Tolkien’s Burning Briar –
an astronomical explanation

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In his process of “sub-creation” Tolkien included an origin for the stars as part of his mythology. Certain groupings were clearly identified by Tolkien himself (or Tolkien scholars) as corresponding to real constellations and asterisms. Chief among these was the Big Dipper, or the Plough, which played an important role in the eschatological myths of Middle-earth and the prophesied defeat of Melkor (Morgoth). Among the various names Tolkien gave to this asterism was the “Burning Briar,” an obscure epithet which Christopher Tolkien admitted he could not explain. This paper postulates an explanation for the name which draws upon astronomical phenomena with which Tolkien would have been familiar, and is in keeping with the symbolic importance of the asterism in his mythology.

The depth and breadth of detail in Tolkien’s Middle-earth sets it apart from similar fictional “sub-creations.” Cultural nuances, such as languages and customs, as well as “physical” details, such as geography, were worked, reworked, and elucidated in a web of unrivalled intricacy. The basis for Tolkien’s attention to detail began in childhood, along with his interest in constructing languages. He approached this as a self-described “scientific philologist” and his main interest in the topic was, as he noted, “largely scientific.” As a child, his interests were varied, including “history, astronomy, botany, grammar, and etymology.” All these were later to play a vital role in making Middle-earth such a lush playground for the casual reader and the academic alike. We witness Tolkien’s attention to detail (and mastery of the poetic description of nature) in a letter to his son, Christopher, from 1944:

Here I am again at the best end of the day again. The most marvellous sunset I have seen for years: a remote pale green-blue sea just above the horizon, and above it a towering shore of bank upon bank of flaming cherubim of gold and fire, crossed here and there by misting clouds like purple rain. It may portend some celestial merriment in the morn, as the glass is rising.

Chief among the sciences, astronomy played a pivotal role in the “fleshing out” of Middle-earth. Quiñónez and Raggett report that Priscilla Tolkien affirmed that her father “had a general interest in astronomy” and that “Tolkien had enough interest in and knowledge of astronomy to use it convincingly and to lend believability to his stories.” Tolkien himself noted in a letter to Naomi Mitchinson concerning the transition of a “flat earth” to a “round earth” after the great changing of the world that “so deep was the impression made by ‘astronomy’ on me that I do not think I could deal with or imaginatively conceive a flat world, though a world of static Earth with a Sun going round it seems easy (to fancy if not to reason).” Indeed, the importance of astronomical consistency to Tolkien’s process of sub-creation is demonstrated by the lunar chronology of The Lord of the Rings. In a letter to son Christopher from 1944, Tolkien admitted that his writing was hindered by “trouble with the moon. By which I mean that I found my moons in the crucial days between Frodo’s flight and the present situation (arrival at Minas Morgul [sic]) were doing impossible things, rising in one part of the country and setting simultaneously in another.”

Among the astronomical creations and devices in Tolkien’s universe we find named stars and constellations. Quiñónez and Raggett explain that these serve the same functions as their real-world counterparts: “besides regulating the heavens, they represent events and persons in the beliefs of the native cultures.” Varda, Queen of the Valar, also known as Elbereth Gilthoniel (star-queen, star-kindler) by the elves, is said to have created the stars and their patterns in the time before the coming of the First Born (elves). As Tolkien described in the essay “Myths Transformed,” Varda was

Concerned not only with the great stars themselves, but also in their relations to Arda, and their appearance therefrom (and their effect upon the Children to come). Such forms and major patterns, therefore we call (for instance) the Plough, or Orion, were said to be her designs. Thus the Valacirca or ‘Sickle of the Gods,’ which was one of the Eldarin names for the Plough, was, it was said, intended later to be a sign of menace and threat of vengeance over the North in which Melkor took up his abode...

The Plough is, of course, the Big Dipper, to give it its American name, referred to here by its common English nickname. We see clear signs of this “legend” in “The Annals of Amn” (among other writings), where it is said that “Last of all Varda made the sign of bright stars that is called the Valakirka, the Sickle of the Gods, and this she hung about the North as a threat unto Ulumno and a token of the doom of Melkor.” Also, The Silmarillion recounts that Beren “sang a song of challenge that he had made in praise of the Seven Stars, the Sickle of the Valar that Varda hung above the North as a sign for the fall of Morgoth.” Other names for the Sickle can be found in commentary by Christopher Tolkien on “The Coming of the Elves,” where he cited one of his father’s notebooks in naming this constellation “the Silver Sickle” and “the Seven Butterflies.” This latter name refers to the seven bright stars which make up the handle and bowl of the Big Dipper. For example, Chaucer named it “the staires seven.”

Another interesting moniker appears in “The Later Quenta Silmarillion,” where it is said that “[m]any names have these stars been given; but in the North in the Eldar Days Men called them the Burning Briar: quoth Pengolod....” This name does not appear in The Silmarillion as published, but does appear in several earlier versions of the same legend.
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Version II of the Old English work "The Earliest Annals of Valinor" in The Shaping of Middle-earth contains the corresponding antiquated name Brynebrâ in line 78. In his notes to the work, Christopher Tolkien directly translated this as 'Burning Briar'.14 "The Later Annals of Beleriand" note that "by the men of the ancient North it was named the Burning Briar, and by later men it has been given many names beside."15 The version of "The Quenta Silmarillion" published in The Lost Road states that "in the old days of the North both elves and men called them the Burning Briar, and some the Sickle of the Gods."16 Likewise, "The Quenta" of The Shaping of Middle-earth contains the same line. The only other references to "Burning Briar" are contained in "The Lay of Leithian":

"The stars that burn
About the North with silver fire
In frosty airs, the Burning Briar
That Men did name in days long gone"

(version B, lines 376-379)17

"The Northern stars, whose silver fire
Of Old Men named the Burning Briar,
were set behind his back, and shone
o'er land forsaken: he was gone"

(version C, lines 567-570)18

and

"and over all the silver fire
that once Men named the Burning Briar,
the Seven Stars that Varda sat
about the North were burning yet,
a light in darkness, hope in woe,
the emblem vast of Morgoth's foe."

(version B, lines 2666-2671)19

This curious name might not be given a second thought, except that Christopher Tolkien admitted in his commentary to "The Lay of Leithian" that "I can cast no light at all on the name Burning Briar..."20 This elevates the name from a simple curiosity to a puzzle to be solved. Given the astronomical detail that Tolkien wove into his mythos, it is within that field that the mystery is most likely to be solved. The remainder of this paper seeks to do exactly that.

The astronomy

The most obvious angle from which to approach this puzzle is the astronomical fact and legend surrounding the Plough/Big Dipper. Strictly speaking it is not one of the eighty-eight official constellations recognized by the International Astronomical Union (IAU), but is instead an asterism which makes up the brighter portion of Ursa Major, the Great Bear. The declination of the stars of the Big Dipper range from approximately forty-six to sixty-three degrees, making the entire asterism circumpolar (always visible) as seen from Oxford. As it circles Polaris it spends a portion of each day or night (depending on the season) lying a mere ten to fifteen degrees above the northern horizon. Given the brightness of its stars and its prominent location in the sky, it is not surprising that it has a rich lore from many northern cultures. For example, it is known in parts of Europe as the Wagon or Wain, sometimes referred to specifically as Charles' Wain, as well as the Plough.

A rather different interpretation is found in Arabic cultures, where the four stars of the "bowl" are known as The Bier and The Great Coffin. According to Allen21, the famed astronomer Flammarion attributed these names "to the slow and solemn motion of the figure around the pole." Is it possible that the name "Burning Briar" (i.e. burning bush) used by Tolkien was merely a play on the words "Burning Bier"? It would not be unlike Tolkien to do so. For example, in a 1938 letter to the editor of The Observer, he explained that Smug's name is "the past tense of the primitive German verb smugan, to squeeze through a hole: a low philological jest."22 While this is certainly a possibility, a more likely explanation can be found by combining the northern placement of this asterism with another astronomically related phenomenon visible in the same region of the sky – the aurora borealis.

In the early seventeenth century, Galileo gave the name boreale aurora, or northern dawn, to this interaction between the Earth's atmosphere and the solar wind. The name took its current form in 1621 at the suggestion of French astronomer Pierre Gassendi. The name derives from the reddish-pink appearance of the aurora in lower latitudes, reminiscent of the dawn sky.23 Aurora can be quiescent in form (appearing as a glow or arc in the sky) or active (in the form of bands, rays, or flickering curtains). They can take on nearly any colour of the rainbow, depending on the specific emission lines involved. Different colours are produced at different altitudes in the atmosphere, which leads to latitudinal differences in color as well. Red emissions are due to oxygen (at a wavelength of 630.0 nanometers), and occur more than twice as high in the atmosphere as the common green oxygen emissions (577.7 nanometers), namely above 250 km.24

 Legendary derivations

As might be expected, there is a rich treasury of myth and legend surrounding the aurora, especially in the northern cultures whose languages Tolkien studied. For example, in Finland the phenomenon was said to be the torches of warring angels. Similarly, in Estonia the aurora was thought to be caused by heavenly battles.25 A proverb from Lista in Norway warns that if the "northern light is red, then it is an omen of coming war."26 The relative rarity of aurora at more southern latitudes, and their commonly reddish appearance at the same locations, has led to a general belief in Southern Europe that the aurora was fires in the North. This has led to widespread fear and awe, reflected in the literary record. For example, the aurora is described in The Anglo-Saxon Chronicles, The Chronicles of Scotland, and The Irish Chronicles, works with which Tolkien is likely to have been familiar.27 The King's Mirror, a Norse work dating from the thirteenth century, compared the appearance of aurora to that of a "vast flame viewed from a great distance" and as appearing to "blaze like a living flame."28

This fiery appearance has led to a number of historical instances of mistaken identity. In Copenhagen, 1709, townsmen prepared to fight a fire they were sure was approaching from the North.29 On September 15, 1839, a magnificent display of a red aurora in London led to a general panic and the large-scale dispatching of the city's fire-fighting resources to the north.30 Another display viewed from London on January 25, 1938 was described by the press as leading "many to think half the city was on fire."31 The Windsor fire department was called out in the belief that Windsor Castle was afire. Similar mistaken actions were reported in Austria and Switzerland.32

The two ideas that red aurora are signs of "warring angels"
and “fires in the heavens” lead us to investigate whether or not we can find evidence of such references in Tolkien’s work. Two such instances have been identified by the author of this paper. Shortly after the awakening of the Elves (the Quendi), the Valar attacked Melkor’s stronghold in the North in order to protect the First Born, and it is written that “the Quendi knew nothing of the great Battle of the Powers, save that the earth shook and groaned beneath them, and the waters moved, and in the north there were lights as of mighty fires.” This description clearly parallels the actual myths described above. The second instance of likely auroral reference is in the two accounts of the Fall of Gondolin. In the briefer version (The Silmarillion), it is said

The host of Morgoth came over the northern hills where the height was greatest and the watch least vigilant, and it came at night upon a time of festival, when all the people of Gondolin were upon the walls to await the rising sun, and sing their songs at its uplifting; for the morrow was the great feast that they named the Gates of Summer. But the red light mounted the hills in the north and not in the east; and there was no stay in the advance of the foe until they were beneath the very walls of Gondolin, and the city was beleaguered without hope. 33

The longer version of the fall of the elvish city (The Book of Lost Tales 2) explains that

The sun had sunk beyond the hills and folk array them for the festival very gladly and eagerly – glancing in expectation to the East. Lo! even when she had gone and all was dark, a new light suddenly began, and a glow there was, but it was beyond the northward heights, and men marveled and there was a thronging of the walls and battlements. Then wonder grew to doubt to dread as men saw the snow upon the mountains dyed as it were with blood. And thus it was that the fire serpents of Melko came upon Gondolin. 34

Again, these accounts closely mirror actual European myths concerning aurora, and it is not unreasonable to posit their connection, or at least inspiration.

The author now makes the following hypothesis – that the name “Burning Briar” used by Tolkien to explain the Plough/Big Dipper, especially in its eschatological role as an omen of the foretold downfall of Melkor/Morgoth in the final War of the Powers, was based on its appearance within a display of the aurora borealis. Such a display was witnessed by the author in September 2003, and it painted an unforgettable image.

The burning bush
One further mythological aspect of the name and its meaning should be explored. The classic reference of the burning briar (burning bush) is, of course, from Exodus 3:2: “There the angel of the Lord appeared to him in flames of fire from within the bush, Moses saw that though the bush was on fire it did not burn up.” Philo Judaeus, a contemporary of the famed historian Josephus, wrote an extensive work on the life of Moses in which he included a classic analysis of the symbolism of the burning bush. He noted that it “was a symbol of the oppressed people, and the burning fire was a symbol of the oppressors; and the circumstance of the burning bush not being consumed was an emblem of the fact that the people thus oppressed
would not be destroyed by those who were attacking them, but that their hostilities would be unsuccessful and fruitless to the one party, and the fact of their being plotted against would fail to be injurious to others. 35 An obvious parallel can be drawn to Varda’s promise (through the Valakirka) of the eventual overthrow of Morgoth and the final liberation of Arda from his evil deeds and oppression. One may ask if such a literal Biblical interpretation is justified. Despite Tolkien’s detailed explanation in a letter dating from 1967 that the name Elendil borrowed merely the sound of an Anglo-Saxon reference to John the Baptist 36, in a letter written fourteen years earlier he flatly stated that “The Lord of the Rings is of course a fundamentally religious and Catholic work, unconsciously so at first, but consciously in the revision...” 37

An alternate usage of ‘briar’, also in keeping with the main thesis of this paper, has been suggested by Sanford 38. He notes that the term is commonly used in England to refer to a wooden tobacco pipe. Given the shape of the Big Dipper, and Tolkien’s penchant for smoking, this interpretation is certainly worthy of serious consideration, although a ‘burning pipe’ rather downplays the eschatological meaning Tolkien ascribed to the asterism.

In the end, only the good professor knows for certain the motivations and inspirations for the details of his sub-creation. The author hopes that the proposed explanation for a minor portion of that rich tapestry will prove thought-provoking among the many admirers of Middle-earth. As Tolkien himself said, the success of Middle-earth as a “reality” is demonstrated by analysis such as that offered here, in which one suspends disbelief for the moment and treats the sub-creation “as if it were a report of ‘real’ times and places...” 39

Notes

[17] Tolkien, 1994, 204
[18] Tolkien, 1994, 410
[19] Tolkien, 1994, 300

[22] Carpenter, 1981, 31
[26] Brekke and Egeland, 1983, 6
[27] Eather, 1980, 41
[28] Brekke and Egeland, 1983, 35-6
[29] Eather, 1980, 92
[31] Eather, 1980, 92
[33] Tolkien, 2001, 290-1
[34] Tolkien, 1992, 173
[35] Yonge, 1993, XII (67)
[37] Carpenter, 1981, 172
[38] Sanford, 2005

References
J.R.R. Tolkien, 1996, The Lost Road and Other Writings, NY, Ballantine Books
Leonard Sanford, June 12, 2005, private communication.