

Return to the Paleolithic: A Study of Kim Stanley Robinson's Selected Climate Fiction as a Narrative of Degrowth

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Abstract

As global environmental crises escalate, climate fiction (cli-fi) provides a crucial framework for imagining sustainable ecological futures. This study examines Kim Stanley Robinson's climate fiction works *Fifty Degrees Below* and *Sixty Days and Counting*, the concluding volumes of his *Science in the Capital* trilogy. Utilising Serge Latouche's Degrowth theory as a critical lens, the paper analyses how the selected works incorporate the "8Rs of Degrowth"—Re-evaluate, Reconceptualize, Restructure, Redistribute, Relocalize, Reduce, Reuse, and Recycle. Through close textual analysis, the study demonstrates how these principles manifest in the daily lives of characters. Latouche's 8Rs framework provides a practical roadmap for transitioning towards sustainable societies and Robinson's cli-fi provides a crucial cultural site for imagining sustainable ecological futures. The intersection of degrowth theory and climate fiction offers a valuable area for future interdisciplinary

research, particularly in exploring how literary narratives shape ecological consciousness and contribute to emerging visions of sustainable futures.

Keywords: *climate fiction; paleolithic; sustainability; degrowth; climate change*

Introduction

We are living in the age of accelerating climate crisis and climate fiction is playing an important role in reshaping the ethical dimensions between human and the nonhuman world. Kim Stanley Robinson has emerged as an important writer of climate fiction (cli-fi) with works like *Antarctica* (1997), *Science in the Capital* trilogy (2004–2007, condensed as *Green Earth* in 2015), *2312* (2012), *New York 2140* (2017), and *The Ministry for the Future* (2020). In 2008, Time magazine named Kim Stanley Robinson a “Hero of the Environment” for his realistic, optimistic focus on the climate challenges of the present as well as of the coming future and providing viable solutions for a sustainable and just society. This study will focus on *Fifty Degrees Below* and *Sixty Days and Counting*, the last two parts of the *Science in the Capital* trilogy by Robinson. Serge Latouche’s theory of Degrowth is used as a critical framework to analyse the selected works. Serge Latouche in his seminal work, *Farewell to Growth* (2019) defines Degrowth as, “... a political slogan with theoretical implications, or what Paul Ariès (2005) calls an ‘explosive word’ that is designed to silence the chatter of those who are addicted to productivism” (7). He further writes, “The slogan of ‘de-growth’ is primarily designed to make it perfectly clear that we must abandon the goal of exponential growth, as that goal is promoted by nothing other than a quest for profits on the part of the

owners of capital and has disastrous implications for the environment, and therefore for humanity” (8).

Kim Stanley Robinson in the selected works advocates the idea of degrowth and his characters also live their life in harmony with nature by limiting excessive use of resources. The trilogy is set in Washington, D.C. which gets flooded resulting in huge damage to property and infrastructure. In *Fifty Degrees Below* (2005) the flood destroyed “thousands of residences, and damaged thousands more beyond immediate repair and reoccupation” (Robinson 9). Although it lasts no more than a week, it wreaks havoc in the city. The river Potomac inundates into a lake of about several square miles. This leads to loss; loss of lives, property, shelter, and homes. People living in vulnerable areas suddenly become homeless and one such character among them is Frank Vanderwal. He is a scientist at National Science Foundation (NSF), in Washington, D.C. He too is affected by the sudden floods because of abrupt climate change. When he becomes homeless, he decides to return to the wilderness, to go back to the ways of primitive men. He joins a volunteer group named Feral Observation Group (FOG). Their job is to track the zoo animals, which went missing, during the flood and guide them back to safe zones after they scattered across the city. Some of these missing animals include tigers, jaguar, gibbons, and siamangs. Being a member of the FOG, Frank had the permit to tread into areas like Rock Creek Park, entry to which was forbidden to the general public. In the park, he would spend his time looking for the lost animals— an experience which he describes as, “A kind of return to the paleolithic, right here in Washington, D.C. Repaleolithization: it sounded very scientific, like the engineers who spoke of amishization when they meant to simplify a design. Landscape restoration inside the brain. The pursuit of happiness; and the happiness was in the pursuit (48). Spending time in the Rock Creek Park, which was vibrant with the music of flora and fauna made him relaxed, “watchful but relaxed” (49). Frank decides to put his experiment of “repaleolithization

project” into action, but he was also aware of the modern society he was living in. The society in which people were addicted to the convenience of technology. Frank muses, “The technological sublime made everything magical, as if they were all tripping with the shaman—but all the time, which was too much. They had therefore, lost touch with reality, gone mad as a collective” (49). To restore his touch with reality, h pursues the project of palaeolithic living in the twenty-first century. He makes a tree house for himself in the middle of the Rock Creek Park and starts living there. After his office hours, he maintained a distance from human society and starts living in the lap of nature, away from human controlled environment, which made him happy: “No one would see it. He was in his own space, and yet at the same time right in the middle of Washington, D.C. One of the ferals in the ever-encroaching forest. ‘Oooop, oop oop oooooop!’ His tree swayed back and forth in the wind. He switched off his lamp and slept like a babe” (59). Living in the tree house was his first attempt of the project Repaleolithization.

Repaleolithization is a concept introduced by Kim Stanley Robinson in the second part of the trilogy, *Fifty Degrees Below*. This term is derived from the ancient age called ‘Palaeolithic or the old Stone Age’—the age when the tools were first made using stones by the hunter-gatherers. The age roughly ranges from 2.6 million years ago to circa 10,000 BC (Groeneveld). It’s an attempt to return to the lifestyle that was sane for the mental and physical well-being of humans. This lifestyle involved some kind of activities which Frank Vanderwal considered essential for living a healthy and happy life; which were practiced during the ancient geological times and contributed to the evolution of beings but are now abandoned and long forgotten in the modern urban life. As an experiment on himself, he tries to pursue those activities listed as Palaeolithic behaviours by anthropologists. These activities are not merely nostalgic but also help in stimulating the brain to its great expansion. Some of

these activities include, “talking... walking upright...running...dancing...singing... stalking animals” (147). Frank had some degree of success in his experiments despite living in the midst of an urban environment. According to Frank, returning to ancient practices can help to maintain a sustainable lifestyle in the age of consumerism, which is a primary byproduct of economic growth. The main idea behind growth is nothing but the capitalist's desire for profits and it has led to catastrophic implications for the environment and humanity. To counter the narrative of endless growth, the theory of Degrowth emerged as a direct alternative. It helps us to envision a society in which everyone works less and has better lives while consuming less.

Degrowth is a process to limit growth. It is democratically planned, selective, voluntary, equitable and just economic downscaling to reinstate environmental balance and well-being. It is democratically planned through constructed and well arranged participatory processes that control how assets and resources are re-allocated and reduced. It is selective because it targets the prodigal, wasteful, high-consumption, demanding, capital-intensive forms of private consumption like fast fashion, private jets, or disposable products—instead of imposing sweeping cuts and blanket reductions across all spheres. It is voluntary because it originates from a conscious and intentional choice to restrict material and energy use rather than sudden cutbacks caused by unexpected outside factors. It is equitable because it ensures that there is fair distribution of responsibilities, risks, and advantages of economic downscaling. Realising this vision demands a complete overhaul of both the supply systems for human needs and the commercial frameworks and perceptions that determine them (Lloveras and Pansera 645).

The origin of the term “Degrowth” can be traced back to the French intellectual and political theorist André Gorz, who first used the French term “décroissance” during a debate published in the French news magazine *Le Nouvel Observateur* in 1972, to raise question

about the compatibility of ecological balance with the capitalist system. It was used occasionally in the 1970s and 1980s in environmental and ecocritical debates about unprecedented development, industrialism, capitalism and limits to growth (Alisa et al.). In English, the word *décroissance* translates to degrowth. The term gained momentum in the 2000s in France and adjoining Southern European countries when “Degrowth” was used as a political slogan to protest against the capitalist megaprojects and consumerist advertisements. Currently, degrowth operates as both an emerging social movement and an interdisciplinary academic field. It simultaneously provides a sharp critique of modern society’s obsession with economic growth while actively exploring and implementing sustainable alternatives (Kallis et al. 292). The degrowth model proposes a policy of radical reorganisation of societies in such a way that societies can flourish beyond the idea of economic growth. Interdisciplinary research undertaken by trained historians with non-historians such as natural and social scientists has led to the establishment of a new field of ‘ecological economics’ named by Juan Martinez-Alier, which investigates the implications of past economic ideas on the environment (Martinez-Alier xi). According to Latouche the model of growth operates on the principle of excess and is leading this whole planet into a blind alley. One of the major issues that is affecting everybody today is climate change, which is the direct result of this unprecedented economic growth. In his seminal work, *Farewell to Growth*, Serge Latouche, the pioneer of the degrowth movement emphasises that nobody could disagree with the premise that “exponential growth is incompatible with a finite world and that our capacity for consumption must not exceed the biosphere’s capacity for regeneration” (3). Using this premise as the base, this paper will build on Latouche’s theory of Degrowth and analyse Robinson’s selected cli-fi using the theoretical framework of ‘8Rs of Degrowth.’ Through close textual analysis of the selected works, the paper attempts to demonstrate how the 8Rs—

Re-evaluate, Reconceptualize, Restructure, Redistribute, Relocalize, Reduce, Reuse, and Recycle—are incorporated into the daily lives of characters and institutions that are trying to mitigate climate change. Latouche's 8 Rs framework provides a practical roadmap for transitioning towards sustainable societies and Robinson's cli-fi provides a crucial cultural site for imagining sustainable ecological futures.

Robinson helps to cultivate a new environmental imagination essential for sustaining the world in the age of climate change and technological prowess. The contemporary society is seeing the effects of abrupt climate change everywhere, from droughts to floods to tornadoes to cyclones to forest fires, climate change is causing disruption in everybody's life and everybody is affected by it on some scale. One of the major factors behind this accelerating climate change is the rising capitalism which has led to resource depletion and loss of biodiversity. The desire for unprecedented economic growth which is driven more by greed than need is leading to environmental loss and resource extraction on alarming scale. Latouche critiques this model of growth and proposes a cyclical model of transformation; a paradigm of degrowth which challenges the dominant ideology of growth, an 8R framework of degrowth which is discussed below:

1. *Re-evaluate*: It is the process of shifting values from consumerism to sustainability. Latouche talks about the importance of re-evaluating ourselves and to bring back the values like altruism, cooperation, importance of social life over unbridled consumerism etc. In *Sixty Days and Counting*, in an address to the general public, President Phil Chase emphasises on the importance of our moral values as a generation who are the major reason behind abrupt climate change. He says:

...we will be exploring all peaceful means to initiate positive changes in our systems, in order to hand on to the generations to come a world that is as

beautiful and bountiful as the one we were born into. We are only the temporary stewards of a mighty trust, which includes the lives of all the future generations to come. We are responsible to our children and theirs. What we do now will reveal much about our character and our values as a people. We have to rise to the occasion, and I think we can and will. (Robinson 93)

Incorporating these values and re-evaluating ourselves is very important in order to imagine a society functioning with the Degrowth model where the individuals are deep in the shackles of consumerism (Latouche 35). We need a profound ethical shift which is very aptly depicted in the Robinson's trilogy where he shows how characters' choice of lifestyle is affecting the ecosystem around them. And it leads us to think and evaluate that climate change is not merely a technical problem but a moral crisis. Frank Vanderwal, a scientist in the NSF, is disillusioned with modern society. After radically re-evaluating himself, he rejects consumerism by retreating into a semi-primitive lifestyle, a way to return and reconnect with nature. He is described by Robinson as "...adaptable...optimodal...paleolithic postmodern" (215).

2. *Reconceptualize*: Latouche urges to "reconceptualize and redefine/resize the concepts of wealth and poverty" (35). In the selected works, it is shown that in the face of ecological crisis, the traditional indicators of progress such as technological advancement and economic growth are rendered inadequate. Robinson reconceptualizes and redefines wealth as ecological stability and environmental and societal well-being. This reconceptualization is particularly evident in the scientific community's efforts to understand and mitigate climate change. Frank Vanderwal challenges the conventional notions of wealth by embracing simplicity and living among nature. In *Sixty Days and Counting*, when Frank's home is

washed away in the flood. He decides to live outdoors, in nature. Spencer, another character, encourages Frank about the outdoors, stating, "Life outdoors is a value in itself. You'll like it, you'll see" (201). And Frank does like it. Rather than measuring success through wealth, consumption, or technological sophistication, Frank redefines happiness in terms of physical well-being, closer relationship with nature, and reduced ecological impact. While conversing with Rudra about good correlations he says, "My good correlation is the one between living as close to a prehistoric life as you can, and being happy, and becoming more healthy, and reducing your consumption and therefore your impact on the planet" (271). The emphasis on reducing consumption is particularly significant as Latouche's principle of reconceptualization seeks to overturn the assumption that more goods automatically generate greater satisfaction. Frank proposes an alternative value system in which consuming less is not an act of sacrifice but a source of happiness and well-being.

3. *Restructure*: "'Restructuring' means adapting the productive apparatus and social relations to changing values" (Latouche 36). What Latouche urges for is institutional transformation. In the trilogy, government agencies like the newly elected Congress party, and scientific organisations like NSF try to find ways to mitigate climate change which involves restructuring at the ground root level. In *Sixty Days and Counting*, the winning of elections by an environmentally conscious administration marks a turning point in the restructuring. Climate change mitigation policies signal a shift towards sustainability. Also, it emphasises the importance of liberal media which has become a myth now. Everything we watch on news channels is biased reporting in favour of capitalism to promote consumerism. The capitalistic lies, such as consumerism wouldn't harm anybody, were propagated:

The rules of capitalism favor size and the economies of scale, and so the big corporations, following all relevant legal opportunities, bought up all the mainstream media. Then the message went out coordinated by constant

feedback and dialogue using only a certain limited vocabulary and logic, all within a kind of groupthink, until all the media said the same thing: buy things! This moment in history is a good one and will last forever! Nothing can change, so buy things. But then this weather thing came along. It put the lie to the reality we believed in. So that all began to look a little fishy. (Robinson 356)

Latouche argues that capitalistic institutions have been structured to reproduce the growth imaginary—the widespread belief that continuous economic expansion and increased consumption are both desirable and necessary. According to Latouche, restructuring requires challenging the imaginary and replacing it with values centred on sufficiency, community, and ecological sustainability. Robinson's reference to unusual weather exposes the contradictions of the growth-based system and the dominant narrative promoted by media and corporations. The belief in endless growth becomes increasingly difficult to sustain when ecological realities become visible. This creates an opportunity for degrowth restructuring because people begin to question existing institutions and assumptions.

4. *Redistribute*: Here Latouche talks about how wealth is distributed disproportionately between global North and South and, between different classes, generations, societies and individuals. And redistribution of wealth is important and will have a positive impact on the reduction of consumption by the 'world consumer class' as the global North has contracted a huge 'ecological debt' to the South (36-37). In Robinson's trilogy, the contrast can be seen between New Yorkers, part of the global North and the people from the flooded island of Khembalis, which is part of the global South. Robinson portrays the global disparities in climate justice and vulnerability. Latouche insists that reducing consumption in affluent and

consumerist societies must be accompanied by improving living conditions in the developing countries and poorer regions. As he opines, “it is not so much a matter of giving more as of taking less”(37). In *Sixty Days and Counting*, policymakers and scientists while discussing about the cost of climate change mitigation projects on the host countries decides that “...the most prosperous quarter of humanity could find ways to compensate the people, often poor, who would be negatively impacted by the creation of these reservoirs [sea water markets]” (Robinson 242). Latouche also talks about ecological footprints as a way to determine the ‘drawing rights’ of each country so that a healthy balance could be maintained between North and South. In *Sixty Days and Counting*, President Phil Chase, while addressing fellow Americans on dealing with the problem of climate crisis, says, “We will also help the under developed world to develop using clean technology, so that all the good aspects of development will not be drowned in its bad side effects—often literally drowned. In our own country, meanwhile, we will do all it takes to shift to clean technologies as quickly as possible” (Robinson 91).

5. *Relocalize*: Latouche advocates the idea of relocalization as a way to foster community resilience. Robinson reflects this concept through the emphasis on local ecosystems and practices. The Chesapeake Bay region becomes a central hotspot for ecological awareness and interconnectedness. Frank Vanderwal’s reliance on his local resources exemplifies bio regionalism as he starts adapting his lifestyle to the environmental conditions around him. Frank joins the group of ferals living outdoors:

There were feral subcultures: there was a farmers’ market wing, and a hunters’ crowd, and dumpster purists, and many other ways of going feral in the city...Same crowd as always, a mix of young and old. Neo-hippie and postpunk. Some new thing that Frank couldn’t name with a media label. The

fregan way. Mix of races, ethnicities, modes of operation. A potluck indeed.
(*Sixty Days and Counting* 352-353)

Latouche opines, “If we wish to build a serene de-growth society, relocalization is not just an economic issue: politics, culture and the meaning of life must rediscover their local roots. This implies that all economic, political and cultural decisions that can be made at the local level must be made at that level” (38). In his trilogy, Robinson raises an important question, “If people walked away from the old mass culture of mass consumption, and everybody did something homegrown, what would that look like?” (353). Robinson’s question directly echoes the degrowth concern. The passage imagines a society where people produce more of what they need locally, thereby reducing ecological footprints and challenging the logic of perpetual economic growth. From a Latouchian perspective, this lifestyle represents a movement away from the alienation of consumer society towards a more embedded form of living within local communities and ecosystems. Thus, “the feral life, the most extreme set of habits Frank had lived so far. A life on foot, hand to mouth, among friends and strangers. Maybe this was how people lived, no matter what” (Robinson, *Sixty Days and Counting* 355). Frank’s “feral life” becomes a symbolic representation of the degrowth ideal—a way of living that prioritises human relationships and local resilience over the excesses of mass consumption and globalised capitalism.

6 *Reduce*: “‘Reducing’ means, first of all, reducing the impact of our ways of consuming and producing on the bio-sphere” (Latouche 38). It is very important to reduce our habits of over consumption and wastage. Most of the products in the market are used only once, approximately 80% of them and then are thrown into the dustbin which still has use (Hulot 237). Four billion tonnes of waste is produced by the rich countries every year (Maris 327).

Another thing that needs reduction is mass tourism as tourist industry has manipulated the educational curiosity into a consumerist consumption which is the result of supermodern life as everybody wants to post themselves on virtual reality at the expense of the planet, which in turn is destroying the nature, culture, and social well-being of the target countries (Latouche 38-39). Further, Latouche talks about reducing the work load. He gives the idea of job-sharing so that anybody who is looking for a job can find one. He says:

We must be weaned off our addiction to 'the job', as it is a major element in the tragedy of productivism. We will not be able to build a serene de-growth society unless we rediscover the repressed dimensions of life: the leisure to do one's duty as a citizen, the pleasure of the freedom to engage in freely chosen arts and crafts activities, the sensation of having found time to play, contemplate, meditate, enjoy conversations or quite simply to enjoy being alive. (40-41)

In *Sixty Days and Counting*, Frank tries to rediscover these 'repressed dimensions of life'. He plays frisbee with bros, he goes kayaking and many more activities. In a conversation with President Phil Chase, Charlie says, "So soon the whole planet will be developed and modernized and we'll all be happy! Except for the fact that it would take eight Earths to support every human living at modern levels of consumption! So we're screwed!" (377). In *Fifty Degrees Below*, Spencer, Frank's frisbee friend, who thinks of himself as feral, tells Frank about the triviality of money where he shows him a lot of ways by which they can get shelter and food for free. They can take shelters in empty buildings, do some labour during the day or street theatre. According to him a little money helps and we do not need a lot of it. He gives this wonderful idea of living, where he says, "—you can step outside the money economy almost entirely. Live off the excess, so you don't add to the waste. You reduce waste, you pour energy back into the grid" (Robinson 286).

7. *Reuse* and 8. *Recycle*: While less explicitly emphasised, Robinson uses the principles of reuse and recycle in the trilogy's depiction of sustainable technologies and practices. Scientific innovations and solutions are directed towards minimising waste and maximising resource efficiency. Worried about the carbon burn of their house, Anna and Charlie decide to leave their house so that they can start group living with the Khembalis. As 'group living' is a way to use less resources and save more. It is very thrifty also as Anna says, "Energy consumption would be only a fraction of that used by an ordinary suburban house" (Robinson, *Fifty Degrees Below* 535). Spencer advises Frank to reduce consumption and reuse things by "scaveng[ing] clothes or buy in thrift shops" (286). This advice represents a practical rejection of the wasteful culture of disposability that Latouche criticises. Therefore, through the lens of Latouche's concepts of reuse and recycle, Spencer's advice represents more than a strategy for frugal living. It becomes an example of degrowth in practice: reducing consumption, extending the life of existing products, minimising waste, and resisting the capitalist imperative to continually buy new commodities. Robinson thus presents reuse and recycle as both environmentally sustainable practices and a challenge to the culture of overconsumption.

Conclusion

Kim Stanley Robinson's cli-fi works presents a powerful vision of a world struggling to cope with the consequences of climate change. Through the experiences of characters such as Frank Vanderwal and through the efforts of scientists, policymakers, and ordinary citizens, Robinson explores alternative ways of living that challenge the culture of excessive consumption and economic growth. When read through Serge Latouche's theory of Degrowth, the works reveal the importance of rethinking contemporary ideas of progress,

development, and prosperity. The principles of the 8Rs of Degrowth— Re-evaluate, Reconceptualize, Restructure, Redistribute, Relocalize, Reduce, Reuse, and Recycle find meaningful expression in the lives of Robinson's characters and in the environmental policies proposed within the narrative. Frank's attempt to reconnect with nature, his reduced dependence on material comforts, and his search for a simpler and more sustainable way of life reflect the values that Latouche associates with a degrowth society.

Robinson's climate fiction does not merely depict environmental catastrophe; it also offers hope by imagining practical alternatives to the growth driven model that has contributed to the present ecological crisis. Robinson's work illustrates how climate fiction bridges scientific understanding and social imagination, enabling readers to engage with complex environmental challenges beyond conventional policy and economic debates. Consequently, the intersection of degrowth theory and climate fiction offers a valuable area for future interdisciplinary research, particularly in exploring how literary narratives shape ecological consciousness and contribute to emerging visions of sustainable futures. This body of literature ultimately encourages readers to recognise the limits of endless consumption and adopt more sustainable, responsible ways of inhabiting the planet. Failing to do so risks realising the grim warning of Latouche : "Where are we going? We are heading for a crash. We are in a performance car that has no driver, no reverse gear and no brakes and it is going to slam into the limitations of the planet" (2).

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