

Red Mountain

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Path to Deity
XB3992 Honours Project
Research and Process Journal
Ken Lau

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LIGHTING NEEDS TO BE REBUILT (176 unbuilt object(s))

September



SEPTEMBER Planning

In the beginning, the player would be fighting their way to find abilities at way shrines and picking up side quests from characters (NPCs). This was cut as it would have been too large a scope to aim for and the pure focus needed to be on the level and puzzle design aspects, over combat, AI and quest systems.

I began completing more research and settled very quickly on creating a game like *The Witness*, as I found the blend of puzzles and environment to be inspiring. This led to the game idea becoming closer to what it is today.

How to stop becoming repetitive:

- New abilities
- New people to talk to
- New side quests
- New pitfalls
- Enemies
- Puzzles (increasing in difficulty)

Required things to make:

Basic health bar
Blood splats.
Day and night cycle
Loading/ opening levels- based on level/ criteria

Each shrine= lit and focal point (now lights green and red flashing to draw attention to place where been/ where needs to go).



what to do.

- Puzzles to understand- each part has own dialect- patterns of writing. Double jump is 'Space' twice.
- Coins to travel faster (move), buy food (regen health) or buy more arrows.
- Reward, karma systems
- Simple hit and block mechanics to fight monsters in world
- Gain health- eat?
- HP will be above heads and blood splat when hit. Bow and arrow?

Progression:

Player fights way through world to find ability in the world
Player finds shrine requiring this ability
Player solves puzzles in shrine
At end of shrine, player receives a badge and has been taught a new ability.
All badges= access to last tower
Each badge/ shrine requires specific ability: Shrine 1= ability 1
One chance at tower so use abilities in world to practice so get it right.

Abilities:

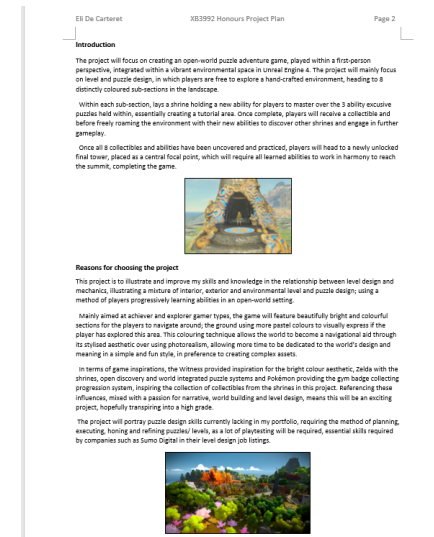
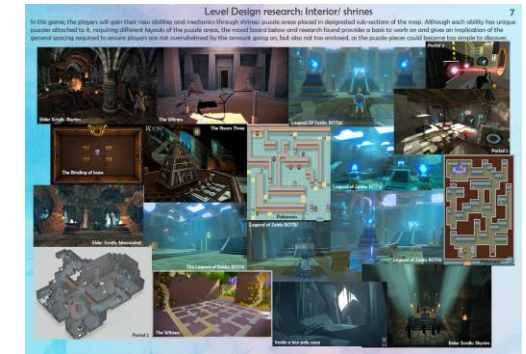
- Double/ triple jump (Double/ triple jumping- Titanic Games)
- Speed (Sprinting, stamina- Titanic Games)
- Move Items- Pick up and move/ drag- Line tracing
- Pick up items- 21 park/ ability- replicated with picking up and rotating items and the ability to pick up and literally move items with line tracing.
- Crouching
- Teleporting through walls (Wall climb and bouncing when on floor- fix only enable when grasping hook active. Wall climbing and to fix bouncing- GH enabled ~~hook~~ was default set to true, meaning would launch at any surface- causing jump because thought GH was active. Fixed by setting default to false so will be set to true when required in coding Blueprints.
- Slow down time/ stop time.



SEPTEMBER Documentation

In September I began creating the following documents, as I felt the earlier, I started them, the less which would be required to be completed later:

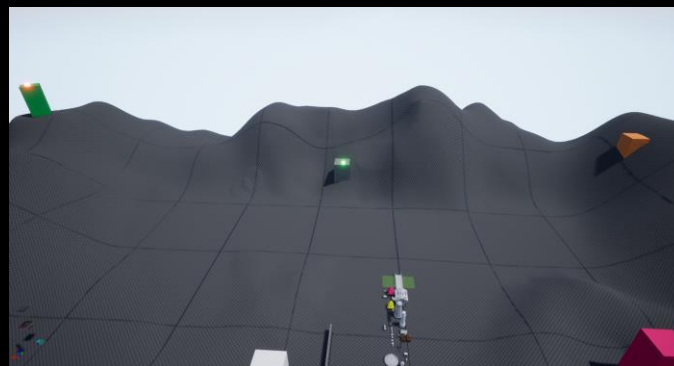
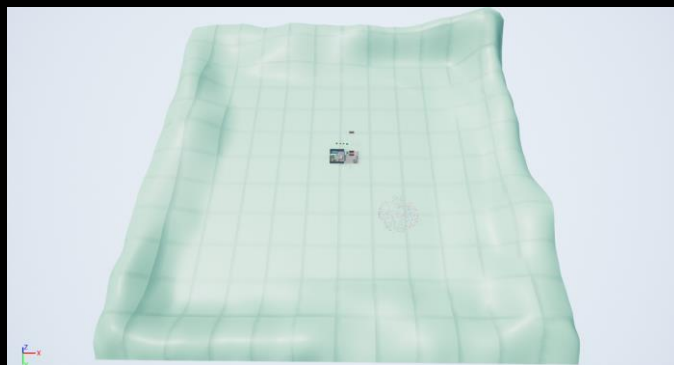
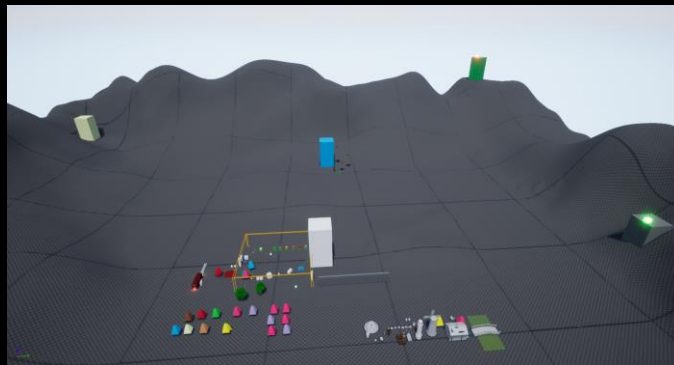
- Project plan and schedule (due Week 5).
- One sheet
- Research document: Which is being submitted as a separate deliverable, agreed within my Project Plan.

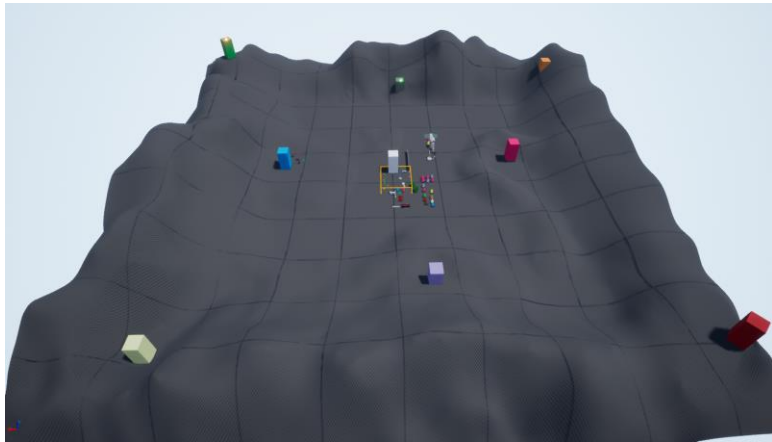
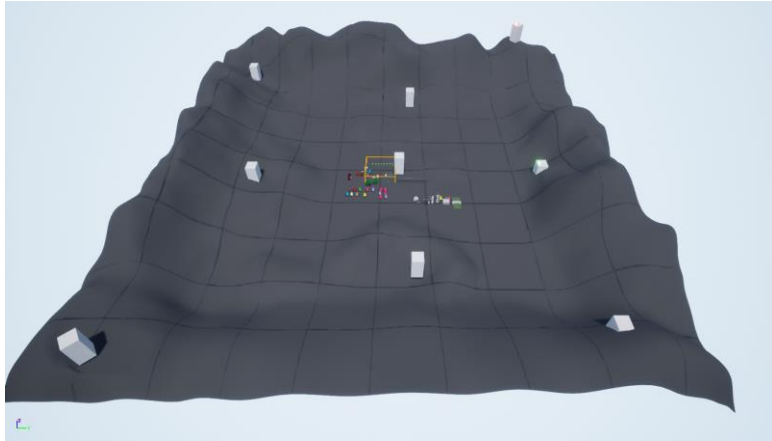


SEPTEMBER In Engine

In terms of work in engine, I started testing the landscape and foliage tools, created a layout of where the puzzles will be (Time Manipulation being placed furthest away from the player start as it is one of the most difficult ones to master) and began designing, creating and implementing the mechanics, as I felt completing this early would ensure they were achievable, as well as allowing me to begin creating puzzles soon after this.

On top of this, I completed a grass and water test, along with modelling and unwrapping the church, well and unused train assets.





SEPTEMBER Reflection

I felt that September started the project on the right foot and began with a professional workflow, which I maintained throughout the course of the project's development.

In my opinion, starting to implement the mechanics into the game this early gave the development process more time when required later on.

An aerial view of a city with autumn foliage and ruins. The scene is set in a valley with a large body of water in the background. The foreground is dominated by a dense forest of trees with vibrant autumn colors, including bright yellow, orange, and pink. In the middle ground, there are several buildings, some of which appear to be ruins or partially destroyed. A prominent feature is a tall, dark, cylindrical structure, possibly a tower or a monument. The sky is a deep blue with scattered white clouds. The overall atmosphere is serene and somewhat melancholic, suggesting a post-apocalyptic or historical setting.

October

OCTOBER Documentation and models

With October brought Milestone 1 and the Project Plan submission. Due to these deadlines, along with the other documentation I needed to produce as supporting materials, I did not complete much in Unreal, however, I was still sporadically completing the mechanics and gathering assets to add into the project.

Part of this documentation was the beginning of the 2D sketches for the puzzle designs, beginning the BurnDown Chart and Pre-Production Document. I was also still working on the Research Document, in hopes to get it competed towards the beginning of November, as I wanted to get into engine.



Mechanics/ scripting/ blueprinting

The mood board on the previous page looks at how the core mechanics in this project have been used in other games. The reason for looking at this is it gives information as to how other designers have implemented them and gives a better idea of ways they can be used in this project, looking at limitations and possible puzzles which can be created. It also shows that these mechanics are diverse in their uses and as they are used in some of the biggest games to have been created, it shows that they can be quite effective at being the core of successful games, such as Battlefield (crouch and sprint), DeusEx:Dogfight (steeping on the mouse), Just Cause, Overwatch and Far Cry (grappling hook), Life is Strange (rewinding time) etc. As these games are all successful using these core mechanics, putting them together in a game will create some interesting gameplay elements, challenging and fun puzzles and thoughtful landscapes for players to explore whilst using the mechanics.

MECHANIC PROGRESSION SYSTEM

Similarly to Super Metroid, players will gain more abilities/ mechanics the more progress and will teach a new ability once the player decides they have enough skills with their current one. One reason for this approach is that giving players all the mechanics at once may overwhelm them, so giving the player control over how long each step of the learning curve takes (self-regulating learning curve) gives the player more choice and allows them the freedom to go at their own pace. Players who take the time to master abilities, will be more efficient at the final tower, where the player will only have one chance to complete it.

MECHANICS TO SELL GAME

Showing the players early on why the game is cool and how they can use the mechanics will grip players and keep them interested in the game. Giving them the mechanics in stages will keep the game feeling interesting, fresh and unique, due to the new aspects.

GIVE CHOICES THROUGH MECHANICS

Make sure that the mechanics in the game give the players more choice and trust players to think past the choices and orders provided to make choice on their own. However, have to make sure there is something there for players to discover if they do make those choices, for example, if the player gets the crouch mechanic and goes into a gap in the open world space to find nothing there, they will be disappointed. Need to think what else players may want to do in that moment. This is where easter eggs can be important, as players may think outside the box whilst using the mechanics and discover something which nobody else has, leading them to feel clever.

HIDDEN GAME MECHANICS

Another way to make the player feel fulfilled is by using hidden game mechanics. When designing a game, design it thinking of player's mindset and perception, as these are usually flawed so are likely to lie to the player, meaning games can give a false sense of empowerment or tension, for example, the last 10% of the player's health could go down half as fast when they take damage, giving the player a chance to bounce back and come out of the encounter feeling like they have overcome the odds and should be dead but their skill kept them alive, when it really, it was an illusion to make the player feel more fulfilled. Some examples of this include:

- Bloxhede: Enemies always miss player first time shoot so don't feel unfairly punished.
- Kio'd time: Gives slightly longer time to jump after go over edge- allows to keep flow and fast pace.

MECHANICS: JESSE SCHELL

- 1) Time: (continuous/ turn based/ Discreet)
- 2) Objects, attributes and states (current/ dynamic).
- 3) Actions: (What player can do), e.g. Jump, shoot, pose.
- 4) Rules: Make use of all other elements by creating a goal.
- 5) Skills: Physical, mental (reflex/ logic) or both.
- 6) Chance, luck, probability- most games contain elements of chance and randomness, however, the best player will usually win through skill.
- 7) Space: Continuous (open world)/ Discreet (can be nested inside a continuous space).

Knowing these could help deliver better created mechanics or give more ideas into how to manipulate mechanics to create a more unique experience.

VIRTUAL ECONOMY

Even though this project will only have a basic economy, it is still good to research them to get some ideas and techniques. The developer needs to decide how much money should be in the world and ways it can be managed.

- Inflation: Demand goes up, need supply to meet it.
- Provision: Grid to get more of what want, e.g. currency.
- Capping: Limiting the amount of currency can get in area.
- Value: How much think it should be worth.
- Cost: How much actually buy for. Need to balance amount of currency to the amount of goods available (unless it's a choice).

Use the currency to make interesting choices for the players.

MARGINAL MECHANICS

Marginal mechanics are mechanics, abilities or items that have high utility in marginal cases. The 2 types include:

- 1) Specific case marginal mechanics- These are mechanics with an specific instance in mind, e.g. using a poison potion on a boss with no poison resistance for the best effect or a weapon with a specific perk against a certain enemy (e.g. more powerful).
- 2) Combinatoric marginal mechanics: Mechanics which are more powerful with other elements, e.g. with the right abilities, stats and gear, will give an advantage over other abilities. For this project, it could be combining abilities to reach a new area.

What is the project?

- Open-world puzzle adventure game.
- First-person perspective.
- Vibrant 'Witness' influenced environmental space
- Level and puzzle design.
- 8 distinctly coloured sub-sections
- Shrine in each sub-section
- New ability in shrines
- Use ability to solve puzzles
- When all 8 found, unlock final tower

Reasons for choosing

- Illustrate/ improve skills in level design
- Mixture of interior, exterior and environmental level and puzzle design
- Portray puzzle design skills
- Forefront of portfolio for employers to see
- Use colour as a design technique
- Witness colour aesthetic
- Zelda shrines, open discovery and puzzle systems
- Pokémon progression system of collecting badges from gyms

Intended outcomes

- Professional flowing level design in environment
- Correct pacing
- Challenging but enjoyable puzzles.
- Immersing players
- Learn UE4's landscape editor
- Improve blueprinting and level design
- Level design workflow
- Honing software skills
- Forefront of portfolio

Deliverables

- Project plan/ schedule
- One Sheet
- Research document
- Burndown chart
- Pre-Production document
- Paper designs of puzzles, shrines, sub-sections and overall map layouts
- 2D RPG Maker designs of shrines, sub-sections and overview
- (Level) Design document
- Negotiated portfolio: Final UE4 level (.exe) file
- Walkthrough/ gameplay video
- Trailer video
- Website portfolio link
- Evaluative report
- Research and process journal (Development log) and any presentations.

Necessary actions/ schedule

Pre-Production (Week 1-6)
Idea generation, researching and creating documentation

Production (Week 6- Week 24)
Developing on paper, 2D and 3D spaces
Playtesting
9-core mechanics

3 key prototype stages
White-boxing (block-out/ core gameplay): Christmas
Grey-boxing (models, UI, signposting, lighting, environment): C.D.W 2
Final art (bookending, audio, polish): Week 24

Post-Production (Week 24-26: Including Easter)
Creating final documentation (evaluative report, videos, online portfolio and hand in)

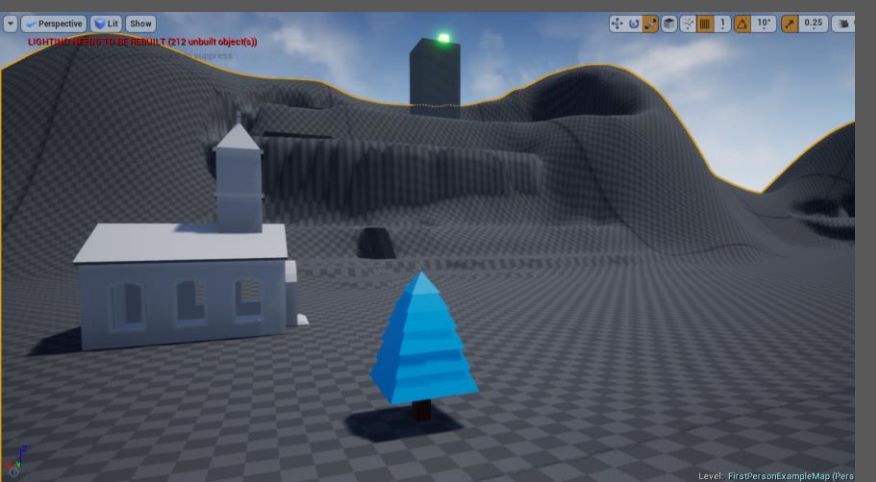
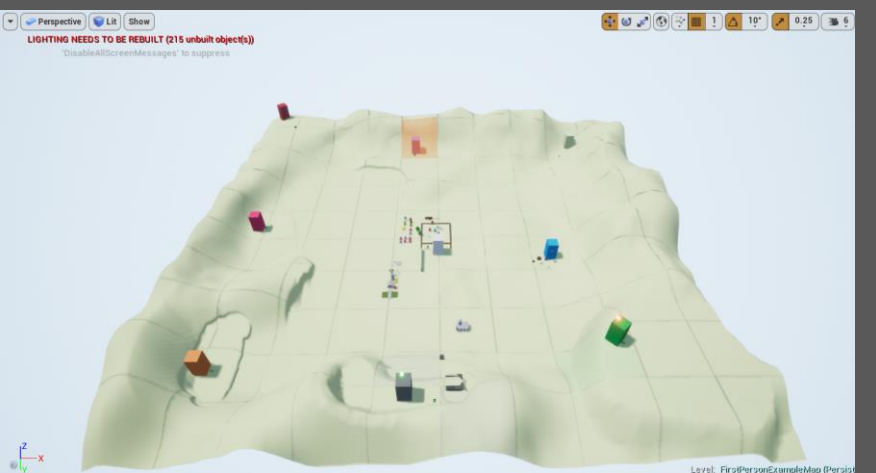
9 Core Mechanics

Cross Programme Presentation

Milestone 1

LIGHTING NEEDS TO BE REBUILT (222 unbuilt object(s))

November



NOVEMBER Landscape

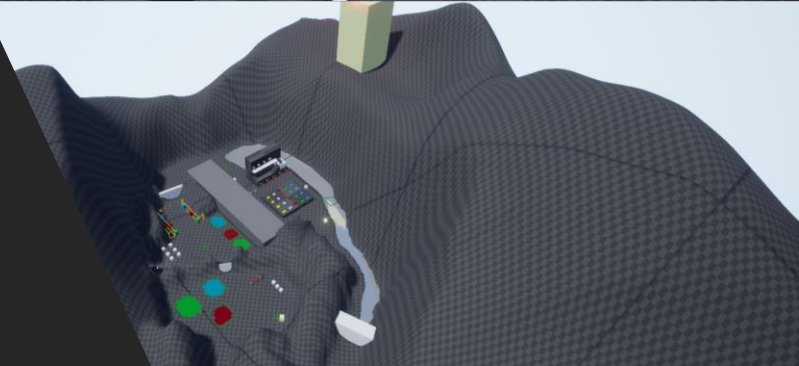
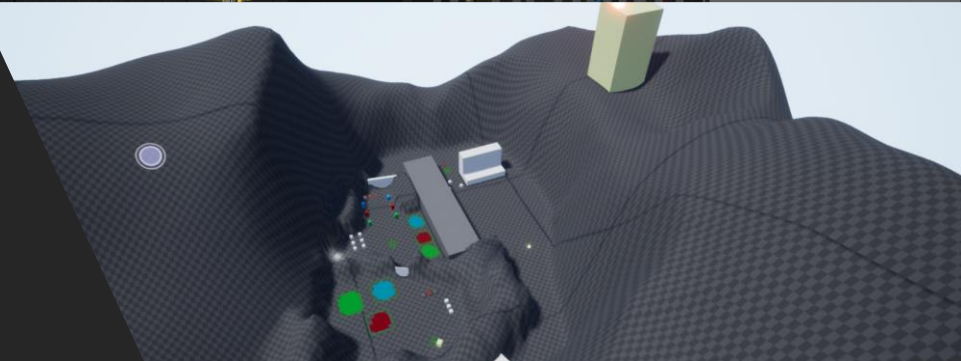
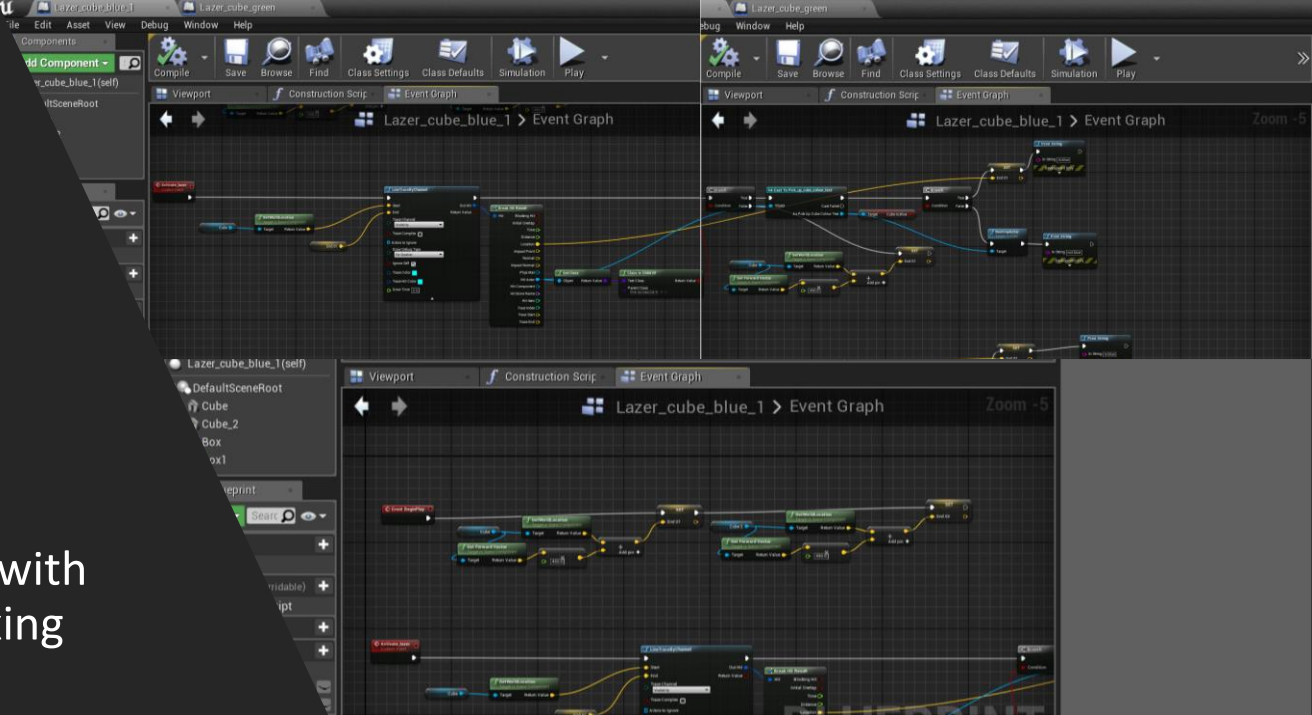
At this point, I began properly working on more tests within the landscape, ranging from sculpting different areas just to test out the UE4 landscape tool in more depth, to then beginning to carve into the landscape in more detail, in order to gain more shape, ready for the puzzles to begin being implemented.

I also added a couple of assets to the landscape, such as the church, in order to begin the process of adding models to the environment, as well as completing another colour test, this time testing the beachy colour in the world, which would symbolise Carry.

NOVEMBER Puzzles

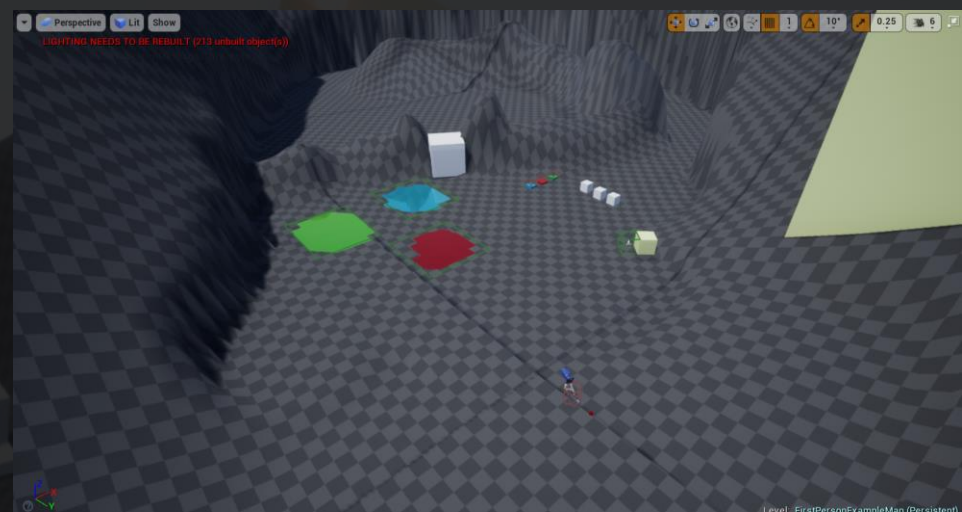
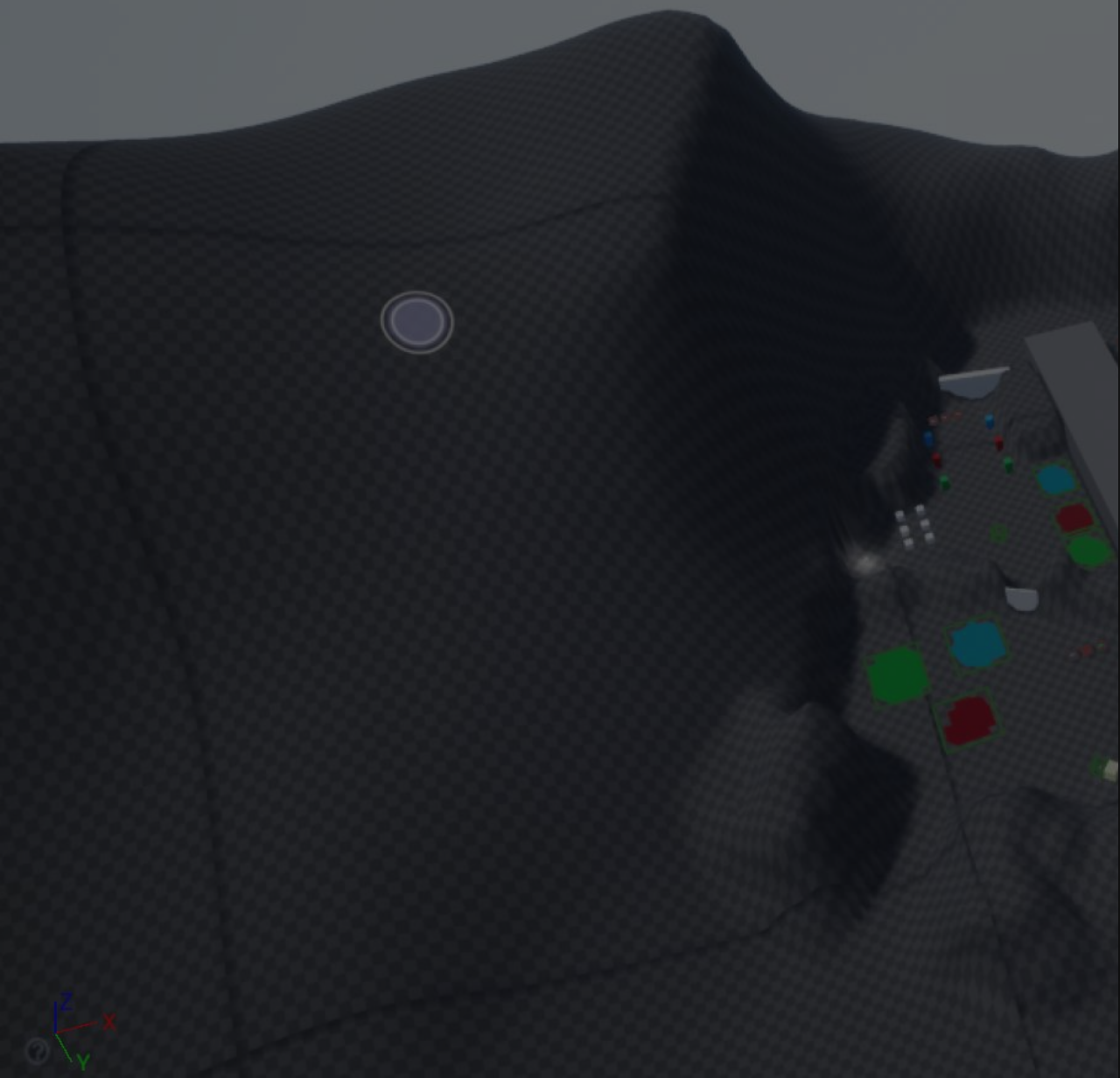
In November, I began creating the puzzles, starting with the blockouts for the 3 Carry puzzles, before bug fixing and completing these before November was over.

The blueprints on this page are line traces which are drawn in order to determine if the cube the player is carrying is firstly, interacting with the laser and secondly the same colour as the laser. If it is, the player will be able to cut/ block the laser beam, whereas if it is not of the same colour, the laser will destroy the cube and it will respawn (for puzzle 2).

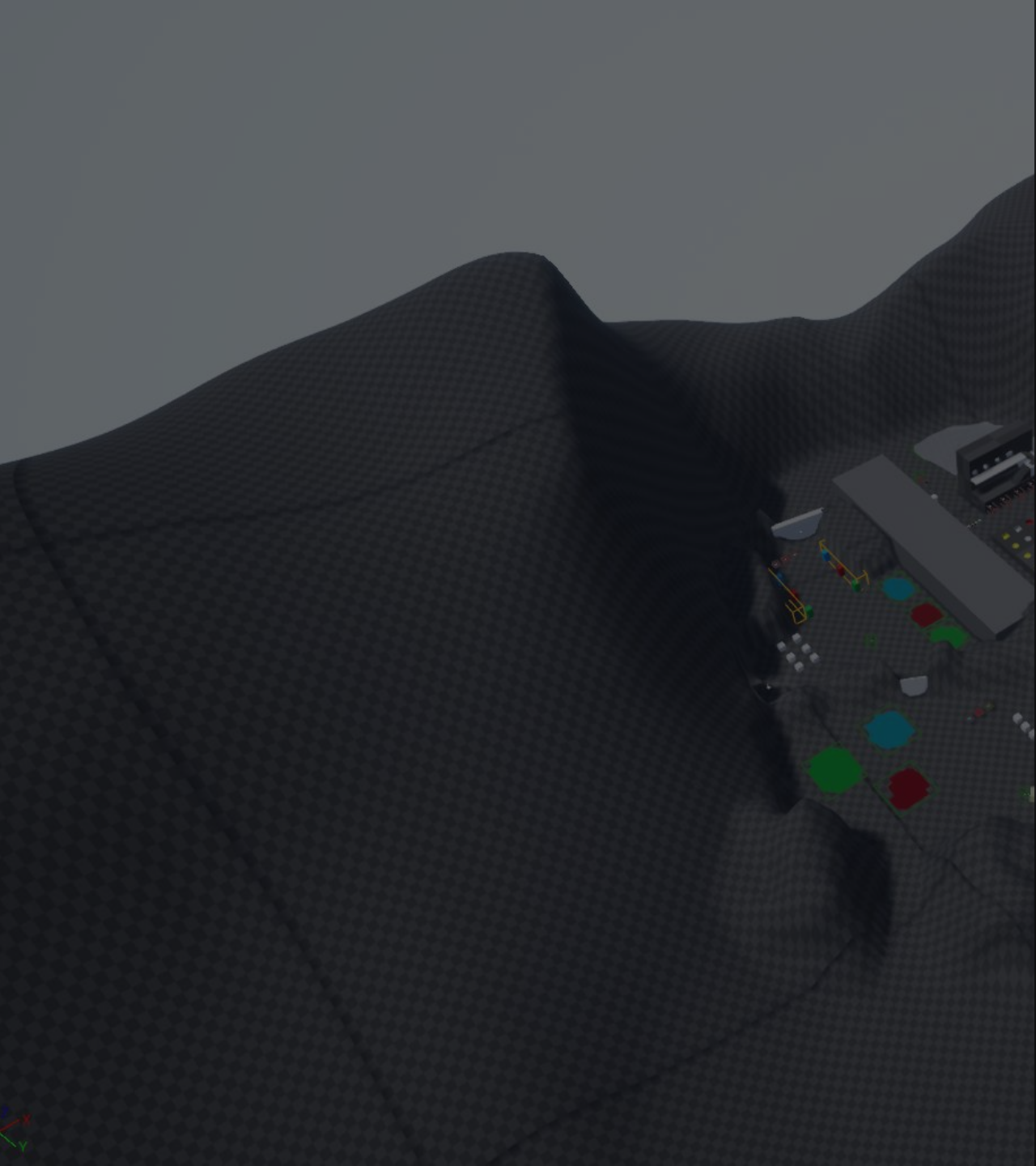


LIGHTING NEEDS TO BE REBUILT (222 unbuilt object(s))

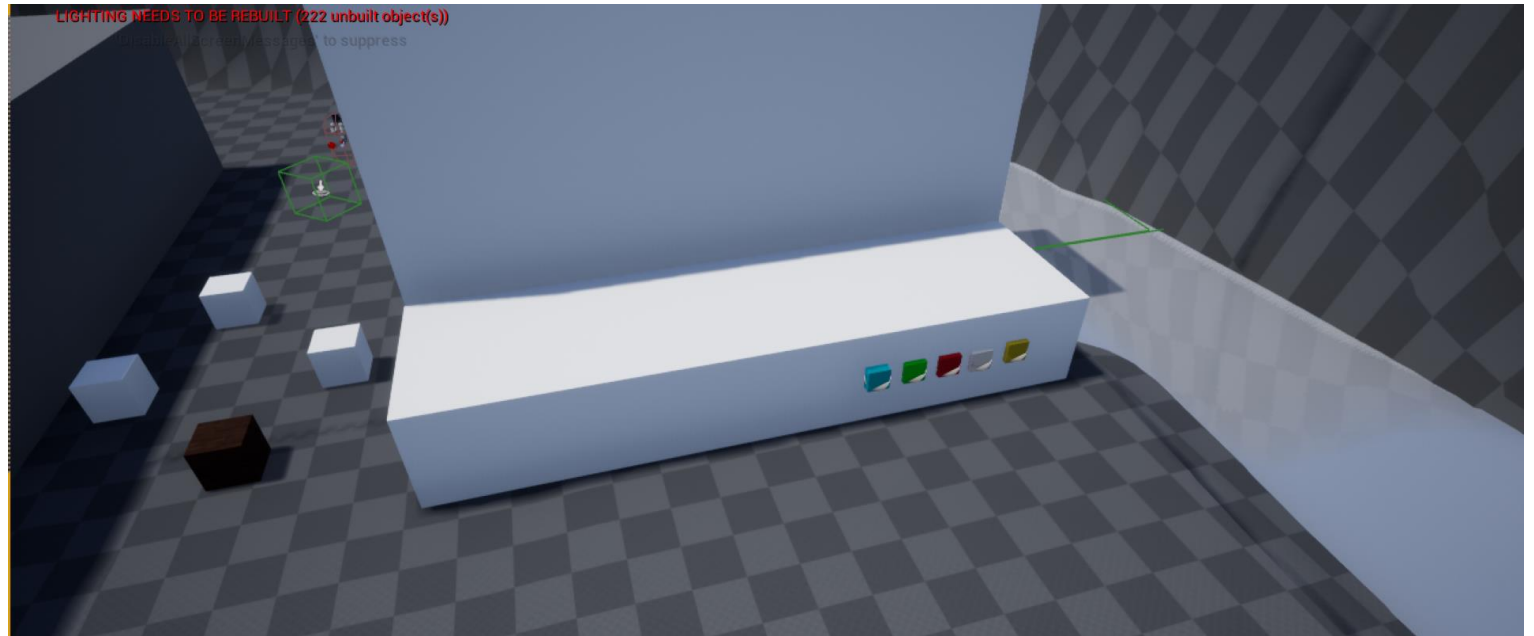
'DisableAllScreenMessages' to suppress



Carry Puzzle 1



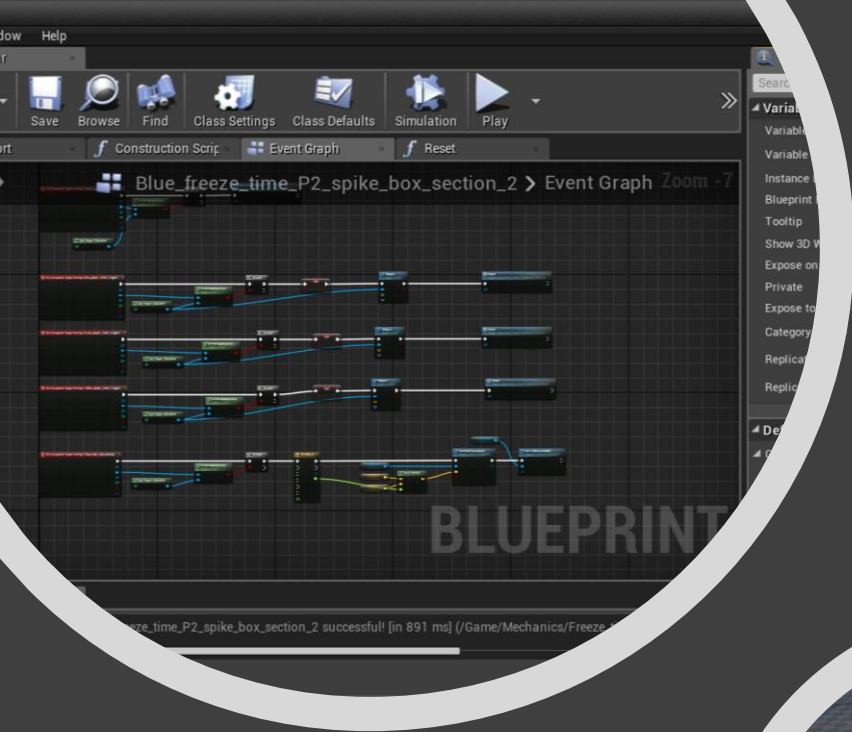
Carry Puzzle 2



Carry Puzzle 3

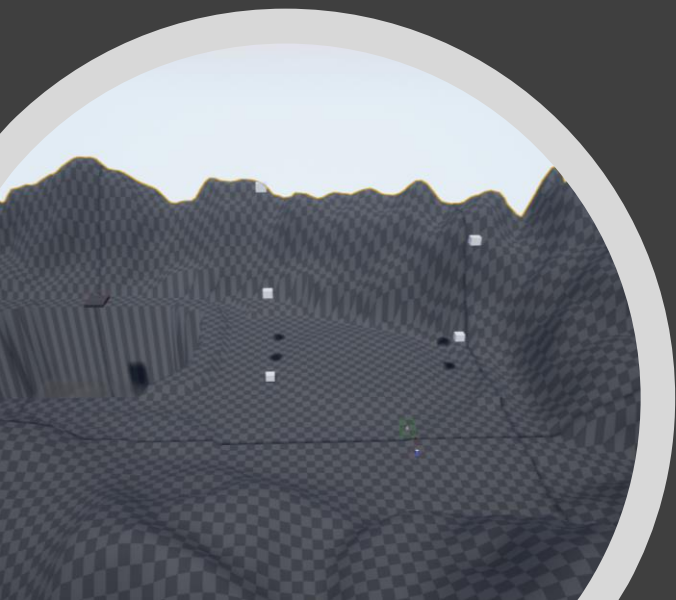
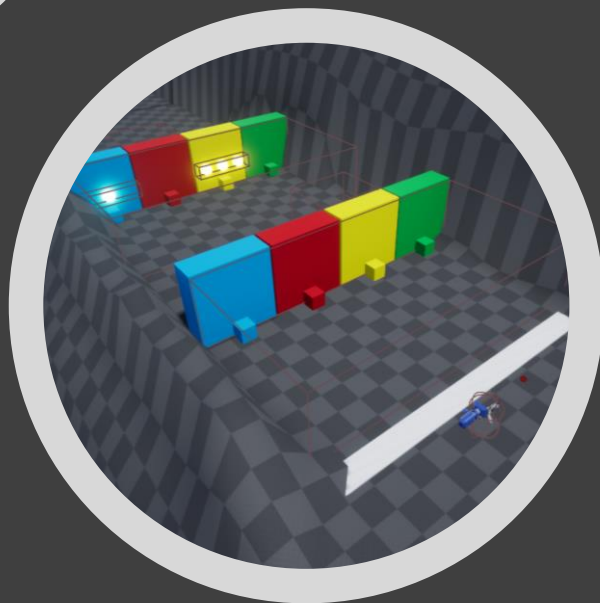


December



DECEMBER In Engine

Through December, I worked a lot more in engine than I had previously, creating the remaining jump puzzles, fixing bugs and making the paths clearer to see in the process, changed the size of the lava actor so that it did not go through the mountain, which ruined the illusion of the lava when attempting to escape it. This also caused an issue if the player went back down the mountain and touched it, as the collision was still active. Since then, I have added checkpoints and boundaries to block the player in, given the player more air control and reset the Time Dilation back to 1 when the player gets the gem stone. From here in December, I also created the Time Manipulation and Freeze puzzles to the world.



What's been done so far?

- Documentation
- Research document
- Burndown Chart
- One Sheet
- Project plan
- Puzzle listings
- Development log (Ongoing)
- Started on Pre- Production Document (Christmas)
- Started on Design Doc (Christmas)

What's been done so far?

- 3 Carry puzzles
- 3 Jump puzzles
- 1 Time manipulation puzzle
- 9 Core ability mechanics
- Outlined puzzles
- Landscape editor
- Foliage and landscaping
- Couple of models created
- Testing and bug fixes

Research document

MOOD BOARD AND WRITTEN RESEARCH

- Job Listings
- Environment
- Exterior
- Interior
- Puzzle design
- Aesthetic
- Mechanics
- UI
- Narrative

How is the work developing?

is the work on track?

- Documentation is on track
- Planned out puzzles completely
- Started working on the landscape
- Happy with puzzles completed
- Fixed a lot of issues (deporting)
- 9 core player mechanics implemented

Week	Goals	Done?	Details
12	Test crouch/ sprint puzzles 09/12 12/12 White box implementation implement teleport/ grapple Test and Iterate Present		Test the crouch/ sprint ability puzzles Test the grab/ jump ability puzzles Implement the time manipulation (slow down/ speed up time) and reverse time ability puzzles into the level. Implement the teleport and grapple ability puzzles into the level. Iterate the implemented puzzles using feedback Get material together to show in presentation
13	Test crouch/ sprint puzzles 12/12 09/12 White box implementation Test teleport/ grapple Test and Iterate Present		Test the crouch/ sprint ability puzzles Test the grab/ jump ability puzzles Test the time manipulation (slow down/ speed up time) and reverse time ability puzzles. Test the teleport/ grapple ability puzzles. Iterate the implemented puzzles using feedback Present the work undertake so far and plan

In class Presentation

Gameplay demo

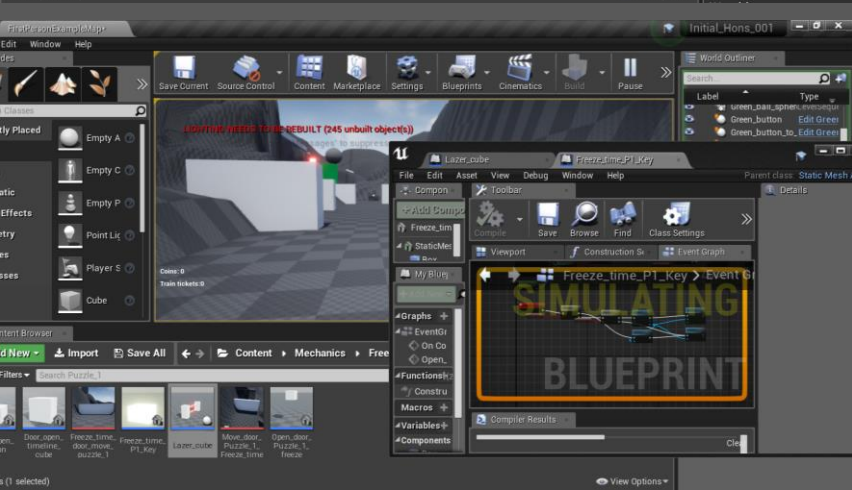
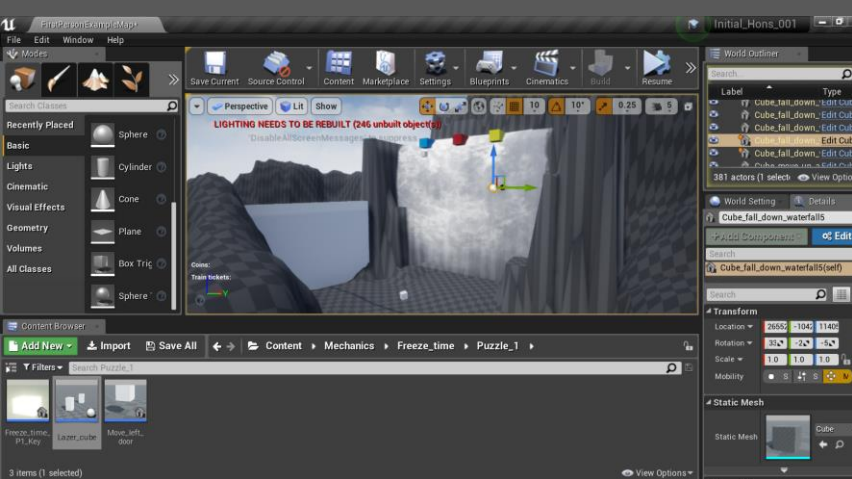
Schedule: To do list

- Christmas: Finish puzzles
- Christmas: Documentation
- Contingency time
- Will be back on track after Christmas
- Project schedule feels achievable

Next:
Puzzle UI and feedback
Environment

OVERVIEW	Puzzles thoroughly tested	All puzzles tested and should be nearly completed
13/12	Shrine Whitebox complete	The layout for the shrines should be complete
14/12	Work on white boxing	Continue white boxing the map and sub-areas
15/12	Work on UI	Start working on developing the UI players will see
16/12	(Level) Design document	Create a Level Design document
Update	Whitebox complete	At this point, the level should be white boxed
14	Test environment Whitebox	Allow players to explore/ test the environment
14/12	Iterate an environment	Find any issues in the exploring and fix
15/12	Test UI and Iterate	Get players to comment on the UI and fix issues
Test and Iterate	Test puzzles and shrines	Get players to test the shrines and puzzles again
15	Iterate on puzzle/ shrines	Fix any issues/ bugs found in the puzzle/ shrines
15/12	Work on signposting	Test the puzzles and shrines with new iterations
16/12	Environment white boxed	Fix any problems which are still found with these
Signposting	Shrines white boxed	Work on guiding the player towards the shrines
Resources	Gather models	The environment should be completely mapped
16	Begin making models	The shrines should be completely mapped out
16/12	Test any weak areas	Gather the models from previous projects to use
Modeling	Model modular pieces	Begin creating any other models used (Characters)
	Implement models in level	Test and fix any areas currently causing issues

Milestone 2



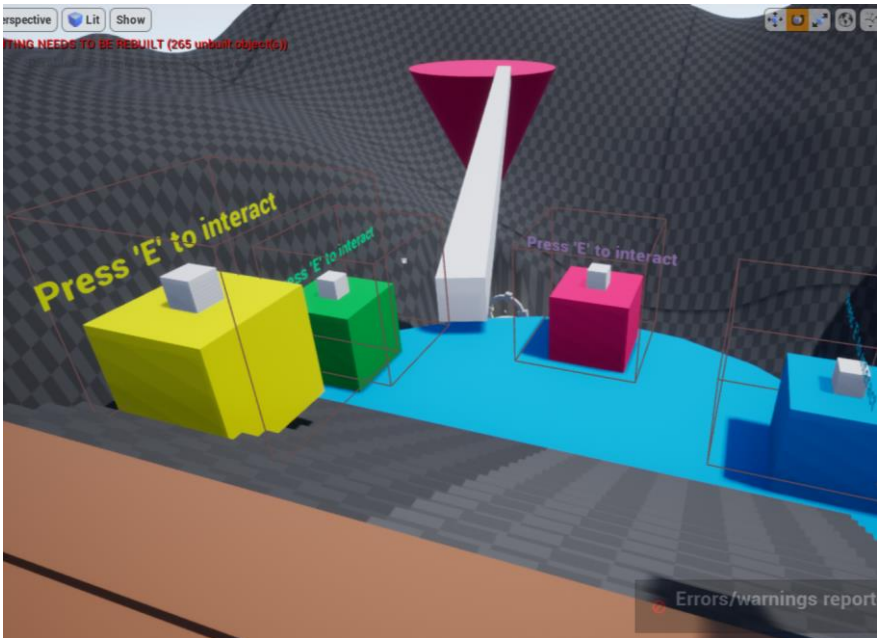
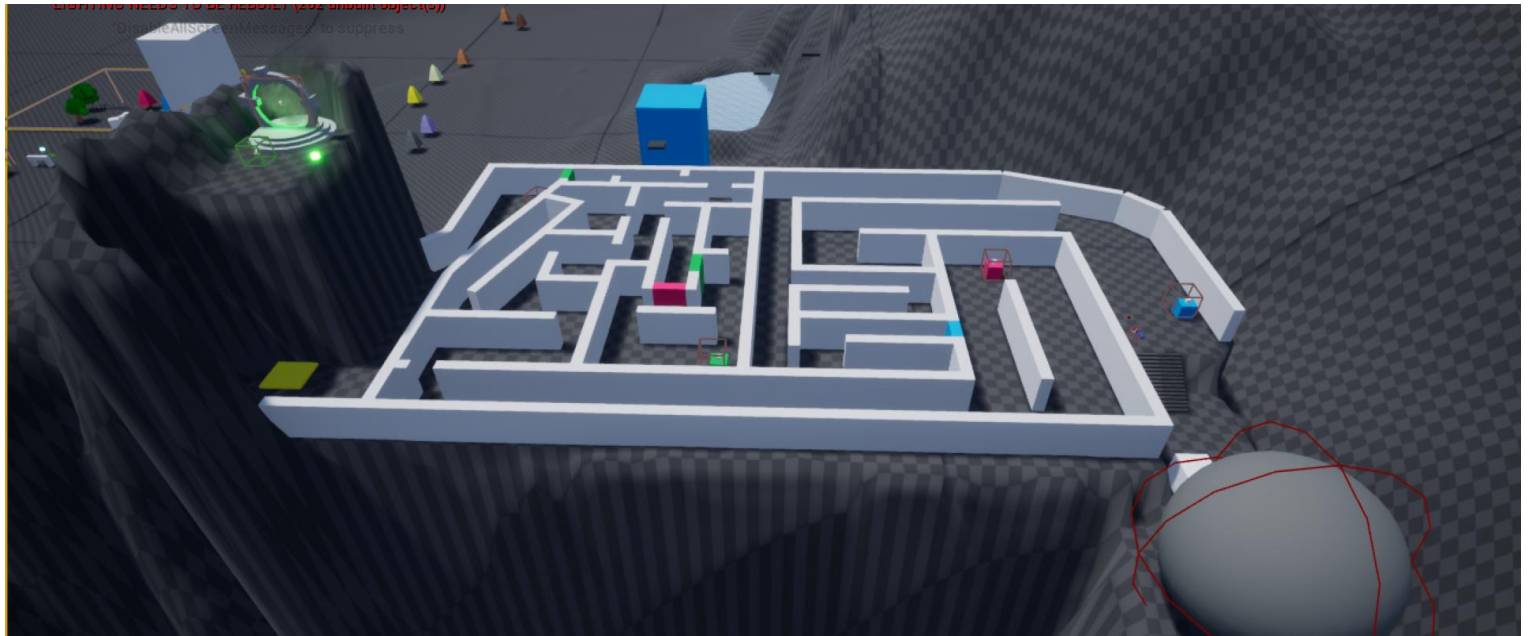
DECEMBER

Bug fixes and change log

Finally, in December I completed a lot of bug fixes which required changes and iterations, these including:

- Changing the lava speed as players found it too fast (from 18 to 25 seconds), however, this was later iterated to 23 seconds.
- Changing the lava from rising through a level sequence cinematic to a lerp and timeline, as it is a more professional way to set this up.
- I made it clearer that the player had to enter the pit on Jump 2.
- Time Manipulation was complete and a few bugs, including the countdown timer continuously ticking, which was through not resetting when it was supposed to and adding a bigger collision sphere to the boulders, as players could run up the side of the ramp.

From there, I carved out the freeze puzzle mountain and began blocking out these puzzles.



Time Manipulation
Puzzle 3 (Attempt)

Puzzle cut and changed

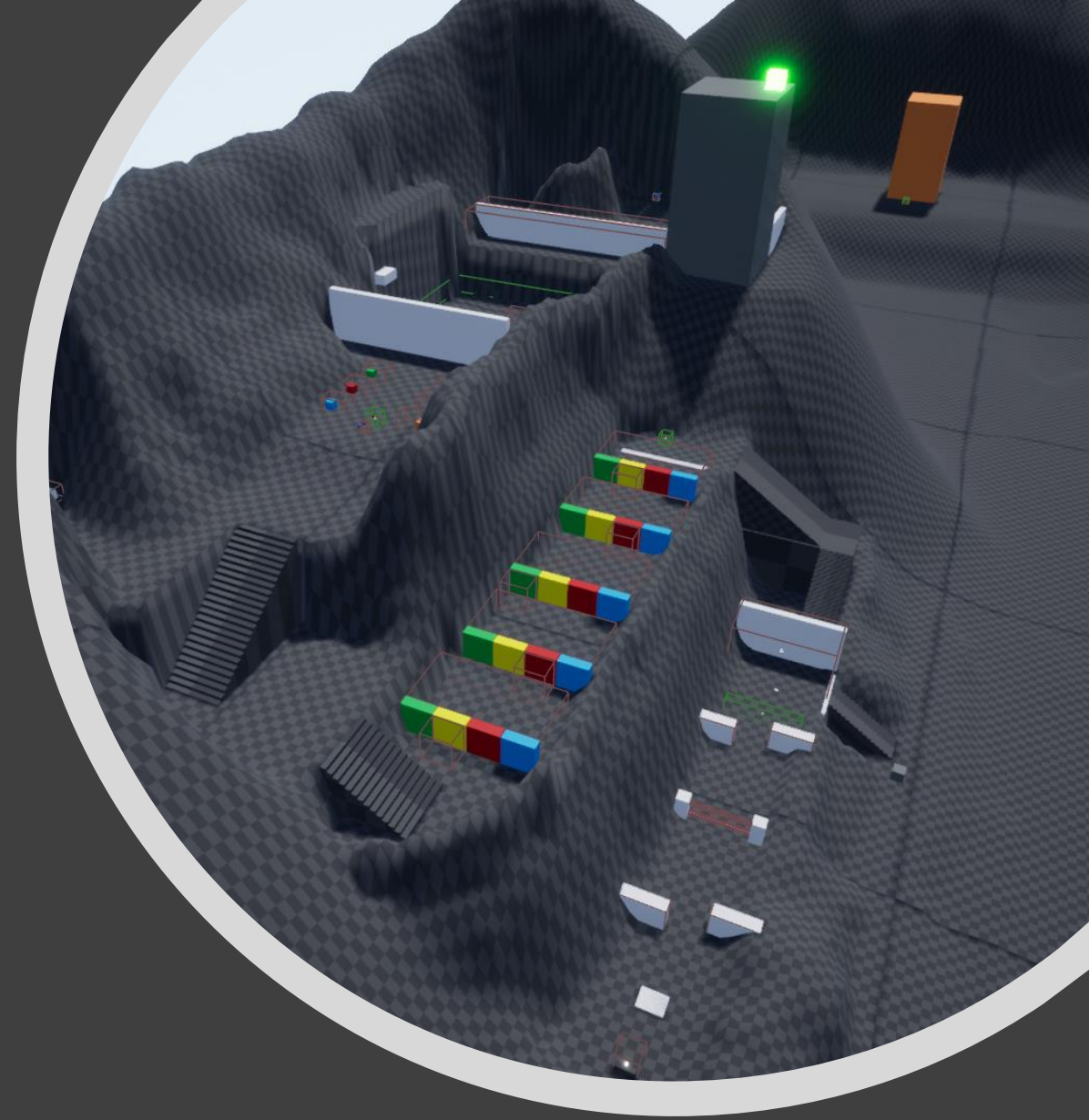
A 3D rendered scene of a dark, rocky landscape. The ground is a dark grey grid. In the background, a large, dark mountain with a white peak is visible. Various colored blocks and objects are scattered across the grid: a blue block with a red light on top, a green block with a red light, a red block, a brown block, and a grey block. There are also some small, colorful objects and a small white structure. The word "January" is written in a large, yellow, outlined font across the middle of the scene.

January

JANUARY

Freeze puzzles

At the start of January, I created the third Freeze puzzle blockout and provided clearer feedback to puzzles 1 and 2, as players requested this in testing. An issue with the first puzzle was that players could leave by walking over the wall, so to avoid this I used the landscape sculpt tool to raise it, then added a blocking volume above to make sure.

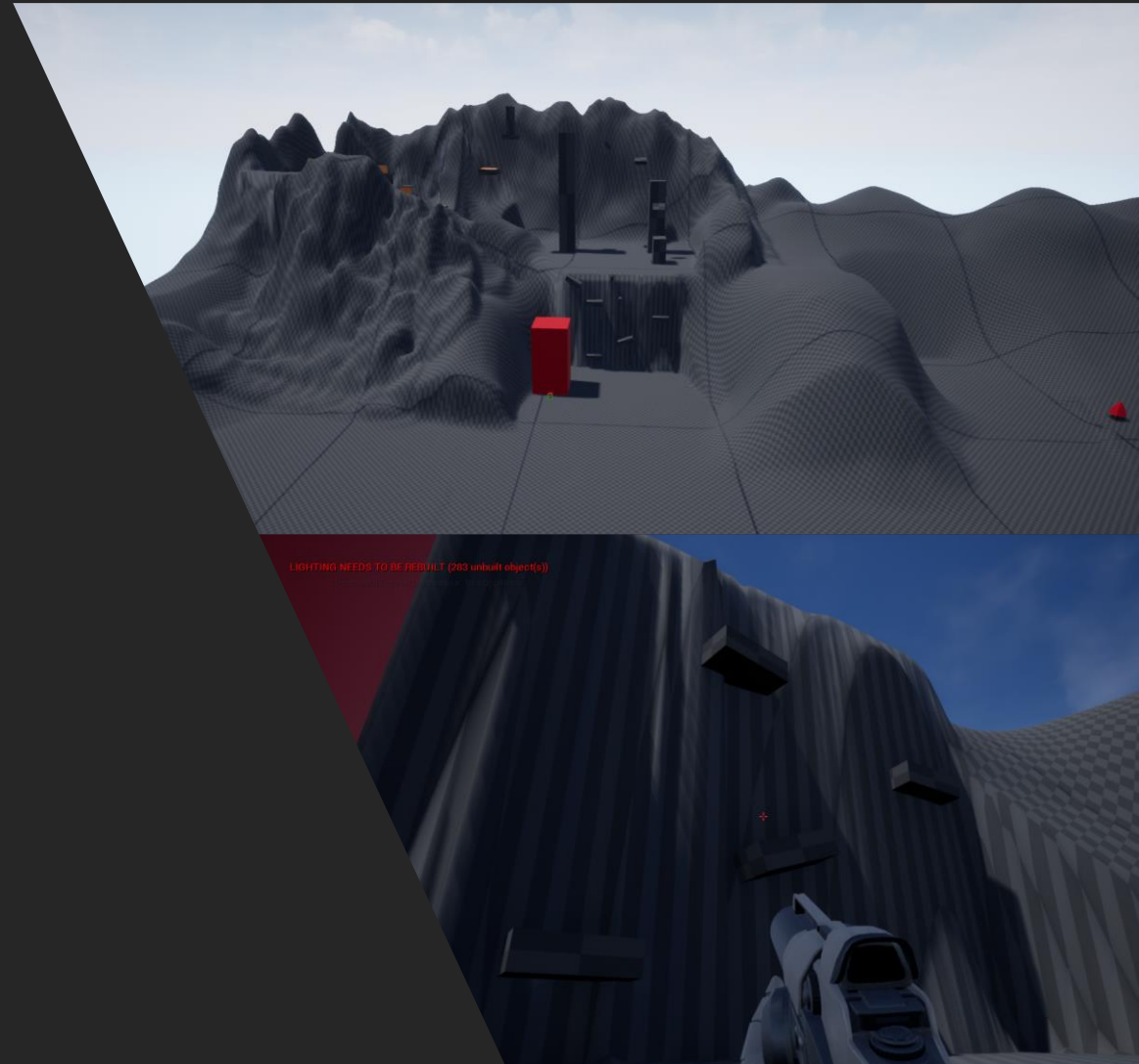


JANUARY

Reverse and Grapple puzzles

Once Freeze was complete, I started creating the Reverse puzzles, after taking a big amount of inspiration from Life Is Strange's reverse decisions, however, had to do a couple of iterations on the third puzzle in order for players to be able to complete it, as I used red squares to push into the container instead of spheres, which first threw players off what I was intending for them to do, then secondly, making it very hard to achieve this goal.

Once these were complete, I set up the grapple puzzles and iterated on those. I then completed thorough testing on the 18th and 26th January and made notes of issues in my testing Excel sheet, before making these changes sporadically.





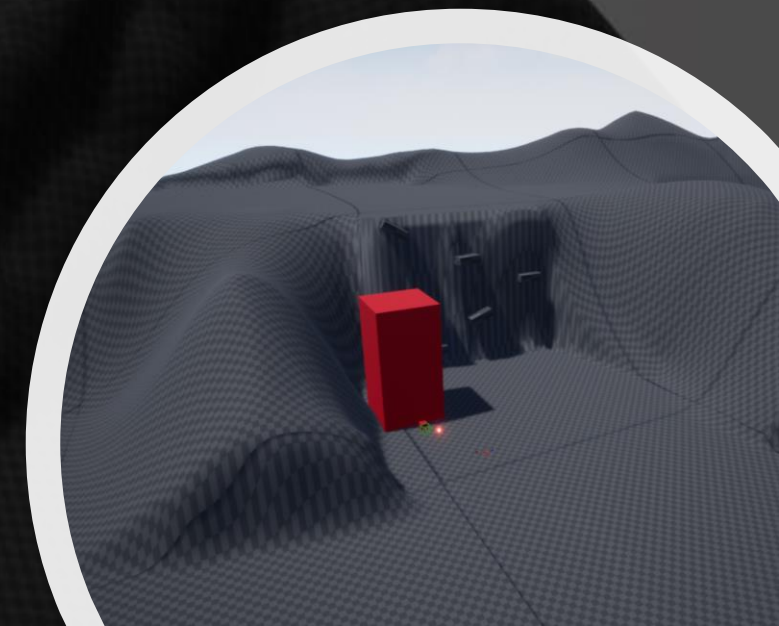
JANUARY Reverse and Grapple Iterations

Since January, the iterations which have been made to the Reverse puzzle includes:

- Colour added to the ramps for clearer feedback.
- Changed red cubes to red spheres so that it was more obvious has to be pushed.
- Removed 2 of the falling pathways on R3, as took too long for it to get back up.
- Added widget on screen to show when ability active, added SFX, added VFX particles
- Set up entrances of ALL puzzles, created so player knew exactly how to enter.

Changes to Grapple include:

- Now does not hook onto landscape
- Added blocking volumes to avoid cheating
- Stopped working with time abilities
- Changed grapple distance from 3,000 to 2,000 to make it more realistic



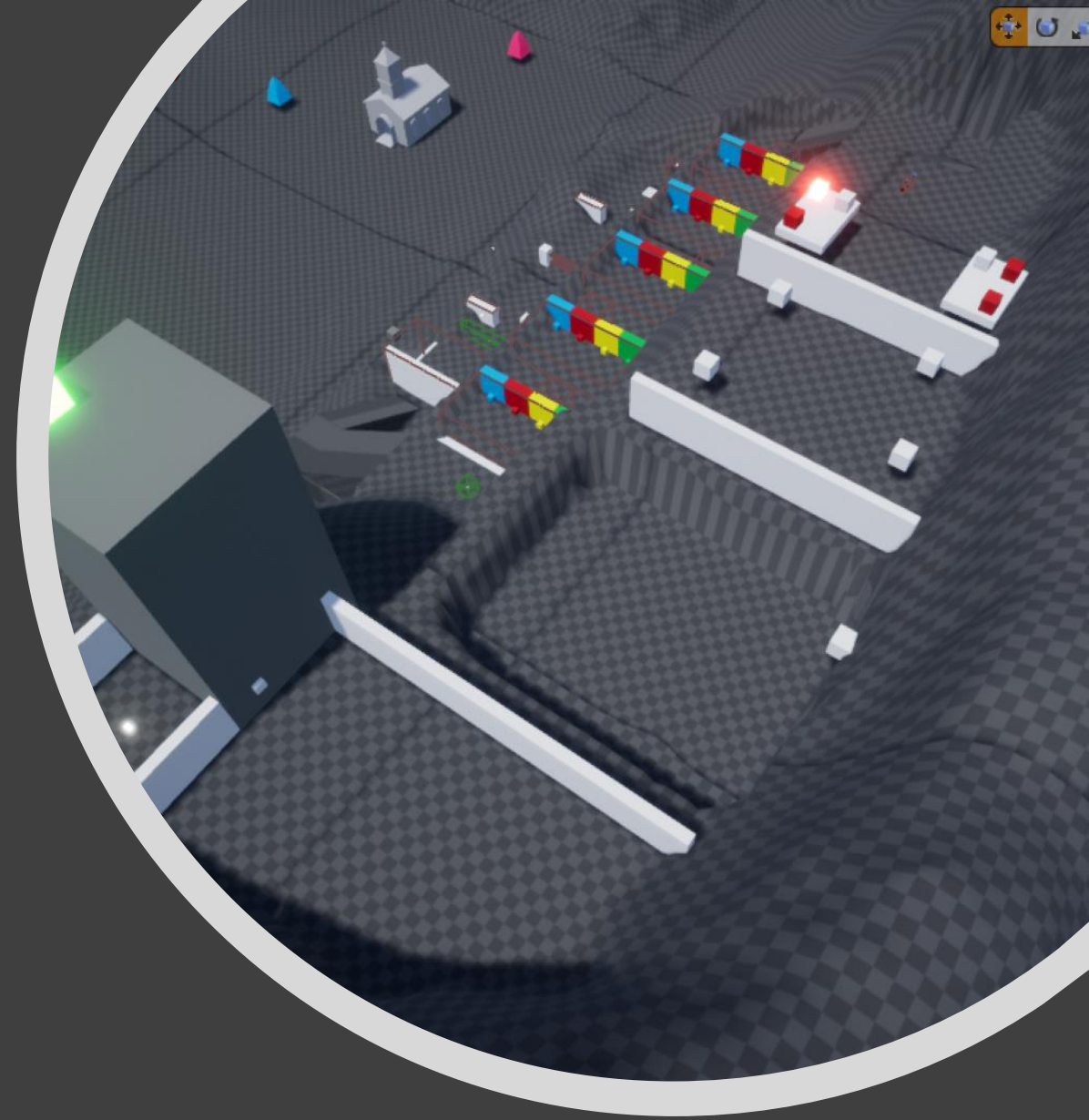
JANUARY

Final January testing/ Changes

The final changes for January were written into the Testing Sheet and most of which were fixed. Some of these fixes included:

- Making puzzle locations clearer (through paths, signs and focal points)
- Set up sprint from the start of the game
- Increased the characters base speed, then dropped it again, as I changed the sprint speed from 1450 to 1500, keeping the walk speed at 600.
- Fixed controller camera issues (with inspect and Time Manipulation)
- Fixed tower lights which were not changing upon puzzle completion.

These changes made the game stronger and better build.



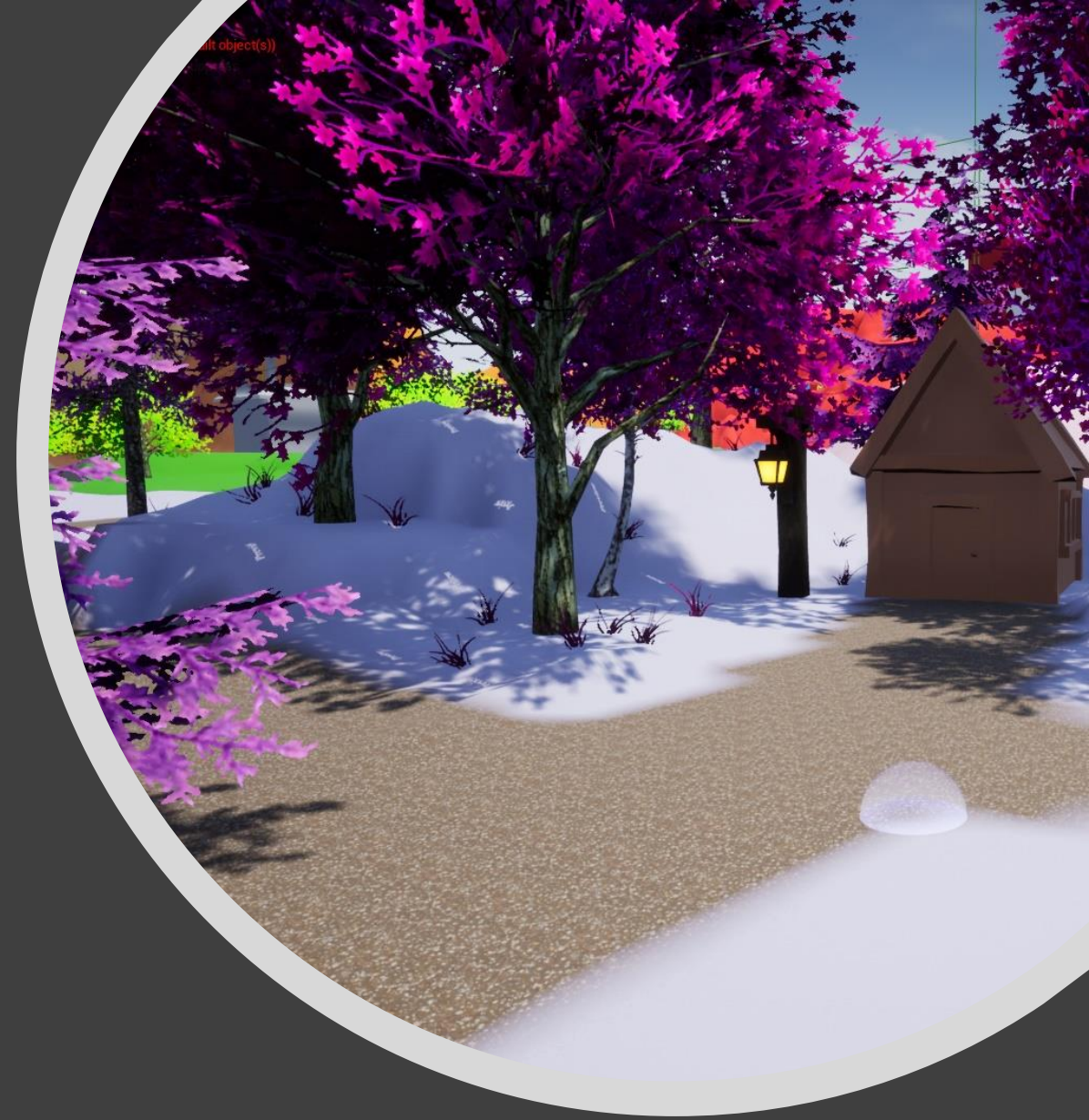
A 3D rendered landscape featuring a winding blue river that flows through a valley. The terrain is dark grey and textured, with several mountains and hills. In the background, a large mountain peak has a white structure on top. Various structures and objects are scattered throughout the scene, including a yellow crane, a red structure, a pink structure, and several small buildings. The overall scene is dimly lit, suggesting a dusk or dawn setting.

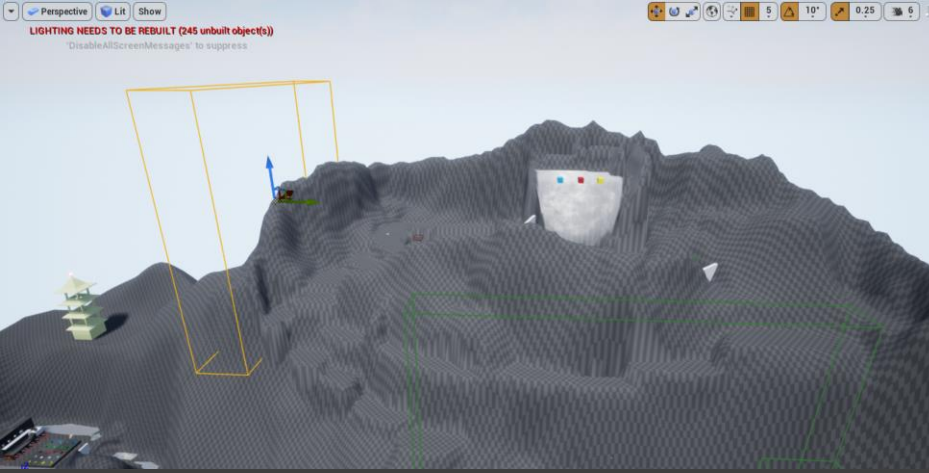
February

FEBRUARY

Landscape Additions and Fixes

- In February, with a lot of the bugs fixed and the puzzles created, I began really digging into the environment and landscape. The changes committed at this stage included:
- Adding a starting village/ spawn
- Adding water to split areas up
- Created and implemented the tree colours
- Worked on environmental features such as the mountains
- Worked on LODs and Culling Distance whilst adding foliage to save on performance.
- Added new model packs
- Worked on level composition, feedback and flow
- Added verticality and set up boundaries for players
- Completed another colour test, this time painting onto the landscape, which I kept and iterated on
- Added paths to guide the player





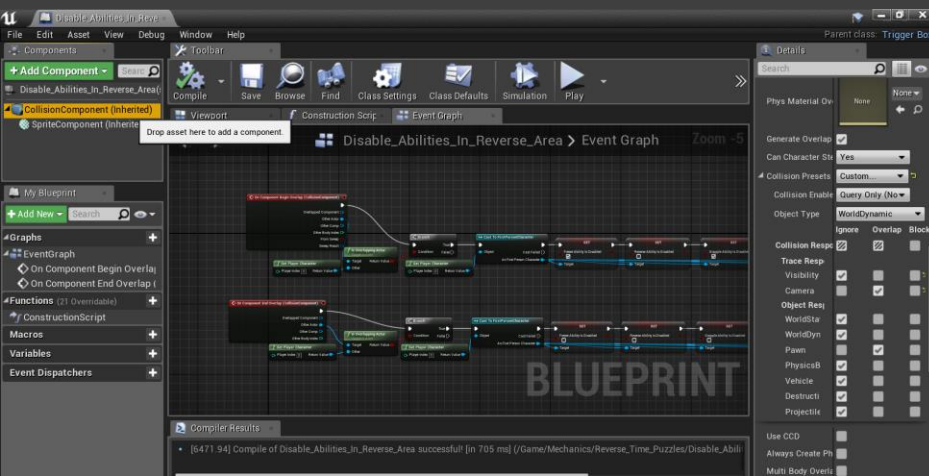
FEBRUARY

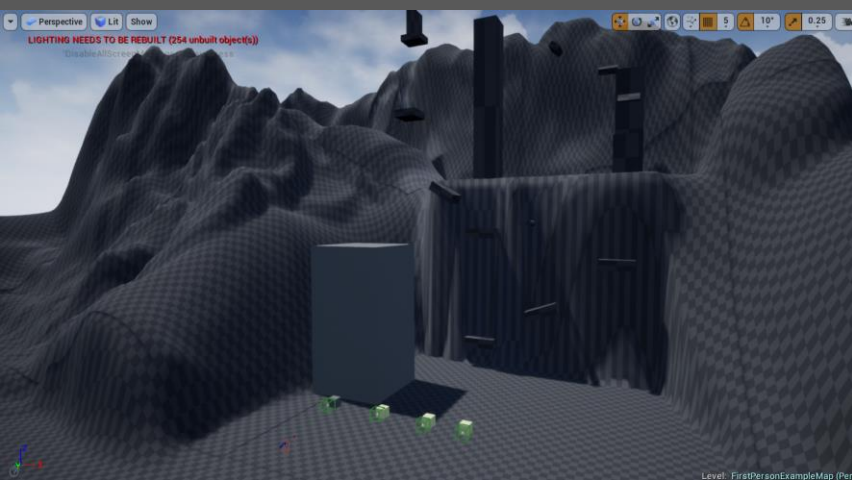
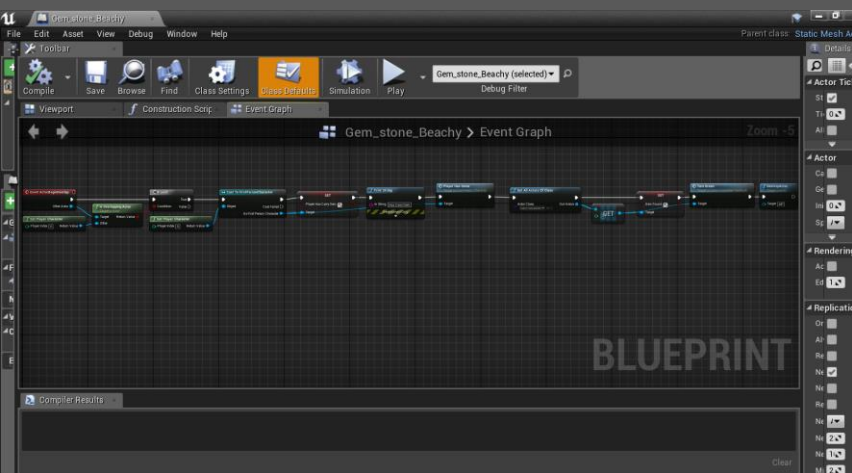
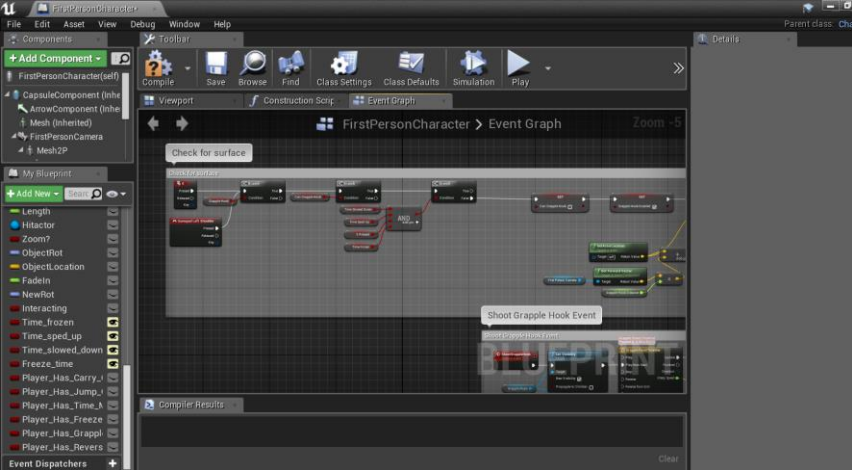
Playtest session Y1 and 2

After completing a playtest with the first and second year, I analysed my feedback. The feedback which I gathered included:

ID	Name	Type	Category	Feedback
1	General	General	General	Players need to know how to use their abilities
2	General	General	General	Players need to know how to use their abilities
3	General	General	General	Players need to know how to use their abilities
4	General	General	General	Players need to know how to use their abilities
5	General	General	General	Players need to know how to use their abilities
6	General	General	General	Players need to know how to use their abilities
7	General	General	General	Players need to know how to use their abilities
8	General	General	General	Players need to know how to use their abilities
9	General	General	General	Players need to know how to use their abilities
10	General	General	General	Players need to know how to use their abilities
11	General	General	General	Players need to know how to use their abilities
12	General	General	General	Players need to know how to use their abilities
13	General	General	General	Players need to know how to use their abilities
14	General	General	General	Players need to know how to use their abilities
15	General	General	General	Players need to know how to use their abilities
16	General	General	General	Players need to know how to use their abilities
17	General	General	General	Players need to know how to use their abilities
18	General	General	General	Players need to know how to use their abilities
19	General	General	General	Players need to know how to use their abilities
20	General	General	General	Players need to know how to use their abilities
21	General	General	General	Players need to know how to use their abilities
22	General	General	General	Players need to know how to use their abilities
23	General	General	General	Players need to know how to use their abilities
24	General	General	General	Players need to know how to use their abilities
25	General	General	General	Players need to know how to use their abilities
26	General	General	General	Players need to know how to use their abilities
27	General	General	General	Players need to know how to use their abilities
28	General	General	General	Players need to know how to use their abilities
29	General	General	General	Players need to know how to use their abilities
30	General	General	General	Players need to know how to use their abilities

- More feedback required when using ability
- Need to be clearer in games goals and win/ lose conditions
- Puzzles were challenging but achievable
- Puzzles were fun to complete
- Jump puzzle and grappling were favourites
- Did not know they had starting abilities, so these need to be clearer
- All abilities were still active when the player went into a new area, allowing them to use the other abilities instead of solving the puzzle.
- Player fell through the floor with teleport, so it was removed.





FEBRUARY Design changes

Other design changes included:

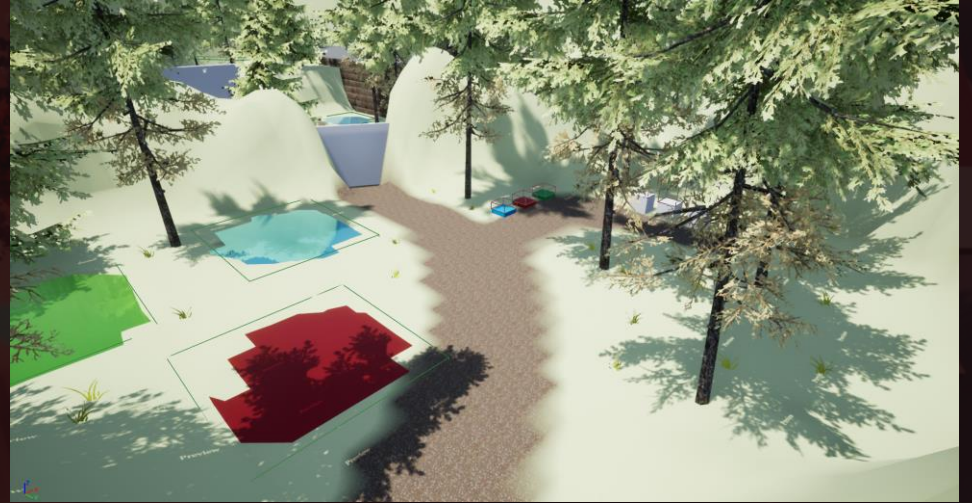
- Setting up the gem stones
- Setting up boundaries to ensure players could not leave the areas or map
- Set up triggers so other abilities would not work in other puzzle areas
- Code for gem stones and final tower created
- Final puzzle added
- Took gun out of game
- Added more assets
- Changed as many materials to material instances as I could to save performance.
- Set foliage to moveable under instance settings for dynamic lighting so shadows are not static, as will not give the realism looking for or feeling of the world being alive/ believable.

March

An aerial view of a modern architectural complex. The main building is a long, dark structure with a flat roof. To its right is a taller, more complex structure with multiple levels and openings. In the foreground, there is a large, dark rectangular area with several colorful circular and square markers. A path leads from this area towards a river on the right. The scene is surrounded by trees and a clear sky.

MARCH

Environment/ Level Changes



In March, I began adding the colour to the landscape, after a lot of colour testing. Once I had painted this onto the landscape, I added paths and split the area into sub sections, adding more trees and foliage and added more models and packs to the project, such as the Modular Dungeon pack.

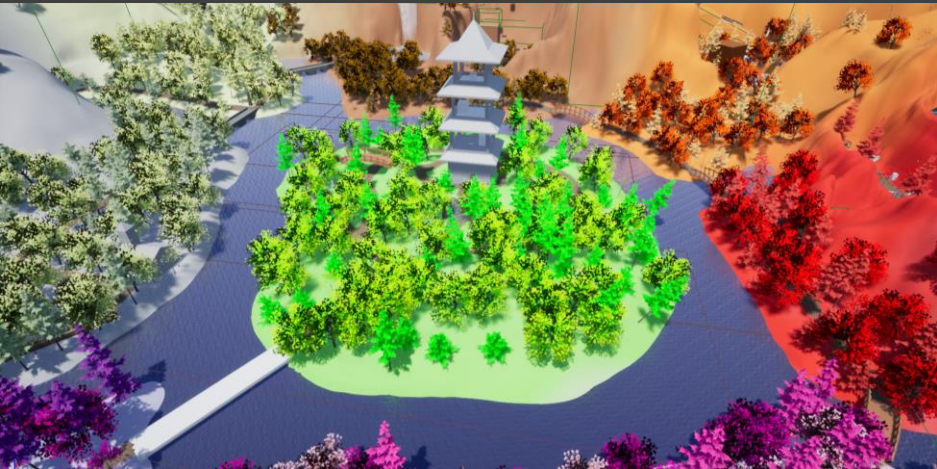
I also used the smooth tool in order to clean up some of the sharp edges in the environment, before adding trees and foliage to the puzzles to give them more life and vibrancy, as I did with the rest of the world.



MARCH

Level clean ups and POIs

Later on in March I added an interior to the church, cleaned up and added more verticality to the landscape (to ensure nowhere in the environment was pure flatland). I also finished adding the trees and foliage and attempted to get it looking and feeling as professional as possible. I also always ensured that there were raises either side of the paths, which I found through my research on The Witness. I then added more ruins and Points Of Interest for the player to explore, blended the colours on the mountains together and added trees to the tops of the mountains to add more depth and verticality to the world space.



A 3D rendered landscape featuring rolling hills. The foreground is filled with dense, vibrant autumn foliage in shades of orange, yellow, and red. In the middle ground, a series of reddish-brown hills rise, dotted with various trees in autumnal colors. A traditional three-tiered pagoda with a dark roof stands prominently on one of the higher hills. The background shows more distant, hazy hills under a clear, light blue sky. The overall scene is peaceful and scenic, capturing the essence of a fall day.

April

Cross Programme Presentation

Milestone 3

What is left to complete

- Narrative letters and opening cinematic (Trailer)
- Lighting rebuild
- Optimisation (if required) but currently above 60FPS
- Last polish and clean up (e.g. UI, minor bugs)
- Build Game
- Documentation and videos

Phase	Tasks	Progress
24	Final all content	The game should be ready for release and all assets
23	Final testing and iteration	Have the game tested and fix anything that is wrong
22	Final anything required	Finalise the game and make sure it is ready to release
21	Build	Build the game and make sure it is ready to release
20	Work on website portfolio	Prepare a website portfolio to present work on
19	Final testing and polish	Have a final testing session and fix anything, minor
18	Final anything required	Finalise the game and make sure it is ready to release
17	Preparing for hand-in	Have everything in the final stage and ready
16	Build	Build the game and make sure it is ready to release
15	Work on website portfolio	Prepare a website portfolio to present work on
14	Final testing and iteration	Have a final testing session and fix anything, minor
13	Final anything required	Finalise the game and make sure it is ready to release
12	Build	Build the game and make sure it is ready to release
11	Work on website portfolio	Prepare a website portfolio to present work on
10	Final testing and iteration	Have a final testing session and fix anything, minor
9	Final anything required	Finalise the game and make sure it is ready to release
8	Build	Build the game and make sure it is ready to release
7	Work on website portfolio	Prepare a website portfolio to present work on
6	Final testing and iteration	Have a final testing session and fix anything, minor
5	Final anything required	Finalise the game and make sure it is ready to release
4	Build	Build the game and make sure it is ready to release
3	Work on website portfolio	Prepare a website portfolio to present work on
2	Final testing and iteration	Have a final testing session and fix anything, minor
1	Final anything required	Finalise the game and make sure it is ready to release

Research and references

Games: The Witness, Zelda Breath Of The Wild, Portal, RPG Maker puzzles, Flow, Monument Valley

Videos: Mark Brown Game Maker Toolkit, Extra Credits

Books: Jesse Schell Art of Game Design

Path to Deity gameplay

Welcome to Path to Deity

Play

How to Play

Exit Game

00:03.44

Process so far

Pre Production
Planning, research and documentation

Production
Mechanics, puzzles, testing and fixes
Environment (landscape, sculpting, painting), asset adding
First lighting build stage, VFX, audio, clean ups.

December 20

April 20

Research and references

Games: Zelda BOTW, Witness, Portal, Pokémon

Videos: Mark Brown Game Maker's Toolkit, UE4 tutorials

Books: Jesse Schell Art of Game Design

Listings: Ubisoft, Sumo Digital, Playground Games

Narrative: World religions/ Cultures (Christianity, Greek, Han, Hinduism and Chinese mythologies)

Environment: Photography and stylised art pieces

Aligning with the project plan

How does this align to the project plan?

Behind before Christmas but back on track

All stages of main production completed

Post Production work beginning Friday (Documentation, polish and portfolio work)

Issues ran into

- FPS drops: Set up optimisation such as Culling Distance for foliage
- Mechanics (Teleport) not working: Negotiated and removed.
- Puzzle Designs: Fixed with feedback and iteration
- Needing assets: Used mix of own and packs



APRIL

The Final Stages

In April I:

- Set the spawn point
- Created and added in the instruction rocks for mechanics to feel integrated in the environment
- Added the narrative letters
- Added in final models and textures to every asset, including creating my own for a few in Substance Painter
- Cleaned up old code
- Compiled a test build
- Took some high-resolution images and worked on documentation
- Created the final cinematics and credits screen
- Fixed up some last bugs and polish
- Added audio, FX and particle effects, as well as bookending the experience.
- Made as much of the UI run off 1 HUD as possible, especially in the ability unlocked widgets
- Once I had finished in game, I began finishing off my document and creating my videos and elements required and ready for hand in.



CONCLUSION AND REFLECTION

In conclusion, I feel the process went very well and I ran into minor problems compared to what there could have been in a project of this size, however, I feel that the research I conducted, along with the amount of experimentation and tests worked in my favour.

In terms of changes to the original plan, I changed the shrines to puzzle areas, as I felt that it felt more natural to the gameplay, changed the amount of puzzle areas from 8 to 6, however, this was agreed upon, as the Crouch and Teleporting puzzles would not have added anything to the gameplay, rather, it most likely would have taken away from it, as I feel the spacing in the world is correct, without attempting to fit in 2 extra sub sections.

I feel I have hit my aims and intentions, with a nice flowing level, with correct pacing and a very vibrant and bright environment. I also feel the level design workflow was correct and I have learned a lot more about Unreal from this project, skills which will serve me well in the future. In terms of what I could have done better, I feel that the narrative could have been closer to what I originally planned; however, this is not a big deal in the schemes of things, and I am very pleased with what I created.

