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ENVIRONMENTAL ETHICS, SURVIVAL AND APOCALYPSE: AN ANALYSIS OF MARGARET ATWOOD'S MADDADDAM TRILOGY

Mr. Sarawut Kururatphan

จุฬาลงกรณ์มหาวิทยาลัย
Chulalongkorn University

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Arts in English
Department of English
FACULTY OF ARTS
Chulalongkorn University
Academic Year 2021
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จริยศาสตร์สิ่งแวดล้อม การอยู่รอด และวันสิ้นโลก: บทวิเคราะห์วรรณกรรมไตรภาคชุด แมด แอดดัม ของมาร์กาเร็ต แอตวูด

นายศราวุธ คุรุรัตน์พันธ์

จุฬาลงกรณ์มหาวิทยาลัย
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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาอักษรศาสตรมหาบัณฑิต
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By	Mr. Sarawut Kururatphan
Field of Study	English
Thesis Advisor	Associate Professor DARIN PRADITTATSANEE, Ph.D.

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ศราวุธ คุรุรัตน์พันธ์ : จริยศาสตร์สิ่งแวดล้อม การอยู่รอด และวันสิ้นโลก: บทวิเคราะห์วรรณกรรมไตรภาคชุด แมดแอดดัม ของมาร์กาเร็ต แอตวูด. (ENVIRONMENTAL ETHICS, SURVIVAL AND APOCALYPSE: AN ANALYSIS OF MARGARET ATWOOD'S MADDADDAM TRILOGY) อ.ที่ปรึกษาหลัก : รศ. ดร.ดารินทร์ ประดิษฐทัศนีย์

วิทยานิพนธ์นี้ศึกษาความเชื่อมโยงของจริยศาสตร์กับการอยู่รอดในโลกก่อนและหลังวันสิ้นโลก ในนวนิยายไตรภาคชุดแมดแอดดัม ของมาร์กาเร็ต แอตวูด อันได้แก่ *ออริกส์แอนเครก* (2003) *เดอะเยียร์ออฟเดอะฟลัด*(2009) และ *แมดแอดดัม* (2013) วิทยานิพนธ์นี้วิเคราะห์สังคมดิสโทเปียในจินตนาการของผู้แต่ง ที่ทุนนิยม เทคโนโลยี และวิทยาศาสตร์มีอำนาจล้นเกินในเรื่อง*ออริกส์แอนเครก* วิทยานิพนธ์นี้ใช้แนวคิดนิเวศวิทยาทางสังคม (social ecology) ของเมอร์เรย์ บุกชิน เพื่อเผยรากเหง้าปัญหาที่แท้จริงของวันสิ้นโลก ซึ่งก็คือการมองโลกแบบลำดับชั้นและความไม่เท่าเทียมกันที่หยั่งรากลึกในสังคมและนำไปสู่จริยธรรมอันบิดเบี้ยว วิทยานิพนธ์นี้ศึกษาจริยศาสตร์สิ่งแวดล้อมที่อยู่ในระบบความเชื่อของกลุ่มชาวสวนของพระเจ้าในเรื่อง*เดอะเยียร์ออฟเดอะฟลัด* วิทยานิพนธ์นี้ใช้แนวคิดนิเวศวิทยาเชิงลึก (deep ecology) ของอาร์เน แนสส์ เป็นกรอบเพื่ออภิปรายว่าคำสอนและวิถีชีวิตซึ่งพิจารณาระบบนิเวศเป็นศูนย์กลางของคนกลุ่มนี้อาจเป็นทางเลือกทางจริยธรรมที่สามารถช่วยเพิ่มโอกาสในการอยู่รอดจากวันสิ้นโลกได้ วิทยานิพนธ์นี้วิเคราะห์ปฏิสัมพันธ์ของกลุ่มชาวสวนของพระเจ้ากับสิ่งมีชีวิตอื่นๆ ในเรื่อง*แมดแอดดัม* เพื่อสำรวจจริยธรรมหลังมนุษย์ (posthuman ethics) แบบใหม่ของแอตวูด รวมไปถึงกระบวนการค่อยๆเปลี่ยนแปลงการมองโลกของตัวละครมนุษย์จากการถือว่ามนุษย์เป็นศูนย์กลางมาเป็นการพิจารณาระบบนิเวศเป็นศูนย์กลาง ซึ่งการเปลี่ยนแปลงนี้เป็นสิ่งจำเป็นสำหรับการอยู่ในโลกหลังมนุษย์ ซึ่งมนุษย์และสิ่งมีชีวิตอื่นๆ ต้องการที่จะอยู่รอดและอยู่ร่วมกันอย่างสันติ สุดท้ายแล้ว วิทยานิพนธ์นี้นำเสนอความคิดที่ว่าศิลปะการเล่าเรื่องเป็นสิ่งสำคัญอันขาดไม่ได้ในกระบวนการเปลี่ยนผ่านทางจริยธรรมและการส่งต่อคุณค่าที่เป็นคุณแก่สรรพชีวิตในภายหน้า

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สาขาวิชา ภาษาอังกฤษ ลายมือชื่อนิสิต .....

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Sarawut Kururatphan : ENVIRONMENTAL ETHICS, SURVIVAL AND APOCALYPSE: AN ANALYSIS OF MARGARET ATWOOD'S MADDADDAM TRILOGY. Advisor: Assoc. Prof. DARIN PRADITTATSANEE, Ph.D.

This thesis examines the connection of ethics and survival in the pre- and post-apocalyptic worlds in Margaret Atwood's MaddAddam trilogy: *Oryx and Crake* (2003), *The Year of the Flood* (2009), and *MaddAddam* (2013). It investigates the author's imaginings of a dystopian society marked by rampant technocratic capitalism and unchecked scientism in *Oryx and Crake*. Applying Murray Bookchin's social ecology to shed light on the root causes of the apocalypse, it argues that hierarchical ideology and diversiform inequality deeply rooted in society lead to warped ethics, affecting the crisis. This thesis also examines environmental ethics which is embedded in the belief system of God's Gardeners in *The Year of the Flood*. Employing Arne Naess's deep ecology as a theoretical framework, it discusses how the eco-centric teachings and lifestyle of this group may serve as an alternative ethical model to help increase the chance of survival. Furthermore, analyzing the God's Gardeners' interactions with other beings in *MaddAddam*, this thesis explores Atwood's conception of posthuman ethics and the gradual process of human characters' shift from anthropocentrism to ecocentrism. It also contends that this ideological transformation is essential for the new posthuman reality, in which humans and nonhumans have to ensure the interspecies survival and peaceful coexistence. Finally, it argues that the art of storytelling is dispensable for such an ethical transition and the impartation of beneficent values to posterity.

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Chapter I: Introduction

Paul Crutzen (1933–2021), a 1995 Nobel Prize-winning atmospheric chemist and researcher in climate change, in 2000 proposed to name the present period of the earth's history as the *Anthropocene*, a term which describes an epoch, in which human activities have a significant and massive impact on the planet. We can easily verify this claim simply by observing our surroundings. Climate change phenomena, such as the increase in the earth's temperature, sea level rise, the ice sheets decline, and disastrous changes in ecological systems can be felt globally, as consequences of the human emission of carbon dioxide into the atmosphere. This is not the sole environmental problem that humanity has to confront. Air pollution, water pollution, and degradation of forests are among the most distinct issues which greatly affect not only humans but also every life on earth. Studies have unequivocally validated the fact that humans are the chief culprits behind this ecological doom.

Consequently, with a sense of guilt and ethical responsibility, today a large number of people are rallying to help the world before it is too late. Several schools of environmentalism have emerged in the past decades. However, while all of them strive to salvage the aggravated environment, they do not always agree on any definitive policies or courses of action, because they base their moral consideration on different ethical assumptions. To put it simply, the disagreement lies in how humans position themselves in relation to the natural world and interact with it. There are still many active debates and the search of the best ethics is still in on-going. This points to the fact that environmental issues are complex and require a careful and thorough

examination of ethical questions. These questions regarding humans' relationship with the nonhuman world and how they ought to interact with it are the primary concerns of environmental ethics. They are also the focus of this thesis on Margaret Atwood's (1939–) MaddAddam trilogy.

The MaddAddam trilogy consists of *Oryx and Crake* (2003), *The Year of the Flood* (2009), and *MaddAddam* (2013). All the three novels present a speculative dystopian future in both pre- and post-apocalyptic times as well as the effects of human actions upon the planet and every life on earth. In an ecologically unsalvageable world devastated by human unbridled overconsumption and worsened by the global outbreak of a fatal man-made virus which has killed almost the entirety of *homo sapiens*, leading to the rise of posthumans, a few remaining human survivors narrate their stories both in the past before the apocalypse and the grim circumstances they are facing in the present. The trilogy thus poses such complex and thought-provoking questions of what could possibly be the root causes of the disasters, what might have helped to prevent them, and what humanity and survival will be like in the future.

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This thesis on the MaddAddam trilogy is concerned with three important interrelated issues. Firstly, it examines Atwood's imaginings of a dystopian future of both pre- and post-apocalyptic worlds in *Oryx and Crake*. The analysis displays how her speculative fiction depicts a dystopian world that is brought about by human actions and warped ethics. Secondly, the thesis sheds light on how Atwood emphasizes the vital role of ethics in helping humans prevent and survive the environmental catastrophe by analyzing an alternative ethical lifestyle that Atwood proposes via the characters of God's Gardeners in *The Year of the Flood*. Lastly, it

explores how Atwood highlights the necessity to invent a posthuman ethics as well as the significance of storytelling culture in the propagation of ethics for the sake of the interspecies survival and harmonious coexistence in *MaddAddam*.

Science Fiction, Speculative Fiction, and Dystopian Fiction

To examine the MaddAddam trilogy, it is important and helpful to first familiarize ourselves with the genre of science fiction. In Chris Baldick's *Oxford Dictionary of Literary Terms* (2008), the term "science fiction" is defined as "a popular modern branch of prose fiction that explores the probable consequences of some improbable or impossible transformations of the basic conditions of human existence" (301). However, in science fiction field of study there is no consensus on the genre's definitive definition as important science fiction critics, such as Sherryl Vint, Mark Bould, and Adam Roberts, have noted the difficulty in defining the genre with many critics trying to propose their own descriptions of science fiction[1]. Despite the controversy over the definition, Bould and Vint appear to agree on an approach which views this genre as "historical" and "mutable" (1–3). It is historical in the sense that it reflects upon the dominant technology and science belonging to each age and it is mutable because the genre continues to evolve along with technological innovations and new breakthroughs in scientific discoveries and imagination. In other words, science fiction is a genre which is still in process and on-going. Therefore, in order to understand the overall picture of this genre, it is necessary to trace back to its origin; however, even the opinion on the origin of science fiction varies.

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[1] See Vint, *Science Fiction: A Guide for the Perplexed* (2004); Bould and Vint, *The Routledge Concise History of Science Fiction* (2011); Roberts, *The History of Science Fiction* (2016)

The term “science fiction” was first used by William Wilson in 1851 but was only popularized dozens of years later in 1926 by Hugo Gernsback (1884–1967), an editor of the American magazine *Amazing Stories* (1926–). Gernsback used this term to categorize the kind of stories—"a charming romance intermingled with scientific fact and prophetic vision” (qtd. in Vint 8)—that are written by such writers as Edgar Allan Poe (1809–1849), Jules Verne (1828–1905), and H. G. Wells (1866–1946). This categorization suggests that the origin of science fiction might date back even much further in the past. For instance, Roger Luckhurst, a British writer and contemporary literature scholar, argues in *Science Fiction* (2005) that science fiction can only begin to exist in the context of the late-nineteenth century when technological revolution and literacy, necessary prerequisites for science fiction, were widespread (46). In the same vein to that of Luckhurst, Bould and Vint also argue that Mary Shelley’s classic gothic novel, *Frankenstein* (1818) may thus be deemed to be the first science fiction (2). On the other hand, Adam Roberts, a British science fiction and fantasy novelist, contends that science fiction originates much earlier back to the time of Ancient Greece in the form of *voyages extraordinaires*, i.e., a story of a fantastic journey or augmented experience with a prime example of Homer’s *Odyssey* (*Science Fiction* 25–26).

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The emergence of Gernsback’s *Amazing Stories* as the prototype of pulp science fiction or science fiction magazine marked the trend of the 1930s. At the end of this decade, the magazine was flourishing albeit only briefly. In 1938 *Marvel Science Stories* was launched, followed by *Dynamic Science Stories*, *Fantastic Adventures*, *Future Fiction*, *Planet Stories*, *Startling Stories and Strange Stories* in 1939; and *Astonishing Stories*, *Captain Future*, *Comet*, *Science Fiction Quarterly*, and

Super Science Stories in 1940 (Bould and Vint 41). One of the most popular types of stories in this era was “space opera” or as M. Keith Booker in *Historical Dictionary of Science Fiction in Literature* (2014) calls it “stories of swashbuckling starfaring adventures” (278).

Science fiction’s status in the 1940s was firmly established and also heavily influenced by John W. Campbell (1910–1971), an editor of *Astounding*, a highly successful science fiction magazine of that era. This decade was often regarded as the “Golden Age,” a period when numerous works were published and several prominent science fiction writers established their names, for example, Robert A. Heinlein (1907–1988), Arthur C. Clarke (1917–2008), and Isaac Asimov (1920–1992) (Bould and Vint 61). It was also during the 1940s that science fiction could be generally distinguished into two main categories: hard or Campbellian science fiction and science fantasy. The former coined by P. Schuyler Miller (1912–1974), an American science fiction writer and critic, describes fictional works with solid scientific explanations and accurate technical details, while the latter refers to stories which contain fantastic elements that are inexplicable or still unachievable by science (Bould and Vint 74–76, 85).

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In the 1950s hard science fiction still maintained its dominance but there was also an increasing interest in soft science fiction which is a new type of stories grounded on soft social sciences, such as anthropology and sociology, in contrast to the earlier hard science fiction which is grounded on hard natural sciences, such as physics and chemistry (Bould and Vint 85). It was in this decade that a large number of apocalyptic fiction books appeared: John Wyndham’s *The Day of the Triffids* (1951), *The Kraken Wakes* (1953) and *The Chrysalids* (1955), Richard Matheson’s *I*

Am Legend (1954), John Christopher's *The Death of Grass* (1956), and Pat Frank's *Alas, Babylon* (1959), to name but a few (Bould and Vint 90–91). Furthermore, we also saw a new interest in cybernetics, the technology that deals with the neural system, communication, and automation. However, in the science fiction field the term cybernetics is usually associated with the tropes of cyborgs or cybernetic organisms and AI or artificial intelligence (Bould and Vint 94).

The 1960s and 1970s were marked by a spirit of stylistic experimentation and innovation in science fiction. This is because it was the age of new realities and new fiction since many of past visions and dreams had been realized, such as space programs resulting from the space technological war between the U.S. and the Soviet Union. As writers were writing in correspondence with new realities, a new kind of science fiction emerged called the "New Wave" of science fiction (Bould and Vint 110). Attempting to respond to new problems in a world and to new social movements, this new direction of science fiction addressed contemporary controversial social issues, such as anti-racism, feminism, and environmentalism, thereby decreasing the dominance of hard science fiction and propelling the trend toward soft science fiction (Bould and Vint 126). Works concerned with environmental activism with a primary focus on anthropogenic pollution and overpopulation include Rachel Carson's *Silent Spring* (1962), Philip K. Dick's *Do Androids Dream of Electric Sheep?* (1969), John Brunner's *The Sheep Look Up* (1972), Harry Harrison's *Make Room! Make Room!* (1972), and Ernest Callenbach's *Ecotopia* (1975) (Bould and Vint 140–42).

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The 1980s and 1990s saw a renewed interest in hard science fiction as well as a continuing popularity of apocalyptic fiction, as a consequence of nuclear anxieties

and skepticism of new technological developments and scientific breakthroughs. This bleak imagination of certain imminent apocalypses was predominant in non-print science fiction. This period also saw the emergence of the cyberpunk sub-genre or stories which imagine a future, in which a cyberspace or a global computerized information network and virtual reality technology dominate the society. This cyberpunk sub-genre best exemplified by William Gibson's novel *Neuromancer* (1984) reflects upon important and rising social movements of the age, especially the "identity politics of sexuality, race and gender, and the environmentalist and anti-corporate-globali[z]ation movements" (Bould and Vint 65 and 154).

Lastly, the beginning of the twenty-first century marks the dissolution of stable boundaries between science fiction images and contemporary culture. Science fiction's influences have extensively proliferated to other media, particularly television and film. With the globalized world as the background, writers have attempted to imagine futures and possibilities of the world and humanity with various focal interests. Writers who write with the main concern over capitalism and the environment are, for example, Kim Stanley Robinson who wrote *Science in the Capital* trilogy (2004–2007) and Margaret Atwood who wrote MaddAddam trilogy (2003–2013) (Bould and Vint 184).

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Another key term related to science fiction and relevant to this thesis is speculative fiction. The term "speculative fiction", according to Vint, came to replace "science fiction" as the latter's description was too narrow (75). That is to say, "speculative fiction" is a broadening of the traditional hard science fiction which, as Vint puts it, serves as "a new mode of experimental, aesthetically complex, and socially engaged [science fiction] that came to be called the New Wave" (75). This

type of science fiction concentrates more on the social aspects rather than the technical details or feasibility. By this definition Atwood's MaddAddam trilogy undoubtedly falls into this category.

In addition to speculative fiction, the trilogy may also fit in the dystopian sub-genre. Writings of this tradition depict the trope of a dystopia or an "alarmingly unpleasant imaginary world usually of the projected future" that is the opposite of utopia (Baldick 100). Dystopian fiction is considered a significant form of science fiction and modern satire. Exemplary works of this mode are, for instance, H. G. Wells' *When the Sleeper Wakes* (1899), George Orwell's *1984* (1949) and Russel Hoban's *Ridley Walker* (1980) (Baldick 100).

Ethics and Environmental Ethics

The central issue of Atwood's trilogy and of this thesis is ethics, in particular, environmental ethics. According to Tom Beauchamp (1939–), an American philosopher and professor of philosophy, in his *Philosophical Ethics: An Introduction to Moral Philosophy* (2001), ethics or morality refers to "convention in society about right and wrong human conduct" (4). Morality is considered a social institution and cannot be "purely a personal policy or code" (Beauchamp 4). It is noteworthy that ethics should not be confused with the rules of law. As Beauchamp observes, moral evaluation must be different from legal judgment; in other words, a legal action is not necessarily a right deed morally (5). Moreover, not every set of ethics can apply to every society. Only certain principles, such as "do not kill," "tell the truth," or "do not cause pain" appear to be universally shared by all cultures and can be referred to as

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"common morality" (Beauchamp 6). These, however, merely account for a part of human moral life since there still are many ethical beliefs that people do not share.

There are four approaches to the study of morality: descriptive ethics, metaethics, general normative ethics, and practical normative ethics (Beauchamp 16). The first approach, descriptive ethics, concerns the "factual description and explanation of moral behavior and beliefs" (Beauchamp 16). The second approach, metaethics, is interested in the analysis of terms such as "right," "good," "virtue" and "responsibility" (Beauchamp 16–17). Thirdly, general normative ethics seeks to examine and defend human moral principles (Beauchamp 17). Lastly, practical normative ethics, commonly referred to as "practical ethics" or "applied ethics", deals with moral issues in professional fields, such as law, business, journalism, and medicine (Beauchamp 18). It is important to note that although these approaches urge us to deliberate on moral problems, they provide neither a complete solution nor a definitive answer. This thesis will chiefly examine environmental ethics.

In his *Environmental Ethics: An Introduction to Environmental Philosophy* (2006), Joseph DesJardins, a professor of philosophy, defines environmental ethics as "a systematic account of the moral relation between human beings and their natural environment" (12). In its background lie varying approaches and theories which provide different responses and solutions to the same moral problems. Chief schools of environmental moral philosophy include an anthropocentric school, a non-anthropocentric school, and a holistic school. First of all, the anthropocentric or human-centered school believes that moral value exists in human beings only. Accordingly, humans are therefore not morally responsible for the natural world but for ourselves (DesJardins 12). By contrast, the non-anthropocentric school contends

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that moral value also applies to such nonhuman objects as animals and plants, and that we are ethically responsible for them (DesJardins 13). Finally, holism emphasizes that humans' moral responsibility to a whole community—the natural world included—is more important than their accountability to each individual (DesJardins 13).

Among various theories in this field of environmental philosophy there are two significant schools of thoughts that are relevant to this thesis. They are deep ecology and social ecology. Deep ecology was propagated by Arne Naess (1912–2009), a Norwegian philosopher and founder of deep ecology, who criticized shallow environmental activism of his time. In his 1973 article "The Shallow and the Deep, Long-Range Ecology Movement: A Summary" Naess argues that mainstream environmentalism lacks a real depth since it considers solutions of environmental problems, such as pollution and exhaustion of natural resources, only for the sake of preserving humans' benefits and not for the well-being of the natural world (2263). This shallowness stems from the popular view that "nature has no value apart from the needs, interests, and good of human beings" which is antithetical to deep ecology's core belief that "nature has value in its own right" (DesJardins 221). Shallow environmentalism thus, as Naess critiques, displays a human-centered attitude and tends to chiefly benefit privileged people in developed nations ("The Shallow" 2263). On the opposite spectrum, deep ecology promotes a more non-anthropocentric and holistic approach, advocating a radical change in people's philosophical ideology for the benefits of all lives in the ecosystem. It regards the predominant anthropocentric worldview as the responsible root cause of environmental destruction and strives to replace such a perspective with "ecological

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consciousness" which gives importance to the "unity of humans, plants, animals, [and] the Earth" not just humans (DesJardins 204–5).

The other theory of environmental ethics relevant to this thesis is social ecology, developed by an American social theorist and developer of social ecology, Murray Bookchin (1921–2006). Bookchin has written prolifically about the human domination and exploitation of the natural world in relation to social inequality and hierarchies. In his book *The Ecology of Freedom* (1982), Bookchin argues that there exists a hierarchical structure of domination in society, in which there are always at least two differentiations: the superior and the inferior (1). He further contends that this systemic and structural hierarchy is the ideological foundation to the human oppression of nature (1). Bookchin's ultimate goal is to establish a new form of libertarian social ecology or "eco-anarchism," Bookchin's favorite term which he takes from a review of his book by Victor Ferkiss (2). Bookchin envisions the ideal free society founded upon ecological principles which necessitate "direct democracy," "urban decentralization," "self-sufficiency" and "self-empowerment based on communal forms of social life" (2).

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Margaret Atwood's Life and Works

Margaret Eleanor Atwood was born on 18th November, 1939 in Ottawa, Canada. Her father, Carl, was an entomologist who might be credited for Atwood's love of science. Since her early childhood, her father brought her on his scientific exploration in the woods. They lived far from cities and people until Atwood was five, when the Second World War ended. Even as a child Atwood was a voracious

reader despite not being in formal schooling. The books she read were eclectic, ranging from literature to myths and fairy tales.[2]

She matriculated from Victoria College, University of Toronto in 1957 and continued her Master's degree at Radcliffe College in the United States. By 1961 she had gone to Harvard University but her dissertation was never finished. Her planned doctoral work was entitled "Nature and Power in the English Metaphysical Romance of the 19th and 20th Centuries." Later in her career, she became a leading literary force in Canada and received honorary doctorates from Harvard University and other leading universities, for example the University of Toronto, Cambridge, and Université de la Sorbonne Nouvelle, Paris. She also taught at several universities.

Atwood is a prolific writer. Her writings are also in a great variety of genres ranging from children's books to literary and cultural criticism. Her major works are *The Edible Woman* (1969), *Surfacing* (1972), *Survival: A Thematic Guide to Canadian Literature* (1972), *Lady Oracle* (1976), *Life Before Man* (1979), *Bodily Harm* (1981), *The Handmaid's Tale* (1985) *Cat's Eye* (1988), *The Robber Bride* (1993), *Alias Grace* (1996), *The Blind Assassin* (2000), *Oryx and Crake* (2003), *The Year of the Flood* (2009), *MaddAddam* (2013), and *The Testaments* (2019). In the ten-year span of the publication of MaddAddam trilogy she has written two works of non-fiction: *Payback: Debt and Shadow Side of Wealth* (2006), a collection of essays, in which the author explores different dimensions of debts, and *In Other Worlds: SF and the Human Imagination* (2011), in which Atwood discusses the notion and the importance of science fiction to humans.

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[2] For more information on Atwood's biography, see Heidi Macpherson's *The Cambridge Introduction to Margaret Atwood* (2010)

Both critically and commercially successful, Atwood has been awarded with numerous honorary prizes; for instance, The Norwegian Order of Literary Merit, The Booker Prize, The Giller Prize, Arthur C. Clarke Award, Franz Kafka Prize, the National Book Critics Award, The Governor's General Award, and the PEN Center USA Lifetime Achievement Award. In 1987 Atwood became a Fellow of Royal Society of Canada, proving herself to be an important figure in Canadian cultural society. Moreover, she is regarded as a literary celebrity, notwithstanding her rejection of such a status.

Atwood dislikes literary labels and being biographically identified with her work. She also contends that her novels are not science fiction. Instead, she regards her novels as speculative fiction. She elaborates this idea in more details in her book *In Other Worlds* which is in response to Ursula K. Le Guin's (1964–2018) stringent review of *The Year of the Flood*. Le Guin, one of the foremost authoritative figures in the field of science fiction and fantasy, pointed out in her article that "[t]o my mind, *The Handmaid's Tale*, *Oryx and Crake*, and now *The Year of the Flood* all exemplify one of the things science fiction does, which is to extrapolate imaginatively from current trends and events to a near-future that's half prediction, half satire" (qtd. in *In Other World* 5). Le Guin then critiqued Atwood's reluctance to label her work as science fiction, stating that "[Atwood's refusal to refer to her works as science fiction] seems designed to protect her novels from being relegated to a genre still shunned by hidebound readers, reviewers, and prize-awarders. She doesn't want the literary bigots to shove her into the literary ghetto" (qtd. in I*n Other Worlds* 5–6).

Le Guin's harsh comment then prompted a clarification from Atwood. Since their public discussion in 2010, the two have come to understand that each of them

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must have misunderstood what they meant when they refer to science fiction. For Le Guin, the fiction that depicts things and occurrences which could really happen in the future is science fiction, whereas the stories that imagine such impossible elements and images as mystical beasts and magic are assigned under the term fantasy. Le Guin's terminology differs from Atwood's, as the latter concludes, "[i]n short, what Le Guin means by 'science fiction' is what I mean by 'speculative fiction,' and what she means by 'fantasy' would include some of what I mean by 'science fiction' " (*In Other Worlds* 7). Atwood further offers her own umbrella term "wonder tale," which includes all "Science Fiction, Speculative Fiction, Sword and Sorcery Fantasy, and Slipstream Fiction" (*In Other Worlds* 8). This thesis regards the MaddAddam trilogy as speculative fiction in agreement with Atwood's personal preference.

By extension, the MaddAddam trilogy can also be read as dystopian fiction because it contains tropes usually found in the tradition of dystopian texts: the CorpSeCorps as a totalitarian governing establishment similar to that in George Orwell's *1984* (1949) and Crake as a mad scientist figure who disregards the importance of lives and morality in his relentless and overly ambitious pursuit of the utopian goal resulting in a catastrophic tragedy. However, it is important to point out that for Atwood there are no such things as the absolute dystopia or utopia. Atwood wittily remarks in *In Other Worlds*:

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> Dystopias are usually described as the opposite of utopias — they are Great Bad Places rather than Great Good Places and are characterized by suffering, tyranny, and oppression of all kinds. Some books contain both — a sort of "look on this picture, then on that," as Hamlet puts it — one, noble and virtuous; the other, corrupt and vicious. Polar opposites.

> But scratch the surface a little, and — or so I think — you see something more like a yin and yang pattern; within each utopia, a concealed dystopia; within each dystopia, a hidden utopia, if only in the form of the world as it existed before the bad guys took over. (85–86)

Instead, Atwood coins the term "ustopia" to describe this kind of fictional world. In her article "The Road to Ustopia," published online in *The Guardian* on 14th October 2011, she explains: "[u]stopia is a world I made up by combining utopia and dystopia—the imagined perfect society and its opposite—because, in my view, each contains a latent version of the other." Such a description also well matches the MaddAddam trilogy.

Literature Review

A great number of scholars and literary critics have studied Atwood's MaddAddam trilogy and approached it from different perspectives. Among the three novels in the trilogy, *Oryx and Crake* is the most examined. Notable theoretical approaches in existing criticism include psychoanalysis, ecocriticism, and feminism.

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Several critics, such as Sarah A. Appleton, Stephen Dunning, and Katherine Snyder, employ psychoanalysis to shed light on the novels. Appleton in her "Myths of Distinction; Myths of Extinction in Margaret Atwood's *Oryx and Crake*," published in her book *Once Upon a Time: Myth, Fairy Tales and Legends in Margaret Atwood's Writing* (2008), uses a Jungian archetypal theory to analyze Jimmy's childhood in connection with his psychological relationship with Crake, Oryx, and his mother. The world of Jimmy in his early years is shattered by the lack of maternal love and warmth, hence, the story about his relationship with Oryx he narrates may be

read as a hyper-realized narrative that he invents to compensate for his broken link with his mother (Appleton 9–24).

Dunning's "Margaret Atwood's *Oryx and Crake*: The Terror of the Therapeutic" (2005) employs a Freudian approach in its analysis of Crake. Dunning contends that Crake's motive for exterminating humans from the earth is driven by his psychological traumas, as a result of his unhappy childhood and a broken family, rather than by a purely benevolent environmentalist cause. For Dunning, Crake is a megalomaniac who largely strives to satisfy his own psychological needs (86–101).

Similarly, the issue of childhood psychological trauma has also been investigated by Snyder in her article "'Time to go': The Post-Apocalyptic and the Post-Traumatic in Margaret Atwood's *Oryx and Crake*" (2011). Snyder points out that the double temporal setting and time disruption of the novel can be read as a symptom of a trauma. The juxtaposition between the present and the past significantly connects Jimmy's and Crake's loss in their early childhood with the more severe trauma that follows. The article illuminates how an individual's domestic troubles may develop into such a grave global problem as the extermination of the human race (470–89).

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While psychoanalytical critics investigate the psychology of characters, others approach the novels from an ecocritical perspective. For example, Jane Brooks Bouson in her article "A 'Joke-Filled Romp' Through End Times: Radical Environmentalism, Deep Ecology, and Human Extinction in Margaret Atwood's Eco-Apocalyptic MaddAddam Trilogy" (2016) argues that Crake can be read as a radical environmentalist. In this way, she contends that Atwood considers the philosophy of deep ecology and radical environmentalism together with the Earth First! movement

as having the potential to truly make changes to the world. Atwood thus advocates a view held by some radical environmentalists who regard *homo sapiens* as eco-pathological threats to the earth and all living beings on it. Based on this line of reasoning, Crake can be interpreted not as a wicked mad scientist, but as an altruistic eco-centric humanitarian since he is concerned about the survival of the entire planet, not just of human beings. In this light, Crake kindly replaces problematic pathological mankind which is considered already beyond redemption with a new peaceful and eco-friendly species. Moreover, Bouson also suggests that a possible solution to the impending ecological apocalypse in Atwood's novels is to include interspecies cooperation and interspecies breeding (341–57).

In another article entitled "'We Are Using Up the Earth. It's Almost Gone': A Return to the Post-Apocalyptic Future in Margaret Atwood's *The Year of the Flood*" (2011), Bouson contends that Atwood critiques the Americanism that is characterized by a culture of unbridled consumption as chiefly responsible for ecological damage. Bouson also points out a hidden deep dystopian fear held by some in the novel that scientific advances will never bring humanity to the ideal state and instead will take them toward the destructive end. For Atwood, it is therefore the eco-religion of God's Gardeners, not science, which is the right answer for environmentalism and the hope for a better world (9–26).

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We can see a response similar to Bouson's in Zhange Ni's article "Wonder Tale, Pagan Utopia, and Margaret Atwood's Radical Hope" from the book *The Pagan Writes Back* (2015). Ni argues that God's Gardeners are the example of a neopagan religion whose environmental doctrines seem to be the hope for human survival in the wake of the ecological apocalypse and the deadly virus outbreak (98). Ni further

suggests that Atwood's work supports paganism which opens up new possibilities in the times of severe crises (98).

Nonetheless, not every critic is similarly optimistic about the bright future of humans in the light of the ecological cataclysm as Bouson and Ni. Gerry Canavan in "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*" (2012) reads the novels as the end of history and the loss of faith in any possibility for radical changes to improve the human civilization. Living in the postmodern world, humans are now certain that they cannot escape from the capitalistic society which is full of unsolvable problems. Canavan views that the only thing which has enough power to alter the foundation of capitalism is therefore the apocalypse which signifies the end of all humanity. However, against such pessimism, this is not to say that there is no hope at all or that humans cannot be reformed. The group of God's Gardeners suggests a possible way in which humans can drastically change their lifestyle and their social and ecological paradigm. For Canavan, any hope for the future thus resides not in the old kind of humans who refuse to change, but in the God's Gardeners who are ready to adapt (138–59).

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Another ecocritical critic critiques capitalistic science and ecotopianism. Allison Dunlap in her article "Eco-Dystopia: Reproduction and Destruction in Margaret Atwood's *Oryx and Crake*" (2013) argues that Atwood's book is a cautionary tale against any over-ambitious and costly design to exhaustively eliminate all human sufferings and ailments. Dunlap points out it is hierarchical reasoning that produces the system of subordination which unfairly distributes wealth and power to people, thereby criticizing the assumption that human beings are superior to other

nonhumans. In the end Crake's ambitious scheme to instantly uproot all the sufferings of the human race does not yield a successful result because such a plan is too simplistic and impractical (1–15).

Finally, in "Humanity Cast as the Other in the Tragedy of Life: An Ecocritical Reading of Margaret Atwood's *Surfacing, The Handmaid's Tale* and MaddAddam Trilogy" (2017) Parisa Changizi and Parvin Ghasemi identify the human view of their unique self as separated from the natural world as the root of the human fear and antagonism toward nature. Because humans instinctively perceive nature as their ultimate adversary, their desire to survive and overcome the hostile environment is the underlying principle of their behavior. This explains why, in *Oryx and Crake*, Crake and other scientists strive to research immortality and experiment on possible ways to continue living against all odds (55–73).

In addition to the ecocritical and the psychoanalytic approaches, Atwood's writings are often read through a feminist lens. For example, Calina Ciobanu in her article "Rewriting the Human at the End of the Anthropocene in Margaret Atwood's MaddAddam Trilogy" (2014) argues that in the trilogy there are two lines of possibility for human survival which is decided by two genders: male or female. The possibility that is based on a male paradigm prioritizes the number of survivors in presence. This is best seen in the situation, in which Zeb refuses to go and help Amanda who is caught by the painballers, because Amanda's fate is unknown and he does not want to risk the well-being of remaining people. On the other hand, the novel presents the female possibility as a new preferable direction for humanity. This female approach to problems is evidenced by Toby and Ren's dangerous quest to rescue the captured Amanda, despite all the dangers and the fact that the two women's

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enemies are strong brutal criminals. Toby and Ren's action implies that no life is disposable. Moreover, human moral consideration also extends to the posthuman as by the end of *MaddAddam* the humans also include the Crakers along with the Pigoons into their community as equal members. The MaddAddam trilogy can thus be read as an attempt to rewrite the traditional anthropocentric assumption of male superiority and human supremacy (153–62) .

Another example of a feminist reading is Anna Lindhe's "Restoring the Divine Within: The Inner Apocalypse in Margaret Atwood's *The Year of the Flood*" (2015). Lindhe examines Toby's transformation from the state of being abuser's desperate victim to a redeemer of faith, as a result of God's Gardeners' teachings. However, this positive development can only be achieved by restoring ethical values, especially those of social relations with other living beings, which include gratitude, charity, forgiveness, and love. These qualities are usually believed to associated with women (42–56).

Along similar lines, Anna Bedford in her article "Survival in the Post-Apocalypse: Ecofeminism in *MaddAddam*" (2015) connects the theme of survival with a feminist agenda. In the novel Atwood condemns capitalism and its exploitation and instrumentalization of women together with nature which eventually leads to the apocalypse. As Bedford argues, Atwood suggests that the best way to survive in the world after the apocalypse is, in an essence of female values, to gather people who care about the lives of everyone in the community regardless of their gender and use (71–92).

Lastly, some critics have studied the novels with a focus on the issue of biotechnology and the posthuman. For example, Bouson in "'It's Game Over

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Forever': Atwood's Satiric Vision of a Bioengineered Posthuman Future in *Oryx and Crake*" (2004) reads Crake's devious plot to spread the virus and replace humans with the Crakers as a big biotechnological game. In this age science can produce a kind of hybrid animal and even create a new sort of human, thereby trespassing the traditional boundaries of humans and other species. With this kind of power in his hand, Crake can toy with the life and death of the human race in the same manner as playing a game. As Bouson contends, Atwood's novel should be read as a cautionary tale against the misuse and abuse of scientific knowledge and technology which could lead to a global-scale disaster (139–56) .

Objectives and the Chapter Outline

This thesis will consider the connection between ethics and survival in the pre- and post-apocalyptic worlds in Margaret Atwood's MaddAddam trilogy: *Oryx and Crake* (2003), *The Year of the Flood* (2009), and *MaddAddam* (2013). It will examine how Atwood's speculative fiction imagines the dystopian society where capitalism and technocracy reign supreme causing multifarious social problems, which eventually escalate into an apocalypse that almost obliterates the entire human race. Atwood stresses in all of the three novels the significance of ethics for humans' survival. In the dystopian landscape of the novels, humans have to decide how they should live in correspondence with the new posthuman reality. This thesis will thus examine the role of ethics in both human interactions and relationships with the nonhuman world. Furthermore, it will analyze an alternative ethical model that Atwood proposes in her novels as one of the means for the survival of the planet's inhabitants. Finally, since the trilogy sheds light on the complexity of human ethics,

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this thesis will explore the problems in ethics and Atwood's suggestion of a posthuman ethics that is conducive to the survival of posterity.

With a chief focus on *Oryx and Crake*, the second chapter investigates social conditions of the dystopian world ruled by a monstrously capitalistic and technocratic megacorporate in connection with environmental crises. It demonstrates how the novel presents social problems, such as class discrimination, dehumanization, and inequality, as closely related to humans' environmental exploitation. Employing Bookchin's social ecology as a framework to approach the novel, this chapter analyzes the manifestation of power hierarchy at various levels, ranging from a character level to an institutional level and finally to that of society as a whole. This notion of hierarchy also deeply influences the human treatment of the natural world. This chapter further argues that the ruination of ecology, degradation of environment, and exploitation of natural resources that humans in the pre-apocalyptic world are facing are the results of the hierarchical mindsets of people, organizations, and communities. In short, the various forms of social oppression correspond with human oppression of the nonhuman world.

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The third chapter of the thesis examines ethics embedded in the environmentalist cult of God's Gardeners in *The Year of the Flood*. Analyzing God's Gardeners in tandem with deep ecology, it argues that God's Gardeners' fundamental doctrines are similar to some core values of deep ecology, for instance, a belief in the intrinsic value of nature not its usefulness, the principle of all lives' equal rights to live and develop, and the policy of non-violence and non-interference with the natural world except for the fulfillment of vital necessities. God's Gardeners base these principles on their own unique belief system and lead an eco-centric and self-

sufficient life in a small self-sustained community that underlines the importance of love and trust between humans and other animals. This religion is an alternative ethical model that Atwood proposes as a means for humanity to cope with the environmental apocalypse and survive.

The fourth chapter examines God's Gardeners' posthuman ethics that is vital to the survival and interspecies coexistence in the posthuman time. Because after the apocalypse there are new life-forms sharing the world with human survivors, *MaddAddam* suggests the necessity to reconsider humans' ethical consideration pertaining to their cohabitants and to give other creatures moral value to make possible living together in harmony. Via stories and storytelling of the interactions and relationships between humans and posthumans, Atwood signals a gradual negotiating process of transition from anthropocentric ethics to non-anthropocentric ethics.

It is hoped that this thesis will illuminate the significance of the profound connection between ethics and survival in the wake of apocalypse in Margaret Atwood's MaddAddam trilogy. This thesis further attempts to help make the reader more alert to the looming threat of ecological calamities, thereby suggesting them to deliberate on their relationship and interconnectedness with the natural world and other nonhumans and to develop the ecological conscience, mindfulness of others, and eco-centric ethics which are vital for all creatures in the posthuman reality.

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Chapter II: Atwood's Speculative Dystopian Imagination: Inequality, Hierarchy, and Warped Ethics as Harbingers of Apocalypse in *Oryx and Crake*

From the beginning to the end of the novel, the reader of Margaret Atwood's *Oryx and Crake* may find themselves asking a myriad of questions, but one of the most discussed topics would definitely be along the line of this: who or what are the causes of the apocalypse that has befallen human species? Attempts at answering this ostensibly simplistic problem tend to point the finger at Crake, a genius transgenic scientist who is the mastermind behind the catastrophic virus. However, doing so and merely stopping there would only amount to putting the responsibility of all humanity on a single person—which is convenient yet hardly justifiable. If Crake is indeed the treacherous criminal to the human species, then we must enquire further what it is in our world that gives birth to such a figure as Crake who unleashes deathly apocalypse upon the earth. Such is Atwood's project as the author imagines a dystopian future exploring possibilities of the human race to survive as it is pitted against the end of the world as a consequence of its own actions. This is also in keeping with Atwood's lifelong ultimate interest in the issue of survival evident since the 1972 publication of her book *Survival: A Thematic Guide to Canadian Literature,* in which she puts forward that the theme central to Canadian literature is survival. The author's conviction continues to hold true, especially in the present time as Atwood explains in her semi-memoir added in 2012 to *Survival* that now "[o]n the global stage – a stage where weird weather caused by climate change is in the spotlight – there's the sense

that we're clinging on by our fingernails" (xii). It is in *Oryx and Crake* that Atwood imagines how humanity's survival is at stake.

In her attempt to warn us of the impending doom and explore humanity's chance of survival, Atwood relies on the potential of speculative fiction, as she chooses to refer her work, to presage an apocalyptic future. Because Atwood's *Oryx and Crake* as a work of speculative fiction "explore[s] the outer reaches of the imagination by taking us boldly where no man has gone before, or indeed ever" (*Oryx and Crake* 63), it enables the author and the reader alike to examine an eerily plausible ending of the world through powerful imaginings. Atwood and a great number of scholars appear to agree on the significance and the capacity of speculative fiction, specifically dystopian and apocalyptic writings, to challenge the reader's worldviews and even to influence their ideology and behavior. Ashley Winstead contends that in the twenty-first century speculative fiction as a forecasting narrative contains the performative power that is conducive to the production of interdisciplinary knowledge ("Beyond Persuasion" 228–49). Lawrence Buell argues that the trope of apocalypse, exclusive in the genre of science fiction, "is the single most powerful master metaphor that the contemporary environmental imagination has at its disposal" to warn humans against the disastrous repercussions resulted from their activities and actions (*The Environmental Imagination* 285). Expanding on Buell's notion, Canavan suggests that "[t]he apocalypse is the only thing in our time that seems to have the capacity to shake the foundations of the system and 'jumpstart' a history that now seems completely moribund—the only power left that could still create a renewed, free space, in which another kind of life might be possible" (139). Similarly, Snyder in her analysis of *Oryx and Crake* also remarks that "post-

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apocalyptic fictions such as *Oryx and Crake* enable us to witness the unwitnessable and to survive the unsurvivable" (486).

Indeed, such power of science fiction or fiction in general naturally comes with responsibility. Perhaps it is a calling of writers, such as Atwood to dispute Francis Fukuyama's defeatist claim; that in the postmodern age such as now, human beings have arrived at grim realization with much certainty that the world cannot change for the better ("The End of History?" 1–18), by writing and telling stories that are based on hope. Atwood's optimistic conviction in the writer's moral responsibility toward society is in accordance with Bouson who notes that Atwood "believes in the transformative – and ethical – potential of imaginative literature" (*Margaret Atwood: The Robber Bride, the Blind Assassin, Oryx and Crake* 23). Along this line of thought, this chapter contends that *Oryx and Crake* is the story that prompts the reader to carefully observe and question what renders the book's apocalyptic dystopian landscape possible.

Approaching the novel through an ecocritical lens, this chapter examines Atwood's fictive speculation of a dystopian future in an attempt to illuminate the root causes of the world's social and ecological ruination. It specifically investigates the condition of human society and the main characters during the time before the lethal pandemic in order to provide some insights into the interconnection between the novel's pre-apocalyptic landscape and the tragic happenings that occur out of it. Through the analysis of social and environmental state of being in a dystopian future, particularly Atwood's imaginings of a pre-apocalyptic world—when humanity is barely hanging on by a fingernail—this chapter argues that the elements constituting the dystopian landscape and serving as harbingers of apocalypse are diversiform

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inequality, deep-seated hierarchy, and warped ethics that are so profoundly ingrained in every socio-political and socio-economic stratum in *Oryx and Crake*. The examination of the three major characters, Jimmy, Crake, and Oryx demonstrates how social condition and environment have a significant influence on the characters, especially their hierarchical and exploitative attitude toward the natural world. To substantiate the arguments, it employs Bookchin's social ecology as a theoretical framework to help draw connections between social problems and environmental issues. This chapter's interpretation argues against a purely reductionistic, biologically deterministic, and eugenic view represented by Crake and sees ecological concerns as intertwined with political, economic, and social issues.

Atwood's Imaginings of a Pre-Apocalyptic Dystopian Future

Set in a speculative and not so distant future, *Oryx and Crake* begins with Snowman, the novel's focalizer who has survived for several months after the apocalyptic outbreak of lethal virus called Jetspeed Ultra Virus Extraordinary or JUVE that almost annihilates the whole race of *homo sapiens*. Snowman is currently staying with a group of the lab-bred humanoids called the Crakers, whose eponymous now dead creator is Crake, a genius transgenic scientist and Snowman's best and possibly only friend. Believing himself to be the last of his kind, Snowman is suffering from symptoms of severe depression including disruptive hallucinations, recurring nightmares, constant reveries, and ever-haunting fragments of his old memories. As he is making his arduous journey to the RejoovenEsense Compound, where he used to live, in order to find more food, Snowman occasionally experiences mentally epileptic moments which reveal his past during the time before the deadly

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pandemic. The pre-apocalyptic world is delineated as a technocratic capitalist dystopia where the populace is under the strict control of the CorpSeCorps, a tyrannical security company whose power and authority rival that of an authoritarian and totalitarian government. In addition to horrendous living condition plagued with diseases and social ills of all kinds, nature is also in extremely dire straits, as a result of human unfettered exploitation of nature. Gradually, Snowman keeps reminiscing stories of his younger self, Jimmy, of his past with Crake and Oryx, and of how the curtain falls on humanity. The novel ends with the image of feverish Snowman with a gun in hand discovering that there are three other human survivors on a seashore.

In a rigorous inquiry into the responsible root causes of a futurological dystopia in *Oryx and Crake*, the scholarship on Atwood has, with great vigor, condemned multifarious culprits. At the top of the condemnation list is unchecked capitalism. This chapter agrees with critics, such as Dunja Mohr, who views the novel's pre-apocalyptic society as an eco- and biotechnological dystopia that is a result of hypercapitalism ("Eco-Dystopia and Biotechnology" 283–302). Reading the novel in this light, we can see that Atwood orchestrates a scabrous and uncannily familiar world before us. Unrestrained global capitalism together with full-blown scientism has thoroughly dominated human society, causing the collapse of traditional democracy, the emergence of a business-run technocratic authoritarian state, and lastly the widespread ravaging of the environment for human benefits. The ever-increasing power and influence of corporate businesses, especially the gigantic multinational corporations, have become the bedrock of human civilization. The embodiment of such a fact is the CorpSeCorps, a megacorporate enterprise which starts as a security company and is eventually transformed into the biggest tyrant in

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the business and the world. Under the CorpSeCorps' prevalent shadow, human society becomes imbued with capitalist greed, and money turns into a new god that most people worship. The appearance of the CorpSeCorps also marks the disappearance of traditional authority and state as it thoroughly replaces the previous form of government. People do not show any resistance to this political change since they, with understandable reasons, seem to consider this new corporate replacement better and more promising than the useless and corrupted government of the former time. Moreover, perhaps owing to the dissolution of governments and national states, although it is never explicitly mentioned in the book, democracy or a democratic state seems to have disappeared into thin air. Without any power to counterbalance it, the titanic corporation has morphed into a sort of Orwellian Big Brother, i.e., the totalitarian authority whose draconian surveillance and regimentation oppress its denizens. Snowman's narrative of the pre-apocalyptic society portrays the CorpSeCorps as having fully enjoyed its dictatorial reign over the planet—although it is not long before the forthcoming radical intervention by Crake.

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Rampant capitalism propagandizes consumerism that has flourished along with the compounders' extravagant and hedonistic lifestyles. People revel in an easy life facilitated by technological innovations in various areas ranging from fun gadgets to practical equipment and useful services. But this luxury is not free. Based on this *status quo*, the wealthier you are, the happier you can be as more gates to indulgent happiness are accessible to you. Consequently, money and affluence become the ultimate indicator of one's social status as well as a guarantee of a contented life by a consumerist standard. By extension, knowledge and skills in the field of science and technology are more desirable than others because they satisfy the market's demands.

The prime examples of this are genetic scientists like Jimmy's father and Crake who earn a lot of money and lead good lives, thanks to their profitable talents. The most important role that consumerism plays in this novel is probably as a highly efficient tool of the technocratic capitalistic state to control its people by constantly encouraging insatiable consumption. Mercantile and consumerist ethics supersedes other kinds of morality resulting in various social problems, such as inequality and abuse of power.

In addition to uncontrolled hypercapitalism, another cultural force that has dominated Atwood's fictional world is scientism. It describes the dogmatic and often excessive belief in natural science as the only definitive methodology to objectively and empirically validate truths and reality and acquire knowledge. This almost fanatical faithfulness to scientific methods and rationale has become the ideological foundation of human society. That people who are gifted with scientific knowledge and ingenuity can contribute more to the company's business, thereby enjoying a more privileged life, is evident in the novel. The influence of science is especially far-reaching for the Compounders or people living in the Compounds where science and technology are integral to the whole gamut of compounders' quotidian lives from food, healthcare, security, to products for daily uses. Perhaps the most vivid manifestation of scientism in *Oryx and Crake* is seen in Crake's glorification of his successful Paradice project, which claims to remove detrimental features inherent in human genes, as he declares: "what once-unimaginable things had been accomplished by the team here" (358). When Jimmy protests that such projects are crossing the line of conventional morality, Crake nonchalantly rebuts that "[t]hey represent the art of the possible" (359). This exchange shows an unshakable faith in science and

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technology at its pinnacle. If the moral boundary can be crossed then why not? Furthermore, at a deeper level, a manipulative reductionist rationale embedded in scientific endeavors—such as Crake's ambition to cure social ills by engineering human genes—also underpins the ways in which people think, live, and behave as well as the ways in which social institutions operate. That is to say, humans assume a eugenic view that they can attain perfection simply and purely via science and biotechnology. However, such belief is proven to be a mere castle in the air by Crake's telling failure to genetically edit out singing and natural predisposition for culture in the Crakers. Concerns over the problematics of science are in line with critics, such as Karen Stein who sees Crake as the living embodiment of the misuse of science in the same manner as the protagonist of Mary Shelley's *Frankenstein* ("Problematic Paradice" 141–55); Slawomir Kuznicki who points out that by writing in the genre of dystopia and science fiction, Atwood automatically engages in the critique of science, though it does not necessarily mean that technology is harmful *per se* depending on humans who employ it (*Margaret Atwood's Dystopian Fiction* 76–77); Dunlap who contends that *Oryx and Crake* can be interpreted as a caution against any extreme scientific or technological solution to the environmental crisis ("Eco–Dystopia" 1–15); and Dunning who reads the novel as a warning against the underlying danger of therapeutic eugenic science ("The Terror" 86–101).

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The final and severest of all crises in Atwood's dystopian imaginings is arguably environmental. Global ecological catastrophes are threatening every life on earth. To start with, human-induced climate change has affected the pre-apocalyptic world in full force. Conventional seasons, such as Spring, Summer, Winter, and Fall, have ceased to exist. The weather has also become unpredictable and dangerous. Even

several months after the virus apocalypse and the disappearance of most humans and their activities, the natural climate is still life-threatening as Snowman has to avoid unbearable heat during the mid-day described as the scorching super UV ray or "the punishing sun" (*Oryx and Crake* 6) and has to always be wary of sudden thunderstorms. Different parts of the world have been inflicted by different symptoms of the ill Mother Earth; the U.S. State of Texas has drastically transformed into a completely inhabitable desert forcing millions to migrate, and Oxford University has been inundated due to a rise in sea level. Sequentially, there are fewer natural resources for humans to exploit. Natural food is increasingly substituted by lab-created edible ingredients and GMOs, such as Sveltana No-Meat Sausage, ChickieNobs, and Secret Burger; all of which are not only said to have awful flavors but also are often of a dubious origin. A hidden bright side is that there is no need to be so concerned about carbon dioxide emissions from fossil fuels any more since gasoline, coal, oil, and such have already been depleted, leaving the Compounds no choice but to use other alternative sources of power, such as solar energy. Global climate change along with deforestation as part of business expansion and economic growth is speculated to have been factoring in daily massive extinction of species. The express way to extinction is not exclusive to other species because *homo sapiens* is too predicted to be on its way erelong as Crake reveals to Jimmy:

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> I've seen the latest confidential Corps demographic reports. As a species we're in deep trouble, worse than anyone's saying. They're afraid to release the stats because people might just give up, but take it from me, we're running out of space-time. Demand for resources has exceeded supply for decades in

> marginal geopolitical areas, hence the famines and droughts; but very soon demand is going to exceed supply for everyone. (347)

According to Crake's classified statistical data, humanity is running out of food, space, time and luck. Another poignant reminder from Atwood's dystopia here is that even if all human activities are to immediately and effective cease, the already badly damaged earth will not recover soon—provided that it will ever at all. Under such circumstances it is unsurprising that some critics of *Oryx and Crake* regard humanity's doom as inevitable (Bouson "'We Are Using'" 9–26; and Canavan 138–59).

This chapter agrees with several other critics on the fact that unrestrained global capitalism, unchecked scientism, and immoral technology are accountable for ecological disasters in *Oryx and Crake.* However, reading the novel with the assistance of Bookchin's social ecology, it attempts to shed light on more specific elements of human society that are associated directly and indirectly with environmental crises. As this chapter argues, diversiform inequality and pervasive hierarchical thinking, which result in the society's warped ethics, are essential factors in the downfall of humanity and the destruction of the natural world.

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Ubiquitous Inequality and Hierarchical Thinking

This chapter's examination of *Oryx and Crake* discovers that in the novel's pre-apocalyptic dystopian landscape wealth and knowledge are the most prominent areas, in which inequality and hierarchy are best seen. Various kinds of hierarchy dominant and deep-rooted in human society serve as a perfect environment conducive to the fermentation of people's hierarchical perception of both humans and

nonhumans. Such a worldview leads to the human exploitation of the natural world. This corresponds with Bookchin's theory of social ecology which, as he succinctly summarizes, claims that "the very notion of the domination of nature by man stems from the very real domination of human by human" (*The Ecology of Freedom* 5). Bookchin argues that all kinds of environmental issues faced by humanity today are a result of humans' actions. These actions, Bookchin further explained, are the physical manifestation of that which is imbued in human psyche, i.e., the conception of hierarchy and domination.

Bookchin sees hierarchy as "the cultural, traditional and psychological systems of obedience and command, not merely the economic and political systems to which the terms class and State most appropriately refer" and domination as existing "in a more subtle psychological sense, of body by mind, of spirit by a shallow instrumental rationality, and of nature by society and technology" (7). By this definition, hierarchy is almost omni-present when we delve more deeply into layers upon layers of our society and our experiences and relationships with other humans as well as the nonhumans. Because human society is structured and organized in a hierarchical manner, mankind therefore becomes accustomed to and shaped by that very social reality. Simply put, all social establishments, characterized by a hierarchical sensibility and chauvinistic human exceptionalism at their cruxes, can be held accountable for ecological exploitation and destruction done by humans whose hubristic and imperialist mindset mislead them to mistakenly believe that they are entitled to do so.

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At its core, social ecology believes that "at the most fundamental level ecological problems are essentially social problems" (Price *Recovering Bookchin*,

158). For a person who is born into a world full of multifarious stratifications, it is inevitable that their ideology is influenced by that very hierarchical *status quo* and, in turn, strengthens it. In this vein, if people perceive the world around them in a clearly-defined ranked order, they will likely see themselves as the most special and superior to all in the grand scale of the natural world, resulting in the deeply problematic anthropocentric illusion of mankind's entitled dominion of nature. These are the basic constituents of warped ethics.

In *Oryx and Crake*, economic inequality manifests itself most evidently in the bifurcation of society into the Compounds and the Pleeblands. The first is supposed to be a technological haven of a wonderful life. It is akin to an artificial and business-run paradise where the corporation's executives, employees, affiliates, and scientists under its wing enjoy a wide range of goods and advantages, such as better food, schools, air, water, security, home, jobs, future, and supposedly a happy family. Jimmy and Crake grow up in this kind of environment. In a sharp contrast, the Pleeblands can be described plainly in two ways: one, it is a greatly inferior version of the Compounds with a worse version of everything; or two, it simply lacks what the Compounds have.

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Notably, hierarchy not only exists between the binarism between the Compounds and the Pleeblands but also enroots itself as a seemingly natural structure, especially within the Compounds. The Compounds are ranked into different grades. One indicator of the Compound's grade is its setting and location. The lower-grade AnooYoo Compound where adult Jimmy works is situated among the pleeblands and is described mockingly as it could as well be part of those pleeblands. The OrganInc Farm Compound where young Jimmy used to live is considered average. Then the

HelthWyzer Compound where Jimmy and Crake went to high school is high-grade. Another indicator of the Compound's grade is the level of its personnel's academic standard. To illustrate, in comparison with the OrganInc Farm's, the students at HelthWyzer High school are in the above-average and upper level in terms of their academic performance, which suggests that they either inherit superior genes from intelligent parents or they receive better education and upbringing than the average people. Young Jimmy can only stay in the HelthWyzer Compound by virtue of his father's career not his own brilliance. After Jimmy and Crake's graduation, only Crake is selected—by merits of his vast potentials and prodigious intelligence—to join the Watson-Crick Compound which is said to be a capital of the top genius students and is better than the HelthWyzer Compound. Finally, the RejoovenEsense Compound where Crake develops his megaprojects is the most advanced Compound of all as it has convened the best scientists in the field of biotechnology. Moreover, similar to any organization in existence, there is also stratification of people working in the compounds as the management is divided in a hierarchical order.

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Another significant hierarchical split is the socio-economic chasm between the first world and the third world. The best evidence of such disparity is in the comparison between Jimmy and Crake who live in the first world and Oryx in the third world. Oryx, a subaltern woman from a lowly background with a gruesome past, represents the oppressed voice. Her stories of bitter childhood, usually told during a pillow talk between her and Jimmy, demonstrate a striking contrast with the life of Jimmy and Crake in the first-world Compound. Born in and raised by a poverty-stricken family in a destitute village far from civilization, Oryx has spent her earliest years in much crueler conditions than Jimmy and Crake. For the sake of the entire

family's survival, her mother barters her for a meager sum of money that can barely secure provisions for her family. This reasonably-priced "transaction" is nicely put as an "apprenticeship" that will train the children to "earn their living in the wide world" (135).

It is important to note that this kind of situation is not uncommon at all as other women in the village would come to help with dressing up the on-sale children and making them prettier to increase the price, because these women "might need to sell their own children one day, and if they helped out, they would be able to count on such help in return" (135). For these impoverish people, it seems very normal to commit such normally unethical deeds as sacrificing one's own children in exchange for some money and subsistence that benefit the rest of the family. The accepted twisted wisdom here, children would be told, is that "what they were doing was good, they were helping their families" (140). Reminiscing about her early childhood, Oryx has observed that "[a]ll of this was understood, and if not condoned, at least pardoned" and the mothers who initiate the transaction feel "as if this act, done freely by themselves (no one had forced them, no one had threatened them), had not been performed willingly … they'd had no choice" (140). From a realistic and purely rational point of view this immoral transaction is perhaps the most reasonable deal and the most sensible means for maintaining the village's population and family's members so that there will be adequate food—just barely enough for all to survive. To these poor folks, the issue of ethics and morality can only be secondary to the more urgent and tangible reality of starvation.

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After being sold and transported to a less destitute place, a still-very-young Oryx has to learn sordid ways of the world starting from being placed on the street as

a child laborer, who has to practice using her charms to solicit money and pity from customers. Not long after that she has to work in a pornographic film-making industry which requires her to put on an act to sexually please men. It is during this time that she decides to sexually pleasure her boss in trade for learning the English language, a very important and useful skill for climbing up the social ladder in the first world. She then continues this line of industry mastering the art of manipulation and acumen in business until she eventually gets headhunted by Crake and becomes his adroit trusted aide and lover. In a way, Oryx may be analogized to a group of amoral people who have no luxury to contemplate about morality and ethics as they are already busy enough grappling with laborious life and interminable penury. Such an ethical question as how she should lead a meaningful life or how she should interact with the natural world and other creatures is not as essential as her survival and welfare in the cut-throat society at the very moment.

In a similar vein to economic inequality, hierarchical sensibility exists not only in the polarization of society into the rich and the poor but also into the two spectrums of knowledge. Although it is usually a given that people who are well-equipped with knowledge tend to fare better than those who are without, unjust treatment in life quality persists even among the well-educated. This is because human society in *Oryx and Crake* does not equally value different kinds of knowledge. Certain kinds of knowledges are more relevant and lucrative than others depending on their market value. For instance, Jimmy observes that there are two types of people based on their knowledge: one is the “number” people or those who are born gifted in mathematics and science, and the other is the “word” people or those who are more proficient in language, art, history, and other skills that do not belong to science. Crake represents

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the first while Jimmy the latter. Scientific knowledge is considered to be superior to or more desirable than the Arts and Humanities because it can best meet the demands of people in such a techno-scientifically oriented society. Scientists, technology developers, and innovators compete in creating new products that aim to satisfy consumers. As a result, science and technology are a crucial qualification or a pass for a privileged life in the Compounds that is exclusive to people with valued abilities and skills, such as Jimmy's parents, Crake's father, and Crake.

While examining Jimmy and Crake's career paths, we cannot help but notice a significantly wide gap in their fortune. The difference in their treatments received from society may not be so distinct in their elementary, middle, and high school but no sooner than they matriculate at colleges does it become apparent. To demonstrate, Crake scores top of his class and, with his top-tier intelligence, gets "auctioned" by many prestigious Compounds which wrestle with one another to find a superior seedling to become their excellent money-grabber. On the other hand, and, in a saddening comparison, Jimmy has to struggle to find a place he can go to after his high school and even requires some backdoor help from his father in order to enroll in the Martha Graham Academy, a formerly famous but now rundown Arts academy. Vast differences between Crake and Jimmy in terms of their careers are determined by the capitalistic and mercantile ethos pervasive in society that always seeks after materialistic gains above all else. Crake's economic value reasonably corresponds to the worth of science and technology in the market while the antithetical situation happens with Jimmy. Because the abilities to invent innovative technology and to achieve scientific breakthroughs are in high demands by all, society mainly focuses on grooming a promising talent, thus lavishly providing all kinds of resources and

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attention to the *crème de la crème* of science, such as Crake. This fact is further corroborated by the glaring disparity between the living condition of Jimmy's and Crake's college.

Crake generally enjoys extravagant treatments from his college, Watson-Crick, which is also known as an "Asperger's U" since it is teeming with prodigies that the Compound has collected. "Compared with Martha Graham [Academy], Watson-Crick [College] was a palace" is probably the best line to describe Crake's college in comparison with Jimmy's (234). The analogy to a palace is particularly apposite since it connotes a condescending sense of hierarchy: that is, it is a place of the nobility, as opposed to the commoners. Watson-Crick College is aesthetically and beautifully designed and luxuriously equipped with all kinds of high-end fancy commodities. To illustrate this, a passage vibrantly and vividly delineates the stately campus:

> The students in Botanical Transgenic (Ornamental Division) had created a whole array of drought-and-flood-resistant tropical blends, with flowers or leaves in lurid shades of chrome yellow and brilliant flame red and phosphorescent blue and neon purple. The pathways, unlike the crumbling cement walks at Martha Graham, were smooth and wide. Students and faculty were beetling along them in their electric golf carts. (234)

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Crake's residence is a private suite with "a large bedroom, an enclosed bath and shower unit with steam function, a main living-dining room with a pullout couch … and a study with a built-in sound system and a full array of compu-gizmos" along with maid service and other facilities (236). Moreover, students here are paid half of the royalties from their inventions as an incentive to keep them constantly active in

making new discoveries and products. Evidently and with Crake's affirmation, Watson-Crick college is well-funded with a massive amount of subsidy from investors and the CorpSeCorps because whatever developed here will be profitable in the competitive market.

Atwood seems to deliberately juxtapose this prodigal and kingly estate of elite science students with that of Jimmy's who is an Arts and language student. Jimmy's Martha Graham Academy is described as already on the verge of closure—if not a complete collapse. Jimmy's first impression of Martha Graham Academy sketches that "[i]t was surrounded…by the tackiest kind of pleeblands: vacant warehouses, burnt-out tenements, empty parking lots. Here and there were sheds and huts put together from scavenged materials—sheets of tin, slabs of plywood—and inhabited no doubt by squatters" (217). The campus's location is not the only bad aspect. In fact, it might not be wrong to say that there are no redeeming points as we can glean from a passage that grippingly summarizes the place:

> The security at the Martha Graham gateway was a joke. The guards were half asleep, the walls—scrawled all over with faded graffiti—could have been scaled by a one-legged dwarf. … there were no recreational facilities apart from a swimming pool that looked and smelled like a giant sardine can. Half the time the air conditioning in the dorms didn't work; there was a brownout problem with the electrical supply; the food in the cafeteria was mostly beige and looked like rakunk shit. There were arthropods in the bedrooms, families and genera various, but half of them were cockroaches. (217–18)

Suffice it to say that everything here depresses Jimmy. Apart from the horrid physical conditions of Martha Graham Academy, the education and subjects taught here are in

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a bleak prospect as well. Its once popular courses, such as performing arts and film-making are no longer relevant since they do not generate income after anybody can easily produce an instant film with highly-advanced computerized technology. As a result, Jimmy analogizes these obsolete areas of study to Latin or book-binding which are “pleasant to contemplate in its way, but no longer central to anything” (219). A handful of subjects that remains somewhat relevant are those that could assist in increasing the sales and making more profits so they are mostly related to advertising, such as “Problematics” that Jimmy studies (220). Lastly, everything in college is impelled to serve some utilitarian and mercantile purposes, as the college’s newly added motto says “Our Students Graduate With Employable Skills” (220). Even so non-science students like Jimmy can only be second- or third-class citizens in the first-world Compounds.

The imaginings of a dystopian future, where various kinds of inequality prevail and hierarchies between humans and other humans are a norm, also illuminate the hierarchical ideology through which human beings see nature. *Homo sapiens* has not only dominated its own kind but also other species and lifeless things, such as natural resources, thereby reinforcing a hierarchical order, in which it deems itself to be superior to all. Evidently, this ethos is most prevalent in scientific logic, thinking, and methods. Scientists, especially those in the biotechnological field, are too conceited, believing in their abilities to intervene with nature and manipulate it for the benefits of mankind, or so they claim. While it is irrefutable that there are some technological advances and scientific breakthroughs that are truly beneficial to the human race, they may not be beneficial to nonhuman entities. For example, with the monstrous invention of ChickieNobs that is genetically altered to yield more meat for

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humans to eat, soon ordinary chickens as we are familiar with will be replaced and then allowed to enter the lengthy list of extinct species. In consonance with the anthropocentric logic, there is nothing wrong in humans' genetic modification of chickens for the sake of maximized cost-benefit profits. That the natural world and every life in it are of equally incalculable value is sabotaged by the introduction of hierarchy and capitalistic avarice. The whole world has transformed into a grand market, in which different kinds of values—spiritual, emotional, or moral—are arbitrarily reduced to a single category, i.e., monetary or market value. This chapter calls the product of such ideological transformation as "warped ethics" or a set of moral beliefs that is distorted or corrupted by the deeply-hierarchical dystopian landscape.

Warped Ethics as Harbingers of Apocalypse

The three main characters—Crake, Oryx, and Jimmy—are prime examples of how a human becomes warped by the hierarchical mode of thinking prevalent in the society, in which they live. In the novel's dystopian landscape where everything is in unequally ranked order, the inhabitants cannot help but perpetuate that very systematic hierarchy. However, perhaps, as Atwood is trying to convey, in reality there is something that cannot or should not be put into ranking. If everything is structured hierarchically as it appears in *Oryx and Crake*, the human race is in deep trouble because the ultimate outcome will be the end of the natural world and everything including humanity itself.

First of all, Crake is the perpetrator behind the lethal virus outbreak and the most powerful and radical figure among the three. He considers himself to be at the

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top of the pyramid seeing himself as having a superior intellectual capacity to other humans and priding himself on his own potential to be the game changer who can completely change the world at his will. Growing up in the Compound, the heart of a dystopian landscape, young Crake has absorbed its problematic ideology and mentality which, when coupled with his gifted intellect, become a formidable and dangerous combination. There is a pivotal pattern of parallelism between the CorpSeCorps and Crake in their actions. The first is their worship of scientific knowledge and disdain for art and culture. Secondly, Crake practically imitates the ways in which the company operates and deals with problems by resorting to immoral means, such as headhunting the talented MaddAddamite scientists via hacking, disposing those who refuse to work under him and disguising it as an accident, employing the same maneuvering as the HelthWyzer in the selling of BlyssPluss pills by secretly inserting the virus in the medication, and acting like a monomaniacal tyrant who has to be in control of everything in his Paradice project. However, despite their striking similarities, Crake is definitely not a genuine supporter of the CorpSeCorps. In fact, he plans to destroy it. One possible reason for this is that Crake probably wants to avenge his father who was killed by the CorpSeCorps.

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Perhaps as a result of his vengeful response to the corrupted world and his conceit in his own ability, destructive inclination ferments in Crake's heart. This penchant for destruction is best expressed through his over-ambitious plan to reset the entire planet, by first exterminating the human race and then replacing it with genetically-modified eco-friendly and peaceful humanoids. This is because Crake sees human beings as the chief contributor to the ruination of the entire ecosystem, a fact that he realizes as he grows up in the Compound where humans only know how to

consume but never consider the well-being of the environment. Crake's conviction in creating a new kind of humans lies in the bio-historical observation that *homo sapiens* is endowed with genetic flaws resulting in all sorts of sufferings and unhappiness, a claim supported by human civilization's long history of blood and gore. Crake's *magnum opus*, the BlyssPluss project, not only answers to his vindictive and eradicative desire but also insinuates his warped ethics that believes humans have the right to rule over nature and control it as they like, especially with such powerful tools as science and technology. In other words, Crake attempts to cleanse the earth and humanity because he believes in the good environmentalist cause of saving planetary ecosystems from a dangerous species like humans and simply because he has the power and the means to do so without any regard to deeper and wider moral consideration. Putting this in a hierarchical perspective, it can be argued that Crake thinks that he is able and entitled to perform his drastic scheme because he places himself in the highest God-like position above all others. This is Crake's warped ethics which results from the twisted dystopian society.

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Another case of Crake's distorted view influenced by his absolute faith in science and technology is his reductionist attitude. Growing up in the place where immoral corporate scientists are a role model of a successful and powerful person, Crake becomes readily attracted to science. Since scientific knowledge reigns supreme in the hierarchy, it is easy for anyone including Crake to prioritize it over other kinds of knowledge. Like most scientists in the novel, Crake appears to champion science as the only correct source of truths and facts, where everything begins and ends. The best manifestation of such a belief lies in the underpinning idea behind BlyssPluss, a miraculous pill which, as Crake proclaims to Jimmy, will

"eliminate external causes of death" (345). These so-called external causes of death refer to unnatural causes of death, such as war, contagious diseases, overpopulation, and environmental degradation. Crake further explains that the pill "was designed to take a set of givens, namely the nature of human nature, and steer these givens in a more beneficial direction than the ones hitherto taken" (346). In plain English, he means that his pill is capable of modifying human genes, thereby improving the species on a genetic and biological level where he believes is the root cause of human sufferings. Here Crake's hidden assumption that human beings are just "hormone robots" and "faulty ones" at that (196) points to a misconception that all social ills originate in human biology and can only be fixed through biotechnology. This suggests a narrow perspective that oversimplifies such complex beings as humans and overlooks other possible factors misinterpreting them as merely biological. Crake's reductionist and biologically deterministic ideology is highly problematic as it leads to a serious case of misanthropy. He firmly believes that since humans are hereditarily defective, they are doomed to behave irrationally and suffer as a result. Knowing his friend, Snowman acknowledges that "Crake had no very high opinion of human ingenuity, despite the large amount of it he himself possessed" (114). In this light, Crake may be seen as having wasted his excellent intellectual potential to make benign contributions to the world regardless of private monetary benefits—an alternate optimistic possibility which is made impossible by the dystopian society propelled by rampant capitalism where only unethical or amoral people can thrive. Ubiquitous examples of this poignant truth in the society run by the corrupt CorpSeCorps do not allow Crake to see other positive alternatives and ultimately inspire him to create an apocalypse to end all corruption and begin everything anew.

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Crake belongs to one of the most commonly seen types of villains. He is a mad scientist whose motive can be identified as eugenic and whose grand scheme has gone wrong. The most well-known example of such characters are Victor Frankenstein from Mary Shelley's *Frankenstein*, Doctor Moreau from H. G. Wells' *The Island of Doctor Moreau*, and Aylmer from Nathaniel Hawthorne's short story, "The Birth-Mark". According to Phillippa Levine, the eugenic movement, "often dubbed the science of good breeding" (*Eugenics* 1) is pioneered by an English Victorian era polymath, Sir Francis Galton (1822–1911), and characterized by the scientific belief in the genetic betterment of human species. Eugenicists believe that in humans there are genes which determine humans' good and bad behaviors, therefore by manipulating biological elements they can control the quality of human beings. The proponents of eugenics believe in the capacity of genetic science to improve the quality of humanity, while the opponents attack them for the underlying assumptions that are marked by racist and imperialist attitudes. As Levine explains, "[i]n seeking to eradicate 'bad' genes and hereditary defects, eugenicists embarked on radical schemes that reinforced and often burnished existing prejudices" and "[i]n the name of science and human improvement, eugenics offered biological solutions to social problems" (2). By this definition, Crake can be regarded as an unmistakable epitome of a eugenicist. His ambition might originate from a good intention to save the planet from such problems as overpopulation, depletion of natural resources, and food shortage, yet because of his warped ethics and reductionistic thinking, he cannot solve those problems correctly. As this chapter has already demonstrated, there are important social causes that play a major role in shaping human behaviors and ethics that cannot be simplistically reduced to merely genetic or biological factors. It is clear

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in the novel that Atwood holds that human beings are more than just “hormone robots” (196). Crake’s most ambitious and proudest creation, the Crakers, whom he hopes to be devoid of culture that he believes to be the origin of human corruptness and sufferings, serve as the most evident living proof that dramatically fails him.

Besides Crake, Oryx is another character who grows up with warped ethics influenced by the living conditions with which she has to struggle. In addition to being born into poverty, being born as a female makes it worse for her because in this highly patriarchal society, women are much worst affected than men at different levels. In order to survive in harsh environment and secure a better life, Oryx has to learn to pretend, act, lie, and use her charm to manipulate men in order to take advantage of the dystopian world’s unwritten rules of sexual exchange for advancing up the social ladder. This is arguably the only way for women to exert their agency. Consequently, many questions circulate around this elusive character of Oryx. Is she Crake’s co-conspirator who knows every detail about his vicious plan to massacre the human race, hence an accomplice to his human-decimating subterfuge? Or is she simply an example of an amoral bystander who just conveniently happens to be entangled with Crake? It is not clarified whether she absolutely has no clue about JUVE in the BlyssPluss pills that she helps distribute around the world as she claims to Jimmy. Oryx explains that she follows Crake because she believes in his ideals and refuses to elope with Jimmy saying “[y]ou’re a good boy. But I would never leave Crake. I believe in Crake, I believe in his [– she groped for the word –] his vision. He wants to make the world a better place. This is what he’s always telling me. I think that is so fine, don’t you, Jimmy?” (377) Jimmy believes in neither Crake’s ideals nor his altruism, but Oryx defends Crake: “Oh, you are wrong, Jimmy. He has found the

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problems, I think he is right. There are too many people and that makes the people bad. I know this from my own life, Jimmy. Crake is a very smart man" (377). This conversation reveals one essential insight into Oryx. Her life of poverty and experiences of being used by people in society as a commodity have led Oryx to have faith in Crake's ideals and goals. At present, overpopulation results in poverty and sufferings of which she has first-hand experience. From this angle, Oryx might not know the full extent of Crake's subterfuge and might be genuinely advocating for a better world where people would not have to go through the same things she did.

Nonetheless, her culpability aside, the amoral character of Oryx illuminates the crucial fact that because of inequality and injustice abound in the world, it is unfair to expect the underprivileged to uphold the same ethics and morality as those who are in a more privileged position. That is to say, ethics and morality should not be applied universally, and people's different social backgrounds demand a different set of values. In *Oryx and Crake*, the poor denizens of the third-world like Oryx almost have nothing save their lives as a bargain against wrongdoings committed by the powerful and the wealthy. Thus, a dilemmatic question prompted by Oryx is this: should or can the subaltern or marginal voices be subjected to the same moral standard and accountability as people of more affluence and power? Furthermore, in the society brimming with inequality and hierarchy it is extremely difficult—if possible, at all—to maintain an ethics that is not warped. At the end of the day, all sorts of complications and issues boil down to the social problems of inequality and hierarchy which are in agreement with Bookchin's social ecology. When the warped ethics becomes normalized, humanity is on a bullet-train to the apocalypse. Even

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people with some amount of conscience can turn corrupt thanks to the suppression the society puts on them. Jimmy is the prime example of this.

Finally, Jimmy or Snowman is the only character whose inner moral strife is evident throughout the times. As the novel opens with the post-apocalyptic scenario, it displays an image of a heartbroken and guilt-ridden man who struggles to cope with his remorse. Having survived the virus apocalypse, Snowman suffers from haunting guilt, notwithstanding. Contrite, angry, and depressed, he feels that he should or could have done something to prevent the pandemonium masqueraded and unleashed by his best friend, Crake. He repeatedly ruminates over his past. As he contemplates his pre-apocalyptic experiences, he admits to his willful ignorance that "[t]here had been something willed about it though, his ignorance. Or not willed, exactly: structured. He'd grown up in walled spaces, and then he had become one. He had shut things out" (216). This statement strongly suggests how the prison-like compound, in which Jimmy grows up has a profound influence on the person. His upbringing in this kind of world compels him to ignore the obvious problems. It is also noteworthy that this is not mere ignorance but an act of ignoring. We cannot say Jimmy is not aware of the bad deeds committed by the company or Crake. On the contrary, he definitely knows but he turns a blind eye to them. Even if he has his moral stance, he does not live up to it.

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Along the same line of thought, how much then is Jimmy complicit in Crake's scheme to decimate the human race? Arguably, he probably senses something foreboding but chooses to indulge in happy time with Oryx rather than to tackle with the bubbling fatal signal from his friend. This is likely because in this dystopian society it is normal and easier to ignore headache-inducing morality and prioritize

one's indulgence and happiness. In the world, in which corporations hold an immensely powerful position in the society, it appears that businesses unscrupulously abuse their power and influence solely for the sake of their benefits. Such a social landscape numbs Jimmy's conscience. In Jimmy's earliest complete memory when he is about five and a half, we witness a scene of a huge bonfire with cows, sheep and pigs. This outdoor crematorium is necessitated by a contagious disease and the fear of it. Watching the bonfire, Jimmy's father shares his thoughts with a friend that he "wouldn't be surprised" if the pandemic is "brought in on purpose" and he is disgusted by a possibility that the company itself is culpable in this because they want to "[d]rive up the prices" and "make a killing on their own stuff, that way" (21). A similar replay of such an event is when Crake discloses to Jimmy the heinous truth that he has found out about the HelthWyzer. Crake states that the company has furtively inserted a new disease in their health products and supplements so that they can perpetuate a lucrative but vicious cycle of a new illness, a new product and new customers (246-248). Such revelation that should have been shocking and completely unacceptable are readily tolerated by many including Jimmy. There are at least two major points here: one is that the CorpSeCorps deters potential dissenters by threatening them with death, the other is that those who do not condone the CorpSeCorps' policies will have to forfeit good living conditions and a happy life promised by the Compounds.

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Living in this kind of environment, Jimmy naturally becomes accustomed to the warped ethics of the world. The CorpSeCorps with its pervasive power can easily arrange convenient death for any non-conformist. Jimmy may have his mother as a ethical role model who stands up to her cause and fights against the immoral company

but the terrible way in which she has ended up must have thrown cold water on Jimmy's spirit and conscience. What can he, who is considered as a failure compared to his parents, do when even his more capable mother fails miserably? The sorry fate of Jimmy's mother and Crake's father serve as a conspicuous threat to those who dare to oppose the CorpSeCorps. Jimmy's mother, Sharon, after learning about the company's unethical proceedings, turns against the HelthWyzer Compound and escapes. As a counterattack, the CorpSeCorps never stops its vindictive pursuit of her until she is finally captured and executed several years later. In addition, during her absence it also occasionally sends people to visit Jimmy in person with a lie-detector to interrogate him whether he has come into contact with his fugitive mother, thus putting him under great stress. Jimmy is also aware that they always have him on the monitor via different means, such as his e-mail and phone. Like Sharon, Crake's father cannot tolerate his company's vile deeds and is set to blow the whistle on the HelthWyzer's crime. But just before he does, he accidentally falls off the rails to his death—and to the company's convenience. The truth is that someone close to him, Crake believes it is his soon-to-be stepfather uncle Pete, tips off the HelthWyzer first, hence his death to preserve the secrets of the corporation.

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Jimmy must have suffocated in the hopelessness in defying the corporate establishments that can be felt not just at individual level but also in a larger scale. The biggest social insurgence on the coverage is the "gen-mod coffee war" (209) which stems out of the HelthWyzer's brand new genetically modified coffee bean called "Happicuppa" that boasts the latest feature of simultaneous ripening. This new design enables larger plantations and replaces human harvesters with machines. Such innovation "[throws] the small growers out of business and [reduces] both them and

their laborers to starvation-level poverty," thereby inciting a global public outrage (209). Atwood describes this gory episode brusquely: "Riots broke out, crops were burned, Happicuppa cafes were looted, Happicuppa personnel were car-bombed or kidnapped or shot by snipers or beaten to death by mobs; and, on the other side, peasants were massacred by the army" (209). Uncle Pete, who is a top brass of the HelthWyzer, has displayed no sympathy for this as he says while watching the commentary after his afternoon golfing that "[i]t's the usual uproar" and "[t]hey'll get tired of it, they'll settle down. Everybody wants a cheaper cup of coffee – you can't fight that" (212). This apathetic attitude implies an assumption—if not an axiom—that in the extreme capitalist climate, money has become the invincible weapon and the side with money will always emerge as the final winner. Furthermore, it seems that in this dystopian landscape there is no historical example of a truly successful attempt at stopping the CorpSeCorps for anyone to learn from and see that they can do something about it. And if this is the *status quo* of the world Jimmy has seen and the sole kind of stories he has been told, what can an ordinary individual like Jimmy do to improve it?

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Conclusion

This chapter has so far identified the chief culprits and influential factors behind the apocalypse that transpires in *Oryx and Crake*. The responsible culprits are humans. *Homo sapiens* has begun its world domination by subjugating both its own kinds and others until it has finally conquered the whole planet. It has established all kinds of hierarchies, perpetuated diverse inequality, and maintained their sovereignty over everything or so it thinks. Now it still continues attempting to harness life and

death with its wondrous scientific knowledge and technological excellence. But little does it realize that it is walking down a wrong path, one that leads to self-destruction. Humanity spends so much money, time, and life seeking for pleasure without paying any heed to countless incessant warnings that if the unbridled exploitation of the natural world and the excessive capitalistic materialism are allowed to continue, there will be nothing left at all. In short, it has fallen prey to its own inventions.

One of the critical messages that Atwood's novel offers to the reader is that in the grand scheme of things everybody can simultaneously be both the victim and the victimizer as they are naturally warped by the world around them. Social ecology and this chapter's analysis of *Oryx and Crake* similarly see the crucial role that the hierarchical and dominating ideology deep-rooted in human society plays in the devastation of both humans and the environment. Human civilization as it is in Atwood's dystopian imaginings is mortally and morally ill. In other words, humans are socially and ethically responsible for their actions and how they affect the world around them. In turn, the society they live in is also accountable for shaping them to be who they are and influencing what they do. In correspondence with this logic, in order to secure a hope for survival of human species, humans need to resolve this seemingly eternal cycle with unwavering determination by searching for an unwarped ethics that will be able to alleviate these underlying problems.

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In the pursuit of a better future, what Crake does is simply eliminating human civilization with the assistance of the pandemic apocalypse that solely targets the genetically flawed *homo sapiens*, thereby forestalling a complete ecological collapse that will result in the lifeless earth. But Crake's wholesale genocide is certainly not what we hope to see. Whereas Crake as a believer of biological determinism chiefly

condemns biological factors for human sufferings and thinks that culture is illogical and jeopardizing, this chapter has thus far argued that the root causes are in fact social. It has also contended that *Oryx and Crake* shows how ethics, as one important aspect of culture, proves to be most central to the survival of all lives. Finally, sharing Atwood's ideal and agreeing with Bookchin's spirit, this chapter bases its conviction on the ground that if humanity has sufficient power to destroy the earth, they must—most logically and reasonably—hold the potential to save it as well. By the cultural means of writing and storytelling, Atwood evokes our conscience and galvanizes us to seek an apposite ethics which serves as an indispensable tool that will render this utopian enterprise possible.

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Chapter III: God's Gardeners' Ethics for Survival in *The Year of the Flood*

In *Oryx and Crake*, Margaret Atwood writes a tragic story that tells how humans relentlessly exploit the natural world and ultimately face almost complete destruction; however, the book does not delve deeply into what humanity or anyone might be able to do to avert the apocalypse or to survive it, thus leaving the reader hanging on a pessimistic note along with an implacable sense of crisis. It is only six years later in *The Year of the Flood* (2009), the second installment of the MaddAddam trilogy, that the author presents an alternative story to that of the desperate circumstances which we witness in the first book. This chapter contends that in *The Year of the Flood* Atwood presents a preferable ethics embedded in a religious group called God's Gardeners which champions a simple, eco-centric lifestyle filled with humility and love for all living beings. It also discusses how God's Gardeners' creed and practices are underpinned by a belief in the intrinsic value and equality of all lives and a self-sufficient, non-violent way of living. That there is a potential hope for survival hidden in God's Gardeners is evident in the fact that many of its members not only manage to stay alive after the lethal virus outbreak which exterminates most of human beings but also continue to live on in a good condition. However, as the analysis will demonstrate, Atwood delineates this cult of God's Gardeners in an ambivalent way, despite their commendable attributes and characters. Such an equivocal portrayal suggests that the actual application of ethics is

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usually complex and challenging in reality and perhaps the perfect ethics and the perfection of humans are still an impossibility.

Presenting the same world and concurrent setting as *Oryx and Crake*, *The Year of the Flood* is narrated by three different members of God's Gardeners, namely, Toby, Ren, and Adam One. The narrative switches between the present and the past and between Toby's perspective and Ren's with an occasional intervention of Adam One's voice in the form of a chronicled sermon and a hymn from their Oral Hymnbook. The book begins with Toby's present situation after she has secured herself in a safe zone, thus surviving the deadly virus outbreak or the waterless flood as God's Gardeners call it. Toby is tendering a small garden of vegetables and keeping herself fed by eating food from her secret emergency storage. Despite being alive, she suffers from solitude as she waits to find other survivors and has to fend off the invasion from the fearsomely intelligent pigoons who have been running amok after they have been liberated from laboratories after the humans in control are infected and have melted to death. Concurrently, Ren also survives the waterless flood because at the time of the virulent pandemic she is being locked up in a quarantine area, safe from all kinds of biotic infection. Later on, Ren is found by her best friend, Amanda, along with some other childhood Gardeners friends who also manage to survive. Ren and Amanda venture out and suddenly get attacked by the surviving painballers, the convicted criminals whose humanity is no longer intact, as a result of the CorpSeCorps' popular inhumane form of punishment, the painball. Amanda is taken as a hostage by the painballers while Ren escapes and fortunately meets Toby. Searching for Amanda, Toby and Ren join with the MaddAddamites, a resistant group of scientists who commit eco-sabotage against the CorpSeCorps. As the surviving

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humans strive to look for Amanda, the narrative goes back and forth between the past and the present. The pasts of Toby, Ren, Amanda and others are told in the intervals revealing their shared experiences of being in the God's Garden up until the Year Twenty-Five, or The Year of the Flood, then the slaughtering waterless flood happens. Finally, as Toby and Ren proceed to track down Amanda, they run into feverish Snowman or Jimmy—the narrator and protagonist of *Oryx and Crake*. Finally, Toby, Ren, and Snowman defeat the painballers, tying them to the trees without killing them, and Amanda is successfully saved. The novel ends with Toby's group sitting around a bonfire while a mysterious sound seems to be approaching them from afar.

Scholars have used various approaches to examine *The Year of the Flood*. Examples of ecocritical and ecofeminist readings are Bouson's article "'We're Using Up the Earth. It's Almost Gone': A Return to the Post-Apocalyptic Future in Margaret Atwood's *The Year of the Flood*" (2011), Lucy Rowland's "Speculative Solutions: The Development of Environmental and Ecofeminist Discourse in Margaret Atwood's *MaddAddam*" (2015), Lindhe's "Restoring the Divine Within: The Inner Apocalypse in Margaret Atwood's *The Year of the Flood*" (2015), and Miles Weafer's "Writing from the Margin: Victim Positions in Atwood's *The Year of the Flood*" (2015). Bouson argues that in the novel the trope of cannibalism is employed to depict male commodification and consumption of women in the capitalistic world. Women and the natural world are similarly oppressed and exploited by the male-dominated society. As a cure to this severely ill social and environmental conditions, the eco-religion of God's Gardeners is the place where human ethical capacity and possible redemption are found ("'We Are Using'" 9–26). In a similar vein, Rowland

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contends that *The Year of the Flood* is the author's exploration of the post-feminist world and serves as an acrimonious criticism on the society's negligence of feminism, scientism, privatization of science, and humans' unchecked domination over the natural world. The female characters are the main reformers who are moving away from the pre-apocalyptic world plagued by cannibalistic consumerism toward a new future that is marked by egalitarian and democracy (Rowland 46–68). Also focusing on the female characters, Weafer bases her reading on Atwood's idea of four victim positions and proposes that the four women characters—Toby, Ren, Amanda and Oryx—can be categorized into four different types of victims: one that denies their victimhood, one that ascribes their victimhood to some uncontrollable force, one that accepts their victimhood but believes that it can change, and one that overcomes their victimhood to become a creative non-victim (57–70). Lastly, Lindhe in her examination of Toby's psychological and spiritual apocalypse argues that the novel can be read as a redemptive tale of Toby and her transformation from a weak victimized woman into one of the most reliable leaders of God's Gardeners (42–56).

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Other critics approach the text with a focus on apocalypse or how human society falls apart and on the topic of survival. Some critics are pessimistic in their reading of the novel. For example, Kuznicki sees little hope for the survival of *homo sapiens* with the rampant abuse of technology and science for personal gains without considering the benefits of the whole community. By extension, that the Crakers, genetically designed and modified to be a superior version of humans and better suited to the severe climate, seem to be the best candidates for future survival is questionable because they are too innocent and their well-being, growth, and learning are too dependent on humans' guidance and instructions (Kuznicki 75–77). Hannes

Bergthaller's article "Housebreaking the Human Animal: Humanism and the Problem of Sustainability in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*" (2010) points out that in both novels Atwood poses an important question of sustainability, in which the survival of humans and humanism is challenged (728–43). Hope Jennings in "The Comic Apocalypse of *The Year of the Flood*" (2010) contends that Atwood subverts the apocalyptic tradition and demythologizes the Biblical myth of the Great Flood from the Book of Revelation, resulting in a sometimes-comical delineation of such a normally grave matter as the end of the world. Accordingly, God's Gardeners' green scripture is thus read as a silly hybrid between the Christian faith and modern scientific rationale which constantly contradict each other and cannot be regarded as a serious manifestation of hope and optimism (11–18). Similarly, Bouson analyzes the religion of God's Gardeners by connecting it with the philosophy of deep ecology and radical environmentalism of the Earth First!, a radical environmental group which believes in biocentrism to an extreme extent that it, for the sake of defending the natural world, allows violent measures, such as eco-sabotaging, toward the culprits of environmental destruction. Bouson further argues that God's Gardeners are similar to Earth First! in that both are influenced by a misanthropic attitude since the ecological apocalypse is brought about by humans' unbridled exploitation of nature. Such misanthropy and radicalism might not be desirable ("'A Joke-Filled Romp'" 341–57).

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Some critics are more optimistic about the future of humanity in their reading of Atwood's novel. For example, Richard Northover in "Ecological Apocalypse in Margaret Atwood's MaddAddam Trilogy" (2016) suggests reading the novel as a parallel to *Oryx and Crake*. His analysis argues that Jimmy's story is bleak and filled

with despair but Toby's narrative is the opposite as it is characterized by optimism, kindness, and pragmatism (81–95). Nazry Bahrawi in "Hope of a Hopeless World: Eco-teleology in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*" (2013) argues that the eco-religion of God's Gardeners is a messianic force. According to Bahrawi, the non-anthropocentric belief of God's Gardeners is antithetical to hubristic anthropocentrism championed by the fictional world of the MaddAddam trilogy (251–63). It is this non-anthropocentrism that offers humanity some light at the end of the tunnel in the time of hopelessness humans have brought upon themselves. Some critics note the optimism in the novel but they see it from different angles. For instance, Canavan recognizes hope in the novel but argues that it might not be for the human race. He points out that Atwood presents the apocalypse not as the end of the world and all lives but as the end of *homo sapiens*, so if there is hope, it is not for humankind but for the Crakers who are fitter to survive in the severe ecological condition of the planet (138–59). Similarly, in *Biopunk Dystopias* (2016), with a posthumanist approach, Lars Schmeink sees the Crakers as the existence that has the most likely possibility of replacing humans (89). Mohr reads *The Year of the Flood* as an alternative account of what happens in *Oryx and Crake* and contends that God's Gardeners' insightful awareness of the interconnectedness between humans and the natural world is beneficial and helpful to environmentalism when it is incorporated into science, especially biotechnology (283–302).

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In line with several other scholars who hold an optimistic attitude towards God's Gardeners, this chapter chiefly examines how the beliefs, doctrines, and practices of God's Gardeners in *The Year of the Flood* might allow better opportunities for human survival or at the very least lead to a less grim outcome.

Firstly, it analyzes God's Gardeners and their core values as well as their connection with the philosophy of deep ecology. It contends that Atwood suggests God's Gardeners as a more positive ethical influence for humanity in the time when the ecological apocalypse is looming large. This is because their core values, i.e., the belief in the intrinsic value and equality of all lives embedded in God's Gardeners' self-sufficient and non-violent lifestyle together with their relevant knowledge, practical life skills, and preparedness, are proven to be essential in both pre- and post-apocalyptic times. However, the close examination of Atwood's portrayal of God's Gardeners also reveals that the group is far from perfect as there are several elements that warrant debates and criticisms. Such a significant insight is similar to that of Jennings who also observes strong satirical elements in the novel, especially on the God's Gardeners' part. In consonance with critics who see God's Gardeners in a positive light, such as Northover, Mohr, and Bahrawi, this chapter further argues that the author portrays them in such an ambivalent manner because Atwood acknowledges the difficulty and complexity in the application of ethics in actual circumstances and expresses that the perfectly ethical humanity is still far from success. This chapter's analysis will try to demonstrate how, despite some of their controversial shortcomings, God's Gardeners still make survival in the post-apocalyptic time possible. Their very survival is the most obvious and solid testament to this point.

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God's Gardeners' Environmental Ethics for Survival

After the virus apocalypse in *The Year of the Flood* humans as a species almost go extinct. Miraculously enough, the seemingly last group of human survivors

appears to be God's Gardeners—an outlawed and outlandish group that is previously thought to be eradicated by the CorpSeCorps in *Oryx and Crake*. The analysis finds that God's Gardeners' relevant knowledge, beneficial values, and well-prepared ways of life are what enables them to survive in the apocalyptic time. This section employs deep ecology as a theoretical framework to shed light on God's Gardeners' principal doctrines and beliefs. With reference to the core principles and eight-point platforms of deep ecology along with Naess's Apron Diagram, it further presents how the organization of God's Gardeners bears resemblance to the philosophy of deep ecology movement.

The philosophy of deep ecology or deep ecology movement or ecosophy has a Norwegian philosopher Arne Naess as its pioneer and founder. Other prominent scholars who have significant contributions to deep ecology include Warwick Fox, George Sessions, Bill Devall and David Rothenberg. The term "deep ecology" first appeared in Naess's famous article, "The Shallow and the Deep, Long-Range Ecology Movement: A Summary", which refers to "ecology movement'' as cosmology or worldview (2263). The essay critiques Western civilization for its instrumentalization of the natural world on anthropocentric premises. The "deep" ecological worldview serves as a contrast to the mainstream environmentalism which he calls "shallow" (2263). Naess claims that this so-called shallow environmentalism is problematized by its inherent anthropocentrism characterized by the conservation and preservation of the nonhuman world merely for the benefits of humankind instead of the nonhumans. Simply put, deep ecology is thus denoted as deep because it questions the fundamental assumptions of Western civilization on a more profound level. In general, deep ecologists believe that they are required to live in a simple lifestyle so as

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not to disrupt the richness and biodiversity of the planet. Rejecting the belief in the eternal growth of economic development that is usually indicated by statistics and numerical value, such as Gross National Product, they think it is more important to live with mindfulness and consideration of the environment and nonhumans. They cherish and protect nature not because it has economic value to them but because they are *de facto* part of that natural world themselves.

Another important framework relevant to the analysis is Naess' idea of Apron Diagram. The Apron Diagram is used to explain how deep ecology movement is suitable for people from diverse backgrounds and beliefs. It can be divided into four levels. The first level at the top of the diagram refers to what Naess calls "the ultimate premises or ecosophies" (Naess "The Apron Diagram," 2336–37), which refer to fundamental beliefs by which supporters of deep ecology come together. At this level the ultimate premises can be any religion or belief system that is compatible with deep ecology as Naess observes, "Supporters of the deep ecology movement have ultimate views from which they derive their acceptance of the platform, but those views may be very different from person to person and from group to group" (2337). Adam One's incorporation of evolutionary science and different religious teachings is one example of this. At the second level lies the core principles of deep ecology philosophy which are called the eight-point deep ecology platform. Among these eight points, there are four major principles that strongly correspond to God's Gardeners' faith; 1) "[t]he well-being and flourishing of human and nonhuman life on Earth have value in themselves … These values are independent of the usefulness of the nonhuman world for human purposes;" 2) "[h]uman beings have no right to reduce this richness and diversity [of the nonhuman world] except to satisfy vital

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needs;" 3) "[c]urrent human interference with the nonhuman world is excessive, and the situation is rapidly worsening;" and lastly 4) "Policies must therefore be changed" (Naess "The Deep Ecology Movement," 2295–96). The third level of the Apron Diagram refers to "lifestyles and general policies of every kind" ("The Apron Diagram," 2237). God's Gardeners' peculiar way of life in general belongs to this level. Lastly, at the fourth level are "particular rules of decisions adapted to particular situations" (2237). This level is illustrated by Toby's courses of action. Based on the Apron Diagram, people from various backgrounds can unite together for mutual environmental causes while having different policies and actions. This suggests inclusiveness, diversity and plurality of beliefs.

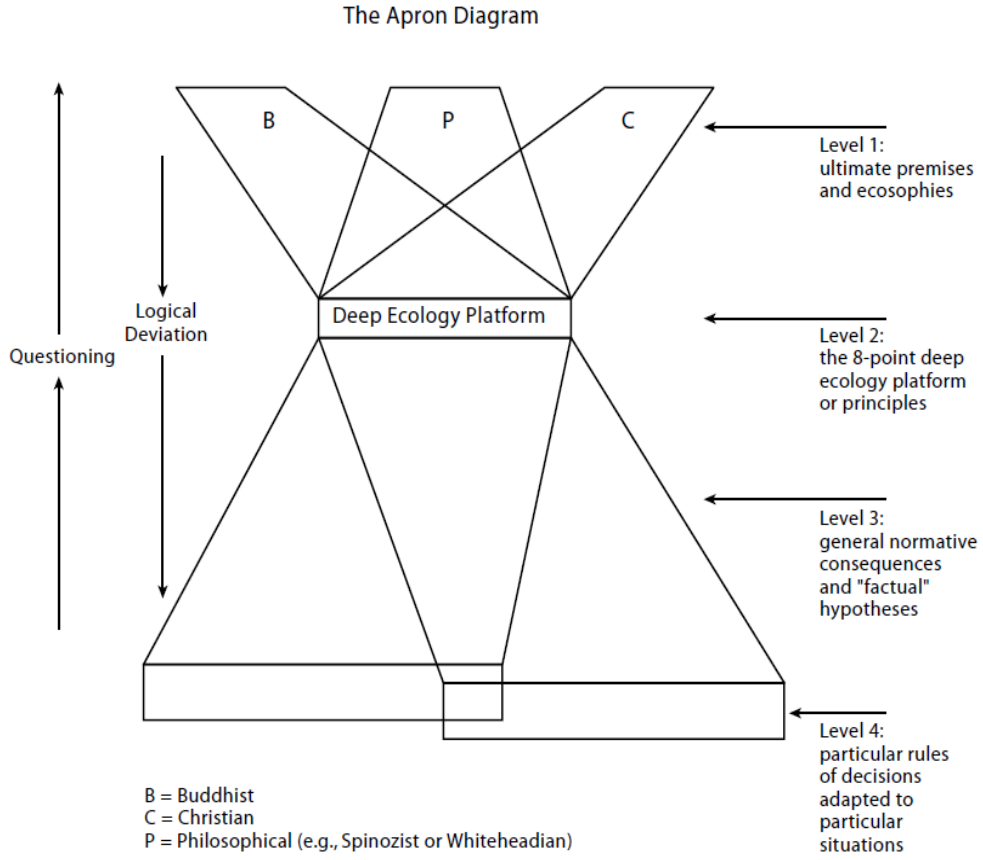

Fig. 1 Arne Naess. "The Apron Diagram." *The Selected Works of Arne Naess*, edited by Alan Drengson, Springer Netherlands, 2005, pp. 2237.

At the first level of the Apron Diagram, the ethics of God's Gardeners appears to be a new orientation with the main influences from Christianity. The resemblance between Adam One's sermons and the Holy Bible can be clearly seen. The group believes in the existence of the supreme God who creates everything and they refer to the Christian Holy Bible as "the Human words of God" (*The Year of the Flood* 13). Their founder and spiritual leader, Adam One, tries to create a new religion basing his sermons and teachings largely on the biblical narratives of the Old Testament, the myth of Creation or Genesis, the Great Flood and Noah's Ark, the beliefs in the Original Sin of disobedience, the Fall of Man, and the quest for redemption in the Second Coming, to name but a few.

Although Christianity is their chief source of inspirations and influences, God's Gardeners also incorporate a variety of knowledge, such as ancient Greek myths, world religions, and science, into their belief system. This is most evident in the celebration and commemoration of their unique canon of saints, each assigned to different days in the God's Gardeners calendar. These so-called saints are originally notable people from diverse fields and eras whose contributions or actions reflect values which the cult admires and cultivates in its members. In this canon of saints there are scientists, writers, activists, and religious figures who are known for their efforts and selfless devotions to the preservation of the natural world and the environment. Saints in the field of science are, for example, Saint Dian Fossey the martyr (372), an American primatologist and conservationist known for her studies of gorillas in Rwanda who is killed by the poachers, Saint Rachel Carson (443), an American marine biologist renowned for her book *Silent Spring*, an influential work that warns against the harmful effects of pesticides, and Saint James Lovelock (195),

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an English independent scientist and environmentalist best known for his Gaia hypothesis, which postulates that the Earth functions as a self-regulating system. Saints who are writers are, for instance, Saint Robert Burns of Mice (372), an English poet, Saint Wayne Grady of Vultures (195), a Canadian writer, and Saint Jane Jacobs (195), an American-Canadian journalist and author. Some are activists, such as Saint Farley Mowat (372), a Canadian writer and environmentalist, Saint Terry Fox (485), a Canadian athlete and activist who raises money for cancer research, and Saint Sigrithur of Gullfoss (196), an Icelandic environmentalist who helps preserve Gullfoss waterfalls from industrialization. Saints who are notable religious figures are, for example, Saint Brendan the Voyager (107), an Irish saint and navigator revered by Catholics, Saint Julian of Norwich (507), an English anchorite in the Middle Ages, and Guatama Buddha (195), the founder of Buddhism. The group's celebrated saints of eclectic origins illustrate the plurality of beliefs at the first level of the Apron Diagram.

On the structural level of the novel, Atwood also names some big sections and small chapters of this book after these saints, thereby highlighting certain messages or values in those particular parts. For instance, she titles the book's final section "Saint Julian and All Souls" (507) to encourage the notion of forgiveness to all beings or all souls. This is concurrent with how Toby decides against executing the cruel painballers at least for this particular day. Toby even shares some of the bone soup with them regardless of what they have done or the fact that they are evil and dangerous.

The core principles and values of God's Gardeners correspond with the second level of the Apron Diagram or eight-point deep ecology platform. First and foremost,

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one of the absolute rules of God's Gardeners is to never hurt or take lives or to practice non-violence, unless it is truly necessary—that is when their life or survival is at stake. This is similar to one of Naess's eight points which holds that "humans have no right to reduce this richness and diversity [of life forms that have values in themselves] except to satisfy vital needs" ("The Deep Ecology Movement," 2295). One instance that displays this value is when Toby's safety is threatened by the pigoons, she hesitates to shoot them with her rifle for she is taught that they are "God's Creatures" and that she should "[n]ever kill without just cause" (*The Year of the Flood* 21). Throughout the novel Toby tries to abide by this rule and when she really has to kill with a justifiable cause, she still prays for her target's forgiveness with a repentant mentality.

Related to this principle of no killing is one of the core beliefs in deep ecology which holds that "the well-being and flourishing of human and nonhuman life on Earth have value in themselves … These values are independent of the usefulness of the nonhuman world for human purposes" ("The Deep Ecology Movement," 2295). In concert with this belief, God's Gardeners place great importance on lives and practice vegetarianism while emphasizing love and compassion between lives that are not restricted by species. The oath to give up meat not only serves to do no harm to living creatures or to embrace a healthy diet but also contributes to the preservation of the natural world and food resources in the time, in which food shortage is one of the greatest crises. Such a way of life that recognizes the intrinsic value in all living beings is a stark contrast to the prevalent anthropocentric ideology in dystopian world, where all lives, be it humans or nonhumans, are treated as merely numbers and statistics.

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The concept that every life has intrinsic value naturally leads to another key belief of God's Gardeners, i.e., the notion of "fellowship" among all animals (61). That humans have deep bonds at the genetic level with other animals serves as a pivotal reminder that they are neither special nor superior to other animals. According to their religion, they all are God's creatures. Since humans and animals are all created by the same God, their relationship should be that of friends. God's Gardeners go beyond simply respecting other lives. They also encourage love and trust among different species. This idea later proves to be even more important as there are other new kinds of creatures emerging, as a result of genetic technology, such as liobams, pigoons, and rakunks.

In an attempt to attain the fellowship between humans and animals, God's Gardeners are taught to pose themselves as guardians or stewards of God's creatures. This concept is elaborated in the sermon on the Festival of the Arks, in which Adam One retells the Biblical story of the Great Flood which God has unleashed to cleanse the earth and the tale of the two covenants which God has made with humans and all creatures. As Adam One commemorates the multitude of lives lost in the Great Flood, he praises Noah, who, thanks to his faith and uncorrupted heart during the time when the human race is vile and depraved, is chosen by God to save some creatures by building the Ark, as an exemplary steward. Human responsibility and duty to care for other beings are equated with Noah's divine "task of saving the chosen Species" (108). In this sense, God's Gardeners are equivalent to Noah who continues "Adam's original stewardship" by "keeping God's beloved Species safe" (108). The best reflection of this point is the scene, in which Crozier appears to be shepherding the colorful group of fourteen Mo'Hairs while being dressed up with white bedsheet and

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a long staff (462). This also shows that even in the post-apocalyptic time when food is hard to come by, God's Gardeners still do not indiscriminately kill animals to feed themselves.

God's Gardeners safeguard the animals not only in the physical sense but also in the mental sense by storing the names of animals in their mind. In the dystopian world, in which nature has been ravaged by the avaricious human race near the point of complete exhaustion, God's Gardeners—a poor and oppressed minority—do not possess the means to build an actual physical Ark like Noah's to keep animals safe nor can they physically save the animals from the hands of greedy humans. As a result, they instead resort to their memory to be like an Ark that can contain animals in a spiritual and informational form by memorizing the names of the species that have gone extinct and keep them in their hearts and prayers. This is arguably the best action that a small group like them can do. It does not require money to be good stewards and to support the fellowship between humans and animals. Love and a kind heart are what it takes. Such an effort is an ingenious method of cultivating in themselves the mindfulness to always think about other beings. In the sermon delivered on the Creation Day, Adam One urges the members to extend their love and kindness to other animals as he preaches to them to "[s]tretch out your hand towards those gentle eyes that regard you with such trust – a trust that has not yet been violated by bloodshed and gluttony and pride and disdain" (15). This commemoration reminds humans to be humble and try to re-establish their long-lost connection with the nonhuman world.

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The steward's duty is indeed anthropocentric and might make humans feel that they are special as chosen agents of God. To counterbalance that, God's Gardeners

caution against excessive pride and strongly emphasize the value of humility. For them humility means not to consider themselves as having a superior status to other species because all lives are of equal intrinsic value. The notion of humility is emphatically advocated in the sermon on the Feast of Adam and All Primates, a special occasion, in which God's Gardeners acknowledge their primate ancestry—or the fact that humans are genetically descendants of apes rather than being specially created by God from clay after the divine image of God. In his sermon, Adam One accepts the scientific explanation of the origin of *homo sapiens* and credits "the long and complex process of Natural and Sexual Selection" (62) or the evolution of species to God. He further claims that at the end of the day the evolution of human species is God's "ingenious device for instilling humility in Man" (62). In short, the sermon suggests that the human genetic connection with the primates means humans are fundamentally one species of animals, hence nothing special. Adam One leads his audience to question their sense of entitlement by asking "why do we think that everything on Earth belongs to us, while in reality we belong to Everything?" (63) He also stresses that humans have excessive hubris resulting in the destruction of the nonhuman world. Humility is once again affirmed near the end of the sermon as Adam One prays "that we may not fall into the error of pride by considering ourselves exceptional, alone in all Creation in having Souls; and that we will not vainly imagine that we are set above all other life, and may destroy it at our pleasure, and with impunity" (63–64). The belief that *homo sapiens* is far superior to any other beings in the age of scientism and human exceptionalism is simply an illusion and has led humanity toward the path of ruins both for themselves and for other lives on earth.

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Such a notion of humility seems to be antithetical to that of Crake, who believes that he can change the world as he wishes with scientific knowledge and technologies.

Realizing that eating animals and a highly materialistic lifestyle have also greatly damaged the natural world as well as other creatures, God's Gardeners also adopt self-sufficiency and non-materialism as their philosophy of life. This proves to be of insurmountable value to the human society of the dystopian world in *The Year of the Flood* because such a way of life may be the humanity's only way of redemption in the extremely materialistic and capitalistic society. Adam One warns gravely against materialistic greed which is the root cause of all terrible things in the dystopian world. To God's Gardeners, wealth is not as important as a simple, meaningful, and sustainable life. They attempt to cultivate this ethics among their members. For instance, on Saint Farley of Wolves or a Young Bioneer Scavenging Day, they lead the children to venture into the pleeblands in order to glean for usable leftovers, such as vinegar and oil, bring those materials to be recycled or made into something that can be used, such as soap, and trade them in the Tree of Life market so that nothing comes to waste.

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In addition, Atwood also underscores the importance of the community and collaboration in order to survive and thrive. This emphasis is reflected in God's Gardeners' assortment of their members who come from different walks of life and origins. They even accept fugitives who defect from the Compound, such as Jimmy's mother, and help them hide from the CorpSeCorps' pursuit. It appears that in the novel the group has its supporters almost everywhere either in the open or under the disguise as evidenced by the magnanimous assistance that Toby receives from others in her escape to AnooYoo Spa. This stresses the importance of the combined efforts

and collaboration of different people with shared values or goals. More importantly, Atwood seems to deliberately make it so that the fateful survivors of the deadly virus are mostly God's Gardeners whose relevant knowledge and eco-centric attitude are vital for survival in the post-apocalyptic time. It is also worth noting that after the human survivors have reunited, they always help one another do the jobs and never let anyone perform alone, especially if the task is risky. For example, Toby decisively accompanies Ren to search for Amanda who is kidnapped by the painballers and Zeb brings a couple of his comrades with him to track down other members of God's Gardeners whose fates are still unknown.

However, it is clear that just faith, admirable values, and commendable lifestyles are not sufficient for survival in the looming apocalypse. To battle against the ills of society and the corrupted world, God's Gardeners thus not only cultivate ethics but also give priority to education, especially the pragmatic knowledge and practical life skills that are necessary for survival. The Gardener children are required to attend classes related to practical skills, such as a class called Urban Bloodshed Limitation, in which Zeb teaches them how to act in a situation where a fight breaks out (144). Another example is an Outdoor Classroom Predator-Prey demonstration, in which the students learn how to hunt for food and also try the experience of eating the meat of the hunted animals. This class prepares them in case it becomes unavoidable to break the vegetarian oath and consume meat to survive. During the week of Saint Euell of Wild Foods, the children are brought on an expedition to the Heritage Park to learn how to determine what kinds of plants and fungi are edible. Later on, the knowledge and skills from these classes are proven to be very useful and indispensable for the survivors. These experiences are one of the deciding factors that

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explains why God's Gardeners manage to survive but others do not. They have always been living in adversity and are accustomed to difficulties; therefore, when the difficult time arrives, it is easier for them to adapt and adjust. Most people outside the sect, be it in the Compounds or in the Pleeblands, are uninformed and ignorant only minding their own business and indulging in pleasures. As a result, they are completely unprepared for the virus apocalypse. Even if these people somehow manage to survive the waterless flood at the initial stage, it is very unlikely that they will be able to survive in the following post-apocalyptic world because they have been too spoiled and unfamiliar with hardships unlike the seasoned God's Gardeners. The best proof of this is Jimmy or Snowman, who, despite being safe from the virus, cannot be described as living well, at all.

In *Oryx and Crake* Jimmy slowly sinks into despair as he journeys deeper into his psychological abyss, gradually losing his sanity, starving, weakening, and hallucinating for most of the time. On the other hand, in *The Year of the Flood* Toby and Ren's circumstances evidently incline more toward optimism for survival as they escape from the sweeping destruction of the waterless flood, eventually reunite with their comrades in faith, and help one another out. Such a difference in their condition is due to the differences in their social backgrounds. As a person who grows up in the Compound which limits his perspective of the world, Jimmy struggles to find any possibility that he might be saved or that human society could be improved. In comparison, Toby and Ren have been introduced to more possibilities and hopeful faith via the group of God's Gardeners which preaches how to live a meaningful life and how to be prepared to face the crisis. In the novel Atwood apparently invites the reader to take another look at the same occurrences in her first novel but this time

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from another angle to find something they might have missed or might not have been allowed to see before from the point of view of God's Gardeners.

That humans may be able to find the way to ameliorate themselves is suggested by the development of Toby throughout the novel. Toby has changed from a vulnerable soul to one of the strongest and most dependable characters in the novel. Originally, she is just an ordinary woman with an average family. Her mother dies from the illness induced by the company. Then her father has to give up his small business under the economic pressure from the CorpSeCorps and finally commits suicide. Losing her family, home, and identity, Toby has to run away from the authority and do illegal jobs. She even has to earn the living by selling her hair and her eggs to the black market (38). Worse still, when she settles at the SecretBurger, she becomes the target of sexual harassment and rape by Blanco who is her boss. At that point Toby almost loses all hope and will to live since she has learned that every victim of Blanco will gradually become weaker and die. At this grim juncture it is Adam One who comes to her rescue. He makes her join God's Gardeners and this has changed her fate. When Toby first arrives at the Garden, she feels the wonder almost mysterious as described "it was so beautiful, with plants and flowers of many kinds she'd never seen before. There were vivid butterflies; from nearby came the vibration of bees. Each petal and leaf was fully alive, shining with awareness of her. Even the air of the Garden was different" (52). This vibrant epiphanic moment is referred to by Adam One as the experience of "being flooded with the Light of God's Creation" (52). In this special moment, it is as if Toby has arrived at her salvation. Here in the base of people normally seen as eccentric, Toby has developed friendship with many people and has become part of a community that strives to live meaningfully. She also

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gains herself a kind and trustworthy mentor, Pilar, and reliable guides and protectors, such as Adam One and Zeb. She eventually comes to enjoy the company of fellow God's Gardeners. Here she can also put her knowledge of "Holistic healing" that she has learned at the Martha Graham Academy to use (55). Gradually, she becomes assimilated into the group as Atwood describes her character that "[s]he didn't really believe in their creed, but she no longer disbelieved" and that "[s]he wasn't quite a Gardener, yet she wasn't a pleeblander any more" (116). This important transition enables her to find her purpose in life and know that she can contribute to her community by becoming a teacher for the Gardener children and later an Eve, the upper echelon of the organization. Her group in turn gives her protection from her dreadful and ruthless enemy, Blanco. Dependable companions and beautiful companionship are what Jimmy does not have.

Throughout the novel Toby's actions and decisions have been heavily influenced by the teachings of God's Gardeners. As the deadly waterless flood sweeps across the world taking away lives of most humans, Toby manages to secure herself with preparation thanks to the teachings of God's Gardeners, such as, stockpiling emergency food or "building her own private Ararat" (316). When she is alone at the Spa waiting for other survivors to emerge, she manages to maintain her sanity and positive outlook by keeping track of the day according to God's Gardeners calendar (195). When her food stock is running out, she prays to Saint Euell (390). She also often hears imaginary "voices" of God's Gardeners in her head (6). She intuitively recalls what Gardeners has taught her, which is marked by such phrases as "Adam One used to say" (390-392), "says the kindly voice of Adam One" (394), "Zeb once taught" (393), "says the voice of Zeb" (394), and "says the voice of Nuala" (423). In

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the latter part of the novel, Toby has significantly morphed into a savior-like rescuer and protector of others as she goes on the quest to save Amanda, her junior fellow from the same group, from the painballers. Toby's positive changes would be impossible if not for her experiences as part of God's Gardeners. Such development is not only beneficial to the survival of the individual but also of the whole community.

Another good example of God's Gardeners' positive outlook on life and strong mentality is Adam One. Adam One's enthusiasm and faithfulness in his belief permeate all of his sermons. This is perhaps because he is the most devout Gardener whose faith is unshaken, notwithstanding difficult challenges. Even though his sermons speak of the imminent Doomsday, Adam One does not appear to be pessimistic about himself or his followers. He believes in the chance of God's Gardeners to survive the waterless flood that will eradicate all of the corrupted people. Moreover, even if humanity is no more, it is a poetic justice. Humans reap what they sow. Adam One's mentality still remains unshakeable or even optimistic when he realizes that he and his peers have been infected with the incurable virus. In his last sermon he braves his impending death and, with much spiritual conviction, declares: "It is not this Earth that is to be demolished: it is the Human Species. Perhaps God will create another more compassionate race to take our place" (508-509). From this angle, the hopeless outlook that sees no possibility of the human race to survive does not necessarily apply to other beings. On the bright side, the doom of human beings might be the good news for the nonhumans and nature, all of which are of equal importance to God's Gardeners. Adam One's narrative, thus, ends with optimism for the future survival, no matter whose survival it will be. Such a healthy state of mind

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which has been nurtured by God's Gardeners' beliefs and practices is essential for survival.

To conclude, God's Gardeners' ethics seems to be what humanity gravely needs to possess in the challenging time when the crisis of global extinction is imminent. Their principles and way of life can be regarded as a better ethical model that people should seriously consider. In *The Year of the Flood*, Atwood carefully orchestrates the prophetic apocalypse, in which God's Gardeners, whom many people ridicule as freaks, have emerged as survivors. In contrast, the majority of people who blindly and hedonistically live their lives without any ecological conscience has been cleansed by the waterless flood. For Atwood, God's Gardeners, together with the values and the qualities they hold, seem to be humanity's best chance at survival in the wake of looming apocalypse. Nevertheless, God's Gardeners are not in the very least flawless ideals. In fact, Atwood portrays them in such a debatably well-rounded manner because she wants to convey one important insight that because they are humans, they are naturally imperfect and fallible regardless of their praiseworthy ethics and morals. When it comes to applying ethics in real circumstances, impeccably actualizing what they preach is not a simple task.

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Criticism on God's Gardeners

Though this chapter attempts to offer a reading of God's Gardeners in a rather positive light, in its analysis it also finds that there are many points of criticisms on the group. That Atwood presents God's Gardeners in an equivocal manner can be felt throughout the novel. This raises a very serious question of the credibility and reliability of this special group of people as some critics, such as Jennings, have also

pointed out. Though God's Gardeners' ethics and actions are commendable, they might sometimes appear questionable or problematic. However, as this section argues, such an ambivalent portrayal of God's Gardeners may be interpreted as pointing to the difficulty in applying ethics in real situations at both individual and organizational levels as well as the moral imperfectability of humans. Moreover, it is also possible that Atwood may want to caution against having absolute faith in or extreme adherence to one's beliefs or ideology which can often prevent one from being self-critical.

Firstly, on the individual level, there are clear differences in the degrees of the commitment to their beliefs and values. Among the three major narrators, Adam One is the most devout as he is the founder and leader of the organization whose faithfulness remains unwavering from the beginning to the end of the novel. He appears to be extremely earnest in his beliefs and is the backbone of the group when it comes to doctrines. Second to Adam One is Toby. In difficult times or when making a decision, Toby is often found recalling and reflecting upon the teachings of God's Gardeners. Furthermore, she can remember the calendar and the importance of each day and still keeps track of Saint Days in the traditions even after everything falls apart as a consequence of the waterless flood. If this does not prove her firm beliefs, it proves how the creed has been ingrained into her mind. Even at the very end of the novel when Toby and her friends defeat the inhumane and treacherous painballers, she still decides to spare their lives. However, Toby is absolutely not a one-dimensional devotee. She often displays her doubts and openly accepts the fact that she is not much of a faithful believer. In her first year as a Gardener, Toby thinks that "she didn't really believe in their creed, but she no longer disbelieved" (116). Years

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later Toby still questions her faith as she muses to herself while staying at AnooYoo Spa, "[d]o I still believe this?" (4). Toby's sense of self-doubt is pervasive in the book. The last of the three narrators, Ren seems to be the least committed to God's Gardeners' teachings. This is likely due to the fact that she is born to the Compound and only joins the cult later before leaving it after only a few years. As the story unfolds, she does not appear to be maintaining much of Gardeners' beliefs and teachings. Ren's narrative mostly deals with her reminiscence of the past until her reunion with her peers. Furthermore, according to Ren's opinion and experience, the youngsters do not really care much about spiritual or religious aspects of their group. Most of them—whether as children or after they become adults—are not as firmly committed to the tenets of God's Gardeners as Toby or Adam One, perhaps with only an exception of Bernice who is shot dead in the environmentalist protest against the Happicuppa franchise.

On the opposite spectrum of the devout Adam One is Lucerne, who apparently runs away from the Compound with Zeb and only stays with the group because she is infatuated with her lover, not because she truly appreciates their simple lifestyle or ethics. Toby describes Lucerne as someone who can remember the slogans of Gardeners but does not internalize them. This is evident when Lucerne confesses to Toby that although "she really believed that Adam One was right about so many things… but really there was a limit and she did not really believe for one instant that slugs had any central nervous system, and to say they had souls was to make a mockery of the whole idea of souls…" (136). Moreover, for Lucerne who cannot really abandon her old materialistic habits of a rich executive's wife, Gardeners' ways of life are too outlandish and difficult. This is why once her lover severs the

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relationship with her, she immediately leaves the group with her daughter and returns to enjoy her luxurious life in the Compound.

Another serious case of a commitment problem is Burt's corruption. Disregarding a non-materialistic ethical way of life, one of the leading Adams, Burt the Knob is found to be secretly planting super weeds behind everyone's back for personal profits. His action is not only illegal according to the Corps' stipulation but also a direct violation of the cult's advocacy of non-materialism and self-sufficiency. The revelation of Burt's crime reasonably brings about more suspicion. It is doubtful whether no one else knows about Burt, particularly the Adams and Eves. After all even Gardeners children seem to know a bit about Burt's plantation. In this way, the trustworthiness and the integrity of the group are undermined.

On the organizational level, God's Gardeners, especially the upper echelon, might be criticized for their failure to actualize their ideal of equality. There still exists the power hierarchy, in which Adam One is at the top holding the most authority. Although "Adam One insisted that all Gardeners were equal on the spiritual level," Toby has observed that "the same did not hold true for the material one" (54). She then remarks that the organizational structure is actually similar to a "monastery" (55), in which there are ranks and hierarchy of authority with Adams and Eves as leaders. Another example is that it is uncertain whether the selection of Adams or Eves is democratic or simply exclusively decided by the leading people in the group since the selection process is not clearly explained in detail. Though there are recurring meetings among Adams and Eves to discuss many things, it seems that Adam One is the one who retains the authority to make important decisions. There seems to be no democratic process in this group's conflict resolution. Adam One has

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the final say in the organization so Zeb can only fall out with Adam One when they cannot reach an agreement on what measure they should take against the CorpSeCorps. In a way, Adam One might be viewed as a dictator.

Nevertheless, it is important to note that the equivocal portrayal and questionable aspects of God's Gardeners should not be interpreted as the failure or futility of ethics they uphold. What should take the blame are the evil tendency of the individual, the fallibility of humans, and the hierarchical nature of an organization that are prone to the corruption of power. Notwithstanding their commendable lifestyle, moral values, and beliefs that are crucial for survival, God's Gardeners are delineated in this particular way perhaps because Atwood wants to suggest that applying ethics to the actual reality in a perfect manner is extremely difficult or simply impossible. Instead, it is pivotal to approach the application of ethics realistically, avoid the superfluous glorification of any set of beliefs and always think critically with regard to ethical issues. For Atwood, even though such a utopian desire to build an ideal community with flawless people is too good to be true, it is significant to believe in the hope that a better world is possible. Like God's Gardeners we can and should try to improve human society by cultivating environmental ethics, morals, and ecological conscience.

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Conclusion

At its crux, Atwood's *The Year of the Flood* is a story about ethics and survival. Toby and Ren begin their arduous post-apocalyptic journey with a heavy heart but also with faith, moral values, and helpful knowledge they receive from the teachings of God's Gardeners. The close examination of the cult's tenets, practices,

and ways of life exhibits that the principal factors that enable and empower them to survive are their core values, that consist of the belief in the equal and intrinsic value of all lives, love, kindness and trust for other animals, and the non-violent and non-materialistic lifestyle. Other elements crucial for survival are the relevant knowledge and the practical life skills, which are keenly endorsed in the educational system of God's Gardeners. Lastly, via this peculiar group of perhaps eccentric people Atwood underlines the importance of cooperation and the combined efforts of the community, especially that which shares the same ideals. For human beings to survive, they must help one another. The conspicuous comparison between the solitary and depressed Jimmy and the associated party of Toby, Ren, and other God's Gardeners serves as the telling evidence. The very final scene of the novel leaves the reader with a sense of incompleteness, as if this story has not yet concluded. The ending appears to be open to diverse possibilities and countless imaginations. What lies ahead of Toby, Ren, and other God's Gardeners is not revealed until the publication of the final installment of the trilogy, *MaddAddam*.

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It must be noted that even though Atwood may convey humanity's redemptive chance through the ethics of God's Gardeners, she also makes clear that the organization itself is by all means not without flaws. There are some questionable aspects, for example, the genuineness in its members' commitment and the organizational hierarchy that undermines its value of equality. Atwood portrays God's Gardeners in this skeptical manner because she is fully aware that no matter how wonderful the morals or ethics are, the actual application of them in real life is teeming with complexity and problems. The definitive and perfect ethical application is wishful and unattainable because humans are fallible and imperfectible by nature.

Consequently, for Atwood, God's Gardeners can still serve as a more positive ethical influence for humans in the dire time when the natural world is on the verge of ruin because they represent many of the beneficent qualities opposing the destructive trends of her dystopian world—the imaginings that can well become the reality. As human civilization is being endangered, as a result of their own actions, the most well-equipped people to survive are likely God's Gardeners—whether owing to their faith, knowledge, or mentality. Ultimately, it may also be a form of poetic justice that God's Gardeners survive because they have chosen the hard way of life trying not to aggravate the natural world, unlike others who have walked on the path of self-indulgence and thus drowned in the retributive waterless flood they themselves invoke.

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Chapter IV: *MaddAddam*: Posthuman Ethics and Storytelling for Survival

"There's the story, then there's the real story,
then there's the story of how the story came to be told.
Then there's what you leave out of the story.
Which is part of the story too"
(Atwood, *MaddAddam* 70).

While *Oryx and Crake* explores how the human world has fallen to the destructive end as the consequence of human activities and the warped ethics and *The Year of the Flood* examines an alternative environmental ethics that might have led humankind onto a different path with more optimism, *MaddAddam* (2013), Margaret Atwood's final installment in the MaddAddam trilogy, deals extensively with ethics in relation to survival in the post-apocalyptic and posthuman world. In other words, the novel can be read as a speculative thought experiment that attempts to imagine how humanity should live in order to ensure survival in the world after the collapse of human civilization and the emerging dominance of other species that may be called posthumans. In this scenario, *homo sapiens*, once the supreme race that dominates the earth, has been reduced to a species that is on the verge of extinction and has to grapple with a new reality. The remaining group of humans that is the focus of the book consists of the God's Gardeners and the MaddAddamites, who, by the merits of God's Gardeners' teachings and preparation, have been able to survive the deadly

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pandemic that almost annihilates the entire human race. One of major challenges is how they can coexist with other living beings, i.e., the Crakers and the Pigoons. By coexistence, it means that this novel is not a story about survival exclusive to humanity but about the survival that includes other species as well. In this context humans have been demoted from their pedestal and the traditional genetic boundary between humans and other animals is dissolving, a phenomenon Debashish Banerji and Makarand Paranjape in "The Critical Turn in Posthumanism and Postcolonial Interventions" (2016) call "a species-wise blurring of the human boundaries" (1). Such a reality suggests that survival cannot be just about humans.

With the presence of posthumans, such as the Crakers and the Pigoons coexisting with humans as a chief focus, *MaddAddam* naturally appeals to a critical posthumanist reading of the novel. Pramod Nayar succinctly defines such a critical approach in his book *Posthumanism* (2014) as "the radical decentring of the traditional sovereign, coherent and autonomous human in order to demonstrate how the human is always already evolving with, constituted by and constitutive of multiple forms of life and machines" (11). In their "Preface" to *The Cambridge Companion to Literature and the Posthuman* (2017) Bruce Clarke and Manuela Rossini contribute further to Nayar's definition by adding that a critical posthumanist text "engage[s] with the humanist legacy to critique anthropocentric values and worldviews" and "questions how relations between humans and nonhumans operate within the environments where they are assembled" (xiv). Atwood's post-apocalyptic story with posthumans as major characters echoes the idea of Rosi Braidotti, a prominent critical posthumanist critic, in her book *Posthuman Critical Theory* (2016). Braidotti's statement, "the posthuman predicament enforces the necessity to think again and to

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think harder about the status of human subjectivity and the ethical relations, norms, and values that may be worthy of the complexity of our times" (13), matches Atwood's project of rethinking ethics in *MaddAddam*.

Many scholars view *MaddAddam* as a great open field for Atwood to conduct a social experiment with ethics and posthumans as the main subjects. Paul Narkunas in his book *Reified Life* (2018) believes that the transition to the posthuman world seems to be already a matter of the past (177). Narkunas observes how in Atwood's trilogy, even long before the outbreak of Crake's deadly virus which ushers the world into the era of posthumans where *homo sapiens* must helplessly coexist with other species, humans have already become a kind of posthumans under the instrumentalization of life by capital under the all-powerful economic forces in the informational age, in which all lives including humans are translated into mere statistical data (178).

Another critic who reads the text through a critical posthumanist lens, Schmeink argues that in her MaddAddam trilogy Atwood creates a space of negotiations between humans and nonhumans by foregrounding the interconnection between humans and the environment, thereby manifesting a non-anthropocentric posthuman ethics (89). Schmeink further contends that, despite the author's attempt in establishing the ethics which does not place humans at the center, she seems to still endorse the values unique to humanity as he notes that "the humanist view is similarly present and grows stronger towards the third installment, culminating in the positive outlook towards the future that is owed mainly to its humanist values" (96). Finally, according to Schmeink, Atwood offers her view of the posthuman ethics that results in the negotiation, by which humans and Crakers become "companion species" (109).

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Sharing a similar view on the significance of the interconnectedness between humans and posthumans in *MaddAddam,* Rachel Fetherston argues in "Evolving a New, Ecological Posthumanism" (2020) that Atwood offers "a possible solution to the modern environmental crisis in her depiction of a post-catastrophe society, in which both humans and posthumans integrate with the natural environment" in a constructive and ecological relationship (100). She terms this model of ecological integration ecological posthumanism. The concretization and the embodiment of such an ideal are realized by the existence of the Crakers and the emergence of hybrids between the Crakers and humans whose biological constitutions and natural proclivity are perfectly harmless to the ecological system.

In a similar vein to Schmeink and Fetherston, though less optimistic, Casey Jergenson in "Negative Utopianism and Catastrophe in Margaret Atwood's MaddAddam Trilogy" (2019), while acknowledging the positive potentials of a posthuman community as suggested by the egalitarian interspecies communion in *MaddAddam,* warns that the future might not be completely idealistic as egalitarianism likely shifts to hierarchy resulting in a negative utopia, in which individuality is threatened. This possibility is insinuated by the fact that Blackbeard becomes the leader with the authority which is derived from knowledge and literacy (500). In other words, in the unknown future the violent history of humans might repeat itself with the Crakers. Jergenson also explains that by leaving the future unclear and open to possibilities Atwood seems to deliberately refrain herself from giving any final judgement, definitive solution, or rigid guideline (501).

Stephanie Bender in her article "Just Popular Entertainment or of Longing for a Posthuman Eden?" (2019) not only agrees with the positive potentials of posthuman

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community in the novels as suggested by Schmeink, Fetherston, and Jergenson but also points out that they are possible thanks to “discourse and storytelling” (40). She further argues that for Atwood “it is the stories that determine the action” (44). Such is the significance of stories and storytelling in *MaddAddam*. The novel is thus not simply about what a suitable ethics for a posthuman world is. It is also a story about stories as Bender precisely comments that “the MaddAddam Trilogy not only imagines the practical and non-hierarchical coexistence and co-habitation and even cross-breeding of humans, technologically modified creatures, and animals, but also reflects on the important role of language and stories in shaping worlds and their systems of thought and moral judgement” (47).

Engaging with a posthumanist approach, this chapter examines how humans conduct themselves and ethically deal with others to ensure the survival of the community. The first thing we think of when we talk about survival is almost instinctively bound to be about ourselves. However, we might have forgotten that such a topic as the end of the world entails more than just us. Ecological problems and the virus apocalypse are issues on a planetary scale and this planet happens to house lives other than the human race; therefore, it is necessary to view survival from a posthuman angle. The examination of ethical relations between human survivors and others, such as the painballers, the Crakers, the Pigoons, and the Mo’Hairs, reveals that a new conceptualization of posthuman ethics is required for the harmonious interspecies coexistence and survival to be possible. This chapter argues that for Atwood this new posthuman ethics cannot be founded only upon compassion and love but must necessitate qualities including intelligence, morality, understanding and communication, all of which are fundamental to the survival of a new posthuman

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community. This chapter further contends that Atwood's novel presents the transformative potential of a posthuman ethics and its significance to the future survival and interspecies relationships, particularly among humans, the Crakers, and the Pigoons. Like Bender, it also explores how the art of storytelling is a means, by which the posthuman ethics is passed on to posterity—from human Toby to posthuman Blackbeard. In this novel Atwood imagines the transition and process, in which beneficial human culture, values, ethics are carefully translated and judiciously bequeathed to the posthuman Crakers. Toby's choices of how the stories should be told to the Crakers reflect her ethics of storytelling that conscientiously aims to selectively transfer positive information endowed with favorable values conducive to the communal survival.

Told in the third-person point of view and switching between the past events and the present, *MaddAddam* begins immediately with what happens at the very end of its prequel with the primary focus on Toby who has now replaced Snowman as the prophet-like storyteller of the Crakers. Earlier, the tied-up painballers are accidentally freed by the Crakers in commotion as the Crakers mistakes Ren and Amanda to be in heat resulting in a group rape. After the incident, Toby led the Crakers to reunite with her friends, the MaddAddamites, and settled there waiting for Zeb, who has gone to search for other survivors from the God's Garden, particularly his brother, Adam One. During this time under the unseen danger from the painballers and possible threats from the Pigoons and while the group is waiting for unconscious Snowman to recover and wake up, Toby has to act as a teacher and storyteller for the Crakers. After Zeb returns, Toby and Zeb become lovers. Toby, by using Zeb's past as a foundation, creates a simplified and happier version of story to tell to the Crakers. Later, Toby and

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others learn that some women within their groups become pregnant and worry about who are the fathers and whether the mothers and the babies will be safe. Toby gradually imparts the culture of writing and reading to Blackbeard, one of the Crakers. Soon Snowman wakes up and the Pigoons arrive at Toby's base to seek cooperation. They want Toby's group's help to defeat the painballers who kill some of their piglets. After the human party reaches an agreement with the Pigoons, both parties pursue the painballers to Paradice Dome. When the fight breaks out, one of the Pigoons, Snowman, and Adam One die, while the painballers are captured and put on trial and receive death punishment. Time passes, Zeb and Toby die. Ultimately, the role of storyteller is passed on to Blackbeard and so on.

Ethics for Survival in a New World

Ethics is one of the most important concerns of Atwood's trilogy, and particularly so in *MaddAddam*. As the human survivors are grappling with survival in the post-apocalyptic time, they are also facing several instances that demand ethical consideration and decision. This section examines how human characters ethically deal with others including the painballers, the Crakers, the Pigoons and the Mo'Hairs. The examination of the interactions among these entities sheds light on the important qualities or criteria of the posthuman ethics endorsed by Toby and her group. The new ethical conception advocated by Atwood and Toby's group is one that prioritizes such practical and essential qualities as morality, intelligence, and peaceful understanding over absolute kindness, unconditional love, and all-encompassing compassion. The analysis of the novel reveals that the ethical dealings with the Crakers, the Pigoons, the Mo'Hairs and the painballers illuminate Atwood's unique conceptualization of

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posthuman ethics that is anthropocentric at the beginning but non-anthropocentric at the end of the story. That the ethics is human-centric at the beginning is marked by how humans are the authority that judges what or who could stay in the community, and this ethics is still based on the hierarchic mode of thinking that contains some prejudices against differences. This, however, gradually changes as humans, the Crakers, and the Pigoons interact with one another. What acts as a transformative catalyst for the metamorphic transition from anthropocentrism to non-anthropocentrism is the shared similarities in the different experiences and cultures between humans and the posthumans, with the Crakers as the communicational link. Such a shift in the human perspective and mindset is a slow process that occurs throughout the novel.

This chapter's analysis of ethics finds that ethics seems to be intuitively anthropocentric. This is especially true at the beginning of the novel since in the first half of *MaddAddam* ethics is a one-sided use of power based on an unequal relationship, with humans as figures of authority and arbiters. Only humans can express opinions and feelings in every single issue whereas the posthumans have no rights or power to decide whether they agree with the ethical system devised by humans. This is evident in the fact that it is Toby's group that holds the authority in deciding who or what can or should stay in the community. Another major issue with anthropocentric ethics is that it is based upon binarism which privileges humans over other beings, thereby reinforcing the notion of difference and hierarchy. It is worth noting that since the novel presents the enduring anthropocentrism as the root of the problems, it therefore suggests that to survive in the post-apocalyptic world where

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posthuman existence challenges human supremacy, a new suitable ethics needs to go beyond this homo-centric attitude.

However, for ethics to become posthuman it does not demand that humanist values and qualities be completely abolished. In fact, Atwood's novel makes it obvious that the prevalent influences of humanism will persist along with the posthumans as long as emotional and moral qualities, knowledge, intelligence, and culture—uniqueness of human civilization—remain on the earth. Such a truth corresponds to Nicole Anderson who points out in "Pre- and Posthuman Animals" (2017) that there is much difficulty in completely revolutionizing the nature of thought to posthumanist because "even asking the question of how thought might change is a metaphysical and humanist gesture and thus an anthropocentrism, revealing that perhaps there is no way out of humanism" (36). Stefan Herbrechter in "Postmodern" (2017) also views that the goal of critical posthumanism in breaking away from the humanist influence is still far from realization, warning that "we haven't finished with the human yet, and that we're far from ready to 'move on'" (66). According to Elana Gomel in "Science (Fiction) and Posthuman Ethics: Redefining the Human" (2011), the essentially non-anthropocentric posthuman ethics is still implausible (353). In agreement with Anderson, Herbrechter, and Gomel, this chapter acknowledges that for the ethics to be fully posthuman in all aspects and senses is still an impossibility. Instead, it is possible to work through humanism instead of trying to completely erase it as humanity is progressing more and more toward posthumanism as Neil Badmington similarly argues for in "Theorizing Posthumaism" (10–27). Atwood's version of posthuman ethics in *MaddAddam* might be the middle ground, for which Gomel is searching. Finally, this chapter contends

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that the transition from conventional human(ist) ethics to posthuman ethics is a slow process of acknowledgement and acceptance, in which humans need to surmount obstacles, such as prejudices, narrow-mindedness, discrimination, and speciesism. In *MaddAddam* Atwood imagines a gradual transitional process and negotiation of posthuman ethics marked by the shift in human attitudes and perspectives on other creatures, particularly the Crakers and the Pigoons. At the beginning, humans still see the Crakers and the Pigoons in a negative light. It is not until near the end of the novel that humans, the Crakers, and the Pigoons eventually become familiar with one another and can genuinely coexist in a harmonious relationship by overcoming speciesist prejudices and discriminatory mentality, moving toward the posthuman attitude and sensibility, and accepting and embracing differences, similarities, and uniqueness of each being. Such a transformation does not occur instantaneously. It is contemporaneous to the novel's slow progress.

It is useful to begin the analysis by observing how from the very beginning of *MaddAddam* Atwood brings into question the issue of whether the always all-loving and forgiving ethics of God's Gardeners is pragmatic and unequivocally suitable for the current reality via Toby. Toby certainly feels guilty about her kindness and oversight which allow the painballers to run away. The painballers are murderous criminals who have been thoroughly dehumanized by the CorpSeCorps' inhumane punishing system called a painball. While they are biologically and physically humans, they lack human moral and emotional qualities, such as mercy, kindness, morality, conscience, shame, and guilt. As a result, they can instinctively commit immoral acts, such as raping and killing without scruples or legitimate reasons. Toby ascribes the painballers' escape to "her own idiocy" and "her failure to pay attention"

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(17). This is because despite knowing full well how dangerous the painballers who have become something less than human or what she calls “the reptilian brain” (17) are, she still spares them because that day is the Day of Saint Julian of Norwich, the day of forgiveness as taught by God’s Gardeners. For this, Toby blames herself, calling herself an “idiot” and a “dimwit” whose failure to kill them “verges on criminal negligence” (23). This matter has a profound and far-reaching impact on the story as the runaway criminals continue to serve as the hidden menace to the survivors throughout the novel and eventually cause several casualties including Philo, Adam One, Jimmy, and a few of the Pigoons. Through Toby’s strong feeling of contrition, Atwood suggests that the ethics that chiefly champions love and kindness is perhaps too idealistic and impractical for the post-apocalyptic reality, in which the safety and welfare of the remaining few populations are of utmost importance. Such a stance is later corroborated by the final judgement on the fate of the painballers near the end of the novel.

In the trial to decide on the punishment for the painballers who have taken lives of both humans and the Pigoons, the opinion that belongs to the ethics prioritizing love and compassion is strongly overwhelmed by the opposing majority. Such a view is articulated in White Sedge’s plea during the trial where she argues for a possibility of mercy and a second chance for the convicts by reasoning that since their nefarious deeds are products of the CorpSeCorps’ dehumanizing system, they might still be exempt from death penalty. White Sedge states “[s]urely their viciousness is a result of what was done to them earlier in their lives, by others. And considering the plasticity of the brain and how their behavior was shaped by harsh experience, how are we to know that they had any control over what they did?” (448).

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Others, however, express their opinion that the inhumane painballers are by all means menaces to the safety and survival of all in the community regardless of the root causes of their evil transformation and atrocities. Shackleton rebuts, "[t]hey ate my little brother's fucking kidneys! They butchered him like a Mo'Hair!" (448) The repugnance for mindless cruelty and the concern over the welfare and survival of the community and the others triumph over even the objectively rational and scientific reason of preserving genetic diversity in the time, in which human genes are now endangered. When Ivory Bill proposes to spare the painballers for the sake of their "generative fluids" in order to maintain "genetic variety" (449), others are disgusted by this idea of promoting biodiversity. In particular, Ren and Amanda, who are rape victims of the painballers, are very worried about a possible genetic continuation of criminal genes to the future generations. Ren claims in front of everyone that "a child with such warped genes would be a monster" and "the mother couldn't love it" (449). Amanda who still does not know whether the baby inside her belongs to the painballers or not adds that if the baby is theirs, she will give it away to White Sedge, the only person who tries to somewhat plead for them. Revealing is the fact that in the final result of the trial by votes there is only one vote for leniency from White Sedge, and not from Toby who has always been the epitome of God's Gardeners' kindness and unconditional compassion.

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If the ethical treatments of the painballers foregrounds the need for a posthuman ethics to be mindful of the lack of moral and emotional capacities, the interactions between humans and the Crakers accentuate how the favored posthuman ethics cherishes benevolence and peacefulness. In a stark contrast to the painballers, the Crakers receive a significantly better hospitality from Toby's group and are

considered to be in the same moral standing as humans, in spite of the fact that they are posthumans. They are being protected and cared for by Toby and companions who help and teach them. There are underpinning elements contributing to this. That is, they exhibit several emotional and moral qualities which humans embrace, for instance, innocent, kind, and peace-loving nature, or compassion and empathy for both their own and other species. They love not only their own kind but also other species. The best illustration is that from the beginning to the second half of the novel, the Crakers have always diligently taken care of the sick and unconscious Snowman by purring with absolutely no complaints.

The Crakers are not only morally fit to live in human society but also are physically suitable for living in the post-apocalyptic environment. Despite some features that an ordinary human would deem as bizarre and absurd, the Crakers should be considered as biologically superior to humans because Crake has designed them to be endowed with desirable and practical traits. Their outer appearance is aesthetically top-notched as Toby thinks "[t]hey are preternaturally beautiful" and that humans "must seem subhuman to them" (48). Their skins are not affected by the strong UVs, their body odor can repel insects, and their urines can ward off other animals, to name but a few. They are also very eco-friendly as they only consume plants and can sustain on their own excretion, thereby producing little emissions. These factors make the Crakers very strong candidates for survival and harmonious coexistence.

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In addition to their inner goodness and biological suitability for the post-apocalyptic environment, the Crakers also have a special ability to communicate with humans and the Pigoons. Although they still do not understand the entire repertoire of human languages and words, they are learning fast as the story progresses. Based on

this pace, it is very likely that their future generations would eventually be able to read and write as fluently as humans. Moreover, the Crakers also serve as the intermediaries and interpreters for humans and the Pigoons because the two species cannot directly communicate with each other on their own. The implication of this is that the Crakers become indispensable as the communicational bridge between the two different species, especially when the two species have to collaborate in their attempts to apprehend the painballers or to negotiate and reach some agreement. The Crakers are thus vital for the interspecies coexistence. It should be noted that the difference in the ethical consideration between the kind Crakers and the cruel painballers underlines that moral and mental qualities are more important than genetic or biological factors.

At the beginning most human characters see the Crakers in a rather negative and disdainful light, with only the exception of Toby. This is evident in how human characters address and discuss the Crakers. Ren calls the Crakers by using a synecdoche, “blue dicks” (25), which has a demeaning connotation. Manatee refers to them as “the Paradice Dome circus” (28). Crozier calls them “the Creepo naked people Crake made” (28). Swift Fox describes them as “Crake’s Frankenpeople”—a ridiculing allusion to the famous monster in *Frankenstein* (28). Sometimes the Crakers are seen as even less than humans as “walking potatoes” (29). In the first section of *MaddAddam* Rebecca shares her opinion of the Crakers with Toby that “[t]hey’re definitely not like us” (47). Even at around the middle point of the novel they are still referred to by Ren as “some kind of gene-spliced weirdo monster” and the baby is called “Frankenbabies” (265). It is Toby who seems to acknowledge them as somewhat equal to humans when she answers “they are people” to Rebecca’s

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question of what the Crakers are (47). Toby has never used demeaning terms when describing the Crakers. Instead, she always refers to them as the Crakers or the Children of Crake. As a matter of fact, Toby has always expressed concerns over their safety. She feels the obligation to prevent them from returning to the beach for fear that they will be attacked by the painballers.

It is not until the second half of the book that humans seem to improve their view of the Crakers. One indicator of that is when Rebecca praises Blackbeard after she sees him writing in human language (318). This is likely due to the fact that the Crakers are increasingly able to learn and inherit human legacies of language, reading, and writing, hence a cultural similarity and assimilation. In turn, humans gradually are genetically assimilated into the Crakers. The birth of halflings as products of the interspecies breeding between humans and the Crakers marks the successful genetic communion as well as the possibility in perfectly harmonious coexistence that will allow the community to thrive in the post-apocalyptic and posthuman world.

Another posthuman existence in *MaddAddam* that makes the issue of ethical consideration more complex is the Pigoons. Unlike the Crakers who share many traits of humans, the Pigoons only share one genetic feature with *homo sapiens* which is the human neocortex tissue of the brain. With only this the Pigoons can challenge the hierarchical human and animal binarism allowing the ethical consideration to be explored in the novel. This is because such a feature bestows on them intelligence, the preeminent quality that allows humans to dominate the earth. This intelligence rivaling that of humans is the decisive factor that places the Pigoons in the same moral standing as humans and the Crakers. It is not simply because they share some

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genes or a body part with human beings that they are special. It is because they are capable of intelligently communicating and engaging in cultural acts.

However, at the beginning, similar to the Crakers being called "frankenpeople," the Pigoons are also referred to as "frankenbacon" (28) by Manatee. Shackleton thinks of them as "spareribs" (274). Rebecca, who is responsible for cooking, treats them as "bacon" (319). Ren thinks that they are "creepy" and Jimmy adds that they are also "sly" (324). Jimmy also humorously calls them "those werewolf pigs" (419) and their envoy "[t]he Great Wall of Pork", "[t]he Bacon Brigade," and "[t]he Hoplites of Ham" (424). For the most part of the novel, the Pigoons are regarded as merely pigs which are in a hostile relationship with humans. Even Toby says that "…they are not our friends" (326). They attack humans and humans hurt them back. Before the negotiation of the two parties, humans view the Pigoons as threats with recurring conflicts.

It is only after Toby's group comes into close contact with them and experiences how the Pigoons can communicate via the interpretive assistance of the Crakers and how they, with the help of their outstanding brain, have developed the capacities to participate in various fields of activities, such as diplomatic negotiation and burial culture, and the qualities, such as morality, rationality, and emotions that are originally thought to be exclusive to humans, that the humans' view of them shifts. One piece of evidence can be seen in the event, in which an envoy of Pigoons marches in a human-like manner, which Atwood describes as "a pig parade" (324), with a diplomatic purpose of discussing the issue of their murdered piglet and seeking assistance from Toby's group. With the Crakers as intermediaries and interpreters, Toby learns that the Pigoons also have their own unique culture. For instance, the

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Pigoons use funeral flowers for their dead babies but after the mourning they will eat the corpse. Toby deems their practice as "[c]urious funeral rites" (329). This strange ritual is explained later that "dead farrow are eaten by pregnant mothers to provide more protein for growing infants" (455). Despite some cultural differences, the two different species can come to understanding as suggested in the discussion of what to do with the dead bodies of Adam One, Oates, and Snowman near the end of the book. The Pigoons understand and accept the reason why humans will not feed on their dead ones without forcing their own ideology or culture upon the humans–a satire of how many humans are not as capable and open-minded as these pigs. This acceptance draws attention to the fact that the Pigoons have such a high level of intelligence that arguably surpasses some humans who are incapable of understanding and appreciating cultural differences in others.

Another solid proof to the same level of moral standing between humans and the Pigoons is manifested in their negotiation, in which the two parties can discuss the benefits on equal terms. In exchange for humans' help, the Pigoons promise that "they will never again try to eat [human] garden. Or any of [humans]" (328). They also ask the humans to never kill them with a gun, cook them, or eat them and in return they will not eat humans either. They also exhibit the human emotional qualities of shame and integrity as evidenced in the incident of two young Pigoons damaging the MaddAddamites' garden, which is a breach of the contract made between the two species. In response to this event, the novel describes how "[a] conference was called. The Pigoons sent a delegation of three adults, who seemed both embarrassed and cross, as adults put to shame by their young usually are" (459). One last noteworthy observation of the Pigoons is the fact that they also practice forgiveness. This point is

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illustrated by how the Pigoons seem to have forgiven Toby for killing one of them without asking for any compensation or justice since they understand why Toby kills in self-defense. With their psychological, emotional, and moral faculties, the Pigoons are considered more humane than the painballers who are genetically *bona fide* humans.

This ethical transformation into posthuman acknowledgement is signified by the change in humans' way of addressing the Pigoons, from merely "pigs" and "pigoons" to "the Pigoons" (337) and "the Pig Ones"—the name the Crakers call them first (122). The successful diplomatic negotiation between humans and the Pigoons also starts to influence how the first treat the latter. When Rebecca asks whether she should cook the dead piglet, Ren refuses and reasons that "[i]t would be like eating a baby" (331). The MaddAddamites then decide to give the dead piglet a proper burial instead (334). After the confrontation with the painballers near the very end of the novel the Pigoons have been fully elevated by Toby whose life is saved by them. Toby stresses the importance of changing the pronoun for one of the Pigoons from "it" to "her" because the Pigoons are not objects (427). From this point onward in Toby's and Blackbeard's following stories the Pigoons are respected as equal to humans and the Crakers.

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Nonetheless, this is not to say that the human genes are now completely meaningless or unwanted for Toby's community. They still hold some significance; however, they are just not as important as the emotional and moral attributes. This is evident in how human characters regard another kind of posthuman beings known as the Mo'Hairs. The Mo'Hairs are genetically modified sheep with human genes allowing them to grow human hair to be used for hair transplants. Toby's group does

not want to kill a creature with such a human characteristic for food. Additionally, the Mo'Hairs are innocuous posing no danger to the survival of the community. In one of the God's Gardeners' discussions on the topic of "food options" (252), Atwood straightforwardly explains the reason why no one in the group wants to eat the Mo'Hairs. It is because "somehow it would be hard to slaughter and eat an animal with human hair" (251). This is especially true when the uncannily familiar hair looks extremely similar to humans' and can remind them of their own hair.

In conclusion, in the wake of a new reality, in which posthumans have become major stakeholders with the same capacity for emotions and reasoning as that of humans, humans must rethink and redefine their ethics in order to create posthuman ethics which is suitable for the time. This new conception of ethics is essential for interspecies survival and harmonious coexistence between humans and posthumans because it extends the scope of ethical consideration to all parties who cannot be ignored or dismissed. It also suggests that humans will no longer be threats to the natural world and other nonhumans since their previously anthropocentric ideology and belief system—which have been one of the major causes of the environmental crisis—have been transformed into a non-anthropocentric attitude.

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Storytelling: Passing on the Posthuman Ethics

In *MaddAddam* Atwood highlights the crucial role of stories and storytelling. Storytelling culture is an essential and powerful tool to pass on knowledge, wisdom, information, values, and ethics to posterity. In Toby's case, storytelling is crucial for the impartation of beneficial legacies and inheritance to the future generations of all including the Crakers, the halfling, and humans. The entire novel itself is also a story.

Atwood's passage, "[t]here's the story, then there's the real story, then there's the story of how the story came to be told. Then there's what you leave out of the story. Which is part of the story too" (70), is probably the critical insight into storytelling for the character of Toby and possibly for the author herself. Attempting to be a good storyteller, Toby has to put a lot of efforts in thinking and planning what to say and what not to say to succeed in delivering the desired messages to her audience.

The novel's narrative structure revolves around different versions of the story: one is raw, unedited and uncensored, the other is selectively told and specially tailored for the Crakers. Throughout *MaddAddam*, Toby has told a large number of stories to the Crakers. The chief motives behind this are, firstly and basically, to appease the Crakers' incessant yearning for stories, to explain phenomena and events, and to teach them about what they should or should not do. Atwood creates the Crakers to be so fond of stories to the point that we can say stories and storytelling are integral to their existence–which is similar to humans. They learn how to make sense of the world and what happens mostly from stories they are told. For instance, Toby teaches the meaning of "thank you" and "good night" to the Crakers in the chapter entitled "The Story of Zeb and Thank You and Good Night" (104–106). This lesson aims to pass on some remaining favorable human culture of expressing good will. As a consequence, Toby's word choices and editorial decision to tell or to omit something have a serious impact on the Crakers and their learning experiences, thereby reflecting the emotional and moral values that she wants to impart to the Crakers and the future generations who might get to hear or read her stories. The legacies that Toby wants to impart to the future generations are compassion, benevolence, and affability both toward their own kind and other species.

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First of all, while the real accounts of what happens are usually much more detailed and longer, the stories Toby tells to the Crakers naturally need to be simple and short like a fable or a bedtime story because the Crakers are like children who are not yet fluent in human language and symbolism. Their linguistic repertory and understanding of the world are also very limited; as a result, they might not understand a large number of words, figures of speech or abstract ideas. When Toby uses new words, they will keep asking her to clarify the meaning and their questioning could become an endless process as one word can lead to many more. The best and playful example of this is when Toby has to explain what the meaning of the world "fuck" is. Because the Crakers misunderstand humans' interjection "Oh Fuck" as a form of address to a real person, Toby must helplessly fabricate a story of "Fuck" that has been personified as a helper of Crake, Zeb and Jimmy-the-Snowman (201–203). Such an ingenious and jaunty forgery demonstrates that Toby accentuates the importance of helping one another in time of need.

For Toby goodness and kindness are the major values that she strives to cultivate in the Crakers. This can be seen in many of her stories. The book begins with a chapter entitled "The Story of the Egg, and of Oryx and Crake, and how they made People and Animals, and of the Chaos, and of the Snowman-the-Jimmy, and of the Smelly Bone and the Coming of the Two Bad Men" (11) which summarizes the incidents that happen at the interval between the end of *The Year of the Flood* and the beginning of *MaddAddam*. This myth of origin is useful for the Crakers' future survival because it establishes the notion of good and evil, thereby laying the ethical foundations for the Crakers to judge what they should or should not do. From this very first story, Toby and the Crakers always describe Crake, who is their creator akin

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to God, as “good” and “kind” (11, 12, 13, 24, 133, and 452). According to their beliefs, Crake represents the force of righteousness as opposed to the evil force represented by the “bad people” and the “chaos” (12 and 134). Toby defines those bad people as someone who “did cruel and hurtful things to one another, and also to animals” (12) and who make Oryx and Crake sad (13). The underlying logic here is that the things that sadden or upset Oryx or Crake are considered wrong or bad by the Crakers. Consequently, the Crakers will learn that they should not imitate those bad deeds. Such is Toby’s mission of explaining the mysterious way of Crake, who is considered as benevolent God to the Crakers. The religious connotation is signaled by the phrase “justifying the way of Crake towards men” (123), which alludes to John Milton’s (1608–1674) famous line in his masterpiece of religious poetry, *Paradise Lost* (1667). Moreover, Toby often chooses not to elaborate on the sad or bad details of the story, such as what cruel and hurtful things bad people do are (12–13) because she wants the Children of Crake to remain innocent and uncorrupted by brutality committed by humans.

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Atwood explicitly states that Toby makes two versions for the “Story of the Egg:” a happy fabricated adaptation for the Crakers, and a less cheerful real account for herself. In the first version, Atwood shows how Toby downplays the rape of Amanda and Ren by the Crakers as “a major cultural misunderstanding” (22) instead of factually describing the incident. When the Crakers untie the painballers, hoping to relieve the latter from the pain of being tied up with ropes, Toby explains, without blaming them, how their action is acceptable and, in fact, commendable because they do it with kindness and a good intention of helping other beings from pain. This first version of the story thus emphasizes the quality of kindness and compassion.

However, as the novel progresses Toby has to teach the Crakers that in some cases, such as the case with the dangerous painballers, kindness cannot be prioritized because their very survival is at risk. In reality she blames herself but refuses to disseminate guilt to the innocent Children of Crake. That there are two versions of the story reflects Toby's attempt in preserving the naivete of the Crakers.

Another story told by Toby that also stresses the importance of kindness as well as the notion of helping others is "The Story of when Zeb was lost in the Mountains, and ate the Bear" (67). This is a story about Zeb who fights with the Bear and eats its meat. The story is adapted from Zeb's past experience of escape from the pursuit of the authority. What really happens in the past is that Zeb is followed by a spy named Chuck and has to flee. Zeb kills Chuck and has to choose cannibalism over starvation. In the version of the story told to the Crakers, Chuck becomes the Bear, thereby avoiding the cannibalistic barbarity that would be both shocking and heartbroken for the kind Crakers. Toby still underscores the importance of kindness by explaining to the Crakers that Zeb also feels sorry for the Bear and does not really want to hurt it but he has to since he does not want to be eaten by it (69). She also adds how Zeb also says "thank you" to the spirit of the bear (104) and to Oryx (105) for the meat. This story suggests how Toby has come to the realization that such good moral qualities as compassion and kindness cannot always be unconditional and must be counteracted by a sound judgement for survival, or else the Crakers might be hurt by their own good-naturedness.

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After the story of Zeb and the Bear, Zeb has become a sort of a mythical heroic figure for the Crakers (115 and 130), epitomizing a good protector who fights against bad people in the legend. Nevertheless, as the novel progresses, the heroic

figures who have made admirable contributions to the society are not limited to humans alone but extended to the posthumans, such as Blackbeard, as well. Since he is the only Craker who participates in the expedition and plays the crucial role of the intermediary and interpreter for humans and the Pigoons, Blackbeard can be deemed as a hero representing the Crakers in the dangerous quest that will be told again and again. Near the end of the novel, Blackbeard can also be considered as a mythical figure who appears in the legend as the authority in storytelling shifts from Toby's hand to Blackbeard and finally to the future generations. In a similar manner of how Zeb, Jimmy and Toby have been translated into the Crakers' mythology, Blackbeard is also mythologized. He is the first Craker who inherits the culture of reading and writing from humans and continues the sacred tradition of storytelling from Jimmy and Toby. The very final paragraph of the novel concludes this story by marking the transition from the "Book" of Toby which contains stories written by Toby (467) to the "Book" under the name of "Blackbeard" (474).

The transition of an authorial storyteller from humans to the Crakers is concurrent with how the oral tradition develops into the written tradition, adumbrating the more complex civilization in the future. Around the middle of the novel, after receiving necessary materials from Zeb, Toby resumes writing in her journal (247) and teaches Blackbeard how to read and write (248), despite her initial worry about the futility of writing and a dangerous possibility that the Crakers might follow the same destructive path as the human race which has been evidenced in history after their culture develops from the act of writing. Lamenting how her old journal seems futile as the God's Gardeners have become a thing of the past, she ponders "[i]f there is anyone in the future, that is; and if they'll be able to read; which come to think of it,

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are two big ifs. And even if reading persists, will anyone in the future be interested in the doings of an obscure and then outlawed and then disbanded green religious cult?" (166) In another scene, Toby shows a similar doubt as she contemplates: "[w]hat else to write, besides the bare-facts daily chronicled she's begun? What kind of story – what kind of history will be of any use at all, to people she can't know will exist, in the future she can't foresee?" (249) In fact, Toby also feels somewhat conflicted whether she should teach the culture of writing to the Crakers, thinking that such an attempt might amount to nothing or negatively affect the innocent Crakers in the end. Reluctant about teaching Blackbeard, Toby internally asks herself, "why is she teaching this practice to little Blackbeard? Surely the Crakers would be happier without it" (344). She further contemplates what will come out of the Crakers' learning of writing culture: "[w]hat comes next? Rules, dogmas, laws? The Testament of Crake? How soon before there are ancient texts they feel they have to obey but have forgotten to interpret? Have I ruined them?" (250).

To address Toby's concerns, the ending of the novel suggests that there will be people who can read or learn about what Toby has recorded and told as long as the art of writing, reading, and storytelling are not obsolete. The vestiges of humanity survive in the stories and myths that are passed on from one generation to another. Humanity and its stories become part of what posterity will regard as myths that will continue to survive. Blackbeard powerfully elaborates on the reasons why he teaches others about books and writing: "they wanted to learn, although it is hard. But they learned these things, to help all of us together. And when I am no longer here among us but have gone where Toby and Zeb have gone, as Toby said I will go one day, then Jimadam and Pilaren and Medulla and Oblongata will teach these things to the

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younger ones" (469). In other words, learning how to read and write is essential for the survival of the community because in order for a society to effectively survive and thrive, it requires the sharing of information, wisdom, knowledge, morality, and values, which is enabled by the art of storytelling, reading, and writing.

The final chapter of the novel, "The Story of Toby," is written and told by Blackbeard who has taken over the authority of storytelling from Toby. In the story, Blackbeard recounts what happens to Toby after Zeb is gone. The reality or the real unadorned version of story is that heartbroken and wearied Toby has decided to commit suicide in the forest alone and in peace. Regarding this incident, there are many versions of the story as Blackbeard writes "[s]ome say that she died by herself, and was eaten by vultures. The Pig Ones say that. Others say she was taken away by Oryx, and is now flying in the forest, at night, in the form of an Owl. Others said that she went to join Pilar, and that her Spirit is in the elderberry bush" (473). However, Blackbeard considers the modified version of the story which chooses to tell that Toby "went to find Zeb, and that he is in the form of a Bear, and that she too is in the form of a Bear, and is with him today" (473) as the best version "because it is happiest" (473–74). He also writes down other versions of the stories but in smaller writing. This illuminates how Blackbeard makes the same ethical choices in storytelling as Toby's, thereby continuing the mission of a chronicler who is responsible for passing on the positive values and messages to the future generations. It is evident that storytelling and stories have a profound impact on people's understanding and subsequent actions. The ethics of storytelling for Toby and Blackbeard includes the act of telling happy, kind, and beautiful stories because they give people comfort and positive energy to cope with the harsh reality and to strive

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for survival. Blackbeard views the effort in ethically inventing this kind of stories as "a thing of hope" (474). Such ethics might also explain why the ending of *MaddAddam,* in which humans, nonhumans, and posthumans continue to coexist in perfect harmony toward the bright future, might feel like a fairytale or a too good to be true myth. This is thanks to Toby's effort in preventing the Crakers from learning about the cruelty of humans and the world so that they can maintain their harmless innocence while they also can judiciously exercise their compassion and kindness so as not to repeat the footsteps of humanity, which might also be read as a manifestation of Toby's ideal and sense of mission as a God's Gardener.

Conclusion

It cannot be more accurate when Maud Marion Laird Eriksen and M. Gjerris in "On Ustopias and Finding Courage in a Hopeless Situation" (2017) offer their conclusive analytical observation on the MaddAddam trilogy that "[c]entral to Atwood's stories is a search for hope in a hopeless situation" and "[t]he novels suggest that we need to attempt to strive for a good life in a community with others, even in the face of ignorance and despair" (244). Atwood's attempt to seek an ethical way of life that is suitable for the reality and the *status quo* of the world, in which posthuman influences abound, enables her work to be read as a critical posthumanist text. In Atwood's imaginings the clear traditional boundaries between humans and other species have in some ways dissolved, and humans have been decentered. In this post-apocalyptic and posthuman landscape, Atwood brings into question the meaning of humans, ethics, and moral values attributed to humans. Atwood's novel suggests a posthuman ethics for the practical and peaceful coexistence between humans and

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posthuman species as the one that favors the moral, emotional, intellectual, and cultural factors more than the biological and genetic aspects. Atwood also imagines the transitional process, through which humans eventually learn to develop a posthuman sensibility. That is to say, the community of humans shifts its anthropocentric perspective to a more non-anthropocentric ideology. Finally, Atwood highlights in her novel that the ethics suitable for the new times comes hand in hand with the essential components of being humans, i.e., the art of storytelling and the culture of writing and reading. These integral elements for Atwood serve as the indispensable tool that assists the task of establishing an understanding between humans and posthumans, which can also be extended to the reader. Although some uncertainties about the future are insinuated in the fact that very little information pertaining to the hybrid descendants of humans and the Crakers is provided, *MaddAddam*—similar to the stories told by Toby and Blackbeard—ultimately points toward a happy ending with a hopeful future.

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Chapter V: Conclusion

Atwood's MaddAddam trilogy attests to the undeniable significance of environmental ethics and survival in the ecological crisis. Although the dystopian society and environmentally ruined earth of the three novels are fictional, they appear very close to the reality, in which we are living at this very moment. Although humanity in the real world has not yet arrived at Atwood's prophetic catastrophic imaginings, we are approaching there—fast and unstoppably. Such a looming environmental calamity that can drive every creature on the planet to extinction should reasonably incite people across the globe to deliberate how humans' activities have resulted in disastrous repercussions that affect all living beings. It cannot be stressed enough that the survival at stake here is not exclusive to humans but also includes other living entities, such as animals and plants. To understand our own actions and their effects as well as to make amends and live an ethical life are therefore of utmost importance. These key issues are what the MaddAddam trilogy thematically involves.

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Concerning these central themes, one of this thesis' aims is to examine how Atwood depicts a dystopian society in both the pre- and post-apocalyptic world as the background of her speculative trilogy, which can be read as an illuminating insight on the causes of the crisis. Along the same line, this thesis has attempted to investigate the complexity and significance of ethics via the examination of humans' ethical consideration and interactions with other beings. To answer the major research question regarding the root causes of the apocalypse, the analysis of *Oryx and Crake* has revealed that the harbingers of the apocalypse are warped ethics, deeply-rooted

hierarchy, and myriad forms of inequality prevailing in every socio-political and economic stratum and in every nook and cranny of human society. Employing Bookchin's social ecology as a theoretical framework, the thesis has found that—true to the tenet of Bookchin's social ecology—there are profound connections between social issues and ecological problems in the novel. The hierarchical mode of thinking and injustice embedded in various kinds of inequality are the chief factors that influence the way, in which humans see themselves and interact with the nonhuman world. This leads to humans' misconception that they are superior to all and their hubristic tendency to position themselves at the center of the universe and others at the periphery. The evidence lies in the lives of the main characters of the novel, such as Jimmy, Crake, and Oryx. Heavily influenced by the hierarchical, materialistic, and exploitative environment surrounding them, these characters have thus become ethically warped themselves.

By extension, this thesis has also contended that Atwood warns the reader against the imminent ecological and moral crisis via her speculative fiction. These findings correspond to the reality. The dystopian landscape of the MaddAddam trilogy, be it the human society or the environment, is a very powerful warning about the possibility that Atwood's imaginings will be realized. In the ecological aspect, the real world is gradually becoming similar to that of Atwood's trilogy. We see how the climate crisis is becoming more serious each day. Despite the ardent efforts of environmental activists around the world to prevent more human excessive interference with nature, most humans still ravage the natural world without scruples because their anthropocentric ethics makes them feel entitled to do so. In the social aspect, our society is also becoming increasingly similar to the fictional world of

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Atwood's MaddAddam trilogy. One of the major similarities is the ever-growing capitalism and businesses that profit from the exploitation of nature and damage it. The primary examples of those are fossil fuels industry and deforestation for urbanization and mining industry. This is not to say that there are no people who care about the environmental issues and attempt to find solutions to the problems. Like what happens in Atwood's novels, the efforts to cope with the environmental crises still seem insufficient when the opponent is short-term financial gains of the elite few. Ecological conscience and morality are losing in the fierce battle against capitalism and materialistic greed. In Atwood's trilogy, humanity has already passed the point of no return, but we, in the actual reality, still have some time. The trilogy suggests that what we need is the proper ethics that will enable us to make correct ethical decisions and moral judgements, thereby increasing our chance of survival in the looming anthropogenic apocalypse.

In the attempt to answer another major research question concerning the importance of ethics in the survival at the end of the world, this thesis has examined the alternative religion of God's Gardeners in *The Year of the Flood*. Examining God's Gardeners, it has illuminated certain aspects embedded in their belief system and teachings, such as the belief in the intrinsic value and equality of all lives, the lifestyle of self-sufficiency and non-violence, and the emphasis on the importance of education and practical knowledge, as the elements crucial to their survival. It has also illustrated how some of the God's Gardeners' core values bear resemblance to Arne Naess' philosophy of deep ecology. It has further argued that, despite some of their questionable aspects—which might be interpreted as Atwood's rejection of any extreme adherence to one faith and her concession to the imperfectability of human

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ethics—the God's Gardeners practice the environmental ethics that can be considered as an alternative ethical model in the wake of the apocalypse. These moral qualities that God's Gardeners attempt to inculcate in themselves and the younger generations are relevant to the real world where humans are grappling with how to deal with the environmental crises that our race has created.

Finally, attempting to answer the final major research question on the complexity of ethics, this thesis has explored how Atwood, acknowledging the necessity to revise and rework the environmental ethics of God's Gardeners to be more suitable for the new reality, presents her unique version of the posthuman ethics that is grounded on compassion, kindness, intelligence, and moral capacity. It also has found that Atwood stages the gradual process of transition, in which humans shift from their original anthropocentric attitude to non-anthropocentrism, which makes possible the interspecies survival and harmonious coexistence in the post-apocalyptic and posthuman future. It has further contended that this transitional process is facilitated by the art of storytelling which serves as an indispensable means, for which ethics, benevolent values and useful information are passed on to the posterity, humans and posthumans alike.

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To connect this thesis' focus on ethics, survival, and apocalypse with the current environmental crisis, we may be bewildered to see that, despite the weight of evidence and the severity of the imminent crisis, scientists and experts have met with much difficulty and arguably little success in their efforts to raise awareness about the climate change as one of the most urgent problems for humanity during the past few decades. Today scientists, experts and activists around the world still have to protest against governments and businesses in their attempt to call for serious climate actions

when the solutions should have now been realized or, at the very least, partially achieved. Such a depressing fact is best evidenced in the unsatisfactory outcome of the COP26. In the most recent 26th UN Climate Change Conference of the Parties (COP26) held in Glasgow from 31st October to 12th November, 2021, which world leaders and delegates from more than 200 countries attended, nations agreed on the Glasgow Climate Pact to accelerate the actions on climate and to reaffirm the failing pledge to limit the increase in the world's temperature to below 2—preferably to 1.5 Celsius degree—the goal that was previously set in the 2015 Paris Agreement[3]. First of all, the international governments still appear to prioritize monetary benefits of the large businesses over the well-being of the natural world and the future of humanity and do not take serious enough actions. Xi Jinping, the leader of China, one of the largest nations and biggest polluters, was absent causing a long shadow on the annual summit and raising skepticism over the commitment and the possibility of accomplishing the expected result. Moreover, the draft of the Glasgow Climate Pact itself is criticized by several climate activists for being too weak and seeming to protect the profits of the oil companies rather than the benefits of the whole humanity and the planet. This is because while there are many actions that different nations vow to take, such as phasing down coal power, halting and reversing deforestation, switching to electric vehicles and reducing global methane emissions, there is no promise on the transition from fossil fuels to clean energy or the reduction of carbon dioxide from the oil industry. Some have also pointed out that there are a few

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[3] For the general information and news related to the COP26, see COP26, *Climate Change Conference UK 2021*, UN, 2021, https://ukcop26.org/.

hundreds of lobbyists affiliated with oil, gas and coal companies attending the COP26, thus bringing the issue of transparency into question (COP26). As a result, the event is also seen as a staged press conference where world leaders flaunted their ostentatious slogans concerning climate actions devoid of firm conviction.

The mediocre commitment to solving the climate change emergency shown by international governments in the COP26 most likely points to the inefficacy of plain factual data to influence people rationally, emotionally or ethically. While there are some who are already aware of urgency and severity of the looming environmental crisis and are living in anxiety attempting to forestall it, there are still many who are either truly ignorant or irresponsibly ignoring the elephant in the room. If mere scientific facts are not powerful enough to effectively reach the latter group of people, then we need help from the element Atwood sees as integral to humanity, i.e., stories. In comparison to researches or scientific studies, storytelling and fiction, especially speculative fiction, may enable us to better digest the enormous issue of climate emergency. Storytelling demands us to visualize the crisis and inculcates in us the ethical values by invoking emotions that can deeply affect us. Contemplating Denis Dutton's theory on the origins and purposes of stories in his book *The Art Instinct* (2009), which proposes that artistic capabilities encoded in our genes are part of our vital evolution that developed during the two million years, Atwood argues for the significance of stories for our survival:

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> …the arts would have had to have conferred some noteworthy benefits on us during those millennia; that is those who demonstrated such abilities as singing, dancing, the making of images, and—for our purposes—the telling of stories would have had a better chance at survival than those without them.

> That makes certain sense: if you could tell your children about the time your grandfather was eaten by a crocodile, right there at the bend in the river, they would be more likely to avoid the same fate. If, that is, they were listening. (*In Other Worlds* 43)

The simple fact that there is a predatory reptile in the river may not be as an impactful warning as the fiction that vividly describes how the grandfather is eaten by a ferocious animal. Similarly, this could easily be applied to the climate change crisis, which is in accordance with Atwood's intention in her writing of the trilogy.

In this thesis' findings and Atwood's MaddAddam trilogy, we have seen how the social aspects are closely intertwined with the ecological crisis. Therefore, we realize that were we to find the solutions, we need to consider multiple dimensions of the problems. We have discerned the importance of non-anthropocentric ethics in our attempt to face the climate change. We have also come to the significant insight that humans still need the inculcation of certain ethical values through the art of storytelling. Plain facts and reasons may not be enough to move us. What we need is the heart, conscience, and passionate commitment to do something about the crisis. This thesis thus suggests that posthuman ethics and non-anthropocentric mode of thinking are indispensable to our attempt to solve the environmental problems. Like God's Gardeners, we should try to be more eco-centric and less ego-centric. Finally, this thesis would propose that storytelling may not directly lead to a sudden change or improvement, but it definitely is a solid starting point for any serious actions to mitigate the anthropogenic environmental crisis, as Atwood has shown us through her three works of speculative fiction, from *Oryx and Crake* to *The Year of the Flood*, and ultimately to *MaddAddam*.

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