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The Thermodynamics of Inscap: Scientific Premonition and Ecological Lament in Gerard Manley Hopkins' "Binsey Poplars"

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Abstract

This paper offers an ecocritical re-evaluation of Gerard Manley Hopkins' 1879 lyric "Binsey Poplars," positioning it as a pivotal synthesis of Victorian scientific anxiety and theological ecology. Beyond a mere aesthetic lament for the felled aspens of Oxford, the poem serves as a sophisticated indictment of the ontological blindness facilitating environmental destruction. By interrogating the text's engagement with the Second Law of Thermodynamics and the biochemical principles of photosynthesis, this study demonstrates how Hopkins frames ecological "havoc" as both a physical entropic loss and a spiritual catastrophe. Utilizing Hopkins' idiosyncratic framework of *inscape* and *instress*, the analysis reveals how the "unselving" of the landscape critiques the industrial commodification and subsequent objectification of nature. Hopkins' Scotian-influenced perception of the "Logos" within the particular challenges the burgeoning alienation of humanity from the natural world. Ultimately, this article argues that "Binsey Poplars" provides a prophetic environmental ethic, suggesting that the "materialist worldview" of the nineteenth century—symbolized by the locomotive expansion—represents a fundamental failure to perceive the intrinsic divinity and energetic interconnectedness of the ecosystem.

Keywords: Ecocriticism, Inscap and Instress, Victorian Science, Thermodynamics, Environmental Ethics, Unselving

Introduction

Nature's particularity has been a singular agenda of focus for Gerard Manley Hopkins throughout the short span of his poetic career. Though he was celebrated as a poet of nature, his poetry cannot be reduced to a mere a collection of devotional pastorals. One of the most individual of the Victorian writers, he was fully abreast with what was going on around him. Writing at the height of the Victorian industrial expansion, Hopkins was uniquely positioned to witness the violent collision between natural "selfhood" and mechanical utility. His 1879

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lyric, “Binsey Poplars,” serves as a seminal text in this regard, moving beyond mere aesthetic grief to offer a sophisticated ecological critique. This paper argues that the poem’s lament for a felled riverside grove is underpinned by a profound understanding of Victorian science—specifically the emerging principles of photosynthesis and the grim implications of the Second Law of Thermodynamics. By synthesizing the Scotian principle of the “Logos” with the physical reality of energy transfer, Hopkins frames the destruction of the Oxford aspens not just as a loss of beauty, but as a spiritual and physical “unselving” of the world. Through an ecocritical lens, this study explores how Hopkins prefigures modern environmental ethics, suggesting that the “havoc” wrought upon the landscape is fundamentally a failure of human perception.

The Genesis of Grief: Personal and Literary Inspirations

“Binsey Poplars,” one of Hopkins’ explicitly ecological poems, a lyric in three line stanzas, demonstrates the vivid descriptive powers of the poet, richly blended with musical feel for sound and rhythm. The poem was written in 1879, while Hopkins was on a short stint to Oxford, his alma mater. There he sadly noticed that the trees that once provided beauty and exquisiteness to the river bank were all cut down. Expressing his consternation, Hopkins wrote to Canon Dixon, his graduate friend, on the same day: “I have been up to Godstow this afternoon. I am sorry to say that the aspens that lined the river are everyone felled” (*The Correspondence* 26). By felling those trees, he points out that the future generations are deprived of their heritage because he believed that those trees gave a pattern of ‘inscape’ to the country side.

Another motivational factor was his father Manley Hopkins’ poem on tree felling in their residential area, published a few months earlier. Jude V. Nixon, while investigating the genesis of “Binsey Poplars” documents that Hopkins senior wrote about the fate of well walk trees in Hampstead Heath, whereas, subsequently, the junior Hopkins moved by his father wrote about the felling of Poplar trees in Oxford (191). Inspired by his father and at the same time disturbed by his own personal experience of having witnessed the unselving of a country side, Hopkins penned this poem. Through this poem he presents the pain of the trees interspersed with the agony and anxiety of the viewer who knows of the spiritual and ecological consequences of the felling. The concern and anguish about the destruction of the nature in the name of development kept him disturbed throughout his poetic life.

The tree felling had direct connections with industrial developments in the area and the trees in Godstow as Robert Bernard Martin points out, “were cut down for use as brake block, or ‘shoes,’ for the locomotives of the Great Western Railway” (307). Whether he knew of this fact or not, Hopkins visualizes the environmental destruction as a conflict that is experienced because of the human failure to perceive the selving process of beings in themselves:

Ten or twelve, only ten or twelve
Strokes of havoc unselfe
The sweet especial scene. (20-23)

The Ethics of Perception: Inscape, Instress, and ‘Unselving’

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Human tendency to interfere with selving process in nature prevents not only the self expressiveness of beings but also the essential call on each being to be what it is. For Hopkins, the process of seeing an object is an act of perceiving its selfhood. The collective failure of humankind to perceive the unselving of the trees that Hopkins talks about in the poem is actually a political statement about the failure of human perception of a specific place as having an intrinsic value. Therefore seeing becomes an important act that makes one conscious of the intrinsic worth of what one observes.

The anthropocene, the current geological age of human impact, that is being discussed today in the environmental circles, is implicitly foreshadows in the expression of “strokes of havoc”. It is a clear promotion that the reckless arrogance of human domination over nature can lead to the wreckage of the earth our common home.

Brian J. Day outlines Hopkins’ theory of beauty thus: “The scene must be seen in order to be a scene and must have been seen to have ever been considered a scene; the existence of an instress is necessary to appreciate the beauty of an inscape; without the inscape there is no instress and without the instress no beauty.” Having taken into consideration the nuances of relationality of beings, Day continues, “subject and object as relational entities become most fully themselves through the instressing act of perception: the subject in being able to perceive, the object in simply being, and thereby possessing that which allows it to be perceived” (Day 186). It once again foregrounds the necessity of right perception, which means, having to fail to take note of a scene is actually the first step towards the destruction of the scene. A scene is valid and becomes beautiful or meaningful only when it is duly apprehended and appreciated in its context. A failure to recognize it amounts to the destruction itself.

The alienation from nature and a subsequent sense of rootlessness is the primary cause for the materialist view of nature that leads to “O if we but knew what we do / When we delve or hew- / Hack and rack the growing green” (9-10). For Hopkins, human economy is deeply interrelated with natural economy because both represent or partake in the divine economy. With the help of Scotian Incarnational principle, Hopkins positively affirms the ecological omnipresence of the ‘Logos,’ the first uncreated being in the cosmos: “Neither do I deny that God is so deeply present to everything . . . that it would be impossible for him but for his infinity not to be identified with them or, from the other side, impossible but for his infinity so to be present to them” (*The Sermons* 128). His ability to perceive beauty and the rationale for doing so is embedded in this Incarnational presence of “Christ- likeness” in the particulars of the world. This makes Hopkins’ nature poems distinctly unique as he is able to capture the moments of nature so vividly and poignantly.

Scientific Intersections: Photosynthesis and Thermodynamics

Scientifically informed ecological underpinnings of the poem “Binsey Poplars” shed light on the dual base of Hopkins’ scientific and spiritual foundations. The scientific temper of the Victorian period, particularly how it influenced Hopkins, is clear in the opening lines of the poem. By the latter half of the eighteenth century it was clear to the scientific community that the leaves of the trees absorbed the carbon dioxide that animals emitted and in return produced

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oxygen, the life line of animal Kingdom with the help of sunlight through a chemical process called photosynthesis. Hopkins himself was conscious of this silent but essentially valuable process and communicates to the public with a premonition that if humans fail to realize the value of trees they are bound to suffer: “My aspens dear, whose airy cages quelled, / Quelled or quenched in leaves the leaping sun . . .” (1-2). The poet uses the imagery of the thick leaves of the tall poplar trees to present the scientific principle of photosynthesis. The principle of photosynthesis puts across the point of interrelatedness of beings in the universe. Through the process of photosynthesis plants, bacteria and algae extract energy from the sun and convert water and carbon dioxide into the materials, oxygen and carbohydrates, that enable growth and reproduction in living organisms.

Hopkins was quite aware of the scientific nuances of the process of photosynthesis as a natural transfer of energy from one form to another. Brian J. Day suggests, “such a transformation quells or quenches the sun’s energy by sacrificing it to the inevitable seasonal cycle of the tree, but it also gives life to this world as the air we breathe and the beauty of inscapes by which we know the beauty of this world” (188). On the one hand these lines talk about how a tree depends on the sun for its sustenance, on the other hand it implies how different components of a tree are interrelated. As it is clear here, the leaves of a tree gather the energy that is required for the entire tree to sustain and equally distributes it to different parts; the entire universe is similarly interconnected and is part of a complex whole, mutually interdependent. The interconnectedness is particularly relevant in the context of the implicit reference to photosynthesis. The process of photosynthesis ensures a ready supply of energy for the whole of the living world, and more importantly, as a renewable source of energy it resists the entropic tendency of the laws of thermodynamics.

Hopkins weaves into the poem the implications of the second law of thermodynamics. It is the law of increasing entropy which means “any system in which energy is expended, the amount of heat required to produce any effect—and the ensuing entropy or disorder—will continually increase” (Post 14). The resultant fear of heat death was a characteristic phenomenon of the Victorian society and remnants of the same crept into literature of the time too. The growing entropy is effectively expressed in the poem through a careful blending of sense and sound. Through the deliberate repetition of chosen words like “All felled, felled, are all felled” and alliteration of the same sound again and again such as “of a fresh, and following folded rank,” Hopkins continually builds up the sense of the disintegrating universe. A sense of fear and evocation of violence and destruction is created when poet further says: “Not spared, not one/ That dandled and sandalled” (5-6).

Ecological Theology: The Sacramental Value of Nature

Hopkins deftly communicates his ecological concerns wrapped in theological and moral terms. The heart of the matter is the belief that everything in the universe is sacred or in another sense, possesses an intrinsic value and ultimately what is done to it is in effect is done to oneself. Through “Binsey Poplars” he puts across the inevitability of a mutual coexistence.

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By being an integral part of this universe, every wrong move from the part of human community can jeopardize our own existence on the face of the earth:

Since country is so tender . . .

That, like this sleek and seeing ball

But a prick will make no eye at all. (12-15)

The poet compares the universe to the sleek and seeing ball, the eye and warns that a prick will make no eye at all. He means not only the gravity of the possible destruction of the universe but also the greatest misfortune of losing one's power to see. When discussing the "sleek and seeing ball" (the eye), highlight Hopkins' use of corporeal (bodily) imagery. An ecocritical reading often focuses on the "non-human body." By comparing the countryside to an eye, Hopkins is saying that nature is "sentient" or at least as vulnerable as human flesh. This collapses the distance between "us" and "it." For him seeing is a key factor in being human on this globe, and losing the power to see through it or even failing to look through diminishes our humanness.

Hopkins believes in the inherent power of humanity to reverse the ever increasing effects of entropy by a complete turnaround from human choices that are unsustainable from an ecological perspective. The poet is hopeful of a new beginning: regeneration, while not ruling out the possibility of a heat death or destruction, if humanity failed to mend its ways. Hopkins' concern is not just about the lost aesthetic beauty of the landscape as a result of a massive felling of poplar trees. His keen vision points to a much greater danger of humanity losing its humanness by failing to notice the loss of essential properties of nature. "In "Binsey Poplars," the failure to perceive the unselving of the trees is fundamentally a statement about failed human visual perception of a specific place" (Day 185). A failure to see the scenes leads to a loss of the scene itself and poet's pain and agony at this calamity is clear from the lamentation.

The 'inscape' of the rural scene that is imprinted in the poet's mind still evokes an 'instress' that is all powerful and difficult to ignore. So, in powerfully evocative terms he laments the lost rural scene caused by the reckless felling of trees that gave the landscape its distinctive inscape: The sweet especial scene, / Rural scene, a rural scene, / Sweet especial rural scene" (22-24). As someone who saw the country landscape with the trees and cherished its beauty, the poet is unable to come to terms with its loss. Hopkins laments that: "After-comers cannot guess the beauty been" (19).

Conclusion

"Binsey Poplars" functions as a prophetic warning that transcends its 19th-century origins. Hopkins' fusion of scientific temper and spiritual depth allows him to articulate a truth that remains central to contemporary ecocriticism: the environment is not a passive resource, but a complex web of "inscaped" beings whose destruction diminishes the human observer as much as the landscape itself. By linking the felling of trees to the "prick" of an eyeball, Hopkins asserts that to destroy nature is to blind ourselves to the divine presence in the particular. His engagement with the laws of entropy suggests a universe in a state of precarious balance, where

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human “delving and hewing” threatens to accelerate a final, irreversible disorder. In the face of the modern climate crisis, Hopkins’ lament for the “sweet especial rural scene” serves as a call to recover a “right perception.” He leaves the “after-comers” with a sobering realization: the protection of the earth requires more than policy; it requires a radical re-centering of the human gaze to recognize the intrinsic worth of every “growing green.”

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