

SENA BEGÜM GİRAY

EXPLORING SPATIAL CAPITALISM THROUGH
ENVIRONMENTAL STORYTELLING

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EXPLORING SPATIAL CAPITALISM
THROUGH ENVIRONMENTAL
STORYTELLING IN VIDEO GAMES: THE
LAST OF US PART I & BIOSHOCK

A Master's Thesis

by
SENA BEGÜM GİRAY

Department of
Communication and Design
İhsan Doğramacı Bilkent University
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To *mom*



EXPLORING SPATIAL CAPITALISM THROUGH ENVIRONMENTAL
STORYTELLING IN VIDEO GAMES: THE LAST OF US PART I & BIOSHOCK

The Graduate School of Economics and Social Sciences
of
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SENA BEGÜM GİRAY

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July 2025

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STORYTELLING IN VIDEO GAMES: THE LAST OF US PART I &
BIOSHOCK
By Sena Begüm Giray

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Media and Visual Studies.

Emel Özdora
Advisor

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Media and Visual Studies.

Özen Baş
Examining Committee Member

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Media and Visual Studies.

Ergin Şafak Dikmen
Examining Committee Member

Approval of the Graduate School of Economics and Social Sciences

Refet S. Gürkaynak
Director

ABSTRACT

EXPLORING SPATIAL CAPITALISM THROUGH ENVIRONMENTAL STORYTELLING IN VIDEO GAMES: THE LAST OF US PART I & BIOSHOCK

Giray, Sena Begüm

M.A. in Media and Visual Studies

Supervisor: Assoc. Prof. Dr. Emel Özdora

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This thesis presents a critical media study of AAA video game design, thereby positioning narrative space as a key site for ideological struggle and cultural reflection. By investigating how environmental storytelling is used by the two video games, *The Last of Us* and *BioShock*, this research questions and challenges systems of power and capitalist ideologies. Drawing primarily on Harvey's (2005) theory of spatial capitalism and Jenkins' (2004) framework of narrative architecture, the thesis examines how space, infrastructure, and narrative design function as ideological texts in video game environments. The socio-economic systems and spatial logic ingrained in the post-apocalyptic and dystopian settings of the games are interpreted to provide a framework for analyzing how

environmental design and player interaction can convey narrative meaning.

Through a comparative case study, findings reveal both games transform physical space into a narrative device that reflects and contest capitalist systems by confront players with the everyday realities of privatized space, and systemic inequality, inviting critical reflection not just through narrative, but through the very architecture of play.

Keywords: Environmental Storytelling, Spatial Capitalism, David Harvey, Henry Jenkins, Video Games, Narrative Architecture, The Last of Us, BioShock

ÖZET

VIDEO OYUNLARINDA ÇEVRESEL ANLATI YOLUYLA MEKANSAL KAPİTALİZMİN İNCELENMESİ: THE LAST OF US PART I & BIOSHOCK

Giray, Sena Begüm

Yüksek Lisans, Medya ve Görsel Çalışmalar

Tez Danışmanı: Doç. Dr. Emel Özdora

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Bu tez, *The Last of Us* ve *BioShock* oyunlarının çevresel anlatıyı kullanarak iktidar yapıları ve kapitalist ideolojileri nasıl sorguladığını incelemektedir. Çalışma, Harvey'nin (2001, 2005, 2008) mekansal kapitalizm kuramı ve Jenkins'in (2004) anlatı mimarisi yaklaşımını temel alarak, oyun dünyalarında mekanın, altyapının ve anlatı tasarımının ideolojik metinler olarak nasıl işlev gördüğünü analiz eder. Oyunların kıyamet sonrası ve distopik ortamlarında yer alan sosyo-ekonomik sistemler ve mekânsal düzenlemeler Harvey'in (2001, 2005, 2008) teorik çerçevesiyle değerlendirilirken, Jenkins'in (2004) çevresel anlatı biçimleri ise bu yapıların oyuncu etkileşimi yoluyla nasıl anlatıya dönüştüğünü açıklamak için kullanılır. Karşılaştırmalı bir vaka analizi üzerinden bu tez, oyuncunun etkileşime geçtiği oyun ortamlarına politik mesajlar yerleştirerek her iki oyunun da kapitalist

sistemleri hem yeniden ürettiğini hem de eleştirdiğini öne sürer. AAA oyun tasarımına yönelik bu eleştirel medya çalışması, anlatı mekanını ideolojik mücadele ve kültürel yansımanın merkezi bir unsuru olarak konumlandırır. Karşılaştırmalı bir vaka çalışması yoluyla ulaşılan bulgular, her iki oyunun da fiziksel mekânı, özelleştirilmiş alanlar ve sistematik eşitsizlik gibi olgularla oyuncuyu yüzleştirerek, kapitalist sistemlere karşı eleştirel bir bakış sunan anlatı araçlarına dönüştürdüğünü göstermektedir. Bu eleştiri yalnızca öyküleme yoluyla değil, aynı zamanda oynanışın mimarisi aracılığıyla da iletilmektedir.

Anahtar Kelimeler: Çevresel Anlatı, Mekansal Kapitalizm, David Harvey, Henry Jenkins, Video Oyunları, Anlatı Mimarisi, The Last of Us, BioShock

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CHAPTER I

INTRODUCTION

1.1 Background and Context

Along with the development of new technologies, new opportunities in the visual medium were possible. One of these mediums is video games. They have come a long way, from slimy arcade rooms requiring a decent amount of coins and patience to complex, riveting, and re-doable experiences. Even as far as becoming compelling competitors for other established genres like cinema and literature. As part of the visual medium quota, video games have a lot to offer when it comes to uniqueness in terms of storytelling and player engagement. By strategically using color, lighting, and perspective, the game developers can establish immersive and emotionally packed worlds and morally ambiguous characters that resonate deeply with their players.

Video games are at the center of this thesis because, as a medium, they are immaculate.

They are rich in content and exceptionally flexible when it comes to adapting them to other specific fields. Playing video games is also exhilarating, as it almost always appeals to the player's senses both visually and audibly making it a fulfilling experience. There is also a matter of agency when playing these games; if one does not engage with the game, the player cannot get any meaning or gameplay in return. Playing goes beyond simple passive consumption; it requires active involvement and gives a sense of agency that strengthens a close relationship with the virtual reality. Furthermore, video games can be regarded as cultural artifacts reflecting the particular eras and sociopolitical environments in which they are produced. Particularly when looking at how complicated social and cultural themes are portrayed and experienced, video games are becoming more and more relevant and provide extensive ground for research, given their natural interactivity and growing complexity of the media.

Video games provide unique stories reflecting and influencing society as cultural objects. Unlike traditional forms of media, video games let users actively engage in the narrative. Usually referred to as 'ludonarrative,' this interaction between narrative and gameplay distinguishes video games from other kinds of storytelling (Hocking, 2007). Knowing this calls for an extensive approach, weighing the procedural and narrative aspects of both games. Games allow the player some degree of control over their movements, camera, and interactions with various individuals or objects, in contrast to narrative media like books or movies in which the reader or viewer takes on the role of a spectator. The player must engage with the game to obtain a story, regardless of the game's style.

Digital video games have established a distinct identity as a story medium nearly two decades after the ludology and narratology dispute in the first decade. The debate between ludology and narratology produced environmental storytelling as a term which connects game-related concepts between these two fields. The term describes multiple specific minor techniques used to tell stories in games. The critically acclaimed AAA video games *The Last of Us* and *BioShock* unite deep narratives with engaging gameplay despite their different gameplay styles. *The Last of Us Part I* (2013) operates as an action-adventure game with survival horror elements and narrative depth through resource management and stealth mechanics. The main classification of *BioShock* identifies it as a first-person shooter with significant role-playing and immersive simulation elements. The game features exploration through its atmospheric dystopian setting combined with gunplay and plasmid-based powers.

Both games use environmental storytelling and character-driven narratives to challenge political systems, despite their distinct mechanical and camera perspectives. Within AAA games, these hybrid genres reflect a growing trend whereby player agency and world exploration blend with linear storytelling. Scholars like Bizzocchi and Tanenbaum (2012) contend that “narrative in games becomes most compelling when it is woven into both gameplay and environment”, which is a concept both games highlight.

The *Last of Us* franchise reached 37 million units sold worldwide through its original game and remastered and remake versions and *The Last of Us Part II* (PlayStation, 2023) during 2023. The game became available on PlayStation 3, PlayStation 4, PlayStation 5 and PC and other platforms. The game expanded through its

HBO TV series which increased both cultural impact and brand visibility. The BioShock franchise has achieved global sales of more than 41 million copies according to Take-Two Interactive (2023). The series spans Xbox 360, PlayStation 3, PlayStation 4, Xbox One, PC and Nintendo Switch platforms with a new game in development for 2024.

These numbers show how much success AAA games have in the worldwide entertainment sector. Indeed, the gaming sector brought in over \$184 billion in income in 2023, far more than the \$33.9 billion box office income worldwide in the same year (Wijman, 2024; McClintock & Lassner, 2024). Especially in narrative-driven AAA games, this economic dominance emphasizes the medium's ability to shape culture, storytelling, and ideology. For example, the highest-grossing entertainment product of all time, with 90 million sales and over \$6 billion in revenue, is Grand Theft Auto V; the sales are even higher than Star Wars (\$4 billion, which is a well-known and established franchise with lots of sequels and games for almost 50 years (Forrey & Hawthorne, 2021). So, what is it about games that draws people in?

The popularity of video games is not coincidental. Like all forms of entertainment and art, there is a recipe that makes them successful and causes some to become more commonly recognized than others. A video game's success is comparable to that of a theater play in that both require extensive personnel, artistic and narrative creation, staging, and teamwork. To illustrate this, two of the most well-known video games ever made that are part of huge franchises, The Last of Us Part I and BioShock will be utilized as case studies to demonstrate the artistic complexity and success of video game development, as well as how they are merely a technological revolution in the visual

medium.

The worlds of video games are processed. They rely on laws of mathematics and algorithms. All game environments are simulations since these procedures and regulations correspond to specific models. A type of simulation that conforms to a predetermined structure is the creation of these worlds from rules (Nitsche, 2008).

However, that claim does not actually assist in gaining an understanding of how players interact with video game environments. Video game environments rely on representation, sign systems, and audiovisual display. Simple mathematical equations or data refinement are insufficient to understand or study their complexity. The games require narrative, space, and player agency to be complete. According to Nitsche (2008), players require clear presentation and functionality to understand game environments. A developer may assist players in navigating non-specific game worlds by providing interactive alternatives and shaping their interactions in specific ways.

In a standard video game, environments occupy the most onscreen available space. Since the player sees the environment via the vision of the game character, they are virtually invisible in first-person games, but for their arms and legs. In third-person games, the camera tracks the character through the world. The character occupies a comparatively modest portion of the screen for players' convenience to observe and travel the world. Other games, such as card and strategy games, occasionally lack characters, leaving the monitor to be used solely to display the environment.

Combining interactivity, immersive world-building, and narrative complexity, video games have become among the most important storytelling devices of the twenty-first century. Beyond the limits of gameplay, AAA franchises like Bioshock and The Last of Us Part I have also evolved into transmedia storytelling using comic books, television series, remastered editions, downloadable content, and other media to expand their worlds. This expansion is to further support the success of the initial games and meet the demand of its players. However, these transmedia expansions also include a sense of profit. These extensions not only expose the duality of modern media production, the balance between creative storytelling and the commercialization of intellectual properties but also deepen the lasting impact of their particular worlds.

This thesis goes beyond just looking at gameplay to look at transmedia storytelling as an art form and a form of commercialism. Berger (2019) argues that transmedia stories can grow the mythologies of franchises while encouraging people to buy them. BioShock and The Last of Us Part I are good examples of this duality because; they have comics, TV shows, and remastered editions. These transmedia expansions deepen the story and demonstrate how the industry commodifies sequels, prequels, and spin-offs to generate profit off of narrative worlds.

The phrase environmental storytelling was initially used concerning the architecture and was used in the building of Disneyland, CA in 1955 by Carson (2000). It is the art of designing an area that conjures the mood of a story and molds the visitor's experience in a setting that is familiar to them without explicitly repeating stories they are already familiar with. Where every feature, texture, and audio of the artifact in question evokes

the sense of the theme. The visitor may lose interest in the story if there is something that goes against the concept of the artifacts (Jenkins, 2004; Pearce, 2007).

“The most compelling attractions in an amusement park are based on stories or genre traditions that visitors are already familiar with” (Jenkins, 2004). These tourist attractions allow visitors to physically inhabit the locations they have seen numerous times in their imaginations or other media, like movies or literature. Jenkins states that the attraction’s creator can create a world with simple guidelines and rely on the visitor to fill in the remainder of the details or imagine. Because these pieces draw on the visitor’s prior interactions with the story, they do not tell many separate stories. One of Jenkins’ most important components is evocative space, which is defined as an environment that tells a tale by reminding the viewer of earlier storytelling encounters. Game worlds can be modeled after films, literature, or other well-known narrative genres, much like amusement parks, which are frequently constructed primarily upon worlds of fantasy that guests are already familiar with and could engage easily.

In the context of video games, environmental design and storytelling are the practice of designing specific game spaces to allow the setting itself to depict a story. The environment itself conveys meaning through subtext, props, and other detailed spatial arrangements to leave some room for the players to interpret the context. This interactive quality of video games forces the players to engage by choosing actions that affect the course of the story. By stressing player agency, this act of participation clearly supports critical thinking, empathy toward the characters, and a more profound connection with the game environment. It gets closer to real life and is easier to interact with by

warranting moral ambiguity and building morally gray characters that are multidimensional and changing the surroundings to find their ambiguity. Players piece together objects, layouts, and environmental cues into a logical story. In contrast, in popular box office films, the good and bad guys are separated, and the plot is usually recognizable. Like movies, it uses subtext to add depth, but allows more exploration and discovery since games are interactive.

Since the player must interact with and interpret the game's universe, they are the driving force behind every game. Environmental storytelling is one of the many ways that games deal with narrative. Building narrative hints about what has transpired in the environment and making those hints significant for the player to decipher in order to comprehend the scene's or the game's overall plot are essential components of giving gamers an immersive experience.

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In terms of BioShock, which is a first-person shooter (FPS) is a type of video game where players engage in combat, primarily using guns and other weapons, from a first-person viewpoint. This perspective allows players to see the action as if through the eyes of the character they control, creating a more immersive experience (Voorhees, 2014).

The games share elements with other shooter genres and belong to the action game category. Since their inception FPS games have depended on advanced 3D or pseudo-3D graphics to deliver immersive gameplay (Garmon, 2005). The requirement for realistic graphics has led to major technological progress which motivated hardware developers to create new innovations. The influential game Doom (1993) achieved such massive success that it created a term "Doom clones" which described similar games for multiple years (Schneider, 2016). The first significant impact of the FPS genre occurred with the release of Wolfenstein 3D in 1992.

The same developers who made Doom and Quake at id Software produced Wolfenstein 3D which transformed gaming through its advanced graphics engine while establishing the direction for future three-dimensional FPS games despite facing criticism about violence (Stika et al., 2024).

Like any narrative game, each type of shooter gets its name from the point of view from which it is revealed. First-person shooter games like BioShock show the player the character's point of view, but because of how game development works, the camera that shows the player's point of view is sometimes slightly lower than where the protagonists' eyes are. In third-person shooter games like The Last of Us Part I, the player can see the shooters from behind their shoulders. Depending on the game, the distance may be close or far, and it may or may not be adjustable. First-person shooters make the action feel more authentic and personal for the player. Third-person shooters, on the other hand, lets the player see not only what their character is doing but also the area around them and some of the area that the camera can see that represents the player's point of view.

BioShock and The Last of Us Part I can also be considered as a role-playing games (RPG). Games classified as RPGs typically include features like character customization, the ability to influence story progression, and an interactive open-world setting that allows players to explore with few limitations. These elements give players a more tailored experience, catering to various play styles and motivations. To deliver this kind of personalized and engaging experience, players need to feel connected to the game. This connection hinges on two critical factors: exceptional game design powered

by a strong software engine and a thoughtfully developed narrative (Forrey & Hawthorne, 2021). While BioShock and TLOU cannot be strictly classified as such, they certainly include RPG elements that elevate their gameplay.

RPGs are all about character-driven stories and gameplay mechanics. What sets RPGs apart is their focus on the growth and development of the characters the player chooses to play. These games let one level up, improve stats, and gain new abilities, creating a sense of progression and accomplishment. While some RPGs involve ‘grinding’ (repeating tasks to get stronger) it’s not a defining feature of the genre (*What is an RPG*, 2024).

What makes RPGs so versatile is that they’re not tied to any specific platform. One can find them on classic consoles, modern PCs, mobile phones, and even old-school Flash games. At their heart, RPGs prioritize characters and their stories, with the challenges they face and overcome often serving as the main focus of the game. This contrasts with action games, where characters can sometimes feel secondary to the gameplay.

Character progression is a cornerstone of RPGs. In BioShock, the player starts out with limited abilities, struggling to defeat even the weakest enemies, but by the end, their characters are powerful enough to face boss fights. Similarly in The Last of Us Part I, along the way, collecting better gear and relying on in-game luck enhances this growth, with the character’s final form representing how far the player has come.

In terms of budget and production, both The Last of Us Part I and BioShock can be

categorized as AAA games. At least since the late 1990s, the word “AAA” has been used to describe games with big budgets. In the late 1990s, AAA games became a well-known type of game because they had very high budgets for both development and marketing. Final Fantasy VII (1997), made by Squaresoft, is often considered one of the first AAA games, with a budget of \$40–45 million (Garcia, 2020). Its high-quality cinematography, orchestral music, and creative use of storytelling with dynamic camera movements set new standards for the industry. By the seventh generation of gaming consoles, the cost of making AAA games for platforms like the Xbox 360 and PlayStation 3 was usually between \$15 and \$20 million. For example, Halo 3 had a combined development and marketing budget of \$70 million. However, this period also saw a contraction in the number of studios producing AAA titles, dropping from 125 to about 25, while staffing demands quadrupled (AAA, 2024).

AAA games from the late 1990s and early 2000s were the start of a trend toward gameplay that was more story-driven. In the early 1990s, digital media like CDs, DVDs, and Blu-ray Discs became popular. These developments led to new ideas like cutscenes, and improvements in real-time 3D graphics made storytelling even better (Wolf, 2021). With big budgets, games like Final Fantasy VII combined these elements to make stories that drew players in. Games like Half-Life (1998) went even further by using fewer cutscenes and more interactive storytelling that blended the plot with the gameplay (Wolf 2008).

By the seventh generation, AAA game marketing campaigns were similar to those of big movies, using TV, billboards, and print ads. To lower their financial risks, studios relied

more and more on sequels, reboots, and intellectual properties based on franchises (Dyer-Witheford & de Peuter, 2009). At the same time, production costs hit new highs, with Grand Theft Auto V (2013) costing about \$265 million to make and market. These high-stakes situations helped the indie game scene grow. Lower costs made it easier for people to try new things and take creative risks (Juul, 2019).

AAA games have taken RPG mechanics and added them to bigger, more complicated games that are popular right now. These games keep players interested for dozens of hours by using RPG systems like character progression, profound storytelling, and immersive world-building through environmental storytelling. They have huge worlds, compelling stories, and detailed graphics. It is not surprising that RPG elements are now a big part of many games.

On that vein, both The Last of Us Part I and BioShock are considered AAA games. Not only do they have big budgets and studio support, but they also have high production values, cinematic story design, and a lot of critical and commercial success. The Last of Us (2013) is said to have cost between \$70 and \$100 million to make and sold more than 20 million copies on the PS3 and PS4 (Crecente, 2020). BioShock (2007) was made for about \$25 million, and by 2022, its franchise had sold more than 30 million copies (Take-Two Interactive, 2022). These games show how AAA games can tell emotionally complex stories and provide players a sense of involvement by using environmental storytelling and player immersion as key design principles.

Their success further demonstrates how narrative-focused design in AAA games adds to larger cultural conversations by reflecting and critiquing sociopolitical ideas like

systems of control, consumerism, and the illusion of agency, which are some of the main topics this thesis investigates. Their complex storylines and spatial design make them excellent examples of how blockbuster games can be both a critique of sociopolitical ideas and a commercial product.

Games allow the player to control the camera, their motions, and their interaction with other characters and objects. Games like *The Last of Us* and *BioShock*, which frequently rely on environmental storytelling to provide immersive and natural storylines, allow players to customize their experiences based on their choice to engage or not, in contrast to linear narrative-driven games. Usually, the player controls the game's plot, and the main story of the world is concealed in details, conversations with non-player characters, trinkets scattered all over the map, or left up to the player's interpretation depending on their environment.

Although this thesis primarily addresses AAA games like *The Last of Us* and *BioShock*, which are firmly ingrained in the capitalist entertainment sector, it is crucial to consider the counterpoint provided by indie game creation momentarily. According to Simon (2013), the term "indie" is a bit difficult to define. However, it can refer to a method of production, a style of game development or visual design, a legal/economic description (relating to intellectual property ownership), or a cultural setting that involves production and reception.

So where do indie games fall in this epoch of larger-profile video game companies with high funding, many divisions, and swarms of people? Unlike AAA studios' high-budget,

corporate-backed production lines, indie games often come from smaller, independent teams running with limited resources but more creative freedom. From Harvey's (2005) vantage point, indie game creation can be seen as a kind of opposition to the spatial and financial rationale of capital accumulation. Often outside the main lines of manufacture and distribution, these games provide alternative design ideas, aesthetics, and political criticism that are not restricted by market demands.

As Harvey (2005) points out, neoliberal capitalism aims to privatize, commodify, and include all cultural output into profit- and control-oriented systems. Though not free from these demands, indie games can occasionally avoid or subvert them by stressing non-commercial ideals, including experimentation, group authorship, or politically radical content. Indie games thus serve as cultural sites where the 'right to the city', Harvey's (2008) term for recovering space and culture from capital, is performed digitally. While AAA games might criticize capitalism from within its systems, indie games usually aim to create meaning outside of those structures totally. The comparison underlines the layered complexity of video game creation under capitalism and supports the ideological conflicts this thesis investigates.

Video games are one of the most prevalent and significant forms of culture in the 21st century. This thesis comes from a strong interest in how video games work as cultural and ideological texts. Their ability to interact, build worlds, and affect people makes them a great subject for study, especially when investigated through lenses that deal with power, space, and identity.

People often think of video games as a form of entertainment, but their detailed world-building, interactive stories, and realistic environments can reflect the social, political, and economic ideologies of the time. Considering their importance for me, as a form of escapism, entertainment and emotional fulfillment and as a means of socialization, I wanted to reflect my personal experiences and contribute to a scholarly field that interests me deeply. Since I want to pursue an academic career in this field using my interdisciplinary background, this thesis critically examines how video games can serve as sites of ideological critique and aims to contribute to the grander objective of making game studies a field that connects media, politics, and design.

Lastly, as it has been mentioned beforehand, this thesis investigates how *The Last of Us Part I* and *BioShock* challenge capitalist ideas through their environmental storytelling and thematic narratives while also being situated inside the gaming sector molded and fueled by capitalism and its values. To explore this further, environmental storytelling which lets players naturally experience stories by means of in-game environments, objects and atmosphere, and the concept of spatial capitalism to situate will be further discussed in Chapter 2 as part of the theoretical framework. Also, how these games will be examined as a comparative case study is explained in detail in Chapter 3, the methodology section. Chapter 4 will provide extensive analysis of how these games develop ideological critique through spatial and narrative design by examining specific scenes from *The Last of Us Part I* and *BioShock* using the theoretical frameworks of Jenkins (2004) and Harvey (2001, 2005, 2008).

Chapter 5, the concluding chapter, examines the commonalities and distinctions between

The Last of Us and BioShock's environmental storytelling and spatial critique methods before discussing the general implications for digital games and ideological discourse research. The thesis concludes by placing the case studies within their respective genres and evaluating the framework's suitability for additional games to demonstrate the thesis's value for game studies and critical media analysis.



CHAPTER II

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Video Game Studies

Video games, the most well-known and varied examples of interactive media, have challenged conventional media theory. They brought the meta-medium computer inside the spaces of the homes of millions, creating a world of possibilities that are so unusual and varied that humans are still having trouble defining them. They revolutionized traditional media and created an industry worth a billion dollars in the process. New products are being generated by this industry, its fans, and a variety of amateur sources for analysis and instruction. From a minor field, video games have grown to become a significant cultural and commercial medium (Nitsche, 2008). The growing field of game studies currently has an overwhelming number of games to examine, whereas predecessors of the digital age were limited to a small number of digital items that were

restricted to a small percentage with access to technologically advanced research labs.

A fundamental concern in game studies has been the interaction between narrative and game space. Aarseth's (1997) set the stage for knowledge of non-linear narrative in games. Aarseth (1997) contends that ergodic books call for non-trivial effort from the reader or player, so defining games as texts requiring active navigation and choice. Likewise, Ryan (2001) stresses the concept of "narrative as spatial exploration," consequently showing how players interact with a game environment as both readers and players.

While Frasca (2003) distinguishes between simulation and representation in digital storytelling, Murray (1998) stresses player immersion and agency, thus pushing this conversation into fresh ground. These techniques support the notion that the environment, what Jenkins (2004) later refers to as "narrative architecture" is fundamentally connected to the storytelling in games.

2.2. Games and Their Narrative Design

While the writers are in charge of developing stories, character arcs, and dialogue, narrative designers provide supporting systems and highlight player choice throughout the narrative. In a nutshell, writers ensure that the plot makes sense and feels appealing, while narrative designers construct the story to make it playable and entertaining. In video games, the story isn't something that's already happened; it unfolds as the player interacts with the game, creating a unique, real-time narrative. As Nitsche (2008) explains, "interacting and narrating are dependent on each other" (p. 55) because the

player is actively involved in shaping how the story progresses. This happens through the game's ergodic nature, where the player constructs the plot "as a way of comprehension of the interactive situation and as a means for further interaction" (p. 56). In other words, understanding the story and moving through the game is deeply connected, making the player an essential part of the narrative process.

Rouse (2010) defines environmental storytelling as the story told by the game world without the player's presence by focusing on world design. The first of his suggested methods is to have a comprehensive understanding of global events and to carefully evaluate what occurred in each place. The player can discover the environment while playing by utilizing several design strategies, like navigating through the space, solving puzzles, and piecing together resources with narrative implications. Additional suggested methods, like lighting, grand reveals, and camera movements, are taken from movies to draw the player's attention to particular scenes (Rouse, 2010).

As Berger (2019) put it, narrative design has long been in the background of video game development. He argues that even though no studio can predict what its customers would want altogether, it is still albeit crucial to use it as a differentiating aspect to define a distinctive and appealing "intellectual property" (IP), which refers to every story or an invention that the companies or individuals own. Berger defines dramatic storytelling as a process of creating compelling narratives that engage the audience emotionally. This involves using a variety of techniques, including character development, plot structure, and world-building. While he claims that cool gameplay is necessary, they are also insufficient because gameplay on its own is not enough to

reflect the premise, the conflict's origin, and the multifaceted characters that are present in the game.

2.3. Games and Their Spatial Architecture

According to Chatman (1978, p.43) and Ricoeur (1980, p.170), time is a fundamental component of the narrative, while space is often viewed as the 'setting' or 'background' of the story, which limits its appeal to scholars (Ryan 2009, 420). One of the clearest connections between games and narrative is spaces. The setting and people that give way to the structured sequence of events that comprise the story are part of the spatial dimension in which stories are set (Chatman, 1978). One of the characteristics that distinguishes digital worlds and, thus, video games is spatiality (Murray, 1998). Murray (1998) contends that digital environments provide the ability to navigate those locations, even while other media, like paintings or novels, can depict space. Murray's (1998) remark can be expanded upon by adding that the player has the ability to control the environment and interact with its objects.

Traditionally, games took place in physically limited areas that stayed the same during games, like a chessboard or a soccer field. Video games, on the other hand, have environments that are very dynamic and changeable, which players can move through and change, fundamentally transforming the spatial logic of games (Juul, 2005). Players can explore new universes with unique forms and functions by crawling, jumping, running, flying, and teleporting. The gaming options have increased and grown easier to access than ever before. Using the player character as a spatial representation, video games make transitioning from one level to another far simpler than altering a physical

game board or moving to a different field. This flexibility significantly impacts the game structure, particularly in fostering what Juul describes as “games of progression,” which are characterized by a fixed sequence of challenges that the player encounters, even though their actions within each challenge remain flexible (Juul, 2005, p. 67).

Another essential component of performance activities is the performance space that video games offer (Schechner, 2003). In this performance space, players reinstate a particular behavior according to the script that the game may support and provide. A first-person shooter, for instance, encourages players to fire, run, and take cover; the level’s design may also favor particular strategies for completing objectives. The screenplay is more adaptable than one might think; just as a dramatic text varies based on the theater, a single game can also potentially support several gaming styles (Fernández-Vara, 2011). Returning to the first-person shooter scenario, some players might attempt to finish the game by not killing anyone or by attacking enemies head-on and without cover. Even if the game might allow for such behavior, it might not be viable for one to win by using those tactics. The video game’s environment also offers cues to reestablish behavior; for example, a platformer encourages jumping by placing obstacles in the path, arranging the ground at various levels, and placing rewards and objects in potentially hard-to-reach locations. These tactics use space to shape the plot and create immersion rather than simply providing a backdrop for the story’s actions. Situating spatiality as a “defining element” for video games (Aarseth, 2001, p.154).

2.4. Games and Environmental Storytelling

Environmental storytelling is a term used to describe how environments can evoke and

create a narrative experience when exploring space. It was inspired by theme park architecture (Carson, 2000; Pearce, 2007). Carson claims that “the story element is infused into the physical space a guest walks or rides through” in theme and amusement parks. In his description of his skillset as a ‘Disney Imagineer,’ Carson (2000) highlights the importance of establishing a connection between what the player perceives and prior events, employing theatrical deception, and recalling previous scenarios.

However, borrowing elements from theme parks and ride designers might be challenging. The player is viewed by theme park designers as a tourist who navigates the environment rather than taking an active role (Pearce, 2007). Numerous theme park design techniques emphasize space navigation, giving visitors a constant sense of the landscape. Drawing from Carson’s idea, Jenkins (2004) takes a moderate stance in the ongoing dispute between ludology (emphasizing gameplay mechanics) and narratology (focusing on games as storytelling media) by discussing how game creation might be an exercise in narrative architecture. Jenkins argues that rather than being restricted to being plot devices or conventional stories, there should be a “middle ground” where video games are viewed as having narrative potential as spaces (Jenkins, 2004, p. 119). He then introduces the concept of spatial stories, where game designers act as “narrative architects” who construct environments that facilitate storytelling through player interaction.

While environmental storytelling or narrative worlds are used in both amusement parks and games, there are some significant distinctions between the two. In addition to the fact that both games and amusement parks are categorized as spatial media, Pearce

(2007) notes that game production incorporates the majority of elements found in amusement park construction, including spatial narrative, experience design, “illusion of authenticity,” and immersion. Three significant additional dimensions are introduced to spatial media via games: agency, identity, and community. Though typically limited, agency in games allows the player to exert control of the game’s environment as well as participate in the universe; this is not always the case, though, as it is not always limited, such as in a physical environment. Instead of only being a visitor or observer, identity enables the player to evolve into a part of the spatial medium, a citizen, in which the player contributes to the world (Carson, 2000). Within the game’s environment, players have the ability to select and mold their own roles. The communities found in theme parks like Disneyland are not the same as those found in gaming. Because of the absence of identification and involvement, theme parks are unable to create a sense of long-lasting, communal togetherness. While visitors to a theme park are merely passerby customers, players have some power over the virtual worlds they inhabit by offering the player more flexibility to move around the area, engage with non-playable characters, create their own characters, and have quest-based objectives. It facilitates involvement by enabling the player to build an independent identity inside the game world.

According to Jenkins (2004), game environments can be evocative, meaning they evoke memories of past stories; embedded, meaning they have scripted parts; enacting, meaning they let players act out their characters; and emergent, meaning they let players create their own stories. This method successfully drew scholarly attention to space as a vehicle to tell stories, which ventured against more linear or dialogue-driven perspectives about how games tell stories.

Smith and Worch (2010) built on Jenkins' (2004) work to create a more developer and design focused definition of environmental storytelling. They defined the technique as: "Staging player space with environmental properties that can be interpreted as a meaningful whole furthering the narrative of the game" (Smith & Worch, 2010).

Their emphasis was not only on what environments say; they also focused on how players actively interpret those signs. They developed the idea of systemic environmental storytelling, in which players' actions leave real-world traces that give the story meaning. For instance, bullet holes, dead bodies, bloody graffiti, or rearranged objects all contribute to a narrative system that is reactive, not just pre-written. They use the deathmatch mode in *Half-Life* (Valve, 1998) as a demonstration of systemic storytelling. Every player can spray graffiti wherever and gunshots leave their mark on the surroundings and surfaces. However, the action is involuntary, and the tools are a byproduct rather than a narrative that expands upon the plot of the game.

This approach is especially important for games like *The Last of Us Part I* and *BioShock*, where players often learn about the events that have happened in the past by looking at environmental clues. The collapse of Boston's politics and society, the Firefly pendants, and the suicide notes all add to the story in *The Last of Us Part I*. In *BioShock*, on the other hand, every room in Rapture is a carefully curated echo of Objectivist ideology, falling apart under the weight of its contradictions. The story does not merely occur within the environments; rather, the environments themselves constitute the story.

Smith and Worch's (2010) model stresses how players interpret things and how spatial design can be broken up into smaller parts. It encourages developers to make spaces that let players make sense of things without telling them what to do. In both games, players become narrative archaeologists, putting together the story of the world through fragments, what is present and what is missing. This makes the link between player choice and environmental storytelling more powerful, which was one of Jenkins' (2004) main points.

Jenkins' (2004) narrative architecture and Smith and Worch's (2010) systemic design approach work well together to provide an extensive framework to look at how narrative is built into space and how the player interacts with that space. These ideas assist in interpreting *The Last of Us Part I* and *BioShock*'s use of spatial design to make ideological critiques and emotional connections in context, not through cutscenes, but through the experience of navigating and understanding the world.

Nitsche (2008) expands on Jenkins' (2004) ideas about narrative by classifying these devices as evocative narrative components, which serve as building blocks to organize the player's experience and assist their comprehension of the game world. According to Nitsche's (2008) definition, such aspects could refer to anything and any scenario in the game's environment that is designed to assist and perhaps direct the player's comprehension. The player must determine how these components relate to one another in order for them to construct a story. He believes that these components are connected; they are a part of the fictitious world, and the player discovers them by constructing associations between them. The story's development is dependent on the player since it

is their responsibility to understand the elements. Narrative components such as these are intended to give the player evocative tools to understand the virtual space and events inside it, as well as to generate context and importance to make the space and experience more meaningful rather than to present a linear story (Nitsche, 2008). The components used in the game environment to help players understand are referred to as “evocative narrative elements” (Nitsche, 2008, p.3) since, even though they do not directly tell a story, they cause the player to experience consequential parts of the narrative process; hence, this process can result in the creation of narrative.

Space and its charm are significant aspects of this experience. The research and analysis of digital media have focused heavily on space ever since cyberspace first appeared (Benedikt 1991). It has long been a distinguishing feature of game studies. Murray (1997) contends that one of the fundamental characteristics of digital media is spatiality, while Aarseth (1997) begins his analysis of cybertexts by examining labyrinths and coining ergodic literature, urging the necessity of a reader to interact with the given text to create their own meaning. Given that the player must make sense of the gaming spaces to interact with them, it is argued that these spaces create narratives. The player creates a new understanding by deciphering clues and interacting with them.

2.4.1. Games and Indexical Storytelling

Indexical storytelling is based on Peirce’s (1998) theory of language. A sign is a mediation, a representation that carries a notion associated with something into the mind; the sign consists of the idea, the object it symbolizes, and the interpretant who forms the relationship between the two (Peirce, 1998). Three categories of signs are

recognized in Peircean ideology: icons and likenesses, which are symbols that mimic sounds to transmit concepts. Examples include drawings, photographs, gestures, and onomatopoeias (words that mimic the sound they allude to, like crack or roar). Indices and indications refer to the sign and the idea being physically related. Peirce (1998) uses a signpost as an illustration, with its direction indicating the appropriate path. Other examples include a sneeze indicating a cold and smoke indicating a fire (Fiske, 1990). The last category is symbols or general signs, which are signs that have been given meaning by usage; these signs and their meanings are arbitrary and a component of an implicit social contract (Saussure, 1966). The term “biohazard” is a symbol that reflects an arbitrary association between the thing and the concept it symbolizes.

In the Peircean logic, indexical storytelling is a narrative that is primarily told via indices. An index refers to something that has happened or is happening and is frequently the result of an event. It invites the player to piece together what transpired, and it is the player’s responsibility to make the connection between the sign and the event it indicates. Indexes aid the player in placing themselves in the world and connecting their gaming experience to their prior knowledge. Consequently, indices are a variation of indicators in video games that help players regain their behavior by giving them hints. Indices can not only direct the player’s actions but also encourage players to reconstruct past events through interpretation rather than exposition.

The process of creating a game’s story primarily using indices is known as indexical storytelling. To quote Nitsche’s (2008) idea of evocative narrative elements, the narrative is not “told” in the conventional sense but rather assembled from many parts.

As Fernández-Vara (2011) puts it, indexical storytelling serves as story-building for both the player and the designer; the player must decipher and put together the story's parts after the designer produces them and incorporates them into reality. In the fictitious universe of a game, indices can serve as signals of what could or should be done (similar to Peirce's definition) or "what happened in the world before" the game begins (Fernández-Vara, 2011, p.6). Direction signs that let the player know where to go are ideal representatives of this since bloodstains or footprints show where someone has been and where they have been hurt are evidence of prior events in the game.

The "history of the game world" and the "history of the player" are the two primary categories of narratives found in video games (Fernández-Vara, 2011, p.6). Both can use indexical storytelling; in the case of the game world's history, it alludes to the indices that have been left behind by earlier events and that the player must interpret as they travel the area. In addition, it can create a portion of the player's past in which the player may provide clues for other agents, whether computer-controlled or human to decipher. There are certain games like *Phoenix Wright: Ace Attorney* (Capcom, 2001) where the main objective is to learn about the game world's past, what transpired before the player entered the area. The player assumes the role of a "detective" (p.7) in these games and is expressly asked to put together the storyline. These games typically restore behavior by having players examine their surroundings, examine papers, interrogate witnesses and potential suspects, and then piece together what happened in the past. Environmental storytelling often focuses on the traces left by earlier agents in the space. The remains are items that were previously altered by such agents. One typical illustration of this can be found in *Portal* (Valve Corporation, 2007), which includes drawings, graffiti, and the

infamous writing “The cake is a lie” left by former agents on the walls (Rouse, 2010).

The challenge in interpreting remains is figuring out how they connect to gameplay. Evocative narrative aspects incorporate players’ interpretations of events in the space. Similar to a detective narrative, the story serves as a puzzle for the player to solve, but it does not immediately impact gameplay or encourage specific behaviors. On the other hand, it allows players to form their own interpretations of events. Additionally, there will likely be a variety of interpretations among players, providing a multitude of perspectives on the space’s past. Representing the remains of previous agents, human or otherwise, who occupied the area before the player’s arrival, ghosts are another less frequently investigated kind of remains. An example could be *Demon’s Souls*’ (Software, 2009), an online feature that lets players view other players’ spirits. The presence of bloodstains on the floor suggests that a player had died there. Stepping on it causes the player to observe the ghost’s image and the final moments of that player’s life; the animation provides hints as to how they died.

Signage is frequently used in games to help players navigate the environment. When it comes to gameplay, signage may serve as beyond a mere navigation tool. For example, walk using the console or move by pressing the WASD keys. These cues not only imply but also specify the precise actions (button presses) that comprise the fundamental game mechanics.

Fernández-Vara (2011) argues that there are several instances of indexical storytelling techniques used to narrate the world’s history and give the player instructions on what to

do or not to do. It is more uncommon to find scenarios involving devices that enable players to create their own history using indices, primarily because narrative games continue to insist on telling the player the tale rather than letting them create their own. She further explains that depending on the things they do in the game environment, players can leave clues. In the same manner that prior events can leave traces for the player to understand, players may also leave a unique mark with actions they take. In order for it to occur, the game environment needs to be persistent, meaning that after the player exits an area, changes cannot be reversed, and the characters' and objects' states must remain constant throughout the playthrough. While allowing multiple playthroughs to be possible, resetting the level eliminates player agency and may undermine the overall narrative of the game.

The ability of other characters and world agents to decode the indices the player leaves behind, thus generating opportunities for story events, is one overlooked possibility of player-created indexical storytelling. Agents under computer control are able to adjust their behavior in response to player indices. These kinds of indices are essential to the stealth game style, in which the player must escape detection. The sound of footsteps serves as a location indicator for the player; for instance, if the sound originates within a non-player character's range, the character will look for the intruder. This is the case for *The Last of Us*, as the player can choose to adopt a stealth game style to avoid having to deal with multiple adversaries at once. The stealth mode allows the player to choose their own battles at their own pace but still requires following a certain gameplay and a realistic element to the game, as the player can be detected and face the consequences.

Although this type of narration approach has been referred to as storytelling, it is a relatively new concept in video games. Not correctly telling the story itself draws the player in, so to speak. Story-building can also become a cooperative endeavor between the creator and the player, as it appears that, in this specific case, both parties are creating a narrative, as previously mentioned. The way that video games tell their stories appears to go against conventional notions of narrative; they are not structured and instead allow the player to decipher the various clues at their own pace, based on their decision to do so. They also provide players the opportunity to create their own stories.

2.5. Transmedia Storytelling

Jenkins (2010) defines transmedia storytelling as deliberately dispersing narrative elements across various media platforms to create a unified and engaging entertainment experience. The central story gains new perspectives through movies along with comics video games and novels which present expanded backstories and new characters. Jenkins (2010) differentiates adaptations from extensions because adaptations maintain a faithful representation of the story across media while extensions introduce original elements which enhance the original narrative. The different storytelling platforms contribute their unique advantages to the narrative without duplicating existing material. Television series focus on character growth but video games deliver active gameplay experiences and let players discover the game world.

Jenkins (2010) distinguishes adaptations from extensions in his research. The original story remains unchanged in adaptations while extensions introduce fresh content that enriches the original work according to Jenkins (2010, p. 146). The distinction

becomes important when analyzing properties like *The Last of Us* and *Bioshock* because they expand their worlds through comic books and spin-off content and supplementary materials.

Jenkins (2010) examines commercial motives behind transmedia storytelling yet notes that corporate media entities utilize these strategies for intellectual property commodification and profit maximization. According to his argument transmedia storytelling develops participatory culture through fan engagement that leads to fan fiction creation as well as mod development and online conversations (p. 150). The fan engagement process creates both enhanced narrative value and challenges existing authorship conventions. The corporate control-fan contribution dynamic found in *BioShock* and *The Last of Us Part I* matches the capitalist themes that appear throughout the narrative.

According to Jenkins (2010) transmedia storytelling operates through dual forces which shape its development. The corporate sector seeks to increase financial returns through its intellectual property expansion across different platforms. Fans contribute through their work of creating fan fiction mods and social media discussions which expand storytelling while making it more inclusive and participatory.

Jenkins (2010) identifies world-building as the primary characteristic which defines transmedia storytelling. Through this process creators develop extensive interconnected worlds that enhance depth and texture in each media platform which leads audiences to actively assemble the narrative. Jenkins (2010) describes how multiple media platforms including video games and comic books and television shows contribute

distinct elements to the story universe. The practice of inviting fan participation between platforms develops participatory culture while deepening audience engagement according to him. While acknowledging the commercializing of story worlds under entertainment business logics he also notes the risks that narrative fragmentation presents.

The thesis also features Jameson's (1991) idea of late capitalism and cultural commodification along with Jenkins' (2010) theory of transmedia storytelling in the literature review to reinforce these main frameworks. Jenkins' (2010) theory offers not only a framework for comprehending how narrative content spans media but also a lens through which one might criticize the commercial forces pushing such developments. Transmedia storytelling is thus investigated in this literature review as both a creative and financial phenomenon that can enhance narrative depth and act as a mechanism of intellectual property exploitation and brand consolidation. Understanding how BioShock and The Last of Us Part I use transmedia content to spread (or weaken) their ideological messages while also becoming more and more ingrained in franchise and entertainment market logics is made easier with the help of this. Although not essential, Jameson's (1991) theory provides a useful critique of how cultural products that seem to contradict capitalism can be assimilated into its commercial apparatus. His theories regarding "nostalgia mode" and the commercialization of criticism assist in exposing the inconsistencies present in games that both criticize neoliberalism and prosper as profitable, branded media properties. Although the main analytical approach is guided by Jenkins' (2004) and Harvey's (2001, 2005, 2008) theories, these supplementary viewpoints enhance the conversation by placing the games in larger cultural and

industrial contexts, particularly with relation to audience participation, media convergence, and economic circulation.

2.6. Audience Engagement

Murray (1998) explores how storytelling evolves as it enters digital and cyber spaces. She connects the player's agency with immersion, arguing that digital narratives differ from traditional ones because "on the computer, we encounter a world that is dynamically altered by our participation" (p. 128). However, she critiques hypertext narratives, claiming their "indeterminate structure... frustrates our desire for narrational agency" (p. 133). Murray (1998) also describes games as "abstract storytelling," "rituals," and "rehearsals for life" (pp. 143–144), which removes them from everyday life and places them within a strict interpretation of the "magic circle" concept, which was first introduced by Huizinga (1938) and later explained by Salen and Zimmerman (2003).

The perspective views games and their narratives as separate entities which do not relate to real life experiences. Juul (2008) and Zimmerman (2012) challenge this rigid view. Juul (2008) argues that the magic circle is not a fixed boundary but a flexible one that is constantly renegotiated by players (Juul, 2008, p. 62). Zimmerman (2012) further clarifies that the magic circle is not about isolating games but understanding how they generate new meanings that blend elements intrinsic to the game with external, real-world influences (Zimmerman, 2012, pp. 3–4). While the concept can help analyze games, both scholars caution against treating it as a strict boundary, emphasizing the importance of its context and limitations.

This thesis analyzes how video game environments express criticisms of capitalist structures using mostly Harvey's (2001, 2005, 2008) components of spatial capitalism and Jenkins' (2004) theory of environmental storytelling. While other academics, including Nitsche (2008), Pearce (2007), and Murray (1997), have helped to clarify spatial narratives and digital immersion, Jenkins' (2004) and Harvey's (2001, 2005, 2008) points of view define the central framework of this thesis.

2.7. Sociopolitical Ideologies and Criticisms in Video Games

Harvey's idea (2001) of spatial capitalism puts the producing, consuming, and transportation of space at the center of capitalist accumulation. Harvey's (2001) main point is that capitalism constantly changes both real and metaphorical space to absorb extra capital and keep cycles of accumulation going. It does this through things like the spatial fix and uneven geographical development (Majumder, 2020; Belina, 2011; Das, 2017). This theoretical framework can also be used to look at video game worlds, which are becoming progressively more like real-life spaces that mirror and subvert the ways that capitalism creates spaces and production.

Both Jameson's (1991) and Harvey's (2001, 2005) views can be adapted to support the idea that video game worlds can be considered critiques of late capitalism. Jameson's (1991) theory of cultural logic puts popular culture into capitalist structures. Harvey's (2001, 2005) spatial fix and critique of neoliberal urbanism show how in-game environments like Rapture (in BioShock) or Boston QZ or Jackson (in The Last of Us) are like real-world socioeconomic conflicts. Lukács (1971) and Kellner (1995) help to

clarify the ideological contradictions of mass culture by saying that even commercial texts may demonstrate utopian messages and social criticism. This approach is key to understanding that these games reinforce and criticize capitalist systems at the same time.

As cultural products, video games progressively provide spaces for reflecting, supporting, or challenging sociopolitical ideas. Scholars like Sicart (2009) and Murray (2018) have highlighted how deeply ingrained they are in the political and ideological currents of their time, rather than being just for entertainment. Murray (2018) investigates how AAA games like Call of Duty and Assassin's Creed create ideological narratives about nationalism, race, and war, contending that the visual and narrative framing of these games might either challenge or naturalize prevailing ideas. Video games consequently transform into texts through which difficult subjects; such as militarism, capitalism, gender, sexuality and race, are mediated and experienced.

Bogost's (2007) concept of procedural rhetoric is also crucial here; he argues that the rules and mechanics of a game sometimes act as indirect arguments on how systems operate. In *Papers, Please* (2013) for instance, the depiction of bureaucratic system and repetitive game mechanics mimic the numbing effects of authoritarian state control, forcing the player to face ethical dilemmas within the limits of a surveillance-heavy government as an immigration officer. Likewise, *Spec Ops: The Line* (2012) has been discussed by Schulzke (2013) as a deconstruction of heroic warfare narratives common in military shooters to provide a critique of American imperialism and the glorification of violence.

Moreover, by placing players in the position of civilian survivors during war and asking them to make morally questionable choices for survival, games like *This War of Mine* (2014) challenge the conventional soldier perspective. As Galloway (2006) notes, these changes in player perspective have a big impact on how games capture and convey ideology since depending on the game design and interactivity can result in either ideological reinforcement or empathetic identification.

Red Dead Redemption 2 (2018) is another important example since its tragic story of decline and dispossession cautiously questions American expansionism and the mythology behind the Manifest Destiny. Drawing attention to how ideology is spatialized and historicized in the open-world genre, Losh and Voorhees (2019) note that *RDR2* contrasts capitalist development with ecological destruction and social collapse.

Furthermore, feminist and queer criticisms of games have also grown rather prominently. Narrative and spatial storytelling are employed in *Gone Home* (2013) and *Life is Strange* (2015) to examine resistance to patriarchal systems, queerness, and identity. Scholars like Ruberg (2019) have debated these games since they emphasize affective storytelling, ambiguity, and embodied subjectivity, consequently subverting established conventions.

These shifts in cultural narrative in games and literature demonstrate the impact that video games can simulate for ideological criticism and cultural conversation. Whether they support or challenge existing narratives, video games create complex ideological

environments deserving of thorough academic study.

2.8. Theoretical Framework

Table 1. Core theoretical components drawn from Jenkins' (2004) theory of environmental storytelling structuring the analysis of narrative space

Evocative Spaces	Environments that evoke familiar narrative tropes or events (Jenkins, 2004)
Enacting Stories	Player actions within the space enact parts of the narrative (Jenkins, 2004)
Embedded Narratives	Story elements are places in the environment to be discovered (Jenkins, 2004)
Emergent Narratives	Player driven stories created through unscripted interaction (Jenkins, 2004)

Table 2. Core theoretical components drawn from Harvey’s (2001, 2005, 2008) theories of spatial capitalism structuring the analysis of spatial and ideological critique

Spatial Fix	Capitalism resolves crises by reconfiguring physical space (Harvey, 2001)
Accumulation by Dispossession	Commodifying public assets, displacing communities (Harvey, 2005)
Right to the City	Advocates for reclaiming urban space for communal use (Harvey, 2008)
Neoliberal Urbanization	Privatization and deregulation reshape cities for elite gain (Harvey, 2005)

2.8.1. Jenkins’ (2004) Framework for Environmental Storytelling

As discussed before, Jenkins (2004) presents a narrative architecture model based on how games use their environments in order to tell stories rather than only through cutscenes or dialogue. The four main ideas from his model are evocative spaces, enacted stories, embedded narratives, and emergent narratives.

Evocative spaces draw on familiar stories, genres, or aesthetics that arouse current narrative associations. These evocative spaces are meant to set off memories of previously encountered stories, genres, or cultural backgrounds. Evocative environments

transform or reference current fictional or symbolic worlds, so they create meaning instead of offering new stories.

Enacted stories are the actions of the player creating or experiencing narrative significance. Choices in combat, stealth, exploration, or resource use in *The Last of Us Part I* change Joel and Ellie's embodied experience rather than the fixed narrative. In *BioShock*, weapon and ability upgrades, play style, and lastly the illusion of choice, which is revealed as a twist towards the end of the game.

Embedded narratives (Jenkins, 2004) mean story information is stacked into the environment through visual clues, collectible objects, or environmental cues. Pre-authored narrative elements, such as diary logs, letters, hints, or visual cues, are deliberately positioned in the game world. Through discovery, players combine these components to uncover world-building or backstory elements. Emergent narratives (Jenkins 2004) are developed from the player's interaction with the systems of the game instead of a prewritten script. Unique, improvised stories based on decisions and consequences can surface as players engage with the surroundings and other characters.

2.8.2. Harvey's (2001, 2005, 2008) Framework for Spatial Capitalism

Geographer and Marxist theorist Harvey (2001, 2005, 2008) examines how space, capital, and power interact using ideas like spatial fix, accumulation by dispossession, and neoliberal restructuring. His approach clarifies how capitalist systems change social relations and urban settings to address internal crises. Jameson's (1991) theory of cultural commodification also adds a second layer of analysis. *BioShock* criticizes

Randian ideas, but it does so in the context of a polished, very commercial AAA video game. Jameson would say that this act of putting profit over creation is typical of postmodern media because it critiques capitalism while also taking part in it. Jameson's (1991) "double logic" of critique and commodification can be seen in the fact that there are sequels (BioShock 2, Infinite), DLCs, and merchandise for the game.

The concept known as spatial fix believes that capitalism operates by creating and reorganizing physical space to control economic crises and maintain profit-making, so transcending mere money and production. In essence, capitalism continually changes geographies, infrastructure, and cities to keep accumulating riches and power.

When capitalism confronts crises, such as overproduction, decreasing revenue, or financial collapse, Harvey (1985, 2001, 2005) argues that it seeks to "solve" these crises by heavily funding metropolitan areas. By restructuring cities to meet the demands of capital, privatizing public areas, and geographically growing into fresh frontiers, it causes gentrification, privatization, and displacement.

Harvey's (2001) idea of spatial capitalism offers a vital lens through which one may view the way capitalist forces shape physical surroundings. Harvey (2001) contends that the necessity to reorganize geographic space in order to control internal crises drives capitalism not only in terms of the expansion of production and consumption but also in terms of cities, infrastructure, and even daily environments start to be active sites for capital accumulation, privatization, and social control.

Neoliberal urban changes clearly show this process: public goods are progressively commodified, housing markets are financialized, and urban development mostly serves the needs of economic elites (Harvey, 2005). Harvey's (2001) theory of the spatial fix helps to clarify how capitalism tries to "solve" its overaccumulation by extending into new areas or reconstructing already existing spaces, often resulting in new inequalities and exclusions in the process.

Within the framework of this thesis, spatial capitalism offers a means of understanding how *The Last of Us Part I* and *BioShock* expose the socioeconomic effects of neoliberal collapse by means of environmental storytelling. Both the ruins of quarantined cities in *The Last of Us Part I* and the crumbling underwater utopia of Rapture in *BioShock* show how capitalist spatial organization not only shapes social life but also accelerates its collapse when crises strike. Rich in ideological conflicts and embedded stories, these settings expose both the fragility and violence underlying the change of space for profit, thus criticizing capitalist spatial practices.

Harvey (2005) expands on Marxist theory to further explain accumulation by dispossession, a notion that emphasizes how capital is always created by confiscation of public or communal products. Often justified under the cover of modernization or development, these include the privatization of state assets, the enclosure of public lands, and the uprooting of communities. Unlike conventional primitive accumulation, which Marx (1996) connected with the dawn of capitalism, Harvey contends that modern neoliberal capitalism is constantly marked by accumulation by dispossession. Particularly in urban environments, it promotes the spread of capital by destroying

existing social relations and reproduces inequality by moving wealth from the majority to a handful.

Harvey (2008) reconceptualizes Lefebvre's (1996) concept of the right to the city to suggest a group claim to metropolitan space and decision-making procedures. This right entails the power to influence the course of urbanization and the form of the city itself, not only access or legal entitlement. Harvey (2008) contends that recovering this right is a radical demand for social justice that challenges the predominance of capitalist interests in forming metropolitan life. It underlines that urban space should meet the needs of every resident, not only the privileged or those with money, and provides a theoretical basis for opposition against exclusive spatial policies. Then the right to the city becomes a call for solidarity for urban movements as well as a framework for imagining different kinds of living and government.

Under neoliberal economic policies, neoliberal urbanization is the process in which cities are transformed to meet the demands of capital under neoliberal economic policies. These laws support market-based solutions above state intervention, lower government spending, and encourage privatization. Consequently, profitability and private investment take front stage in urban development instead of local community needs. Often handed over to private businesses, public services, including housing, transportation, and healthcare, are less accessible or more costly for common citizens. Often displacing low-income residents and erasing democratic control over how urban areas are used, this transformation turns cities into venues fit for consumption, tourism, and high-end real estate. Harvey (2005) claims that these developments reflect more

general patterns of inequality and exclusion inside capitalist societies and are not only technical or financial ones. They are rather deeply political.

So far, the literature review for this thesis has included theories and an overview of academic works regarding environmental storytelling, which focused on how specific spaces are used to craft narratives and meaning and immerse players into fictional worlds. Beyond merely narrating stories, these virtual worlds also serve as reflections of power dynamics, socioeconomic ideologies, and critiques of real-life systems. In this section, this thesis will talk about how games like *The Last of Us Part I* and *BioShock* reflect certain ideologies that reflect the world they are in.

The theoretical framework of Jenkins (2004) provides essential understanding about video game storytelling methods which makes it the perfect base for this research. Through his approach Jenkins (2004) connects ludology (game mechanics) with narratology (storytelling) by demonstrating that games construct narratives through spaces which players discover and understand. The analysis of *The Last of Us Part I* and *BioShock* benefits from this perspective because their environments play a fundamental role in storytelling by showing the games' social commentary about capitalism and societal breakdown.

Jenkins (2004) establishes his framework through the analysis of space as a storytelling component. Traditional media such as literature and film present their narratives in a straight line through dialogue and visuals and text. The interactive nature of video games requires players to discover the story through environmental

exploration while gathering its narrative clues. Jenkins (2004) identifies environmental storytelling as a storytelling method which he divides into three subcategories including evocative spaces and embedded narratives and enacted stories. The tools presented in this thesis match the research because BioShock and The Last of Us Part I develop immersive environments that use spatial elements to strengthen their thematic content. The player discovers Rapture's collapse through its decaying Art Deco architecture and propaganda posters and audio logs which they find by exploring the environment even though the game does not explicitly explain what happened. The player learns the story by exploring the space, not being told. In The Last of Us Part I, the post-apocalyptic environments, abandoned houses, letters and pendants, graffiti-covered walls, and nature reclaiming urban spaces visually communicate the failure of consumerism and humanity's unsustainable relationship with the world.

Although some could consider video games merely entertainment, scholars have examined how game creators employ environmental design tools to create virtual settings to interact with players and generate narratives. According to these various scholarly perspectives, environmental storytelling is a broad notion that encompasses a range of techniques and narrative factors. Environmental storytelling appears to be based on two main concepts: first, the player must piece together the story by interpreting the items and situations in the space; second, the narrative transforms the space, and the player's navigation generates the narrative sequence.

The limited scope of existing literature is quite scarce, which is why this thesis

contributes greatly to this ongoing and changing academic field. It is, albeit crucial to consider video games as cultural artifacts, as they can be prime examples of visually and audibly stimulating mediums that can reflect the sociopolitical aspects of the times and society they are set in.

The methodology that was employed in this thesis, which is further explained in great detail in Chapter 3 can be used by other scholars to adapt to their own studies when examining the environmental storytelling in video games. By combining two theorists, Jenkins (2004) and Harvey (2001, 2005, 2008), this thesis aims to bring about a variety to enrich the analysis and widen the scholarly approach, and pioneer new ways to examine video games.

It has frequently been suggested that spaces serve as an essential gathering place for games and stories, primarily in the context of environmental storytelling (Carson, 2000; Pearce, 2007; Rouse, 2010; Smith and Worch, 2010) By suggesting methods that game design can promote narrative gameplay through both the space's layout and the player's available tools, this thesis expands and improves on the idea.

In light of the review of existing literature, this thesis proposes these research questions:

Research Questions

RQ1) How do *The Last of Us Part I* and *BioShock* utilize environmental storytelling to question the sociopolitical consequences of capitalist ideologies?

RQ2) How can *The Last of Us Part I* and *BioShock* be understood through the frameworks of Spatial Capitalism and Narrative Architecture Design?



CHAPTER III

METHODOLOGY

3.1. Introduction

Due to the interdisciplinary nature of video games, using one analytical method to describe or understand the field is not enough. This thesis has employed several philosophies that were commonly used as theoretical frameworks for many scholarly articles. This thesis analyzes how *The Last of Us Part I* and *BioShock* challenge capitalist ideas through environmental storytelling using a qualitative, comparative case study approach. Inspired by Yin's (2014) case study approach, every game is seen as a unique case set within its sociopolitical and narrative context, thereby enabling an in-depth analysis of environmental storytelling as a means of ideological critique.

According to Yin (2014), case study research is “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-world context” (p. 16). A case study approach allows for a thorough investigation of how these texts challenge and question capitalist ideas, given video games' layered and complex characteristics as

narrative experiences and cultural commodities. Yin's (2014) method provides a systematic approach to analyze how video games perform capitalist critique because these games function as cultural products that reflect socio-political systems. The research requires case study methodology because it provides a thorough analysis of how video games create ideological critiques through narrative design and environmental storytelling. The thesis focuses on two main case studies of BioShock and The Last of Us Part I to demonstrate capitalist critique in digital media rather than studying all games. The research approach aligns with Yin's position that case studies are necessary for studying "complex social phenomena" (Yin, 2014, p. 4).

Since its first release in 1984 by Yin, case study research has gained significant acceptance as a research method. The current edition, heavily influenced by advances in case study research, serves as a definitive guide on designing rigorous and methodologically sound case studies that can withstand validity and reliability questions. Yin (2014) links theory and practice by presenting the breadth of case study research and its historical significance at a practical level. He believes that a high-quality case study can be produced when the process is given careful attention. He describes the six components of case study research, the plan, design, preparation, data collection, analysis, and reporting, as a "linear but iterative process" (p.22). He offers technical and practical comments on each of them.

3.2. Design

The case study approach was chosen for its ability to handle complex cultural phenomena while providing researchers with direct access to their subject matter. The

game worlds operate as the main case studies and their individual sequences and levels and spaces function as embedded units of analysis. The thesis explored how meaning emerges and ideology gets spatially arranged instead of testing any hypotheses.

The spatial logics developed by Harvey (2001, 2005, 2008) help explain how capitalist ideology creates new spatial configurations and materializes through spatial fix and privatization of space and labor control and accumulation by dispossession. According to Jenkins (2004) game environments contain four storytelling methods: embedded narratives that use fixed environmental cues, enacted gameplay-driven events, evocative spaces that draw from cultural memories and existing narratives, and emergent narratives that emerge from player experimentation. The analytical approach uses these frameworks to guide data collection while determining which scenes to analyze.

The research used a multiple-case embedded study approach to establish a comparative framework between the two games. The researcher replayed both games multiple times on PC to focus on sequences that displayed strong narrative and ideological elements. The data collection period lasted approximately three months (March-May 2025) during which specific game chapters and levels were repeatedly investigated. Throughout gameplay I recorded detailed observational notes and captured hundreds of screenshots and documented all environmental text found in graffiti and notes and posters and signage. The collected materials underwent thematic organization and theoretical relevance assessment.

The selection of specific moments or spaces for analysis followed a structured process. The analysis points were selected based on how dense and narratively and spatially and ideologically rich the sequences were. I focused on examining areas where environmental storytelling occurred beyond cutscenes by analyzing how players and NPCs interacted with constructed spaces. The QZ checkpoints together with exploration sites from *The Last of Us Part I* and the commercial areas alongside propaganda-filled hallways in *BioShock* served as examples. These elements represented more than backgrounds since they contained ideological meanings that needed interpretation.

The research initiated its case study execution by following Yin's (2014) framework which included defining research questions and validating framework relevance for the case material. The study design phase defined the research methodology while verifying the selection of *The Last of Us Part I* and *BioShock* as the two game cases. I created a data collection plan that included observational categories to study architectural layouts while also analyzing spatial restrictions and examining the placement of ideological symbols and interactive features.

The adoption of a design for multiple case studies stems from the aim of investigating commonalities and differences in how various AAA video games question economic systems. Both games also function as transmedia franchises, spreading their narratives across books, comics, remastered editions, and, in the case of *The Last of Us*, a renowned TV series adaptation. This transmedia component helps Yin (2014) focus more on the need for a real-world background in case study research. Yin's (2014) replication logic predicts that every case is examined separately before spotting common

themes and ideological conflicts, enabling a comparative viewpoint that shows how each game interacts with capitalist critique using its own design language.

3.3. Jenkins' (2004) Framework

The underwater city Rapture of BioShock recalls Ayn Rand (1952)'s objectivism and 20th-century modernist Art Deco architecture, so it evokes both utopian and dystopian fiction. Before any story is revealed, *The Last of Us Part I* sets players in a post-apocalyptic environment set in well-known American cities, reminiscent of zombie stories and survivalist fiction, fostering expectations in doing so.

Choices in combat, stealth, exploration, or resource use in *The Last of Us Part I* change Joel and Ellie's embodied experience rather than the fixed narrative. In BioShock, the illusion of choice is most famously exemplified and revealed by "Would you kindly?" which serves as a critique of player agency itself.

Audio logs, posters, and room designs in BioShock expose the situations that led to the societal collapse of Rapture. To further exemplify the narrative world, *The Last of Us Part I* employs diary entries, graffiti, and abandoned sites for exploring and looting to portray the past life of previous characters and NPCs.

Although both BioShock and *The Last of Us Part I* have linear stories, the ways players negotiate encounters, their play styles (stealth vs. aggression, exploration vs. following a direct path), and weapon or ability upgrade choices produce different, personal gameplay stories.

3.4. Harvey's (2001, 2005, 2008) Framework

Harvey's (2003, 2005, 2008) studies of urban geography, neoliberal restructuring, and the commodification of space give one a way to think about how game environments can be used as ideological texts. This way of looking at video games regards spatial design and environmental storytelling not just as a form of art but as components that actively shape the player's understanding of sociopolitical dynamics.

Harvey (2001) states that capitalism remains functioning by looking for spatial solutions to its problems and investing in new physical or virtual spaces when already existing ones cease to produce money. This thesis examines both Rapture (in BioShock) and post-pandemic America (in The Last of Us Part I) as examples of these capitalist spatial fixes. Rapture's idealistic architecture demonstrates the illusion of freedom that people can feel when there are no rules about the market. On the other hand, Boston's military-controlled zones by FEDRA demonstrate how neoliberalism can affect how people stay alive.

The Last of Us Part I takes place in a world after the pandemic, where capitalist and authoritarian systems have changed instead of ceasing to exist. In cities like Boston, FEDRA's militarized control zones use ration cards and labor hierarchies, which is similar to Harvey's (2005) criticism of neoliberal governance and market-driven control of public life. The built environments, including empty stores, bars, and cities, function as representative statues that show what a broken capitalist system looks like.

Environmental details such as corporate logos on rusty trucks and billboards for film or consumption advertisements that are simply falling apart are considered signs of commodification. This echoes Harvey's (2001) idea that urban landscapes exhibit how disparate growth and privatization are components of capitalism.

The city of Jackson, on the other hand, represents Harvey's (2008) "right to the city" as realized, a reclaimed, somewhat democratic space where people can voice their opinions and collectively share and manage resources. In BioShock, the failed resistance movements in Rapture, like Frank Fontaine's rebellion, show that it is crucial to take back urban space from capitalist elites like Harvey (2008) intended, even though the resistance had ultimately failed when the player arrives there.

3.5. Data Collection and Analysis

The data collection process involved multiple replays of identical game segments to detect all available information. The in-game camera tools and manual screenshot functions were utilized for capturing significant spatial cues. The study used visual documentation alongside reflective notes to document how each scene and spatial design affected my emotional state and the questions they triggered and their relationship with the ideological frameworks. All data received thematic organization followed by classification through Harvey (2001, 2005, 2008) and Jenkins' (2004) framework components.

The analysis phase heavily relied on pattern matching as the researcher analyzed specific elements from the game through theoretical categories. The environmental elements in

Jenkins' embedded storytelling included child drawings alongside blood trails and ration tickets which provided narrative context without using verbal dialogue. The spatial design alongside environmental cues revealed their ideological role which transformed players into meaning-decoding participants.

I maintained my researcher and player dual identity throughout the research process. The way I experienced these spaces physically determined the questions I investigated and the patterns I discovered. It presents the sensory and affective engagement with game worlds as its central focus while avoiding attempts to eliminate subjectivity. The familiarity with these games enabled me to explore their ideological functions more deeply because I already knew the ecosystems and their emotional impact.

Chapter 4 focuses on *The Last of Us Part I* and *BioShock* in separate sections that utilize Harvey's (2001, 2005, 2008) spatial logics and Jenkins' (2004) storytelling modes. The comparative methodology enables detailed examinations of both cases while highlighting spatial design strategies in AAA games that either reinforce or subvert dominant ideologies. The methodology serves to analyze these two games while offering a model that could guide research into different titles and game genres. Through detailed screenshot-by-screenshot and scene-by-scene exploration I experienced the games until their ideological elements revealed themselves.

There are many comparisons between the two games in the thesis, but they come from the researcher's own experience in online fan communities and in-game environments, as well as from consistently engaging with the source material. The study utilizes these

comparisons to show common themes and ideological conflicts without overgeneralizing.

The research was able to stay open to new perspectives while still being based on solid theory, given that it didn't see 'the plan, design, preparation, data collection, analysis, and reporting' as proposed by Yin (2014) as fixed steps but as a dynamic and gradual sequence. Combining these frameworks makes it possible to examine BioShock and The Last of Us Part I in multiple ways, not just as narrative and spatial design pieces but also as cultural artifacts that express and demonstrate critiques of capitalism in both form and content.

CHAPTER IV

CASE STUDIES AND DISCUSSION

4.1. The Case of The Last of Us

The impact of the environment has grown tremendously in video games. Once considered a supporting element, environments can determine the fate of a game's success. More and more effort is put into planning the structures, the details, and the environment to communicate a greater meaning to the player. Much thought goes into crafting these environments, even if it goes unnoticed. Every detail, from the smallest object to the overall layout, creates a specific experience. Beyond dialogue, video games can tell stories in a multitude of ways. The environment becomes a character, props hold hidden narratives, animations speak volumes, and music sets the emotional tone.

The Last of Us Part I is one of the prime examples of this phenomenon. It embraced a patient approach, a breath of fresh air in the action genre. Players could experience

stretches of up to two hours without combat, allowing for a deeper exploration of the world and characters.

The Last of Us craze began in early 2013 after Sony's landmark release of the post-apocalyptic game. From its early days of release, it was known for making things challenging for its players. However, these hardships were not based on technicality but rather on emotion. The game redefined the zombie genre and changed the game industry drastically. The creator, Neil Druckmann, envisioned The Last of Us as more than just a post-apocalyptic story. It's an homage to the soul of America, a celebration of the unique aspects that define the country. Immensely detailed landscapes were deliberately crafted throughout the game to showcase the inherent beauty the creator sees in America as an immigrant. While the creator acknowledges its flaws, he believes the nation's true strength lies in its diversity.

The Last of Us Part I is full of action, some pretty brutal. But the quieter moments between the fights are what really build suspense. The game's director, Bruce Straley, wanted players to feel connected to the characters, even during the nonviolent parts. He wanted short cutscenes where the player just watched stuff happen. There are some of those in the game, but they are usually brief and allow the player to move characters around or talk to someone. The game's outcomes are predetermined, so the player cannot make any choices that would otherwise change the plotline, but minor decisions like sneaking past most encounters, walking around, or occasionally having small talk between characters.

The game starts as a mutated Cordyceps fungus throws the world into chaos. This outbreak ripped through the United States, transforming a vast majority of the population into monstrous creatures. Twenty years later, Joel lives in Boston quarantine zone and operates as a smuggler alongside his partner, Tess. When Marlene, leader of the Firefly movement, approaches them, everything changes. Their new mission is to smuggle out a fourteen-year-old girl named Ellie, who is immune to the virus. While reluctant at first, Joel grows attached to Ellie. Ellie hums and whistles at random points or reads cringy puns from her pun book. These are simple acts. However, they add so much to her character. These details allow the characters to exist as characters outside of cutscenes. The creators let these open spaces be used to tell another dimension of the story. As for the infected, they tend to be in small clusters with large areas almost entirely abandoned, leaving the player with the feeling of a world abandoned, not overrun. The infected are not placed randomly but with purpose; there's often a story told in the environment around them about why they are there.

Incorporating apocalyptic elements within the set design can subliminally advance the narrative through comprehension of signs and interaction with them; the player generates new meaning. This narrative style utilizes subtle foreshadowing and thematic elements, requiring active interpretation from a refined audience to grasp the complete story. Therefore, this thesis uses the famous, groundbreaking game, *The Last of Us Part I*. Throughout the gameplay, the player sees the interactions between gameplay and narrative; while playing, the player gets many clues about the characters and their relationship with one another. Almost every explorable scene is so detailed to the point that sometimes the player can get lost inside the environment itself rather than play the

actual game. The players can walk around for hours in-game, looking for collectible items, ammo, or simply wanting to explore the environment. The Last of Us Part I explains the combination of the use of literary devices such as letters and pendants, along with environmental storytelling, and makes use of interactions between gameplay and narrative to figure out how these elements encourage players to become active investigators, piecing the narrative together and uncovering the game's more profound commentary on America's societal collapse, human nature, and resilience. This thesis closely reads the apocalyptic set design within The Last of Us Part I and interactable devices like letters, graffiti, and pendants to achieve this. Player interactions with these elements were also analyzed to understand how they contribute to the narrative and foster a sense of active co-creation of meaning.

As for environmental storytelling, as it has been mentioned beforehand in the introduction and literature review chapters, the core concept of this thesis is a technique coined by former Disneyland designer Carson (2000) and further explored by Jenkins (2004). Jenkins (2004) defines it as a method that “creates the preconditions for an immersive narrative experience” (p. 123), essentially acting as a tool that supports the development of narratives within video games. In video games, environmental storytelling is like building a world that speaks for itself. It forgoes words and relies on the player's experiences: the objects lying around, how things are animated, and even the characters who inhabit the space. It is all about creating a story through the art of weaving a narrative through the environment, using every element like a brushstroke to paint a picture.

Environmental storytelling uses literary devices in ways that suit visual formats like letters and diaries and notes. Video game developers can use environmental storytelling to develop worlds that both engage players and deliver information. The game environment serves as a storytelling tool which presents narrative details without needing direct exposition. The game environment serves as a silent narrator which enables players to discover character details and location histories and background information through exploration and observation.

Developers use strategic placement of objects combined with specific layouts and evocative details to show important aspects of the game world including character personalities and lifestyle choices and background information. Through environmental clues players actively participate in the narrative by making their own conclusions and forming their own assumptions. The design of environments which promote exploration enables players to discover information at their own speed thus deepening their connection to the world.

The Last of Us Part I presents a critical analysis of capitalist systems through its depiction of alternative social structures after society's collapse and its exploration of how pre-apocalyptic economic systems continue to influence human behavior. The Boston Quarantine Zone is a clear example of this criticism. It doesn't have corporate capitalism in the traditional sense, but it does have a militarized form of company scrip capitalism. As a form of currency, FEDRA (the militarized government organization that controls quarantine zones) distributes ration cards that make it difficult to fulfill basic needs and force the citizens to work. The game does not explain their exact system, but

the HBO TV show does: the residents earn ration cards by doing state-assigned work, which is often dangerous and challenging. Those who do not obey the rules will starve, be sent into exile, or be put in jail. This arrangement is similar to how scrip systems were used in company towns in the 19th and 20th centuries. Workers were paid in tokens that could only be used in company-owned buildings. These systems kept people dependent and trapped in the economy.

FEDRA's rules make a black-market economy possible. This happens not because people are greedy, but because institutions fail and make resources limited on purpose. One could even argue that this situation benefits FEDRA, as making survival a crime results in mass incarceration and a disposable workforce. This scenario is similar to what neoliberal governments do in the real world: they outsource social services to cheap and exploitative labor policies and use the law to keep power and create inequality. The state's reliance on making desperation a reality and survival a crime can be seen as a metaphor for late capitalist states that use structural instability to get people to agree to forcefully adopt and follow the rules. Such behavior is not encouraged to make the economy more efficient, but a way to control society.

The Last of Us Part I shows different ways that people can organize their lives and economies by demonstrating communities after the collapse. Jackson, Wyoming, is the most intriguing example of the opposite: a working community based on cooperation, shared labor, and taking care of each other. The game shows a voucher-based economy, and the show frames Jackson as a commune. Both show a society where resources are shared based on need and contribution, not profit. A note that can be found in the game

depicts a survivor who, when they got to Jackson, rediscovered their humanity and their children's moral compass. This suggests that community, not survivalism or individualism driven by scarcity, is what helps people grow morally. The message is clear: capitalism destroys empathy, and any effort to rebuild must focus on social unity, not economic competition.

For the sake of the argument of this thesis, only the first game is analyzed, but this argument can be contextualized and contrasted in the second game of *The Last of Us*, where other communities in the game show more options and their limits. The WLF (Washington Liberation Front) uses a militarized redistribution system, while the Seraphites live in a religious oligarchy where food and power are given out based on how important someone is in the hierarchy. Each community deals with the lack of global capitalism in its own way, but Jackson's model; horizontal, based on mutual cooperation, dependent on community, and ideologically open, is the one that most directly goes against capitalist isolation and shows what a post-capitalist utopia based on kinship and commonwealth might look like.

The outbreak itself is a further criticism of capitalism. It is thought that the Cordyceps fungus got into the food supply through grains and flours that were made in large quantities by globalized, industrial food systems. This backstory points the finger at multinational corporations and privatized agricultural businesses, suggesting that the infection spread quickly because of mass production for profit with less regulation from the government. If one were to look at the outbreak through a materialist lens, it becomes more than just a natural disaster; it's also a sign of capitalist expansion, which

includes the real-world effects of globalizing supply chains, corporate advocacy, and environmental damage. One could compare this to the 2007-2008 global food crisis, when IMF-imposed cutbacks and deregulation made things worse in the world.

The player can find up to one hundred forty collectibles like notes, letters, and pendants. These narrative detours, while lengthy, are often centered around minor characters or clues that further enrich the game's world-building and emotional impact. The most unique collectible is the Firefly pendants. These are similar to military dog tags; each pendant has a name and a number. They represent the fallen members of the Firefly militia, a once-unified resistance force against the FEDRA's oppressive military control of the quarantine zones. Finding these pendants serves a narrative purpose. As players collect them, they piece together the story of a fading movement. Each pendant represents a life sacrificed or dedicated to the Firefly cause, a grim reminder that the cost of this fight was their lives.

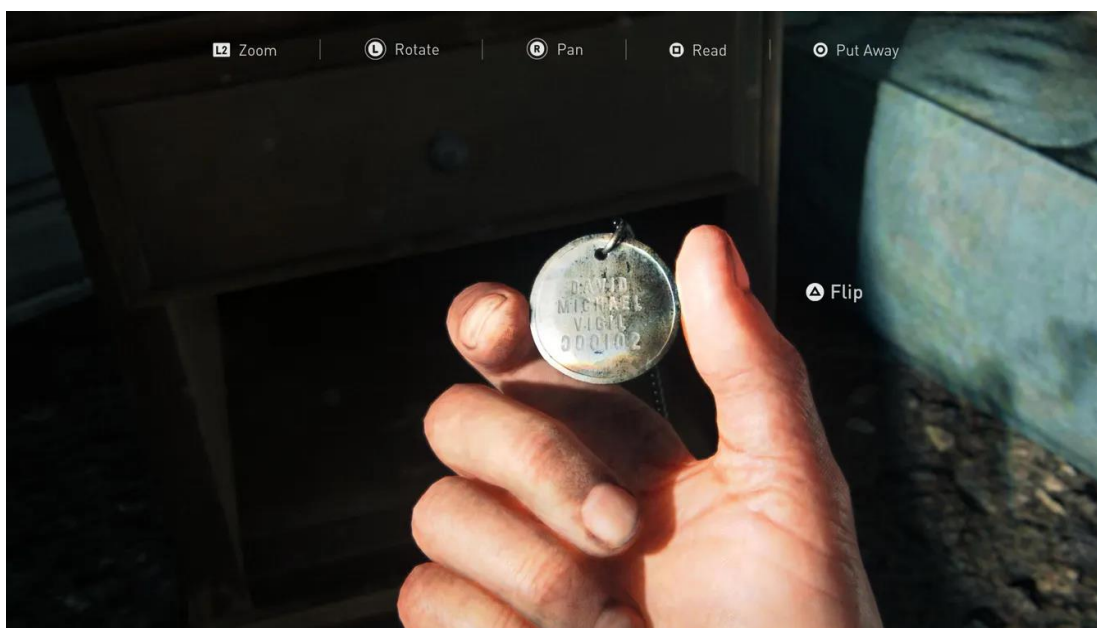


Figure 1. One of the collectibles: The Firefly Pendant

The game often uses the looting system as an extension of the environment to tell stories. For example, during the chapter “Bill’s Town,” the door in the figure below is open wide to capture the player’s attention. The game will keep doing this to let the player know when it’s time to loot. The player needs to be very careful, just like in any new area, as there might be runners, clickers, and traps. But there might also be useful crafting materials. Such items assist the player to prepare for upcoming combat, but that's not the real reason for this lure. The open door is a chance to learn more about the main character’s relationship in the game’s story. The player will get some scraps and crafting materials when they enter, but they will also see “The Turning,” an old arcade game that is a nod to Ellie’s relationship with Riley (who was her best friend and first love, which can only be experienced through the Left Behind DLC). Players learn more about Ellie through this interaction, and her character arc moves forward. The game will offer players loot to encourage them to explore, but then it keeps giving pieces of story through the details in the environment. During this chapter, the players will find another barricaded door with something banging against it. But when they get close, the banging will stop. The players don’t have to go through the door; the game keeps using the environment to urge players to explore and create their own meaning and allow them to have agency over the story.

Joel’s modified hearing usually helps players see runners in the distance, but they can't see the one hiding here. This is also a great example showing how a game may bend its own rules for its advantage. Since the player can't hear the runner, they are faced with a

surprise, just like how it would happen in a real-life apocalypse scenario.

On their way to Bill's town, Joel tells Ellie that Bill is a good person but super paranoid and hates meeting new people. Sure enough, the town crawls with traps, walls, and even homemade bombs Bill set up to keep any infected far away from his hidden hideouts. After an extended gameplay, the player can find the corpse of Bill's old partner, Frank, who committed suicide after being bitten so he wouldn't turn, and a note he wrote for Bill. The player can find this letter while exploring the environment give it to Bill. The extent of their relationship is not fully explored in the game. However, the series did a heartfelt portrayal of them as lovers, which is counted as canon by the developer.

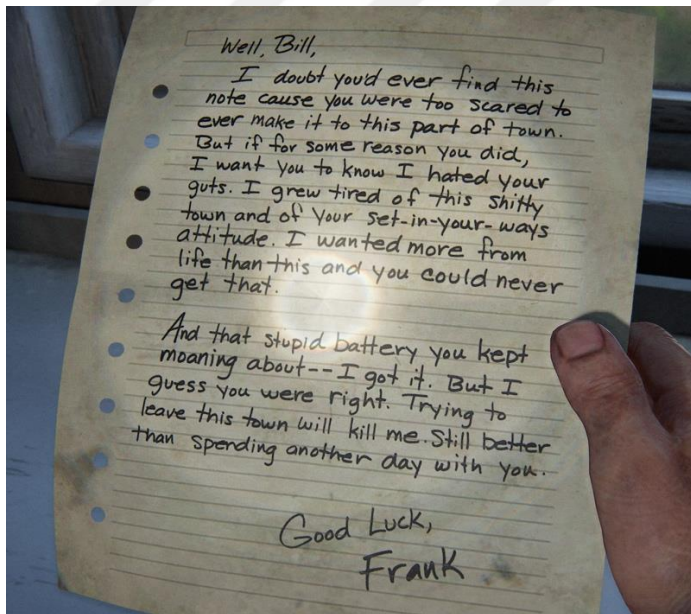


Figure 2. Frank's note addressed to Bill.

One of the chapters is centered on a character named Ish. Throughout the level, the player finds notes to piece together his life. Turns out Ish sought refuge on his boat, and

when his supplies ended, he was forced to establish a hidden base within the sewers. He started welcoming survivors, including children. Became a hero for the children as he welcomed them in and protected them.



Figure 3. A drawing made by kids at the sewers: They drew Ish as their “protector.”

Toys, a drawn soccer goal, a classroom, and murals evidence this. Together, they built a self-sufficient base with livestock and water collection systems. There are little details like having rules for how long you can shower or finding a note that said they were hopeful because they found someone who wanted to trade rather than kill them. Though little is said about what this place is, Joel and Ellie barely remark on it. But the player can deduce so much of it just by looking around.



Figure 4. Toys and classroom materials from the children’s school at the sewers, Ish’s camp.

This camp is a reminder of hope; even in the middle of an apocalypse, people can turn to each other for comfort and community. However, when someone leaves the open door, tragedy strikes. The infected infest the camp, causing everyone to either die or flee. As the player is about to leave, another blood-stained note left by a resident, Kyle, along with the lifeless bodies of children in a nearby room, can be found. He was trapped in a room with the children while fleeing the infected. Though his note is somewhat hopeful that the remainder of the survivors will find them, he implies that when it comes to it, he will overdose himself and the children. The player sees the words “they didn’t suffer” scrawled on the floor.



Figure 5. A graffiti left behind by Kyle that reads: “They didn’t suffer.”

As the player walks into chapter 10, an American camper van with a body hanging out of the door heads into the truck; the player finds a family photo with four people in it and the words “Forgive Us” written on the back. Exploring the van further, the player can see three bodies - one belonging to an adult, the other two to children. The fourth body in the doorway is presumably the father. Of course, it is up to the player to guess what caused this family to meet their end. Still, the note and the fact that the bodies were covered up suggest that they were murdered by a desperate group of survivors, who then felt so guilty about what they did that they felt compelled to beg for the dead family’s forgiveness. Without laws or protection, the world is run by violence. This perspective is similar to Harvey’s (2005) idea of accumulation by dispossession, in which capitalism thrives on cutting off access to basic necessities and support systems. In Harvey’s

(2005) terms, the death of the family and the violence they are thought to have suffered demonstrate how communities are stripped of resources, safety, and structure under capitalism. What is left is the act of staying alive, which often means giving up one's humanity. The van appears as an example of post-capitalist trauma, with family photos and handwritten notes left behind serving as environmental signs of lost connection to society. This also reflects Harvey's (2008) criticism of how neoliberalism weakens connections with others and the sense of community.

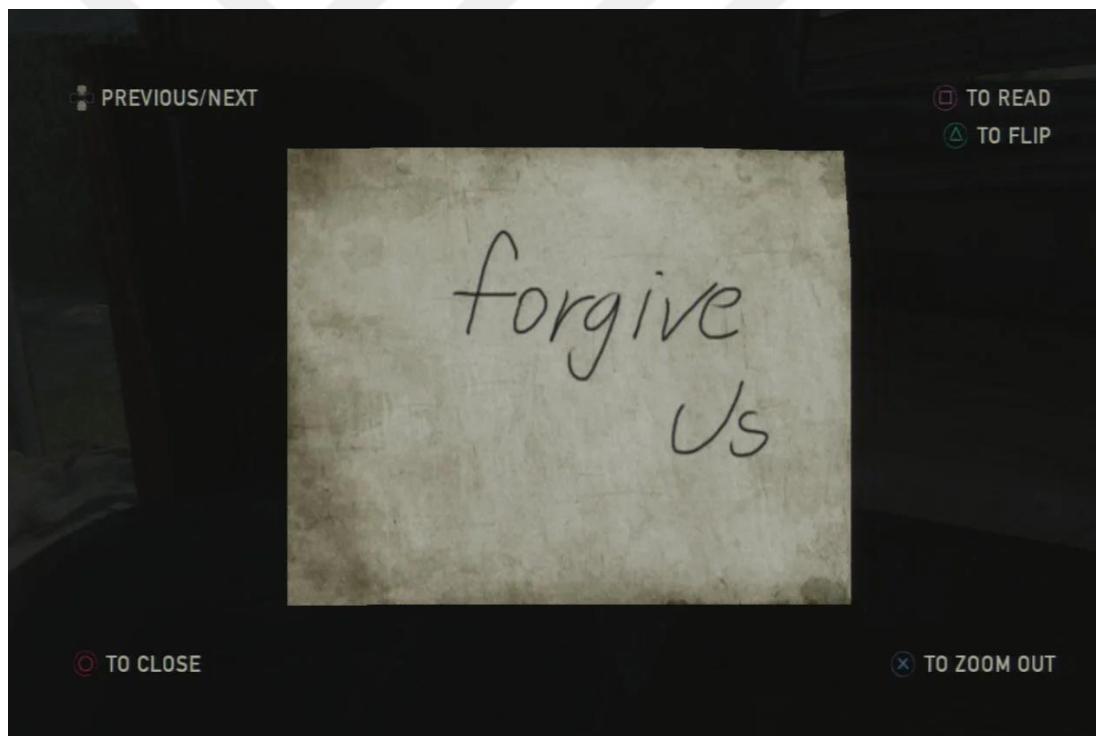


Figure 6. A collectible note that reads “forgive us”.

After Joel is incapacitated, Ellie is forced to take the lead and protect him; her growing agency in the story is reflected in the player's agency as the player shifts into her shoes. One of the most striking parts of the game in terms of storytelling also follows the

winter section: Ellie's encounter with David, a cannibal who is in charge of a disturbingly religious group. The player can sense that there are sexual undertones when he approaches to kill Ellie, which leaves her traumatized. The player can see the absolute horror in Ellie's eyes as she confronts him, which is highlighted as the environment around them burns down.



Figure 7. Ellie confronting David as the environment around them is burning.

From this point on, the player can observe Ellie displaying signs of PTSD; she stops responding when Joel calls to her, and she's overall distracted and much less talkative. The player knows what is going through her mind and wants to reach out to her to talk about this, but the option is never given gameplay-wise. The game's tone shifts as the lighting cools and the music becomes less frequent. This gives players a story that is built into the game that reflects Ellie's internal mood. But the game never really deals

with this trauma in a normal cutscene. Instead, it uses embedded narrative, which means that the trauma is suggested rather than told and revealed through subtle environmental and performance cues that let the player guess what Ellie is thinking.

Afterward, Ellie returns the photograph of Sarah and Joel, which Joel rejected initially, and he says, “No matter how hard you try, you can’t escape your past.” This moment is the first time Joel openly acknowledges that he hasn’t moved on, as he says. Ellie returns the memory to him metaphorically and literally because now she is in a symbolic place as Joel’s daughter. Towards the end of the chapter, they come across a family of giraffes while cutting through an abandoned building. Witnessing this family of giraffes existing seemingly unfazed by an otherwise living nightmare serves as a reminder that life finds a way to go on. Ellie’s awe at beauty, life, and memory, despite everything, shows an anti-capitalist ethic of preservation and connection that refuses to be reduced to just surviving. This is an example of Jenkins’ (2004) emergent narrative. The giraffes do not have any specific plot points to deliver, but the player’s discovery of them, the choice to stay or move on, and Ellie’s quiet awe all come together to create a very personal story moment for each player. This open and interpretive space encourages people to find meaning through emotional involvement.

Ellie’s gradual transition into agency serves as more than just a character arc; it reflects how people are taking back their space and freedom in a world that has fell apart and is now full of violence, cruelty, limited resources, and control. Harvey’s (2008) right to the city serves as a particularly useful lens here. Referring to the collective rights of marginalized people to alter urban spaces and use their agencies to be a part of the life

that takes place there. Ellie, who was born into oppression and schooled by FEDRA, confined in quarantine zones and the victim of systemic violence starts to take back control over her story and the world around her.

The burning restaurant where Ellie kills David is not just a setting; it becomes a metaphorical place of healing and trauma, signaling one's departure from being a victim. The flames literally and symbolically destroy the patriarchal, theocratic violence that David represents. This moment fits with Jenkins' (2004) enacting stories, in which the player's actions become a narrative gesture. Ellie's refusal to be overpowered and striking the final blow on David creates a cathartic confrontation of survival and resistance.

As players progress through the game, they begin to see the world through Ellie's eyes alongside Joel. Ellie, having never lived in anything but military zones, often finds beauty in the apocalypse. She focuses on signs of life and the reminders of the past instead of dwelling on the gruesome reality America is facing. "Endure and survive" is Ellie's guiding principle. Schooled by a military system called FEDRA, the last remnant of a failing government, and confined to the brutal Boston quarantine zone where public executions are commonplace, Ellie has absorbed and even romanticized this mantra from her beloved *Savage Starlight* comics. They are a source of escapism from her reality. She constantly talks about them, and since comic books are part of the collectibles, the player can look for them in any place throughout the game and give them to Ellie to initiate hidden conversations. However, this motto emphasizes individual spirit instead of a sense of community. The comic books that are spread out

across the map reflect Jenkins' (2004) evocative storytelling. Harvey (2005, 2008) would call these comics as counter-hegemonic texts, or small symbols of creativity that has been reclaimed. They offer a sense of cultural memory that has been passed down through space and found by players. This indicates how culture may withstand the collapse of governments and institutions through shared stories and myths.

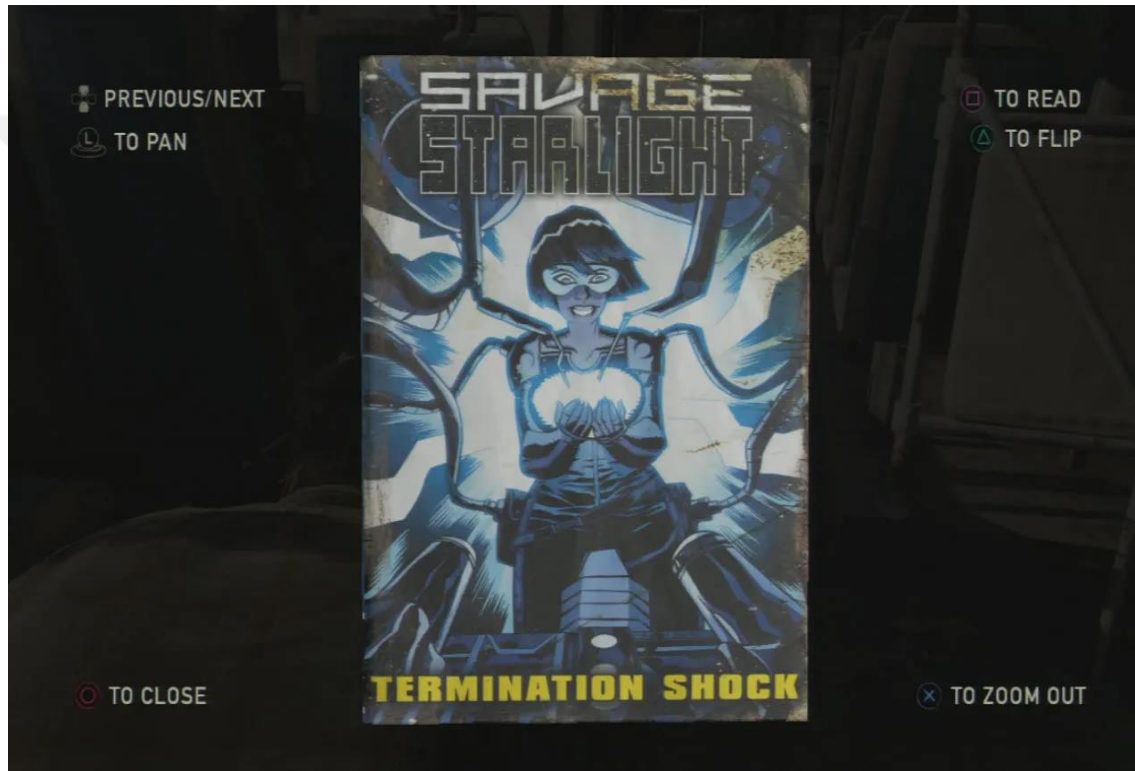


Figure 8. Another collectible: Savage Starlight Comics.

The America Ellie is born into is characterized by fractured groups focused solely on self-preservation. It's a distorted reflection of classic American archetypes - cowboys and settlers, preachers and revolutionaries - all clinging to survival, even if it comes at the expense of others. Almost every group they meet embodies this philosophy, self-reliance morphing into toxic self-preservation. Any action, no matter how brutal, seems justified in their eyes, a warped version of American exceptionalism distilled down to its

basest form: survival at any cost. The game challenges these romanticized versions of the past by placing the story in recognizable American landscapes and using classic Western imagery like cowboys and settlers. It shows how these old systems crumble when faced with a brutal new reality.

The Last of Us Part I's environments demonstrate Harvey's (2001, 2003, 2008) spatial critique: the city is not a neutral space but one shaped by divided systems of power. But Ellie's ability to make sense of these places, connect with people, and show hope in them shows that they can be reclaimed. She shows what Harvey would call urban agency by finding beauty in giraffes, making jokes, or starting optional conversations. By interacting with Ellie, the player then becomes a part of that reclamation.

4.2. The Case of BioShock

At the time of its release in 2007, no other studio had delved into the world of survival horror in such a way as BioShock did, or at least not as well. BioShock combines so many elements from different genres of games, such as horror, FPS, RPG, and others. The Rapture's immersive world and its engrossing storyline, along with solid shooter stealth, combat mechanics, and its array of different and fun biological abilities, create a gaming experience that is so grand and innovative for its period and age.

In the dystopian narrative of the infamous *BioShock*, the events of the game are set in 1960. The game starts on a plane, where the main character, Jack, is looking at a gift from his parents with a note that says, "Would you kindly not open until..." As the plane falls into the water above the Atlantic, the player takes control of Jack. Already, the tone

of the game is set; the water is dark blue, foreshadowing how dark the game is going to be both in setting and environmental design. This darkness also showcases how the flames around the water fill the player with a sense of dread. After swimming in the direction of a lighthouse, which is only illuminated by flickering lights, highlights the horror element that the game will soon unveil. The player discovers a bathysphere, a submerged ship that transports him to Rapture, a metropolis far below the surface. In order to escape the oppressive grip of the government while gaining nearly total financial, intellectual, and artistic autonomy, the entrepreneur Andrew Ryan founded Rapture in the middle of the 1940s as a 'libertarian heaven' in which people with similar beliefs could go to conduct business, study the latest innovations, and let their creative ideas flow. Plans of the city bring about physical transformations in the city as well as distinguish the fate of the sociology of society, culture, and historical framework. This is what an introductory movie in the bathysphere tells the player. Originally appearing to just physically alter cities, what can be referred to as urban transformation over time impacts all aspects of the city and clearly alters the social structure (Yahyagil, 1998). This applies to Rapture, which was once designed to be a 'great' and 'leading in technology' city but turned to ruin after overconsumption got in the way of community and completely altered its social structure.

When Jack gets there, it's obvious that something went horribly wrong: Rapture is now overflowing with insane residents who attack at the first sign of danger, leaving it completely in shambles. As the player progresses through the various Rapture regions, it becomes clear that scientists have discovered sea slugs that generate stem cells. When these cells are modified and injected into the human body, they change the user's DNA

and give them unbelievable, superhuman powers like the capacity to use telekinesis, freeze people, shoot fire from their fingertips, and more. However, the drug known as ADAM is highly addictive, and prolonged usage can result in insanity.

As a result of ADAM's destructive effects on their minds, while having immense superpowers at hand, most of Rapture's residents turned against one another, turning this underwater utopia into a rotting death trap. While the players are exploring the environment, Atlas, an unlikely "hero" from Rapture's workforce, leads Jack across the city using a radio. The working class in Rapture was comprised of workers who were recruited to help construct the city. Nevertheless, the majority of the working class were reduced to catastrophic poverty when their work was completed. Once there, they were prohibited from leaving in order to prevent the metropolis from getting discovered by the outsiders, and the 'lesser men'. Throughout the game, Atlas tries to escape Rapture by getting help from Jack. It turns out that Atlas could have escaped the whole time, but he needs help to rescue his wife, Moira, and their son, Patrick. Atlas, as depicted in Figure 9 below, needs Jack's help to escape the city. Atlas believes that he is being punished by God because he brought his family to Rapture in hopes of a better life. While the player does not physically see Atlas, they can still feel empathy toward his situation. As the player explores the world of Rapture, they can piece together the reasons why anyone would want to leave this place. Once the player is so close to helping Atlas free his wife, his child dies during the submarine explosion. His quest for rescue then turns into vengeance against Andrew Ryan for the death of his family.

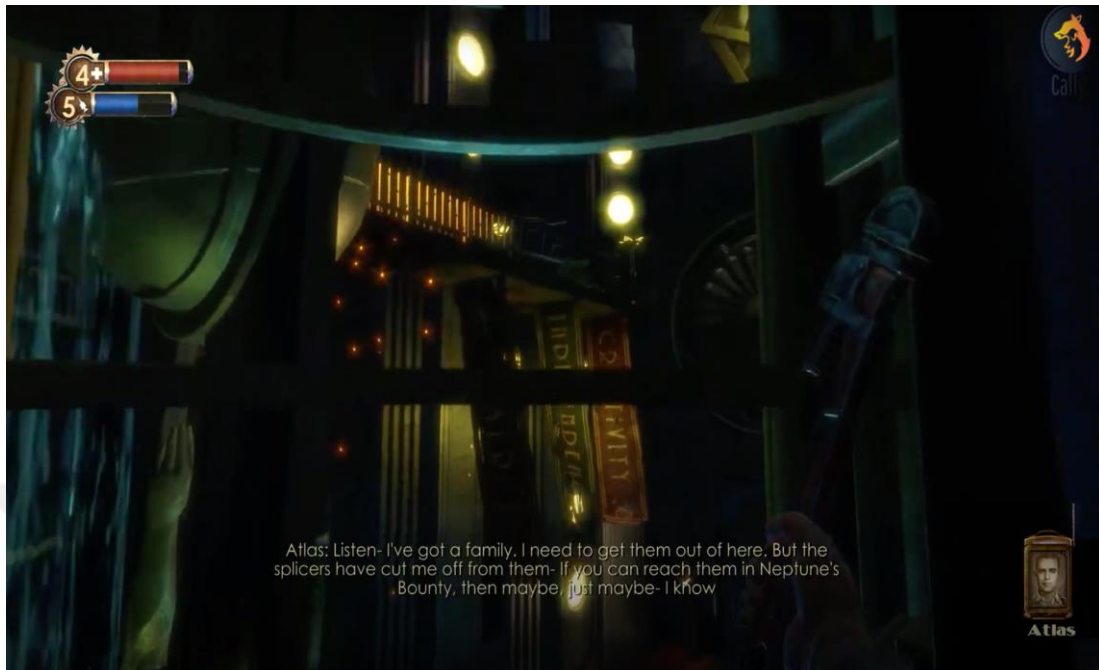


Figure 9. Atlas asking Jack, the main character (the player), to save his family.

As players explore the decomposing city of Rapture, they come across the remains of this failed utopia. The game features numerous scenes that utilize environmental storytelling effectively and intentionally to provide players with more information about its setting.

BioShock's game world is formed through remains, which is another example of environmental narrative in games. There are audio recordings of the residents of the underwater metropolis of Rapture as well as graffiti, often written in blood on the walls of each level. The more complex examples use things that reveal a little bit about the characters. For instance, Neptune's Bounty, the fisheries of Rapture, introduces the game's primary conflict. It had evolved from a commercial hub to an entryway for goods being smuggled in from outside. However, smugglers were not permitted in the

city; upon entering the area, the player sees a corpse dangling in front of a wall, with arms outstretched to resemble a crucified individual and the word “smuggler” painted over his head.



Figure 10. The smuggler was bringing crucifixes and bibles into the city.

The smuggler was bringing in crucifixes and bibles, which the player learns later in the level are prohibited items in the city based on the game’s opening video. Ghosts are another example of the unexplored remains of previous agents (human or not) who occupied the space before the player arrived. For instance, there are certain spirits in BioShock’s first chapter who complain about being imprisoned in Rapture.

After completing the first level, “Welcome to Rapture,” the players then progress to the second level, “Medical Pavilion.” In Rapture, the Medical Pavilion served as the destination for medical operations and inquiries. It also treated a wide range of illnesses

and health issues. The level of service the consumer received was directly related to how much they could afford to spend. As ADAM grew more widely available in Rapture, its self-healing abilities transformed how the healing facilities were used. Later, because ADAM was unstable and too many people used it, unexpected physical changes started to happen. In response, many hospitals were immediately turned into cosmetic surgery centers like Dandy Dental and Dr. Steinman's Aesthetic Ideals. As they continue to explore the area, the player can see posters and graffiti about the 'perfecting' procedures Dr. Steinman can surgically perform (Figure 3). The player can also hear an announcement directed at women, commending that whatever flaw they might have that gets in the way of meeting the "man of their dreams," Dr. Steinman will take care of it. From the environmental clues, the players can gather that the Doctor was famously known for being a perfectionist around Rapture.

Signage is frequently used in video games to help players get situated in the environment. It instructs the participant on where to go and what to do; therefore, it is a clear indication in a Peircean sense. As an example, in Bioshock, the names of the various locations (such as Neptune's Bounty or Fontaine Fisheries) are written on the walls, and there are also road signs at intersections that direct visitors to those locations. The notion that Rapture has been overly commercialized is further supported by other indicators, such as ads for the various plasmids called ADAM (injections that alter the player character's DNA and give them new abilities) that offer details about the game world's history (Rouse, 2010).

The player knows the game takes place in 1960; at the beginning of the game, they see

the messy aftermath of a party in a ruined restaurant called Kashmir with a big sign that says “Happy New Year 1959.” (Figure 2) They understand right away that something went very wrong here and that the disaster happened more than a year ago on New Year’s Eve. They can also tell that Rapture was once an extremely wealthy and decadent society, at least in part, by how extravagant and showy the decorations are, and that the citizens were involved in a series of civil war riots. Early in the game, the player can see that the streets are decorated with banners featuring various mottos that represent the principles that dictated the creation of the city. The game’s dystopian setting is made more apparent by the contrast between bright, flashy ads and creepy graffiti that looks like it was painted with blood. Even though they are an element of environmental storytelling, these ads and posters don’t immediately affect gameplay; instead, they constitute remains that the player must interpret in order to gain a deeper understanding of the universe. Jenkins’ (2004) idea of narrative architecture says that this use of physical space to convey narrative meaning lets the player experience ideological critique in a physical and spatial way.



Figure 11. Sign that says “Happy New Year 1959”

Harvey’s (2005) criticism of neoliberal spatial capitalism fits very well with this ideological collapse. BioShock’s Rapture, like Harvey (2005) says about cities under capitalism, puts profit, innovation, and self-interest ahead of social cohesion. Without government rules, there are huge gaps between classes, people are taken advantage of, and there is a violent outcome that came out of a civil war. This underground utopia full of scary monsters and glorified ads is the setting for the game’s story, which serves as both a show and a warning.



Figure 12. The graffiti on the walls that reads “Aesthetics are a moral imperative” in Dr. Steinman’s office, showing how he’s on the verge of insanity.

The downfall of Rapture and its descent into madness present the players with Jenkins’ (2004) embedded narrative. Posters, advertisements, and building designs that glorify profit, beauty, and individual excellence provide the player with a consistent ideological message. The surgical wing of Dr. Steinman is a striking example. Graffiti that reads “Aesthetics are a moral imperative” (Figure 12) further allows the player to witness his obsession with aesthetic perfection. This message is an indicator of Steinman’s psychological while “ADAM denies us any excuse of not being beautiful” (Figure 13) also demonstrates society is breaking down in Rapture. Because capitalist ideas have grown so ingrained that they drive people crazy in the pursuit of perfection.



Figure 13. Graffiti on the wall. “ADAM denies us any excuse for not being beautiful.”

These details about the environment echoes Harvey’s (2005) idea that neoliberalism’s fetishization out of image and market efficiency. The use of ADAM turns the residents into addicted and distorted versions of themselves, which is a form of bodily commodification.



Figure 14. The lights flickering on and off when the player enters Sander Cohen's home gallery and see the creatures slowly decaying in front of the player.

A series of audio logs that give the player just a little taste of what the plot might be and what happens in this world that seems to represent these 'great ideas.' Every environmental design choice that was brought into BioShock by the developers leaves the player with a sensation. Whether it's despair, confusion, or pride, the game also tries to push the player forward, into interacting with the environments in it, into making decisions, and into snooping around to find out what happened through context clues. The game pushes players into being on the rails inside of an insane asylum and seeing a universe that is put together with one goal in mind. Its goal is to ask the player a question: What does choice really mean? As the player completes BioShock, they discover that a person's right to choose is what the entire game is about.



Figure 15. The audio logs

One of the most obvious ideological elements in BioShock's story and environment design is its connection to Rand's (1957) Objectivism. Rand's (1957) work supports independence and free-market capitalism. In the book, great minds, artists, etc., start to leave their works and inventions without anyone knowing why. It turns out they were going to Atlantis, a utopia created by John Galt for supposedly brilliant people. They are described as gods of the world, making the world go round. Rand (1957) argues that rational self-interest should be the guiding moral principle. John Galt and other characters in the book represent these ideas. As a guiding principle for hyper capitalism, Rand's (1957) concepts for individuality are carefully depicted in BioShock; these ideas are not just mentioned; they are brought to life in the game's environmental space. BioShock holds up a mirror for Rand's (1957) idea of utopia, adding elements of irony and horror to truly depict what would really happen if those supposedly brilliant people

were living in a community apart from the rest of the world. Rapture was built by Andrew Ryan, whose name is a direct reference to Ayn Rand. It is an attempt to put objectivist ideas into practice.

Rapture was built as a 'safe haven' to escape from government rules, religious morality, and shared responsibility. It is a prime example of how unregulated industrial capitalism and hyper-individualism may operate. The game's opening scene, where the player passes a big sign that says "No Gods or Kings. Only Man," (figure 8) visually and ideologically grounds the player in a place where objectivist ideas are built into the environment itself. Even the angle of the statue serves as a critique of objectivism and philosophical analysis because Andrew Ryan looks down on people while advocating for supposed freedom. His motto is carved on a red banner with gold letters, signifying a king with a bloodlust. The most important aspect of this statue is that everyone who chose to come to this utopia had to see him, and he portrays himself as both a god and a king to his residents upon arriving in Rapture. Andrew Ryan thinks men are entitled to the sweat on their brows. But he inherently believes that his own sweat is much more valuable than the sweat of the workers who have built his utopia.



Figure 16. Andrew Ryan’s statue with a banner that says, “No Gods or Kings. Only Man.”

As the player descends into Rapture, the environment immediately makes them feel like they are in charge. The irony is that Ryan’s ideology gives power to a small group of people while the rest of the people suffer. This contradiction is directly related to Harvey’s (2005) criticism of neoliberalism and the commercialization of urban space.

Harvey (2005) contends that capitalism operates efficiently when wealth and power are gathered through dispossession, which is the process of taking away people’s property. Rapture exemplifies this, not only because of its story about class division and civil war, but also because of its environmental design.

While the player travels through the bathysphere to get to Rapture, they are met with a

metallic statue of a man (Figure 9) who holds his arms up, muscular and strong, gesturing a victory for earning a spot in this utopia, similar to the famous cover of Rand's (1957) book. While taking a closer look, the player can observe that the wrists of the statue seem to be bound like a prisoner, much like how the residents of Rapture can't leave once they sign the residency contract.

Harvey (2001, 2005) claims that urban settings are places where people can grow and reach their full potential but in reality, they are controlled, omitted, and capitalized on. The statue is a real-life example of Harvey's (2001, 2005) spatial contradiction: a utopian promise that hides an oppressive confinement.

This visual detail also operates as what Jenkins (2004) calls an evocative space. It alludes to external ideological myths (like Objectivism and the American Dream) and encourages the player to think critically about the values that are built into Rapture's infrastructure. The visual language of perfection through the statue and posters are similar to the capitalist obsession with being efficient, productive and conform without questioning. Harvey (2008) claims that these are essential principles for keeping capital stable in both physical and mental space.



Figure 17. Metallic statue of a man, holding his arms up, similar to Rand's (1957) book cover.

Rapture is not just a failed utopia; it is a warning about capitalism that has gone too far. The city's buildings are covered in relentless advertisements and consumer propaganda that promotes hyper-individualism, productivity, and make commodification seem normal. This overload of ideological messages turns public space into a tool of control, reflecting Harvey's (2005) argument that when neoliberalism seizes urban space, it turns it into a place of a market-driven social authority. Rapture uses architectural storytelling and consistent marketing to make the pursuit of profit seem normal, but it has, in fact led people insane.

When examined through Harvey's (2008) lens, these visual details aren't just background noise; they're ideological tools that demonstrate how the logic of

accumulation by dispossession works. Rapture doesn't just sell things; it offers a way of looking at the world that transforms even bodies and relationships into things to buy. The city fell apart, and it was not solely the result of people's greed. The city was built to make money, monopolize items, and make empty promises of freedom for all, when in fact, there was no freedom to offer. Because that freedom was built by the working class of the city and fell into ruin when Andrew Ryan tried to privatize their way of living.

The player finally faces Andrew Ryan and discovers that they have been played for a fool by Atlas. Upon learning that Atlas was actually called Frank Fontaine and was at war against Andrew Ryan to seize power for himself, and Jack was purposefully guided by him throughout the game with the phrase "Would you kindly" further reveals that all men are slaves to capitalism. Even the ones that seem like they have the choice. The entire game sets the player up for this moment, only for it to be revealed that Jack was a pawn in somebody else's game all along. In a capitalist society, even people who think they are free are bound by things beyond their control.

Andrew Ryan uses the phrase "Would you kindly?" to urge Jack to kill him. Ryan repeatedly utters the phrase "A man chooses, a slave obeys", as he believes he is choosing to die on his own terms. This phrase serves as a meta-commentary on how people do not really have control over their lives in capitalist societies. According to Harvey (2001), it demonstrates how spatial fixes and ideological manipulation hide systems of domination and reassert control even in worlds that are meant to look completely free. The city's fall, which was caused by economic inequality, violent

scarcity, and its eventual spatial decay, is a direct example of Harvey's (2008) criticism of capital's inability to create sustainable futures.



CHAPTER V

CONCLUSION

5.1. Key Findings and Discussion

This thesis started with a simple question: How do video games use environmental storytelling to convey sociopolitical ideologies? The research focused on *The Last of Us Part I* and *BioShock* because these two critically acclaimed video games use detailed environments to express ideology while making these digital spaces function as active narrative agents. The thesis then investigated how spatial design mechanisms, along with storytelling elements, connect to sociopolitical critique that targets late capitalist structures. This thesis combined close reading with environmental analysis while using Jenkins' (2004) environmental storytelling theory and Harvey's (2001, 2005, 2008) spatial capitalism framework to add depth to the study of video games as cultural artifacts that operate within ideological, economic, and narrative frameworks.

The thesis needed more information about how game environmental spaces perform narrative and ideological functions simultaneously. Environmental storytelling has received attention regarding player immersion and design strategies, but its potential to reflect and challenge hegemonic ideologies such as capitalism has not received sufficient analysis. Spatial capitalism remains widely studied in urban studies and geography, but researchers are still exploring its potential applications in game studies. The thesis aimed to unite two academic domains by using Harvey's (2001, 2005, 2008) Marxist geographic principles to study fictional interactive digital game spaces.

The research questions directed this investigation toward understanding how *The Last of Us Part I* and *BioShock* use environmental storytelling to challenge capitalist ideologies. Which narrative components in spatial design enable these critical perspectives? The potential for player interaction alongside spatial movement affects the meaning and complexity of these ideological narratives. The research adopted a comparative case study methodology to answer these questions through textual and spatial analysis under a critical media framework.

The research focused on determining how environmental design in these games delivers more than visual and storytelling experiences because it contains multiple layers of ideological meaning. The core argument about how spatial storytelling merges with ideological critique in games received thorough proof through detailed game analysis.

Jenkins' (2004) framework served as the foundation for analyzing game space features. His four narrative categories, evocative spaces, enacted stories, embedded narratives, and

emergent narratives functioned as essential analytical tools to examine how players interact with stories while exploring game environments. The approach treated game space as a semiotic system that embeds meaning and invites comprehension according to interpretive methods used in media and literary studies.

Harvey's (2001) spatial fix concept proved highly useful for analyzing the urban spaces found in *Rapture* and the world of *The Last of Us*. Both spaces demonstrate how capitalist systems transform physical areas to handle their overaccumulation problems. *Rapture* presents an underwater utopia that portrays unregulated capitalism as a self-sufficient, privatized city that eventually falls apart due to its unsustainable nature. The quarantine zones in *The Last of Us Part I* illustrate how states and institutions of power attempt to redesign urban areas to maintain control while generating profits from social breakdown. Harvey's (2001, 2005, 2008) concepts of accumulation by dispossession and neoliberal urbanism provided essential tools to recognize the internal contradictions and violent aspects that emerge from these reorganizations. The environmental evidence, such as vacant buildings, food stamps, and rusty advertisements, shows the process of dislocation and ineffective urban development that matches contemporary gentrification and institutional disregard.

The thesis presents a fresh perspective to game studies through its synthesis of environmental storytelling and spatial capitalism analysis, which demonstrates that these approaches enhance each other. The critique of late capitalism in video games achieves its strongest effect by using spatial design elements to build spaces for inhabitation and navigation before showing their eventual abandonment. The analysis method

presents fresh paths for research that unite game studies with Marxist geography and media theory. The research challenges conventional ludological interpretations of games, as it demonstrates that interactive spatial design contains deep political commentary and narrative meaning.

Yin (2014) provided the framework for case study research in this thesis to analyze *The Last of Us Part I* and *BioShock*. A comparative case study method was used because AAA titles with advanced environmental details and complex narratives demonstrate how video games can function as ideological spaces. The qualitative research approach enabled the thesis to analyze narrative structures, spatial elements, and environmental symbols in detail, which would be challenging to achieve through data-driven methods such as quantitative analysis or ethnographic gameplay observation.

The research approach developed by Yin (2014) achieved beneficial outcomes in multiple critical aspects. The method enabled the researcher to study each game world as an individual case environment while understanding its holistic structure. The data collection process in each case consisted of spatial analysis through close reading of environments and architecture and spatial design and layout logic and supplemental material analysis of transmedia expansions. The flexibility of the approach allowed the researcher to identify how each game integrated ideological critique through environmental storytelling while demonstrating why space shapes narrative delivery.

The case study design enabled the researcher to create systematic evaluation methods. Through spatial analysis, the thesis investigated how *The Last of Us Part I* and *BioShock* construct control and resistance narratives to establish structural and ideological differences between these games. *BioShock* presents its critique through dystopian satire that targets individualism, while *The Last of Us Part I* presents its critique through emotional storytelling with complex characters in a post-apocalyptic world.

The methodology also presented minor obstacles that the researcher encountered during implementation. The extensive size of AAA game worlds limited the focus on essential areas that carried both narrative and ideological value. The methodology allows for flexible interdisciplinary game studies because it links case studies to academic arguments while applying materialist perspectives on space and power dynamics. The research uses methodological triangulation to support interpretations through existing academic literature, but this approach requires further development in future studies.

Jenkins' (2004) embedded narrative component shows how game elements such as letters, bloodstains, and Firefly pendants in *The Last of Us Part I* provide brief perspectives of hidden survival narratives. The game features evocative areas that draw on recognizable images of state collapse, quarantine measures, and natural disasters to evoke spatial memories related to the United States after 9/11, as well as global conflict and pandemic management. The quarantine zone in Boston, through its surveillance and security system, reveals how neoliberalism uses violence to maintain

control and exclude people from certain areas. The accumulation by dispossession manifests through these spaces because resources are concentrated while people are forced out to survive on their own.

In a more aesthetic but equally critical manner, BioShock depicts the failure of capitalist utopian ideals. The entire structure of Rapture serves as an objectivist shrine that showcases architectural features and propaganda materials. Jenkins' (2004) framework proves useful because the city uses its Art Deco architecture and Cold War aesthetic to present an evocative space while embedding a narrative about collapse through deterioration. The embedded narratives, audio diaries, blood-streaked hospital corridors, and broken statues of Andrew Ryan function as ideological fossils. The space is haunted by its past promises, and the player uncovers its failures piece by piece, becoming a narrative archaeologist.

The spatial fix (Harvey, 2001) reveals that Rapture represents an unsuccessful attempt at reorganizing space through capitalist means. This system tried to evade governmental oversight by establishing a fully privatized zone that operated beneath the sea and beyond state authority. The system breaks down due to its exploitation of workers, reliance on social inequalities, and neglect of the community's needs. Similar to neoliberalized urban areas in real life, Rapture experiences the negative effects of excessive capital accumulation alongside social breakdown.

Both games provide essential learning opportunities by training players to function as interpreters instead of passive receivers of the narrative. The Last of Us Part I

demonstrates Jenkins' (2004) emergent storytelling: actions such as stealth and combat decisions and exploration modify the story's rhythm and emotional impact. In BioShock, the simulated choices that lead to the "Would you kindly?" revelation expose the false illusion of player agency, which challenges neoliberal systems' notion of personal freedom.

The games share identical spatial functions, although they express contrasting emotional tones. The Last of Us Part I creates emotional immersion by using realist visual design to display survival themes along with intimate character relationships and centralizing grief. The game environments feel authentic because they exist in the collective memory of society. BioShock presents exaggerated environments, which include grand halls and neon-lit tunnels and genetic laboratories, to create an exaggerated theatrical presentation of its critique. The Last of Us Part I connects to pathos and moral ambiguity, but BioShock depends on irony and spectacle.

These environments use spatial elements to create questions about authority as well as ethics and survival, and justice instead of offering direct answers. Game players must read the game world to understand its history as they learn about the ideological consequences of these systems.

5.2. Theoretical Implications and Comparison with Literature

As the literature review has shown, Jenkins' (2004) work has been analyzed by scholars like Nitsche (2008), who proposed evocative narrative elements that are non-direct storytelling tools but interpretative narrative prompts for players. In The Last of Us Part

I, children's paintings adorn the walls of the sewer camp, while cribs, notes, and family photos are found in abandoned houses. Nitsche (2008) argues that ADAM syringes and vandalized statues in BioShock serve as evocative markers that help the player understand Rapture's ideological collapse without spoken dialogue.

Smith and Worch (2010) explain how environmental storytelling requires players to enter staged environments that guide their interpretation and meaning-making activities. The first sequence of BioShock reveals Andrew Ryan's objectivist philosophy by displaying the slogan "No Gods or Kings, Only Man" during the bathysphere descent. Before starting combat, the player experiences the designed environment with its architectural design, along with lighting and sound elements that enable critical thinking about Rapture. The Firefly graffiti and cryptic warning signs like "Do Not Open, Infected Inside" in *The Last of Us Part I* operate as environmental markers that avoid direct narrative explanations. The designers created these spaces with the purpose of transferring meaning and emotional content to players during their exploration.

The meaning-making process in environmental remains is explained through Fernández-Vara's (2011) indexical storytelling theory, which draws from Peirce's (1998) semiotic principles and Smith and Worch's (2010) theories. The suicide note discovered in *The Last of Us Part I* player demonstrates how a grieving resident of the sewers mercifully killed children to save them from becoming infected and assured the person who would find the note that "they did not suffer." The player uses the note and skeletons of children and the environment to piece together what happened as the game

develops emotional depth without depending on cinematic sequences. Throughout BioShock, players can observe corpses next to audio diaries and machine equipment, which imply accounts of failed resistance attempts and survival struggles. The indexical components enable the player to become both detective and world-builder, according to Fernández-Vara's (2011) logic.

Digital narratives create player immersion through interactivity and agency, according to Murray (1998). The player's choices between stealth and action and their ability to visit optional areas such as Ish's sewer community or the arcade machine in Bill's Town in The Last of Us Part I make the story more personal to them. BioShock gives players the impression of freedom through its "choice" feature, although the most significant choice lies between saving or killing Little Sisters. The game reveals that all player choices were predetermined, thus challenging the concept of free will in interactive storytelling. The experiences demonstrate the fundamental conflict that exists between controlling the game world and fully immersing oneself in it (Murray, 1998).

Juul's (2005) study of game progression vs. exploration explains the narrative flow techniques used in both titles. The Last of Us Part I advances through ordered levels while demanding increasing difficulty yet enables players to freely discover abandoned buildings that contain various narrative components. The extra locations in the game add value to the main story and enable narrative depth by allowing Ellie to discover a pun book, which only adds depth to her character. The gameplay of BioShock includes multiple paths that let players find audio recordings and world information,

which enhance their understanding of Rapture's downfall without affecting completion goals.

The procedural rhetoric theory developed by Bogost (2007) becomes most relevant in *The Last of Us Part I*, because its gameplay systems convey how disaster survivors must fight for limited resources in a desperate world. The resource management system, along with limited ammunition and constant stealth requirements, demonstrates that every asset holds significant value in this post-apocalyptic world, thus reinforcing survival themes and moral dilemmas. *BioShock* uses gameplay elements such as gene splicing and plasmids alongside vending machine transactions as rhetorical tools to analyze transhumanism and consumerist practices. Through its gameplay mechanics, the game presents an argument about the negative effects of unregulated capitalist development.

According to Ruberg's (2019) research on affective and queer game design, one can understand the emotional and interpretive ambiguity that exists in both games. In *The Last of Us Part I*, Ellie's queerness is revealed through environmental details before being further explored in the transmedia extensions, while also manifesting in her moments of sorrow and the bonds she forms in apocalyptic environments. The visual decay of Rapture in *BioShock* aligns with Ruberg's (2019) concept of narrative ambiguity as a crucial storytelling element. These games establish interpretive tension by refusing to provide straightforward resolution which allows ideological critique to develop naturally.

5.3. Limitations of the Study and Future Research Directions

While the thesis conducts a comprehensive analysis of *The Last of Us Part I* and *BioShock* by applying Jenkins' (2004) environmental storytelling and Harvey's (2001, 2005, 2008) spatial and neoliberal theory frameworks, the interdisciplinary nature of this research approach created specific obstacles during the study. The main difficulty arose from the scarcity of academic literature that combines both frameworks, particularly in video game analysis. Most studies primarily focus on narrative theory or critical spatial theory separately, which makes it challenging to find models that unite these approaches, as this thesis tried to achieve.

The combination of Jenkins' (2004) and Harvey's (2001, 2005, 2008) frameworks with Yin's (2014) case study methodology needed extensive modification for implementation. The analysis of socio-spatial theories in the environmental storytelling of games required manual development because there was insufficient existing research in this area. The thesis faced occasional challenges in supporting its observations with scholarly evidence because it needed to establish analytical groundwork through close reading and interpretive synthesis.

Moreover, the thesis investigates only two AAA titles, which prevents it from representing the complete range of game genres along with design styles and production contexts. Future research should broaden its examination to include both independent games and non-Western gaming productions in addition to AAA titles. The current research has concentrated on expensive Western-made stories from Western industries which represent specific industrial and cultural patterns. Indie games utilize their limited

financial resources to develop innovative storytelling approaches that create intimate spaces for political commentary. Researchers can study these games to examine alternative spatial approaches as well as non-linear storytelling techniques alongside marginalized identities. Especially within queer and feminist perspectives. A future research project should investigate how space contains multiple identity categories and how these intersectionalities affect both game design and player interpretation. Still, the research design enabled in-depth analysis despite the limitations imposed by scope and interdisciplinary methodology.

The current thesis provides textual analysis, but future studies should examine how players interact with spatial storytelling content during gameplay. Players recognize environmental clues according to the designers' original intentions. How do they interpret spaces in relation to ideology? What emotional or political responses do these environments evoke? Research methods that include ethnographic observations of gameplay along with interview sessions would help researchers understand how spatial storytelling affects players across various demographic groups.

The implementation of environmental storytelling through virtual reality (VR) and augmented reality (AR) gaming presents a promising field of study. The central role of spatial storytelling will grow more significant as immersive technologies continue to evolve. Research should analyze how new technologies both reinforce and test the possible ideological critiques through spatial design while studying how virtual body presence affects narrative critique experiences.

Video games now depict both climate disasters, dystopias, and alternative futures because climate change concerns keep rising worldwide. Researchers should analyze how games use environmental storytelling to develop ecological awareness while assessing their potential as educational instruments for environmental activism.

The Last of Us Part I and BioShock are not indie productions but multimillion-dollar franchises that are also commodities in a global entertainment market. This paradox raises important questions about the conditions under which ideological critique can emerge within the same systems it interrogates. As products of the culture industry, they participate in the very commodification they critique. Yet, through their spatial design, narrative structure, and environmental cues, they still create moments of resistance and reflection. The critical potential embedded in their dystopian worlds suggests that games, like films and comics, continue to recycle familiar visual and thematic elements to stage ideological questions. Whether such critique is only possible within dystopian or post-apocalyptic worlds remains an open question.

The conditions of labor along with funding mechanisms and marketing approaches should be analyzed in future research to determine why specific spatial narratives are created. A critical industry studies approach would reveal how the business aspects of game development both limit and expand possibilities for ideological storytelling particularly when considering the expansion of transmedia content and franchising operations.

5.4. Concluding Remarks

This thesis set out to examine how video games, specifically *The Last of Us Part I* and *BioShock*, use environmental storytelling to critique and reflect systems of spatial capitalism. Applying Jenkins' (2004) concept of narrative architecture and Harvey's (2001, 2005, 2008) theories, the analysis has shown that digital game environments are not just backdrops for action; they are ideological texts that shape player experience, offer sociopolitical critique, and encourage reflection on power, space, and survival.

By placing players in worlds that are already built, these games make ideology tangible. Players do not just hear stories about capitalism, privatization, and social fragmentation; they walk through them, engage with them, and sometimes even reproduce or resist them through their choices. Environmental storytelling becomes more than a narrative device; it is a critical practice of mediation and meaning-making. It invites players to be active interpreters and situate themselves in relation to the ideological landscapes they explore.

This thesis shows that environmental storytelling can act as both critique and commodity. These games criticize neoliberalism while also being products of the very industry they challenge. They push back against dominant ideologies while participating in the late capitalist trends of transmedia expansion, franchise consolidation, and intellectual property commodification. This contradiction is a defining tension of modern media culture. It is within this tension that games discover their cultural strength.

Furthermore, this thesis argues that space in video games is not neutral. It is shaped, inhabited, coded, and contested. The environments in *The Last of Us Part I* and *BioShock* demonstrate how digital spaces can express emotion, ideology, and narrative all at once. These spaces create worlds that rely on more than visual design or plot; they depend on the player's movement, orientation, and interpretation. Whether through evocative objects, scripted plot or spontaneous play, space becomes a vital form of storytelling that conveys loss, struggle, oppression, and resistance.

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