

## Reimagining Humanity in the Anthropocene: Posthumanism and Climate Fiction in Margaret Atwood's MaddAddam Trilogy as Case Study \*

*Antroposen Çağında İnsanlığı Yeniden Düşünmek: Margaret Atwood' un DelliAddem Üçlemesi'nde Bir Örnek İnceleme*

### ABSTRACT

The Anthropocene is an epoch marked by significant and irreversible human impact on the Earth's geology and ecological diversities. Over the years, human beings continually alter the Earth's ecosystems and atmosphere, and the ultimate result is turning out to be more than a climate change, a potential system collapse (Glotfelty, 1996). This article offers a comprehensive literature review of the Anthropocene, tracing its historical evolution and examining the theoretical perspectives it has inspired. Building on Dipesh Chakrabarty's influential work, *The Climate of History: Four Theses*, the study reflects on the need to reconceptualize human history within the framework of the Anthropocene. Alongside Chakrabarty, the article draws from posthumanist thinkers such as Donna Haraway and Rosi Braidotti, whose work emphasizes the importance of coevolution strategies and all species' living in harmony. Braidotti's posthumanism, with its focus on interconnectedness and the ethical implications of co-existing with non-human life, provides a critical foundation for this discussion. By connecting these theoretical insights to climate fiction and posthuman themes, this article examines how Margaret Atwood's *Maddaddam Trilogy* series urge readers to rethink humanity's role in a shared biosphere, advocating for interdependence, accountability, and transformative possibilities in an ecologically precarious era.

**Keywords:** Anthropocene, Posthumanism, Climate Fiction, Ecological Crisis, Margaret Atwood

### ÖZET

Antroposen, insanın Dünya'nın jeolojisi ve ekolojik çeşitliliği üzerinde önemli ve geri döndürülemez etkiler bıraktığı bir dönemi ifade eder. İnsanlar, yıllar boyunca Dünya'nın ekosistemlerini ve atmosferini sürekli olarak değiştirmiş ve bu değişimlerin nihai sonucu yalnızca bir iklim değişikliğini değil, potansiyel bir sistem çöküşünü de beraberinde getirmiştir (Glotfelty, 1996). Bu makale, Antroposen' in tarihsel gelişimini izleyen ve bu dönemin ilham verdiği teorik perspektifleri inceleyen kapsamlı bir literatür incelemesi sunmaktadır. Dipesh Chakrabarty' nin etkili çalışması *Tarihin İklimi: Dört Tez'* e dayanarak, insanlık tarihini Antroposen çerçevesinde yeniden kavramsallaştırmanın gerekliliğine işaret eder. Ayrıca, Donna Haraway ve Rosi Braidotti gibi posthumanist düşünürlerin fikirlerinden faydalanarak, "birlikte-olagelme" stratejilerinin ve tüm türlerin uyum içinde yaşamasının önemini vurgular. Braidotti'nin posthümanizm teorisi, insan olmayan varlıklarla "birlikte var olmanın" etik sonuçlarını ve karşılıklı bağımlılık ilişkilerini ele alarak bu tartışmaya kritik bir temel sağlar. Bu teorik yaklaşımlar, iklim kurgusu ve posthüman temalarla ilişkilendirilerek, Margaret Atwood'un *Delliaddem Üçlemesi'* nin okuyucuları, paylaşılan bir biyosferde insanlığın rolünü yeniden düşünmeye teşvik etme biçimini inceler. Atwood' un eserleri, ekolojik krizlerle şekillenen bir çağda, karşılıklı bağımlılığın, hesap verebilirliğin ve dönüştürücü yaklaşımların önemini ortaya koyar.

**Anahtar Kelimeler:** Antroposen, Posthümanizm, İklim Kurgu, Ekolojik Kriz, Margaret Atwood

### INTRODUCTION

The human impact on ecology has been debated for centuries, yet this influence in the present times continues to shape the geological periods of Earth and only grows stronger. In the Holocene epoch, human activities increasingly took on a leading role as a serious geological force, drawing the attention of many researchers. Notably, G. P. Marsh even described this era as an era in which "the earth [i]s modified by human action" (quoted in Crutzen, 17). This is the time when new lands are discovered, humanity expands into new geographies, and with urbanization, a severe increase results in the human population worldwide. Thus, due to mass consumption, resources start to become scarcer. Over time, human activities gradually alter the Earth's ecosystems and

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atmosphere, with their impacts extending beyond simple climate change to the level of system collapse. This is not only the result of rapid population growth but also the exhausted underground, destroyed ecosystems, and the correlated course towards a changing climate. Thus, thoughtless human activities have brought Earth to the edge of an irreparable ecological collapse. This era was termed by the Nobel winning chemist Paul J. Crutzen and a marine science specialist, Eugene F. Stoermer as:

Considering ... [the] major and still growing impacts of human activities on earth and atmosphere, and at all, including global, scales, it seems to us more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term 'anthropocene' for the current geological epoch. (2021, p. 17)

Therefore, the Anthropocene epoch is essentially the period when the human impact on the Earth's geology and its ecological diversity was profound and often irreversible (p. 17). This epoch is proposed to be late 18th century viewing the scientific data –atmospheric changes as a result of greenhouse gases and biotic changes in lakes– which also corresponds with the invention of the steam engine in 1784 (p. 17). In other words, we can say that the era started with the beginning of industrialization that caused excessive utilization of fossil fuels.

Under the global change, there are the “human-driven alterations of the biological fabric of the Earth; the stocks and flows of major elements in the planetary machinery such as nitrogen, carbon, phosphorus, and silicon; and the energy balance at the Earth’s surface” (Steffen et al., 2007, p. 614). From the early ages, humans voluntarily or involuntarily caused a destructive impact on earth and its fauna. Even when preindustrial humans did not have the technology to dominate natural life, they were still impacting it in different ways. The beginning of human impact on nature could date back to the discovery of fire, which was a powerful and unique tool for humankind. Gradually, use of fire led to stone tool development and weapon making. While keeping dangerous animals away from humans, fire helped humanity to be better nourished with meat. Having a rich protein diet, humanity gained enhanced physical and mental capabilities. In the late Pleistocene era, due to overhunting and habitat alteration mainly caused by human migration patterns, megafauna extinctions were dated- numerous large animal species including mammoth and wombats became extinct. Next vital impact of mankind on fauna was the domestication of animals and plants under the scope of agricultural developments.

### THE STAGES OF ANTHROPOCENE EPOCH

To understand this epoch better, it is vital to view the stages introduced in an article by Will Steffen, Paul J. Crutzen and John McNeill. The first stage mentioned is the Industrial Era (Stage 1 of the Anthropocene), during when the invention of steam engine in 1770s increased the need for energy supplies. With the population growth also, the transition to a high energy society became urgent. Fossil fuel-based energy systems' introduction and growth may be directly linked to human influence on the planet: “atmospheric CO<sub>2</sub> concentration can be used as a single, simple indicator to track the progression of the Anthropocene, to define its stages quantitatively, and to compare the human imprint on the Earth System with natural variability.” (Steffen et al., 2007, p. 616). “During the course of stage one of the Anthropocene from 1850s to 1945, the CO<sub>2</sub> concentration rose by about 22 ppm” which presented the first unquestionable proof that human action had been creating a detrimental effect on the environment worldwide. This evidence demonstrated the undeniable connection between the onset of the Anthropocene and the industrial era.

The second stage of the Anthropocene was believed to be between 1945-the end of Second World War- to 2015 (p. 616). Following World War II, the global population surged, and there was an expansion in economy worldwide. Petroleum consumption and motor vehicle usage increased sharply, accompanied by a dramatic rise in populations living in cities. Cultures became increasingly interconnected through travelling and electronic communication, while human activities intensified significantly. This shift led to a marked rise in atmospheric greenhouse gases, driving a rapid increase in Earth’s temperature. Alongside these undeniable impacts, industrialization gained extraordinary momentum during the post-war period. Human lifestyles changed drastically as cities became the primary habitat, replacing rural areas as the characteristic environment for human life. The post-war era can thus be seen as a time of profound transformations, with a strong emphasis on research and technological advancement.

The third stage of the Anthropocene could be characterized as the era of heightened ecological awareness beginning around 2015. During this period, people increasingly recognized that human activities are altering the structure and functioning of the Earth's systems on a global scale. Societal concern about environmental issues began to rise significantly after the 1960s, and by the 1980s, temperature measurements confirmed that global warming was a reality. Rapid scientific advancements, the powerful influence of the internet as a unifying global system, the spread of independent media, and the growth of democratic political systems prompted people to rethink their actions. Regarding the role of humanity, some critics have highlighted how it has become “a self-conscious, active agent in the operation of its own life support system” (Steffen et al., 2007, p. 619).

However, over time, it was widely presumed that global change was a distant concern, reducing the perceived urgency for preventative measures. Resources were allocated to more immediate human needs, such as healthcare and education, rather than to long-term global change mitigation. Additionally, there was a misconception that economic systems possessed sufficient wealth and resilience to address and reverse the harmful effects of global change as needed.

## CLIMATE FICTION

Even though scientific visions of global warming have assumed to be triggered by the discoveries of the Swedish scientist Svante Arrhenius in 1890s, the real discussions of the topic in society began in the late 1980s (Chakrabarty, 2009, p. 198). Even it had not been regarded as a problem until 2000s, when the signals of problem were no more negligible. These warnings were not only politically but also economically undeniable:

[...] such as the drought in Australia, frequent cyclones and brush fires, crop failures in many parts of the world, the melting of Himalayan and other mountain glaciers and of the polar ice caps, and the increasing acidity of the seas and the damage to the food chain. (p. 198)

Gradually, humanity has begun to recognize the importance of technological advancements in mitigating the inevitable effects of global change. To decelerate global warming and stabilize atmospheric CO<sub>2</sub> concentrations, attention has increasingly turned toward research in the field of geoengineering. Although geoengineering presents potentially effective solutions, these approaches remain highly controversial due to the extensive alterations they entail and their long-term implications. This raises a critical question: could these interventions bring about adverse side effects that surpass the impacts of global change itself? Approximately 60% of ecosystem services are noted to be currently degraded, and this decline is likely to continue unless significant changes in public priorities and resource management take place (Steffen et al., 2007, p. 37). It is crucial for humanity to prioritize bold, innovative solutions grounded in wisdom.

Recognizing the profound impact of human activities on Earth's systems, one needs to critically reflect on humanity's role as a geological force. In this respect, Dipesh Chakrabarty's work, *The Climate of History: Four Theses* challenges us to rethink history and humanity's relationship with nature in the age of climate crisis. His work deals thoroughly with the relation of human history to climate change. It investigates the idea of the "Anthropocene" and how man has led a geological agent role in times of climate crisis. History was once framed primarily through societies and cultural interactions, but it must now also be considered from a planetary perspective. He suggests that the traditional separation between natural and human history must be reconsidered. Historians have been separating human history from natural history, since former one is human made, the second one is "God's work" and "inscrutable to man" (Chakrabarty, 2009, p. 201). In his book *Dialectical and Historical Materialism*, Joseph Stalin highlights the common thought of the historians in the mid-twentieth century as: "man's environment did change but changed so slowly as to make the history of man's relation to his environment almost timeless and thus not a subject of historiography at all" (p. 204). In his book *The Mediterranean*, Fernand Braudel opposed to these historians' views, which treated environment as a voiceless and inactive agent in human historical narratives, he and urged to spark public ideas on the possible manmade destruction (Chakrabarty, 2009).

For a long time, scientists believed that the earth system was so big that it could tolerate humans' actions. However, it is no more tolerable since the population grows each year, meaning that we cut more trees and use more fossil fuels. We have become "geological agents", who have altered the ecosystem and atmosphere, causing irreversible effects on the whole system (Oreskes, 2004, p. 93). In brief, Chakrabarty argued that climate scientists today view humans as geological agents, shaping Earth's systems on a massive scale, whereas the traditional history is merely a basic interaction between human beings and nature. Scholars such as Naomi Oreskes and Alfred Crosby indicate that until recently, humans were regarded as biologically influential but not capable of altering Earth geology to this degree (Chakrabarty, 2009, p. 206). Since the onset of the Industrial Revolution, human activity — such as deforestation and the burning of fossil fuels— has reached such high proportions that it can literally remake the climate of the planet, resulting in changes like sea level rise and extinctions of some kinds. This transformation erases the boundary between human and natural history, undermining traditional ways of Western philosophy, which often assumed humans as exempt from nature (p. 206-207).

Moreover, Chakrabarty argues that the Anthropocene, the new geological era in which people have become a geological force, questions the very foundation of conventional human centered histories of contemporary global society. While aiming human equality and emancipation, intellectuals from the Enlightenment failed in considering humanity's increasing influence as a force. It is said that ever since the Industrial Revolution, humans have greatly utilized fossil fuels, which, in return, have aligned humans' present-day freedoms with environmental consequences. The Anthropocene is not efficient about allowing one to make a line that separates human history

from natural history because of this immense influence of human activity on Earth's geology and ecosystem (p. 211). As a result, future responses to climate change may need a delicate balance of logic and politics, which are complicated. Climate scientists and intellectuals are now looking for global policies to address these results, but the Anthropocene raises concerns about our present political institutions' ability to well manage these long-term environmental situations (p. 212).

Traditionally, human history has concentrated on themes of freedom and growth within human civilizations. However, with humans now accepted as a geological force, we must analyze our species' deeper history and its influence on global circumstances. This entails considering both documented human history and "deep history" - humanity's long-term biological and evolutionary environment (p. 213). The "Anthropocene" concept compels us to connect economic critiques with "species thinking" concerning the long-term existence of humanity in Earth's ecosystems in ways hitherto little considered (p. 213). Combining these principles calls into question traditional knowledge, as humanity must reconcile capitalism's past with its role as a biological agency.

Chakrabarty investigates the notion of "species history" and its limitations within standard historical frameworks (2009, p. 219-220). He argues that thinking humankind as "species" is confusing for the ones looking from traditional historical perspective, which is mainly built on human experiences. Since humans cannot totally experience being a "species" or regard themselves as a geological force, they will only see the climate crisis as a shared danger instead of a shared human identity. Chakrabarty describes this as a "negative universal history" where humans encounter a collective threat without embracing it with a collective sense of identity (p. 222).

### POSTHUMAN PERSPECTIVES

Posthuman theory has become a guiding light for "where humanity is going" in the twenty first century. According to Rosi Braidotti, "posthuman theory is a generative tool to help us re-think the basic unit of reference for the human in the bio-genetic age known as 'anthropocene', the historical moment when the human has become a geological force capable of affecting all life on the planet (Braidotti, 2013, p. 5). Posthuman theory urges people to question their own impact on the natural and to take the responsibility of the damage caused.

Posthumanism rejects human exceptionalism and encourages a view where humanity is integrated into the larger web of life": Posthuman theory challenges "the classical ideal of Man" which suggested "the man as the measure of all things", asserted by renaissance and enlightenment ideas. (p. 5)

In humanist point of view there was a settled definition of "what is human" and the ones who did not fit in this definition were stigmatized. Humanism was the period of freedom, justice, development, breaking chains from religious limitations and reasoning. However, human/anthropos defined in humanism was white, western, powerful, and a speaker of one of European languages. Whoever did not fit in these categories did not belong to privileges of humanism ideals (Ağın, 2020). Posthumanism is opposing to these common assumptions. According to posthumanists, all beings and organisms, even non-living elements, have rights to be considered as important parts of the ecosystem (Opperman, 2012).

Posthumanist perspective highlights a post human existence while rethinking the human's effect on nature in Anthropocene. As Donna Haraway (2016) states that there are two major views on the results of horrors of the Anthropocene: one is the belief in God that "will somehow come to the rescue of its naughty but very clever children", and the second is the belief in the notion that "the game is over, it's too late, there's no sense trying to make anything better" (p. 3). However, without denying the hard times waiting for the humanity, she opposes to these two perspectives, putting forward a third possible way – "staying with the trouble" (p. 4). She promotes mutual becoming of organisms and states that by this third way "we require each other in unexpected collaborations and combinations, [...] we become-with each other or not at all" (p. 4). She urges us to put the relation between the natural and human along with the relation with human and technology under scope, analyzing the struggle of human in geological time periods –Anthropocene, Capitalocene, Chthulucene-, settling to the view that in order to "stay with the trouble", since humanity needs to avoid seeing dark visions of future or mourning about the beautiful past; adopt a "tentacular thinking" and "learn living and dying in response-ability on a damaged earth" (p. 2).

As Chakrabarty points out, the impact of the climate crisis on human history now requires understanding humanity's planetary impact rather than just the relationships between human societies. This point is not only viewed in the scientific academia, but the echo of it can be traced in social and cultural life. As literature begins to shape representations of climate change and post-human existence in minds, a literary genre called 'climate fiction' has emerged. Cli-fi demonstrates how the basic flaw in ecological thinking is the anthropocentric separation of humans from nature. While addressing the complex link between human actions and nature, Climate fiction genre

connects with posthumanism perspectives. It presents the ecological case for the cohabitation of humans and nonhumans by focusing on the realization of coexistence, interdependence, and entanglement. The works of this genre does not prioritize the human and try to portray the relationship between humans and their natural environment. By this way, climate fiction lead the way to a comprehensive thinking on environmental degradation, climate change, and biodiversity loss caused by human activities and embracing the possible effects of these activities.

### MARGARET ATWOOD'S *MADDADDAM TRILOGY*

Depictions of the “post-human” envisions a scenario where humanity is on the brink of extinction, leaving nature to exist and evolve freely. In Margaret Atwood's *MaddAddam Trilogy*, climate change, extinction of species and the ecological degradation triggered by human activities is vividly described. It depicts a post-human landscape where genetically modified beings coexist with the remaining human survivors after a catastrophic event. This speculative future provokes contemplation on the ethical ramifications of genetic engineering and the prospect of new life forms emerging post-human civilization. Starting her first book *Oryx and Crake* in a post-apocalyptic world, it portrays the risks of biotechnology and recklessness of human activity. Readers are introduced to a world that has been corrupted by technological enhancements and their being misused due to human greed. With the progress of applied sciences, humans have been tried to control nature and the natural. With technological developments, new breeds of animals have been created, which have made humans to think themselves as superior over the natural and to take the role of God. Our narrator Jimmy, after the disaster called Snowman, describes the pre-disaster world of his own and which ill behaviors have caused it, especially the scientific project Pigeon Project that aimed “to grow an assortment of human-tissue organs in a transgenic knockout pig host” (Atwood, 2018, p. 39). The artificially produced human organs could grow in special pigs and could be customized by using cells from human donors and used when needed. This project was thought to be cheaper than getting oneself cloned for spare parts. Pigeon project can be regarded as an example of transhumanist visions, enhancing human abilities or lives with the help of applied sciences and technology. However, these hybrid animals destroyed the earth's balance. The artificial world which humans created for themselves estranged them from nature. Inevitably, humans had to face the consequences of this. By disregarding nature as a unique entity, humans have also disregarded the fact that they cannot exist without nature, that they are actually bound to nature. However, in the novel we see humans thinking of themselves as superior to nature and exploiting natural resources like it will never have any fatal consequences. In the second book of the trilogy, in *The Year of Flood*, a religious environmentalist group -God's Gardeners- claims that man himself is the one who causes the destruction of nature.

Apart from genetically modified animals, there are also genetically modified human breeding in the laboratories. Glenn, who thinks that humans are using technology for evil and their greed, produces a virus to annihilate human existence on the planet, and a genetically engineered group of new humans that would survive the virus could live in harmony with nature. This new human-like - but not bound to violence and evil human features-creatures, the Crackers, can live in cooperation with nature due to their being genetically close to nature. They can be regarded as representations of the posthuman, in a way that they do not see themselves as superior to other species and live in harmony with the natural world in the best way. The Crackers are kind, understanding, curious, innocent, colorful... The Crakers are free from jealousy, greed, and the need for animal protein, which according to Glenn, are the reasons for all the in the “evil” in human beings.

Although in the trilogy, Glenn couldn't accomplish his plans for eroding humankind from the planet so that it can be a better/safer place for his posthuman creatures and nonhuman organisms. The human survivors of the disaster Jimmy, Ren, Toby, Zeb, Amanda, teach the Crackers the social and cultural knowledge and skills necessary to continue their existence, likewise, the Crackers teach how to live in harmony with nature to the human survivors of the old world. Altogether, they are brought up as a hybrid kind of the human they know how to live in harmony with nature and respect the natural. Thanks to the hybrid Crackers, new hope emerges. For Crackers can bridge the relationship between humans and nature and restore the balance.

### CONCLUSION

In conclusion, this article tries to throw light on the developmental stages of the Anthropocene by first giving a brief outline of climate history and then climate literature. It concludes with an examination of Margaret Atwood's *Maddaddam Trilogy* as a prime example. By going roughly through the important details inherent in this trilogy, I seek to illustrate how climate fiction may be used to criticize and reinterpret human-centered narratives and how such narratives can lead reader awareness to environmental issues from a post humanist perspective. Beyond highlighting the absolute need for the co-evolution of organisms without separating them into categories as “human” or “nonhuman”, the article puts under scope contemporary climate fiction narratives that provide essential

insights into reshaping the place of humankind in the world for creating better and sustainable futures. Close readings and theoretical perspectives, particularly from Haraway and Braidotti, reveal how climate fiction reimagines the Anthropocene as an opportunity to redefine mutual relationships and foster more integrated coexistence that can include all organisms, species and living beings. This thematic approach emphasizes the importance of climate fiction in encouraging readers to imagine futures that promote collective adaptability, environmental ethics, and long-term interspecies collaborations. Examining literary works with an understanding of the Anthropocene epoch reveals a critical urgency for a collective rethinking of human existence, which fosters adaptation as well as responsibility to the non-human ecosystem.

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