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## Smaug's Hoard, Durin's Bane, and Agricola's De Re Metallica: Cautionary Tales Against Mining in Tolkien's Legendarium and the Classical Tradition

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Smaug's Hoard, Durin's Bane, and Agricola's *De Re Metallica*: Cautionary Tales Against Mining in Tolkien's Legendarium and the Classical Tradition

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In *The Two Towers*, Legolas warns Gimli not to tell other dwarves about the Caverns of Helm's Deep, because "one family of busy dwarves with hammer and chisel might mar more than they made." Gimli responds

No, you do not understand.... No dwarf could be unmoved by such loveliness. None of Durin's race would mine those caves for stones or ore, not if diamonds and gold could be got there. Do you cut down groves of blossoming trees in the spring-time for firewood? We would tend these glades of flowering stone, not quarry them. With cautious skill, tap by tap – a small chip of rock and no more, perhaps, in a whole anxious day – so we would work, and as the years went by, we should open up new ways, and display far chambers that are still dark, glimpsed only as a void beyond fissures in the rock. (*TT* 153)

Legolas is concerned with the Dwarves' destruction of the natural environment through their well-known practices of mining (a technology) while, in contrast, Gimli describes an artistic husbandry of the environment, more akin to the work of the Ents as the shepherds of the trees.

Ecofeminist historian of science Carolyn Merchant (3) describes how the "image of the earth as a living organism and nurturing mother" discouraged commercial mining in the Classical and Medieval ages. In her words,

One does not readily slay a mother, dig into her entrails for gold, or mutilate her body, although commercial mining would soon require that. As long as the earth was considered to be alive and sensitive, it could be considered a breach of human ethical behavior to carry out destructive acts against it. (Merchant 3)

Elsewhere (Larsen 96) I generally described Tolkien's use of this medieval organicist view. In this paper I specifically investigate mining in the legendarium.

The organicist view of Earth was reflected in the writings of numerous Classical scholars. For example, the Roman Stoic Lucius Seneca (4 B.C. – A.D. 65) compared the fluids of the human body with those within the earth that formed metals and minerals. In his *Natural History*, Pliny (A.D. 23 – 79) speculated that earthquakes were the earth's protests against being violated by

miners. He opined that the mining of precious metals leads to greed and crime, and iron to warfare. In his *Metamorphoses*, the poet Ovid (A.D. 7), warned that violence done to the earth through mining led her to give birth to monsters, “born of the blood of her slaughter” (Merchant 32)

Further examples continued into the Medieval period. “The Judgement of Jupiter” was an allegory penned by Paul Schneevogel, a professor at the University of Leipzig between 1490 – 1495. In the tale, a hermit falls asleep and later wanders through a forest, lost. He comes upon the court of the gods, where Jupiter is standing in judgement of a miner who has been accused by the gods of various crimes. Among his accusers is Mother Nature herself, her clothing torn and her body pierced. Among the accusations are that the miner tore up and burned Bacchus’ grapevines, destroyed the fields of Ceres and the Fauns’ forests, and disrupted Pluto’s peace and quiet with his noisy underground tapping. The miner argues in his defense that the earth is no loving mother, but rather a wicked stepmother who hides the metals that her children need within herself, an attitude easily recognized today as blaming the victim (Adams 171 – 3).

Carolyn Merchant (38) notes that in Book II of Edmund Spenser’s *The Faerie Queene*, subtitled “Temperance,” Sir Guyon “presents the arguments against mining taken from Ovid.... Gold and silver pollute the spirit and debase human values just as the mining operation itself pollutes the ‘purest streams’ of the earth’s womb.” As David Landreth (256) similarly notes of the work, “Vice is at once the cause and the effect of the discovery of gold,” with both authors citing the following passage in support of their argument:

Then gan a cursed hand the quiet wombe  
Of his great Grandmother with steele to wound,  
And the hid treasures in her sacred tombe  
With Sacrilege to dig. Therein he found  
Fountains of gold and silver to abound.  
Of which the matter of his huge desire  
And pompous pride eftsoones he did compound (*The Faerie Queene*,  
Canto VII, Verse XVII)

Merchant (39) further observes that “Not only did mining encourage the mortal sin of avarice, it was compared by Spenser to the second great sin, human lust. Digging into the matrices and pockets of earth for metals was like mining the female flesh for pleasure.... Both mining and sex represent for Spenser the return to animality and earthly slime.”

The disease of gold lust (generically applied to any precious metal or gem) appears in *The Hobbit*, in what Tom Shippey (13) identifies as “dragon sickness.” He describes it as a specialized form of avarice, “strongly connected with love of

metal.” Among its victims are the Master of Laketown, Smaug, and Thorin Oakenshield. Elisa Bursten (72) explains how Bilbo is tempted by it, but does not succumb. For example, early in the novel as he hears the Dwarves sing, “the hobbit felt the love of beautiful things made by hands and by cunning and by magic moving through him, a fierce and jealous love, the desire of the hearts of dwarves” (H 18 – 9). Inside Smaug’s lair Bilbo’s “heart was filled and pierced with enchantment and with the desire of dwarves; and he gazed motionless, almost forgetting the frightful guardian, at the gold beyond price and cost” (H 198). Note the emphasis on desire here. Shippey argues that in *The Lord of the Rings*, dragon sickness also infects Saruman, who has a “mind of metal” (TT 76). In Shippey’s words, “‘dragon-sickness’ ages and withers its sufferers, in the same way as they destroy their environment” (15). There is therefore great wisdom in Thorin’s dying words to Bilbo, “If more of us valued food and cheer and song above hoarded gold, it would be a merrier world” (H 263).

In *The Lord of the Rings*, the balrog of Moria can be viewed as the Dwarves’ desire and greed made manifest. Gandalf explains of the Dwarves of Moria, “even as mithril was the foundation of their wealth, so also it was their destruction: they delved too greedily and too deep, and disturbed that from which they fled, Durin’s Bane” (FoTR 331). Note the specific use of the word “greedily” here. Also note that the balrog issued from deep within the mine, paralleling the birth of the monsters from the bowels of the earth through the process of mining warned of by Ovid.

Another cautionary tale is seen in *The Fall of Gondolin*. Meglin, the sister-son of King Turgon, was described as “great among quarry men and a chief of the delvers after Ore” (FoG 61). His desire for metals led him to leave the safety of the hidden city, and “straying in the mountains alone was taken by some of the Orcs prowling there” (FoG 66). Meglin was afterwards used as a pawn by Morgoth to betray Gondolin, the Great Enemy easily manipulating Meglin through his desire – a “dragon sickness” of sorts – for his cousin, Idril, and his “desire of standing in high power beside the royal throne” (FoG 61). Indeed, Idril is described as “fairer than all the wonders of Gondolin... Celebrindal, the Silver-foot, whose hair was as the gold of Laurelin before the coming of Melkor” (Sil 126). Morgoth attacks Gondolin with an army of monsters spawned in his underground stronghold, including balrogs, resulting in the downfall of Gondolin and the deaths and exile of many Elves.

While miners did not encounter balrogs when delving in our Primary World, as mining moved from Hungary and Germany (before the 11<sup>th</sup> century) across much of Europe (by the 13<sup>th</sup> century), personal and environmental dangers were brought to light (Aberth 31; Adams 171). Therefore, the establishment of what we would today call commercial mining became controversial. An early advocate for the mining industry was Georgius Agricola (1494-1555), whose

1556 work *De Re Metallica* (“On Metals”) is considered the first ‘modern’ treatise on mining. Agricola’s pro-mining argument relies on a methodical refutation of anti-mining contentions in order to situate his promotion of the benefits of mining, including the betterment of society and the human condition (Merchant 34). Among the issues he considers are the inherent dangers of the mining endeavor, the environmental changes that result from the process, and moral and ethical considerations. For example, Agricola counters the opinion that mining is merely mindless labor, arguing that “a miner must have the greatest skill in his work, that he may know first of all what mountain or hill, what valley or plain, can be prospected most profitably, or what he should leave alone” (1). Agricola answers the criticism that Nature hides minerals and ores underground because she does not wish for humans to find them with the observation that “metals cannot be produced in the other elements because the materials for their formation are wanting” (12). He draws an analogy with fish, “which we catch, hidden and concealed though they be in the water, even in the sea” (12).

Agricola acknowledges complaints that in the process of mining

woods and groves are cut down, for there is need of an endless amount of wood for timbers, machines, and the smelting of metals. And when the woods and groves are felled, then are exterminated the beasts and birds, very many of which furnish a pleasant and agreeable food for man. Further, when the ores are washed, the water which has been used poisons the brooks and streams, and either destroys the fish or drives them away. (8)

Compare this to Gandalf recounting to the Council of Elrond his imprisonment on the top of Orthanc: “the valley below seems far away. I looked on it and saw that, whereas it had once been green and fair, it was now filled with pits and forges....Over all his works a dark smoke hung and wrapped itself about the sides of Orthanc” (*FoTR* 273-4). However, Agricola (14) offers in rebuttal that

as the miners dig almost exclusively in mountains otherwise unproductive, and in valleys invested in gloom, they do either slight damage to the fields or none at all. Lastly, where woods and glades are cut down, they may be sown with grain after they have been cleared from the roots of shrubs and trees,

an argument that would not have been convincing to the tree-loving Tolkien, to say the least.

To the claim that gold and silver lead to crime and iron to warfare, Agricola (16) offers

in this manner, might not anything that we possess be called a scourge to human kind,- whether it be a horse, or a garment, or anything else? For, whether one rides a splendid horse, or journeys well clad, he would give occasion to a robber to kill him. Are we then not to ride on horses, but to journey on foot, because a robber has once committed a murder in order that he may steal a horse?

Furthermore, “the products of the mines are not themselves the cause of war,” so when a “man, blinded by a passion for gold and silver, makes war upon a wealthy people, we ought not to blame the metals but transfer all blame to avarice” (16), behavior recognizable as the result of “dragon sickness.” To any who would continue to argue that the mining of metals was somehow against God’s will, Agricola skillfully warns

those who speak ill of the metals and refuse to make use of them, do not see that they accuse and condemn as wicked the Creator Himself, when they assert that He fashioned some things vainly and without good cause, and thus they regard Him as the Author of evils, which opinion is certainly not worthy of pious and sensible men. (12)

Carolyn Merchant (171) notes that Agricola’s argument in support of large-scale mining for the proposed betterment of humankind began the slippery slope that led to the Scientific Revolution and Francis Bacon’s arguments for what she terms the “‘rape’ of nature for human good.” In the Scientific Revolution nature became viewed as a machine rather than a living being; therefore, since it had “no spirit and no animation, it could be exploited at will” (Stenmark 324). A prime example of this was, indeed, mining. With this anthropomorphized viewpoint of nature removed, replaced with a vision of the earth as nothing more than spiritless dirt and stone, the need for metals and minerals easily superseded environmental concerns. In Bacon’s words, “the truth of nature lies hid in certain deep mines and caves”; therefore, in order to study nature, scientists should “sell their books and build furnaces” and forsake “Minerva and the Muses as barren virgins” for the forges of Vulcan (qtd. in Merchant 171).

In his subcreated world, Tolkien purposefully and eloquently rejects the power-seeking scientific establishment of the Scientific and Industrial Revolutions. Power, as Tolkien noted in a famous 1951 letter, is “an ominous and sinister word in all these tales” (*Letters* 152). We witness such exploitation of nature fueling the industrial fires of Saruman in Isengard as well as in Sharkey’s Shire. When Saruman succumbs to his lust for power through technology, he

transforms the beautiful tower of Isengard where once wise men had engaged in observing the heavens (an example of pure science) into a “child’s model or a slave’s flattery, of that vast fortress, armoury, prison, furnace of great power, Barad-dûr, the Dark Tower” (*TT* 161).

As demonstrated in this paper’s opening dialogue between Legolas and Gimli, the Dwarves occupy a precarious position in the legendarium, reflecting the transition between medieval and modern views of nature in general, and mining in particular. The Dwarves respect the beauty of natural caves, but fall victim to their avarice, leading to the destruction of both individuals and entire kingdoms. I would argue that this is their doom, leading directly from the circumstances of their very creation as a species.

Indeed, in *The Silmarillion* we read how the Dwarves were mined, in a sense, due to the desire of the Vala Aulë, made

in the darkness of Middle-earth; for so greatly did Aulë desire the coming of the Children, to have learners to whom he could teach his lore and his crafts, that he was unwilling to await the fulfillment of the designs of Ilúvatar.... [F]earing that the other Valar might blame his work, he wrought in secret; and he made first the Seven Fathers of the Dwarves in a hall under the mountains in Middle-earth. (*Sil* 43)

In a 1958 letter, Tolkien explains that Aulë “in a sense ‘fell’; for he so desired to see the Children, that he became impatient and tried to anticipate the will of the Creator. Being the greatest of all craftsmen he tried to *make* children according to his imperfect knowledge of their kind” (*Letters* 287). However, Tolkien explains, it is important to note that Aulë had not acted out of “evil desire to have slaves and subjects of his own, but out of impatient love, desiring children to talk to and teach, sharing with them the praise of Ilúvatar and his great love of the *materials* of which the world is made” (*Letters* 287). Again, note the use of the word “desire” and Aulë’s “love” of the materials of the earth. Contrast this with the actions of Saruman (originally a Maia associated with Aulë in Valinor, under the original name Curumo) at Isengard, which were driven by desire for power (*UT* 393).

Ilúvatar confronts Aulë, and mandates that the Elves must be born first, in accordance with his primordial plan. The Dwarves “shall sleep now in the darkness under stone, and shall not come forth until the Firstborn have awakened upon Earth; and until that time thou and they shall wait, though long it seem” (*Sil* 44). Aulë was greedy in creating the dwarves, in a sense mining them from the earth and ripping them from the bosom of their mother; Ilúvatar merely returns them to the earth where they belong until the proper time for their separation from

Mother Earth. Thus, greed and desire, as well as an intimate connection to the materials of the earth, are, in a sense, part of the very DNA of the dwarves.

The birth of Dwarf-kind is tied to stone; so, too, is their death. According to the “Later Annals of Beleriand,” upon dying “they go back into the stone of the mountains of which they were made,” in a sense returning to the earth what had been illicitly mined from her body by Aulë (LR 129). In *The History of The Hobbit*, John Rateliffe notes that the Dwarves returning to stone of the earth “is clearly an allusion back to Old Norse lore... particularly the fate of the dwarf Alvis in the Elder Edda, who is turned to stone at the end of the *Alvissmál*” (721). But perhaps Tolkien meant more by this. The story of the fate of his Dwarves continues with “Yet others say that Aulë cares for them, and that Ilúvatar will accept from him the work of his desire, so that the Dwarves shall not perish” (LR 129). Again, *desire* is front and center.

Late work on the subject of the fate of the Dwarves is found in the post-*Lord of the Rings* essay “Concerning the Dwarves,” part of the “Later Quenta Silmarillion” (published in *The War of the Jewels*):

A foretime the Noldor held that dying they returned unto the earth and the stone of which they were made; yet that is not their own belief. For they say that Aulë cares for them and gathers them in Mandos in halls set apart for them, and there they wait, not in duress but on the practice of crafts and the learning of yet deeper lore. And Aulë, they say, declared to the Fathers of old that Ilúvatar will hallow them and give them a place among the Children in the End. Then their part shall be to serve Aulë and to aid him in the re-making of Arda after the Last Battle. (*WoJ* 204)

Here we see that in death the Dwarves trade in their axes and mines for knowledge and crafts, in preparation for the foretold re-making of the world. In this work the Dwarves will not be motivated by greed, but charity and love, love for the beauty of the world that can be, when the themes of Ilúvatar are played aright. This, I argue, is the true motivation behind Gimli's vision for what the Caverns of Helm's Deep might be, with the skillful shepherding of the Children of Aulë, the literal children of the body of Arda. In first condemning and then rejecting the practice of desirous mining, Gimli demonstrates why he was ultimately deemed worthy of entering into the West (*RoTK* 362).

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