Eiko: Fire on the Mountain

by

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Dedication

This project is dedicated to Vinny Argentina and other professors in the Department of Art, Art History, and Design. Without all of your guidance and mentorship throughout the years I would not be where I am today and for that I thank you.
Abstract

My capstone project is titled *Eiko: Fire on the Mountain*. The goal of this project was to showcase the skills I have learned during my undergraduate career as a 3D artist with a focus on visual elements and design. *Eiko: FotM* is a casual video game experience with strong visual qualities and simple game mechanics. I wanted to show my ability to build a cohesive world and understand visual aesthetic all while working in a relevant industry standard art pipeline. My love of video games and the art of games is what lead me to where I am today, so naturally my final project as an undergraduate student is a video game.
Project Links

The following links lead to various aspects of the project.

Itch.io Project Download Page:

https://berryfoxes.itch.io/eiko-fire-on-the-mountain

ArtStation Project Information Page:

https://www.artstation.com/artwork/R2Lkm
Planning Phase

At the start of any creative 3D project is the planning phase. I started by deciding on what kind of story I wanted to tell. In this case I selected an underdog story that I and a group of friends had started the groundwork for several years prior. I took this idea and expanded upon it. In this instance, the story grew from the idea for a game mechanic rather than a story detail itself. Originally, we discussed a game featuring a character with a magical object that granted them abilities they would not normally have. My suggestion was for a quadrupedal character with a sentient scarf that would protect them and give them new abilities. After speaking with this original group and getting their permission, I took this idea and began expanding upon it while taking it into a different direction than originally discussed. I began by gathering visual reference and searching for assets, full games, and other media with visual styles like what I wanted to achieve.

*Visual reference collected for ideas for level layout and pathing.*
Though I wanted to create a stylized fantastical world, it was also important to understand the source material I was drawing from. To achieve this, I read several Japanese myths and surveyed architecture and art pieces to better understand the visual nuances of Japanese culture. An important part of the planning process in this case was adapting pieces of the lore and architecture I researched to fit into the world I planned to create. Once I was finished gathering references from both the real and fantasy realm, I drafted a short story to guide my next choices. I chose to create a narrative that would touch on not only themes of being humble but also on believing in yourself. I achieved these two narratives through the planned two main characters of the project, Eiko the wolf whom the project is named after, and Kakuji the fire god who would become her helper. The story focused around Eiko’s journey to believe in herself while she helped one of the most powerful beings in the universe, Kakuji, learn humility and regain his normal form. Eiko would be the quadrupedal character while Kakuji was turned into her enchanted scarf and would aid her along the way.

Visual reference for real Japanese pagoda architecture.
At the beginning of the production process a lot of design decisions need to be made before moving into the realm of 3D. I started out by creating sketches of the characters and various assets I wanted to create. Any and all ideas are put down onto paper and compared to help narrow down to the best and most fitting designs. I often consulted some of the references I gathered as well as continuing to find more references to assist me whenever I would get into a creative slump especially with the more architectural pieces which are not my forte. After deciding on a design for any given asset I would take the sketches and start creating color palettes. Deciding on colors is affected by several factors especially in the case of character assets. In the case of a character, different attributes such as personality, status, age, occupation, and other things can affect color choices for that character. In the case of Eiko the wolf and main character or the project, I chose cooler and more subdued icy blues with hints of green to give her a high contrast against the rich and saturated warm colors of the rest of the assets. Kakuji being a god of fire was planned to have a much redder and orange color palette to match not only his occupation but also his fiery temper. This would create an easy to see contrast between the two characters.

Final concepts for the two characters. Kakuji featured on the left with Eiko on the right.
Concept sketches from the design phase for the stone lantern assets.

Once designs are selected the 3D production can begin. Using Maya, an industry standard 3D modeling software, I began modeling the needed set pieces along with the main character, Eiko. This process can consume much of the production time of a project and in this case it did. This exact complication is to blame for the absence of the Kakuji model. I quickly realized that in order to finish the project I may need to seek outside assistance. This is a common process in the industry especially for small teams of artists because of how long it takes to create assets. I gathered two large reusable assets to push myself forward in the production cycle. These assets included the rocks and the mountains which are two larger set pieces that I could reuse in various places within the game itself.

The beginning of the modeling process on Eiko.
Once most of the assets were created, I started the process of building the experience itself within the Unreal Engine 4 game engine, another industry standard software. I started by blocking out the level and placing assets within their intended locations all while playtesting the game to see how the level felt with various assets in different locations. This process was also influenced by the collectibles and being sure to guide the player into every area of the level. Since the experience is small, I wanted to make sure the player saw every part of the level all while each collectible would give them a small piece of the story achieving storytelling at the same time.

*In progress shot during the asset placement phase and while testing various level layouts.*
Learning Process

In the game making process, there are often several iterations of a project before the final build is created and distributed. This project was no exception. There were 2 different iterations of this project along the way, both with differences. The original build of *Eiko: Fire on the Mountain* held a different atmosphere than the final build of the game. It was much darker and maze like and while it had the same level base the level was built differently. I used this build as a test to see how it would be received as well as help myself to better focus the project down into what I wanted it to be. I learned from this that the maze-like level design was not successful and mostly confusing for the player. I also learned that the dark atmosphere completely negated the color palette choices for each asset that I had made previously. Under the veil of night everything appeared to have a dark blue hue and looked muddy. To combat this, I revised the project. I started over by changing the level layout and removing the more maze-like elements. I created more nooks and crannies for the player to look around in while simultaneously encouraging exploration and giving the world more variety.

I learned that just because the first round of a project is somewhat of a failure, you can still turn it around and make the project better without having to change everything. I also reiterated to myself that asking for assistance is ok. Setting aside your pride for the betterment of a project is an important part of the game design process and I affirmed this for myself. While Unreal Engine makes programming a game much simpler with its visual coding system, the programming aspect of the game was sluggish and tiring for me to do on my own. The original iteration of the project was plagued with
performance issues constantly lagging during gameplay and jumping and jerking. When I finally felt defeated, I reached out to a friend. After she came onto the project in its very late stages, she took the ground work I had and optimized it leaving me with a much better project in the long run. I learned again the importance of realizing your weaknesses in a project and learning to play on the strengths of a team.

Screenshot within the Unreal Engine Editor of the first iteration of the project.
Conclusion

This project was definitely full of hurdles. It gave me the opportunity to really learn my own limits and abilities in a way I never have before. I already knew that I preferred to work in teams but this project really affirmed that to me. Having the support of a team to help accomplish a project is an invaluable asset to any project. I learned how to better set goals for myself while also better motivating myself when a project feels too daunting to complete. I learned the importance of reaching out for help more than ever especially when a task is out of your normal skill comfort zone. Though there is a long list of things that, if given the chance, I would do differently knowing what I know now, I wouldn’t trade this experience for anything. A chance to have full control of a project from top to bottom is very rare in the game industry and very hard to pull off in any capacity. This project shows off a lot of the skills I learned over the years of my education. I can find solace in the fact that despite all the hurdles I still finished with a product I can be proud to say I made.
Project Images

Screenshot from the final project that was used as a menu image for the project.

Screenshot from the final project.
Overview of the level as a whole.