

THE IMPACT OF UTILIZING  
DIFFERENT VIDEO GAME ENGINES  
IN MACHINIMA PRODUCTION

A CREATIVE PROJECT  
SUBMITTED TO THE GRADUATE SCHOOL  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

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## Chapter 1- Introduction

Video games are a large part of the current media landscape. What began as a niche hobby has since turned into a primary form of digital entertainment. Today, compelling stories are now being told within video games and have become increasingly cinematic. But narratives in video games are not only being told by the developers, but by the people playing the games as well.

The use of video games in the creation of digital stories is called machinima. According to Lowood (2006), machinima is defined as “making animated movies in real-time with the software that is used to develop and play computer games” (p. 26). Machinima is unique within the realm of digital storytelling in that it does not utilize traditional production techniques to tell a typical film or television narrative. It also differs both when compared with live action production and animated production, since machinima relies on the ‘puppeteering’ of preexisting video game character models.

This project aims to explore how much the video game itself impacts the narrative of a machinima through limitations in production and in visual style. In a broader sense, the project will aim to determine how the tools at a creator’s disposal influence the final product. This topic is significant within the discipline of telecommunications in that all productions are limited by the tools that a creator has access to. An amateur filmmaker only has access to so many resources and should rely on cheaper equipment and must solve production problems in creative ways that do not involve a drastic increase of their budget. An undergraduate student here at Ball State University does not have the budget to create a special effects heavy narrative such as *Star Wars*, for example (Lucas, 1977). Therefore, they are limited by the available tools, which in turn impacts the aesthetic of the story and overall visual components.

With the advent of machinima, video games became a tool that can be utilized to create new narrative possibilities for low-budget creators. Video games allow for the usage of assets that would otherwise be unavailable to amateur creators in a real-world setting. Car chases, explosive action scenes, the use of firearms, aliens, and freefalling from a skyscraper of your own design are scenarios only possible with a large budget, but with video games you have access to these in a virtual form for a much lower cost. However, machinima creators are limited in other ways by the rules of the video game they are filming in. For example, in the video game *Halo: Reach* (Bungie, 2010), the playable characters are outfitted in advanced suits of military armor. As a result, creating narratives that utilize unarmored characters is impossible within that game engine. These kinds of limitations that exist within machinima are part of what was explored over the course of this project.

For the purposes of this project, two narrative sequences were selected. One is an action-oriented sequence and the other is a narrative with a heavier emphasis on dialogue. Three short films were then created for each sequence, and each of these three films were created in a separate video game. These video games are *Halo: Reach* (Bungie, 2010), *Grand Theft Auto 5* (Rockstar, 2013), and *Minecraft* (Mojang, 2011). Each short film lasts between one and three minutes in length. Six short films have been created in total. These machinima productions will be compared to form a better understanding of how the visual aspects and limitations of using a video game impact the narrative of the machinima being created. Mise-en-scène will be utilized as a lens through which I will examine the differences present within each machinima.

## Chapter 2- Literature Review

Research that has been done on the machinima genre is not as extensive as other traditional narrative categories, but there still is a significant amount of literature to pull from to help give context to this creative project. As is the case in most academic analysis of media, existing machinima productions are used as a lens through which to explore underlying ideas associated with the genre. For example, Irene Chien (2007) explores how two machinima productions, *Deviation* and *Red vs. Blue*, are prime examples that demonstrate new possibilities and potential disadvantages that come with the machinima genre. Machinima allows for the creation of digital content to be created remotely and easily while still having the potential to be visually impressive. However, the digital creator is limited by what is possible within the video game, leading to unique challenges that do not exist within traditional film environments. The author also examines how these two productions satirize and dramatize the lives of video game characters.

Further exploring the narrative opportunities present in machinima, Elijah Horwatt (2008) views the creation of machinima as a means in which to tell stories outside the restrictions that exist in the mainstream media environment, and how the genre fits into the realm of avant-garde media. The author examines examples of machinima documentaries, political machinima, and experimental machinima. He talks at length about how machinima is a tool that is often used within the realm of new media resistance.

Additionally, researcher Mike Jones (2005) highlights how the rise in easily accessible digital storytelling tools such as cheaper editing software has helped contribute to the rise in machinima filmmaking. Additionally, the use of video games allowed for the average person to create complex and visually impressive narratives without having to have access to a large

budget. Furthermore, he explores how the use of game engines allows for the creation of shots and sequences that simply are impossible outside the virtual world. He contends that machinima has its own unique visual style, and that the genre will continue to improve alongside the video game industry.

For further context, a journal article written by Henry Lowood (2006) explores the history of the machinima genre, beginning at its inception within games such as Quake and DOOM. Once the use of video games to create independent stories began, it rapidly spread online and gave birth to a brand-new form of digital storytelling. Lowood describes the creation of machinima as a form of ‘high performance play’ due to its nature of being created within a game environment. He goes on to explain how machinima has affected game development and raises questions about machinima as an art form.

Assistant professor Jaroslav Svelch (2014) conducted research on how interactions between a video game player and the game itself can give rise to physical humor. The author examines the machinima subgenre he defines as ‘gameplay mischief video’ and how the slapstick humor found within this digital content, which is generated spontaneously, has helped create a new form of digital comedy entertainment. The capacity for a game to provide entertainment to a player and a viewer outside of the game developer’s intentions is a central idea explored here. This piece of research is another example of how individuals can create a piece of digital entertainment within the confines of a virtual world.

Ludonarrative dissonance, a phrase that combines the terms ludology and narrative, is a concept coined by game designer Clint Hocking (2007). Within his analysis, he states that the video game *Bioshock* “seems to suffer from a powerful dissonance between what it is about as a game, and what it is about as a story” (para. 4). In other words, what the video game tells you

through gameplay is at odds with the message it is sending through its narrative. While not directly related to machinima, the idea of ludonarrative dissonance could be applied and used as a lens through which to further analyze video games as they relate to narratives told through machinima production.

Previous creative projects that utilize machinima as a genre are usually products of the video games they themselves are based in, as is the case of *Red vs. Blue* and *Diary of a Camper*. Created by Burnie Burns, the co-founder of Rooster Teeth Productions, *Red vs. Blue* (Burns, 2003) follows two groups of incompetent soldiers who begin the series engaged in a pointless civil war. *Red vs. Blue* is filmed entirely within the *Halo* video game franchise. It started out as a series of funny video game clips that Burns edited together in his spare time. Burns soon realized, in the words of New York Times writer Clive Thompson (2005), that "...he was using the game to function like a personal Pixar studio" (para. 4). Eventually, *Red vs. Blue* evolved into a full-blown scripted production. The show relies heavily on comedic dialogue in lieu of over the top, sci-fi action, in part because of the restrictions of producing a series within a video game.

On the other hand, *Diary of a Camper* (Sickler, 1996) was a smaller, one off production that is widely considered to be the first machinima ever created. This short film was made within the video game *Quake*. The narrative follows players engaged in a *Quake* multiplayer death match, with one lone player, the camper, hiding out waiting to ambush a team of enemy players. The plot of the minute and a half short film amounts to little more than inside jokes about gaming culture and player behavior. Nevertheless, *Diary of a Camper* and other early machinima projects have been compared to breakthroughs that occurred in early film. Lowood (2006) states that "these experiments in the use of computer games to produce animation rank somewhere

between the Lumière Brothers footage of a train pulling into a station (1895) and Georges Méliès' *Le Voyage dans la Lune* (1902)" (p. 38).

*Diary of a Camper* and *Red vs. Blue* are both great examples of machinima that are defined by the games that they take place in. But what would a machinima look like if its narrative were created without a specific video game in mind? And would that narrative have to shift in turn to work in certain video game environments? This project explores how a singular narrative can be forced to change based on the video game engine it is created in, resulting in a completely different visual, auditory, or structural form of digital storytelling.

As mentioned previously, the three video games that were used for this project are *Halo: Reach*, *Grand Theft Auto V*, and *Minecraft*. *Halo: Reach* (Bungie, 2010) was the first of the three games that were used to explore machinima creation. *Reach* is a sci-fi first-person shooter released in 2010 for the Xbox 360 game console and was later re-released on the Xbox One. The game follows a team of super soldiers as they fight against an army of alien invaders. This game was selected for the *Halo* franchise's history of being used for machinima production, as well as for its in-game video capture tools.

The second game selected for this project is the building block survival game, *Minecraft* (Mojang, 2011). This sandbox video game was released in 2011 and has received constant updates ever since. The Xbox One version of the game was utilized for this project and was selected for its versatility in world building.

*Grand Theft Auto V* (Rockstar, 2013) was the third game used for this project. *GTA V* is an action-adventure game known for its open world design. It was released in 2013 and has received regular updates up to the present day. *GTA V* follows a group of criminals as they steal

cars and conduct heists in the fictional city of Los Santos. This game was chosen for its variety of customization options and dedicated video creation tools.

This project aims to explore machinima's advantages and limitations by creating new projects that share the same narrative, providing a new perspective on what is possible using video games as a production tool, and how the tool affects the final product. Simply looking at preexisting machinima examples would not achieve the same goals that are outlined for this project. *Mise-en-scène* will be used to help define what visual shifts occur in each of these machinimas.

*Mise-en-scène* is a difficult concept to define, as its exact form shifts based on the personal style of each filmmaker. In Kyle Cassidy's (2016) article *Understanding Mise-en-Scene*, he states that "Technically - and literally - *mise-en-scène* means "placing on stage" and refers, in its most blunt form, to the things that movies have in common with plays..." (para. 4). This includes everything from props, lighting, costuming, where the actors are positioned, and more. Every element of *mise-en-scène* contributes to the visual style present within a film.

When it comes to machinima, the different components of *mise-en-scène* play just as important of a role. The signature difference in this between a machinima and a traditional film production lies in how much these components can be adjusted. When using a video game, a creator is locked into whatever rules the game world operates by. Authors William Brown and Matthew Holtmeier (2013) look at this aspect of machinima in their essay exploring the genre. They state that "Since a "machini-maker" often uses a pre-existing game engine, and therefore cannot or does not take charge of developing every aspect of the *mise-en-scène*, we might say that machinima involves a sort of virtual "location" shooting too..." (Brown & Holtmeier, 2013, p. 8). Much like how traditional filmmakers scout locations for use in their productions,



machinima creators must do the same for different video games. This is just one example of how video games can limit the flexibility of mise-en-scène for machinima.

The ‘problem space’ of this project will be focused on how the narrative is affected by the visual story being presented in the video game using mise-en-scène. The narrative sequences will be the common thread within the short films of this project, and each of these short films will be contrasted with the differing visual styles that result from using different video games.

This will provide a new perspective into the limitations of video production using video games. As can be seen in the research above, mise-en-scène is heavily influenced by the game the machinima is being created in, but by how much? What elements are limited, which elements are unaffected, and does this vary from game to game? Or are limitations within mise-en-scène constant regardless of the virtual environment they are created in? This is the problem space this project aims to explore.

### **Chapter 3- Methodology**

I used mise-en-scène to analyze and determine how using different video game engines to create the same narrative affects the visual language, and whether it does or does not shift the overall narrative. This chapter will provide definitions for each of the elements of mise-en-scène utilized in this project's analysis. Additionally, this chapter will go over how each of the six machinima projects were created. The actual analysis of these projects using mise-en-scène will be detailed in chapter 4.

#### **Elements of Mise-en-scène**

Mise-en-scène can be broken down into different compositional elements. These different elements will be used to determine precisely how each game affects or does not affect how the visual nature of the machinima can be adjusted. The number of different components present within mise-en-scène varies from source to source. For the purposes of this analysis, seventeen different components will be utilized, and each element will be briefly defined within this section.

Shot emphasis determines what the dominant part of any given shot is. This can be done using color, focus, lighting, or by adjusting the size or position of objects in the frame. This is used to guide the viewers eyes to a specific point on the screen, or to draw attention to an important element. Hierarchy of shot is another component similar to shot emphasis, but focuses instead on what the audience looks at second, third, fourth, and so on within the frame.

The lighting key determines how light and shadow are presented within a shot. High key lighting will have very few shadows and an abundance of light, while low key lighting has an abundance of shadows, but little light. The interaction of light and dark elements on the screen can be sharply defined with a high degree of contrast.

Proxemics exists in two forms, camera proxemics and character proxemics. Camera proxemics deals with how close the camera is to the subject of the shot, and therefore how much the subject fills the frame. Terms associated with camera proxemics include wide shots, medium shots, and close ups. On the other hand, character proxemics are used to determine how much space exists between different characters in each shot. An intimate distance between subjects would be a length at or lower than eighteen inches, while a public distance would be between twelve and twenty-five feet.

Camera angles are used to define how the camera is being tilted when a viewing the subject of a shot. A high angle shot would be looking down at a character from above, making the subject seem smaller, lower, or weaker. A low angle shot would look at a character from below and has the opposite effect, making the subject feel bigger, higher up, or stronger.

The color component of *mise-en-scène* encompasses all the different aspects of color that might be present in a shot. This includes color found in costumes, props, and the tint of the shot. Color can be used to create a certain mood, highlight narrative themes, or elicit emotions.

The lens or film stock of the camera being used is another component that influences how an image is distorted. A telephoto lens can help to remove depth from a shot and fill the frame with the subject without having to move the camera closer. A wide-angle lens does the opposite by adding depth and allowing the camera to capture as much of the space as possible.

Density determines how much exists within the shot, or rather how 'busy' the shot looks. If there are a lot of characters, props, or detailed features within a shot, that shot has a higher density. If a shot does not have many of these things and instead has an abundance of negative space, that shot is less dense.

Composition deals with how a shot is organized. Objects within the frame can be placed to suggest underlying shapes or patterns. The 'rule of thirds' is a compositional guideline a creator can use to help compose their shots. Two horizontal and two vertical lines are placed within the frame, forming nine equal rectangular spaces. Placing characters or props along these lines and at the points where they intersect can help to create a more balanced shot.

Form in *mise-en-scène* helps to define if a shot feels natural, or if the shot feels arranged. The form a shot takes is either open or closed. If a shot is open, the world being filmed feels as if it continues beyond the edge of the frame. If a shot is closed, the world has a clearly defined border at the edge of the screen, reminiscent of a stage production.

Framing has to do with the subject's relationship to the frame of the shot. If a shot is framed tightly, the subject fills the entire frame, with parts of the subject even being cut off. This might give off an impression of claustrophobia or intimacy. On the opposite end, a loosely framed shot allows for plenty of space between the subject and the edge of the frame.

Depth of field determines what areas of the shot are in focus. A deep depth of field means that everything is in focus, whereas a shallow depth of field has a more selective focus. If a creator wants to focus audience attention on a specific area or subject, implementing a shallow depth of field is an effective way to do so.

Blocking has to do with the positioning of the camera and lights in relationship to the characters placement on screen. Character placement indicates where subjects are in the frame. Where a character is placed can help to indicate certain traits about them. For instance, characters placed in the center of the frame appear more important, while those placed closer to the edges are implied to be less significant.

The staging positions of characters determine where they are looking. If a character is facing full front, they are looking directly at the audience. Profile indicates the character is looking off screen to the left or right, and back means they are facing directly away from camera.

Set design or décor within the context of *mise-en-scène* defines the setting that is represented within the shot. The time, period, physical location, and even the genre of the narrative is all influenced by the appearance of the world surrounding the characters.

Costuming is similar to set design, but for the actors and actresses. Costumes and makeup help to establish and convey to the audience who the characters are using the visual elements present within their appearance.

### **Creation Process of Machinima Projects**

The first sequence of three short films have a singular narrative which is action-heavy and light on dialogue, if there is any at all. This sequence begins with the protagonist exiting a building as alarms sound, the implication being that they have stolen something of value and are about to be pursued by the authorities. As the protagonist reaches their getaway vehicle, they are spotted, and a high-speed chase begins. The narrative ends with the protagonist losing the authorities by going where they are unwilling to follow.

The second sequence of three short films have a singular narrative as well, but this sequence is dialogue-heavy and lighter on action. Two characters are seen conversing in front of a building, which they are presumably guarding. They begin to argue with each other about the nature of hot dogs, and whether they should be classified as sandwiches. While they are distracted, a third character emerges and takes advantage of the situation. This new character

throws an explosive at the two guards, and the sequence ends, leaving their important conversation unresolved.

Action-heavy and dialogue-oriented sequences were chosen for this project to best showcase how different forms of storytelling are affected by machinima creation. These are two general narratives oftentimes seen in media, and as such were good candidates to explore the problem space.

The following section will break down how these narratives were created in each of the three games, beginning with *Halo: Reach*. All six machinima films created were done on an Xbox One video game console, and all the footage was recorded from the games using a Hauppauge HDPVR 2 capture card. The methods for creating short films in a video game vary depending on the built-in tools that are at a creator's disposal. In the case of *Halo: Reach*, the developers included a 'theater mode' in which you can load up past instances where you played the game and can manipulate your perspective. This allows players to act out a scene in the game world and then film the scene separately within the theater mode environment, giving creators more freedom and flexibility than they might get in other games.

For the purposes of this project, all the machinimas created began with a script or a storyboard. The three machinimas created for the action sequence were created with the same storyboard, and the three created for the dialogue sequence were created with the same script. After these were finished, both the action and dialogue machinimas needed 'body actors' to serve as puppeteers for the in-game characters. Each body actor was given an Xbox One controller and was responsible for the movements and other actions for that character. This includes walking, running, jumping, driving, shooting, and more subtle movements, such as head bobs or turns for dialogue.

Once each body actor was assigned a character, everyone joined a private custom game in *Halo: Reach*. The options for custom game creation in this title allow for map and game mode selection, giving the director flexibility in terms of set design and props. Once the session was started and all actors joined, the scene was acted out in its entirety. The body actors performed whatever actions were required, and the scene was run through multiple times until they reached the desired result. After this was done, the body actors' jobs were finished, and the game was then saved and loaded up by in theatre mode.

Once in theater mode, I could fast forward and rewind the game session, as well as manipulate the in-game camera to frame shots. It is at this point that clips were recorded by the capture card and sent to a laptop. Once all the clips needed were captured, they were moved to an external hard drive and edited together in Adobe Premiere Pro. Voice actors were then brought in to record relevant dialogue and overlaid onto the footage. The final stages of this process included miscellaneous sound design and color correction.

For the machinimas created in *Grand Theft Auto 5*, similar techniques were used. Like in *Halo: Reach*, *Grand Theft Auto* has its own video creation tool called the 'Rockstar Editor.' Also, similar to *Halo*, *GTA* has a 'Director Mode' that allows for the creator to customize their playable character, the time of day, weather, and other game options. The two *GTA* machinimas required only one body actor to get the desired result. The rest of the characters' present in these two narratives are played by nonplayer characters (NPCs).

To film the two sequences, the playable character was loaded into Director Mode, performed all actions necessary for the scene, and saved the gameplay clips to *GTA*'s video gallery. From there, these clips are imported into the Rockstar Editor where the in-game camera was used to frame the different shots needed. Once all shots were framed properly, each one was

recorded by the capture card and sent to a laptop, where they were then moved to an external hard drive. These shots were then edited together in Adobe Premiere Pro. Voice acting was done and overlaid during the post-production process.

The machinimas produced in *Halo: Reach* and *Grand Theft Auto 5* had a similar workflow, thanks to the in-game video creation tools. However, the third game utilized in this project, *Minecraft*, has no such tool for players to take advantage of. As a result, each take had to be acted out and captured in real time, very similar to traditional filmmaking. One of the biggest advantages of *Minecraft* comes from the player's ability to customize the world. Unlike in the other two games, custom made sets were created for the final two machinimas.

Body actors were assembled and assigned a character to puppeteer. An additional is used to serve as a camera. This character's first-person perspective was used to frame the shots as the other players acted out the scene. Each shot needed was acted out and filmed simultaneously until enough takes were done to the director's satisfaction. These takes were recorded using the capture card and then exported to an external hard drive. From there the clips were edited together using Adobe Premiere Pro and voice acting and sound design was finished during this process.



## **Chapter 4- Discussion of the Project**

Mise-en-scène, or “placing on stage” or “putting in scene,” is a term used to describe the design aspects of production, whether that be in film or on a stage. For the purposes of film, everything that is placed in front of a camera and appears in a shot can be described in terms of mise-en-scène.

In this chapter, the elements of mise-en-scène will be used to help define what changes in the final product when different video games are used as production tools. How the short films change visually between games and whether those changes impact the narrative will be discussed using mise-en-scène as a theoretical lens. I will begin by going over the predictions I had regarding mise-en-scène before the project began.

### **Predictions Regarding Mise-en-scene and Machinima**

Mise-en-scène consists of a number of components. These include shot composition/emphasis, lighting, costuming, framing, proxemics, color, and other aesthetic elements. Depending on the game, these different aspects of visual storytelling can be adjusted to varying degrees or cannot be adjusted at all.

Mise-en-scène encapsulates the design aspect of production and is used to help determine how the meaning of a film can be interpreted. As discussed earlier, machinima can be advantageous for low-budget creators, but brings with it certain limitations that I aim to explore using mise-en-scène. Before the project began, I predicted that aesthetic elements such as shot emphasis, proxemics, camera angles, hierarchy of shot, density, composition, form, framing, blocking, character placement, and staging positions would be able to be manipulated with a large degree of control. I thought that other elements such as the lighting key, lens/stock, and

depth of field would be harder to control, if they could be at all. These three elements are usually hardwired into the game itself and were not meant to be changed by the player, so I predicted creative solutions to get a desired result may have to be utilized by a machinima creator.

Finally, we are left with the elements of color, set design, and costuming. With color, adjustments within a game itself are usually limited, but color grading in post-production can help to alleviate that issue. Set design is another element that I thought would vary in flexibility from game to game. For example, *Minecraft* is a game where you can shape the world to your liking, making set design there an easy task. On the other hand, *Grand Theft Auto V* exists within a set world, making it more difficult to adjust the setting to the creators liking. Costuming was also an element I thought might be more limiting in some games than in others. *Grand Theft Auto V* has an expansive character customization system, while *Halo: Reach* only allows for smaller visual changes, comparatively.

With these different elements of mise-en-scène in mind, I will now explore the games used to create each of the six films and the degree to which each of these elements were able to be manipulated. Each element of mise-en-scène that was mentioned above will be applied to the machinimas. Three different games were used to create both sequences, each bringing different visual advantages and challenges.

### **Elements of Mise-en-scène that Remained Constant**

For all six short films, there are common elements of mise-en-scène that were largely unaffected by the games they were produced in. I could successfully replicate the two narratives across all three games, and a lot of the connective tissue that binds them together visually comes from these elements. These had little to no variation between games and were able to be manipulated to the same degree in all the virtual environments I worked in.

Framing could be adjusted freely in all three of the video games used. This is thanks to the flexibility granted by the player movement options and built in recording tools, which allowed me to position actors wherever they were needed to achieve the desired result. Furthermore, shot emphasis and hierarchy of shot were both unaffected, as I was able to manipulate objects within the frame to shape where the audience would be looking, and the order in which that would happen.

Similarly, camera angles were all fully adjustable. Every method of recording in every game allowed for the camera to fly above or get close to the ground and tilt up or down accordingly. The only exception to this would be the creation of canted angles, where the camera would have to be slanted to one side. This kind of effect would be impossible to create natively within the game engine and would have to be done artificially in post-production. For the purposes of this project, canted angles were not required for the narratives chosen and were not used, but it is still notable.

Thanks again to the flexibility of the recording methods present within the games, the composition of shots was also fully adjustable. Camera movement and prop placement were all utilized to create balanced scenes. In the case of *Grand Theft Auto V*, a rule of thirds overlay could be placed over the scene being shot, making good composition even easier to accomplish.

The elements presented so far all remained highly flexible across all three game environments. However, the components of lighting key and color were similar within these game engines in that they were consistently less flexible.

Across the board, the manipulation of the lighting key in these game environments was very limited. Making environments darker or lighter is not adjustable beyond the manipulation of

the day night cycle. As a result, creating high contrast sequences or silhouettes was impossible. Some light sources could be placed in *Halo: Reach* and *Minecraft*, but these were not directional, limiting what could be done.

Color was another element that was similarly restricted. Customization options within each of the three games varied, but all had only a limited variety of color options present for characters, and any props within the game could not have their colors adjusted. Colored lighting, which might be achieved with gels on a traditional film set is also lacking.

In addition, blocking, staging positions, and character placement were consistently adjustable in *Halo: Reach* and *Minecraft*, but were more difficult to manipulate in *Grand Theft Auto V*. This will be explored further later in the *GTA V* section of this chapter. For the following sections, I will focus exclusively on elements that shifted between the different games and highlight how their flexibility of manipulation varied.

### **Mise-en-scène in *Halo: Reach***

*Halo: Reach* had several key differences compared to the other games when it came to visual manipulation. The game gave me the ability to act out full scenes within a custom game session and then choose camera positions later in the theatre mode. This enabled me to pause, fast forward, and rewind the actor's positions and actions to get the best shot possible. As a result, camera proxemics were incredibly flexible and could be adjusted on the fly. Character proxemics were similarly flexible and were not impeded by the nature of the video game. All characters were player controlled and had freedom to move about and position themselves anywhere within the game environment.

Unlike on a real film set, there is no option in any of the games that were used to adjust the focal length of the camera. In a traditional production, this is accomplished by changing the lens on a camera to create distortion and space on the screen. However, in *Halo: Reach*, there is a zoom feature present within the theatre mode that simulates the effect of a telephoto lens, constricting the space on screen and creating a tighter shot. This element of mise-en-scène is uniquely adjustable in this game and was utilized in both narrative sequences.

The density of each shot, meaning how much stuff is present on screen at any given time, varies from game to game. The narratives produced in *Halo: Reach* were denser than *Minecraft*, and less dense than *Grand Theft Auto V*. This can be attributed mostly to the detailing present in the game world. *Halo: Reach*'s aesthetic has more detail in its environments, making each shot busier than it would be if produced in the simple building block style world of *Minecraft*.

*Halo: Reach* is a game that takes place in self-contained multiplayer maps. As a result, its form is closed more so than the other two games that were used to create these machinimas. While the sets are large enough to give the impression that there is a larger world outside the shot, the action-heavy sequence was more difficult to create in this game thanks to a smaller playable world. I quickly began to run out of space when shooting the vehicle chase, which is an issue I did not run into in *Minecraft* or *Grand Theft Auto V*.

As explained above, *Halo: Reach* is a game that takes place in self-contained multiplayer maps. These play spaces vary in size and aesthetic, with twenty different multiplayer maps to choose from. These spaces are highly detailed and are designed to look like they are a part of a larger world than they are. However, these maps can only be adjusted in limited ways. Props and other assets can be placed in the game world for characters to use and interact with, but any

significant changes to the set itself cannot be done. In this way, set design in *Halo: Reach* is limited, especially when compared to freedom and adjustability you get in a game like *Minecraft*.

Customization settings allowed for the creation space marines that appear distinct from one another. You can create a unique character, but it is limited by the science-fiction aesthetic of the *Halo* universe. The costuming is therefore flexible within the aesthetic of the game, but creating a character that is not wearing powered assault armor is impossible. This is another example of the limitations that a game environment can impose on a creator and mise-en-scène.

### **Mise-en-scène in *Grand Theft Auto V***

The biggest obstacle facing production of the machinimas in *Grand Theft Auto V* came from only being able to have one playable character in the world. *GTA V* is the only game of the three used that does not have split screen functionality, and while online play allows for multiple player-controlled characters to exist within the same environment, I was unable to locate willing participants who both owned *GTA V* and had an online subscription to the Xbox Live service. As a result, each narrative produced in this game was done with one playable character, while the other characters were played by non-player characters (NPCs). Thanks to these factors, it was harder to control character proxemics in *GTA V* when using NPCs, since I had no control over these characters actions. Camera proxemics were also an issue in *GTA V*, since the game limits the camera's placement to be within a limited range of the playable character. This restricts how far away the camera can be placed, preventing the creation of medium-wide to wide shots.

Similarly, blocking, character placement, and staging positions within the shots of the *GTA V* machinimas were affected using NPC characters. Since the camera is bound to the player character, certain shots of NPC characters were impossible or restricted, as those characters

sometimes fell at the very edge of the camera's placement radius. This directly effects how characters appear within the frame (character placement), where characters are looking in relation to the camera (staging positions), and where the characters are in relation to the camera (blocking).

Another unique aspect of creating machinima in *GTA V* comes in the form of a dedicated depth of field tool. No other game used in this project has the in-game capability of adjusting the depth of field. As a result, most shots in all these machinimas have a deep depth of field. In the action heavy *GTA V* sequence, a shallow depth of field is utilized on a few occasions to create a more cinematic feel that cannot exist in the other two game environments.

Similarly to *Halo: Reach*, each shot created in *GTA V* has a higher density than a game like *Minecraft*. A lot of detail exists in the *GTA V* setting, with random NPC citizens, traffic, and police populating the open world. As a result, most shots made in this game have a lot more visual information packed into the frame.

Unlike the closed-off multiplayer maps in *Halo: Reach*, *Grand Theft Auto V's* playable environment exists as an open world. Even if a player is not present, NPC characters and vehicles go about their business, breathing life into the fictional city of Los Santos. Thanks to this, the form for the machinimas created in *GTA V* are open, as a larger world literally exists outside of the viewers' perspective.

While the world of *GTA V* is expansive, set design possibilities are comparable to that of *Halo: Reach*. Props can be placed and vehicles can be called in for use in a scene, but altering the game world itself is not possible. As a result, locations had to be scouted out and found

within the world, a process like what would be done for pre-production on traditional film projects.

One of the most flexible aspects of using *GTA V* for machinima creation is costuming. The character customization present in this game is expansive, with over four thousand clothing items available in the game for the player character. Additional preset options exist for use in *GTA V*'s Director Mode menus. These preset character models are selectable under categories such as "Gangs," "Beach Bums," "Military," and more. This level of customization choice makes *Grand Theft Auto V* the most flexible of the three games chosen in terms of costuming.

### **Mise-en-scène in *Minecraft***

Creating a machinima in *Minecraft* was a unique experience within the context of this project for several reasons, one of the most prominent being the lack of an in-game video creation tool. Unlike in *GTA V* and *Halo: Reach*, it is not possible to record and save clips of a character's performance after the fact, so all recording had to be done live. This directly affected the relation of the characters to the camera when creating the two *Minecraft* sequences. Character proxemics were still able to be controlled with a good amount of flexibility, as every character in *Minecraft* was controlled by a player.

As mentioned previously, shots created in *Minecraft* are less busy and lack the same level of detail found in other games, resulting in a lower density. This is due to the simple building block aesthetic, which manifests both in the environment as well as in the character design. As a result, character customization is lacking when using this game as a production tool. In this version of *Minecraft*, creators are limited by a small pool of armor sets and preset skins to provide variation between characters. The PC version of the game allows for greater creative



freedom when customizing your character. Since this project used the Xbox version of *Minecraft*, costuming was limited in its flexibility compared to the other titles. What *Minecraft* lacks in detail, it makes up for in the vastness of its open world and the ability given to the player to freely alter the game environment.

*Minecraft* is an open world, populated with NPC creatures and infinitely generated landscapes. This allows for an open form when creating machinima projects in the game. It is very easy to create an open form within shots when the world itself exists as an infinite continuation of itself.

Unsurprisingly, the one aspect of mise-en-scène that *Minecraft* did better than any other game was set design. For both narrative sequences, full sets were created from scratch using *Minecraft*'s Creative Mode. This allows for the infinite placement of blocks of any kind, granting a player the freedom to craft buildings and designs completely unique to their world.

## Chapter 5- Conclusion

Each game presented its own unique challenges when attempting to recreate similar narrative sequences. The biggest obstacles when creating these films came from the differences in aesthetic and map design in each of the games. This most directly affected the elements of set design and costuming.

If I were to do this project again, I might try to recruit individuals to be body actors in *Grand Theft Auto V*, removing the need to rely on NPC characters for the *GTA V* machinimas. This would alleviate complications that came about and affected how proxemics, blocking, character placement, and staging positions were able to be adjusted in that game. For Minecraft, character customization might be enhanced if the machinimas were created on a PC rather than on the Xbox platform. Minecraft character skins can be customized on the computer version of the game, allowing for more distinct character designs.

If future projects were to explore this topic, I think it would be interesting to study how the use of game modifications, or “mods”, might provide greater flexibility for machinima creation. Mods would allow for possibilities beyond what the game traditionally allows, such as different character appearances, props, or even brand new, custom made environments.

Additionally, during my research I came across a concept known as “ludonarrative dissonance,” which is when the narrative being told through a game’s story is at odds with the player’s actions during gameplay. For example, if a protagonist is portrayed as a noble hero through dialogue and other narrative elements, but in gameplay kills thousands of enemy NPCs, this sends two different messages. I think that this could be applied to machinima creation. When a machinima creator repurposes an existing game to tell a new story, does their narrative line up

with the aesthetic that already exists within the game? I think this would be a fascinating line of questioning to pursue.

Overall, each of the narratives maintained their structure, regardless of the game they were created in. The aesthetic in each of the games adjusted the setting and overall art style of the short films, but each of them clearly told the same stories.

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