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Time for The Moon Night:
A pixel art game about generational trauma

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Relatório de projeto para obtenção do Grau de Mestre em
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(2º ciclo de estudos)

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Declaração de Integridade

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Resumo

Este relatório visa a apresentação do projeto *Time for The Moon Night*, o qual foca na criação de *assets* para um jogo em *pixel art* e no desenvolvimento da sua narrativa, assim como na implementação destes, permitindo comprovar a coerência e funcionalidade dos mesmos dentro de um jogo.

O jogo relata a história de um personagem adolescente sem nome que faz parte de uma família de criaturas sobrenaturais, os Agmas. O intuito da narrativa é, através do conceito de viagem no tempo, retratar o impacto que o trauma geracional tende a causar em famílias, fazendo com que mesmo aqueles que não saibam o motivo real de seus traumas possam desvendar as sequelas de algo que ocorreu no passado, por vezes décadas antes de terem vindo a nascer.

Desta forma, o projeto se divide em duas partes: o Design e o Desenvolvimento. Na primeira é retratado o processo de elaboração da narrativa, a conceptualização dos personagens, assim como os ambientes distintos existentes no jogo e a criação dos *assets* que compõem o jogo. A segunda parte foca no processo de composição do jogo em si, dando especial destaque às mecânicas e à implementação dos *assets*.

Este documento descreve o processo de criação de um vídeo game, que, em uma dimensão autobiográfica, permitiu, de uma forma invulgar, abordar um tópico pessoal de extrema importância para a criadora e de inquestionável relevância histórica, através de um meio usualmente assumido como de entretenimento popular.

Palavras-chave

Pixel art;viagem no tempo;narrativa;trauma geracional;game design

Abstract

This document is the presentation of the project *Time for The Moon Night*, which focuses on the creation of assets for a pixel art game, the development of its narrative, as well as well the implementation of these in a playable game to prove their coherence and functionality in a game.

The game tells the story of a nameless teen who is part of a family of supernatural creatures, Agmas. The aim of this narrative is, through the concept of time traveling, to portray the impact that generational trauma tends to cause families, making it so that even those who are not aware of the real cause of their traumas see themselves affected by the reminiscent of something that happened decades before they were born.

With that, the Project divides itself into two stages: The Design, which covers the process of creating the narrative, conceptualizing the characters and environments, and the development of the assets that are to be a part of the game. The second part, Development, focuses on the process of composition of the game, covering the mechanics and the implementation of the assets in way of proving that they are functional in a game.

This document describes the creation process of a video game, which, on an autobiographical dimension, allowed, in an unusual way, to speak on a personal topic of extreme importance to the creator and of unquestionable historical relevance, through a mean usually associated with popular entertainment.

Key words

Pixel art;time travel; narrative;generational trauma;game design

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1. Introduction

1.1. Motivation

Growing up playing games on PC and Nintendo DS, pixel art has had a huge influence in what games to play or not, as the idea of small squares forming a picture was and still is fascinating. Therefore, one of this project's motivations is to design and create assets in the pixel art style to showcase my ability as a pixel artist.

Coming from a Jewish family who has suffered through the horrors of war and dealt with the generational trauma that comes with such a traumatic experience like the Shoah, the other personal motivation for this project is to be able depict this trauma in a creative way.

The combination of these two motivations resulted in the currently presented project, which is meant to be, on a personal level, a way to visually represent a struggle that I have lived with my whole life and, on a professional level, a form to improve my abilities as a pixel artist.

1.2. Objectives

The aim of this project is to design a pixel art style adventure game, focusing mostly on its narrative and design of assets. The story of this game is to represent, through a supernatural analogy, the self-discovery that many victims of generational trauma go through as they understand that their current situation is the result of generations of suffering.

With that being said, this project was created first and foremost as a way for the further improvement of my skills as a pixel artist, as well as the better development of my ability writing narratives through the creation of a story that, not only is interesting, but also discusses a topic that is of personal importance.

1.3. Document Structure

This document is made of a total of 5 chapters including this one:

Chapter 1 – **Introduction** – explains the motivation behind the project as well as its main ojectives.

Chapter 2 – **Related Work** – gives a brief overview of the history of pixel art and covers works in different fields that can be related to the creation of this game.
Chapter 3 – **Design** – follows the design of the games content, from the writing of narrative to the character and level design.
Chapter 4 – **Development** – talks about the development process of the game.
Chapter 5 – **Conclusion and Future Work** – presents the conclusions from this project as well as its future.

With the objectives and motivation behind this project well established, it is possible to have a better understanding as to the reasons behind certain decisions taken in the course of the development of this game, which will be described in the subsequent chapters.

2. Related Works

2.1. Related Games - Pixel Art

Pixel art as an art style was first used as a result of the technological restrictions of the existing hardware at the time, given that the first commercial games, such as Computer Space (1971) and Galaxy Game (1971), were limited to a few colors and small screens, there was not much space to further develop in the graphic aspect.

The first generation of game consoles, having games such as *Pong* (1972), associated with it, was composed of systems that could not be programmed and relied on some kind of transitor logic, such as TTL, to move the sprites, as we can see in Figure 2.1 (F. Alencar, 2017). As Ralph Baer, creator of the gamming console *Magnavox Odyssey* (1972) said: “People began calling them computer games. They weren’t. There were no computers!” (Donovan, 2010, p.36). In conclusion, the games did not include any mode or microprocessor, they had a static background with a few elements that could be moved on screen using analog components.

Figure 2.1: PONG Arcade Version

With the evolution of technology, the second generation of consoles was developed so that games could finally be programmable. This made it so that players could play against the machine itself, given that the newly introduced microprocessors allowed for the implementation of artificial intelligence in the game (Donovan, 2010). These 4bit and 8bit microprocessors also expanded the color palette for games, although there was not a lot of room for details yet. Figure 2.2 shows a classic example of said aesthetic.

Figure 2.2: Screenshot of game Kung-fu Master (2017)

The third generation is marked by the 8bit processors being used to their full potential, with an increase of the number of colors, sizes and sprites allowed per screen. A famous title from this generation is the game *The Legend of Zelda*, seen in Figure 2.3.

Figure 2.3: The Legend of Zelda 1986 starting screen (2007)

With the new improvement of the 16bit processors, the fourth generation is seen to take a big jump, since the new microprocessors allowed for bigger sprites that would simulate 3D graphics, given that the increased number of pixels meant that more colors could be used. This increase in colors can be noticed in Figure 2.4.

Figure 1.4: Screenshot of Streets of Rage 2 (2011)

The generations that followed were the beginning of the introduction of 3D graphics to videogames and, therefore, pixel games began stopping being the norm, as there were no more hardware restrictions limiting things such as pixels per sprite (H. Whitworth, 2004). As game graphics evolved quicker and quicker every year and the industry became more inclined to use better graphics associated with 3D, pixel art became an artistic choice for game designers and developers.

2.1.1. Stardew Valley

Stardew Valley is a simulation role-playing game developed by ConcernedApe. In the game the player inherits their grandfather's decaying farm and must work to build it back to its old glory. It is a top-down pixel art game made with 16x16 sprites. As such, it is an inspiration for *Time for The Moon Night*, as it is a game that works with a very limited number of pixels and manages to deliver beautiful assets (see Figure 2.5).

Figure 2.5: Pixel art game Stardew Valley

2.1.2. The Legend of Zelda: A Link to The Past

The Legend of Zelda: A Link to The Past is an action-adventure game developed by Nintendo (Nintendo, 2007). It is the third installment of *The Legend of Zelda* series, being released in 1991. It is a pixel art game with supernatural elements which, according to IGN Southeast Asia, introduced many of the aspects that are now associated with the *Legend of Zelda* series, including the close-range combat in top-down that can be seen in Figure 2.6 (D. Bashir, 2021). This specific mechanic is an inspiration for *Time for The Moon Night*, as the character in the game must fight with his hands, which means the combat must be close range.

Figure 2.6: Close-range combat in The Legend of Zelda: A Link to The Past

2.1.3. OneShot

"*OneShot* is a surreal top-down Puzzle/Adventure game with unique gameplay capabilities." (Steam, 2016). This game was developed using the RPG Maker 2003 and RPG Maker XP engines, both earlier versions of the engine being used to develop *Time for The Moon Night*. Because of that and its simple pixel art style, seen in figure 2.7, this game is an inspiration for the development of *Time for The Moon Night*.

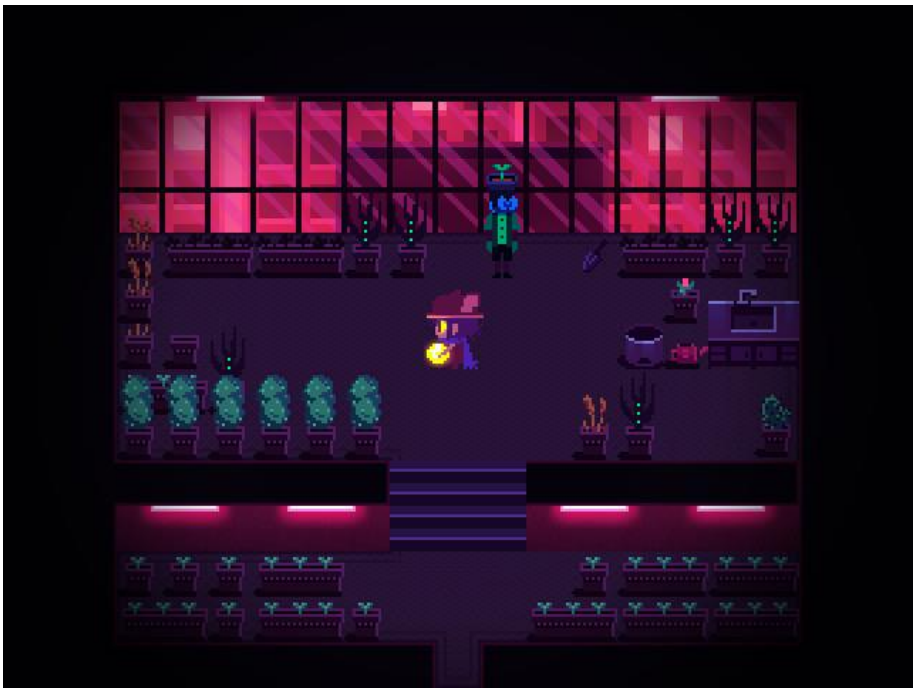

Figure 2.7: The art style of OneShot

2.1. Related Media

The use of supernatural elements in media has been done for years, taking aspects of folklore from different cultures and creating a new representation of them with the aim of entertaining whoever is reading a book or watching a movie. Knowing that, there is a huge variation of portrayals of supernatural creatures to take inspiration from in media. Since one of the main points of the game's story is that the main character can turn into what is considered a monster at will, and another is that he can travel back and forth through time, these two themes will be covered in this section.

2.1.1. Shapeshifting

Stories about mystical creatures and unexplainable situations exist since the early ages. These mythological stories, although not proved, have become known by a big part

of the global population and, subsequently, become inspiration for many works around the world. The same can be said about the characters that integrate these narratives. The werewolf is a creature sometimes represented as a man who can transform into a wolf or as a half man/half wolf creature. As Charlotte F. Otten describes in her book, *The Lycanthropy Reader: Werewolves in Western Culture*, the idea of a werewolf has been portrayed so many times in film, books, and tales, that its specifications tend to differ from portrayal to portrayal (C. Otten, 1986, p. 2). A werewolf is a shapeshifting man, but it can be more or less than that as well.

Although the werewolf is arguably the most popular depiction of a shapeshifting human, there are many other examples of the concept withing media. In the Harry Potter book series, for example, there is the term Animagus, which refers to wizards who, after training, develop the ability to turn into one specific animal. Other than that, one character in the series, Nymphadora Tonks, seen transforming into a duck in Figure 2.8, is described as a Metamorphmagus, someone who is born with the ability to change their appearance at will.

Figure 2.8: Character Nymphadora Tonks in the movie Harry Potter and the Order of the Phoenix

In Brazilian folklore, the boto-cor-de-rosa legend speaks about a pink dolphin that can transform into a man. When in the form of a man, he seduces and impregnates women. This legend has been translated into other media forms such as the Netflix series Invisible City (see Figure 2.9).

Figure 2.9: Scene from Netflix series Invisible City

Unfortunately, some of these folklores also translate into conspiracy and further develop into hatred, as it is possible to see existence of conspiracy theories regarding people who can turn into lizards up until this day. This same conspiracy has been used as a justification for at least one terrorist attack in Nashville, USA (S. Winer, 2015).

2.1.2. Time Travel

According to the *Stanford Encyclopedia of Philosophy*, there is no exact definition of what time travel is in literature, but it is said that the best definition has been made by David Lewis: "What is time travel? Inevitably, it involves a discrepancy between time and time. Any traveler departs and then arrives at his destination; the time elapsed from departure to arrival…is the duration of the journey. But if he is a time traveler, the separation in time between departure and arrival does not equal the duration of his journey." (D. Lewis. 1976. 145–46).

This concept has been present in media for years, appearing in classic movies such as *Back to The Future* (see Figure 2.10), *Terminator* and *Avengers: Endgame*. All these movies, although working with the same basic idea of time travel, have their own set of rules as to how time travel works and how it may affect the present.

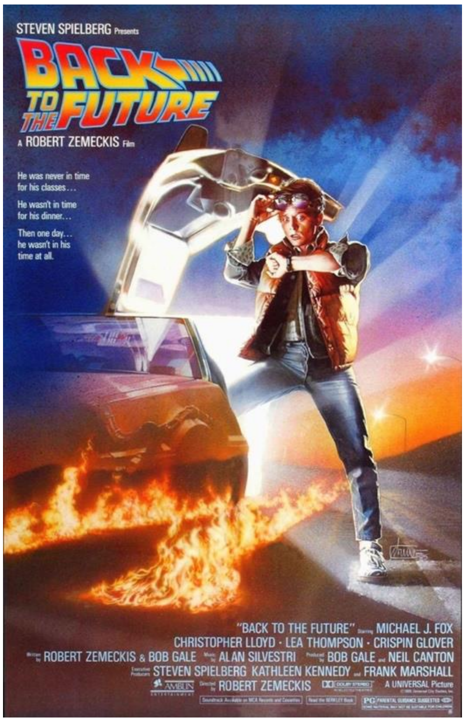

Figure 2.10: Back to The Future movie poster

Other depiction of time travel in literature would be the book *A Christmas Carol*, depicted in Figure 2.11. It tells the story of an old man who hates Christmas and is visited by spirits who make him see Christmas in three different time periods, past, present, and future. These three travels through time are done to teach the man a lesson in hope for him to change his behavior and become a better person.

Figure 2.11: Different versions of the book A Christmas Carol

2.2. Related Studies

One of the driving reasons behind *Time for The Moon Night's* narrative is the depiction of generational trauma through a story with supernatural elements. With that being said, this section will cover the aspects related to generational trauma.

2.2.1. Generational Trauma

According to Duke University's Office for Institutional Equity, generational trauma is the term used to explain years of problems in a family (Anonymous, 2020). More specifically, it is the act of transmitting the aftereffects of a traumatic event to the generations that come after you.

As French author Alain Finkielkraut writes in his book *The Imaginary Jew*, "I inherited a suffering to which I had not been subjected." (as cited in V. Aarons & A. Berger, 2017), that saying can be used to interpret generational trauma as a trauma that does not stay with one person but gets passed down to their next generations. One example is Nicole Krauss, a Jewish author and the granddaughter of Shoah survivors, who explains that it is not possible for her to write about the horrors her ancestors went through, simply because she has not lived through those experiences (V. Aarons & A. Berger, 2017, p.147). While the trauma is present in the descendants of the person who first developed it, these descendants only know the trauma, but have not experienced what caused it.

One of the first records of what would be considered generational trauma was noted in 1966 by researcher Vivian M. Rakoff who, after interviewing children of holocaust survivors, realized that even if they were not born at the time of their parents' imprisonment, they still showed high rates of psychological distress (H. Epistein, 1979).

With that being said, the signs of generational trauma may vary from person to person and thus there cannot be a list that will assign every symptom to a single person. Below is a list taken from PsychCentral containing a few possible signs and symptoms of generational trauma and a brief explanation of each of them (G. Ryder & T. White, 2022). Not all of these symptoms were picked to be implemented in the game, as some were seen as not fit for the narrative and others to be too much information for the flow of the game.

- **Emotional numbing and dissociation:** The closing off of emotions as well as the feeling that the person is not in their own body.
- **Unresolved and complicated grief:** Not overcoming a traumatic experience and going through long periods of time grieving.
- **Isolation and withdrawal:** Closing off socially and refusing to communicate with others.
- **Hyper-vigilance:** Always being afraid that something might happen.
- Memory loss: Not remembering important facts sometimes related to that specific traumatic event.
- **Anger and irritability:** Being violent as a way to externalize their feelings.
- Inability to connect with others: Lack of social skills.
- **Lack of trust of others:** Having a difficulty being able to fully trust new people.
- **Substance abuse:** Using substances such as alcohol and drugs to numb feelings and avoid the trauma.

After researching all the topics above mentioned, it was possible to create a scope of inspiration using aspects of the design, media and psychology research and elaborate a foundation for the development of this project, both visually and narratively.

3. Design

This project aims for the creation of a narrative focused game in top-down pixel art style, in which the player takes control of an unnamed teenager with the ability to shapeshift and must travel through his family's worst memories to understand why they are that way. The game takes heavy inspiration in the concept of generational trauma, especially how the causes of said trauma are "diluted" as the generations grow until a point where only the trauma exists but the person might not know the reason for it.

3.1. Tools

Some tools were picked to be used for the creation of *Time for The Moon Night*. In this section each will have its purpose in the project described, followed by the justification as to why they were picked.

The art tool – **Aseprite** – is an image editor created with pixel art in mind. It allows for not only the creation of the sprites but also their animation and further manipulation. Because of its focus on pixel art creation, this tool was chosen for the development of idle and animated sprites.

The editing software – **Adobe Photoshop** – is considered the standard in the industry when it comes to image editing and manipulation. Having a built-in ruler, this software was picked as it helped have more precise positioning of the animated sprite frames before they were to be used in-game.

The game engine – **RPG Maker MV** – is an engine for making RPG-style games. One of this engine's highlights is the use of plugins, which allow for the extensive customization of said engine, as well as a simple UI and useful database system that facilitates the organization of the project. Aside from the already mentioned facts, one of the reasons for picking this engine was the fact that it is an engine specifically for making pixel art games, so it works with a grid system.

3.2. Game Description

Time for the Moon Night is an action-adventure top-down game for PC that relies on its narrative to translate the idea of generational trauma to the player. The game is influenced by the concepts of time travel and self-reflection, having the player travel through time to understand himself and his family in the game.

3.3. Project Concept

This project was conceptualized with the student's pixel art and narrative skills in mind, in a way to further develop these and create a game using those skills. Time for *The Moon Night* is an adventure drama game that relies on simple mechanics and storytelling to navigate the player on a journey of trauma and self-learning.

This game will be played on PC. Being a pixel art game with simple mechanics, it will not need high-end hardware to run, as the graphics are not demanding.

n regards to the game's art style, *Time for The Moon Night* has been imagined as a pixel art style game since its early days. Although some changes and reconsiderations had to be made for this project to be finalized, such as size and resolution tweaks, the primary style has been maintained until the project's completion.

3.4. Narrative Design

To develop this narrative, it was necessary to first research what is generational trauma and the ways it can affect a family and individuals, as well as other possible complications that can be attributed to generational trauma. The characteristics picked to be used in the narrative are:

Substance abuse: Trauma and stress can induce a person to rely on different substances to help ignore their current situation.
Violence: An experience that overwhelms a person's physical or psychological coping abilities may cause behavioral changes.
Dissociation: Someone who experiences heavy trauma may have instances where they dissociate from their body.
Difficulty with relationships: Being raised by a traumatized parent may result in the child not knowing how to correctly form relationships with others.

With these characteristics in mind, it is possible to elaborate a narrative that covers these specific aspects of generational trauma in a way that may be cohesive and interesting in the story and gameplay.

3.4.1. Characters

In this game, no character has a name, they are referred to as their relationship to the Teenager, who is the protagonist. This stylistic choice was made to both dehumanize the characters, as in this universe they are being targeted and considered less than human by hunters, and to also leave them as a blank canvas to the players to picture themselves in that situation.

Agmas

Agma, from the Korean 악마, is the word for demon. Agmas are people who can turn into horned red creatures at their own will. In the past, supernatural creatures used to live among humans with their knowledge, but, as time went by, humans started to fear what they didn't understand, which included the supernatural and, therefore, Agmas.

Because of the fear among humans, people started to go after and hunt those of supernatural origin, especially Agmas, locking them up in prisons and killing them occasionally, hoping to erase their species from existence forever. In the story's present, most Agmas are living in hiding or extinct and the only Agmas presented in their red form are the Teenager and the Bisa.

Teenager

The Teenager is a young Agma, a person who can voluntarily turn into a red creature. He is very disappointed and angry with life because of his bad relationship with his mother and, aside from his best friend, rarely socializes with other people, which can be noticed when people are surprised that he finally went to a party. He likes rock bands and staying in his room, ignoring the rest of his family.

The Friend

The Friend is the Teenager's best and only friend. While he has a similar style to the Teenager, their personalities differ quite a bit. The Friend is outgoing and likes to socialize, which can be seen when he pushes the Teenager to go to a party and then to talk to people when they are there.

The Sister

The Sister is the Teenager's younger sibling and also an Agma. Even though her brother is cold and distant, she still tries to connect with him sometimes.

The Mother

The Mother appears in two different decades of the game: the present and the 80s. Because of that, her attitude and personality are not the same, depending on the time period.

In the present, she is controlling and closed off, telling her son what he should and shouldn't do, as well as who he should or not trust, but while she tries to control everything, she also refuses to explain her reasoning behind her rules, only giving vague answers as to why things should be done her way. This happens because, as a victim of generational trauma herself, she also does not completely understand what drives her own worries.

Meanwhile, in the 80s she is around her son's age and more outgoing than in the present. She likes to go to parties and get really drunk, always demanding for more drinks. Her excessive drinking is a way for her to ignore her situation at home.

In both decades she is an Agma.

The Father

The Father is a quiet man who does not say much and usually stays behind his wife as she takes the lead in how to run their household. He tried to reason with his son that Mother only does what she does because she cares, but, just like her, he does not give complete answers or explains the reasoning behind any of his wife's attitudes.

He is also an Agma.

The Stranger

A mysterious figure, the Stranger appears for the Teenager at a party and is who induces him into taking a drug and starting his time travel journey. Throughout the

game, not much is explained about the Stranger other than their vague answers to the Teenager's questions that indicate they might know more than they let on. The Stranger has the ability to appear and disappear at their will.

At the end of the game, it is revealed that the Stranger is actually Teenager's Bisa, his great-grandmother whose experience started their family's generational trauma. She is a ghost trying to make her great-grandson understand, by showing glimpses of their family's past, that the way he feels now is a result of decades of trauma combined and that he needs to break this cycle for them all.

The Grandma

Just like Mother, Grandma appears in two different decades and that makes her personality different in each instance.

In the 60s, when she is a young woman, she appears to rely heavily on her mother and, because of her mother's current mental health, is desperate to bring her "back to reality" no matter what the cost is. Because of that rash decision, Grandma ends up being attacked by her own mother.

20 years later, now in the 80s, Grandma is a mother and really violent. She disregards whatever her daughter says and abuses her both mentally and physically with cursing words and slaps.

The Grandma is an Agma.

The Bisa

The Bisa is the person who started it all. Just like her two female descendants, she appears in two decades and with different demeanors in each.

When in the 40s, she is a headstrong young woman stuck in a prison for Agmas. She is not content with her situation and is willing to make the most out of barely anything if it means she can escape that hell.

In the 60s, after having escaped the prison and having a daughter, she is now deeply traumatized by the memories of the day she escaped and her time imprisoned.

Because of that, she tends to dissociate from time to time, going to the clearing where many of her people were burned and buried to cry and reminisce the fact that she is the last survivor left.

The Bisa is an Agma.

The Hunters

The Hunters are a group of people who know of the existence of Agmas and want to rid the world of their existence. They are heavily prejudiced against Agmas even though the creatures have been living in hiding for a long time. There is no known explanation for their beliefs or actions, they are blinded by hatred and will do anything to kill all Agmas.

3.4.2. Script

Knowing the aspects of generational trauma to be used in the narrative, a base script was developed to be used as a guide when creating the in-game interactions and scenes.

Level 1: Present

Contextualization of the universe with a brief text. Agmas have existed for centuries and live in hiding.

Main character is a young man who lives with his parents and sister. His relationship with his family, especially his mother, is emotionally distant, making the young man angry that his mother doesn't try to connect with him but at the same time wants to control his life.

Teenager is in a clearing alone.

Bush moves.

Teenager goes to investigate, Friend appears and scares him.

Teenager: *Damn, you scared me…*

Friend: *Sorry, you know how it's hard to sneak out at this time.*

Teenager: *Tell me about it…*

Friend: *She's still giving you shit about school?*

Teenager: *About school, about my room, about where I am and who I talk to… Sometimes it feels like I'm her personal puppet and not her son. (Pause) I'm so tired all the time.*

Friend: *Hoho, then I got the right idea for us, dude!*
Teenager: *What is it?*
Friend: *There's a party today, I know it's not your scene, but it's a nice opportunity for you to relax, uh?*
Teenager: *Yeah, I guess?*
Bush moves.
Teenager runs away.
Cutscene 1: Teenager transforms into Agma.
Learning to attack. Teenager attacks leaves to open way to the end of the map.
Teenager arrives to the front of his house and must enter.
Cutscene 2: Mom and Teenager fight.
Mom: *Where the hell were you?*
Teenager: *Out by the woods with a friend.*
Mom: *You know it's not safe to go out during the night.*
Teenager: *You know I really don't care right now. You keep saying it's not safe, but you never tell us why.*
Mom: *You know the why.*
Teenager: *No, I really don't, you never tell us anything! So just leave me alone if you can't explain it.*
Player can explore house and must interact with a few pictures. After that he can try and leave through the window
Cutscene 3: Sister knocks on the door and asks if everything is okay. Player has the option to lie or tell the truth, but the truth is blocked. Teenager goes to party.
Teenager arrives at party and must find friend.
Friend: *Hey, you came!*
Teenager: *I had to get out of there…*
Friend: *I bet. Now, how about you go talk to some people? Socialize a little, huh? You can come find me after you're done.*
Player must talk to 3 people, one of them is going to make a comment that indicates their father is going to hunt something. After talking go back to friend.
Cutscene 4: Stranger appears. Teenager asks who that is but friend doesn't see anyone.
Player must talk to stranger. Stranger will offer him a drug, player can take it or decline, but the decline option is blocked.
As he takes the drug, the scene flickers and the place changes.

Level 2: 80s

Teenager: *This is not the same party… Where is my friend?*

Player must talk to people to understand where he is. The people talk but don't seem to be talking to him.

Teenager: *Why are they ignoring me? It's like I'm a ghost or something, is this a prank?*

Younger Mom arrives.

Teenager: *Is this time travel? I don't get it…*

Teenager sees his mom yell for more drinks.

Teenager: *She looks so different.*

Two men arrive and guide Mother outside.

Outside in the same clearing as the beginning of the game:

Men: *First we'll have our fun with her, then we'll kill this dirty Agma.*

Teenager: *I have to stop them!*

The men notice him and the Teenager turns into Agma to fight.

After the fight, the Stranger reappears.

Stranger: *That was a nice gesture, but it's not how things happened back then.*

Teenager: *How did I get here?*

Pessoa: *This is nothing more than a hallucination, boy. You should follow her though.*

The character goes after his mother and appears in the woods again.

The player must cross the maze. After clearing the maze scene changes to front of the house.

Grandma appears yelling and hits Mom.

Grandma: *You good for nothing, piece of shit! Where the hell have you been?*

Mom: *Mom I-*

Grandma: *Shut up, you are a disgrace.*

Cutscene 4: The scene flickers and the Teenager is back in the present. His Dad is being held by hunters and their house burns behind him.

Dad: *Son, run now!*

Teenager: *What's happening?*

Dad: *Go and keep yourself hidden! I'm gonna find your sister and we'll meet you in the clearing.*

Teenager runs while gunshots sound.

The scene changes back to the maze, which is now cleared since he had already cleared it in the present.

Arriving at the clearing, Teenager sees hunters and must hide behind a bush.

If the player walks close to the Hunters, the scene will restart.

The stranger appears again.

Pessoa: *You should try a bit more, after all, it might help.*

Teenager: *You're insane.*

Hunters keep talking.

Teenager: *Who are you?*

The player has the option to take the drug or decline. Decline is blocked.

Level 3: 60s

Cutscene 5: The scene flickers and there is a woman crying in the middle of the clearing. The teenager walks to her.

Teenager: *Is everything okay? You're shivering a lot.*

The woman keeps talking to herself. A girl arrives and starts yelling at the woman.

Grandma: *Mom, do something, please. Just say something, anything, I need you!*

Teenager: *This girl seems familiar…*

Grandma: *It's me, it's your daughter, I need you.*

Teenager: *Grandma?*

The girl burns something in the fire.

Grandma: *I'm so sorry, mom, but I ran out of options.*

The woman reacts by turning into an Agma. Teenager tells Grandma to run and turns into Agma as well. The player must fight Agma.

After the Agma is defeated, a key appears where the woman sat. If the player interacts with the key, the Stranger appears.

Stranger: *Take the key and follow me. We are almost done.*

The scene fades to a new area.

Cutscene 6: Stranger and Teenager walk to the front of a rundown building.

Stranger: *We're almost there now.*

Teenager: *What is this place?*

Stranger: *An old place that should have never existed, to begin with.*

The player must open the gate using the key.

Level 4: 40s

Cutscene 7: Teenager is inside the prison, nothing is destroyed. Bisa comes running to him.

Bisa: *What are you doing here? Come with me.*

Teenager and Bisa run to a room.

Bisa: *I have a plan. We can escape tonight. I just need you to get me some things first. But first, take this, it will make you stronger.*

The teenager flickers and walks out, turning into an Agma.

Player must walk around the map and fight Hunters to get the items. After getting the items player must go talk to Bisa again.

Cutscene 8: Bisa tells Teenager to wait in the hallway and then comes running back as the place is in flames. They both run to the end of the corridor, the wall explodes and they climb a rope out.
Cutscene 9: They run outside until Teenager falls being shot. Bisa runs out alone and Teenager flickers, reappearing beside the body with Stranger. The body is revealed to be his Biso.
They follow Bisa going through the clearing and see that Hunters are burning Agmas.
Cutscene 10: Bisa passes out in front of where the Tenager's house was supposed to be. A man comes walking.
Man: *Do you need help?*
Stranger: *You've seen enough now.*
The Stranger is revealed to be Bisa as a ghost, she tells the Teenager to make better choices for the future of the family.
Cutscene 11: The scene flickers and Teenager is back in the present. Dad is lying dead and mother is being held by a Hunter.
Teenager: *Let her go!*
Hunter: *No!*
Hunters arrive and Teenager transforms, having to fight them. After fighting them scene flickers red and Teenager is seen by his mother's body crying.
Teenager: *I'm sorry I didn't get here in time…*
Mother gives the Teenager the item he stole with his Bisa and tells him to make good choices.
A scream is heard and the screen goes black.

Epilogue: Present

Teenager and Sister in front of tombstones, it is implied that those are their parents. Teenager gives them flowers.
Sister: *I'm scared.*
Players can pick lie or tell the truth, if they pick lie it will say that that option is no longer needed. Teenager tells the truth.
Teenager: *I'm also scared, but we'll survive and get better together. We always do.*
Black screen.
END.

It must be noted that this script was only written to be used as a guide for the development of the narrative in-game and, therefore, the dialogue, game mechanics and scenes in the final project might not be exactly as it is written in the script.

3.4.3. Timeline

Given that the game works with a specific time travel concept, it is necessary to highlight that there are two different timelines: The gameplay and the trauma.

The gameplay timeline follows the same flow as the script seen in 3.4.2., starting with the teenager in the present and then traveling from the present to the past in different occasions.

The trauma timeline, on the other hand, focuses solely on the instances of the game that happen in the past and should be seen as this:

1. The 40s: Bisa's time in prison and escape
2. The 60s: Bisa is traumatized and attacks Grandma
3. The 80s: Mother is assaulted and Grandma hits her

Understanding this timeline as well as the one in the gameplay allows for a better comprehension of how the generational trauma trickled down from the first generation until the protagonist's time.

3.5. Game Mechanics

Game mechanics are what makes a game playable, that is, they are a set of rules as to what is allowed for the player to do or not in-game. It is important to pick game mechanics that work well with the game in every aspect, such as its genre, story, style, and, most importantly, the engine in which the game is being made. If the engine does not support a specific mechanic, then that game mechanic or the engine itself should be reconsidered.

For *Time for The Moon Night*, the following game mechanics were selected to be implemented:

- Destruction of Objects
- Dialogue
- Interaction with Objects and NPCs
- Battle System

As those were the selected mechanics, it is relevant to explain what each of them is and how they will appear in the gameplay, going more in-depth regarding if the mechanic functions the same way throughout the whole game or if it changes in the middle of the story.

3.5.1. Destruction of Objects

The destruction of objects is used in two different ways within the game. One is that when the player has to cross the woods, he will need to take down big leaves to be able to pass through and so the leaves objects will be destroyed with every player interaction with it. The other way is when the player needs to pick up or interact with a certain object in game. If the object is to be picked up and left at its original place, then another object is to be placed on top of it (a shining animation to indicate that that object is interactable). After the player interacts with the object, the animation will be gone, but the object will remain. If the object is to simply be picked up, then it will be destroyed from the map after the player picks it up.

3.5.2. Dialogue

The dialogue mechanic is a simple one that is implemented in two different ways that affect the narrative in the game. The first way is the usual one where a character says something and another one replies. The second one relies on the idea that, given the main character's trauma, he is not able to give a specific answer to certain dialogues. With that, when the player selects the specific answer, they will be told that the option is not available.

3.5.3. Interaction with Objects and NPCs

This mechanic focuses on the prospect that, when interacted with, an object or NPC will trigger something else, such as a dialogue or a cutscene. It is a very straight-forward mechanic.

3.5.4. Battle System

The battle system is a mechanic that is important in the game as to give it more action and make it so that the game is not only made up of interacting with objects and cutscenes. The battle system chosen for Time for The Moon Night was the ABS System,

which is a battle system that happens within the map and not on a turn-based style, which is another battle system that RPG Maker MV offers.

3.6. Character Design

This section will explain the process of character design of a few of the most important characters in Time for The Moon Night, covering the conceptualization done with moodboards, the first sketching of the ideal character and its creation in pixel art using Aseprite. As the steps of this process are the same for all characters, this section will only cover the main character and the three characters that appear in different time periods. Considering that they needed different character designs depending on the decade, thus having to make two designs, it is relevant to mention their specific characters designs more in depth. The rest of the images related to other character's design, including moodboards, sketches and the final art can be found in Appendix A.

Aside from the time travel influence in certain characters' design, it is also important to highlight the specifications which affect the design of every visual aspect in this game. As one of the main inspirations for this game is pixel art, more specifically games with what can be considered a low resolution because of the use of less pixels per tile in game, that also affects how the character design is made. With that being said, the resolution of 16x16 pixels per tile was chosen for the general visual of this game, which might be considered very limiting when it comes to character design, since the average space for the character would be around 16x32 pixels. Because of the number of pixels available, many choices had to be made when translating the characters from their concept arts to their pixelized versions.

Teenager

The teenager is a fan of rock bands and likes to wear band shirts. He wanted to grow his hair longer, but his mother would not let him, so he wears his black hair with a middle part. He is slightly tanned with brown eyes.

For the initial stage of this character's design, a moodboard, seen in Figure 3.1, was made. This collection of images illustrates the character's aesthetic, highlighting his like for rock music and the color black, as well as a hairstyle similar to the one idealized and phrases indicating his state of mind.

Figure 3.1: Moodboard for main character

Having these visual references, a free-hand sketch of the character was made using the moodboard as a guide. The aspects of the moodboard translated into the sketch, illustrated in Figure 3.2 below, were the character's like for rock, the medium-length hair with a middle part, and the blue jeans.

Figure 3.2: Sketch of Teenager

With the sketch setting a better picture of how the Teenager must look, we can then begin creating his pixel art version. Since the pixel art size established for Time for The Moon Night is 16x16, making the size for character sprites a maximum of 16x32 pixels, the first decision when it comes to the character design is what pixel art style the sprites will be.

Searching for examples of pixel art characters with a 16 pixels width, two different styles appeared the most for top-down games: one in which the character's head is drawn bigger than its body (see Figure 3.3), as to indicate the perspective of the top-down vision, and another where the character is drawn with similar proportions for both body and head (see Figure 3.4). While the first one appeared to be the most popular, given the number of sprites found in the style, it did not seem like the most appropriated choice for this game, as it covers serious topics and this style might make the characters appear too child-like because of the big head proportion. Therefore, the second style was chosen as the inspiration for the character sprites.

Figure 3.3: First option for character design

Figure 3.4: Second option for character design

As the character style is defined, the process of translating the details from the sketch to the pixel sprite using Aseprite can finally begin. It must also be highlighted that, although this style was decided during the creation of the Teenager's sprite, it applies to all characters within the game.

Given the size of this character design, the color palette must be reduced to very few colors. That is because the use of too many colors might result in a character with unidentifiable characteristics. Knowing that, the approach to this limitation was to

identify base colors in the sketch, that is, one color for the skin, one color for the hair, one color for a piece of clothing, etc. With these colors in mind, using Aseprite, a small color palette can be made by creating 3-4 variations of the base colors, which will be used to shade and highlight the base colors and give the pixel art more depth. In Figure 3.5 the color palette for the Teenager character can be seen as an example of this step of the process.

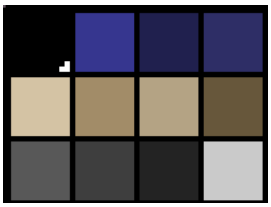

Figure 3.5: Teenager's color palette

After looking at the sketch and identifying the character's striking points, a few aspects were chosen to be transferred to the pixel art in a way that the character could be easily identifiable, even if it does not have as many details as the sketch. The characteristics chosen for the Teenager character were the hairstyle, the black shirt with a white logo in its center, blue pants and the shoes with white details. The comparison between the sketch and the pixel art can be seen in Figure 3.6.

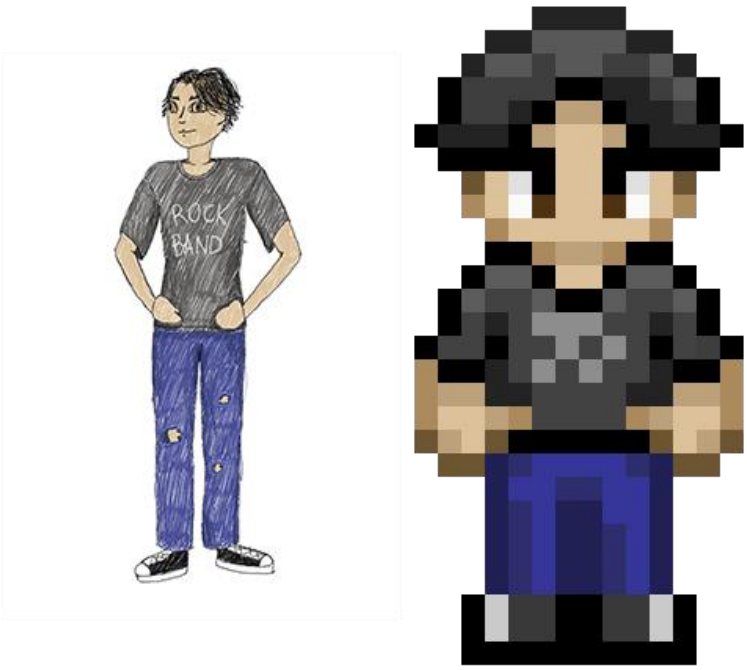

Figure 3.6: Comparison between sketch and final pixel art

After the front view of the character was designed, it was possible to then design its side and back variations by creating a second layer in Aseprite and reducing the

opacity of the front layer by using the command **shift+P** to open the layer properties, as seen in Figure 3.7. This allows for a faster process, as being able to use the front layer as a guide makes it so that it is easier to avoid making size mistakes (see Figure 3.8).

Figure 3.7: Layer properties in Aseprite

Figure 3.8: Onion skinning in Aseprite

With all sides finalized, it is possible to see how the character looks as a pixel art sprite for the game. Figure 3.9 shows the three sides of the character's pixel art.

Figure 3.9: Teenager's final design

Mother

The Mother is a character that appears in more than one decade in the game. Because of that, two different character designs must be made, one for her adult version in the present and one for her 80s version as a young woman.

With that being said, two moodboards were made for this character. The first one, for the adult version, which can be seen in Figure 3.10, highlights the Mother's detachment and emotional unavailability, as well as her more mature style of clothing, with leggings, vests, and dresses. The second moodboard, present in Figure 3.11, is focused on her younger version, showcasing her alcohol dependency and outgoing energy, which she uses to hide the fact that life at home not good and also translates into the clothing, with the use of skirts and cardigans.

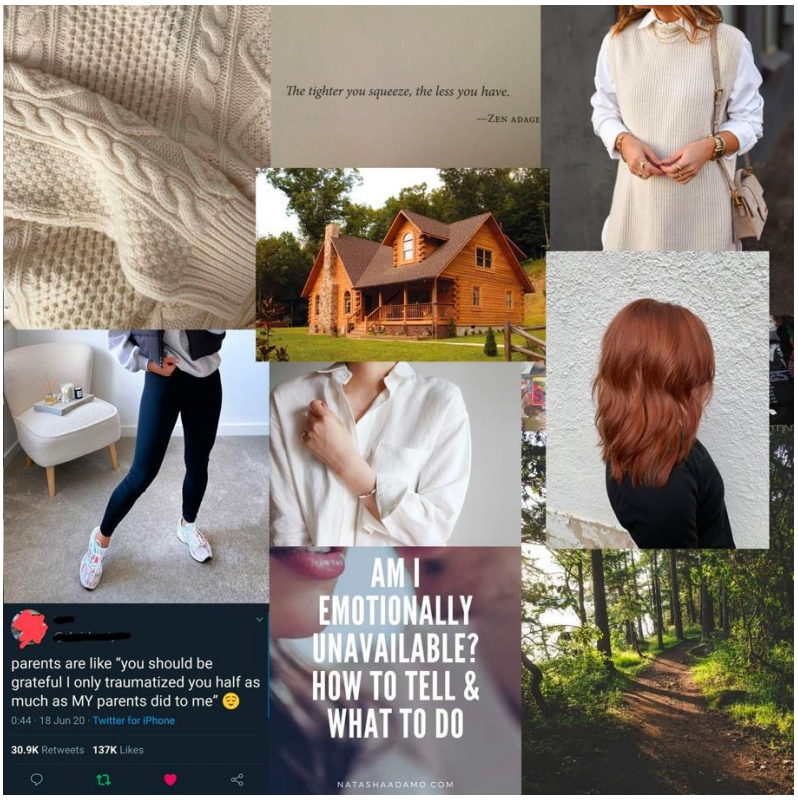

Figure 3.10: Moodboard for present Mother

Figure 3.11: Moodboard for 80s Mother

These two moodboards give content to the creation of two versions of the Mother. Although very different aesthetics, it is of great importance that, when sketching both

versions, the two drawings show at least a small similarity, since this is the same person, only in different time periods.

Knowing that, the sketch of the present mom is made focusing on the “home” aspect of the moodboard. Giving her leggings and a baggy dress over a white shirt, this outfit, combined with the straight hairstyle makes up a put together adult who just wants things under their control (see Figure 3.12). The sketch of the 80s, on the other hand, focuses on the colors and flow of the outfit, something used to hide how the Mother is actually feeling. The hairstyle is also changed, now being a short perm, which was popular at the time (see Figure 3.13). To make it clear that this is the same person, the similarities used were the hair color, an auburn tone, and the pink shades of her outfits.

Figure 3.12: Present Mother sketch

Figure 3.13: 80s Mother sketch

For the present Mother, the details chosen to be used in the pixel character were the pink sweater vest dress with the white shirt underneath it. Given that this version of the Mother has straight hair, that is also used to give the pixel character more of an identity, as can be seen in Figure 3.14.

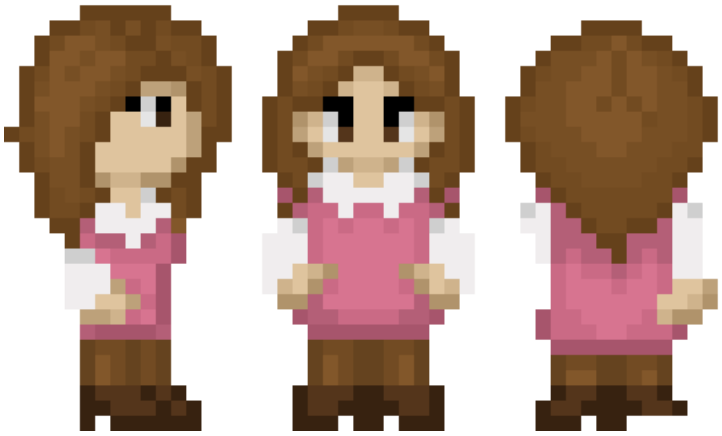

Figure 3.14: Present Mother final design

Mother from the 80s, on the other hand, has her lavender cardigan as the detail used in her pixel art character. That, together with the perm hairstyle and the different

shade of pink of her skirt, makes it clear that this is not exactly the same character and Mother from the present (see Figure 3.15).

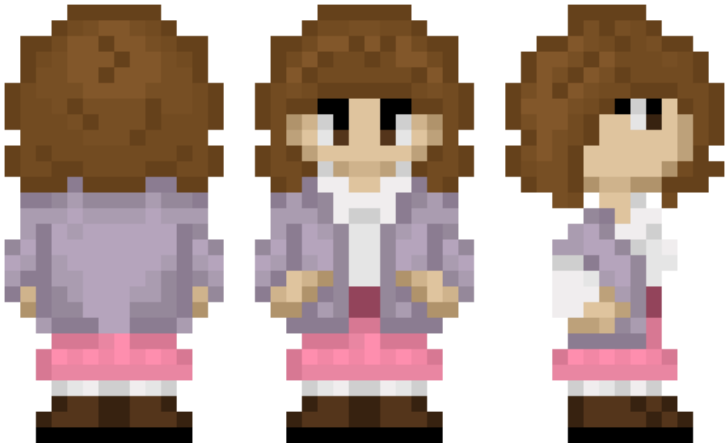

Figure 3.15: 80s Mother final design

Grandma

Just like Mother, Grandma also appears in two different decades in the game, the 80s and the 60s. As a result, two character designs must be made for her, starting with the moodboards.

The moodboard for the Grandma from the 80s, as seen in Figure 3.16 below, focuses on her demeanor as an adult. She is an angry woman who does not have the patience or emotional stability to deal with her daughter's problems. Her outfits show that she prefers simplicity over fashion, going for styles that were, in fact, popular among women at the time, but not as colorful as most women would have worn.

Figure 3.16: Moodboard for 80s version of Grandma

As for the 60s version, this moodboard highlights Grandma's struggles caring for her traumatized mother and how she had to become a parent to her own parent, when most times she needs her mother to be there for her, which can be seen in Figure 3.17. In terms of clothing, the use of bright colors makes the 60s style very noticeable, from mid sleeve shirts to printed skirts, Grandma follows a very colorful style despite her personal issues with her mother.

Figure 3.17: Moodboard for 60s version of Grandma

Having two moodboards as a basis for the sketching processes, the use of vests over shirts and dresses depicted in the first moodboard is the inspiration when dressing Grandma for the 80s. The blowout hairstyle is also used in the sketch (see Figure 3.18), giving Grandma a lot of volume in her head. For the second moodboard, bright colors and printed skirts are translated into the style Grandma uses as a young woman (see Figure 3.19). Having her hair straightened and with bangs, the only thing connecting this version of the character to the 80s one is the hair color and warm tones of the clothes.

Figure 3.18: 80s Grandma sketch

Figure 3.19: 60s Grandma sketch

With both sketches drawn, the next step is to follow the same process mentioned the beginning of this section, having basic colors selected, which will then be used to make a color palette composed of variations of each color.

As the color palette is composed, the details of the sketches that are to be used in the pixel art characters can be chosen. For the 80s version, the big blowout hair and the brown vest are picked (see Figure 3.20). While for the 60s version, the characteristics chosen were the colorful shirt and skirt, having straight hair with bangs to help differentiate as well, which is present in Figure 3.21.

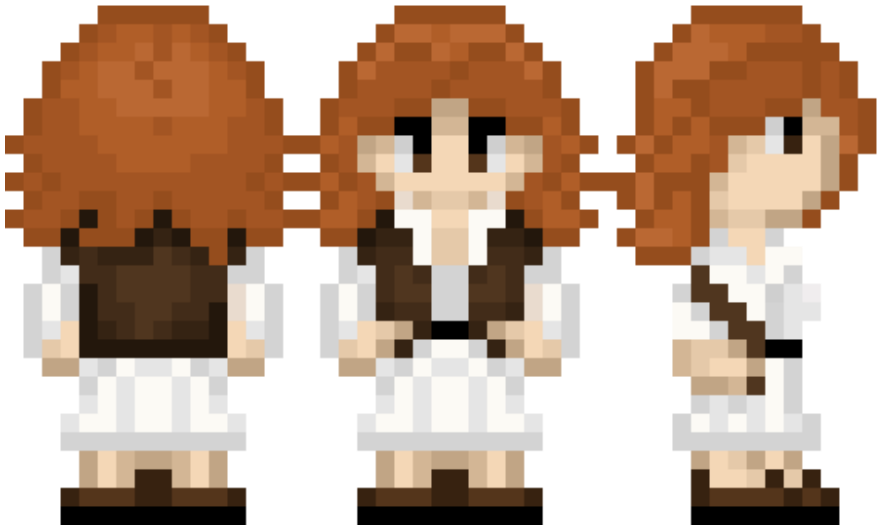

Figure 3.20: Final design for 80s Grandma

Figure 3.21: Final design for 60s Grandma

Bisa

Different from the other women listed above, Bisa does not only appear in two decades but also has a hooded version of herself, called Stranger, that guides the main character throughout his time travel journey. Because this specific version has her head covered, it is considered a variation of Bisa, but does not need to look like the other Bisas in any way.

The moodboard created for the hooded version of Bisa only has examples of similar hooded figures, which can be seen in Figure 3.22 below. There is no need for any images depicting her style or mental state, given that for almost the whole duration of the game, we do not know who the Stranger is.

Figure 3.22: Moodboard made for Bisa's hooded version

What was taken into account from the moodboard creation to the sketching portion was the basic concept of a hooded figure: a long cloak that covers the face. An added factor for stylistic purposes was the idea that the figure's eyes would shine from the shadow of the hood (see Figure 3.23).

Figure: 3.23: Hooded Bisa sketch

The creation of the pixel art character was simple, as this specific Bisa wears a cloak that goes down to her feet and covers her hands, there was no necessity to draw legs or hands, only making a shape that resembles a human being and adding the shine of the eyes to the head (see Figure 3.24).

Figure: 3.24: Hooded Bisa final design

For the 60s version of Bisa, a moodboard focusing on her mental state after escaping prison was created. It covers her grieving and how she has not moved on from the events of the day she escaped. Regarding appearances, the moodboard highlights a high with curved tips hairstyle and outfits with dresses, shirts and skirts in muted tones. The moodboard can be seen in Figure 3.25.

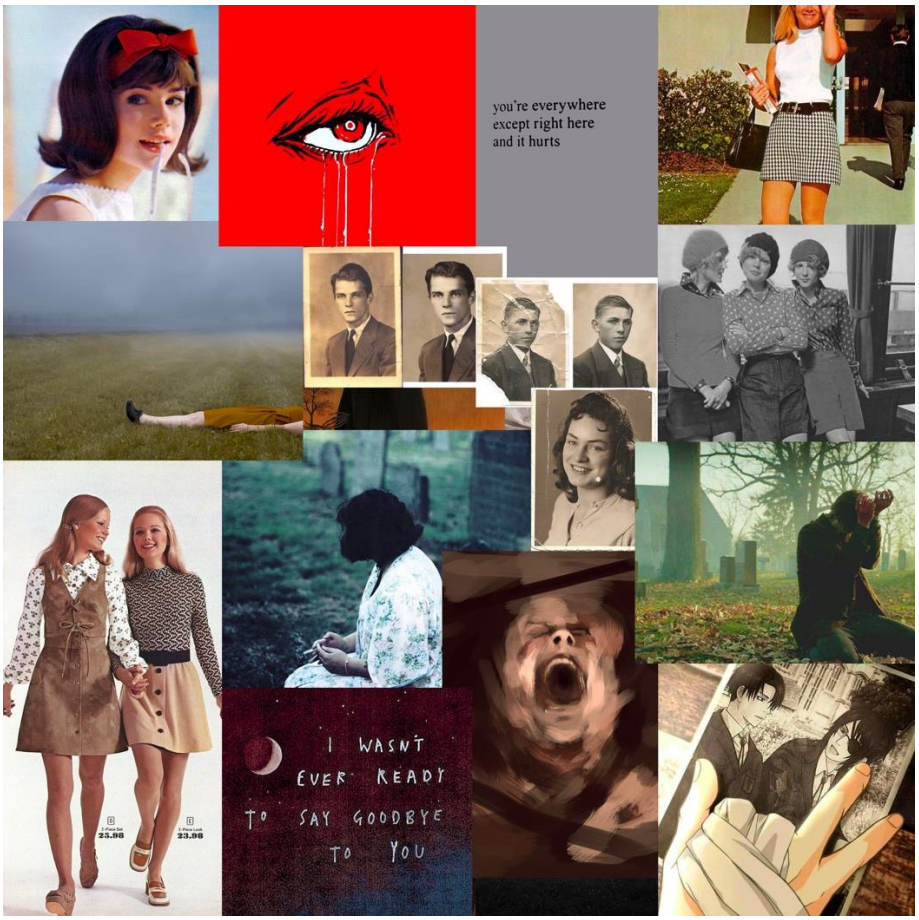

Figure 3.25: Moodboard made for 60s version of Bisa

The aspects of the moodbord used in the sketch were the hair, focusing on its curved tips and disregarding the red bow seen in Figure 3.25. Other details used were the printed shirts and straight skirts, going for a sleeveless design for a different look from the rest of the characters' outfits. The resulted sketch can be seen in Figure 3.26.

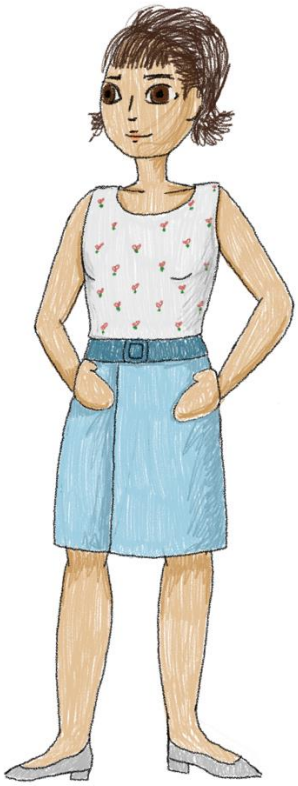

Figure 3.26: Sketch made for 60s version of Bisa

For the pixel art, the big hair and curved tips were used as distinctive factors. The flower print of the shirt was translated into small pixels over the torso, which can be seen in Figure 3.27, although not exactly like drawn in the sketch, the colors allude to the drawing.

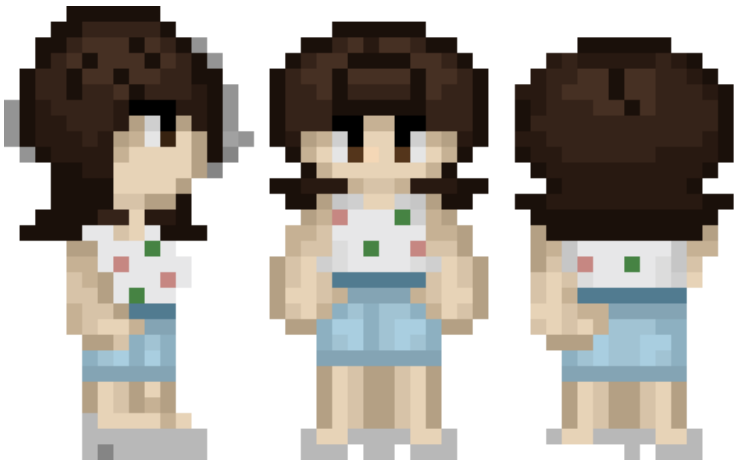

Figure 3.27: 60s Bisa final design

The moodboard for the 40s version of Bisa focuses on her life in prison. As she is seen as below other human beings, the moodboard visualizes images such as victims of the holocaust who were imprisoned against their will. Other visual aspects include dresses made of flour sacks, which were popular in the United States during the Great Drepression, given that the economy made it difficult for families to afford clothing (R. Adrosko, 1992, p. 131). The moodboard is illustrated in Figure 3.28.

Figure 3.28: Moodboard for 40s version of Bisa

The visual characteristics taken from the moodboard be used in the sketch were, above all, the short haircut and the dress made out of rice bags. Other than that, the character was also drawn not wearing shoes, which can be seen in Figure 3.29 below, to indicate that her, as a prisoner, does not have access to basic necessities.

Figure 3.29: Sketch of 40s Bisa

As this sketch does not have many details, the same characteristics described in the previous paragraph were the ones chosen to be translated into pixel art, which is shown in Figure 3.30.

Figure 3.30: Final design made for 40s Bisa

3.7. Level Design

One of the most important parts of creating a game, the level design is what gives structure to the world that is being created within the game. Deciding on the right placement of assets, not only to make an aesthetically pleasing game but to make the game enjoyable and for it to flow accordingly, should always be a requirement when developing a game.

3.7.1. Timeline Influence

Given the time travel concept of *Time for The Moon Night*, one of the most important aspects when thinking about the level design of the game is the flow from one level to the other.

When first thinking about the story for the game, the structure decided for how the levels would be separated was that each decade would represent a level, but a few glimpses from the present should also be included in these levels. Therefore, the game was divided into four main levels, which cover the time periods of present, 80s, 60s and 40s, and a small "epilogue" cutscene at the end to close the story.

Since the story flows between times but does not divert much from place to place, only a few base maps were made, which were then decided to be changed according to each time period. This means that, while the map structures are mostly the same and the character can walk to the same places in every map, what will differentiate these maps are assets made thinking of the different time periods or changes in screen color and lightning.

3.7.2. Maps

Knowing how the time changes influence how the design of the maps are to be made, it was decided that base maps would be drawn to represent the areas in which the game takes place, but that those would not have any indication of what decade it is, as they are only to represent the area and not the time.

Clearing

The clearing is the starting point of the game. A clearing is an open space in the middle of a forest or woods where trees have been cut down, hence the name clearing. Although a clearing can vary in size, because this area in the game is to be a place where people go to hide or be alone, this map was imagined to be small, as seen in Figure 3.31.

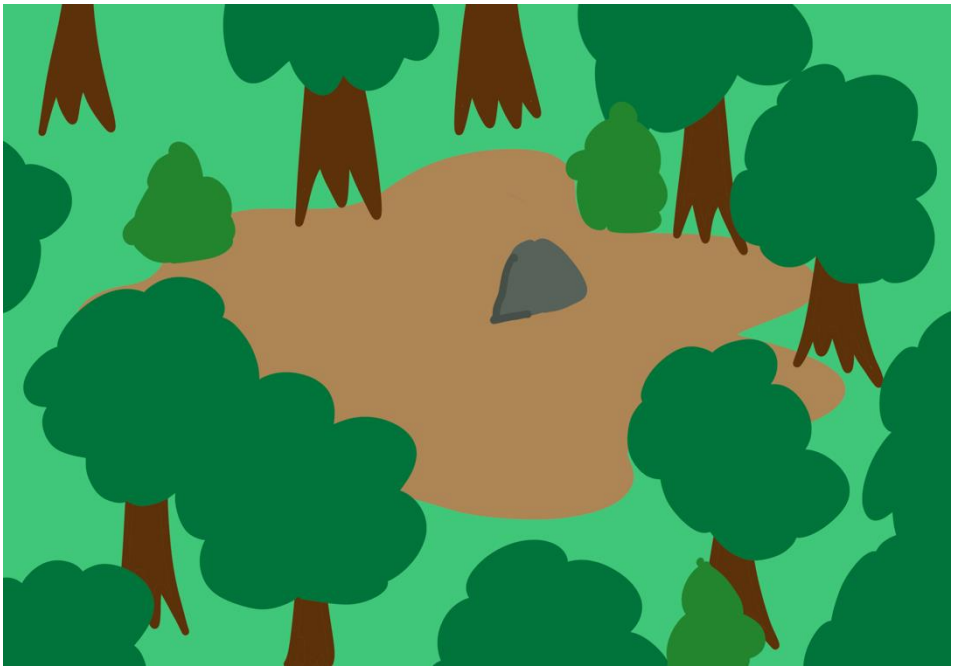

Figure 3.31: Concept art of clearing map

Woods

Leaving the clearing, the player will enter the woods. This area in the game is where the player will learn how to attack as well as have a mini maze to go through. Given those specifications, this map must be bigger enough to fit the maze, which can be seen in Figure 3.32, and have a beginning and starting point, as it will be the area that connects the clearing to the main character's house.

Figure 3.32: Concept art of woods map

House

The house map will not always have a house in it, considering that, in the narrative, during the great-grandmother's era she does not live in a house, but in a prison until her escape. But, knowing that there must be space in this map for the house when it is meant to exist, the map was imagined already with a house in place, as Figure 3.33 shows.

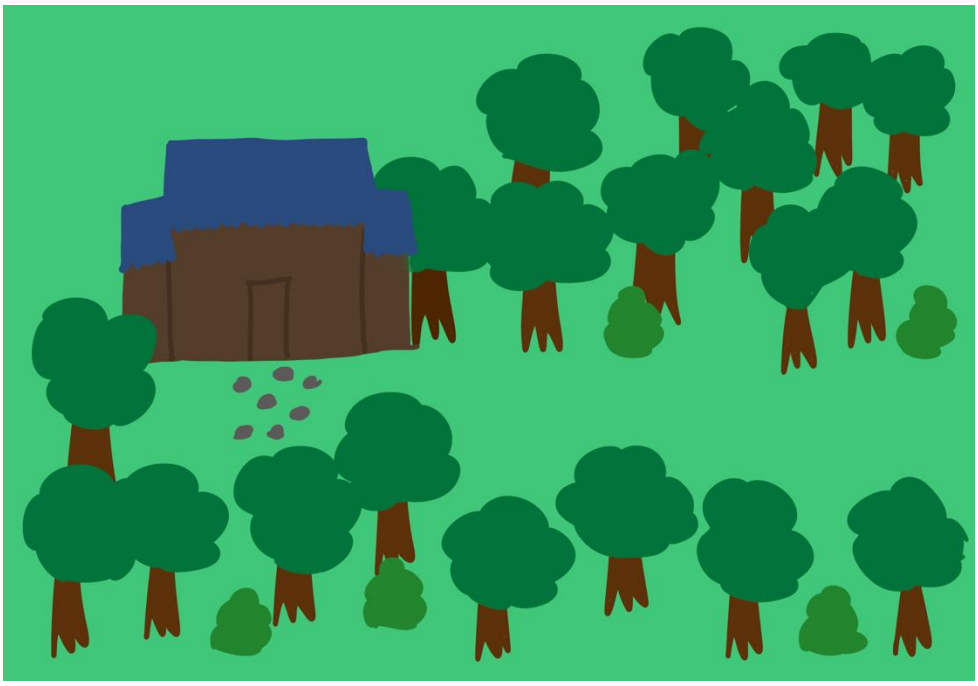

Figure 3.33: Concept art of House map

Inside House

The inside of the house is not affected by any time travel changes, as it is only shown once in the present. Considering that the main character's family is composed of four people, the house was imagined to have 7 rooms in total, those being his room, his sister's room, his parents' room, two bathrooms, a living room, and a kitchen, which can be seen in Figure 3.34.

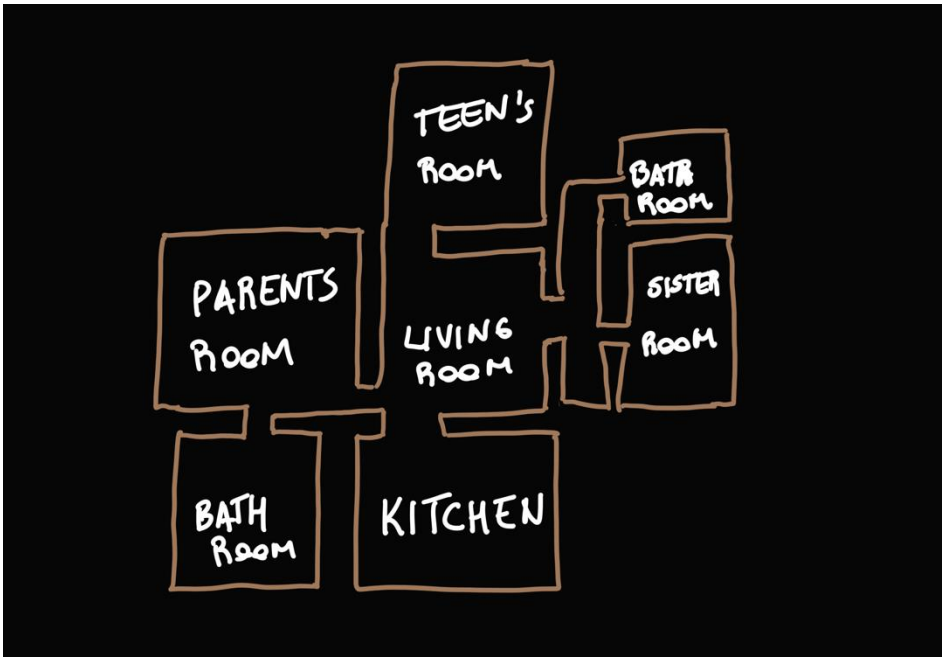

Figure 3.34: Rooms planned for Inside House map

Party

The party map is the simplest in terms of composition, as it is designed to be an unknown place where teens gather to drink. Its shape is a rectangle, which can be seen in Figure 3.35, allows the player to walk from one side to the other without having to take many turns, as the NPCs will be placed close to the walls, leaving then a corridor for the player to move in without many restrictions.

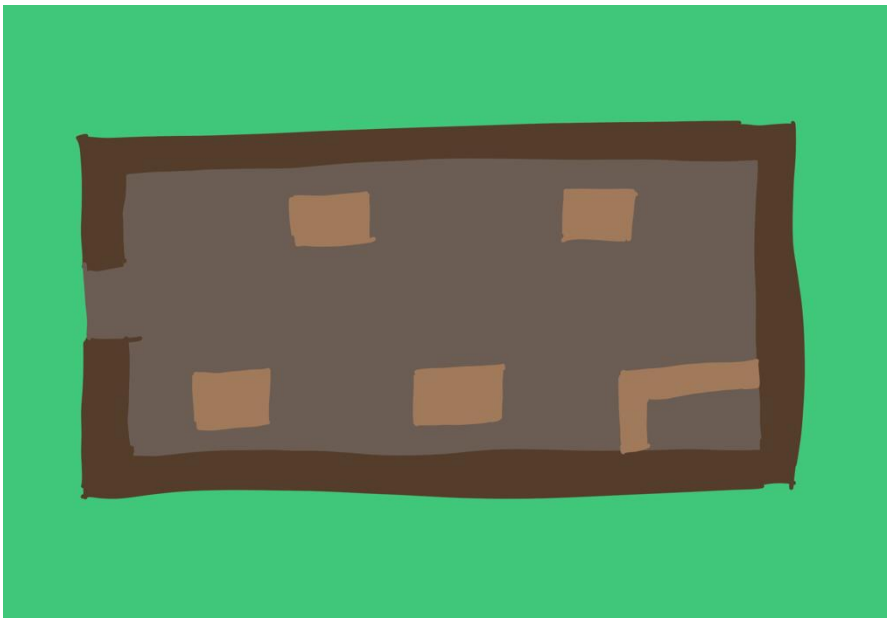

Figure 3.35: Concept art for party map seen from above

Prison

The prison map is the most complex out of all maps in the game. One of the missions in this map is to look for specific items for Bisa, so they can escape the prison. Because of that, the map cannot be too small, as it must allow for the player to explore more in search of the items. It must also be big enough to fit the NPCs that will be roaming the rooms and will attack the player when they get close enough. The specific areas in which the items will be placed can be seen in Figure 3.36.

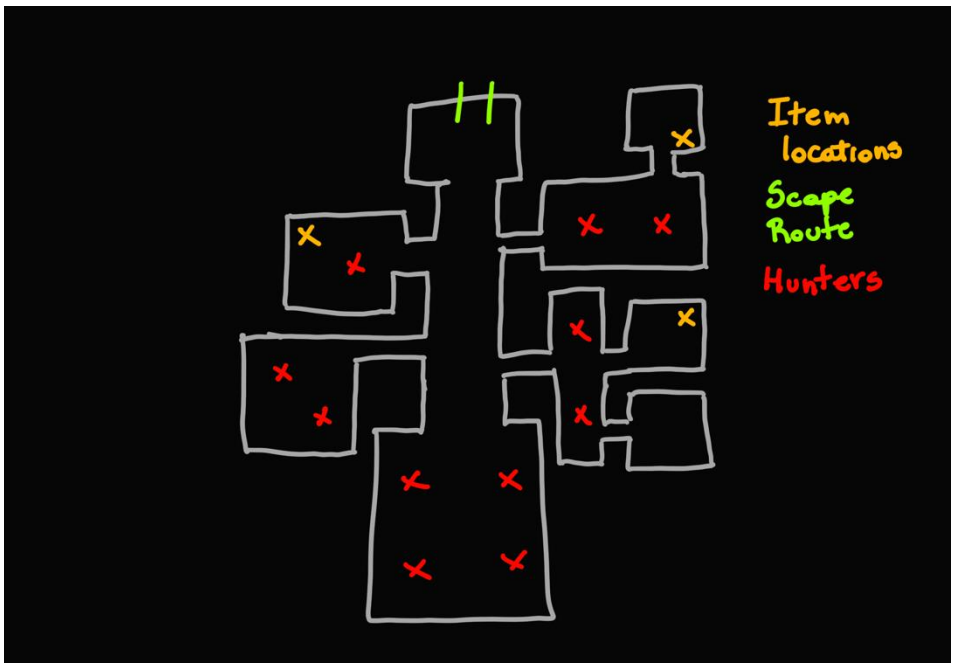

Figure 3.36: Organization of rooms, items and hunter for Inside Prison map

3.7.3. Assets

This section will cover the different types of tiles used in RPG Maker MV, explaining how they are separated and organized, the creation of a few assets and also the stylistic choices that were made in order to have the best final results. The full list of finalized assets can be found in Appendix B.

One thing that must be taken into consideration when discussing the process of making the assets for *Time for The Moon Night* is that the resolution picked for the game is of 16x16 pixels per tile. RPG Maker MV has a set size for tiles of 48x48 pixels, which means that if the assets are made with a lower size and added to the engine, they won't work properly.

There were two ways to fix this issue and maintain the 16x16 pixels per tile aesthetic that was first decided on. The first solution was to use an external plugin, which would alter how the engine works and make it run 16x16 tiles by default. While that idea seemed like the easiest fix, one of the objectives of this project was to improve my skills as a pixel artist, therefore, the idea was discarded. The second solution was to make a resize process when saving the assets. As it was already mentioned in the previous paragraph, RPG Maker MV runs 48x48 tiles by default, so the other option would be to draw the tiles in a 16x16 resolution, but, before saving, resize them to 300% of their original size, since 16 times 3 equals 48. This process would make the tiles 48x48 in size, but maintain the 16x16 art style.

Aside from that, it is of extreme importance to understand how RPG Maker MV's tiles work before attempting to make a tileset. RPG Maker MV differentiate tilesets according to how they are to be placed in the map, from A tiles, the lower ones, to C tiles, the higher ones. A tiles are subdivided into five different categories which work for different map settings.

- **A tiles:** Tiles that occupy exactly one square of the map to its fullest. It can be a floor tile or wall tile, for example.

    - **A1 tiles:** Animated tiles usually used for bodies of water or lava.
    - **A2 tiles:** Ground tiles used for exterior or interior floor.

    - **A3 tiles:** Building tiles composed of wall and roof tiles that can be made to create houses and other buildings.
    - **A4 tiles:** Wall tiles made up of a tile for the wall and another for the top of the wall.
    - **A5 tiles:** Normal tiles used for specific areas such as dungeons.

Since A1 and A5 tiles were not necessary in the making of this game, those will not be discussed any further in this section.

- **B tiles:** These are object tiles which can be placed anywhere in the map and over A tiles.
- **C tiles:** Just like B tiles, they are object tiles, the difference being that they can be placed on top of B tiles as well.

For the engine to run the tiles properly, just like animations, A tilesets must be made following a grid. In Figure 3.37 it is possible to see how one tileset made of six 48x48 pixels squares is broken down into 24 squares in the engine. A indicates how the tile will appear on the tilesets menu. B is subdivided into 4 squares and is where each outer corner of the tile must be drawn. C is subdivided into 12 squares and includes the inner corners, sides, and center of the tile. This kind of grid is the one used for A1, A2 and the top of the wall part of A4 tiles, for A3 and the wall part of A4 tiles, only the C section of the grid applies.

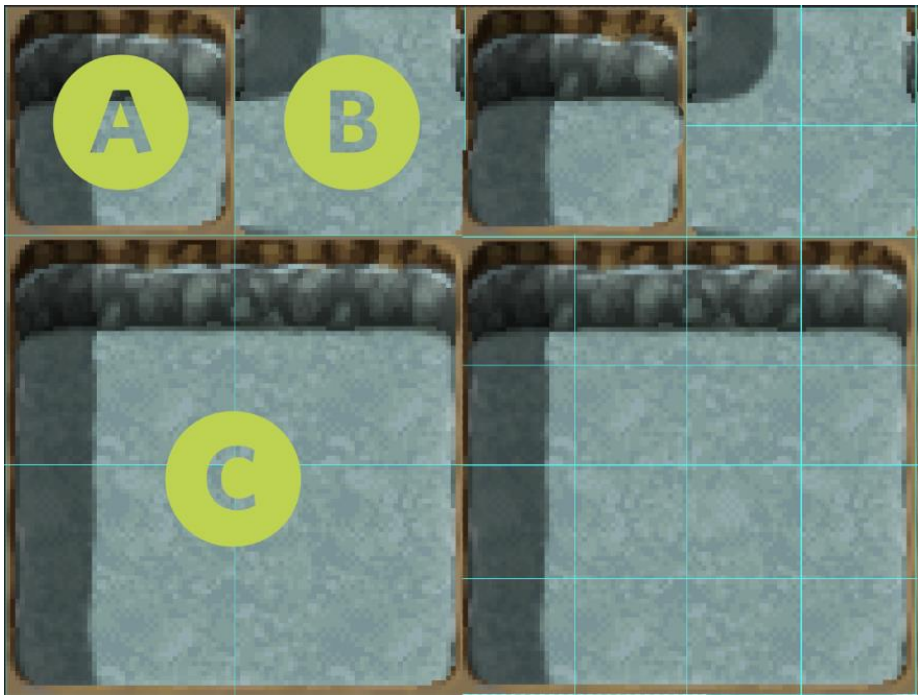

Figure 3.37: Tileset grid breakdown

Before starting to design individual assets, the files for each type of tile must be created, so as to have all assets of said types designed in the same file following the correct grid structure required by RPG Maker MV. The file sizes for each tile type is as described below:

- A2 tiles: 256 x 192 px
- A3 tiles: 256 x 128 px
- A4 tiles: 256 x 240 px
- B tiles: 256 px width, the height can be any size
- C tiles: 256 x 256 px

Outside assets

Because all outside scenes are to happen in environments such as the woods, the assets developed for this part were mostly nature centered. For the floors, only three tiles were made: grass, dirt and stone.

While using Aseprite to develop the tiles, there was no concern regarding alignment for the grass specifically, as this tile was to be only a solid block of green color. There was an attempt at including some lines to represent grass, but it did

not look pleasing when put as a repeated pattern. Both the attempt and the final tile used in a repeated pattern can be seen in Figure 3.37.

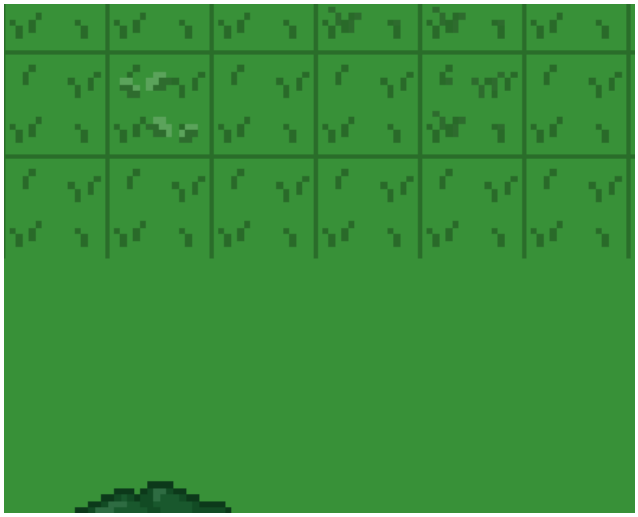

Figure 3.38: Comparison between two ideas for grass tiles

Both dirt and stone tiles were made following the same concept of having a bit of grass on their edges. With that in mind, there was the need to pick more colors than just a base as it was done for the grass since it would be creating a shadow on the dirt and stone. For the stone tiles, it was also necessary to use a slightly darker shade of grey to indicate the indents of the stones on the floor. The dirt and stone tiles can be seen in Figure 3.38.

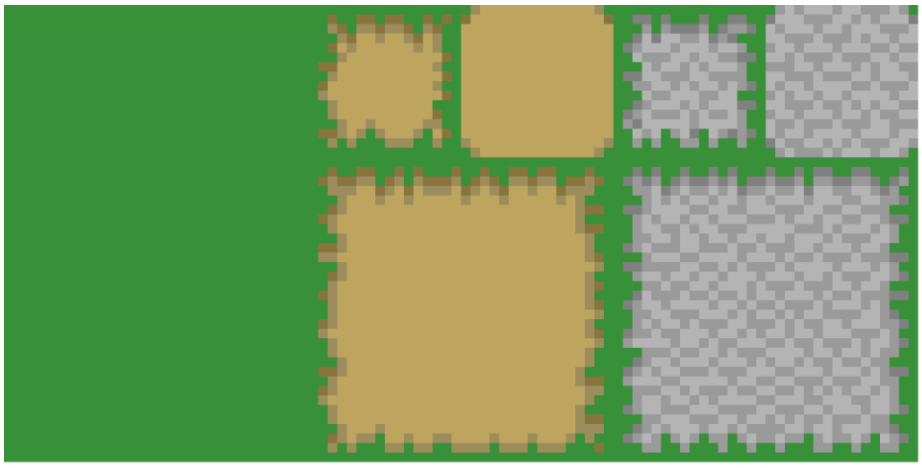

Figure 3.39: Grass, dirt and stone tiles

Aside from floor tiles, there was also the need for at least one building and roof tiles, since the main character's house is set to be in the middle of the woods. For these

tiles, a color palette of brown and blue was chosen, having the brown be for the wall, while the blue would cover the roof.

In regards of design, the walls of the house were imagined to be made of horizontal pieces of wood, having a black piece on the edges and bottom of the tile for a better finish. The roof was made of uneven pieces simulating clay tiles, which can be seen in Figure 3.39. It is also possible to see in Figure 3.40 that, for a more realistic finish, a slightly darker color was added to the top of the wall tiles, so it would appear that the roof was casting a shadow on the wall.

Figure 3.40: Clay tiles

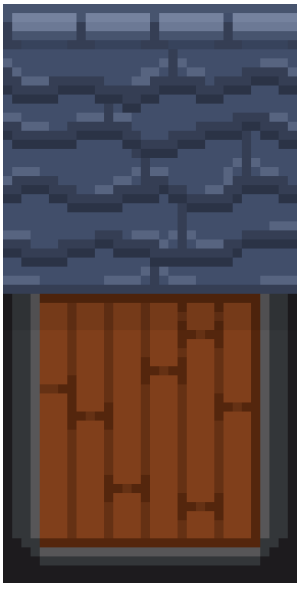

Figure 3.41: Final roof and building tiles for the house

As the narrative only mentions two buildings seen from the outside, one more building tileset had to be made for the prison scenes. The initial concept for these tiles was uneven walls built with cob stones but, when the drawing was complete, it did not look appealing (see Figure 3.41), so this design had to be redone. The second inspiration was stone walls made of big bricks, which would give the prison building a more imposing feeling and, since the bricks would be positioned in straight lines, could be a better alternative than the cobstones in regards to pattern repeating. The final result can be seen in Figure 3.42.

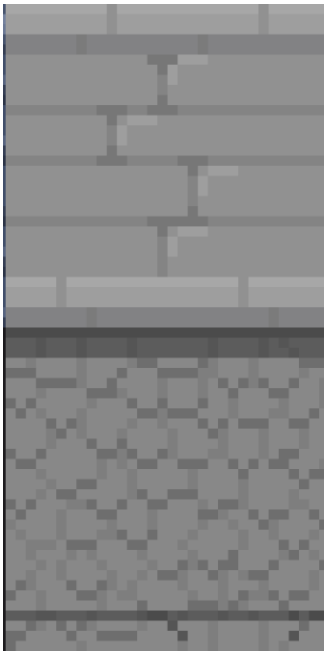

Figure 3.42: First idea for the prison building tiles

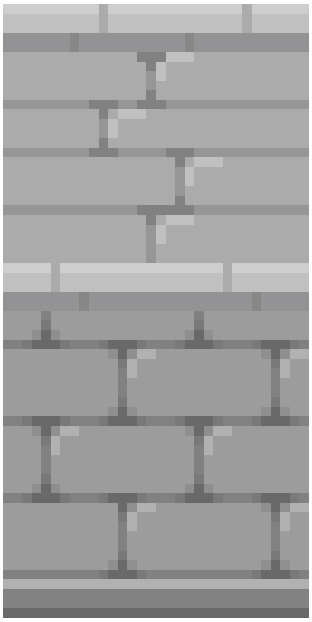

Figure 3.43: Second and final idea for the prison building tile

For the object tiles, the characters' sizes had to be taken into consideration. Since the character sprites were made with a 16x29 size, that is, almost 1:2 ratio, it meant that certain objects had to be made bigger so that the height of the character next to them would not seem disproportional or the objects would conflict with the character's movement. Two trees were designed to be used in outside scenes, as all parts of the game happen in the same geographical area, so there was no need for a great variety of flora. Both trees designed had to be made with 48 pixels of height, making them at least around ½ taller than the characters. A size comparison of one of the trees with a character can be seen in Figure 3.43.

Figure 3.44: Size comparison between a character and a tree

An important aspect of designing pixel art sprites for a top-down game is that angles must always be taken into account. A top-down game does not use perspective in the same way human vision works and instead approaches the objects from an orthographic point of view. This means that, even though the game is seen from the top, as the name "top-down" indicates, no distortion happens to the objects. An example of perspective and top-down is visible in Figure 3.44.

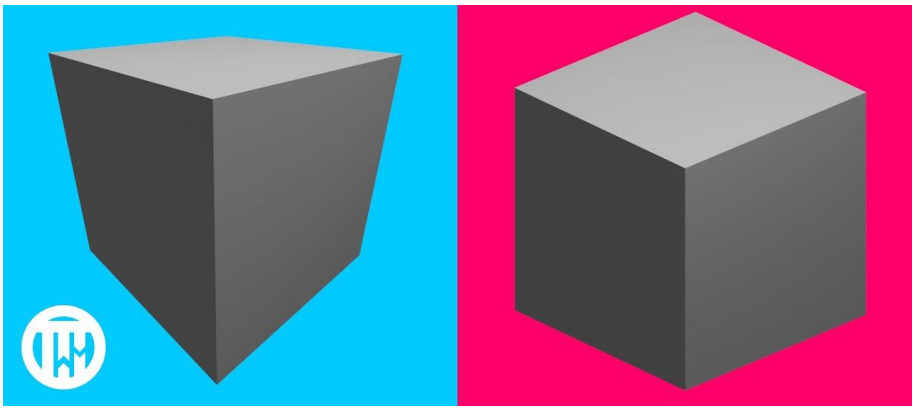

Figure 3.45: Perspective and orthographic comparison

With that being said, some assets, such as the walls and flooring already described in this section, did not require much thinking about perspective when being designed, since at the end they are all square-shaped assets. Objects, on the other hand, needed more thought.

For the design of the trees, it was important to keep in mind that, as they were to be seen from above, the main focus should be on their leaves. But since top-down is an orthographic view, the trunk should not be completely covered by the leaves. With that knowledge, the trees were then drawn having the trunk be around one-fourth to one-third of the sprite's full size (see Figure 3.45). By drawing this way, the top of the tree seems bigger, but it does not affect the size of the trunk.

Figure 3.46: Tree design

Smaller objects were designed to fill the empty spaces left in the outdoor scenes. Things that can easily be found in nature, like grass, leaves, rocks, bushes, and short trunks, which can be seen in Figure 3.46, were designed in a 1:1 dimension, allowing for

easy control and positioning of these assets in RPG Maker MV. Assets like these might be overlooked, since their small size may make them seem unimportant, but they are very useful when creating maps, as they make the space seem fuller and better decorated.

Figure 3.47: Some of the small objects made for the outside environment

Inside Assets

In *Time for The Moon Night,* three spaces use inside, or indoor, assets. These spaces can be considered very different and at the same time similar to one another, because all indoor scenes use one specific type of tileset to compose it: wall and floor tiles.

As previously mentioned, the main character's house when seen from outside appears in many moments of the game and, therefore, might be affected by the time travel and have a different design depending on what part of the game the player is in. The inside of the house, on the other hand, is only seen once in the present. Because of that, all assets made for this area were created without the need to consider how they could be used in other moments of the game.

Following the design of the outside, the interior floor, depicted in Figure 3.47, and walls of the house were developed using a similar color and pattern structure. When creating the two tiles, there was a worry that they would look very similar and, when put together, it would be difficult for the player to differentiate what is the wall or the floor. The solution for this problem was to add a small horizontal line at the bottom of the wall tile, make the wood panels thinner and have the wall be a slightly different color from the floor, by doing this, the continuity of wall to floor lines would be broken and the tiles could be differentiated.

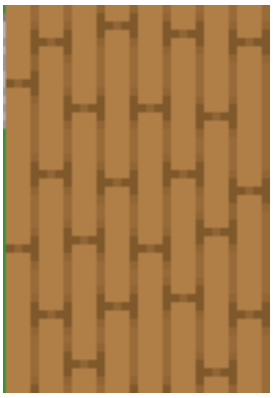

Figure 3.48: Inside wood tile

The top of the wall tiles was made having ceiling cornice as an inspiration, which is depicted in Figure 3.48. Despite the top search results when search for images of ceiling cornice being that of white plaster ones, it was decided that the cornice drawn for the tiles would be of wood to follow the rest of the house's tiles design. The complete final wall tiles are illustrated in Figure 3.49.

Figure 3.49: Example of ceiling cornice

Figure 3.50: Final interior wall and top of wall tiles

This wall tile was also used for the party scene. Its colors were altered in Aseprite, so that it would not look like the same place when used in-game, and combined with the floor tile made for the party scene, it does not appear equal to the house tiles. The wall tile with its colors altered can be seen in Figure 3.50, while the floor tile is illustrated in Figure 3.51.

Figure 3.51: Interior wall and top of wall tiles with colors altered

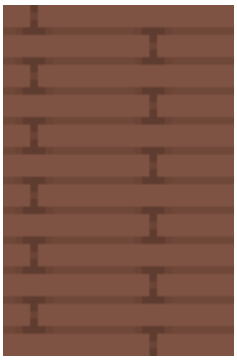

Figure 3.52: Floor tile made for party map

It can be noted that, although one is horizontal and the other is vertical, both floor tiles made follow a similar repetitive pattern and also had the same shading technique done to accentuate the spaces between the wood pieces.

The tiles for the inside of the prison, like the ones made for the inside of the house, follow the design of their exterior counterparts. For the floor tiles, since they are supposed to represent stone bricks, a small highlight was added to the top left corner of each individual brick to indicate a bit of shine in the stone, this detail can be noted in Figure 3.52.

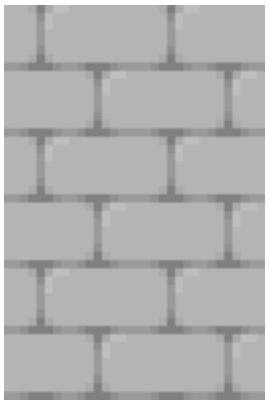

Figure 3.53: Floor tiles for interior of the prison

Remembering the design pattern done for the wood panels in the previous wall tiles, the bricks in this tile also had their size reduced to avoid confusion with the floor. A dark line was added to the bottom of the tile as a way of shading too (see Figure 3.53).

Figure 3.54: Wall and top of the wall tiles made for the inside of the prison

Basic home furniture was designed for the house interior, as it is the main character's home. Some of the items that can be highlighted are the kitchen set, which includes different kinds of counters, high shelves, a sink, a fridge, and an oven. This set was designed using a darker shade of brown so it would not clash with the color of the walls. Part of the kitchen set can be seen in Figure 3.54 below.

Figure 3.55: Kitchen set designed for the interior of the house

Two sizes of beds in different colors were designed for the Teenager's and the Sister's bedrooms. For the teen, a twin bed was conceptualized, since he is bigger than his sister, it can also be a way to differentiate which room is his, as the Sister's bed is a single bed. The Teenager's bed was designed having his personality in mind, as it looks messy and has black covers, something that aligns with his clothing style. Both beds' designs are illustrated in Figure 3.55.

Figure 3.56: Teenager's and Sister's beds designs side by side

Other smaller and simpler objects were designed having the decoration of the map in mind. Rugs of different sizes were made thinking of each specific room they were set to be in. For the creation of said rugs, depicted in Figure 3.56, they were first drawn using only base color, then a darker shade of this color was used to create an out like to simulate shadow and finally a lighter shade of the base color was used for the highlight. The central decoration of each rug was done using the shape tool in Aseprite (see Figure 3.57).

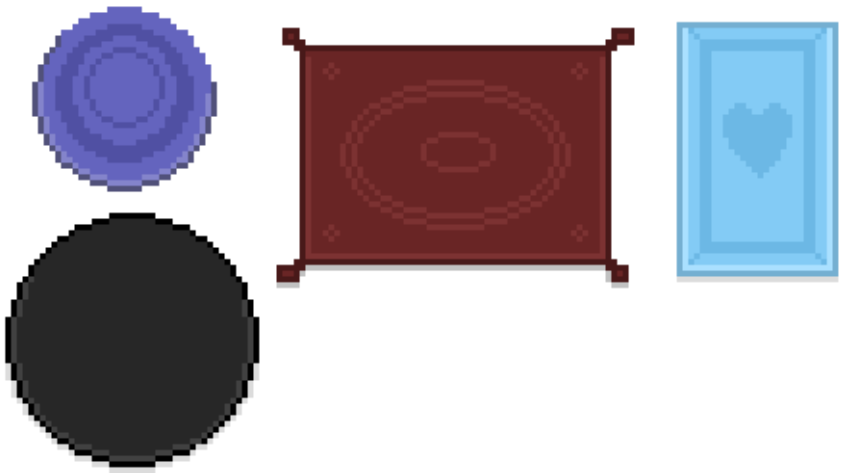

Figure 3.57: Rugs created for different rooms

Figure 3.58: Shape tool in Aseprite

For the Teenager's room specifically, posters referencing themes like rock with the use of skulls and horror with the use of blood were created to decorate the walls. A small nightstand of 1:1 dimension was also designed to be put beside his bed on the map.

All the posters made can be seen in Figure 3.58, while the nightstand is illustrated in Figure 3.59.

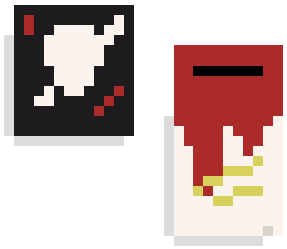

Figure 3.59: Posters designed for Teenager's room

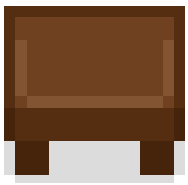

Figure 3.60: Small nightstand sprite

After completing drawing all necessary assets, which can be seen in Appendix C, the different types of tilesets can then be resized to 300% of their size, as shown in Figure 3.60, by going to **Sprite > Sprite size**, and, only after that, they are to be saved as .png files to be used in RPG Maker MV.

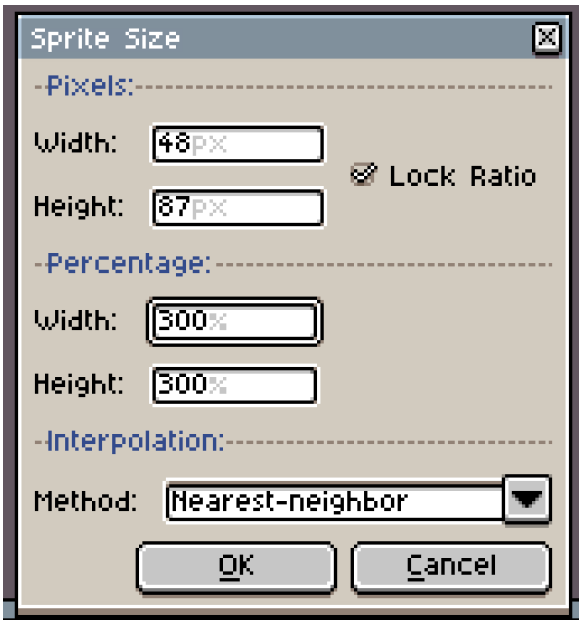

Figure 3.61: Resizing assets

3.8. Animations

This section will describe the three different types of animations present in Time for The Moon Night, showing the process of animating a few of the assets made for the game and explaining what differentiates them in the RPG Maker MV engine, how the frames and separated for each type and how the Aseprite tool was used when drawing the animation frames. The full list of animation sheets made for Time for The Moon Night can be found in Appendix C.

3.8.1. Character Animation

Having the character designs finalized, it is now possible to move to the animation process. One of the aspects of this specific animation process is that the game engine used to create the game, RPG Maker MV, uses a grid to calculate which animation should be shown.

In Figure 3.61 it is possible to see an example of a single character animation sheet and how it is included in a sheet with seven other character sheets. For RPG Maker MV to identify the correct animation, the engine divides the width of the image containing eight character sheets by 4 and its height by 2, as it can be seen in Figure 3.62. That calculation helps the engine separate the different character sheets in its system.

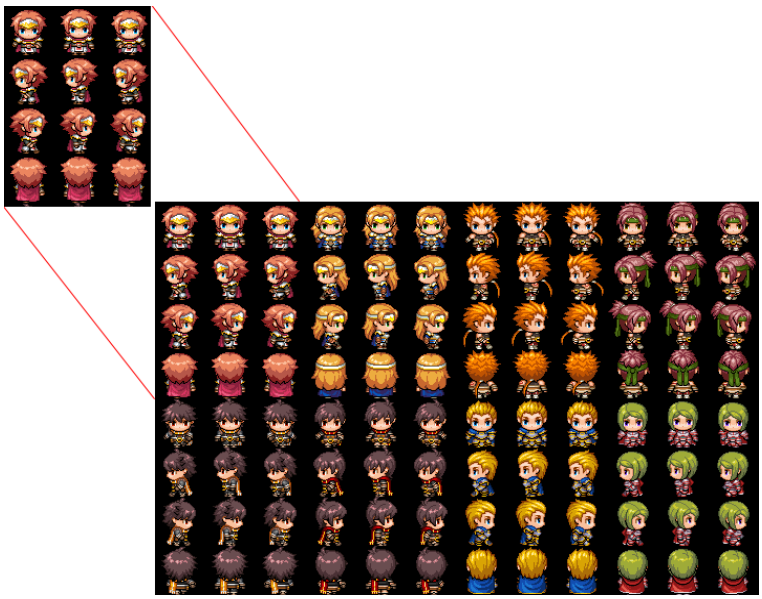

Figure 3.62: A Single character sheet in a group character sheet

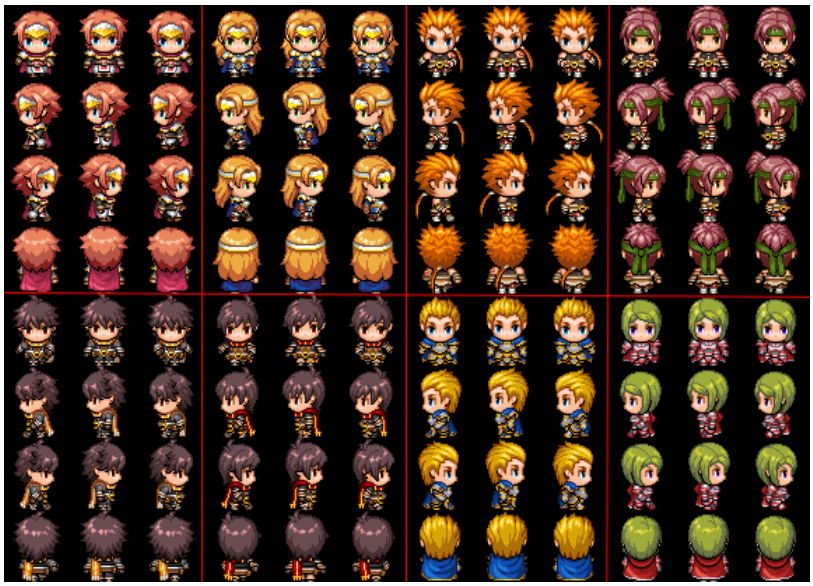

Figura 3.63 The eight character sheets divided

This calculation is relevant when discussing the animation process as it affects the structure in which certain sprites are to be positioned and how the files must be saved. Other important point is that the number of frames for each animation will vary depending on what its purpose is in RPG Maker MV. This point will be further discussed in the points below.

When talking about character animation, it is necessary to understand the structure in which the character sheet is made. Besides the calculation discussed at the beginning of this topic, a second calculation must be made using the isolated character sheet to separate each individual frame. The RPG Maker MV engine divides the numbers that came from the image with 8 character sheets' width by 3 and height by 4, as shown in Figure 3.63, and that gives the engine the position of the individual frames.

Figura 3.64 Character sprite divided for the isolation of frames

The use of these specific numbers for dividing the character sheet indicate that, if all frames are positioned correctly and within the same distance of each other, the character itself can be of any size. That is because RPG Maker only divides the sheet's width and height by 3 and 4, but does not implicate a maximum width or height.

RPG Maker MV also associates each line and column in the character sheet with a specific position and direction, which influences how the animation must be drawn. It can be seen in Figure how the middle column indicates the idle position, while the columns on each side are for when the character is walking. The top line is the character seen from the front, while the second is the character from its left and the third from its right, having the bottom line for the character seen from the back. If the sprites for each direction and movement are not put in the correct positions within the grid, then the animation and idle poses won't work properly in the game.

In order to draw the walking frames, Aseprite's timeline function was used to facilitate the process. As seen in Figure 3.64, two more frames were created in the timeline, having the idle one designed in 3.6 section being to the first frame already drawn. With that done, the button with two squares is clicked, activating what, in Aseprite, is called onion skinning. Onion skinning makes frames next to the selected frame slightly visible, allowing for an easier drawing process, which can be seen in Figure 3.65.

Figure 3.65: Two more frames created in Aseprite

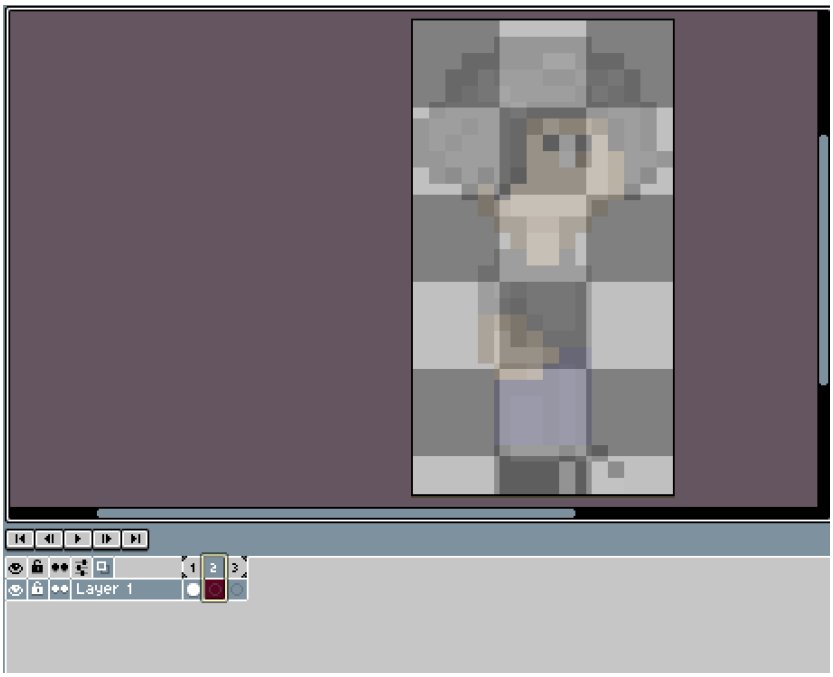

Figure 3.66: Onion skinning in Aseprite

After onion skinning is turned on, the drawing of the moving frames can be done with a better control of the direction of the pixels. This specific tool allows for quicker and more precise work, since to maintain a cohesive animation it is important that the flow between each frame is good.

Having both movements drawn in the empty frames, the idle frame in the first position must be moved to the middle, making it frame 2 in the timeline. This action is important because, as it was discussed at the beginning of this section, the idle frame must be in the middle column of the character sheet. Having the idle frame be the second frame in the timeline makes it that, when the sprite sheet is exported, organized by rows as seen in Figure 3.66, that frame will already be in the middle of the sheet. It is also important to highlight that, as it was discussed in section 3.6, RPG Maker MV uses tilesets of 48x48 size, which means that, with the character sprites being designed for a 16x16 game, they must be resized to 300% of their size before exporting, which can be seen in Figure 3.67.

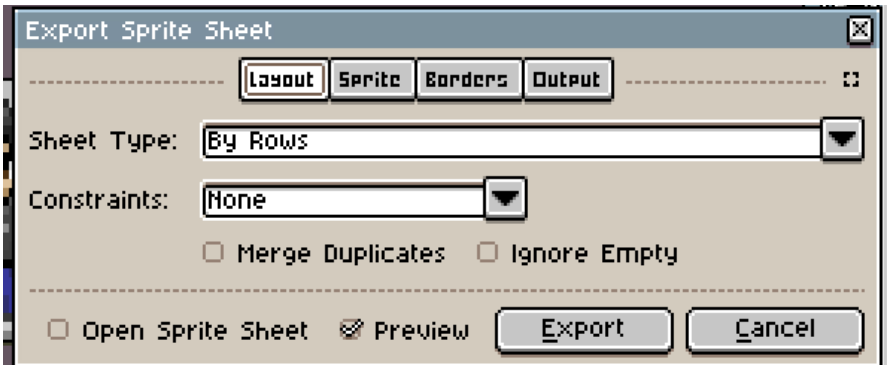

Figure 3.67: Exporting a character animation

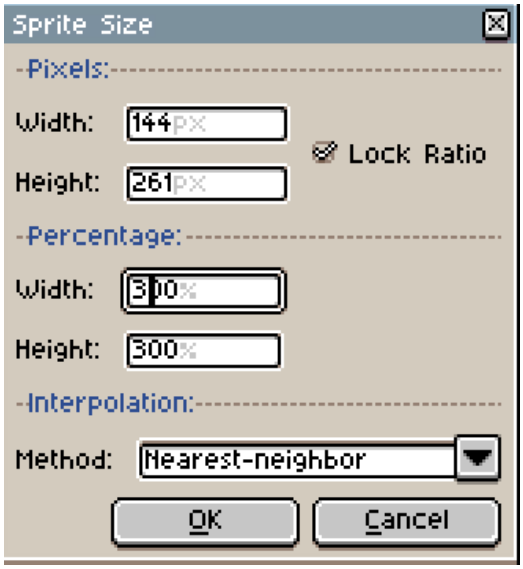

Figure 3.68: Resizing a sprite

With the completion of this process for all the different sides of the character, the four separate sprite sheets must be stacked together in a single picture to create the 3x4 grid required by RPG Maker. Using Photoshop, a new file composed of the sprite sheet's width and 4 times its heigh is created. In this file, using Photoshop's ruler tool, the area is divided in four pieces of the same height and then the different sprite sheets can be added to each piece, which can be seen in Figure 3.68. With that being done, the files can be saved. The final sprite sheet for the main character can be seen in Figure 3.69.

Figure 3.69: Using Photoshop's ruler tool to separate the character sheet

Figure 3.70: Final character sheet

This process of drawing and structuring must be done with all character sprites the same way. When there is a total of 8 character sheets done, they can then be compiled

into a file similar to the one seen in Figure. This file, as discussed previously, must be two times the character sheets' height and four times its width.

3.8.2. Effect Animation

Different from character animation, effect animation does not have the same restrictions related to the number of frames, as they can have as many frames as the designer wants. Its animation process is similar to the one mentioned in section 3.8.1 only in the parts related to onion skinning and the resize of the sprites before exporting. In Figure 3.70, onion skinning is used to see the previous frame of a claw attack animation and draw the next one.

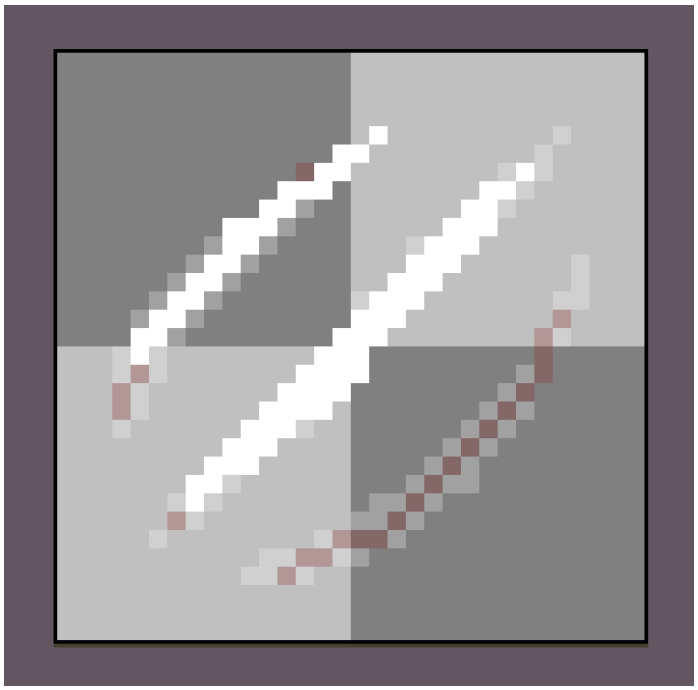

Figure 3.71: Onion skinning being used in the making of an animation

As for the exporting, since there is no need to structure the effect animation frames for RPG Maker MV in a certain way, it can be done organized by rows with the number of columns set to 5, as that is the limit of columns for RPG Maker MV effect sheets. The export settings can be seen in Figure 3.71 and a finalized effect animation sheet in Figure 3.72.

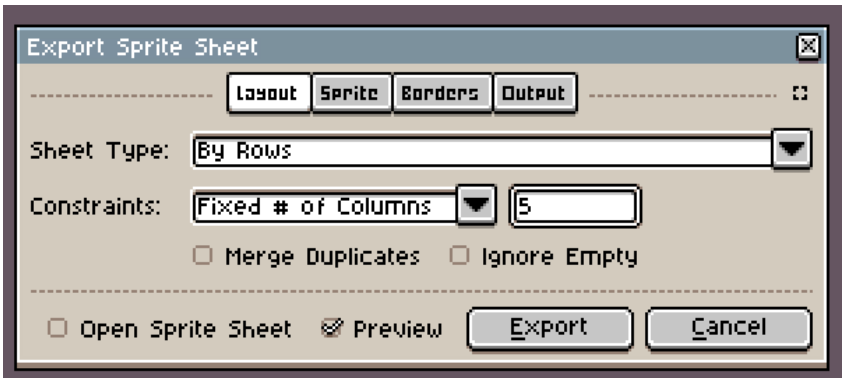

Figure 3.72: Exporting an effect animation

Figure 3.73: A finalized effect animation sheet

3.8.3. Item Animation

Item animations follow the exact same process mentioned in section 3.8.1 with the exception of one part. Since items are not meant to be walking around the map like characters, RPG Maker MV does not require the four different side animations of the item. Instead, the engine only plays one line of the 3x4 grid mentioned previously. With that being said, item animations must contain only three frames (see Figure 3.73) and be stacked with three other animations in one grid, which can be seen in Figure 3.74, similar to a character animation.

Figure 3.74: The three frames of an item animation

Figure 3.75: Four item animations stacked in one file

After having four animations saved in one file, the same process of compiling 8 files in one, mentioned in section 3.8.1, must be done having the file be two times the other file's height and four times its width. Since there weren't many object animations made for *Time for The Moon Night,* the step of compiling 8 files was made a bit different. The file was created following the 2x4 rule, but as long as the single animation sheet was in the top left corner of the file, the rest could be left empty (see Figure 3.75 for an example), since RPG Maker MV would do the same calculations and isolate the animations regardless if there were more animations.

Figure 3.76: The animations made for the game in their necessary position

3.9. Typography

When creating a game, certain aspects of its design might be overlooked because they do not appear to be of that much importance in the whole scheme of things. The typography is one of these aspects, as the visual aspect of the words written in-game might not be considered relevant for some developers. With that being said, typography is actually of high importance, as the font used in a game might break the immersion if it not one that fits the game's overall style.

Having this in mind and being aware of *Time for The Moon Night's* art style, a research for royalty-free pixel-style fonts was conducted to select one that would work well with the game's aesthetic.

After an extensive search, four fonts were considered the most appealing when imagined being used within *Time for The Moon Night*. These fonts were Joystix Monospace (Figure 3.76), PixelFJVerdana12pt (Figure 3.77), Matrix Sans (Figure 3.78), and Once Upon A Time (Figure 3.79). The fonts can be seen in the according order below.

Figure 3.77: Monospace font

Figure 3.78: PixelFJVerdana12pt font

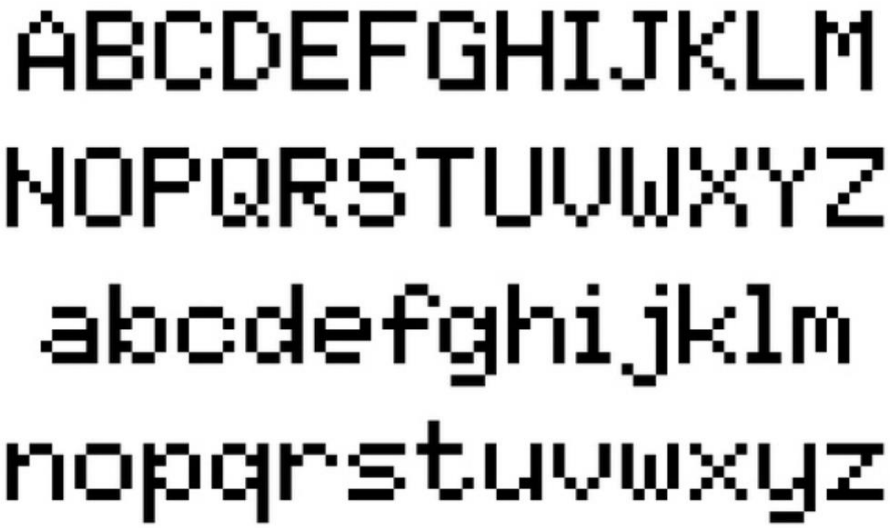

Figure 3.79: Matrix Sans font

Figure 3.80: Once Upon A Time font

After long consideration Matrix Sans was picked as the font for *Time for The Moon Night*, as it is, out of the four, the one with the pixel width most similar to the one being used for the assets of the game.

3.10. Music and Sounds

Following the already discussed topic of how time travel affects many aspects of the game's design, it must be indicated that music is one of those aspects. As the character changes from decade to decade the music also changes as a way to indicate that he is not in the same place as before.

Other than that, a few sound effects are also used in-game to indicate certain actions, such as an attack, doors opening, screams, and flickering of a fire. All the music and sounds used in *Time for The Moon Night* are royalty-free.

4. Development

For the final part of this project, the application of all assets and narrative into a playable game, the game engine RPG Maker MV was used. This section will cover the most relevant parts of the development, starting with the organization within the database and going to the world composition, and finishing with the mechanics used within the game.

4.1. Database and Resources Manager

The Resources Manager is where all relevant files are stored in RPG Maker MV. When a new game file is created, it already comes with a few assets that can be used to make a game. It is in the manager that the new assets created for *Time for The Moon Night* must be added. To open the resources manager, one must go to **Tools > Resource Manager** and a window such as the one in Figure 4.1 will appear.

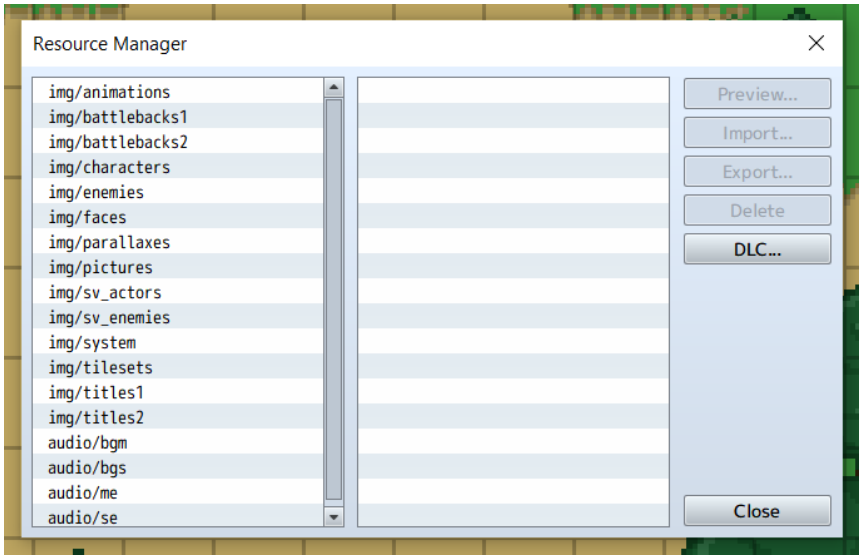

Figure 4.1: The Resources Manager in RPG Maker MV

It is on this screen that new files can be added to the database. For them to work properly, it is of big importance that each file type is put into the correct folder, since RPG Maker MV has different grid settings for tilesets, characters, and other assets.

All tileset files must be put in the **img/tilesets** folder, as their classifications (A, B, and C) are to be defined in the database tilesets window. Both character and item animations must be put in the **img/characters** folder, that is because the two

animation types follow the same grid structure. Finally, the effect animation should be put in the **img/animations** folder.

Having all files put in the correct folders using the resources manager, the next step must be to click **F9** to open the Database window, which can be seen in Figure 4.2. It is in the database window that the new assets can be organized and assigned to their respective places.

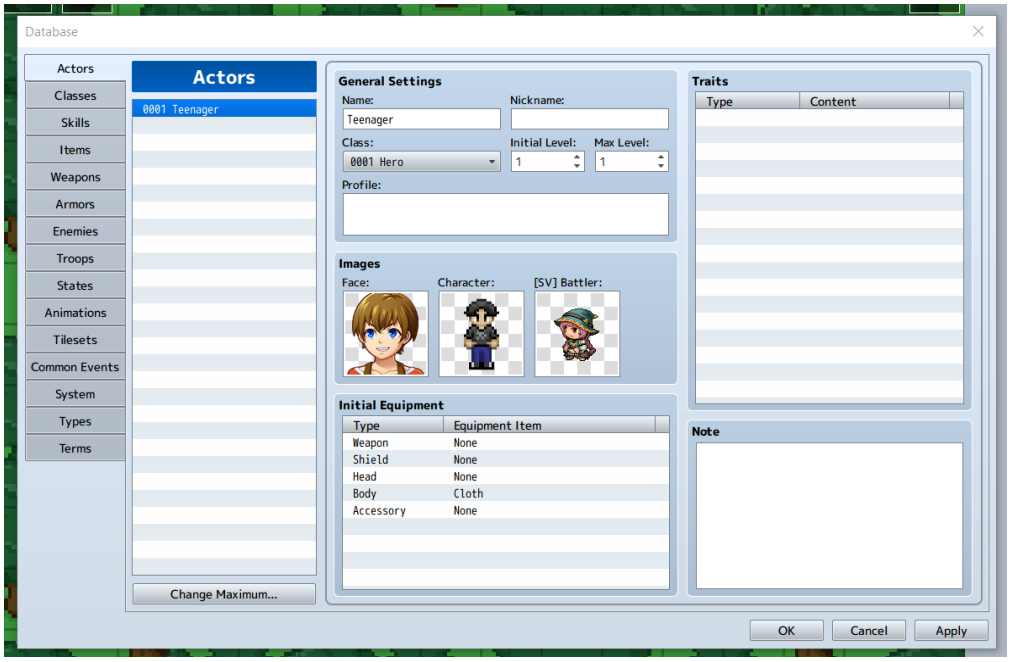

Figure 4.2: The Database in RPG Maker MV

The Actors tab, seen in the Figure above, is where the main character's sprite can be assigned,. Clicking on either the Face image or the Character image will open the folder associated with it within the database. This once again highlights the importance of importing the files into the correct folder in the resource manager, as if they are not placed right, they won't be able to be used in the game.

The other relevant tabs for the making of this game are the Animations tab and the Tilesets tab, seen in Figure 4.3 and Figure 4.4 respectively. The animations tab is where the effect animations can be managed. It allows for further customization within the engine, being able to resize the animation, reduce its number of frames as well as associate a sound effect that will play whenever the animation is played in game. The Tilesets tab is where the tilesets are organized. In the Images section, each file must be associated with its correct letter type. After that, it is possible to look through the different tiles using the A, B and C letters at the bottom of the screen.

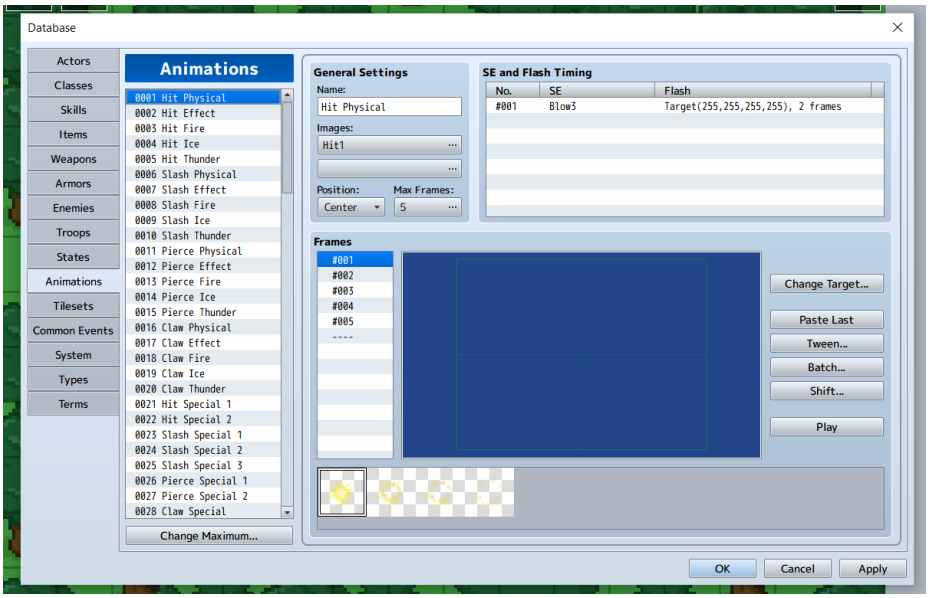

Figure 4.3: Animations tab in the database

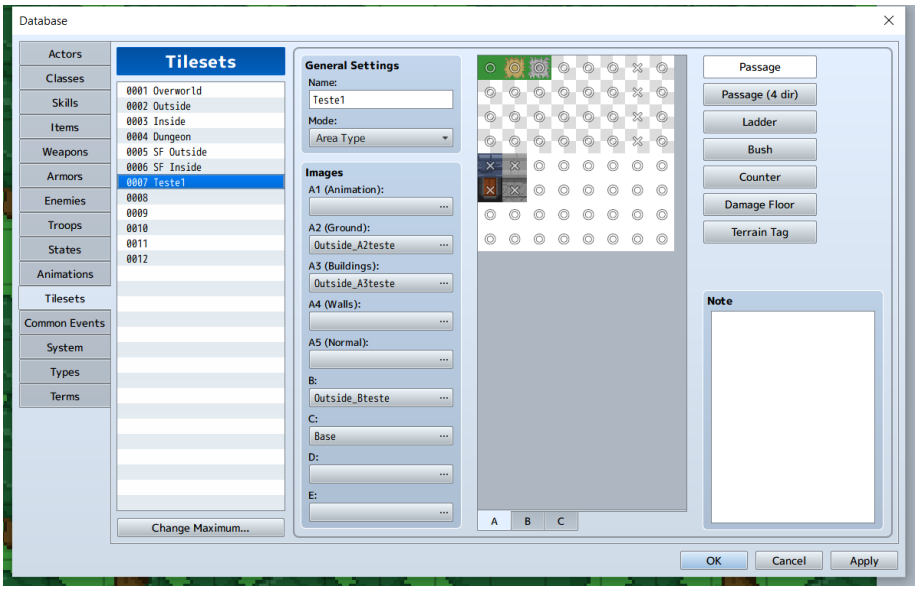

Figure 4.4: Tilesets tab in the Database

With all tilesets assigned correctly, the next step is to categorize them according to if they are passable or not. In Figure 4.5 it is possible to see an example of the symbols used to categorize the tiles. X means that if that tile is placed on the map, the player will not be able to walk over it. O means that the player will be able to walk over the tile. And ★ means that the tile will appear over the character when they walk over it.

The other categorization options are not used in *Time for The Moon Night* with the exception of the Ladder category, with is used for tiles that act as a ladder or rope. This category makes the character able to “walk” over a wall and appear as if they are climbing.

Figure 4.5: Symbols used to categorize tiles in RPG Maker MV

4.2. World Composition

To create the environment of *Time for The Moon Night*, original assets were designed and imported into RPG Maker MV. Using these resources, 8 maps were created. From these 8 maps, a few were altered according to the level associated with it, as each level of the game also portrays a different decade.

The first map developed was the clearing. This map is made of 17x13 tiles, making it the smallest in the game. It is composed of a dirt terrain surrounded by grass, trees and bushes. In its center there is always a rock, and other assests are moved from level to level. In Figure 4.6 it is possible to see the clearing map in its first instance, during the present.

Figure 4.6: The clearing map

This map looks structurally the same in every level but level 4, as in level 2 and level 3 the indicator that time has passed is a colored tint put over the game screen. In level 4 it has an added asset of a pile of dead bodies, which are being burned by the hunters during the cutscene. This idea is seen in Figure 4.7.

Figure 4.7: Clearing map with the addition of dead bodies

The second map made is the woods map. It has the size of 34x26 squares. The assets used in the composition of this map are almost the same as the ones used in the

clearing map, as both maps are set exclusively in nature. It is structured in the shape of a mirrored L, which can be seen in Figure 4.8, and the begining and end of the map depends on what level the player is in. The extra asset used for this map is the wood log to create the maze for the player.

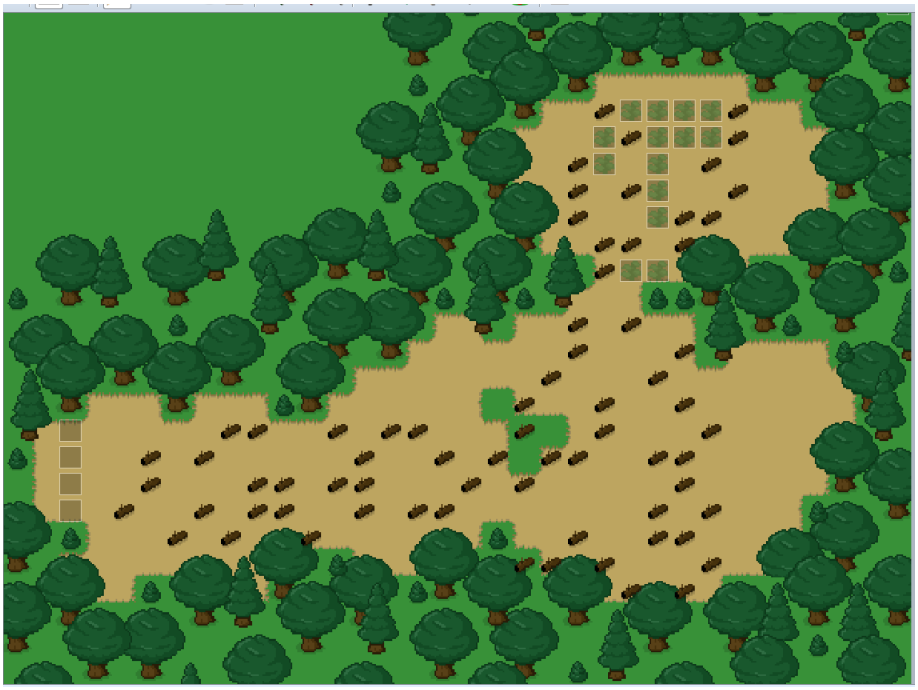

Figure 4.8: The woods map

The third map is the house area. Although it is called the House Map, it does not always have a house in it. Figure 4.9 and Figure 4.10 ilustrate said map with and without the house in it. It has a size of 24x13 squares. Aside from the assets already used in the previous maps, this map also utilizes a building and roof tile, as well as a door and windows to compose the house. As it was already mentioned in previous instances, the indicator for the decades change in this map are the lack of the house and also the colored tint over the game screen.

Figure 4.9: House map with house in it

Figure 4.10: House map with no house in it

Following the information previously mentioned in section 3.7.1, the inside of the house is not affected by any time changes, as it is only shown once in-game when the Teenager goes home in level 1. Because of this, the focus of this map's build was primarly to create a house that appears to be lived in.

In regards of the room, in section, it can be seen in Figure that the original plan was to have two bathrooms and a room for the parents. That idea was changed because, since nothing interactable would be placed in any of the bathrooms, it did not make sense to have two only for decorative purposes. The parents' room was removed, leaving only a way to a black void to indicate that the teenager is not allowed to go in there. Figure 4.11 illustrates the final map structure for the inside of the house.

Figure 4.11: Inside house map

The map for the front of the prison consists of a straight walking path surrounded by trees and bushes, at the top of the map is the prison building, which is built to look old and destroyed, as the prison in only shown from the outside in the present and not in the past, when it was still active. A large metal gate is positioned at the entrance. The complete map can be seen in Figure 4.12.

Figure 4.12: Front of the prison map

The biggest map in the game is the one made for the inside of the prison. Some changes were made to the number of rooms given that the original plan, seen in Figure 3.36, has NPCs in areas where the combat would not work properly because of the corridor's size. The version with the changes can be seen in Figure 4.13. Although this map is not affected by time changes, it does change at least once because of a cutscene. In this specific cutscene, one of the walls in the room at the end of the corridor is destroyed and so the tiles in that specific area have to be changed in the middle of the game.

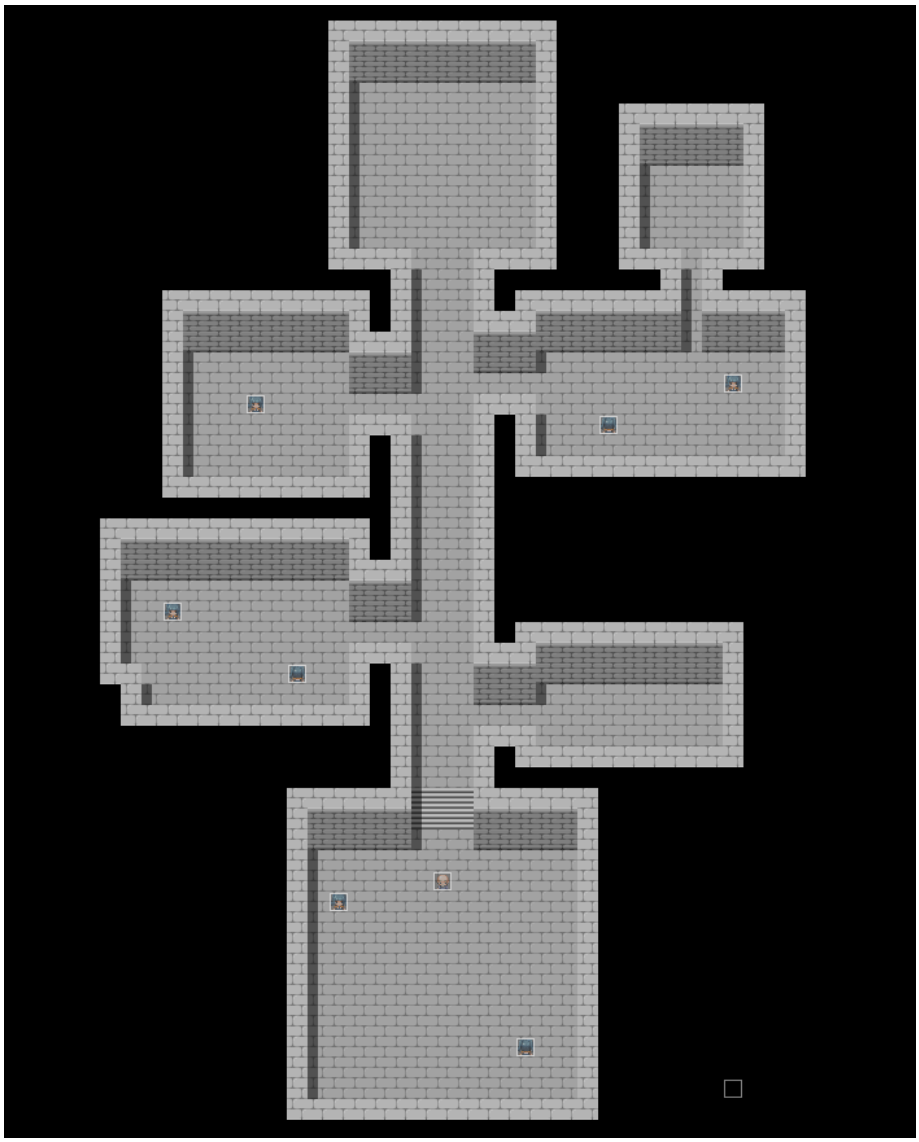

Figure 4.13: Changed prison map

The last map is the back of the prison map. This map only shows a small part of the prison's roof and, similarly to the map for the front of the prison, is mostly made of a walking path and trees surrounding it, which is ilustrated in Figure 4.14 below.

Figure 4.14: Back of the prison map

4.3. Mechanics

For a game to function properly, it must contain at least a set of a few mechanics that will determine what is or is not allowed within the game. These mechanics are what make a game flow accordingly, giving the player movement, goals, and things to do.

4.3.1. Destruction of Objects

In more than one instance in *Time for The Moon Night* the player must interact with objects with the goal of removing them from the character's way. With that being said, it was necessary to create a mechanic in which, when close to a certain object and pressing an specific key, objects would be drestroyed.

The solution for this was to create a series of events assigned to individual objects which would run constantly in the level checking if the specific key was being pressed. If said key were to be pressed, it would then trigger an animation to the character, making it just in place, as an effect animation would play over the object. After the animation is finished playing, the object would be destroyed. The contents associated to these events are as shown in the Figure 4.15 below.

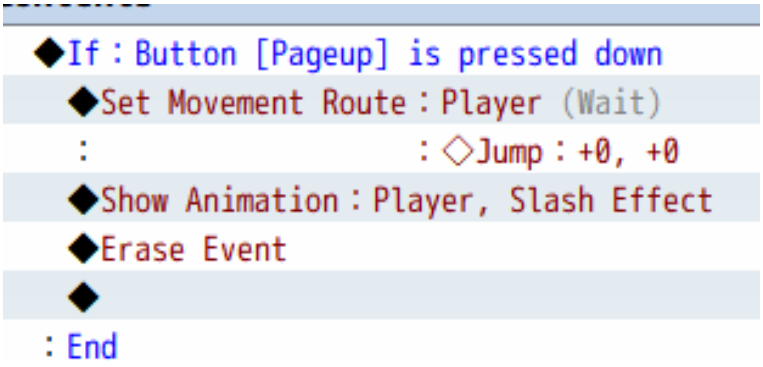

Figure 4.15: Delete object event

4.3.2. Dialogue

Given how *Time for The Moon Night* relies heavily on its storyline, dialogue becomes an important factor when it comes to the flow of the narrative. Because of that, one singular mechanic is applied to specific moments of the gameplay in a way to use the dialogue as more than just conversation. This mechanic makes it so that, even if the player has two options to chose from when replying to a character, one of the answers will be considered "locked" and the player will not be able to use it. This idea is achieved by using loops, which will keep cycling through until the players picks the answer that meets the loop's conditions. An example of this can be seen in Figure 4.16.

```
◆Loop
 ◆Text : Monster(6), Window, Bottom
 :     : Take some, it will make things better
 ◆Show Choices : Take the drug, Refuse (Window, Right, #1, #2)
 : When Take the drug
   ◆Flash Screen : (255,255,255,255), 60 frames (Wait)
   ◆Transfer Player : Party80s_lvl2 (23,6) (Fade: White)
   ◆Break Loop
   ◆
 : When Refuse
   ◆Text : None, Window, Bottom
   :     : This option is not allowed
   ◆
 : End
```

Figure 4.16: A loop being used in an event

4.3.3. Interaction with Items and NPCs

Having more than one instance in which the player needs to find an item or talk to someone to be able to move forward with the story, a mechanic centered around this had to be made. This mechanic works with the use of conditional branches, where an if statement is set and, if the player meets the requirements, the interaction will happen. As the interaction happens, a value will be added to a variable, and only when this variable reaches a certain number will it trigger the next part of the story. Figure 4.17 ilustrates a conditional branch and how a value is added to a variable.

```
◆If : Party tasks ≥ 1
  ◆If : Self Switch A is OFF
    ◆Text : People2(0), Window, Bottom
    :     : I've never seen you at a party before...
    ◆Control Variables : #0002 Party tasks += 1
    ◆Control Self Switch : A = ON
    ◆
  : Else
    ◆Text : People2(0), Window, Bottom
    :     : I've never seen you at a party before...
    ◆
  : End
  ◆
 : End
◆
```

Figure 4.17: A conditional branch and variables being used to interact with items

4.3.4. Battle System

Considering the monster thematic of *Time for The Moon Night*, it was decided in the early stages of development that the game would have a battle system. When deciding what kind of battle system to implement, the first that came to mind was the turn-based system RPG Maker MV offers. This kind of battle system is similar to many games, such as the *Pokémon* series, example seen in Figure 4.18, but, when tested for *Time for The Moon Night*, did not seem as enjoyable because there is only the main character available to attack and said character only has one attack as well. That made the turn-based battle repetitive and stagnant.

Figure 4.18: A battle in Pókemon

After some consideration, the battle system settled for was the ABS system, which means Active Battle System. This system works so that, instead of triggering a battle on a different screen, the enemies on will attack the player on the map he is currently on.

For the implementation of this system, an event had to be created associated with the enemies. This event works with the assistance of variables, which track the player's position in both X and Y axis on the map and, when within a certain radius of the enemy, will trigger the enemy's attack response. Figure 4.19 exemplifies the event created for the tracking of the player on the map and Figure 4.20 shows the enemy's attack response, as well as the conditional branch created to track said enemy's health.

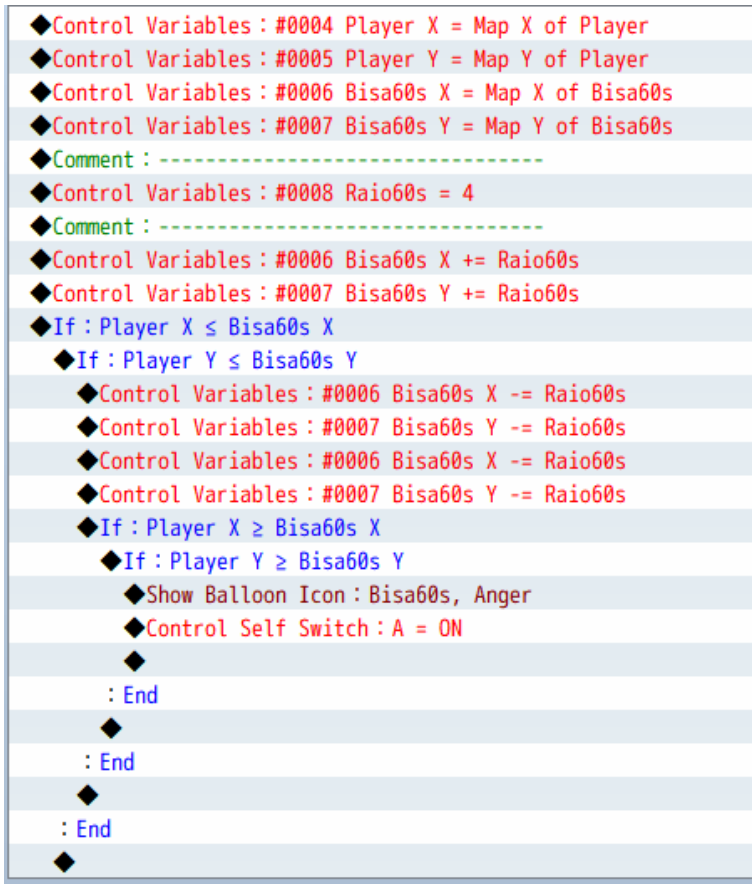

Figure 4.19: Tracking the player's location on the map

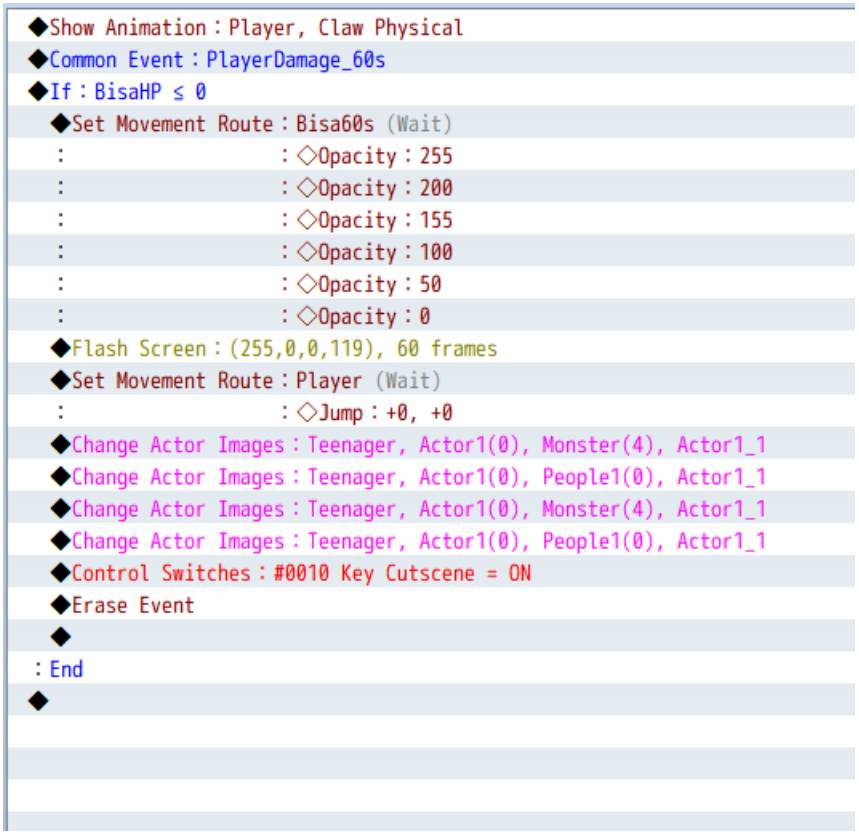

Figure 4.20: Enemy attack

Other than the tracking of the player's location and the enemy's reaction, another event was created for when the player attacks the enemy. This event consists of four conditional branches that track if the Q key is pressed and if the player is placed right next to one of the enemy's sides. If the player is in the correct possition mentioned while the Q key is being pressed, a movement will be triggered, sending the enemy 1 square back from the player and playing the attack effect animation. This event is also what removes values from the enemy's health variable. A part of this event's conditional brach, which tracks if the player is to the right of the enemy, can be seen in Figure 4.21.

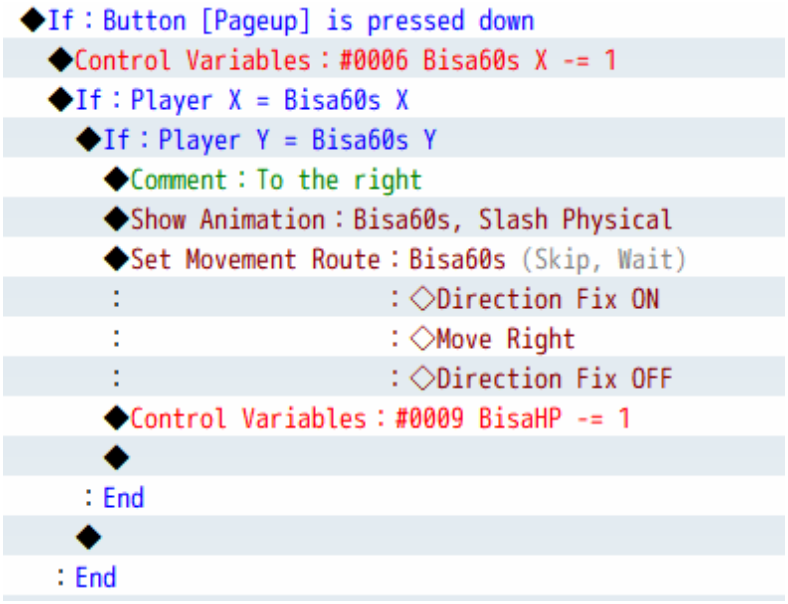

Figure 4.21: A conditional branch checking if the player is on the right of the enemy

5. Conclusion and Future Work

Given that this was the first time developing a game to its completion while being responsible for all aspects of its creation, it is important to highlight that this was a difficult and time-consuming journey. Since this project required interaction with different aspects of game design, not only was the initial objective of creating this game achieved, but also further experience in different areas was obtained.

While already aware of the fact that game design is not an easy task, it was through the development of this project that the concept was finally cemented and understood to its fullest. When being in the role of the player, it might be easy to undermine the work and effort that creating a game takes. Things such as a simple 7 frame animation of claws ripping through the screen, which plays for maybe two seconds during the game, could easily take an hour to be drawn and animated. The process of animating a character's walking steps requires more than just drawing it in different poses and, as time keeps proving, math once again becomes an essential tool to work with everything, even pixel art. Although there were setbacks in regards of both artistic and developmental aspects of the game, *Time for The Moon Night* managed to be finalized looking as it was first planned and telling the story it was meant to tell.

As technology progresses faster and faster each year and game engines become more accessible for anyone to work with, it is clear after finishing this project that, even with the help of an engine and other tools, art and narrative are still important parts of every game's development. This project allowed for not only the improvement of my skills as a pixel artist, pushing me to dabble in areas I was not that comfortable with such as animation, but also for me to have the opportunity to create a narrative that works with psychological factors that are personally relevant to me. This game was not only an academic project, but also an outlet for thoughts and emotions deeply attached to myself.

Regarding the future of *Time for The Moon Night*, although the game is finished when speaking of what was intended with this project, it is clear that it could be developed further.With that being said, the first step of future work is a revision of the narrative, allowing for the fictional world initially created to be expanded and new elements to be added to it. As the narrative progresses, it is possible to imagine how to implement these new aspects into the original project, elaborating new levels or expanding the already created ones to make different and more complex gameplays.

Other steps include possibly investing in the new RPG Maker engine version, RPG Maker MZ, as it is newer and has tools and options that RPG Maker MV can not offer without the use of plugins. Since game files can be traded between engines, this investment would be both beneficial and not taxing when it comes to moving the already made project into the new engine. With this done, even if the engines share great similarities, it will be important to take some time to get familiarized with the new acquisition before starting to work on the project.

Being comfortable with the new engine, the first few changes can be made to the original project. Among the things that were not a goal during this project, but had been thought of to be done in a future time, further work on the game's UI design should be done, both for the menu system and the dialogue boxes. Other considered tweaks include improving the lighting and possibly making original sound effects instead of using royalty-free ones.

Considering the expansion of the game itself, the levels will be made longer by adding new mechanics such as puzzles and new areas to the already made maps, allowing for exploration and an opportunity to further develop the fictional world already created.

With all this said, *Time for The Moon Night* as a master's degree project is finalized, but the game itself is just in its beginning stages and set to grow into a bigger experience as there is more time to work on it. Most importantly, if all plans go as imagined, the game will be released to the public when ready.

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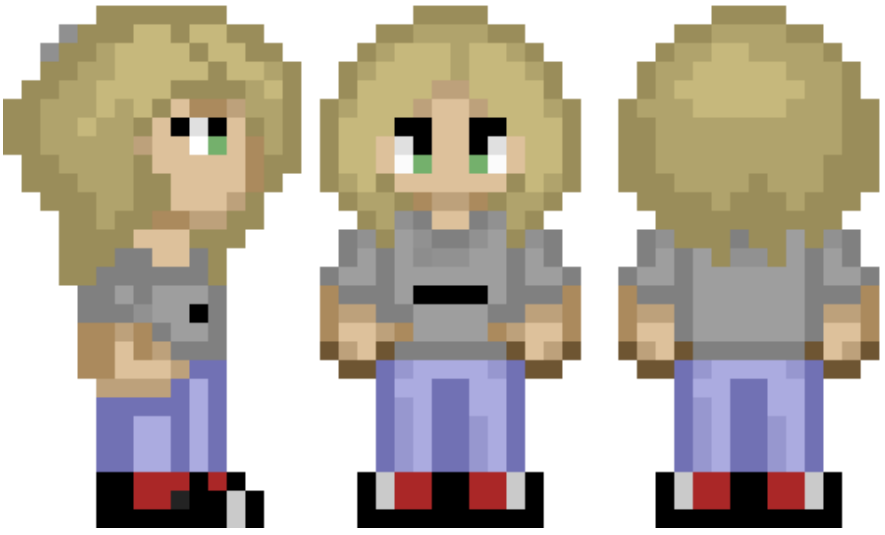
Appendix A

Character Design Files

This Appendix presents the rest of the images used in the character design process, such as moodboards, sketches, and finalized pixel arts.

Friend


ROCK
BAND



Father

Sister

Hunters

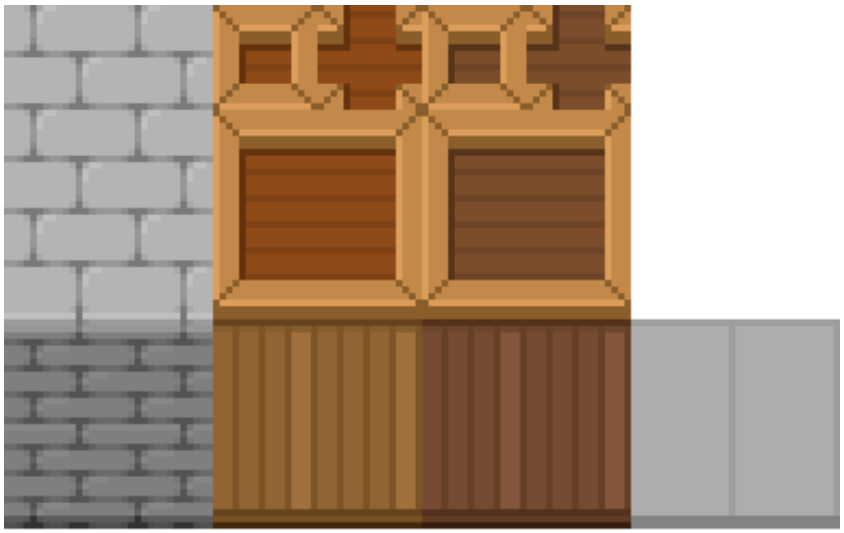

THE
STAR SPANGLED CROSS
AND THE
PURE FIELD OF WHITE
WRITTEN AND COMPOSED BY
SUBALTERN.
RICHMOND, VA. LITHOGRAPHED AND PUBLISHED BY GEO. DUNN & COMP'Y
COLUMBIA, S.C. JULIAN A. SELBY
HIER FÜHRTE IN DEN LETZTEN KRIEGSTAGEN IM APRIL 1945 DER LEIDENSWEG DER HÄFTLINGE AUS DEM KONZENTRATIONSLAGER DACHAU VORBEI INS UNGEWISSE

Appendix B

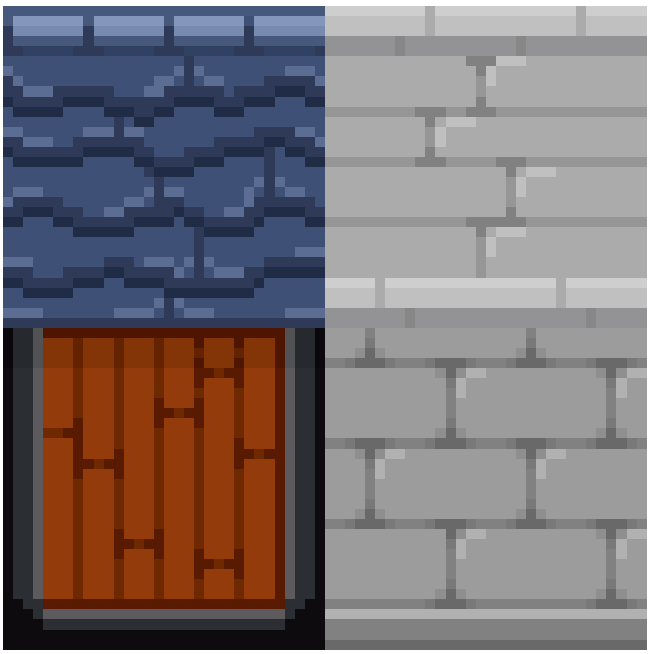
Assets

This appendix presents the list of the assets made for the game *Time for The Moon Night*.

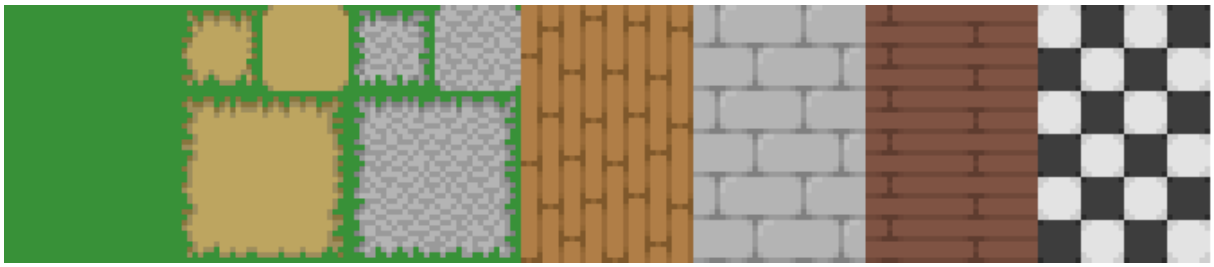
Interior walls



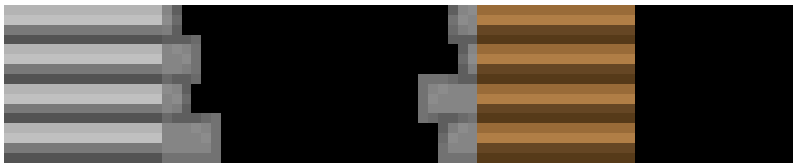
Exterior walls and roofs



Floors



A5 tiles



Objects

Appendix C

This appendix presents the full list of animations made for *Time for The Moon Night*.

Character Animations

Item Animations

Effect Animations