Climatic Changes in Kim Robinson Stanley's Fifty Degrees Below: An Eco – Critical Study

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Abstract

This chapter examines the intersection of literature and the Earth's environment through the lens of eco-criticism, focusing on the depiction of climate change in Kim Stanley Robinson's Fifty Degrees Below. *Eco-criticism, as a theoretical approach, explores the relationship between human society, literature, and the natural world, challenging traditional literary analyses by centering the physical environment. The chapter discusses how Robinson's work exemplifies this connection, particularly through its portrayal of environmental crises caused by climate change. It investigates the role of genre, specifically science fiction, in representing global environmental issues, with a focus on the utopian aspects of Robinson's narrative. The chapter further critiques eco-criticism's political dimensions, emphasizing its focus on non-human entities and the broader ecological system. By analyzing* Fifty Degrees Below, *the chapter underscores the necessity of rethinking humanity's relationship with nature, suggesting that the Earth's future depends on both scientific innovation and ecological responsibility. The study ultimately calls for a more profound connection between humans and the natural world, advocating for a sustainable and conscientious approach to environmental challenges.*

Keywords: *Eco-criticism, climate change, Kim Stanley Robinson, science fiction, utopia.*

Eco-criticism can be defined as the observation and study of the connection between literature and the Earth's environment. It has one foot in literature and the other in the land as a theoretical discourse, negotiating between the human and the non-human. This chapter highlights the importance of concern for nature, specifically by examining the work of the American writer Kim Stanley Robinson, *Fifty Degrees Below*.

Eco-criticism can be characterized by distinguishing it from other critical approaches. Literary theory, in general, examines the relationships between writers, texts, and the world. In most literary theory, the world is equated with society—the social sphere. Eco-criticism broadens the concept of the world to encompass the entire ecosphere. If we accept Barry Commoner's first law of ecology, "Everything is connected to everything else," we must conclude that literature does not exist above the material world in some aesthetic ether but rather plays a part in an immensely complex global system, where energy, matter, and ideas interact. Eco-criticism adopts an earth-centered approach to literary studies. It is the exploration of the connection between literature and the physical environment.

The issue of climate change and its illustration in literary texts provides a way of appreciating the relevance of genre to Eco-critical endeavors. Kim Stanley Robinson's *Science in the Capital* trilogy, whose depiction of climate change is shaped by the author's generic inheritance, benefits from Robinson's strong reputation as a science fiction author.

Before proceeding, however, it is worth considering some basic questions. What kind of application has Eco-criticism become? One often-quoted definition of Eco-criticism is the one offered by Cheryll Glotfelty in her introduction to *The Eco-Criticism Reader*: Eco-criticism, to put it simply, is the study of how literature and the natural world interact. The simplicity of this broad claim misleadingly suggests an innocence of motive for Eco-criticism: presenting Eco-critical application as a neutral analysis of the relations between the literary and the environmental is to overlook its politics. Indeed, some Eco-critics have emphasized the material existence of this application over its philosophical or political dimensions. For instance, Scott Slovic states, "Eco-criticism has no central, dominant belief or theoretical apparatus—rather, Eco-critical theory, as it is, is being redefined daily by the actual practice of thousands of literary scholars around the world" (Slovic, 2008, p. 5). However, even in Glotfelty's account, the politics of Eco-critical application is both announced and concealed; announced because it is explicitly expressed, but concealed because it is conceptualized as a default position—note the work done by the initial "Just as" Glotfelty writes: Eco-criticism adopts an earth-centered approach to literary studies, just as feminist criticism analyzes language and literature from a gender-conscious viewpoint and Marxist critique incorporates an understanding of economic class and modes of production into its reading of works. The political position adopted by Eco-criticism, expressed here as "earth-centered," is a narrowing of the definition of environment to include the natural and non-human, and a stated preference for the non-human over the human.

It is hardly surprising, then, to find that Eco-criticism actively refrains from humanistic emphases in literary criticism, particularly structuralist and post-structuralist approaches, as these view the world primarily as material, constructed, and thus never natural. Timothy Love, for example, identifies a division in literary criticism between what he calls "Eco-consciousness" and "ego-consciousness," "nature-endorsers" and "nature-skeptics." According to Love, "the most harmful contemporary version of this ego-consciousness is the extreme subjectivism of much postmodernism... Such subjectivism intimates no reality, no nature, beyond what we construct within our own minds" (Love, 2003, p. 68).

One place in which to explore the possibilities of generically aware Eco-criticism is in the fictional discourse of climate change. The question of climate change, much more abstract than, say, rocks, and so ideologically charged, offers greater scope for exploring the process by which understandings of the environment, and, in this case, of environmental crisis, might be shaped by generic conventions and situated within generic habitats. Apart from Robinson's trilogy, several well-known novels have recently portrayed climate change (or related phenomena like rising sea levels and global warming). These include Ian McEwan's Solar (2010), Will Self's The Book of Dave (2006), Cormac McCarthy's The Road (2006), Liz Jensen's The Rapture (2009), and Margaret Atwood's Oryx and Crake (2003). Imaginative narratives about climate change span a broad variety of genres, as this by no means comprehensive list indicates. Yet, some notes on the generic possibilities of fictional representations of climate change can be made here. The dramatic and emotional contours of climate change relate to the future, not the past or present, for, although climate change may be happening now, it is what this changing climate will result in—its predicted impacts—that are of concern. This leads, usually but not inexorably, to genres that deal with future worlds. It explains the reliance, noted by Ursula Heise, on "apocalyptic narrative." Indeed, one could plot cultural representations of climate change along a line from imagined present to imagined future, for example, starting with the present day of *Solar*, to the less definable temporality of *The Road*, and on to the much less recognizable world of *The Book of Dave*.

One possible appeal in constructions of climate change, then, lies in the way a far-off, climate-changed world is imagined. Unsurprisingly, as with Atwood and Self, some writers feel compelled to draw on the strategies of one of the primary genres of futuristic imagining: science fiction. According to Lawrence Buell, science fiction is the genre that most closely resembles a planetary level of thinking "environment." According to Buell, science fiction is often "ecology-lite," in terms of expressing a feeling of location.

However, the generic techniques of science fiction are unquestionably helpful when it comes to encompassing a sense of planet, and especially a global environmental phenomenon like climate change. Science fiction, according to Darko Suvin's masterful description of the genre, is "the literature of cognitive estrangement," with its world-building urge manifested in the development of what Suvin refers to as a "novum," or a world of "strange newness."

Specifically, Robinson identifies himself as a utopian science fiction writer, in a way that has significant implications for any reading of his representations of climate change. It is worth understanding, then, the links between science fiction and the utopian, a relationship much commented on by science fiction critics. Since science fiction "has always been wedded to a hope of finding in the unknown the ideal environment, tribe, state, intelligence, or other aspect of the Supreme Good (or to a fear of and revulsion from its contrary)," Suvin believes that the two are inseparable (Suvin, 1979, p. 17). In this analysis, it is worth noting the difference between the utopian and the dystopian: the fundamental distinction lies in the relative superiority or inferiority of the alternative world to the reader's world.

However, nuances exist, as with Tom Moylan's descriptions of "critical utopia" and "critical dystopia." These are characterized by their open endings: the former "rejects utopia as blueprint while preserving it as a dream" and the latter "not only critiques the present system but also begins to find ways to transform it." In short, these more sophisticated forms recognize the possibility of perfectibility while acknowledging the reality of a flawed world. Thus, critical utopias and dystopias allow the reader to navigate between hope and despair, while what one might term simple utopias and dystopias run the risk of either a bland happiness or an unrelenting bleakness.

In his overt identification with the Utopian, Robinson demonstrates a degree of generic nous, not just because he breaks with late twentieth-century trends in science fiction toward dystopia, but because he redefines the form in a way that builds upon the notion of the critical utopia. When discussing the Mars trilogy, Robinson refutes claims that utopia is unrealistic, unworkable, and authoritarian. Instead, he maintains that utopia must be saved as a concept that refers to the pursuit of a more global and egalitarian society. When he wrote the Science in the Capital trilogy, he made the observation that Utopia is a term used to describe a progressive historical trajectory in which things become more sustainable and equitable throughout time. Even though we're not there yet, we could still be considered to be on the route to a utopian past based on our actions and those of our successors. And it appears to us that the excellent work is still ongoing.

Not only does the utopian terraforming of Mars change the planet's biology, but it also creates a space where humans are fashioned by Mars—even as Mars is terraformed—and are politically and philosophically changed in the process. The Mars trilogy defines Eco-economics as a sort of ethically

conscious, scientifically educated, green socialism that permeates Martian society after decades of dispute, consultation, and ultimately accord.

American writing in English has become a dominant area today in the arena of world literature. This is due to the fact that it closely studies the lives of utopia in American people suffering; climatic changes because of high temperatures should be credited with placing Robinson's writing in English in its highly esteemed position. This follows in Kim Stanley Robinson's trilogy novels, which begin with *Red Mars* (1990), *Fifty Degrees Below* (2005), and *Forty Signs of Rain* (2004)—novels that show the genre of Eco-criticism in the context of climatic change.

Through the climatic changes in America, author Robinson picks up the novel *Fifty Degrees Below*. The story begins as Frank has decided to stay with the NSF (National Science Foundation) for another year. . But after surviving an almost biblical flood, he discovers homeless people who are unable to find reasonably priced housing. Frank makes the decision to "go feral," much like the National Zoo's fugitive exotic animals. Here, he learns the importance of America's forests. He then builds a treehouse in the neighboring park so that he can live even when the winter temperatures respond to the polar ice caps melting, which totally interrupts the warm Atlantic Gulf Stream.

Following this, Frank starts doing "science-y things" with Nick, the Quibbler's older son, and he becomes close yet informal with Diane, his boss at NSF. After that, they talk about scientific procedures for a while. Frank considers the unique bond between humans and nature throughout the narrative, as well as how our conflict with the environment has influenced our attitudes toward both the natural world and other people. In fact, he changes into a scientist who cares about society. Surprisingly, certain noteworthy aspects of weather events—such as drought almost everywhere else, extreme rain in California, and tornadoes along Canada's East Coast—seem to be almost forgotten.

Conclusion

Thus, the chapter proposes that the bond between humans and nature is an unavoidable one for constructing a better life on Earth. The innermost character of human beings is simple and plain, where humans, despite being nature lovers, are gradually suppressed by the modern, tricky world. The continuous alarms through natural calamities serve as a notice to humans to listen to their inner voice that nature should be properly cared for.

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