

**AN ECOCRITICAL ANALYSIS: NATURE AS DWELLING IN
SAM J. MILLER'S *BLACKFISH CITY***

THESIS

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**DEPARTMENT OF ENGLISH LITERATURE
FACULTY OF HUMANITIES
UNIVERSITAS ISLAM NEGERI MAULANA MALIK
IBRAHIM MALANG**

2020

**AN ECOCRITICAL ANALYSIS: NATURE AS DWELLING IN
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THESIS

Presented to
Universitas Islam Negeri Maulana Malik Ibrahim Malang
in Partial Fulfillment of the Requirements for the Degree of *Sarjana Sastra* (S.S)

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2020**

STATEMENT OF AUTHORSHIP

I state that the thesis entitled “**An Ecocritical Analysis: Nature as Dwelling in Sam J. Miller’s *Blackfish City***” is my original work. I do not include any materials previously written or published by another person, except those cited as references and written in the bibliography. Hereby, if there is any objection or claim, I am the only person who is responsible for that.

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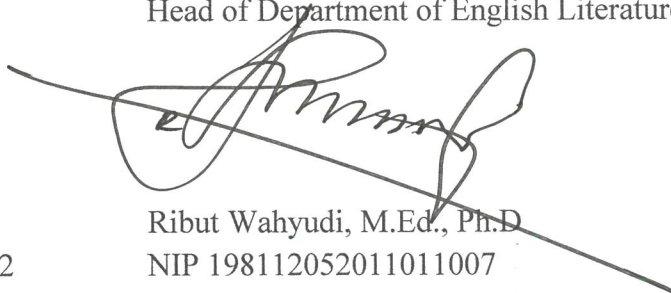
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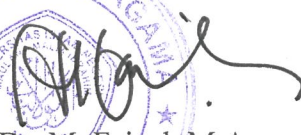

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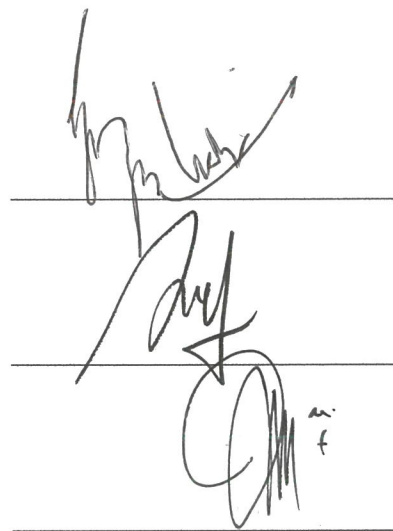
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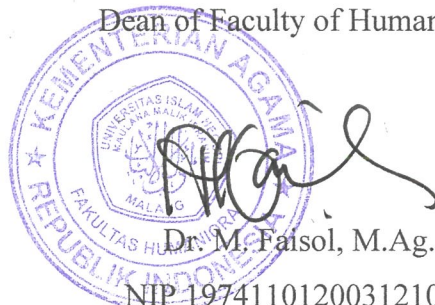
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MOTTO

“An ounce of protection is worth a pound of cure.”

that means

*“It’s better to maintain a forest that has been formed for millions of years ago,
than to reforest after deforestation.” – Chanee Kalaweit, 2016*

DEDICATION

I dedicate this thesis for my beloved family: my lovely mother, my strong father and my only one sibling. Thank you so much for always love me endlessly, support me unconditionally, and motivate me to finish my thesis

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Bismillahirrahmaanirrahiim. All the praise and gratitude belong to Allah SWT, the Lord of the universe. Under the Great Lord guidance with the tremendous blessing and gracious mercy that enables me to write and finish my thesis. May peace and God blessing are also conveying for Prophet Muhammad SAW, who has bought the light of righteousness for followers into the entire world.

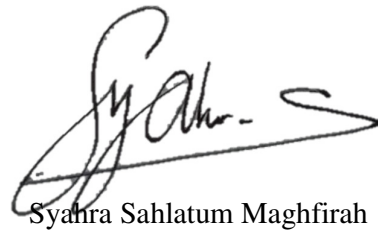
This thesis is intended to be a requirement for achieving a degree from *Sarjana Sastra* (S.S) at University Islam Maulana Malik Ibrahim Malang. The presence of this thesis entitled “An Ecocritical Analysis: Nature as Dwelling in Sam J. Miller’s *Blackfish City*” may impossible completed without the contribution and support of many people. The whole special gratitude offered for my advisor, Asni Furaida, M.A, for spent her time giving advice, correcting, guiding, and her criticism towards accession my thesis. The researcher also wishes to express the deepest gratitude to the academic advisor, Dr. Siti Masitoh, and all lectures from English Department who always provide insight thoughts related to literature study and also advice during my studies at the university. My gratitude also conveys for Sam J. Miller, the author of the novel *Blackfish City* subject for this research.

Further, my gratitude also presents for my dependable father, my dearest mother, and also my precious little brother. Thanks for always pray that every step to take is under the guidance of Allah SWT, for their motivation, give me unconditionally love, and also always support me. Moreover, a lot of thanks to my

beloved friends from the same department that I can't mention their name one by one for the precious experiences, my crackhead friends in Online Discussion group, my ex-room partner and to my loyal friend, Devina Dwi Nur Jayanti who always patiently supported me from my struggle, encouragement, and help me to complete this thesis thank you so much.

Lastly, all forms in this thesis still have flaws and errors in write. Hopefully for all constructive criticism and suggestions are expected to be improvised. I hope this research will be of use to me, everyone studying the same study, and readers.

Malang, 25 December 2020

A handwritten signature in black ink, appearing to read 'Syahra', followed by a long, sweeping horizontal stroke that extends to the right.

Syahra Sahlatum Maghfirah

ABSTRACT

Maghfirah, Syahra Sahlatum. (2020). *An Ecocritical Analysis: Nature as Dwelling in Sam J. Miller's Blackfish City*. Undergraduate Thesis. Department of English Literature, Faculty of Humanities, Universitas Islam Negeri Maulana Malik Ibrahim Malang. Advisor: Asni Furaida, M.A.

Key Words: Ecocriticism, Dwelling, Environmental Issues

Human existence has a huge impact on earth. As dwelling place, earth has nature and provides sufficient resources for humans. But do humans think so? The number of environmental issues and nature damage today shows that humans are less grateful and less environment awareness and instead continue to exploit it. As the result, climate crisis such as climate change and global warming are increasingly threatening the future of the earth and everything in/on it.

This study aims to describe nature presented in Sam J. Miller's *Blackfish City*. This study conducted based on the principles of literary criticism which consists of analysis, interpretation and evaluation of literary works. This study applies Greg Garrard (2004)'s theory of ecocriticism, particularly dwelling concept as literary criticism. The data sources were taken from literary work of Sam J. Miller's *Blackfish City* which published in 2018.

The results of this study show that there are four key points of nature as dwelling described in Sam J. Miller's *Blackfish City*: settlement system, political matters, socio-economic life, culture and memories. This study points out the negative impact of human attitudes towards nature, after the storm of the climate crisis submerged large areas of land. The floating city above the ocean became settlement system that causes environmental problems in the form of water and air pollution and also overpopulation. Political matters are dominated by wars that damage the environment and policies that harm ordinary people, especially the marginal and minority communities. Socio-economic life shows human greediness that continues to exploit nature in the midst of the climate crisis and exacerbate the damage on earth. Such as deforestation to supply economic needs and then extinct animal trade, cause many things to be expensive and scarce. Littering, making extinct animals as luxury pets and discriminating against minority communities who are known to have the ability to bond with animals (nanobonders) are negative human cultures towards nature. While nanobonders show bad memories in the past which was dominated by the slaughter of their communities and their animals, also the destruction of settlements and the environment by humans, specifically the global elite.

ABSTRAK

Maghfirah, Syahra Sahlatum. (2020). *Sebuah Analisis Ekokritik: Alam sebagai Tempat Tinggal dalam Novel "Blackfish City" oleh Sam J. Miller*. Skripsi. Jurusan Sastra Inggris, Fakultas Humaniora, Universitas Islam Negeri Maulana Malik Ibrahim Malang. Pembimbing: Asni Furaida, M.A.

Kata kunci: Ekoritik, Tempat Tinggal, Isu-isu Lingkungan

Kehadiran manusia memiliki dampak yang sangat besar bagi bumi. Sebagai tempat tinggal, bumi menyediakan alam dan sumber daya yang cukup bagi manusia. Tapi apakah manusia berpikir begitu? Banyaknya permasalahan lingkungan dan kerusakan alam saat ini menunjukkan bahwa manusia kurang bersyukur dan kurang peduli terhadap lingkungan, manusia justru terus mengeksploitasi alam. Akibatnya, krisis iklim seperti perubahan iklim dan pemanasan global semakin mengancam masa depan bumi dan segala yang ada di dalam maupun permukaannya.

Penelitian ini bertujuan untuk mendeskripsikan alam yang tersaji di dalam *Blackfish City* karya Sam J. Miller. Kajian ini dilakukan berdasarkan prinsip-prinsip kritik sastra yang terdiri dari analisis, interpretasi dan evaluasi terhadap karya sastra. Penelitian ini menggunakan teori ekokritik Greg Garrard (2004), khususnya konsep hunian (*dwelling*) sebagai kritik sastra. Sumber data diambil dari karya sastra berjudul *Blackfish City* karya milik Sam J. Miller yang terbit pada tahun 2018.

Hasil penelitian ini menunjukkan bahwa ada empat poin kunci dari alam sebagai tempat tinggal (*dwelling*) yang dijelaskan dalam novel berjudul *Blackfish City* karya Sam J. Miller: sistem pemukiman, masalah politik, kehidupan sosial ekonomi, budaya dan kenangan. Studi ini menyoroti dampak negatif dari sikap manusia terhadap alam. Setelah badai krisis iklim menenggelamkan sebagian besar wilayah bumi. Kota terapung di atas lautan menjadi sistem permukiman yang menimbulkan permasalahan lingkungan berupa pencemaran air dan udara serta overpopulasi. Masalah politik didominasi oleh perang yang merusak lingkungan dan kebijakan yang merugikan rakyat biasa, terutama kaum marginal dan kelompok minoritas. Kehidupan sosial ekonomi menunjukkan keserakahan manusia yang terus mengeksploitasi alam di tengah krisis iklim dan memperburuk kerusakan di bumi. Seperti penggundulan hutan untuk memenuhi kebutuhan ekonomi dan perdagangan hewan terancam punah menyebabkan segala hal menjadi mahal dan langka. Membuang sampah sembarangan, menjadikan hewan punah sebagai peliharaan mewah dan mendiskriminasi kelompok minoritas yang dikenal memiliki kemampuan untuk terikat dengan hewan (*nanobonders*) adalah budaya negatif manusia terhadap alam. Sedangkan para *nanobonder* menceritakan kenangan buruk di masa lalu yang didominasi oleh pembantaian komunitas mereka beserta hewan-hewannya, juga merusak pemukiman dan lingkungan oleh manusia, terutama elit global.

ملخص البحث

مغفرة، شهرا سهلة. (2020). تحليل الفن: العالم كالمنزل في قصّة "Blackfish City" من سام ج ملير. البحث العلمي. قسم الفن الإنجليزي، كلية علم الثقافة، الجامعة الإسلامية الحكومية مولانا مالك إبراهيم مالانج. المشرفة: اسني فريدا، M.A.

الكلمات الرئيسية: الفن، المنزل، قضايا البيئة.

كانت حضرة الناس لها الأثر العظيم للأرض. كالمنزل، يعدّ الأرض العالم و المورد الكافي للناس. ولكن هل الإنسان يفكر ذلك؟ و يدلّ كثير ما من مسائل البيئة و فساد العالم الحاضر أنّ الإنسان نقصان الشكر و نقصان الاهتمام نحو البيئة، و يستغل الإنسان العالم. فذلك يسبّب أزمة المناخ كتغيير المناخ و حرارة الكراويّ تتهدّد المستقبل و كلّ ما فيها و خارجها.

و غرض هذا البحث هو لوصف العالم المستعد في *Blackfish City* تأليف سام ج ملير. و تؤدّي هذه الدراسة من أصول نقد الفنّ الذين يتضمّن على التحليل، التأويل و التقويم نحو الأثر الفنّ. و يستخدم هذا البحث نظريّة الفنّ كريك كيرد (2004)، خاصّة لمفهوم المنزل (*dwelling*) كنقد الفنّ. و يؤخذ مصدر البيانات من الأثر الفنّي بموضوع *Blackfish City* تأليف سام ج ملير الذي يصدر في السّنة 2018.

و تدلّ نتيجة هذا البحث أنّ وجود أربع نقاط المفاتيح من العالم كالمنزل (*dwelling*) الذي يُبيّن في القصّة بموضوع *Blackfish City* تأليف سام ج ملير: جهاز المشقّي، مسألة السياسة، حياة الاجتماع، الاقتصاد، الثقافة و الذكريات. تركّز هذه الدراسة على الأثر السلبيّ من موقف الناس نحو العالم. و بعد عاصفة أزمة المناخ تغرق بعض ولايات الأرض. و تكون مدينة العائم على البحر جهاز المشقّي الذي يظهر مسألة البيئة تعني ساحة الماء و الجوّ و السكّانيّ الكبير. تُسيطر مسألة السياسة من الحرب الذي يفسد البيئة و السياسة التي تخسّر الأمة البسيطة، لا سيّما القوم الفرعيّ و الفرقة الأقلّيّة. و تدلّ حياة اجتماع الاقتصاد مفترس الإنسان الذي يستغل العالم مستمرا في أثناء أزمة المناخ و يسيء الفساد في الأرض. كقطع الغابة لإتراع حاجة الاقتصاد و تجارة الحيوان تهدّد الانقراض الذي يسبّب كلّ شيء أن يكون غنيما و شحيحا. و رمي الرّبالة في مكان ما، يكون الحيوان الانقراض كاستنساخ الفاخر و تمييز الفرقة الأقلّيّة الذي يُعرف أنّها لها القدرة للعلاقة بالحيوان

(*nanobonders*) هي الثقافة السلبية الإنسانية نحو العالم. و تحكي القدرة للعلاقة بالحيوان الذكريات السيئة في الماضي الذي يسيطر بقتل فرقتهم مع حيواناتها، و فسادة المنزل و البيئة من الناس، لا سيما النخبة الكروية.

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CHAPTER I

INTRODUCTION

A. Background of The Study

Earth has been a dwelling for mankind for thousands of years. The last few decades, scientists have warned humans to be more aware and concerned toward nature if we don't want our beloved planet and home to be destroyed. The main cause is human activities that trigger various environmental issues. Environmental issues are defined as problems with the planet's system (air, water, soil etc.) that have developed as a result of human interference or mistreatment of the planet (Pant, Verma and Surya, 2020). The term used to refer to human-caused activities is anthropogenic.

Massive exploitation towards natural resources become serious issues nowadays, life necessities increase with the changing times and population growth (Makwana, 2016, p.407). Overpopulation has shifted the function of the forest into residential and agricultural land in order to supply the human needs. This kind of anthropogenic has clearly damaged the biosphere also many flora and fauna will encounter extinction due to loss of their habitat. In 2016, Borneo has lost more than 50% of its forest due to deforestation (Eyes on The Forest, 2017) and it is still increasing today, with the expansion of industrial practices of monoculture plantations, mining and logging as the main causes.

According to *earth.org*, one of the biggest environmental problems 2020 is climate crisis which covers climate change and global warming. Climate change

becomes one of serious issues and major challenges in this time, creates large pressure on society and environment (Adedeji, Reuben, and Olatoye, 2014). The term climate change encompasses global warming, but refers to the broader range of changes that are happening to our planet, such as extreme weather changes, shrinkage of glacier mountains, rising sea levels, speeding up ice melts in pole and shifting flower/ plant blooming times (NASA, n.d).

Tangible evidence of climate crisis is unequivocal, where *BBC News* reported that climate change triggers for the increasing scale and severity of forest fires in California this September also in Australia this early year (McGrath, 2020) and these fires are definitely contribute to the world carbon dioxide emissions. A journal article, published on *nature.com* claimed Greenland Ice Sheet is losing mass over maximum rates in past 12.000 years and may trigger sea level rise of up to 100 mm by the end of this century (Briner, Cuzzone, & Nowicki, 2020).

Moreover, re-greening the Sahara and Sahelian regions after millions years ago because increasing intensity of rainfall today (Pausata et al., 2020) and several major rivers on earth run dry from overuse and climate change (NATIONAL GEOGRAPHIC, 2019), are truly terrible instances of climate crisis.

By looking at the current circumstances of the earth, lots of efforts and methods have been made in order to reduce the impact and save the planet. Such through signing The Paris Agreement, the countries take part in keeping a global temperature rise this century below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UNFCCC, 2015). Another controversial effort is missions to establish a

colony on Mars (Mars One) as a sustainable city and population control if the earth experiences apocalyptic in the future.

Apprehensive about the fate of earth moves environmental activists to make others aware through campaigns and real actions, writers also have their own way of expressing their thoughts by writing literary works. As interest in environmental issues grows, many writers of fiction have embraced themes that explore the connections between humans and the natural world (Dwyer, 2010). Environmental-themed fiction is often called eco fiction. Well-known eco-fictions are Saci Lloyd's *The Carbon Diaries 2015* (2009), Barbara Kingslover's *Flight Behaviour* (2012), and Kim Stanley Robinson's *New York 2140* (2017).

Blackfish City written by Sam J. Miller is a sci-fi novel with the theme of environment particularly climate change and global warming, first published as eco edition in New York in 2018. *Blackfish City* is the winner of the John W. Campbell Award for Best Novel, and nominated too for Best Novel on the Nebula Award, the Locus Award for Best Novel, and the Neukom Institute Literary Arts Award. This novel is chosen by the researcher as the object of research because it has interesting story about post-climate-collapse world.

The novel's story was set in the future, where the earth has undergone major changes due to the severe climate change and global warming. The ice melted, the sea level has increased significantly, submerging many parts of the world. War is everywhere. Humans tried to rise from adversity and started a new life by adapting to a hostile nature. The floating city is one of the methods used by humans to deal with the natural conditions of *Blackfish City* era. Qaanaaq was a

floating city built on the Arctic Circle, has several advanced technologies along with geothermal heating and sustainable energy.

This novel also shows how humans treated nature during the climate crisis and how problems arose due to human greed. Several characters show their backgrounds and roles in Qaanaaq. But a mysterious woman came with all her oddities, driving a small boat towed by a killer whale and a polar bear beside her. She came on a mission to revenge and set free her mate from this city. Bad past, human ugliness wreaked havoc on her community who live peacefully in nature and bonded with wild animals. This was a brief overview of how dystopian life in a city of Qaanaaq was like.

The existence of this kind literary works shows that literature is adequate to be a media which has power to convey the important message about environmental awareness and criticize the ecological condition nowadays. Ecocriticism is a recent phenomenon in the area of theory and criticism which represents a growing awareness of environmental issues (Makwana 2016). Ecocriticism has developed as a sophisticated range of 'earth-centered' approaches to cultural criticism that mobilize and reframe theories drawn from different disciplines including ecology, philosophy, sociology and biology (Marland, 2012, p.846).

By reading *Blackfish City*, the researcher uses Greg Garrard's ecocriticism theory as the subject implemented to elaborate the environmental issues such as climate crisis and its relationship to humans in the novel. Ecocriticism explores the ways in which we imagine and portray the relationship between humans and

the environment in all areas of cultural production (Garrard, 2004, p.5). Garrard constructed concepts that can be developed in the fields of ecocriticism, including pollution, wilderness, apocalypse, dwelling, animals, and earth. Ecocriticism seeks to evaluate texts and ideas in terms of their coherence and usefulness as responses to environmental crisis (Kerridge 1998, p.5).

However, there is only one study used *Blackfish City* as research object beforehand, this study was conducted by Christy Tidwell in July 2020 entitled *Beyond Dystopia: Joy, Hope, & Queer Ecology in Sam J. Miller's Blackfish City* (Tidwell, 2020). This study discusses the dystopia and its impact on psychology and gender identity, particularly joy and queer ecology as life expectancy in a damage world presented in *Blackfish City*. Hence, the researcher attempts to examine nature as dwelling in Sam J. Miller's *Blackfish City* using ecocriticism perspective by Greg Garrard (2004).

B. Problem of the Study

Based on background of the study, this research has a question as follow:

- How is nature presented in Sam J. Miller's *Blackfish City*?

C. Objectives of the Study

Based on problem of the study above, this research has an objective as follow:

- To describe nature presented in Sam J. Miller's *Blackfish City*.

D. Significances of the Study

This study is aim to make significant distributions both theoretical and practical. Theoretically, this study is supposed to contribute the development of ecocriticism perspective on related sci-fi literary works particularly eco-themed fiction as well as the weightiness of environmental awareness that nature or environment can be observed from various perspectives and studies, specifically dwelling of ecocriticism by Greg Garrard (2004).

Practically, this study is expected to provide useful information and give new perspective for readers on how to interpret nature as dwelling in sci-fi such as Sam J. Miller's *Blackfish City* using ecocriticism. Also serve additional reference for next researchers in examining and implementing ecocriticism perspective on sci-fi literary works and related studies in future, mainly dwelling concept. Most necessarily, this study is expected to contribute to the increasing of environmental awareness and the preservation of nature.

E. Scope And Limitation

In order to restrain extensive discussion, the researcher makes scope and limitation. This research uses sci-fi literary work entitled *Blackfish City* by Sam J. Miller published in 2018 as object, this research will discuss about nature based on the implementation of ecocriticism theory by Greg Garrard (2004) particularly dwelling focus points: settlement system, political matters, socio-economic life, culture and memories.

F. Definition of Key Terms

To prevent misunderstanding, some terms are defined as follows:

Ecocriticism : the study of representations of nature in literary works and the relationship between environment and literature (Sahu, 2014, p.23).

Dwelling : The long-term imbrication of humans in a landscape of memory, ancestry and death, of ritual, life and work (Garrard, 2004, p.108).

Environmental Issues : defined as problems with the planet's system (air, water, soil etc.) that has developed as a result of human interference or mistreatment of the planet (Pant, Verma and Surya, 2020).

G. Previous Studies

There is a previous study that used the same novel of *Blackfish City* as research object. The title of the study is *Beyond Dystopia: Joy, Hope, & Queer Ecology in Sam J. Miller's Blackfish City* by Christy Tidwell (2020). This study

discussed about dystopia and its impact on psychology and gender identity, particularly life expectancy of joy and queer ecology as dystopian in a chaotic world presented in *Blackfish City*. She used the theory of queer ecology by Catriona Sandilands and Nicole Seymore as the subject of her study. Since only one data was found using Sam J. Miller's *Blackfish City* as an object of study, several previous studies below are relevant to be used as references in assisting writing this research.

The study related to environmental issues entitled *Ecological Crisis in Into the Forest by Jean Hegland*, written by Nirmala Khairunnisa Budi and Ali Mustofa (2018). This study focused on environmental issues caused by the relationship between human being and nature in the novel *Into the Forest* by Jean Hegland. The researchers use ecocriticism to reveal ecological crisis phenomenon, in which exploitation of nature by human being invented terrible natural ecosystem conditions in the novel (Budi, Mustofa, 2018).

Another research related to environmental issues is a thesis written by Rohmah Romadhon (2011), entitled *An Analysis of Environmental Issues Using Ecocriticism in James Cameron's Film Avatar*. Romadhon focused on environmental issues by analyzing the different relationship between human and non-human alien with their environment using several theories of ecocriticism, such as the perspectives of Richard Kerridge & Neil Sammells, and also Terry Gifford (Romadhon, 2011).

The first research related to ecocriticism entitled *An Analysis of Human-Nature Relationship in Children's Book Julie by Jean Craighead George (an*

Ecocritical Study) written by Tatik Apriati (2013). This paper offers an analysis of *Julie* by Jean Craighead George using ecocriticism, particularly Greg Garrard's concept of animal and ecosystem theory. Apriati tried to identify and analyze the human-nature relationship presented in Jean Craighead George's *Julie* (Apriati, 2013).

Second, the research is *The Beginning of the End: An Ecocriticism Analysis on Clive Staples Lewis' The Chronicles of Narnia: The Last Battle*, analyzed by Widodo Sungkono, Ikwan Setiawan, and L Dyah Purwita WSWW (2015). By applying Greg Garrard's ecocriticism in this research, they try to examine three points related to environmental issues in the novel *The Chronicles of Narnia: The Last Battle* by Clive Staples Lewis as follows: the representation of nature and animals and its treatment, natural disaster which destroyed Narnian world, The last is about ideological position of the author (Widodo *et al.*, 2015).

The third research is written by Ardha Prima Tahier (2017), entitled *An Ecocriticism Analysis of Nature and Culture in The Maze Runner Trilogy Novel by James Dasher*. This study offers the investigation on trilogy novel entitled *The Maze Runner* by James Dasher, in which the representation of nature is understood as environmental issues, human attitude characters towards nature, and the interconnection between nature and culture by applying ecocritical approach (Tahier, 2017).

The next previous study is a thesis written by Amiril Bachtiar (2019) entitled *An Ecocritical Analysis of Nature Condition and Environmental Stewardship in J.R.R Tolkien's The Hobbit*. In his research, Bachtiar attempts to

analyze the representation of nature and human efforts to preserve natural condition in J.R.R Tolkien's *The Hobbit* using ecocriticism by Greg Garrard to examine the environmental issues and also applying pastoral ecology as the main perspective to investigate the relation of human and nature on preserving ecosystem stability (Bachtiar, 2019).

Furthermore, there are researches related to both ecocriticism and sci-fi novels that carried environmental degradation and dystopian life in it. The first is written by Stephani Dror (2014), *The Ecology of Dystopia: An Ecocritical Analysis of Young Adult Dystopian Text*. This researcher analyzes the literary relationships between nature, technology and youth might influence readers' attitudes toward the contemporary anxieties surrounding impending climate change. This study uses three contemporary young adult dystopian texts: *Life as We Knew It* by Susan Beth Pfeffer, *The Hunger Games* by Suzanne Collins, and *The Knife of Never Letting Go* by Patrick Ness (Dror, 2014).

There is also a study entitled *An Ecocritical Analysis of Young Adult Dystopian Novel in Veronica Rossi's Under the Never Sky* by Rofi'atul Azizah, Sufi Ikrima Sa'adah (2017). The researchers attempt to elaborate the representation of nature and the interaction of main characters Aria and Peregrine with nature in the novel *Under the Never Sky* by Veronica Rossi, by applying Garrard's theory of ecocriticism and Basu's perspective on dystopian literature (Azizah, Sa'adah, 2017).

Based on those previous studies analyzed the ecocritical aspects which emphasizes how a novel presents natural phenomena caused by scientific and non-

scientific factors. Most of those studies warn about the horrible effects of human activities (anthropogenic) which really detrimental to nature. The first one of previous study that analyzed the same novel of *Blackfish City* by Sam J. Miller only focused on psychology perspective especially joy feeling and queer ecology in the middle of dystopian. Therefore, this research attempts to analyze Sam J. Miller's *Blackfish city* with another perspective by applying ecocriticism, particularly dwelling concept to find the nature as dwelling that reflected in the novel.

H. Research Method

This section explains method and steps that will be used in the process of conducting the research. There are few parts of research method such as research design, data sources, data collection, and data analysis.

1. Research Design

This study is done on the principle of literary criticism that consists of analysis, interpretation, and evaluation of literary work itself. As explained in the background, this research attempts to analyze nature as dwelling portrayed in Sam J. Miller's *Blackfish City*. The appropriate literary criticism that will be used in this research is ecocritical approach, particularly Greg Garrard's theory of ecocriticism and it will be focused on dwelling aspects.

2. Data Sources

The data sources of this study are taken from the novel *Blackfish City* by Sam J. Miller in the form of words, sentences, or statements. The novel consists

336 pages, published by Ecco Press in 2018 as New York Edition. Secondary data sources such as *news*, and *research* related from official institutions or scientists might be required to support primary data.

3. Data Collection

The collection data from Sam J. Miller's *Blackfish City* novel based on the topic and what is required to answer problem of the study, including its relation to the theories. Techniques and steps in data collection as follows:

- a. Reading the *Blackfish City* novel and attempts to deep comprehend the contents of the story. Underlining the vocabularies that inconvenient to understand then look for the easier meaning to interpret and re-reading.
- b. Highlighting required data in the novel based on the dwelling aspects, either in the form of text or dialogue.
- c. Classifying the appropriate data related to dwelling into four focus points: settlement system, political matters, socio-economic life, culture and memories according to Garrard's ecocriticism theory (2004).

4. Data Analysis

After the data have been collected, the researcher starts to analyze and the steps as below:

- a. Interpreting the data related to dwelling aspects in *Blackfish City* novel based on four points of dwelling according to Garrard's ecocriticism.
- b. Delivering evidences and supporting data.
- c. Making conclusions that appropriate with problem of the study.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

This chapter explains and elaborates relevant literature related to the study of ecocriticism.

A. Ecocriticism in Literary Studies

The term ecocriticism first emerged in the essay *Literature and Ecology*: *Nevertheless*, ecocriticism emerged as a separate discipline was only in the 1990s although it is a fact that the relationship between human and his physical environment had constantly been appealing to literary critics (Volkmann, 2010). At the same time ecocriticism was developing as a school of literary criticism in America particularly dealing with American literature, by establishing the Association for the Study of Literature and Environment (ASLE) and their journal *Interdisciplinary Studies in Literature and Environment* (ISLE), as serious proponents for the theory and attempts to declare and enable verification of the results (Tošić, 2006, p.43).

Ecocriticism is a branch of literary criticism that has been discussed around the world as an interdisciplinary study of literature and the environment. It includes the study of subjects such as literature, science, psychology, sociology, anthropology, etc. and efforts to study the mankind attitudes towards nature. Several popular names for this relatively new genre are environmental literary criticism, ecopoethics, and green culture (Sahu, 2014, p.23).

Based on its development, ecocriticism is divided into several waves. The 1980s and 1990s was the first wave of ecocriticism to develop. In his book *The Future of Environmental Criticism: Environmental Crisis and Literary Imagination*, Buell identifies the environmental movement's forays into English departments as the first wave of ecocriticism, a wave that focused on nature writing, ecocentric texts, and natural history (Johnson, 2009, p.8). This wave strived to search a form of literary representation that could be best to convey environmental messages through comprehension that focused on beyond the text of literature world (Marland, 2013, p.848).

The second wave began in the late twentieth century. In this wave, ecocriticism broadens its scope from initially focused on the natural environment (wilderness) then shifting towards the built nature (urban landscapes), challenging the boundaries between nature and non-nature, human and non-human. This wave of ecocriticism, also known as revisionist ecocriticism, seeks to find the remnants of nature in cities and exposes the crimes of environmental injustice against marginalized sections of society (Mishra, 2016, p.168).

The third wave was only named in 2009, although it began to emerge since the early of the twenty-first century. Adamson and Slovic claimed this wave will explore all facets of the human experience from an environmental point of view and recognize ethnic and national particularities but transcend ethnic and national boundaries (2009, p.6-7).

The fourth wave should be regarded as co-existent with rather than superseding the third (or indeed the other strands of ecocriticism) and has only

very recently been identified (Marland, 2013, p.855). According to Scott Slovic, this new direction of contemporary ecocriticism derived from the discussion of '*trans-corporeality*' by Stacy Alaimo which developed from apprehension of ecofeminism (2012, p.443). This concept explores the impact of environmental justice which focuses on the correlation of material exchange in the human body, animal bodies, and whole materials in wider range, emphasizing that humans are substantially always connected with the flow of substances and environmental agents (Alaimo, 2012, p.476).

B. The Definitions of Ecocriticism

Ecocriticism is an umbrella term for a range of critical approaches that explore the representation in literature (and other cultural forms) of the relationship between the human and the non-human, largely from the perspective of anxieties around humanity's destructive impact on the biosphere (Marland, 2013, p.846). Furthermore, ecocriticism can be characterized by distinguishing it from other critical approaches. Generally literary theory discusses the relations between writers, texts, and the world. In most literary theory "the world" is synonymous with society-the social sphere.

Ecocriticism extends the idea of "the world" to embrace the whole ecosphere (Glotfelty, 1996, p.xix). Glotfelty also quoted Barry Commoner's first law of ecology, "Everything is connected to everything else," which means literature takes a role in highly complex global system, in which ideas issue, and

energy, interact, not flying above the material world in several aesthetic ether (1996, p.xix).

Simply, ecocriticism is a study which deals with the relationship between literature and its environment. Just as Marxist criticism brings an awareness of economic class and modes of production to its reading of texts and feminist criticism considers language and literature from a gender-conscious perspective, ecocriticism takes an earth-centered approach to literary studies (Glottfelty, 1996, p.xvii). Ecocriticism is unique amongst contemporary literary and cultural theories because of its close relationship with the science of ecology and explores the ways in which we imagine and portray the relationship between humans and the environment in all areas of cultural production, from Wordsworth and Thoreau to Disney and BBC nature documentaries (Garrard, 2004, p.5).

Ecocriticism is a recent phenomenon in the area of theory and criticism which represents a growing awareness of environmental issues which based on an “earth centered approach to literary studies” and explains that man culture is connected to the physical world, it is focused with the relationships between literature and environment or human's relationships with his physical environment as reflected in literature (Makwana, 2016, p.407). According to Garrard the subject of ecocriticism is the study of the relationship of the human and the non-human, throughout human cultural history and requiring critical analysis of the term ‘human’ itself (Garrard, 2004:5).

C. Concept of Ecocriticism

Ecocriticism as a literary or cultural analysis of the relationship between humans and environmental issues is inspired by critical thinking and the development of the modern environmental movement. Thus, Garrard makes the scopes of ecocriticism based on the concepts that have been most considered and explored into six key concepts, including: Pollution, Wilderness, Apocalypse, Dwelling, Animals, and The Earth (2004, no page).

1. Pollution

Historically, the trope of 'pollution' is involved in both environmental devastation and salvation, from an ecocritical perspective this reflects the ambivalent role of science as both a producer of environmental dangers and a critical analyst of them (Garrard, 2004, p.8). Pollution is the entry of harmful materials into environment, these harmful materials are called pollutants (National Geographic, 2011). The origin of pollution can be from natural phenomena and human activities, such as toxic gases from volcanic activities and industrial wastes.

Environmentally, there are three main types of pollution: air pollution, water pollution and land pollution. Air pollution is the presence of a contaminant or combination in the atmosphere in such a quantity and duration that it may endanger human, plant or animal life, or property which inappropriately interfere with the enjoyment of life or property or business behavior (Kenneth et al., 1998). Kenneth (1998, p.1) also stated that the main cause of air pollution is combustion,

where impurities in the fuels caused by the combination of hydrogen, carbon, and oxygen can form air pollutant products.

Water pollution is a change in the quality and composition of water either naturally or as a result of human activities so that it becomes unsuitable for drinking, industrial, wildlife, agricultural, or other uses incompatible with its nature (Goel, 2006). Land pollution means another term for soil contamination by factory chemicals or sewage and other wastewater (Woodford, 2020).

2. Wilderness

The idea of wilderness, signifying nature in a state uncontaminated by civilization, is the most potent construction of nature available to New World environmentalism (Garrard, 2004, p.59). Wilderness refers to a circumstance that is completely the opposite of human culture, thus, it is the purity and authenticity of natural without human intervention.

3. Apocalypse

Garrard developed this apocalypse concept based on beliefs from multiple perspectives about the end of the world, The fear of the end of the world arises due to dire depictions of an apocalypse, ranging from major wars to predictions of catastrophe (2004, p.85). So many authors are inspired to write their own version of the apocalypse narrative by combining their imagination and natural conditions around them. Although some perspectives do not believe that the world will really end, they do believe that the apocalypse must be faced by them.

Garrard characterizes tragic apocalyptic rhetoric: the warning in the form of absolute authority, catastrophes are the consequence of failure to heed the warning, the danger is going well unconsciously. Apocalyptic rhetoric encourages the search for the causes of a wide variety of environmental problems in singular concept, the imminent 'environmental crisis'. Nevertheless, only if we figure out that the planet has a future, however, we might take responsibility for it and it could be discussed that the tangible political and moral challenge of ecology may lie in accepting that the world is not about to end, that human beings are likely to survive (Garrard, 2004, p.107).

4. Dwelling

'Dwelling' is not a transient state; rather, it implies the long-term imbrication of humans in a landscape of memory, ancestry and death, of ritual, life and work (Garrard, 2004, p.108). Garrard takes the example of 'georgic' as a dwelling model in farming literature and 'ecological Indian' as a primitive model of dwelling. Georgic deals with the work, production and using the land to support human life, while American Indians or ecological Indians are considered as the primitive people who successfully work harmoniously with nature (Apriati, 2012, p.19). Garrard described the way various ideologies ranging from religion, politics to philosophy had influenced the development of georgic as the one of dwelling model based on land and climate, while the representation of Ecological Indian cannot be separated from two points of view, particularly the practice of

American Indian tradition/culture towards the environment and the stereotypes built by white people (Euro-Americans) or vice versa.

In addition, Garrard also pointed out the works of Leslie Marmon Silko and Erdrich which explore dwelling from a complex eco-political and eco-social perspective. As Garrard quoted Adamson's opinion regarding Silko's *Ceremony* (1977), Novels such as this are set on reservations, in international and national borderlands, and in open-pit uranium mines. They are not commonly expressed by most American nature writers and environmentalists who are set in the 'native wilderness zone'. These novels invite us to take a closer look at how the interrelated environmental and social issues surrounding the increasing organized nature of the poor and marginalized by contested terrain, then confront and question our most popular assumptions about 'nature' and 'nature writing' (2004, p.128-129).

Meanwhile, Louise Erdrich's novels that elaborated the ongoing struggles of Indian way of life against improbable things in which no gratuitous conclusions can be taken (2004, p.131), maintained cultural and electoral politics as well as animistic spirituality to fight environmental racism and showed cultural criticism by tracing the roots of social and ecological problems in changing power relations as argued by Adamson (1996, p.112). It also reveals another side of the pastoral vision of Euro-American writers who seem to ignore issues such as genocide, colonization, industrial looting and legal fraud (Westling, 1996, p.164).

Garrard argued the figure of dwelling is crucial, as it inflects nature as the troubled ground of work, knowledge, economy and responsibility and the

interpretation and critique of the various inflections of dwelling is a major task for ecocritics interested in a predominantly political, rather than moral or spiritual, project of cultural critique that can take us beyond pastoral and nature writing, from the landscapes of leisure to the uneven terrain of real work (2004, p.135). It means that the interpretation of the various kinds of dwellings was oriented towards the surrounding political sphere, because policies related to the survival of a region or place were regulated by the sovereign, ranging from social, economic, to ecological and not only fixated on the general concept of pastoral and nature writing as well.

5. Animals

Garrard stated the relationship study between animals and humans in the humanities is separated into the philosophical consideration of animal rights and the representation of animals in historical and cultural analysis (2004, p.136). There are two sub-chapters of animals in his perspective: domestic animals and cyborgs, wild animals and biodiversity.

Based on several aspects that Garrard wrote about domestic animals in his book, it refers to the use of animals as a figurative role for humans or a political symbol as a weapon to bring down an opponent. Whereas the eagle and the lion were 'theriomorphic' images of America and Britain or in contexts of racial or national stereotyping, such as Nazis delineated Jews as rats (Garrard, 2004, p.141). Cyborgs here are the connotation of modern animal refers to genetically engineered organism (GEO) within a new global frame of reference. Garrard

stated that Donna Haraway shows the ubiquity of the cyborg in science fiction, high-technology warfare and modern medicine (2004, p.145), for example a robot that is able to help human work, simply such as android.

Garrard describes wild animals as all animals whether wild or domestic and our moral responsibility to each of these animals' rights (2004, p.149). Earlier gendered hierarchical distinction between wild and domestic animals in wilderness narratives became a polemic in which the former is related with masculine freedom, and often predation, while the latter are denigrated as feminine servants of human depredation (Garrard, 2004, p, 151). The fact that animals are humans' property is correct, it can be seen through the use of animals for transportation, food, and companionship. This faith and habit somehow ignore the liberation of animals (Apriati, 2013, p.25). Biodiversity encompasses ecological, organismic, genetic and cultural diversity, including human interactions at all levels (Heywood, 1995, p.8).

6. Earth

Garrard describes the concept of the earth as the whole parts and troubles of the earth, such as climate change, global warming, ozone layer and other environmental problems from various perspectives (Apriati, 2013, p.27). Garrard divided the Earth into two main inflections. The first inflection is 'globe' that comes from the main concern of globalization, postmodern social thinking, and the Earth from a technological and economic point of view (Garrard, 2004, p.162). In which natural phenomena and global issues are interpreted in a modern

way using technology or discussed by the relevant institutions, such as NASA, Greenpeace International, IMF and WHO.

The second is Gaia, a term derived from the ancient Greek Earth-Goddess, describing the earth as a self-regulating system, analogous to living organisms (Garrard, 2004, p.172). Where natural phenomena that occur such as the greenhouse effect are considered as earth activities to maintain the stability of its lifecycle, but examining 'global warming' which involves a degree of anthropogenic greenhouse effect as something that cannot be accepted naturally by the earth's biosphere (Garrard, 2004, p.173), thus causing environmental problems.

CHAPTER III

FINDING AND ANALYSIS

A. A Brief Overview of Sam J. Miller's *Blackfish City* Novel

Blackfish City written by Sam J. Miller (2018) is a sci-fi novel that raised environmental issues that change the earth conditions as well as the struggle of human life, especially the discriminated minority group "Nanobonder" who were considered as cursed people because they have an emotional attachment to wild animals. Various kinds of natural conditions described in the novel forced humans to survive and build an appropriate new civilization.

This novel takes us into the world that had been destroyed by climate crisis and the life of a floating city that was built in the Arctic Circle named Qaanaaq, where the main setting of this story will be told from various different viewpoints of each character and some other places were also mentioned. Although the highlight of this story is the arrival of a woman with a killer whale and a polar bear, actually she only had one chapter that tells the story from her point of view. The rest was taken from the point of view of Qaanaqians who have migrated there for a long time and have different work backgrounds. But some unique chapters entitled *City Without Maps* belonged to Ora who is the mysterious broadcaster behind it.

The first character is Fill, his grandfather is a one of Qaanaaq's shareholders, he was infected with 'the Break' (the city's epidemic), a mental illness that attacks the brain and causes the emergence of uncontrolled memories from its contagion but he was killed in the middle of the story. Meanwhile, a

woman named Ankit who worked as an assistant manager in one of the Arms (regions) in Qaanaaq, told the story from sociopolitical perspective. Then a man named Kaev, a street fighter who has a complicated relationship with a crime boss. The last is Soq, a casual laborer and messenger boy who was always interested in working for large organizations, criminal or illegal syndicates in Qaanaaq.

Interesting facts began to be revealed since the arrival of Maasaaraq the woman with orca and polar or known as the orcamancer, Kaev and Ankit were siblings who were separated since childhood and came from the people of 'nanobonden', Kaev was bound to the polar bear that Maasaaraq brought. Then Soq is Kaev's biological son who was deliberately ostracized since childhood due to a complicated relationship with a crime boss. Finally, according to Maasaaraq's goals of coming to Qaanaaq, they all joined in the mission to set free Ora (Ankit and Kaev's biological mother) who has been imprisoned for a long time by city officials and took their revenge on Martin Podlove, Fill's grandfather.

Before focusing on analyzing nature as home or "Dwelling" in *Blackfish City*, the researcher presents few main environmental issues contained in the novel as a brief overview of the natural conditions that humans face in the story:

When the cities of America's South and Midwest began to burn, and the continental United States became a hellhole ruled by marauding warlords, and the Northern Migration began, dozens of new communities began to form. Some were mobile city-states headed up by armed militias; some were ambulatory religious communes; some were united by common geographic or ethnic origin. Some were thousands strong; some numbered in the dozens. Many adapted to the freezing new climate by joining existing Inuit communities or by adopting their way of life. (p.54)

In the chapter of *City Without a Map: Dispatches from the Qaanaaq Free Press*, Miller describes the climate extremes plaguing America. The South and the

Central of America, which are mostly tropical regions, experienced severe fires, while the northern hemisphere, which is known for its cold climate, was freezing. In another statement, the arctic glaciers had drifted and melted a lot over the decades, but according to the time set in this novel, the southern region was facing the effects of global warming in the form of rising sea levels and fires. The United States was not the only country that is always in conflict and become a heated war area. Wars also still occurred in the remaining mainland because they were led by armed military or another armed organization to defend the territories they occupy. Mexico and several high-altitude regions of the world are also mentioned as frequent conflicts by Miller.

Environmental issues also triggered schisms between people and formed many new communities. In an attempt to survive, some of them migrated northward. They learn the Inuit way of life and adapt to the harsh cold climate. The Inuit are a nomadic tribe that has been lived in the cold northern areas for a very long time even estimated thousands of years. Their incredible survivability in conquering a realm full of ice and snow earned them respect. Inuit tribes normally build igloos or semi-excavated winter dwellings and hunting is their way of obtaining food, meat is their staple food and sometimes they eat wild herbs as plant food because their habitat is quite difficult for plants to grow (Jones, *n.d.*).

“Don’t know. Just started seeing them. Dreams. Someone else’s. They’re about the Sunken World, I think. How all those people got buried alive in their own things. Or couldn’t let go of them when the waters started rising, when the flames came, and died clutching them.” (p.126-127)

The dialogue section above belongs to Choek who gets a glimpse of the person who transmitted the Break on to her. It seems that the contagion came from

'Sunken World', a term for land areas/ cities that were drowned by fire or sea water in *Blackfish City*. Apart from Sunken World, the name for the struggle against sea level rise was called Water Wars, "*The Tamil Diaspora covered so much ground, and the Water Wars had played out so differently across South Asia.*" (Miller, 2018, p.7). It has become a global catastrophic, "*like so much coastal land mass swallowed up by rising seas ----*" (Miller, 2018, p.61). Miller mentioned many areas of the earth that are affected by the climate crisis specifically such as the Tonle Sap River in Cambodia and big cities like Bangkok, Lisbon, Copenhagen, etc.

That was a brief overview of *Blackfish City* and the environmental issues in it. Miller identified sea level rise and climate change as the main causes of wars and massive migrations that took place on Earth. Gave a challenge for humans to survive and build a new dwelling in accordance with their natural conditions. Although the story ended with socio-political goal, *Blackfish City* frequently inserted an interesting dwelling depiction in the story. So, the researcher decided to analyze this literature using ecocriticism by Greg Garrard (2004), specifically dwelling concept.

B. Dwelling In Sam J. Miller's *Blackfish City*

Garrard has stated that there are literatures that explore the possibility of coming to dwell on earth in a relationship of duty or responsibility (2004, p.108). Researcher found that natural conditions and past experiences had influenced how human civilization regarded nature as dwelling. When the earth began to lose

some of its land, *Blackfish City* explores the possibilities for humans to dwell and build settlements on remaining lands and above the ocean in the future. However, in terms of duty or responsibility, this novel actually shows the negative side of humans who glorify money and ignore the preservation of nature.

As Garrard's claim that "Dwelling" is the long-term state of humans in the landscape of life, ancestry and death, of ritual, memory, work etc. (Garrard, 2004, p.108). Thus, the researcher has simplified the evidences of dwelling based on the focus of the discussion contained in the novel as follows: settlement system, political matters, socio-economic life, culture and memories.

1. Settlement System

'Earth' has been a home for humans for a long time. 'Home' is a place that was built with all considerations, as well as dwelling which broadly includes all things related to human landscape of life. The following evidence is how *Blackfish City* explained the reason for the dwelling was formed:

Nations burned, and people came to Qaanaaq. Arctic melt opened the interior for resource exploitation, and people came. Some of us came willingly. Some of us did not.

Qaanaaq was not a blank slate. People brought their ghosts with them. Soil and stories and stones from homelands swallowed up by the sea. Ancestral grudges. Incongruent superstitions. (p.5)

The paragraph above explained how the people on earth began to migrate to the North territory, due to global catastrophe hit their place of origin. Their countries were on fire, either by war or purely by nature. Some lose their homeland when the sea level rose and swallowed all. People were looking for new habitations to live, where the melting Arctic has huge potential resources for them

to exploit. Miller tends to use the word 'exploitation' rather than simply 'used' and it can be interpreted that the Arctic Circle area or better known as the North Pole does have abundant resources or refers to be object of human greediness and likes to exploit anything.

There, they built a new residence which they called Qaanaaq. Dreams and the past became motivation to live in a new environment that is more challenging and requires adaptability. They brought together memories, land, stories, and cultures that have been attached to each of them will make Qaanaaq have more meaning than just a city let alone a name on a stone or monument.

No matter they came voluntarily or forced, Qaanaaq had always been just a shelter or a place to stay for refugees and immigrants to continue their lives. In general, dwelling includes things that encompass the residential system in a certain area, as well as the long-term state of humans in landscape of life (Garrard, 2004:108). In *Blackfish City*, Miller showed residential system in detail, especially how the floating city of Qaanaaq was created along with its support system.

Qaanaaq is an eight-armed asterisk. East of Greenland, north of Iceland. Built by an unruly alignment of Thai-Chinese-Swedish corporations and government entities, part of the second wave of grid city construction, learning from the spectacular failures of several early efforts. The central Hub is built upon a deep-sea geothermal vent, which provides most of the city's heat and electricity. (p.3)

With all careful consideration and learning from the past experience. The founders of Qaanaaq innovated to build more appropriate residential construction with long-term sustainability in the midst of uncontrolled earth conditions. The

location and concept of city construction was explained in fair detail, so that it is easy to understand and imagine.

Qaanaaq was said to be the city of dreams that is suitable for this terrible world, although the reality is not always beautiful as it was supposed to be. But some believed that Qaanaaq is a model of a floating grid city which is quite successful in surviving environmental conditions and all the damage caused by human activities, where some other floating cities ended up as nightmares, abandoned or even trash in the ocean.

Submerged tanks, each one the size of an old-world city block, process the city's waste into the methane that lights it up at night. Periodic controlled ventilations of treated methane and ammonia send parabolas of bright green fire into the sky. Multicolored pipes vein the outside of every building in a dense varicose web: crimson chrome for heat, dark olive for portable water, mirror black for sewage, and then the bootleg ones, the off-color reds for hijacked heat, the green plastics for stolen water. (p.3-4)

Humans must be capable to manage various resources that are left carefully to support their lives, as well as has been described in the novel. Qaanaaq used geothermal become an alternative to generate electricity and heat. The Arctic Circle where Qaanaaq was built was a very cold area. So, they had to keep their house warm to make it comfortable to live in and the founders of Qaanaaq decided to take advantage of geothermal as the right choice.

Geothermal energy can be considered as a solution to both environmental and energy problems (referring to a sustainable future energy with minimal environmental impact) and also the use of renewable energy sources (Dincer and Ozcan, 2018). Moreover, Qaanaaq used cheap and eco-friendly energy as much as possible to support public activities by using methane gas from municipal waste processing to light the entire city at night and it produced green light. Despite the

fact that not all waste can be utilized and methane emissions can be polluted the environment.

Although Qaanaaq was built with careful calculations and the facilities were distributed through multicolor pipes well organized. In fact, illegal activities such as hijacking these facilities are common things. Stealing heat and water sources through bootleg pipes can lead to energy wastage as their use must exceed the estimated supply.

The researcher found the evidence that point out the municipal waste process generated odor which smelled in the entire Qaanaaq.

On the street, darkness was inching in. The days were short now. Soon they'd be down to four dim hours, and they'd crank up the lights nonstop, and the whole city would smell of the composting sewage in the biogenerators that powered the methane-sodium lamps. (p.63)

Winter was coming, the day became shorter and the night was longer in North Areas. The lamps should be turn on soon for lighting the whole city. But the odor of the composting sewage would be smelled by anyone in the city. The smell came from bio-generators that processing waste into methane-sodium and it used to power lamps. Yet this process could reduce methane emissions, other problem came from the stink itself that pollute to atmosphere.

Right on schedule, the methane flare came to life. A coil of bright green fire three meters thick. (p.165)

Green flares spouted intermittently at the end of an Arm, unscheduled methane ventilations, less spectacular by daylight. Snow fell faster now. (p.262)

In addition to supply electrical energy, methane gas from composting waste that channeled through ventilation was also burned. Methane flares are routine activities in Qaanaaq and it became interesting views for some city dwellers because it produced bright green fires at night. Methane flare might be

required for safety reasons and it must be released into the atmosphere, but it also means releasing emissions to the air.

More than 50% of total global methane emissions come from human activities. Methane is a powerful greenhouse gas and is estimated to be responsible for approximately one-fifth of anthropogenic global warming (Reay *et.al*, 2012). According to methaneguidingprinciples.org, even though the percentage of global emissions of methane is less than carbon dioxide, in fact methane is twenty five times stronger (n.d). In per pound, methane (CH₄) traps radiation more efficiently than carbon dioxide (CO₂), even over 100 years thereby accelerating global warming as well as climate change.

The narration of 'Snow fell faster now' indicates that climate change is actually experienced by the earth in *Blackfish City*. Methane emissions can be reduced by chemical reactions and natural processes in the soil, but indeed human awareness is needed to reduce the source of methane they produce. In fact, these kinds of efforts were not reflected in this novel.

The researcher also found water pollution portrayed in *Blackfish City*, garbage and organic waste was littering the seawater beneath the city of Qaanaaq:

Something came up from the water across the Arm from him. A sea lion, he thought at first, turning around, because there were lots of those that lived on Qaanaaq's garbage and fish-gut castoffs. (p.101)

The paragraph above shows that the Qaanaaq's inhabitants were accustomed to throw garbage into the sea, thus becoming pollutants. The word "water" refers to the sea. Despite the efforts of Qaanaaq placemen to use urban waste as a source of light energy, it cannot be denied that not all waste can be

used such as “fish-gut castoffs” and not all people are willing to comply with regulations.

Thus, bunch of waste was used to be the place for sea lions to look for food. However, pollutants always have negative impacts. Apart from polluting the water, the waste also creates an unpleasant odor and dangerous to other creatures surrounding ecosystem if it contains harmful substances.

Yet it was built with precise considerations, in fact Qaanaaq still had some problems with the resettlement system. The researcher found another side of the Qaanaaq’s construction as below.

The architecture of the other Arms is less impressive. Tight floating tenements; boats with stacked boxes. The uppermost Arms boggle the mind. Boxes heaped on boxes; illicit steel stilts holding up overcrowded crates. Slums are always a marvel; how human desperation can seem to warp the very laws of physics. (p.4)

Some architectures of Qaanaaq were described as less attractive, where many floating tenements and boats with piles of boxes were tied and attached to the main construction of the Arm. Then the slums located in the upper area of the Arm were formed by untidiness piles of many boxes and illegal steel arranged in such a way as to keep the boxes strong. These boxes were both their home and their bed. Qaanaaq did have the great and sophistication of its city system, but on the other hand, it had minus points in several areas that could not be ignored. Another problem with resettlement system was overpopulation.

A twenty-year-old attempt by the Qaanaaq shareholders to provide stable indoor housing for the unfortunates of Eight, these massive buildings formed the densest population pocket. Denser than Kowloon Walled City or the South Bronx Boats or anything else the Sunken World had produced. In the tenements, it was not unusual for fifty people to live inside one apartment. (p.34)

Arm Eight has large buildings built over twenty years by shareholders. This dwelling was provided for unfortunate residents who may refer the poor or

illegal residents. Overpopulation formed in this area and made it as the densest Arm in Qaanaaq. The novel narrated that one apartment can be inhabited by fifty people. The imagination of a narrow, full, stuffy, overlapping daily needs such as the difficulty of getting food and other facilities must come to mind. Moreover, Qaanaaq was a floating city with all its limitations. This fact is exacerbated by the condition of their earth which has begun to lose some of its land but their population was still growing.

Blackfish City mention Arm Eight was denser than Kowloon Walled City or South Bronx Boats. Then as a brief overview of how densely populated the Eight Arm is, the researcher took Kowloon Walled City as a sample. Historically, Kowloon Walled City used to be known as the most populous city in the world before it was finally closed in 1993, shaped by the complicated history of China and Britain.

At its peak, the city reached 33,000 residents with an area of about 210 meters by 120 meters in the form of 350 interconnected high-rise buildings and was also known as a city without a government and without laws, making the quality of life and sanitary conditions there far from adequate (Kaushik, 2012). Illegal activities such as prostitution, arms and narcotics trade are common sights, because local mafias controlled the place. So, it can be imagined how dense the Eight Arms are in this floating city of Qaanaaq and the problem might even more complicated.

Other data shows how a floating city construction failure and ended up littering the oceans in *Blackfish City*.

Some are floating hells, like the plastic scrap reclamation facilities that ring the Pacific Gyre, every building and body blackened by soot from the processing furnaces. (p.23)

Floating city construction failure occurred in the Pacific Gyre, humans tried to use pieces of plastic to build facilities in the city. But it ended up being the reclamation of plastic waste that surrounds the ocean. Miller uses the hyperbole 'floating hells' to describe how terrible these floating dwellings are. However, the impact of plastic waste is very bad for the sustainability of natural ecosystems. Because plastic is difficult to decompose naturally. It took half until a century to decompose plastic waste in soil and four centuries in water.

The pattern of soot from combustion in the paragraph above can be indicated to produce air pollution. As known, smoke and soot from combustion are pollutants for the air because they produce CO₂ gas or also known as carbon dioxide, the largest contributor to the greenhouse effect gas that triggers global warming on earth.

Miller did not explain much about air pollution caused by carbon dioxide in the novel. But sea level rise can be indicated as the impact of global warming which caused by many factors including anthropogenic greenhouse gas emissions.

The researcher also found data showing settlement systems in mainland other than floating cities above the ocean.

She hated their blindness, their thick furs, their wrongness. Her jaw bug pinged their speech— upper-class post-Budapest, from one of the mountain villages the wealthy had been able to build for themselves as their city sank—but she tapped away the option to translate. (p.6)

The data above narrates the mountain villages that were built particularly for the rich after their city sank. Ankit's character indirectly criticized the selfishness and arrogance of the communities who occupy those settlements. In

her opinion, the group known as the post-Budapest upper class had 'blindness and wrongness'. Her hatred probably refers to their carelessness to the people under their class by building settlements that could only be inhabited by the wealthy like them. So, the middle and lower classes had to struggle to find a new place or migrated.

2. Political Matters

Dwelling also takes a look at political aspects that affect population and environment, the interpretation and critique of the various inflections of dwelling is a major task for ecocritics interested in a predominantly political, rather than moral or spiritual, project of cultural critique that can take us beyond pastoral and nature writing (Garrard, 2004:135). Here Miller briefly narrated the political issues that dominate the *Blackfish City* era.

If the twentieth century was shaped by warring ideologies, and the twenty-first was a battle of digital languages, our present age is defined by dueling approaches to oceanic city engineering. Technologies developed for oil rig construction became fervently believed-in and fought-over doctrines. (p.23)

Political matters in the novel are different from the current era which is dominated by conflicts between humans. The era of *Blackfish City* is way more complicated because they are fighting against the climate, not only facing conflicts between humans. They were competing to build adequate and sustainable dwelling in the midst of the climate crisis, such as an oceanic city based on technology and engineering and developed from oil rig construction. It became the object of scramble.

Blackfish City shows that political issues as the impact of global catastrophe, particularly in America which is narrated in the chapter of *City*

Without a Map: Dispatches from the Qaanaaq Free Press:

When the cities of America's South and Midwest began to burn, and the continental United States became a hellhole ruled by marauding warlords, and the Northern Migration began, dozens of new communities began to form. Some were mobile city-states headed up by armed militias; some were ambulatory religious communes; some were united by common geographic or ethnic origin. Some were thousands strong; some numbered in the dozens. Many adapted to the freezing new climate by joining existing Inuit communities or by adopting their way of life. (p.54)

The paragraph above clearly illustrates how climate change and global warming has made such a huge impact on American population, they divided into several communities. They were formed from various backgrounds and their main goal is to survive on an earth damaged by these serious environmental problems. Those who have strength and weapons choose to fight to defend their territory. Some join to strengthen each other and some flee to find new life. The minus point is that war is not only a conflict that causes loss of life but damage to nature.

Each one hosting a series of small-scale civil wars that added up to mass evacuations, warlord takeovers, synth biowarfare retaliation. (p.108)

*I was the only one left with an orca, the one with the best chance of scoring intel and escaping, or inflicting real damage if it came to a battle
We went south along the coast. The waters got worse the farther we went, thick with toxic sludge, the food scarcer. (p.110)*

The data above explains when Masaaraq and her polar bear strived to go for hunting, after escaping the war several times and left only the two of them from their community. They entered the former war zones where the environment had been damaged. Along the southern coast they passed, they only found extreme dirty water. It was getting thick mixed with mud and toxic, and the food

sources were also more difficult to find. In the end they got nothing and decided to go home, the last home before their territory was also attacked.

The types of weapons used during war also affect the extent of the negative impact on the environment. Looking back at the data above, extreme water contamination with a certain level of toxic might be caused by weapons of mass destruction such as biological, nuclear, or chemical. The high levels of radioactive, chemicals and toxin contained in weapons of mass destruction are intended on a large scale to kill humans and absolutely malign nature. Aside from the destructive explosion, this type of weapon definitely pollutes the environment such as air, water and soil. The impact will last a long time.

Better that than standing around wishing for the ability to summon a wave of cleansing nuclear fire out of thin air. (p. 84)

As evidenced above, nuclear fire had polluted the air on earth and took a long time to clean it. War is a sensitive political issue. However, the mass media in *Blackfish City* era also played a role in vocalizing political and war issues.

Several popular sites urge Qaanaaq's Han Chinese to fight back against the Tibetan takeover of the motherland. (p.54)

The evidence above is propaganda that supported the Han Chinese in Qaanaaq to fight and take back the motherland from the Tibetans. Tibet is an Autonomous Region of China located in Himalayan high mountains. So, it can be ascertained that the area was safe from the rise of sea levels and had the potential to become the object of war.

Qaanaaq had no official government, but political power is indirectly held by shareholders.

*No one rules Qaanaaq, no class or race reigns supreme.
 And while of course it technically belongs to the*

shareholders, who lease the ground that every home and business in Qaanaaq was built upon and make obscene amounts of money with every minute that passes—they are invisible.

To minimize unrest, the city founders broke with the urban past in several surprising ways. They kept the burden of taxation exclusively on the hyperwealthy shareholders (p.30)

Qaanaaq imposed all taxes on shareholders, so automatically the whole buildings and businesses in the city belonged to shareholders. They had the right as landlords to rent out their properties to people or refugees, charged high prices as they please and hid their identities as well. Qaanaaq strived to make different regulations than most old-cities, they aimed to reduce the risk of riots due to tax inequality and others. However, it looked that the privileges granted to shareholders led to arbitrary and other risk actions.

The following paragraph shows a problem caused by shareholder privileges.

And there had been a demonstration—angry people in plastiprinted kaiju suits, chanting about a new wave of evictions out on Arm Seven, harassing the wealthy zip liners while they waited, because any of them could have been the shareholders responsible. (p.27)

Besides establishing the rental price for all building properties in Qaanaaq, shareholders were also authorized to do anything with the building. The evictions wave of Arm Seven which was decided by shareholders caused a major dispute and stirred up the citizens to express their anger in the central city. The decision was considered unwise and irresponsible because it injured refugees or ordinary people. A common issue occurs when the power holder of a region is required to be responsible for his decisions. In this case, people were fighting for their right to have a place for living. Qaanaaq was their hope after their city sank or burned.

Just as the government has the right to set policies in its territory, Qaanaaq also regulated building policies and their consequences.

Qaanaaq permits no more buildings, no new legs that reach to the seafloor. Tie any floating thing to it and you'll pay dearly for the privilege. These floating things, in turn, are free to charge others for the privilege of being tied to them, so that whole floating villages bob in the surf in spots, to be broken up or relocated when the agents of Structural Integrity decide they pose a danger.
(p.24)

Adding legged constructions embedded in the seabed other than the eight Arms that had been built by the founder of Qaanaaq is prohibited and illegal. They also charge high fines for anything that is intentionally attached to the construction and floats. This could be like boats or ships that are made into houses or something else that takes advantage of construction facilities and sticks to Qaanaaq. Eventually, many people created their own floating village but tied it around Qaanaaq and used that privilege for personal gain, such as charging others for the facilities they provide. Their presence was frequently endangered to the structure of Qaanaaq buildings, so the city's agency dealing with building policy will disconnect their objects and release them.

Indeed, this policy was made for many purposes. Such as reducing the excessive use of energy and supplies beyond the calculations that must be spent on all eight Arms, avoid long term damage caused by interaction with many other artificial objects from outside the construction and to be sure, prevent financial loss of Qaanaaq. Because there have been many network city constructions described that have ended up damaged and abandoned in other areas due to the negligence of the government system which is not scrupulous and wise.

The Russian behemoth Vladisever set no limits on additional construction, and ten years later the city was an unruly metastasis. Hundreds of arms,

impenetrably clogged waterways. In the end the army had to come in and clear it out, bomb the tangle of new structures, displace tens of thousands. (p.22)

On the same page the data above explains Russia's leviathan floating grid city containing hundreds of Arms, Vladisever ended up destroying some of its new construction because it was clogging the waterways. Involving a bomb in this process must be very destructive to nature, because it destroys the ecosystem and pollutes the surrounding environment with hazardous substances. Furthermore, there were cities made from the plastic scrap reclamation facilities that ring the Pacific Gyre which was described as a floating hell due to the failure of the city construction process generated by the furnace (Miller, 2018:23).

3. Socio-economic Life

“Dwelling” as the long-term state of humans in the landscape of work according to Garrard (2004: 108) in *Blackfish City* was found by researcher in the form of socio-economic life. Many cities were sinking and land areas were reduced, humans who essentially lived and depended on the land would certainly face adversity after lose food sources and works. However, they had to find new sources of livelihood in order to survive.

Almost a million people call it home, though many are migrant workers who spend much of their time on boats harvesting glaciers for freshwater ice—fewer and fewer of these as the price of desalinization crystals plummets—or working Russian petroleum rigs in the far Arctic. (p.3)

Arctic melt opened the interior for resource exploitation, and people came. Some of us came willingly. Some of us did not. (p.5)

The Arctic holds many important resources of naturals, minerals and others which have high economic value. In *Blackfish City*, as global warming continued to melt Arctic glaciers, these resources emerged and became new stuffs

that can be explored by humans. Such as fresh water produced from harvesting glaciers and it became a much-needed alternative in the middle of a malignant saltwater disaster besides filtering seawater using desalinization crystals plummets. But certainly, harvesting glaciers is actually accelerating the loss of all the ice on earth and exacerbating the effects of climate change.

The *Museum of Natural History* declares if all the ice covering Greenland, Antarctica, and in mountain glaciers around the world were to melt, sea level would rise about 70 meters (230 feet), The ocean would cover all the coastal cities and land area would shrink significantly (Osmanski, 2020). All of that was happening in the novel *Blackfish City* and it was getting worse because the humans showed no preventive or corrective action.

In addition, petroleum mining was still ongoing in *Blackfish City*, as Russian built oil rigs on the other side of the Arctic. This clearly adds to the bad list of human attitudes towards nature because according to the International Energy Agency this industry accounts for 45% of anthropogenic greenhouse-gas emissions globally (Pandey, Thomas, & Harneja, 2021). Moreover, the disposal of drilling mud often pollutes the ecosystem around the source and this impact may keep going in the deep sea for years.

Living in Arctic floating city like Qaanaaq brought some significant changes on socio-economic life, such as depicted in the Upper Arm area as follow.

Most outsiders saw only misery, when they came to Qaanaaq's Upper Arms. They took predictable photos: the tangled nests of pipes and cables, filthy sari fabric draped over doorways and hanging from building struts, vendors selling the sad fruit of clandestine greenhouses. Immigrant women gathered to sing the songs of drowned homelands. (p.6)

The novel shows people settle and survive in a chaotic city with pipe and cables. They made it worse by appending sari ornaments which eventually pollute the area. The interesting point about socio-economic life is that some traders selling fruit from clandestine greenhouses. It seems that humans were trying to grow crops in Qaanaaq even though the results are not satisfactory, so they call it 'sad fruit'.

Qaanaaq was located in the Arctic Circle and was not the suitable habitat for plants to grow because the climate is extremely cold. Moreover, the floating city was made of steel construction so land is a hard thing to find in Qaanaaq. Also looking back at their reason migrated there is because they lost their homelands. So those made the greenhouse unable to produce perfect fruit like fruit from main-lands.

The word 'clandestine' refers to hidden or illegal activities, because greenhouses or farming may be prohibited in Qaanaaq. The price for renting an apartment is very expensive there, let alone making a greenhouse definitely requires more operational costs. So, they built a clandestine greenhouse by hijacking heat, water pipes & electrical wires like the residents of Qaanaaq often commit to support the temperature, water and lighting systems. That is why food and agricultural products was very expensive in Qaanaaq because they were difficult to obtain.

If food and rent cost far too much, that is between you and the merchant. (p.23)

He ate. The bear ate. Sea lion meat, it tasted like. Even the farmed stuff was fantastically expensive, although he suspected she hadn't purchased this so much as sent her orca out to bring one home. (p.114)

The absence of land in Qaanaaq was bringing crucial impacts for human. The limited natural resources from land, made the citizens of Qaanaaq very dependent on marine products such as farmed sea lion. The data above mentions 'farmed stuff', it may also mean agricultural or livestock products because these two things were very expensive commodities. As already explained, farming is not easy matter to do in the area such as Arctic Circle. This shows that dwelling conditions affect the socio-economic life, and vice versa. The residents of Qaanaaq cannot fulfill the responsibility to manage the land wisely like the doctrine of Georgic because they are hampered by natural conditions, climate, & the type of dwelling made by steel.

As creatures that basically live on land, humans are used to produce their own food by farming or raising animals other than hunting. Such as growing rice and wheat, land is very important because it is the main medium of cultivation. Raising animals such as cows or goats requires grass for feed, while the grass mostly lives on the ground. Environmental factors are very important to consider carefully. Qaanaaq, which stand as a city affected by the climate crisis and also located in Arctic, has limitations in providing food and many stuff due to the extreme environment with no land. They might depend on marine products, but still the price was expensive and they also need other commodities besides food.

Wood smells like wealth, Ankit realized. Exposed beams filled the lobby of the corporate office building, smelling like money and safety and a time when the world was still solid beneath people's feet. (p.60)

Such as farmed stuff, wood is a product that comes from the land and the price was very expensive in Qaanaaq. The evidence above explains that wood is a symbol of wealth and smells of money for Ankit. It also reminded her of the

condition of the earth which was still fine and solid underfoot back then. It clearly refers to the land where the trees grew before it was submerged by the sea. It all became very difficult because their earth has been hit by the storm of climate crisis so that it loses a lot of land and also its resources. Moreover, there were no initiative from humans to restore their nature and in fact deforestation is still occurring.

Blackfish City implicitly describes deforestation through the irony that was conveyed by character of Ankit.

There was something comforting about the consistency of human hunger, human wickedness, that the wood trade would continue even as the total number of trees in the world slid down the parabola toward zero. (P.171)

The irony above contains important meanings about dwelling in landscape of socio-economic life in *Blackfish City*. First, the consistency of human hunger and human wickedness are not consoling thing and actually causes a lot of trouble on earth. Hunger is a basic instinct of living creature. This instinct moves humans to look for food and other basic needs in order to survive. But human wickedness may appear if humans can't control their hunger instincts. It should be like greediness often drives human to do anything, even wicked, just to fulfill their over-hunger. In this case, human exploit the wood over the world.

Second, continuous timber trade is the exploitation of wood. The data above conveys an irony about the timber trade become a tragic hope in the midst of climate crisis. Wood was still a basic human need in the era of *Blackfish City*, human hunger and wickedness made they ignore the fact that the land where the wood comes from was constantly decreasing. Wood products and their derivatives become objects that always exist and support human daily needs, no matter how

small it is. Living in the earth that had been hit by climate crisis doesn't seem to make the people in *Blackfish City* more aware and concerned about nature, instead they continued to spin the wheels of their economy.

In the end, Ankit indirectly explained deforestation was still ongoing even though the number of trees in the world drops dramatically. In the middle of extreme earth conditions due to global warming and climate change, *Blackfish City* shows human seemed careless to the fate of the forest. They continued to trade wood which means there was still deforestation around the world even until the tree is completely depleted. This selfish act always leads negative impact on earth, especially humans themselves and it will be worse than what they experienced in *Blackfish City*.

Animals also experienced suffering at that time. The worst thing was that humans made them slaves to make money in *Blackfish City*.

“All those animal workers, the ones who work with, what do they call them—‘functionally extinct predators.’ They make them get those shots so the things don’t kill them. Like that boat out on Arm One where they got tigers and alligators still, for rich people to rent. Not such a big leap from that to something that would let you meld minds with a killer whale.” (p. 20)

The dialogue excerpt explains that in the era of *Blackfish City*, humans continue to exploit wild animals to make money. Most of these wild animals are endangered predatory species, such as crocodiles and tigers. That's the reason they call it as "functionally extinct predator" and use this exclusive value for economic gain, such as renting or even selling them to the rich in Qaanaaq.

Another misfortune is that the animals are also tortured. Humans use harmful methods to tame these wild predators, such as shooting the animal. However, animal cruelty has been around for a long time and still ongoing,

general examples occur in the industrial of circus shows and agricultural animals (Sentient Media, 2018). Animals get no feed if they do not comply and tortured if they dare to attack.

There was a polar bear in the Floating Zoos, but it was small and sickly and unhappy. (p.152)

The evidence above shows the negative socio-economic impact on Qaanaaq. Where wild animals such as polar bears become the object of business by imprisoning them in the floating zoo they built. It absolutely made the animal feel constrained, miserable, and definitely sick. Because the essence of wild animals are not the right animals to be tamed and they must be free live in their habitats. Unfortunately, they also lost their homes due to climate change and global warming while humans made them more tormented.

The researcher also found socio-economic inequality in Qaanaaq's people life.

The rich could have expensive dehumidifiers and lattices of salt polymer in their walls, to help strip away the ever-present damp. Everyone else in Qaanaaq just put up with being wet all the time. Having eczema. Having worse. (p. 75)

The evidence above explains that the wealth had more proper and expensive facilities than the general population of Qaanaaq. Living in cold climate area made their dwelling very damp, so to reduce the humidity they need adequate equipment. Because everything got very expensive in the floating city, so only the rich who could afford the stuffs like dehumidifiers and lattices of salt polymer to install on their walls. While most people could only endure the humidity that keeps them wet all the time until they had eczemas and it got worse. In this case,

Miller shows that socio-economic life is very dependent on the natural conditions in which humans live.

4. Memories and Culture

Garrard claimed that dwelling also includes culture, ritual, memories, ancestry and death that are reflected in human state of life. (2004, p.108). The researcher found several data about memories related to dwelling in *Blackfish City*.

Remembered smoke blackens the sky. The shouts of long-dead citizens ring out in the street. Explosions: tanks firing on squatter strongholds; high-class cultural events bombed by tenant army activists. (p.79)

The paragraph represented the memories of some refugees in Qaanaaq, those who came from war zones. Their city was ravaged by the cruelty of war activists. Black smoke rose in the air, bombs were everywhere and destroyed forts and their homes. Apart from explaining how the Qaanaaq people lost their homes and rights to their native lands, these memories also showed the devastating impact of war on the environment.

The most importantly is the black smoke in the sky which indicates air pollution. This black smoke came from fires or bomb explosions that burned the areas. Fires produced greenhouse emissions that could exacerbate global warming, particularly carbon dioxide (CO₂). Then the bombs that were detonated also destroyed nature and polluted the soil if they were made of harmful substances.

You are alone, here. Your family was supposed to follow you, but it's been five years, and the Water Wars became civil wars and then the whole eastern half of your country went silent. (p.138)

The memory above tells of a refugee who came alone from the Water Wars area and hoped that one day his family would follow him to Qaanaaq. But sadly, they never came until five years later. Half of their country was lost in silence when the Water Wars spread and turned into civil war in their country.

Water Wars is a term for conflict over the right to access freshwater. Scientists said this often happens in areas experiencing water scarcity (Dehghan, 2020). Many factors affect water scarcity, ranging from war, economic projects to environmental issues such as climate change or global warming.

While in *Blackfish City*, the main causes of Water Wars are global warming and climate change. Water scarcity occurs because the sea level continues to submerge a lot of land and directly reduces the source of fresh water on earth. The situation was getting worse because most of the land that were not submerged became the object of war. Then the impact of war frequently destroyed environment and polluted the remaining fresh water sources such as rivers, lakes or wells.

Blackfish City also shows past disasters had serious repercussion in the future.

Both were dead now. Reflexogenic circulatory collapse, like so many of their generation—the decades-later legacy of corporate chemical spills and gas leaks.
(p.18)

The data above is Ankit's memories about the cause of death of her adoptive parents. As described, her adoptive parents died after suffering from serious disease due to chemicals exposure produced by the industrial failure process in their old city. Her adoptive parents experienced the reflexogenic circulatory collapse, the disorder of the respiratory system that fails to undertake

its reflexes movement, physical symptoms such as coughing, pharyngitis, rhinitis, and respiratory distress caused by many exposures to chemicals such as MIC, CO₁, NO₂, HCl, CH₃NH₄ and etc. (Eckerman, 2005). Petrochemicals expose everyone to dangerous chemicals that threaten our health (Earth Justice, 2020).

Industrial disasters such as chemical spills and gas leaks have negative impact on the environment and health. A chemical is a substance that has particular characteristics and reactive to many things and the environment. Petrochemical is one of the chemical industries that contributes a lot of carbon and produces many products that pollute the environment. Plastics made from oil and gas components are one of the products produced by this industry (Earth Justice, 2020). So the industrial process is enough to pollute the environment, even less if there are failures such as gas leaks and chemical spills, indeed it will have a worse impact on the environment such as reduced soil fertility and the decimation of the ozone layer which triggers the climate crisis.

The decades-later legacy is obviously referring to the long-term impact of chemical pollution is still ongoing even though the industrial disaster occurred decades ago. In the environment, the chemical exposure is able to damage ecosystems and create new dangerous and toxic environments. While in healthy, chemical exposure can lead acute and chronic diseases for a long time.

The researcher found several cultures shows negative attitudes of humans towards nature in the era of *Blackfish City*.

Grandfather flung a crumpled napkin into the sea. Littering: another distinctly New York oddity about the old man. (p.80)

Blackfish City shows one of human bad habits in Qaanaaq, which they still tended to throw their garbage into the sea. This kind of culture is very detrimental to the environment and shows the irresponsibility of humans towards their dwelling place. It was particularly polluting sea water, disrupting ecological processes and marine organisms in the vicinity. Napkin was including textile products. Nowadays, the textile industry uses a lot of synthetic fibers besides natural fibers.

According to the finding of studies in US and Europe, textiles made from micro (synthetic) fibers will release thousands of microplastics every time it washed (Cobb, 2018). So as if this kind of garbage was dumped into the sea, the nano-sized microplastics will be released and eaten by marine animals. Then the food chain will bring marine animals that end up being consumed by humans. Textiles account for 35% of the main microplastic pollution in the oceans, according to a report by the International Union for Conservation of Nature (Boucher & Friot, 2017, p.21).

Besides humans, the catastrophe in *Blackfish City* also made a lot of animals lose their habitat and became extinct. The novel shows human culture took care of extinct animals as pets in the era *Blackfish City*.

Bundled up expensively. Carrying polyglass cages in which sea otters or baby red pandas paced, unhappy lucky animals saved from extinction by Qaanaaq's elite. (p.2)

Miller described how endangered animals became exclusive pets for the wealthy of Qaanaaq. In the middle of the ongoing devastation of nature, endangered animals had become objects of human exploitation in *Blackfish City*.

Instead of being saved and cared for in an adequate conservation area, they were being traded at high prices.

The author also mentioned ‘unhappy’ which refers to the condition of animals, sea otters and red pandas. It clearly showed that animal looks ungrateful being an expensive pet in cage. Because animal instinct always wants freedom and they lost this opportunity when they become pets, even though they were saved from extinction. The role of humans as intelligent creatures is very important to maintain biodiversity. Biodiversity encompasses ecological, organismic, genetic and cultural diversity, including human interactions at all levels (Heywood, 1995).

Monkeys chattered from a warm nook beside the thermal pipes; the escaped endangered pets of the pampered rich, scavenging a living in Qaanaaq the way pigeons did in Sunken World cities. (p.17)

Wild animals remain creatures that have the instinct of freedom. As the result, they chose to run away and be free outside the cage rather than having guaranteed life by being the wealth’s pets. Like the monkeys mentioned in the paragraph above, they chose to be free live in the city. Living in the corner of the thermal pipes to keep their body warm from the freezing Arctic climate and strived to look for their own food.

In fact, it is hard for animals to live in an environment that is very different from their habitat. But circumstances will force them to survive otherwise they would have ended up dead. Even the pigeons from Sunken World were also trying to find their source of life in the city. Sunken World was a term for land areas affected by sea level rise.

Researcher also collected findings related to culture and memories from the nano bonded community.

Discrimination against minorities who live in a different way from the majority was also described in this novel, specifically nanobonder, a community who had a very unique tradition. They created a psychological bond with wild animals using the technology of nanite that they had been doing for generations. Having the ability to bond with wild animals and survive in the wilderness had made a lot of humans hate and envy them.

“Your kind is not welcome here. You are an abomination. A profanation of the human being as God made it, in His image. He made us distinct from the animals for a reason. Your bond with that savage beast in chains over there is sin, and that sin is why your people were wiped out.” (p.66)

Hate because they thought that the nano bonded tradition is very contrary to religious teachings and natural laws. Jealous because they wanted to have nanobonded-like abilities that are more capable to survive in extreme nature and share thoughts with animals. This had given rise to a discriminatory culture against nano bonders and in the end they wanted to eradicate nano bonders.

We'd been in that particular village for six months then, and there were only forty of us. Six months back, before the last surprise slaughter, we'd been a hundred. A year before, more than two hundred. Again and again they found us. (p.108)

Wherever nano bonders move from one place to another, they are always being hunted, kidnapped or slaughtered by the world's elite. The incident made nano bonders very depressed because they kept losing their family including their animals. Not only were their lives taken away, their homes and nature were also destroyed during the genocide.

They went on and on, those abandoned suburbs, those rows of emptied houses where the water was poisoned or the highways gone,

each one hosting a series of small-scale civil wars that added up to mass evacuations. . . .(p.108)

The evidence above shows their homes were attacked and water sources poisoned, causing chaos to civil war and then forcing them to move. The impact was not only felt by humans, their bonded animals and might other animals be also affected. Water is a primary need for all living creatures. When water was polluted by harmful substance, they lost their one of life sources and it was important for them to find new water source to fulfill their needs. In this case, human had the most responsibility for their immediate role in destructing environment, particularly other human's dwelling and animals.

*"The entire community would be present for this, before. At the winter solstice, we would bond all the children who had reached the age of weaving."
"So I went to the cove where the orcas and their human Others lived—most nanobonder communities only had three or four, whereas they might have thirty wolf dogs and a couple dozen horses—" (p.184)*

Prior to the slaughter, nanobonders relied heavily on nature, notably climate, in carrying out their bonding rituals with animals. When they reached the age of weaving, they would carry out the binding ceremony while offering incense. Weaving was a skill learned by their tribe when they were between the ages of 4-8 years.

The community would choose a settlement that appropriate to the habitat of the animals they bond with. Like humans bonded with killer whales, they live in bay areas where two different species of creatures can live side by side and always interact. Commonly, nano bonder only had no more than four animals that they were bonding. However, some nano bonders that bond with orcas can bond with dozens or dozens of other types of animals.

After being separated for a long time, they finally reunited. Like Kaev reuniting with the bear he bonded with when he was a child.

Yes, Kaev thought. Yes. Liam raised his head, seeing what Kaev imagined, the boundless expanses of snow and ice, the wilderness, the hunt. His joy doubled, tripled, boosted by the bear's. Let's get away from all this human ugliness. (p. 236-237)

The evidence above explains that Kaev was qualmishness with human ugliness. He criticized all the bad things that humans had done to nature and fellow humans. As a human bonded to a polar bear, he shared many thoughts and wild instincts with Liam, his bear. When his instincts really yearned for the wilderness as dwelling and hunt for survival, so Liam made the desire many times more pleasurable as well as stifling.

It was delightful because he can feel the instinct of freedom again, living in a city with all its modernity made him forget how to live wisely and down to earth. It's suffocating because the wilderness they miss so much was not much left out there and might soon disappear. The perfect dwelling for him and his bears, where once the snow and ice was still wide and they depended on the wilderness.

In the end of the story, after they had completed their mission, they decided to live in Qaanaaq for an indeterminate time.

"That's the great gift of living life as a nomad—you don't get attached to things, don't believe that you're safe because you have a roof over your head today. You don't put your faith in a physical space when home is something you can take with you. But it also means that you accept what comes your way. You make the most of the places you end up in. And now we're here. In Qaanaaq. Maybe it isn't forever. But maybe it is." (p.163)

The earth had been changed and there was no safe place for them to live all the time. They chose to be adaptable with the circumstances and tried to find their own meaning of home. They tried to go with the flow and learn to accept

what has happened in their lives. Being nomadic is a gift, but it is wiser if they are able to make the best use of the place, they have gone to with all their efforts. Thus, Qaanaaq becomes their choice of home now, temporarily or even forever.

Taking look at nomadic cultures, nano bonders might have come from one of the Inuit sub-tribes. Although it indirectly mentions, this novel explains implicitly the similarities between nano bonder and Inuit several times. Such as the nanobonded ceremony performed during the winter solstice, Masaaraq spoke Inuktitut-English Pidgin (2018, p.81) which was an Inuit pidgin in eastern areas of Arctic and her orca was named Atkonartok. Currently, researcher found Atkonartok is an Inuit name that means the God who lived on the land and controlled whales' movement.

CHAPTER IV

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the results of the analysis in the previous chapter, the researcher concluded that by using Greg Garrard's ecocriticism, specifically dwelling concept. There are four key points of nature as dwelling described in Sam J. Miller's *Blackfish City*, including: settlement system, political matters, socio-economic life, culture and memories. After the storm of the climate crisis submerged large areas of land, large numbers of people migrated and the main settlement systems in *Blackfish City* era turned to oceanic cities engineering such as Qaanaaq in Arctic Circle and the rest-built settlements in high-land areas that were not submerged. But some problems came up in their settlement system. Mainly pollution, the emissions and stinks produced by the methane gas used to light up the whole Qaanaaq and carbon emissions from combustion in the floating city of the Pacific Gyre are evidence of air pollution. Meanwhile water pollution is proved where people intentionally throw their waste into the sea creating piles of garbage in the ocean. Then overpopulation generated dense, snafu and slum construction.

Such as settlement system, political matters made oceanic cities engineering as the object of battle. Wars on the remaining lands had caused the disunity of mankind and environmental damage such as water pollution by toxic substances and air pollution by nuclear radiation. Then the unilateral delegation of

full power to the shareholders because they had paid all the taxes in Qaanaaq caused a lot of problems. Such as setting a very expensive building rental price, displacing buildings arbitrarily and omit the rights of the general public to their dwelling. In addition, political policy that was not carefully calculated caused problems in the over-construction of Russia's floating city which ended up being bombed.

On socio-economic life, as land and its natural resources continued to dwindle, humans were exploiting the melting North Pole to fulfill their social and economic needs, including harvesting fresh water from glaciers and constructing oil rigs in the Arctic, although this kind of job only exacerbated climate change in their time. The socio-economic problem in Qaanaaq stemmed from the concept of a floating city and its location in a cold climate area, which made everything very expensive like apartment rent, food and agricultural products etc. Deforestation continued as humans were greedy for nature to keep their economy spinning. Wild and endangered animals were harshly employed and trafficked to the elite. Then social inequality resulted in ordinary people must to endure the humid and cold Arctic climate until they had eczema because they could not afford more adequate facilities in Qaanaaq..

The last are culture and memories, *Blackfish City* showed cultures that were enough detrimental to nature. Humans still often threw garbage into the sea and made endangered wild animals as pets, which ended up polluting the environment and curbing wild animals that are essentially free-living. Past tragedies left bad memories and impacts on the environment and their generations.

The destruction of nature and dwelling at that time was inherited by the climate crisis and wars. The failure of industrial processes in the past, specifically gas leaks and contamination of harmful chemicals left negative impacts on health and the environment.

Moreover, nano bonder culture which was described as a group that was closer to nature and lived psychologically bonded with wild animals actually brought havoc to the community itself. They ended up being massacred because they were considered to have contravened norms and did not want to share their community expertise. Their numbers were getting smaller, especially their animals. The survivors fled and hid their identities, only Masaaraq, a woman with an orca and a polar bear whose ambition to find her family and take revenge.

The floating city might be the best solution for the humans in *Blackfish City*, but still not all problems could be solved by them. Particularly matters related to land and the resources that come from it, they required a lot of effort to fulfill all of them. Unfortunately, in this novel, the catastrophic climate crisis did not make human fully aware of the importance of protecting nature as their home. They tended to do things that damage the environment more and more, and there was no initiative to restore the state of nature.

B. Suggestion

The researcher believes that this research is far from perfect. There are many shortcomings that can be found and developed in future research, because the researcher only focused on the analysis of nature as dwelling in Sam J. Miller's *Blackfish City* according to Greg Garrard's concept of ecocriticism. Thus, further research can explore many things in the novel, including the use of relevant theories or other perspectives that have not been used in analyzing *Blackfish City*.

Finally, the researcher hopes that this research can provide information and inspiration as well as benefits for future research related to environmental-based research in literary works. The researcher also highly recommends to the readers of *Blackfish City* to take lessons from the novel and increase the awareness of environmental issues such as climate change that occurs on the earth now and as well as the impact in the future. Don't let it be too late for us to restore the state of nature, because the worst probability awaits us to regret.

Climate change is real, disregarding to it will lead us to major catastrophe for not only humans but all life on this earth. Instead of being silent, let's take concrete action starting with simple things like saving energy and reducing the use of plastic products. No matter how small it is, let's save our earth and maintain its sustainability, for a better future, for better earth and the next generation.

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CURRICULUM VITAE



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