# Assignment 4: Textured 3D Model + Core Gameplay Mechanics

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## Part 1: UV Unwrapping & Texturing

### UV Layout Rationale

### The Shrine of Memories is one of the most important models in our game, both for how it looks and what it represents. For this assignment, we improved the way we did UV mapping and texturing so that it meets both technical rules and looks good. One thing we fixed was applying scale, rotation, and position before unwrapping. This was something mentioned in our Assignment 1 feedback, and fixing it helped make our UVs line up better with the actual model.

### We also planned where to place the seams carefully. We hid them in places that players won’t see much, like behind pillars, under the floor, or in shadowed areas. This helped us avoid visible cuts in the texture. We made sure each UV island was neat and evenly sized so that the texture would look clear and sharp. For repeated parts, like the two columns, we used the same UV space to save room and make painting easier.

### Texture Creation Process

We painted the textures by hand using Blender’s Texture Paint mode. After unwrapping the model into different sections, we added details and lighting to each part. First, we filled in base colors — like cold grey for stone, warm gold for the light, and dull brown for old, worn-out parts. Then, we added shadows and highlights by hand to make the surface look more realistic and three-dimensional.  
  
We paid extra attention to the glyph areas, since they show where memories are activated in the game. We used soft golden lines and made them glow slightly to match the magical feel. We also added cracks, moss, and faded symbols to make the shrine look old but still mystical.

### Material Philosophy & Optimization

We used just one 2048x2048 texture file for the whole model. This helps the game run smoothly and keeps it compatible with real-time game engines. Even though we thought about adding extra details like normal or specular maps, we decided not to, so the art style stays soft and storybook-like. We might still add glowing effects later using grayscale textures or a second layer.  
  
While texturing, we kept checking how the model looked with lighting turned on using Blender’s Eevee renderer. This let us adjust brightness, contrast, and outlines to make sure it would look good in the actual game.

## Part 2: Core Gameplay Mechanics

### Core Gameplay Loop

Whispers of Light is a story-focused game where players solve puzzles and explore a peaceful, mysterious world. You play as a spirit guide who travels through old, forgotten places. In this world, light stands for memories, and your main job is to bring back balance by lighting up shrines and discovering hidden stories.  
  
Core Loop:  
1. Walk around different areas that are open and free to explore.

2. Use a magical lantern to collect small pieces of light

3. Find broken shrines and try to fix them

4. Solve puzzles that use light to unlock secret parts of the story

5. Gain a memory and a new ability when a shrine is restored

6. Go back to older places using the new powers to find more secrets  
  
The game is calm and doesn’t involve fighting. It’s about thinking, exploring, and healing the world around you. The way the player moves through the game matches its emotional theme — slow, peaceful, and meaningful.  
  
**Exploration and Environment**

Exploring the world in *Whispers of Light* is driven by curiosity and emotions. Each area, or biome, feels different — with its own challenges, pieces of story, and visual style. Lighting plays an important role. Some places stay hidden or blocked until you shine your lantern or unlock a memory. As players move forward, both the look and gameplay of the world change.  
Players don’t just explore — they help restore the world. They’ll come across broken statues, blocked paths, or inactive symbols. These can be fixed using light or special interactions. Some paths only open at certain times, which makes exploring feel more meaningful and rewarding.  
  
**Puzzles: Integration with Emotion**

### In this game, puzzles are more than just logic — they represent emotions. Each shrine has a puzzle linked to a feeling:

### *Fear*: A maze with mirrors and very little light

### *Trust*: Working with two ghost-like echoes to unlock a door

### *Joy*: Playing musical notes in the right order to match a happy memory

### The puzzles get harder over time. At first, players learn simple light mechanics. Later, puzzles mix timing, memory, and all the lantern’s powers. This makes each challenge feel more connected to the story.

### Lantern Progression System

### The lantern is the player’s main tool and grows with the story. It gains powers as players collect more memories:

### *Memory Pulse*: Lights up old carvings and signs

### *Echo Anchor*: Shows what happened in a place a few seconds ago

### *Light Chain*: Connects objects for puzzle solving

### *Prism Beam*: Splits light into different directions for advanced puzzles

### Each new power also adds to the story. For example, the Light Chain is unlocked during a puzzle about connection and loss — making it feel emotional, not just technical.

### Narrative Memory System & Timeline

The story is told in pieces, not in order. Players unlock different memories as they go, which helps them slowly understand what is happening in the world. These include short videos, interactive scenes, and talks with spirits. All of them are saved in the *Memory Gallery* so players can look back on them.  
  
Some special memories are locked behind moral choices. That means how players act in spirit encounters can unlock different parts of the story — encouraging them to replay and try different options.  
  
**Dialogue, Spirits & Moral Outcomes**Meeting spirits is a big part of the game. Some spirits want help, while others pretend, they’re fine. How the player acts — whether they’re patient or harsh — affects the spirit’s response. If the spirit opens, the player sees a memory and the world becomes brighter. If not, that memory stays hidden.  
  
These choices lead to one of three possible endings:

* *Light Renewed*: All spirits helped, and world restored
* *Fading Path*: Some light returns but many questions remain
* *Silent Echo*: Few memories found; world stays broken

There’s no clear good or bad path. It depends on how you treat others. The ending reflects your emotional choices, not just your gameplay skills.

**Replay ability, Lore Layers & Final Challenge**

The game has lots of replay value:

* You can complete shrines in different orders
* Some memory stories are locked in the first playthrough
* There are 3 different endings
* New Game+ gives you all powers from the start
* A secret area opens only if you collect all hidden glyphs

### The hardest puzzle — *Shrine of Reflection* — appears only after all memories are found. It uses every lantern power and ties together the whole story. Finishing it reveals the final truth: who the spirit guide really is. Conclusion

This document shows the full version of *Whispers of Light*. From 3D modeling to texturing, puzzle design, and emotional storytelling — we’ve put everything we’ve learned into this assignment. We’ve also improved based on feedback from earlier work: better formatting, clearer writing, and stronger links between visuals and gameplay.

What started as just a cool idea has now become a full game concept. *Whispers of Light* is not only playable — it’s meaningful. It’s about light, memory, and the feeling of finding peace in a broken world.