in the sky as it appears from earth, and this physical immediacy may explain why the mythology with its characters, names and stories survived the arrival of Christianity. As stated explicitly in the quotation from <code>Skáldskaparmál</code> at the beginning of this paper, the mythology (shorn of its religious content) was required knowledge for professional poets. This is of course not to say that poets received no systematic training in the language of poetry before it was assembled and arranged in Snorri's <code>Edda</code>, but until that time the only option for aspiring poets was to listen to and learn from their elders as they discoursed on the kennings and other features of the oral and highly skilled verbal art of the "major poets". Seen this way, the <code>Edda</code> reflects an insider's systematic representation in writing of a previously oral system of knowledge and instruction that had used the sky above as a frame of reference from time immemorial.

The *Edda* should thus be read as evidence of the state of traditional sky lore as the person who dictated it chose to represent it at the time of writing. The myths are thus not original compositions or learned reconstructions based on older poetic sources, devoid of accompanying stories. Rather they should be read as the writer's version of stories that had been told by a succession of other learned men many times before, and probably after—in the way that we read all other recorded traditional material.

Thus there seems no good reason not to read the text of *Gylfaginning* as a straight mythological description of celestial phenomena as they appear to the naked eye in the lands of the North—the regular passage of the Sun and Moon across the heavens

together with the irregular motions of the planets that bear the names of the gods as they move from *salr* to *salr*, i.e. through the signs of the zodiac—and of other divine forces that stay fixed in their *staðir*, i.e. constellations outside the *salir* of the Sun. Over all this rises the world tree, white and translucent within the skull of the giant Ýmir. We have no way of knowing what is 'right' or 'wrong' or 'made up' in this wealth of stories: people are not 'wrong' when it comes to their own tradition, although one person never practices it in exactly the same way as another, contemporary or from a



Figure 2. The photograph shows how the sun shines into the tunnel at Snorri's tub (Snorralaug) at Reykholt at sunrise on Wednesday, the 25th of October 2017. As can be seen, on this day the first ray actually falls a fraction to the north-eastern side of the tunnel; the sun would thus have shone directly into the tunnel along the edge of the tub at sunrise at *veturnætur* (winter nights) a few days earlier. In this year the first 'winter day' was Saturday, the 21st of October. (Photograph: Jónína Eiríksdóttir.)

different time. But they can continue to associate their traditional learning with the same celestial locations and phenomena (*staðir*, *salir*, stars and planets) for centuries on end, thus ensuring stability and continuity; the myths are, in a sense, written in the sky. Everyone personalises the tradition and adapts it to their own needs or particular context, and new 'myths' are constantly evolving among those who observe the apparent interplay of regular and irregular movements of heavenly bodies. In this way

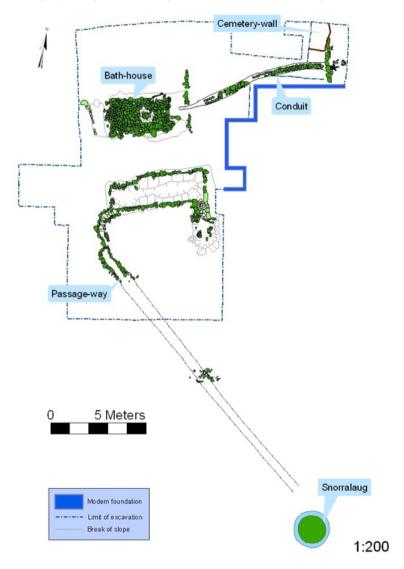


Figure 3. Guðrún Sveinbjarnardóttir's site plan from the excavation of Snorri's farm at Reykholt, showing the tunnel running straight from the cellar of the farmhouse to the edge of Snorri's tub (digital image obtained from Guðrún Sveinbjarnardóttir, cf. Sveinbjarnardóttir 2006: 29 and 2012: 64-74).

the entire mythology could be transmitted from person to person as a terminology for the wonders that met, and still meet, the eyes of anyone willing to travel beyond the glare of Western civilisation and feast their eyes upon the clear and cloudless sky.

All progress towards understanding the mythology of the eddas is, it seems to me, stifled by the reluctance of scholars to acknowledge the significance of the sky as a tool of memory. The literal interpretation discussed here of the role of mythological terminology for talking about the sky in the secular culture of 13th century Iceland (in addition to the central and obvious role of the myths for our understanding of the ancient poetry that Snorri and his confreres knew in such rich abundance and were able to compose in like spirit) permits, and requires, a radical scholarly rethink of the source value of the prose and poetic edda texts for the religious practices of the people of the North before the advent of Christianity. The whole mythological system or world view hung together in the dome of the heavens, and could thus be preserved like any other oral lore from generation to generation and over wide distances among the orallytrained intellectual and social elite who understood the lore and tradition from the inside—as Snorri did. These were precisely the people who, for instance, were responsible for conducting assemblies and ritual observance, ensuring remembrance of ancient tales and poems about warriors and kings by retelling them, reciting poems and composing new ones, and, not least, keeping track of the passage of time to ensure that farm work was carried out at the proper time and that everyone attended festivals, sacrifices and assemblies together, on pain of penalty (*Grágás*, 375-377; *Þingskapaþáttur*, ch. 4).

This importance of chronology is neatly exemplified by Snorri himself. When he laid his tunnel from the cellar at Reykholt to his circular hot tub (*Snorralaug*) he had it run dead straight to the edge of the tub, aligned with the place on the mountain ridge on the south side of the valley where the sun rises at *veturnætur* (the nights before the beginning of winter on a Saturday) and so shines directly into the tunnel along the outer edge of the tub (fig. 2 and 3). Through this design, Snorri could watch for the sun shining into the tunnel at the 'winter nights' in autumn and so be sure he always had the passage of the seasons correctly calibrated. This way there was no danger of him arriving at Þingvellir for the Alþingi in the wrong week the following summer.

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