

Beaver Quest Portfolio

Level Design Work

During the development of our game Beaver Quest, I was responsible for designing and building Levels 1, 4, and 5.

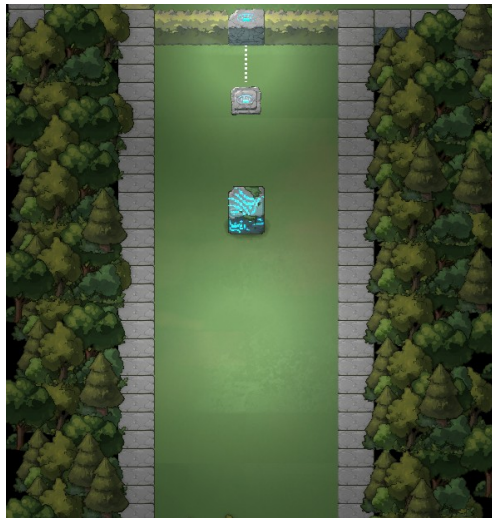


Figure 1: First Section of Level 1

When designing the first level of our game I had to keep in mind what was the best way to teach the player the main mechanics of our game in a fast and simple way. As reflected in figure 1 the player is placed in an easy-to-follow path that directly leads them forward, so they are forced to interact with the tutorials and learn the basic mechanics of how to move, pick up cubes and place them.



Figure 6: Double Triple Pressure Plates

In the last section of level 5, the player needs to use almost every cube in the level via a triple red pressure plate puzzle and a triple blue pressure plate puzzle. The goal of this is to serve as the last big moment of the game and once the player solves it, there's only one more step separating the player from their final goal.

Personal Roles and Responsibilities

	Artist	Programmer	Programmer	Level Designer	Level Designer
Technical	I	A/R	A/R	I	I
Visual	A/R	I	I	C	C
Game Design	A/R	A/R	A/R	A/R	A/R
Level Design	C	I	I	A/R	A/R
Production	A/R	A/R	A/R	A/R	A/R

During the development of Beaver Quest my primary responsibilities were designing and implementing levels 1, 4, and 5. I also lead most discussions with our stakeholder and helped facilitate the team's vision in the initial design phase of Beaver Quest. I played a primary role in the initial design of the main mechanic and theme of our

game. I also oversaw turning in most assignments and making sure other team members completed their tasks on time.

Personal Postmortem

What Went Well

1. **Communication:** Over the course of the development cycle communication was a top priority and allowed me to always understand what my teammates goals and ideas were and adjust my own goals and ideas accordingly. Properly communicating also helped with overall team cohesion and by the end of the project I feel like I have made good friends and would love to work with my teammates in the future.
2. **Iteration:** There were constant reviews with our stakeholder early in the design of my levels and this process really helped me make interesting and complex puzzles within my level. Iteration also allowed me to not feel attached to any part of my levels and helped me make decisions that would be best for the game rather than my personal feelings about the levels I made.
3. **Time Management:** As a team this answer slightly changes, but when it comes to a personal level, I feel like I was very good at staying and completing tasks on time and with a quality that I was confident with. I did not feel like there was a need for my tasks to be crunched and this made me freely available to help where needed.

What Went Wrong

1. **Skill:** This ties into the What I Learned section as well, but especially at the beginning of the development cycle my lack of unity knowledge hindered my ability to work effectively. This resulted in the need to ask for help from our programmers more, which in turn took them away from their tasks. With time I hope to increase my skills and be able to complete tasks with a greater degree of skill.
2. **Playtesting:** Especially towards the final milestones, I could have play tested our game more. Near the launch date, we found a critical bug in the first level of the game, and this could have been avoided with earlier testing. This also ties into the team postmortem, but as a level designer there is more responsibility on me for finding the existence of the bug and this is something I can improve upon.
3. **Helping Others:** Due to my lack of skill, I feel like when it came to the actual development of the game, there was little I could do when it came to helping others complete their tasks. Hopefully in the future I can help with more technical tasks.

What I Learned

1. **Unity:** I learned a lot more about the tools needed for game development and how to use them more effectively. Over the course of the development process, while not mastered by any means, I feel like I became familiar with Unity to the point where I can become more self-reliant.
2. **Communication Part 2:** While mentioned in what went well section, there is something I wanted to call out that was an invaluable learning experience, that is working with people that don't share similar backgrounds. As my whole group was from a different country and has a different native language, there was an obvious learning curve that required me to figure out how to properly convey what my goals and ideas were but also figure out how best to listen to my teammate's goals and ideas.
3. **Stay Flexible:** While I always have maintained a "go with the flow" mentality, nothing could really prepare me for the true expect the unexpected nature of game development. While daunting and stressful at times, it was fun to learn how to navigate the random and sometimes funny problems that pop up and need to be fixed. These issues challenge one's critical thinking skills in a variety of ways, and learning how to solve those problems has been valuable. I am looking forward to many more years of being stumped and learning how to solve many, many more problems.

Team Postmortem

What Went Well

1. **Team Collaboration:** Our team maintained a good relationship with team members, fostering a pleasant and cooperative working environment. The team dynamic was relaxed and enjoyable.
2. **Iteration and willingness to "cut":** at Pitch, we tried to include a bunch of themes (like
3. **Effectively Planned the Project Structure Early On:**
 - a. It allows us to add many additional mechanisms and features without modifying the code base
 - b. The cost is needed to spend more time at the beginning of the project but benefits in the late stage of the milestone
4. **Communication with stakeholders effectively:** The stakeholder always gives us timely feedback, and it's always a large message with detailed advice on modifying the current version of our game.

What Went Wrong

5. **Challenges in P4V Usage:** Due to limited proficiency with P4V, there were frequent issues with team members not communicating effectively or promptly getting the latest updates, resulting in file conflicts. This often requires extra time to resolve.
6. **Lack of Strict Enforcement of Coding Standards:** Due to the lack of following naming conventions and code standards, we need to have refractory the whole project at the end phase of the milestone. Also, the lack of following code standards and development norms causes the debugging more time.
7. **Playtest as a team:** Make sure every team member playtest the game will find the bugs quickly.
8. **Managing milestone deadlines:** crouching large scopes, asset lock process.

What Was Learned

- a. **All Team members are responsible for final quality disciplines and need to work together**
- b. **Establish Perforce submit process:** Every day before the work lab starts, we will hold a short meeting to discuss whether to submit or pull files, Make sure we don't have conflicts on P4V, and then start the work.
- c. **Learning communication between different languages and cultures:** Make time for discipline, language, and cultural differences, and be aware of idioms.
 - i. Agree on and follow naming conventions-create a culture of compliance.
- d. **Stricter focus on task time estimates.**
- e. **Be deliberate in interpreting playtest feedback:** mix some of the feedback and do not take it literally the same.