

The Marxist Ecocriticism Of Capitalism In Paolo Bacigalupi's The Water Knife

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The Marxist Ecocriticism Of Capitalism In Paolo Bacigalupi's *The Water Knife*

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Abstract. This study analyzes capitalism in Paolo Bacigalupi's *The Water Knife* using a Marxist ecocritical approach. The research focuses on the commodification of water resources as a form of capitalist exploitation and its social impacts. This study employs Marxist ecocritical theory, which combines critiques of capitalism with environmental issues. This study uses an extrinsic literary approach that combines sociology of literature and ecocriticism to analyze the narrative and dialogue in the novel. Data was collected through reading and note-taking techniques, then analyzed using descriptive analysis techniques. The study finds that water is commodified through privatization, water rights, infrastructure control, and premium access, making it available only to those who can afford it. This creates inequality and unfair distribution. The novel shows social impacts such as economic gaps between rich and poor, environmental damage from overexploitation, alienation and individualism among characters, housing crises, poverty, and declining social welfare. This research contributes to literary studies by offering a new perspective on how water is exploited under capitalism and how this affects society.

Keywords: *capitalism, environmental crisis, water commodification*

INTRODUCTION

According to Inger Andersen (2022), an environmental activist from Denmark, the average global temperature in 2019 was 1.1 degrees Celsius above the pre-industrial period. Meanwhile, based on the Intergovernmental Panel on Climate Change (IPCC), the impact of this 1.1 degrees increase can already be felt today through the rising frequency and intensity of extreme weather events such as heatwaves, droughts, floods, winter storms, hurricanes, and wildfires. Literature is an important medium to show these concerns, and often depicts the relationship between humans and nature.

Caroline Levine (in Spencer, 2019), an American literary critic, states that works of art, including fiction, have the ability to help us imagine the future and allow us to think about what lies ahead both the hopeful and the troubling possibilities. Fictional literature encourages us to pause and reflect, rather than continue old patterns of living without critical thought. The purpose of the narrative is to warn us about the dangers of environmental neglect and to call attention to the immediate need for change. Therefore, literature is not only a warning, but also an invitation to protect the environment.

Paolo Bacigalupi's novel *The Water Knife* presents a dark future in which water, the most important natural resource, becomes scarce and fiercely contested. Set in the American Southwest in 2030, the novel depicts a society destroyed by droughts, heat waves, and dust storms, where water is a highly desirable resource that is controlled by the rich and elite, who live in luxurious high-rise buildings. Meanwhile, ordinary people outside these walls experience poverty, hunger, and health problems such as asthma and lung disease.

The scenario above reflects the alienation of humans from natural resources, as described by Marx in his critique of capitalism: "In capitalism, individuals no longer produce for their fellow species; this form of production is alien to them. The only reason anyone has for producing now is to fulfill their individual needs for survival" (Byron, 2016: 387). The novel also depicts the consequences of the capitalist system that ruthlessly exploits natural resources to fulfill the needs of the elite which is in line with Marx's idea that "capitalism produces a number of needs and capacities, ... for example, the need for aggressive violence and destruction" (Struhl, 2016: 93).

Based on the explanation above, this research applies Marxist ecocritical theory to examine how water, as a vital natural resource, becomes a tool of capitalist exploitation and to explore the social impacts that arise from this exploitation.

Research using Marxist ecocritical studies has been conducted by Amal Ibrahim Kamel (2020) entitled "Exploring the Metaphoric Rift: An Eco-Marxist Reading of Sam Shepard's *The God of Hell*." This research aims to examine the shortage of natural resources and the drastic transformation of traditional American lifestyles caused by the capitalist system in one of Sam Shepard's most controversial plays. This exploration combines drama with eco-Marxism, revealing the violent mechanisms used by the capitalist system to subjugate nature and humans while highlighting environmental exploitation.

This research offers a new perspective by examining how water becomes a tool of capitalist exploitation and describes its social effects. This study aims to explore: (1) how is the capitalist commodification of water resources depicted in *The Water Knife*, and (2) what are the social effects of capitalism in Paolo Bacigalupi's *The Water Knife*?

LITERATURE REVIEW

A. Marxist Ecocriticism

The theoretical framework of this research uses a marxist ecocriticism approach. Marxist ecocriticism is an approach to literary analysis that combines the principles of ecocriticism with Marxist perspective.

The term Marxist ecocriticism was not created by a single thinker. Instead, it came from the combination of Marxist critical theory and ecocriticism. John Bellamy Foster, in his book *Marx's Ecology: Materialism and Nature* (2000), explains that Karl Marx's ideas already had ecological awareness. Marx criticized how capitalism destroys the balance between humans and nature for profit (Foster, 2000:21). For example: land exploitation, pollution, and environmental damage, all done for capital accumulation.

Marxist ecocriticism offers a critical analysis of the relationship between the capitalist economic system and environmental exploitation. This is supported by Wang's opinion that Ecological Marxism is a new branch of Marxism that criticizes Western capitalism and its mode of production from an ecological perspective. It uses historical and class analysis in Marxism and is based on Marx's theory of the relationship between humans and nature (Li, 2021: 2).

B. Sociology of Literature

Sociology of literature is an approach to literary research that views literary works as reflections of society. According to Adorno, the concept of society is not merely a collection of individuals, but rather a complex network of social relations that dominate individuals as products of the system (Monzo, 2024: 2). Adorno states, "today, sociology would finally have to understand the incomprehensible, the incursion of humanity into inhumanity" (Monzo, 2024: 6). This statement implies that in viewing literature as a reflection of society, the sociology of literature approach should not only observe social phenomena on the surface, but also demand a critical understanding of the structures and social relations that have become a 'second nature' to modern human beings.

C. Commodification

Marx defines commodification as the subjugation of use value into exchange value which is then supported by Adam Smith's opinion, commodification is the opposite of the example of a diamond which has little use value but has a large exchange value (Hermann, 2021: 9-10). Therefore, the meaning of commodification in the context of capitalism refers to the process in which something that was previously not traded or considered an economic good is transformed into a commodity that has economic value and is traded in the market.

D. Exploitation

Marx defines exploitation as "taking unfair advantage" (Atri, 2021: 174). Furthermore, he states that "...the right to private ownership of property encourages the capitalists to ensure maximum exploitation of their available resources" (Atri, 2021: 168). This suggests that the exploitation of natural resources occurs for the sake of maximizing profit. Capitalism promotes the intensive and sometimes excessive use of resources in order to generate profit.

E. Bourgeoisie

The bourgeoisie is a social class that has a central role in the capitalist system. They are the owners of capital which is also refers to individuals or groups who have wealth and power derived from the ownership or control of valuable natural resources, such as oil, gas, minerals,

forests or water. Marx divided this class into three: the upper bourgeoisie (a social elite such as aristocrats and industrialists), the economic bourgeoisie (entrepreneurs), and the small bourgeoisie (lower-ranking civil servants) (Dejung et al., 2019: 8). The bourgeoisie is often identified with a lavish lifestyle, excessive consumption, and a tendency to flaunt wealth.

In *The Water Knife*, the most prominent bourgeois character is Catherine Case. She is the owner of the primary water rights to the Colorado River and controls the water supply in a way that prioritizes profit. Second, the owners of Taiyang and Cypress Arcologies are wealthy entrepreneurs who create exclusive living spaces with luxurious amenities, including access to clean water, which can only be enjoyed by the elite. Third, everyone who lives inside the Arcology enjoys a much better quality of life compared to those living outside, as they have access to water and other resources. Thus, the power and control over water create a class system that separates the rich from the poor.

F. Proletariat

The proletariat in capitalism is a social group that does not have ownership of the means of production or does not have the same access or ownership as the bourgeois class. This is in line with Marx's opinion, that "alienation and impoverishment in the bourgeois society are the products of this absolute divorce and separation of property," (Saito, 2017: 47).

In *The Water Knife*, the proletariat can be seen in those living outside the Arcology and those marginalized by the capitalist system controlling water resources. They are individuals who rely on limited resources and often have to fight for survival. Examples include; the residents of Carver City, refugees from Texas, and the residents of Phoenix.

METHOD

This study uses a qualitative method to analyze *The Water Knife* by Paolo Bacigalupi. This study uses an extrinsic literary approach that combines sociological and ecocritical approach. The data analyzed in this study are in the form of narrative descriptions and dialogues in the novel relating capitalism to the water crisis and its impact on society. This research uses descriptive method. The data source in this research is [the novel *The Water Knife* by Paolo Bacigalupi](#), published in 2015.

In this study, the process of data collection begins with an in-depth reading of the novel to identify data found in elements such as characters, setting, and plot, particularly in the narrative depiction of capitalist practices in water management and the social impacts that arise from that capitalism. The collected data are then classified according to the research questions formulated in this study. Subsequently, the classified data are analyzed using a Marxist ecocritical approach.

The procedure for analyzing the data in this study begins with examining the collected data to distinguish which parts represent forms of capitalism and which parts illustrate the social impacts of capitalism. After this classification, the data are interpreted to gain a deeper understanding through the lens of Marxist ecocriticism. Finally, the analysis leads to drawing conclusions about how capitalist practices in water management and their social consequences are depicted in the novel.

RESULTS AND DISCUSSION

This section will describe the depiction of capitalism in Paolo Bacigalupi's *The Water Knife* using a Marxist ecocriticism approach. This analysis will discuss how capitalists commodify water resources and what social effects are depicted in *The Water Knife*.

1. The Way Capitalists Commodifying Water Resources

In the capitalist system of *The Water Knife*, water is treated as a commodity that can be bought, sold, and controlled for profit, without regard for social or environmental consequences. The ways in which water is commodified in this novel will be discussed below.

1.1 Water Exploitation

One of the characteristics of capitalism according to Karl Marx is the inherent tendency of capital to exploit labor and natural resources quickly, without considering the long-term impacts (Saito, 2017: 201). It can be read that a characteristic of capitalism is when exploitation of natural resources refers to the overuse of natural resources for short-term gain without considering environmental damage or future resource scarcity.

Water exploitation is reflected in *The Water Knife*. Water is treated by Catherine Case as a tool of power to control the population without considering its impact on people, as she seeks full control over water resources. With water supplies dwindling, Catherine provides water only to those who can afford to pay. It can be read in this excerpt: "The combat software started picking out living creatures, cool spots in the dark heat of millennial suburban skeleton... Catherine Case had decided they didn't deserve their water anymore." (Bacigalupi, 2015: 17).

The narrative illustrates how capitalists commodify water resources through the monopoly enforced by Catherine Case, where water is no longer seen as a universal right but rather as a tool of power to control the population. This monopolization of natural resources is also driven by personal gain, without considering its social and environmental impacts.

There is also evidence that Catherine Case (the owner of the Colorado River) shows a negative attitude by giving only a small amount of water to areas deemed unable to pay for it. It can be read in this excerpt: "If they can't police their damn water mains, they can drink dust." (Bacigalupi, 2015: 17).

Capitalism transforms water into an exclusive commodity that can only be accessed by those who can afford it. Catherine Case's refusal to provide water to poor areas in the narrative highlights how the capitalist system creates inequality in the distribution of natural resources. Water, which should be a fundamental human right, is instead treated as a commercial good that benefits a select few elites.

In addition, there are excerpts when Angel Velasquez and his team destroyed the water treatment facility in Carver City. They destroyed the lives of thousands of people without thinking about the consequences. Angel and his team did it on Catherine's instructions, because Carver City had lost the water rights case. It can be read in this excerpt: Simon Yu: "You're destroying—," Angel: Yeah, yeah, I know." Angel wrenched Yu's other hand behind his back and zip-cuffed him. "A whole fucking city. A hundred thousand lives.." (Bacigalupi, 2015: 24).

The actions of Angel Velasquez and his team reflect how capitalism commodifies water resources in a brutal and inhumane manner. Water, which should be a fundamental right for every individual, is transformed into an instrument of power that can be bought and fought over by the stronger parties. The residents of Carver City, who lose their right to water, become victims of a system that prioritizes profit over human well-being.

1.2 Privatization of Water Resources

One of the characteristics of capitalism according to Marx is the conversion of labor, land, and money into commodities based on force, deception, theft, fraud, and similar actions (Harvey, 2014: 57). It can be read that resources, such as land that was previously owned by the community in common, are transformed into private property through a process of crime. Privatization refers to the process of transferring ownership or management of assets, services, or companies from the public sector to the personal or private sector. It can be concluded that the capitalist system is when privatization is implemented with a bad process.

The privatization of water resources occurs in this novel when the water management center in Carver City, led by Simon Yu, is forcibly taken over by Catherine Case's agents, Angel and his team, who arrive with violence and weapons to enforce the closure of the facility. This action is taken because, according to a court ruling, Carver City lost its rights to the water. Below is an excerpt from the narrative:

Simon Yu: “We’re supplying a hundred thousand people! You can’t just turn off their water.” (Bacigalupi, 2015: 22).

Angel: “You got your notice there. We’re giving you twenty-five more minutes to clear out, and after that I’m dropping some Hades and Hellfire on this place. So clear it out before we light it up.”

Simon Yu: “You’re going to blow us up?”

A bunch of the soldiers laughed at that. (Bacigalupi, 2015: 24).

The actions of Angel Velasquez and his team reflect how capitalism commodifies water resources in a brutal and inhumane manner. Water, which should be a fundamental right for every individual, is transformed into an instrument of power that can be bought and fought over by the stronger parties. The residents of Carver City, who lose their right to water, become victims of a system that prioritizes profit over human well-being.

1.3 The Existence of Water Rights

Capitalism creates an illusory relationship between humans and the environment to sustain endless accumulation. In practice, capitalist agents and territorial rulers seek to turn nature into an entity that can be controlled and exploited, while also serving as an ever-expanding source of labor or energy without compensation (Moore, 2015: 81-82). People should have the right to enjoy natural resources, such as clean water, clean air, and a healthy environment (Brunner, 2015: 27). People also have the right to be protected from activities that damage natural resources.

In this novel, water rights which is owned by the Pima Tribe, are sold to the city of Phoenix due to their difficult economic condition and pressure from the brutal water capitalism system. As a result, these water rights are contested by several cities, including Las Vegas, Phoenix, and California. Below is an excerpt from the narrative:

“The kind of water rights that could get the fucking Marines posted on every dam on the Colorado River and would make sure the water spilled straight down to you. The kind of rights that would let you do what California does to towns all the time.” He was looking at her intently. “What would you think of that? How much would you pay?” (Bacigalupi, 2015: 41)

The way capitalism commodifies water resources in the narrative is clearly seen in how water is treated as a commodity that can be traded, contested, and privately owned commodity by economically stronger parties. This creates social injustices, where access to essential resources like water becomes increasingly dependent on financial capability rather than basic human rights.

1.4 The Control of Water Infrastructure

Capitalism has a very broad control over human life, such as social, economic, and political (Das, 2022: 16). The quote explains that capitalism **not only** affects **economic** aspects, **such as the production and distribution** of goods, **but** also affects people's social and political lives. Economically, capitalism determines access to resources and wealth.

Taiyang Arcology leaders provide the only water infrastructure, the Red Cross/China Friendship water pump, for those who live outside of arcology. Water prices are adjusted based on the availability of water in the aquifer. When the water in the aquifer decreases, the price will increase to limit water consumption. When the aquifer is recharged, the price of water goes down. This infrastructure is established because Taiyang wants to control water distribution outside of the Arcology. It can be read in this excerpt:

... and the Chinese had built the pump, too . [...] Maria was trying to keep her eye on the pump and its price. "That's only for the Fourth of July. It's like a patriotic thing they do," (Bacigalupi, 2015: 49).

The policy of water price adjustments implemented by Taiyang Archaeology demonstrates how capitalism influences the distribution of essential resources like water. Although water prices are raised when aquifers are running low to limit consumption, Taiyang lowers water prices on occasions such as independence celebrations. This strategy serves not only as a means of social control but also as a way to maintain a positive image in the eyes of society outside of Archology. By creating an illusion of generosity, Taiyang effectively reinforces people's dependence on its infrastructure, thereby deepening social and economic inequalities.

1.5 Premium Water

The culture of capitalism gradually erodes the authority, freedom, democratic system, and justice that should rightfully belong to the less privileged (Afzal, et al., 2024: 2). This idea is based on the Marxist view that capitalism concentrates wealth and power in the hands of a few, harming the lower classes.

Premium-quality clean water in this novel is provided only by Taiyang Arcology for those who can afford to pay more, while those unable to pay must settle for a low-quality environment because Taiyang Corporation aims to maximize profits. Below is an excerpt from the narrative:

"The Taiyang Arcology was the place to be, for sure. Already portions of it were inhabited. People living inside triple-filter apartments. Clean air, perfectly recycled water, their own farms, everything they needed to live, even if Phoenix was going to shit right outside. Sarah had described it to Maria—the fountains and waterfalls. The plants growing everywhere. Air that never smelled like smoke or exhaust," (Bacigalupi, 2015: 102).

The narrative clearly demonstrates how capitalism commodifies water resources by creating disparities in access based on economic status. In Taiyang Arcology, clean water, which should be a basic necessity for everyone, is instead treated as a luxury that only those who can afford the high price can enjoy. Meanwhile, the lower classes are left struggling in a polluted and impoverished environment.

Taiyang Arcology and Cypress Arcology are supplied with high-quality water, yet their residents use it wastefully. They utilize the water for hydroponic farming. Additionally, they frequently host parties and drink wine. Below is an excerpt from the narrative:

¹ “Below them, the lights of Vegas central unspoiled: casino neon and Cypress Arcologies. Domes and condensation-misted vertical farms, leafy with hydroponic greenery ... ² Billboard promises of shows and parties and drinks and money ...” (Bacigalupi, 2015: 9).

Capitalism commodifies water resources in the narrative by creating unequal access between the rich and the poor. The high quality water in Taiyang Arcology and Cypress Arcology is only enjoyed by the few who can afford the high price. They overuse the water for hydroponic farming, parties, and other luxuries, while people outside the arcology struggle to get a drop of water.

2. The Social Effects of Capitalism

In *The Water Knife*, capitalism not only affects the distribution of water but also has social impacts. Individuals and communities experience varying degrees of inequality, suffering, and struggles for survival. These impacts will be examined in the following section.

2.1 Economic Inequality

The capitalist system, which has evolved from the past to the present, has consistently created and widened the gap between social classes, resulting in increasing inequality across various aspects of life, including the economy, education, and access to resources (Harvey, 2018: 27)

Economic inequality is reflected in the novel which shows that due to capitalism, social inequality is caused by the commodification of water. The Cypress Arcology symbolizes the capitalist structure that only gives access to resources, such as water, to those who can afford to pay, while poor Texans and Zoners are forced to live in isolation in a degraded and inappropriate environment. Below is an excerpt of the narrative:

⁴ “Sparse and lonely campfires perforated the blackness, beacons marking the locations of desiccated Texans and Zoners who didn’t have enough money to get into a Cypress arcology and had nowhere else to flee,” (Bacigalupi, 2015: 17).

Capitalism not only creates economic inequality but also deepens the social impact that harms impoverished groups, such as the Texans and Zoners in the excerpt. The commodification of water reinforces this inequality, where those who can afford to pay gain access to decent living conditions, while the poor are marginalized in inhumane conditions. The capitalist system often sacrifices vulnerable groups for the benefit of a few elites.

There is also evidence that there are depictions of luxury and profit concentrated in certain areas, such as hotels, casinos and arcology in Las Vegas, which show a form of wealth concentrated in a handful of economic elites. Below is an excerpt of the narrative:

¹“Below them, the lights of Vegas central unspooled: casino neon and Cypress arcologies. Hotels and balconies. Domes and condensation-misted vertical farms, leafy with hydroponic greenery and blazing with fullspectrum illumination. Billboard promises of shows and parties and drinks and money filtered through military glass... Close-packed urban canyons designed to funnel desert winds ...” (Bacigalupi, 2015: 16).

This sharp contrast between concentrated wealth and widespread scarcity reveals the deep social inequalities created by capitalist control over water resources. While the economic elites in Las Vegas enjoy incredible luxuries supported by unlimited access to water, marginalized communities struggle with extreme scarcity.

One of the characteristics of the capitalist system according to Marx is the accumulation of ever-increasing wealth in the hands of a few (Das, 2022: 16). Therefore, in a capitalist system, only a small portion of the population get most of the benefits from the capitalist system.

Economic inequality is apparent in the narrative when Maria describes the luxury of Las Vegas, where water is wasted, while people out there are suffering from a water crisis. It can be read in this excerpt: ¹⁵“Huge-ass fountain, spraying water straight up into the air. Dancing water spouts. Water like diamonds in the sun. And little kids splashing their faces with it. Just wasting it.... They were just letting water evaporate. Letting it go,” (Bacigalupi, 2015: 50).

The narrative of fountains in Las Vegas serves as a symbol of irony, where water, scarce and essential for most people, is excessively wasted by the wealthy. The social impact of this system creates economic inequality, deepens the gap of inequality, and illustrates how capitalism influences the overall social structure.

2.2 Environmental Degradation

One of the consequences of capitalism, according to Marx, is environmental destruction, including habitat loss and climate change, caused by capitalist practices (Harvey, 2018: 22). Environmental degradation can be deforestation, soil erosion, loss of fertile land, critical water shortages, high pollution with heavy metals, the disappearance of protected and common animal species, or high levels of carcinogens in the air (Smill, 2015: 15)

In *The Water Knife*, there is a narrative that illustrates environmental degradation when Lucy feels grateful for the rain, as it has not rained for more than a year. However, it turns out to be just a dream. Below is an excerpt of the narrative:

²¹“Lucy woke to the sound of rain. For the first time in more than a year, her body relaxed.... And then she woke fully, and it wasn’t rain caressing the windows of her home but dust, and the weight of her life came crushing down upon her once again. She lay still in bed, trembling with the loss of the dream. Blotting away tears,” (Bacigalupi, 2015: 28).

The incident where Lucy hears the sound of rain, but then wakes up and realizes it was all just a dream, reflects the struggles experienced by many people affected by drought. The longing and hope for rain are driven by climate change and the exploitation of natural resources. The social impact lies in how the injustice in managing water resources exacerbates living conditions, creating deep anxiety and helplessness among communities, especially those most affected by environmental changes

Additionally, environmental degradation has occurred in the Colorado River. In the novel, there is a narrative that contrasts the river’s past with its current state due to exploitation and

climate change. Capitalism and water exploitation have devastated the ecosystem, transforming what was once an abundant river into a nearly depleted resource. Below is an excerpt of the narrative:

¹⁰ “In its prime, the Colorado River had run more than a thousand miles, from the white-snow Rockies down through the red-rock canyons of Utah and on to the blue Pacific, tumbling fast and without obstruction. And wherever it touched—life. Angel wondered what the river had looked like back when it still ran free and fast. These days the river ran low and sluggish...” (Bacigalupi, 2015: 18).

The social impacts of environmental degradation are felt, especially in communities that depend on water resources, as seen in the suffering experienced by communities along the Colorado River. The drastic change in the condition of the river, once a source of abundant life, is now no longer enough water for life. Capitalism-driven water exploitation has forced many individuals to fight for access to scarce water. This condition creates inequalities and worsens the living conditions of the most vulnerable.

The main cause of environmental degradation and harmful social inequality is the political and economic system shaped by capitalists (Ahmed, 2024: 6). This environmental degradation occurs due to the massive exploitation of nature and its resources to accumulate wealth and gain quick profits.

Colorado River exploited for commercial purposes without considering the sustainability of ecosystems and the rights of local communities. Catherine leads the Las Vegas region and the Colorado River stream, to maintain control over water resources for the benefit of Cypress Arcology. But due to her selfishness, Mexico has collapsed due to extreme drought and water-related conflicts as a result of the climate crisis and the exploitation of water resources as the country is flowed by the Colorado River. It can be read in this excerpt: “These days Mexico never saw a drop of water hit its border, no matter how much it complained about the Colorado River Compact and the Law of the River,” (Bacigalupi, 2015: 18).

The social impact of a capitalist system that exploits natural resources is that it benefits a few, but on the other hand, it exacerbates social inequality and destroys the lives of people who depend on these natural resources. The water crisis in Mexico and surrounding areas illustrates how the injustice in the distribution of natural resources can lead to social and economic collapse. Marginalized communities are forced to face the reality that their basic need for clean water is becoming increasingly difficult to obtain, while the elite continue to prioritize their profits. This injustice deepens the social inequality and worsens living conditions for those who are most vulnerable.

In the capitalist system, the excessive exploitation of natural resources can accelerate environmental changes, including water crises that lead to extreme droughts. If extreme drought occurs, the ecosystem will also be affected. Below is a quote from the narrative:

¹ “The desert was entirely black now and cooling, the scalpel scrape of the sun finally off the land. There’d be animals down there. Nearly hairless coyotes. Lizards and snakes. Owls. A whole world that only came alive once the sun went down. A whole ecosystem emerging from burrows beneath rocks and yucca and creosote,” (Bacigalupi, 2015: 17).

Desert ecosystems are further degraded, with only certain species able to survive in extreme conditions by adapting to become nocturnal animals. This happens because during the

day, desert temperatures can become extremely high, making it difficult for many animals to survive without losing a lot of water from their bodies.

In addition, the destruction of the ecosystem was amplified by the change in pet species. The Vet, the master of illegal trade and business in Phoenix, pets hyenas because they are the only animal there that can survive Phoenix's water crisis. Below is an excerpt of the narrative:

⁸ "This is their world. The broken Phoenix suburbs were their promised land. They didn't fear the lack of water. ⁸ They simply waited behind their fences for the time when they would inherit the earth.. We are not like you, sister. We don't need water. We need blood alone," (Bacigalupi, 2015: 146).

Without capitalism, people would probably keep cats or hamsters. However, when capitalism causes drought, only a few types of animals are able to survive in that narrative. Therefore, people's pets changed, with some people choosing to keep hyenas, as hyenas are highly adaptable to drought conditions.

In a capitalist system that prioritizes profit above all else, the consequences of extreme drought and climate change become evident, manifesting in massive fires that easily engulf buildings and are exacerbated by the dry desert landscapes, further intensifying the environmental destruction and making it even harder for ecosystems to recover. Below is an excerpt of the narrative:

"The conflagration expanded, leaping from condo complex to houses, to more complexes. Bone-dry desert winds caught the flames and whipped them higher. The roar of the flames was like a freight train, bearing down on them," (Bacigalupi, 2015: 336).

The social impacts of environmental degradation caused by the capitalist system are reflected in the quote. Extreme droughts and massive fires not only destroy buildings and ecosystems but also threaten the survival of affected communities. Homelessness, limited water resources, and health risks from air pollution contribute to social instability.

2.3 Alienation

Karl Marx defines alienation as when workers have to produce goods that are beyond their control, as the results of their labor belong to their bosses. Bosses then sell these goods, make a profit from the sale, and increase their capital (Singer, 2018: 52). In this way, the results of the workers' labor are used to increase the wealth and power of the bosses. As a result, workers ²⁵ come alienated from the products they produce.

In Paolo Bacigalupi's *The Water Knife*, social inequality during the water crisis is clearly depicted. Inside the Arcology, life for the wealthy is far more comfortable and secure. They have unlimited access to water. The rich residents of the Arcology can easily purchase water, enjoy comfort, and live in conditions largely unaffected by the environmental crisis outside. In contrast, for the poor living outside the Arcology, alienation is deeply felt. They rely on water pumps built by themselves, yet must pay to access this water. They become alienated from this vital resource, which should be a right for all. It can be read in this excerpt: ¹⁸ and the Chinese had built the pump, too (Bacigalupi, 2015: 44). Maria was trying to keep her eye on the pump and its price. "That's only for the Fourth of July. It's like a patriotic thing they do," (Bacigalupi, 2015: 49).

Dependence on self-built water pumps and the necessity to pay for water, as mentioned in the quote, shows alienation. This alienation highlights social injustice amid the environmental crisis, revealing how capitalism commodifies water resources.

2.4 Individualism

Capitalism creates various crises, one of which is the economic crisis (Singer, 2018: 73). The economic crisis creates a tendency towards individualism. Thus, the economic crisis does not only affect the financial aspect, but also change the social structure and values in society, including increasing the tendency towards individualism.

Capitalism can trigger individualism, especially in the midst of economic, environmental, or social crises. When crises occur, such as economic recessions, social inequalities, or environmental disasters, individualism is reinforced as individuals feel ²⁴ need to take full responsibility for their own well-being. It can be read in this excerpt: "... And they ¹¹ don't trust anyone except themselves, and they don't rely on anyone except themselves... he couldn't figure out why people didn't work together and build together and support each other more.." (Bacigalupi, 2015: 273).

In situations of economic or social uncertainty, individualism becomes a mechanism for survival. When individuals are forced to face life's challenges alone, trust in others decreases, and the sense of personal responsibility increases."

In addition, Angel, also reveals how in times of crisis, people tend to act on survival urges and lose empathy. People become more self-centered, distrustful, and selfish in order to survive. It can be read in this excerpt: "Okay." He shrugged. "Maybe people got choices. But mostly they just do what they're pushed to do. You push, they stampede," (Bacigalupi, 2015: 307).

In times of crisis, individuals tend to prioritize personal interests, leading to a loss of empathy and social solidarity. Angel illustrates that under extreme pressure, people no longer make choices based on shared values, but rather based on selfish personal impulses for survival.

2.5 Housing Crisis

Capitalism can create both water contamination and large amounts of carbon dioxide emissions (Saito, 2017: 134). This environmental crisis is related to the unsustainable use of natural resources for short-term gain. Environmental crises, especially water, can drive human displacement to other places (Brunner, 2015: 426). When water resources become scarce due to overexploitation, climate change, or privatization that hinders public access, individuals and communities are forced to leave their homes in search of more stable water sources. This phenomenon is already occurring in various parts of the world, such as in areas experiencing extreme drought or declining groundwater levels due to massive industrialization.

Water crisis that occurs in *The Water Knife*, people being forced to evacuate to other places that still have access to water as certain areas no longer have sufficient water sources. Refugees from the Gulf (affected by hurricanes) and Cartel States (experiencing drought and violence) seek shelter in major cities, but are often rejected or live in horrible conditions due to restrictive policies and laws. Below is an excerpt of the narrative:

"A mash-up of drama clips and music videos echoing from the tinny speakers of hack ¹² Chinese-language tablets, mixed with the languages and accents of refugees. People up from the Gulf, where they'd been driven off by hurricanes. People from the Cartel States, fleeing drought and narco violence. Huddled humanity, hoping for something better, crushed up against the hard walls of the State Sovereignty Act," (Bacigalupi, 2015: 259).

The narrative vividly depicts the harsh social consequences of the water crisis, especially the displacement and suffering of those forced to leave their homes in search of water resources. As water becomes increasingly scarce, entire communities go on mass migrations and refugee populations emerge, living in poor conditions. This displacement is compounded by restrictive policies and social stigma, which prevent refugees from accessing security and stability.

The housing crisis is also seen when the water crisis in the novel reaches a critical point, where the exodus no longer happens individually, but on a large scale. Below is an excerpt of the narrative:

“...Renters always leave first. They got nothing tied to a place that doesn't have water coming out of the taps, so they get out quick. But the homeowners hang on, at least a while longer. But even they break eventually. First just a few, then more—and then it's this.” He gestured out at the river of refugees filling the highway. “A whole city getting the fuck out,” (Bacigalupi, 2015: 383).

An entire city is forced to flee, as shown by the image of “the river of refugees” filling the highway. This shows the widespread impact of water privatization, where communities lose stability and people are forced to become refugees because their basic needs are no longer met.

Maria's nostalgic narrative reflects how the water crisis and the commodification of resources have taken away social stability. Maria, like many others, has become a refugee forced to leave her home to survive. These memories also show the emotional consequences of homelessness, where the past becomes only a shadow of a world that no longer exists. It can be read in this excerpt: “Maria thought of her own home. Her life from before. School friends she hadn't seen in years. People she'd traveled with...” (Bacigalupi, 2015: 274).

The water crisis and the commodification of resources not only strip them of their homes but also erode the social structures that once provided a sense of belonging and community. Maria's experience demonstrates the profound social impact of housing instability, where displacement leads to the loss of connections, community bonds, and emotional security.

2.6 The Decline of Social Welfare

The capitalist system creates and widens the gap between social classes leading to an economic crisis (Harvey, 2018: 27) that impacts on social welfare (Simou, 2014: 1). It creates insecurity and fear of an increasingly uncertain future. As a result, capitalism not only triggers economic and social crises, but also worsens individuals' quality of life through uncertainty.

In *The Water Knife*, people are constantly struggling to survive, leading to social pressure. One narrative illustrates the impact of the city's destruction on Lucy, who feels disoriented as Phoenix deteriorates. She experiences shock and disbelief as she watches the city gradually collapse due to the water crisis, while the stress of extreme changes, such as infrastructure damage and mass migration, deepens her sense of hopelessness. It can be read in this excerpt: “When Lucy first came to Phoenix, she'd been so stunned by the fragmenting city that some nights she thought she was going crazy,” (Bacigalupi, 2015: 128).

The social exhaustion becomes an additional burden for Lucy, as she not only witnesses the city's destruction but also faces it daily, causing her to feel alienated and powerless.

The water crisis also brings profound existential distress to Lucy. During a drought or water shortage, it leads to uncertainty in life, a sense of threat, and social anxiety, all of which can undermine her social well-being. When the environment becomes harsh and inhospitable, people often experience alienation and a loss of control over their lives. Below is an excerpt of the narrative:

⁵ "Lucy woke to the sound of rain. A benediction, gently pattering. For the first time in more than a year, her body relaxed. [...] And then she woke fully, and it wasn't rain caressing the windows of her home but dust, and the weight of her life came crushing down upon her once again." (Bacigalupi, 2015: 28).

The quote above illustrates how the water crisis has a social impact. The constant uncertainty and loss of hope for life stability cause pressure that damages the social well-being of individual.

2.7 Poverty

Since capitalism is oriented towards the maximum profit, it is possible for capitalists to create markets for land, property, or natural resources (Harvey, 2018: 19). This shows how capitalism focuses on the exploitation of resources that can provide maximum financial returns, without considering the social or environmental impacts that may arise. In the end, capitalism creates a mechanism in which the cost of living rises as basic necessities, such as water, food, and housing, become commodified and increasingly inaccessible to the poor. In the long-term, this injustice leads to a persistent cycle of poverty (Harvey, 2014: 176).

Maria, one of the people living outside the arcology, sells bottled water. She gets the water from capitalists who provide the only water pump for those who live outside Taiyang Arcology because powerful people want to use it as a tool to control who can get water and in what quantity. The price of water at the pump is adjusted to the availability of water in the aquifer. Aquifers are layers of rock under the ground that contain water (Gleeson, 2020: 434). The aquifer functions as a storage and flowing groundwater. So, when the price of water goes down, Maria buys it and then sells the water when the price goes up to survive. It can be read in this excerpt: "If Sarah couldn't work the Golden Mile, she was dead. And if Maria couldn't sell water beside the Taiyang, she was dead, too. It was all borrowed time," (Bacigalupi, 2015: 141).

Capitalism, with its goal of maximizing profit, treats water as a commodity that can be traded, even though in reality, water is a basic necessity that should be a right for every individual. Maria's situation, where she has to buy and sell water according to price fluctuations, reflects how capitalism commodifies water, disregarding basic human rights for financial gain creating extreme poverty where people have to sell water.

CONCLUSION

³⁰ *The Water Knife* is a novel by Paolo Bacigalupi that portrays a future where a severe water crisis has devastated the southwestern United States. In a world plagued by drought and competition for resources, states like Nevada, Arizona, and California engage in fierce battles for control over water rights. The novel illustrates how water is no longer regarded as a fundamental human right but rather as a commodity fiercely contested by powerful humans for capitalist profit.

The central figure of the capitalist system in the novel is Catherine Case, a water mogul known as the "Queen of the Colorado," who manipulates water distribution at any cost to uphold Nevada's dominance. The capitalist commodification of water leads to severe social

inequality, allowing the wealthy to secure access to clean water while the poor struggle for survival.

In *The Water Knife*, the commodification of water resources is depicted through exploitation, privatization, water rights disputes, infrastructure control, and exclusive access to premium water. Water is treated as a marketable commodity available only to those who can afford it, resulting in deep social disparities and an unequal distribution of natural resources.

The social effects of capitalism in Paolo Bacigalupi's *The Water Knife* result in economic inequality, environmental degradation, alienation, individualism, a housing crisis, widespread poverty, and a decline in social welfare. The novel illustrates that the capitalist system not only exploits natural resources but also exacerbates the social and economic struggles faced by vulnerable communities.

Thus, *The Water Knife* serves as a warning story that shows the dangers of capitalism in the face of an environmental crisis. By portraying water as a commodified resource controlled by the ruling elite, the novel underscores social inequality and its broader societal impacts. Through the lens of Marxist ecocriticism this study is able to reveal how capitalism not only exploits natural resources but also widens the gap between classes, with the gainers gaining, and the losers suffering, leaving marginalized communities to bear the consequences of environmental degradation. Bacigalupi's work urges readers to reflect on the consequences of resource exploitation, emphasizing the importance of sustainable and equitable water management. Additionally, the novel serves as a reminder for us to take better care of the environment, as ecological degradation can lead to devastating consequences for humanity.

The Marxist Ecocriticism Of Capitalism In Paolo Bacigalupi's The Water Knife

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