Contents

Introduction	
1. Posthumanism	
1.1. Defining Posthumanism 9	
1.2. Bioethics and Post-Anthropocentrism)
2. Defining Ecocriticism	2
3. Brave New Worlds	5
3.1. Science Fiction and Speculative Fiction	5
3.2. Defining Utopia and Dystopia	5
3.3. Cyberpunk and Biopunk	5
4. The Polluted Wastelands of Atwood's and Gibson's Trilogies)
4.1. Dangerous Technologies	l
4.2. Reclaimed by Nature	16
4.3. 'Dead Zones': Hyper-Technological Environments	38
5. Man as the Measure of Things	54
5.1. Commercializing Man	55
5.2. Genetically Engineered Species	71
5.3. Boundaries Between A.I. and Technological Augmentation	85
Conclusion(s): 'Where Then Does the Posthuman Dwell?'	02
Works Cited	በዩ

Science fiction's position within the English literary canon has always been a difficult subject to define, not so much literally, as in terms of its acceptance as a literary genre worth studying. The difficulty of this task is largely emphasized not by the science fiction genre itself. Instead, it is the way it is received by both the general public and literary academics who generally consider it an example of mass consumption and cheap entertainment. Indeed, the origins of the genre reveal a certain inclination toward juvenile themes and motifs, simplistic and cliché characters, as well as a superficial approach to the scientific progress of that time. In many ways, the science fiction genre does embody these stereotypes that are associated with it today, but one must also take into account that it is a still relatively new literary genre, whose concrete origins can be found only at the end of the nineteenth and the beginning of the twentieth century.

At its origins, science fiction was a genre intended to entertain the public, or in some cases served a teaching purpose. As a result, we can observe a recurrence of various narrative events, themes, motifs and even types of characters between similar works. However, this begins to change in the context of the late twentieth century with science fiction literature approaching themes much more seriously, thanks to the scientific and industrial progress that characterizes this period. While scientific progress was perceived as a path toward a better and more beneficial future for society and humanity on a large scale, the twentieth century, especially the second half, introduces a certain degree of cynicism into science fiction. For example, the fantastic journey, which was one of the most popular themes in the genre, disappeared almost completely from the consciousness of writers during that century. They no longer considered the possibility of discovering lost worlds or regions as a viable notion due to the discoveries and explorations that had taken place in previous centuries. Instead, for writers of this century what really matters is the impact these discoveries have on society itself.

One can particularly observe the influence of authors such as H. G. Wells and Edgar Allan Poe, who address topics such as alien invasions, biological changes on the human body, and military influence on scientific progress. Other authors such as Arthur C. Clarke would expand more upon these topics, along with writers such as Isaac Asimov and Theodore Sturgeon. Thus, although this period would leave an impact on the literary genre which would last to this day, it was eventually replaced by a tendency toward cynicism that emerged after the first World War, and then reinforced by World War II, as well as the launch of the atomic bomb on Hiroshima and Nagasaki. These historical events would leave a deep stain on this literary genre, turning it into an exploration of the effect of not only science but the scientist upon not just their creations, but also on society itself.

Many novels, films, video games and other works falling under the umbrella of the science fiction genre tend to explore the ethical and moral impact of science on human life and ethics. Specifically, post-apocalyptic scenarios show not only the effect human influence has on the environment, but also the serious consequences of pollution and global warming. In fact, among the most widespread contemporary images in this literary genre is that of a famous city, left in ruins and overrun by lichens, plants and forest moss. The absence of human presence is one of the most important characteristics in such images, as it becomes a central symbol, adding a moral dimension to the representations and suggesting a critical commentary on the effects of capitalism and society on nature.

Thus, the academic approach to this subcategory of the science fiction genre is not only limited to its literary merits, but also analyzes its social benefit, highlighting important topics for understanding humanity's impact on the environment. In order to fully understand the evolution of science fiction from the beginning of the twentieth century to the present day, the historical events that have contributed to the way present society is shaped must also be taken into account. This means that this literary genre is not limited to just anticipating the future, but also questions the risks that the pursuit of scientific and technological innovations can have on humanity. Science fiction brings up themes of profound complexity, such as "What does it mean to be human?", "How can humanity be measured?", "What role does humanity play in preserving or destroying the environment?" and "What could be the consequences of these influences?"

This paper addresses these topics from both a literary and sociological perspective, with the aim of discovering the merits that science fiction can have in the contemporary context. The study uses Margaret Atwood's "MaddAddam" trilogy as reference material, as well as William Gibson's "Sprawl" and "Bridge" trilogy. Gibson, considered the "father of cyberpunk," explores topics related to artificial intelligence, urban development, and the dilemma of humanity in a capitalist environment. Meanwhile, Margaret Atwood's trilogy combines climate fiction with biopunk elements, creating a bridge between the two to discuss genetic manipulation, experimentation on animals and humans, and apocalyptic scenarios that may result from such scientific advances.

To provide a more general view of these novels and the themes presented, the thesis paper is divided into several chapters, such as: "Posthumanism," "Defining ecocriticism," "Brave New Worlds," "The Polluted Wastelands of Atwood's and Gibson's Trilogies," and "Man as the Measure of Things." Each of these chapters was subsequently split into subchapters, dedicated to exploring various aspects of post-apocalyptic literature, the authors' contributions to this genre and its impact upon the shared cultural consciousness of the masses.

The first subchapter, "Defining Posthumanism," explores the notion of posthumanism, which refers to the literary movement that emerged as a reaction against classical Humanism. The latter is a current that casts man as the central figure in the food chain, influencing the manner in which we think of literature, society, laws, religious movements and scientific thought over the centuries. This Humanism, rooted in the Italian Renaissance and the Enlightenment period, defines the idea of "humanity" in a rather narrow way. The ideal model of the "universal man" imposed by these periods ends up excluding and marginalizing individuals who do not fit within this conception. Posthumanism, thus, appears as a critique of this limiting vision, raising fundamental questions about what it really means to be human. This ideology suggests that the "human being" should not be reduced to the restrictive model of Humanism, but rather includes marginalized identities and bodies. In this thesis, posthumanism is essential for the exploration of the environment, because they are not populated by the figure of the "man" from the traditional humanist view, but by that of a posthumanist view, in which the human being embodies a diversity of traits, often contradictory. This diversity illustrates and emphasizes the influence the environment has on human identity, showing how different contexts can help define it.

In the second subchapter, which is called "Bioethics and Post-Anthropocentrism," we will discuss how posthumanism has contributed to the development of bioethics, a relatively new field that has its origins in the medical sphere. Created only a few decades ago, bioethics aims to address in-depth issues that cause controversy within the medical and philosophical fields. Topics such as abortion, human and animal experimentation, and genetic modifications of the human body even before birth are the most important subjects that bioethics seeks to address. They aim to redefine the intervention of science and medicine with regard to the integrity of the human body and of society at large. In this thesis, approaching these two subjects was crucial in order to be able to explore the way in which we think of the human figure. Both Margaret Atwood and William Gibson explore humanity from a biological or scientific perspective, whether it be through genetic manipulation or simply cyber-augmentation.

In the second great chapter of this thesis called "Defining Ecocriticism" we will address the idea of ecocriticism more thoroughly. Although it is a relatively new notion within the literary sphere, it embodies certain echoes from a much older literary tradition. Ecocriticism itself refers to this idea of approaching environmental issues from a critical standpoint and exploring how they are presented in literature. Literary studies of contemporary literature are extremely important because they reveal a new side of the relationship between man, society and nature despite the fact that the origins of environmentalism are found even in British Romanticism. The environment as a subject itself receives more attention from ecocritical studies done within the contemporary period, so the interest of this thesis

in the subject is defined by an interest in current trends and the way we understand the relationship between man and nature.

The focus on the urban environment that characterizes much of modern and contemporary literature has also been observed by critics who focus on the portrayal of the ecosystem. They draw attention to the tension between the urban and the natural environment, and to the fact that scientific progress has brought about many changes in our understanding of humanity. But at the same time, it cannot replace the human tendency to form connections with nature. This is best seen in Atwood's novels which highlight the complicated relationship between man and nature when the urban environment is removed from the equation. When only the two remain, man is forced to recreate his relationship with nature, but now from a subservient position and not from one in which they dominate over nature.

Chapter three, "Brave New Worlds," is divided into three subchapters and addresses several issues related to our understanding of science fiction. The first subchapter, "Science Fiction and Speculative Fiction", tries to define these two literary genres, a topic that has caused a lot of controversy and many debates within the literary sphere. Because of its origin to pulp magazines, defining science fiction has caused a great deal of trouble among literary critics. Moreover, while this literary genre has not been taken seriously, its root in Anglophone literatures is in Thomas More's *Utopia*. Its purpose was to criticize, explore and ask questions regarding scientific progress.

This genre is explored in more detail in the second subchapter of this chapter, namely "Defining Utopia and Dystopia", which discusses the two visions of the future that authors and readers may have regarding the evolution of society. Utopia is defined as the ideal society where scientific progress is beneficial to the human race. Utopia argues that the improvement of the world is intrinsically connected to technological evolution, but as can be seen in contemporary literature this perspective has declined greatly since the twentieth century due to the two World Wars and the Cold War. However, humanity's perception of technology would be radically changed by the two atomic bombs that were dropped on Hiroshima and Nagasaki. Because of these events, utopia could no longer exist in a post-war world and was replaced by dystopia, a literary genre that focuses on the negative consequences of scientific progress due to various totalitarian regimes. Thus, the ultimate result is the creation of countless worlds in which the human figure becomes an asset that can be bought or sold.

The third subchapter, entitled "Cyberpunk and Biopunk", mainly explores the definition of these two subgenres and how they relate to dystopias. The "punk" from biopunk and cyberpunk originates from the punk subculture which focuses on ideas of resistance against authority, independence and self-expression. Within the biopunk genre, society is described in such a way that nature becomes a symbol of punk

rebellion, while in cyberpunk, technology dominates the urban space excessively, providing a vision of a hyper-technological future.

Chapter four, entitled "The Polluted Wastelands of Atwood's and Gibson's Trilogies," explores in detail the environmentally-focused discussions that appear in science fiction novels. The chapter will look at the various representations of the relationship between man and nature, which reflect not only the consequences of human influence on the environment, but also how it impacts human identity. The title of the chapter already suggests one of these representations, more specifically, that in which the human-nature relationship is marked by pollution and mutual destruction: the degradation of nature, determined by human actions, ultimately leads to the loss of the Self, transforming the human into a mere "machine" subject to capitalist values.

The destruction of the environment gives birth to anxiety within the human figure, who experiences a rupture between the Self and nature. Nature becomes an entity perceived as an abandoned and forgotten "ancestor" because it no longer embodies the characteristics considered valuable in modern society. Thus, it is seen only as a "wilderness", placed on the same level as the animal kingdom, without being recognized as a stand-alone entity. Instead, it is demoted to the ranks of support for the existence of human civilization.

This perspective is further detailed in the first subchapter, titled "Dangerous Technologies," which examines how humanity perceives the consequences of technological development beyond human control. If technology was initially viewed as a support for humanity, this vision evolved, prompting society to rethink the benefits and risks it brings. In science fiction, this theme is best reflected in "A.I. takeover" scenarios, which refer to scenarios where artificial intelligence takes control of humanity and where technology comes to dominate society.

Often, this takeover is not sudden or violent, but gradual, with technology bringing many immediate benefits to a society that largely ignores the ethical or moral issues associated with scientific progress. In such scenarios, technology becomes a manifestation of capitalism, in which only results matter, without giving any importance to how they are achieved. These scenarios do not necessarily provide us with a lesson about the dangers of technology, but rather a picture of the relationship between technology and humanity.

In the second subchapter, entitled "Reclaimed by Nature," the infiltration of technology into human society ultimately leads to the destruction of civilization, cities and the notion of urbanism. The cities, once called only "concrete jungles," gradually become true jungles, being completely covered by moss,

trees and various plant species. The image of a flower piercing the cement ceases to symbolize hope, and instead becomes a symbol of the destruction of humanity. In the case of Atwood, this destruction forces a return to a primitive way of life, which is not perceived as a salvation, but rather as an inevitable consequence of human arrogance. For Gibson, on the other hand, the lack of nature is equivalent to a loss of connection with humanity itself, and regions covered by nature become the last bastion of humanity. Thus, the two authors present different views on our connection with the environment, but start from the same basic idea: our relationship with nature is deeply influenced by our relationship with technology.

In the third subchapter, entitled "'Dead Zones': Hyper-Technological Environments," we examine the "dead zones," a biological notion that refers to those oceanic regions unable to support organic life due to lack of oxygen. Similarly, dead zones in Gibson's literature refer to those territories where human presence is in decline, that is, areas where the influence of technology has profoundly affected human existence. In contrast, in Atwood's novels, hyper technological areas become sterile, leaving no room for human error and therefore humanity itself. This distinction is essential because the image of the environment informs that of humanity.

Chapter Five, entitled "Man as the Measure of Things," addresses, in the first subchapter, "The Commercialization of Man," existence within a capitalist environment. In this context, the human being is reduced to an object of consumption, without intrinsic value, which allows them to be modified both genetically and psychologically. In Atwood's novels, the genetic aspect is highlighted by the presence of characters who can buy certain traits to become more valuable in society. On the other hand, Gibson is interested in the influence of A.I. upon the human being. For example, we see the presence of Japanese digital singers and the dilemma of achieving the 'real' in a society where it can be bought and turned into reality TV shows. The commercialization of human life becomes a calling in itself, to which not many manage to answer. But those who succeed fall into two subcategories that will be explored in the final two subchapters, "Genetically Modified Species" and "The Limits Between A.I. and Technological Augmentation".

They represent a bigger image of the problems caused by technological intervention on humanity. In the second subchapter we can observe the differences between the three trilogies in terms of the genetic changes experienced by the characters. In Atwood's case, these changes are the result of a capitalist society that pushes for technological progress regardless of the consequences it may have. Consequently, they are not limited to just modifying already existing humans, they are required to go further and create new species of humans that are biologically far superior to previous ones. For Atwood, this is explored through the existence of a new species, called the Crackers who are the bridge between humanity and the

animal kingdom because they exhibit traits from both species. Consequently, they become beings that cannot be accepted either in human society, or in the animal one, for they merely represent a consequence of what the capitalist society wishes to achieve but does not want to recognize as its own.

As far as Gibson is concerned, biological changes refer only to those of a pragmatic or aesthetic nature. Change in the human body can only take place if it is beneficial or as an expression of the Self. We can see this much clearer in the third subchapter which focuses on the influence of technology on the human being, but with regards to how technology imitates mankind without managing to capture their essence. This is demonstrated by characters like Wintermute and Rei Toei, both of whom are A.I. which seek a gateway through which they can achieve a connection with the human spirit. This attempt to become human ultimately leads to a much larger discussion about what reality actually means. A similar question is asked by Atwood in her own trilogy in which the technological changes to which certain posthuman characters are subjected end up contributing to a much larger view of their relationship with the environment. Ultimately, with no place to call home, these posthuman characters end up infiltrating the ranks of human society or choose to hide within nature, failing to be welcomed into either one.

In the last chapter of this thesis, we try to answer the question "Where then does the posthuman dwell?" which basically refers to the notion of belonging to an environment that is constantly changing, or to one trying to mould to a constantly changing individual. The answer we find in this study may not be the desired one, because the only conclusion we can draw is that the posthuman individual, the one who criticizes and questions the current system, does not have a way to replace the society in which they live. Many literary critics see their work as simply highlighting how pollution, capitalism, and the lack of human intervention regarding conservation efforts have affected our relationship with the environment. However, the call for action arising from these observations remains only at the theoretical level and does not materialize into practical measures.

Consequently, our complicated relationship with the environment defines us as posthuman beings who seek a deeper connection with it, but who are instead bound to contribute, sometimes directly and sometimes indirectly, to the destruction of the environment by simply existing in it. Thus, in Atwood's and Gibson's novels, their final stance on the subject suggests that this state of the world cannot be changed or avoided, but merely accepted as another side of humanity itself.

Works Cited

Anderson, Kay. "Mind over Matter? On Decentring the Human in Human Geography." *Cultural Geographies*, vol. 21, no. 1, 2014, pp. 3–18. *JSTOR*, www.jstor.org/stable/26168537. Accessed 26 June 2020.

Antonio, Robert J., and Alessandro Bonanno. "A New Global Capitalism? From 'Americanism and Fordism' to 'Americanization-Globalization." *American Studies*, vol. 41, no. 2/3, 2000, pp. 33–77. *JSTOR*, http://www.jstor.org/stable/40643230. Accessed 12 May 2023.

Atwood, Margaret. Oryx and Crake. Doubleday, 2003.

Atwood, Margaret. Year of the Flood. Vintage Books, 2013.

Atwood, Margaret. *MaddAddam*. Bloomsbury, 2013.

Badmington, Neil. "Theorizing Posthumanism." *Cultural Critique*, no. 53, 2003, pp. 10–27. *JSTOR*, www.jstor.org/stable/1354622. Accessed 26 May 2020.

Baillie, Harold W., and Timothy K. Casey. *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*. MIT Press, 2014.

Baudrillard, Jean. Simulacra and simulation. Simulacres et simulation. Translated by Sheila Faria Glaser, UMP, 1994.

Bauman, Zygmunt. Work, Consumerism and the New Poor. Open UP, 2005.

Bauman, Zygmunt and Rein Raud. Practices of Selfhood. Polity P, 2015.

Bayertz, Kurt and Kurt W. Schmidt. "Testing Genes and Constructing Humans: Ethics and Genetics." *Handbook of Bioethics: Taking Stocking of the Field From A Philosophical Perspective*, edited by George Khushf, Kluwer Academic Publishers, 2004, pp. 415-441.

Bennett, Jane. Vibrant Matter: A Political Ecology of Things. Duke UP, 2010.

Bloom, Dan. "Dan Bloom and the Age of Cli-Fi." Interview by Erica Eller. *Bosphorus Review of Books*, https://bosphorusreview.com/interview-dan-bloom. Accessed 19 August 2023.

Booker, Keith M. *The Dystopian Impulse in Modern Literature: Fiction as Social Criticism*. Greenwood Press, 1994.

Booker, Keith M. "Science Fiction and the Cold War." *A Companion to Science Fiction*, edited by David Seed, Blackwell Publishing, 2005, pp. 171-184.

Borbély, Carmen-Veronica and Petronia Popa Petrar. *Our Heteromorphic Future: Encoding The Posthuman In Contemporary British Fiction*. Presa Universitară Clujeană, 2014.

Bould, Mark. "Cyberpunk." *A Companion to Science Fiction*, edited by David Seed, Blackwell Publishing, 2005, pp. 217-231.

Braidotti, Rosi. The Posthuman. Polity P, 2013.

Buell, Lawrence. "Ecocriticism: Some Emerging Trends." *Qui Parle*, vol. 19, no. 2, 2011, pp. 87-115. *JSTOR*, https://www.jstor.org/stable/10.5250/quiparle.19.2.0087. Accessed 30 May 2023.

Canavan, Gerry. "Hope, But Not for Us: Ecological Science Fiction and the End of the World in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood.*" *Lit: Literature Interpretation Theory*, vol. 23, no. 2, 2012, pp. 138-159. *Taylor and Francis Online*, https://www.tandfonline.com/doi/abs/10.1080/10436928.2012.676914. Accessed 17 June 2023.

Certeau, Michel de. *The Practice of Everyday Life. L'invention du quotidien. Vol. 1, Arts de faire'*. Translated by Steven Rendall, UCP, 1984.

Clark, David L. "Animals... In Theory: Nine Inquiries in Human and Nonhuman Life." *CR: The New Centennial Review*, vol. 11, no. 2, 2011, pp. 1–16. *JSTOR*, www.jstor.org/stable/41949740. Accessed 26 June 2020.

Csicsery-Ronay Jr., Istvan. "Science Fiction/Criticism." *A Companion to Science Fiction*, edited by David Seed, Blackwell Publishing, 2005, pp. 43-59.

Csicsery-Ronay, Istvan. "Some Things We Know about Aliens." *The Yearbook of English Studies*, vol. 37, no. 2, 2007, pp. 1–23. *JSTOR*, http://www.jstor.org/stable/20479299. Accessed 12 July 2023.

Davis, Deborah. "Urban Consumer Culture." *The China Quarterly*, no. 183, 2005, pp. 692–709. *JSTOR*, http://www.jstor.org/stable/20192515. Accessed 2 July 2023.

Dawson, Angus. "Informed Consent: Bioethical Ideal and Empirical Reality." *Bioethics and Social Reality*, edited by Matti Häyry, Tuija Takala, and Peter Herissone-Kelly, Rodopi, 2005, pp. 93-106.

"Dead Zone." *National Geographic*, https://education.nationalgeographic.org/resource/dead-zone/. Accessed 12 June 2023.

Den Tandt, Christophe. "Cyberpunk as Naturalist Science Fiction." *Studies in American Naturalism*, vol. 8, no. 1, 2013, pp. 93–108. *JSTOR*, http://www.jstor.org/stable/26300823. Accessed 11 March 2023.

Dow, Suzanne, and Colin Wright. "Introduction: Towards a Psychoanalytic Reading of the Posthuman." *Paragraph*, vol. 33, no. 3, 2010, pp. 299–317. *JSTOR*, www.jstor.org/stable/43151853. Accessed 26 June 2020.

Eaglestone, Robert. "Postmodernism and ethics against the metaphysics of comprehension." *Cambridge Companion to Postmodernism*. Ed. by Steven Connor. Cambridge UP, 2004. pp. 182-195.

Eveleth, Rose. "Should Oscar Pistoriou's Legs Disqualify Him from the Olympics?" *Scientific American*,

2012,

https://www.scientificamerican.com/article/scientists-debate-oscar-pistorius-prosthetic-legs-disqu

alify-him-olympics/. Accessed 10 July 2023.

Farnell, Ross. "Posthuman Topologies: William Gibson's 'Architexture' in 'Virtual Light' and 'Idoru." *Science Fiction Studies*, vol. 25, no. 3, 1998, pp. 459–80. *JSTOR*, http://www.jstor.org/stable/4240725. Accessed 20 September 2024.

Filippo, Paul di. "Ribofunk." Interview by Jeffrey Fisher. *WIRED*, November 1996, https://www.wired.com/1996/11/ribopunk/. Accessed 19 August 2023.

Flieger, Jerry Aline. "Is There a Doctor in the House? Psychoanalysis and the Discourse of the Posthuman." *Paragraph*, vol. 33, no. 3, 2010, pp. 354–375. *JSTOR*, www.jstor.org/stable/43151856. Accessed 26 June 2020.

Foster, Thomas. "Virtuality." *The Routledge Companion to Science Fiction*, edited by Mark Bould, Andrew M. Butler, Adam Roberts and Sherryl Vint, Routledge, 2009, pp. 317-328.

Foucault, Michel. "22 January 1975." *Abnormal: Lectures at the Collège de France 1974-1975*, edited by Arnold I. Davidson, translated by Graham Burchell, Verso, 2003, pp. 55-81.

Fournier, Susan. "Consumers and Their Brands: Developing Relationship Theory in Consumer Research." *Journal of Consumer Research*, vol. 24, no. 4, 1998, pp. 343–53. *JSTOR*, https://doi.org/10.1086/209515. Accessed 25 March 2023.

Garrard, Eva and Stephen Wilkinson. "Mind the Gap: The Use of Empirical Evidence in Bioethics." *Bioethics and Social Reality*, edited by Matti Häyry, Tuija Takala, and Peter Herissone-Kelly, Rodopi, 2005, pp. 77-92.

Gibson, William. Neuromancer. ACE Books, 2000.

Gibson, William. Count Zero. Ace Science Fiction Book, 1987.

Gibson, William. Mona Lisa Overdrive. Spectra, 1989.

Gibson, William. Virtual Light. Spectra, 2012.

Gibson, William. Idoru. Berkley, 2003.

Gibson, William. All Tomorrow's Parties. Penguin Books, 2000.

Gorowitz, Samuel. "The Past, Present and Future of Human Nature." *Expanding Horizons in Bioethics*, edited by Arthur W. Galston and Christiana Z. Peppard, Springer, 2005, pp. 3-18.

Grant, Glenn. "Transcendence through Detournement in William Gibson's 'Neuromancer' (La Transcendance Par Le Détournement Dans 'Neuromancer' de William Gibson)." *Science Fiction Studies*, vol. 17, no. 1, 1990, pp. 41–49. *JSTOR*, http://www.jstor.org/stable/4239970. Accessed 22 May 2022.

Häyry, Matti. "Forget Autonomy and Give Me Freedom!" *Bioethics and Social Reality*, edited by Matti Häyry, Tuija Takala, and Peter Herissone-Kelly, Rodopi, 2005, pp. 31-38.

Habermas, Jürgen, and Seyla Ben-Habib. "Modernity versus Postmodernity." *New German Critique*, no. 22, 1981, pp. 3–14. *JSTOR*, https://doi.org/10.2307/487859. Accessed 30 May 2023.

Haraway, Donna J. Simians, Cyborgs, and Women: The Reinvention of Nature. Routledge, 1991.

Harland, Paul W. "Ecological Grief and Therapeutic Storytelling in Margaret Atwood's *Maddaddam* Trilogy." *Interdisciplinary Studies in Literature and Environment*, vol. 23, no. 3, 2016, pp. 583–602. *JSTOR*, https://www.jstor.org/stable/26569690. Accessed 30 May 2023.

Harsch, Bradley A. "Consumerism and Environmental Policy: Moving Past Consumer Culture." *Ecology Law Quarterly*, vol. 26, no. 3, 1999, pp. 543–610. *JSTOR*, http://www.jstor.org/stable/24114114. Accessed 31 May 2023.

Hayles, Katherine N. How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics. The University of Chicago P, 1999.

Heise, Ursula K. Sense of Place and Sense of Planet: The Environmental Imagination of the Global. Oxford UP, 2008.

Herbrechter, Stefan. *Posthumanism: A Critical Analysis. Posthumanismus. Eine kritische Einführung.* Translated by Stefan Herbrechter, Bloomsbury, 2013.

Herbrechter, Stefan. "Postmodern." *The Cambridge Companion to Literature and the Posthuman*, edited by Bruce Clarke and Manuela Rossini, Cambridge UP, 2017, pp. 150-175.

Hessler, Martina. "Techno-Humanity: A Plea for a Historical Anthropology of Technology." *Icon*, vol. 24, 2018, pp. 65–76. *JSTOR*, www.jstor.org/stable/26750539. Accessed 26 June 2020.

Hollinger, Veronica. "Stories about the Future: From Patterns of Expectation to Pattern Recognition". *Science Fiction Studies*, vol. 33, no. 3, 2006, pp. 452-472. *JSTOR*, http://www.jstor.org/stable/4241464. Accessed 12 May 2021.

Holt, Douglas B. "Why Do Brands Cause Trouble? A Dialectical Theory of Consumer Culture and Branding." *Journal of Consumer Research*, vol. 29, no. 1, 2002, pp. 70–90. *JSTOR*, https://doi.org/10.1086/339922. Accessed 10 June 2023.

Hoogheem, Andrew. "Secular Apocalypses: Darwinian Criticism and Atwoodian Floods." *Mosaic: An Interdisciplinary Critical Journal*, vol. 45, no. 2, 2012, pp. 55–71. *JSTOR*, http://www.jstor.org/stable/44030681. Accessed 20 May 2024.

Hughes, Emma and Jenny Kitzinger. *Science fiction Fears? An Analysis of How People Use Fiction in Discussing Risk and Emerging Science and Technology*. University of Kent at Canterbury, 2008. *Social Contexts and Responses to Risk*, https://www.kent.ac.uk/scarr/papers/HughesKitzingerWkPpr28.pdf.

Irving, Louise. "The Problem of Intangibles." *Bioethics and Social Reality*, edited by Matti Häyry, Tuija Takala, and Peter Herissone-Kelly, Rodopi, 2005, pp. 67-76.

James, Edward. "Utopias and anti-utopias." *Cambridge Companion to Science Fiction*, edited by Edward James and Farah Mendlesohn, Cambridge UP, 2003, pp. 219-229.

Jonsen, Albert R. "The History of Bioethics as a Discipline." *Handbook of Bioethics: Taking Stock of the Field From a Philosophical Perspective*, edited by George Khushf, Kluwer Academic Publishers, 2004, pp. 31-54.

King, Edward and Joanna Page. *Posthumanism and the Graphic Novel in Latin America*. UCL Press, 2017.

Lancashire, Ian. "Ninsei Street, Chiba City, in Gibson's 'Neuromancer." *Science Fiction Studies*, vol. 30, no. 2, 2003, pp. 341–46. *JSTOR*, http://www.jstor.org/stable/4241190. Accessed 30 May 2023.

Lawrence Koehler. "Bioethics." *Bios*, vol. 68, no. 3, 1997, pp. 137–141. *JSTOR*, www.jstor.org/stable/4608426. Accessed 20 May 2021.

Malpas, Simon. *The Postmodern*. Routledge, 2005.

Masci, David. *Darwin and His Theory of Evolution*. Pew Research Center, 2009, *Pew Research Center*, https://www.pewresearch.org/religion/2009/02/04/darwin-and-his-theory-of-evolution/.

Mendlesohn, Farah. "Fiction, 1926-1949." *The Routledge Companion to Science Fiction*, edited by Mark Bould, Andrew M. Butler, Adam Roberts and Sherryl Vint, Routledge, 2009, pp. 52-61.

Morgan, Luke. "'The Earth Forgives': Environmental Imagination, Adaptation, and Resilience in Margaret Atwood's *The Year of the Flood.*" *Resilience: A Journal of the Environmental Humanities*, vol. 7, no. 1, 2019, pp. 22–44. *JSTOR*, https://doi.org/10.5250/resilience.7.1.0022. Accessed 29 July 2024.

Mosca, Valeria. "Crossing Human Boundaries: Apocalypse and Posthumanism in Margaret Atwood's Oryx and Crake and The Year of the Flood." *Altre Modernità*, no. 9, 2013, pp. 38-52. https://doi.org/10.13130/2035-7680/2985. Accessed 18 September 2023.

Mousoutzanis, Aris. "Apocalyptic sf." *The Routledge Companion to Science Fiction*, edited by Mark Bould, Andrew M. Butler, Adam Roberts and Sherryl Vint, Routledge, 2009, pp. 458-462.

Murphy, Graham J. "Eutopia." *The Routledge Companion to Science Fiction*, edited by Mark Bould, Andrew M. Butler, Adam Roberts and Sherryl Vint, Routledge, 2009, pp. 478-483.

Graham Murphy. "Post/Humanity and the Interstitial: A Glorification of Possibility in Gibson's Bridge Sequence." *Science Fiction Studies*, vol. 30, no. 1, 2003, pp. 72–90. *JSTOR*, http://www.jstor.org/stable/4241141. Accessed 30 May 2024.

Nagai, Kaori. *Imperial Beast Fables: Animals, Cosmopolitanism, and the British Empire*. Palgrave MacMillan, 2020.

"Over-consumption in the world's richest countries is destroying children's environments globally, new report says." UNICEF, 2022, https://www.unicef.org/press-releases/over-consumption-worlds-richest-countries-destroying-childrens-environments-globally. Press release. Accessed 16 June 2023.

Phillips, Dana. "Collapse, Resilience, Stability and Sustainability in Margaret Atwood's MaddAddam Trilogy." *Literature and Sustainability: Concept, Text and Culture*, edited by Adeline Johns-Putra et al., Manchester UP, 2017, pp. 139–58. *JSTOR*, https://doi.org/10.2307/j.ctt1wn0s7q.14. Accessed 30 July 2023.

Pietkiewicz, Igor J et al. "Maladaptive Daydreaming as a New Form of Behavioral Addiction." *Journal of Behavioral Addictions*, vol. 7, no. 3, 2018, pp. 838-843. *National Library of Medicine*, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6426361/.

Sethi, S. Prakash, and Linda M. Sama. "Ethical Behavior as a Strategic Choice by Large Corporations: The Interactive Effect of Marketplace Competition, Industry Structure and Firm Resources." *Business Ethics Quarterly*, vol. 8, no. 1, 1998, pp. 85–104. *JSTOR*, https://doi.org/10.2307/3857523. Accessed 11 July 2023.

Remshardt, Ralf. "Posthumanism." *Mapping Intermediality in Performance*, edited by Sarah Bay-Cheng et al., Amsterdam UP, Amsterdam, 2010, pp. 135–139.

Roh, David S. et al. "Technologizing Orientalism: An Introduction." Techno-Orientalism: Imagining Asia in Speculative Fiction, History, and Media, edited by David S. Roh, Betsy Huang and Greta A. Niu, Rutgers UP, 2015, pp. 1-22.

Rossini, Manuela. "Bodies." *The Cambridge Companion to Literature and the Posthuman*, edited by Bruce Clarke and Manuela Rossini, Cambridge UP, 2017, pp. 317-345.

Roose, Kevin. "An A.I.-Generated Picture Won an Art Prize. Artists Aren't Happy." The New York

Times,

2022,

https://www.nytimes.com/2022/09/02/technology/ai-artificial-intelligence-artists.html. Accessed 29 July 2023.

"Ruined Earth." *The Encyclopedia of Science Fiction*, 2023, https://sf-encyclopedia.com/entry/ruined earth. Accessed 12 June 2023.

Sarukkai, Sundar. "The 'Other' in Anthropology and Philosophy." *Economic and Political Weekly*, vol. 32, no. 24, 1997, pp. 1406–09. *JSTOR*, http://www.jstor.org/stable/4405512. Accessed 7 December 2021.

Schaller, Barry R. *Understanding Bioethics and the Law: The Promises and Perils of the Brave New World of Biotechnology.* Praeger Publishers, 2008.

Schmeink, Lars. *Biopunk Dystopias: Genetic Engineering, Society and Science Fiction*. Liverpool UP, 2016.

"Scientifiction." *The Encyclopedia of Science Fiction*, 2021, https://sf-encyclopedia.com/entry/scientifiction. Accessed 12 June 2023.

Simon, Bart. "Introduction: Toward a Critique of Posthuman Futures." *Cultural Critique*, no. 53, 2003, pp. 1–9. *JSTOR*, www.jstor.org/stable/1354621. Accessed 26 June 2020.

Slonczewski, Joan and Michael Levy. "Science Fiction and the Life Sciences." *Cambridge Companion to Science Fiction*, edited by Edward James and Farah Mendlesohn, Cambridge UP, 2003, pp. 174-185.

Slusser, George. "The Origins of Science Fiction." *A Companion to Science Fiction*, edited by David Seed, Blackwell Publishing, 2005, pp. 27-42.

Snyder, Katherine V. "'Time to Go': The Post-Apocalyptic and the Post-Traumatic in Margaret Atwood's 'Oryx and Crake'". *Studies in the Novel*, vol. 43, no. 4, 2011, pp. 470-489. *JSTOR*, https://www.jstor.org/stable/41319888. Accessed 1 June 2021.

Soper, Kate. Humanism and Anti-Huamnism. Open Court, 1986.

Spiegel, Michael. "Character in a Post-National World: Neomedievalism in Atwood's 'Oryx and Crake." *Mosaic: An Interdisciplinary Critical Journal*, vol. 43, no. 3, 2010, pp. 119–34. *JSTOR*, http://www.jstor.org/stable/44029486. Accessed 15 May 2023.

Sponsler, Claire. "Cyberpunk and the Dilemmas of Postmodern Narrative: The Example of William Gibson." *Contemporary Literature*, vol. 33, no. 4, 1992, pp. 625–44. *JSTOR*, https://doi.org/10.2307/1208645. Accessed 20 May 2023.

Stableford, Brian. "Science fiction before the genre." *Cambridge Companion to Science Fiction*, edited by Edward James and Farah Mendlesohn, Cambridge UP, 2003, pp. 15-31.

Storey, David E., and Phil Christman. "Protagonist Earth." *The New Atlantis*, no. 66, 2021, pp. 131–36. *JSTOR*, https://www.jstor.org/stable/27115513. Accessed 30 August 2023.

Stuart, Keith. "HR Giger: artist whose biomechanical art had vast influence on game design." *The Guardian*,

2014.

https://www.theguardian.com/technology/2014/may/13/hr-giger-died-artist-game-design-biomech anical-surrealist. Accessed 29 July 2023.

Takala, Tuija. "The Many Wrongs of Human Reproductive Cloning." *Bioethics and Social Reality*, edited by Matti Häyry, Tuija Takala, and Peter Herissone-Kelly, Rodopi, 2005, pp. 53-66.

Taylor, Paul. "Fleshing out the Maelstrom: Biopunk and the Violence of Information." *M/C: A Journal of Media and Culture*, vol. 3, no. 3, 2000. *M/C Journal*, https://journal.media-culture.org.au/mcjournal/article/view/1853. Accessed 10 August 2023.

Tymula, Agnieszka, et al. "Adolescents' Risk-Taking Behavior Is Driven by Tolerance to Ambiguity." *Proceedings of the National Academy of Sciences of the United States of America*, vol. 109, no. 42, 2012, pp. 17135–40. *JSTOR*, http://www.jstor.org/stable/41763498. Accessed 30 September 2024.

Ubiria, Grigol. "Nation-State, National Identity, and National Culture in the Era of Globalization." *Imagined Identities: Identity Formation in the Age of Globalization*, edited by Gönül Pultar, Syracuse UP, 2014, pp. 300-314.

Ukpong, Cletus. "Remembering Ken Saro-wiwa 23 years After Brutal Killing by Nigerian Govt."

Premium

Times,

https://www.premiumtimesng.com/features-and-interviews/295004-remembering-ken-saro-wiwa-2

3-years-after-brutal-killing-by-nigerian-govt.html?tztc=1, 2018. Accessed 28 May 2023.

Wolfe, Cary. Introduction. *What Is Posthumanism?*, edited by Cary Wolfe, Minnesota P, 2009, pp. xi-xxxiv.

Wallace, Molly. "Discomfort Food: Analogy and Biotechnology." *Risk Criticism: Precautionary Reading in an Age of Environmental Uncertainty*, University of Michigan Press, 2016, pp. 93–122. *JSTOR*, https://doi.org/10.2307/j.ctt1gk0894.7. Accessed 31 May 2024.

Wegner, Phillip E. "Utopia." *A Companion to Science Fiction*, edited by David Seed, Blackwell Publishing, 2005, pp. 79-94.

Wilson, R. R. "Hiroshima: The Scientists' Social and Political Reaction." *Proceedings of the American Philosophical Society*, vol. 140, no. 3, 1996, pp. 350-357. *JSTOR*, https://www.jstor.org/stable/987313. Accessed 3 December 2023.

"William Gibson", interview by McCaffery, Larry, *Mississippi Review*, vol. 16, no. 2/3, 1988, pp. 217-236.

William, Burling J. "Marxism." *The Routledge Companion to Science Fiction*, edited by Mark Bould, Andrew M. Butler, Adam Roberts and Sherryl Vint, Routledge, 2009, pp. 246-254.

Williams, Paul. "Nuclear Criticism." *The Routledge Companion to Science Fiction*, edited by Mark Bould, Andrew M. Butler, Adam Roberts and Sherryl Vint, Routledge, 2009, pp. 236-245.

Yaszek, Lisa and Jason W. Ellis. "Science Fiction." *The Cambridge Companion to Literature and the Posthuman*, edited by Bruce Clarke and Manuela Rossini, Cambridge UP, 2017, pp. 176-199.