

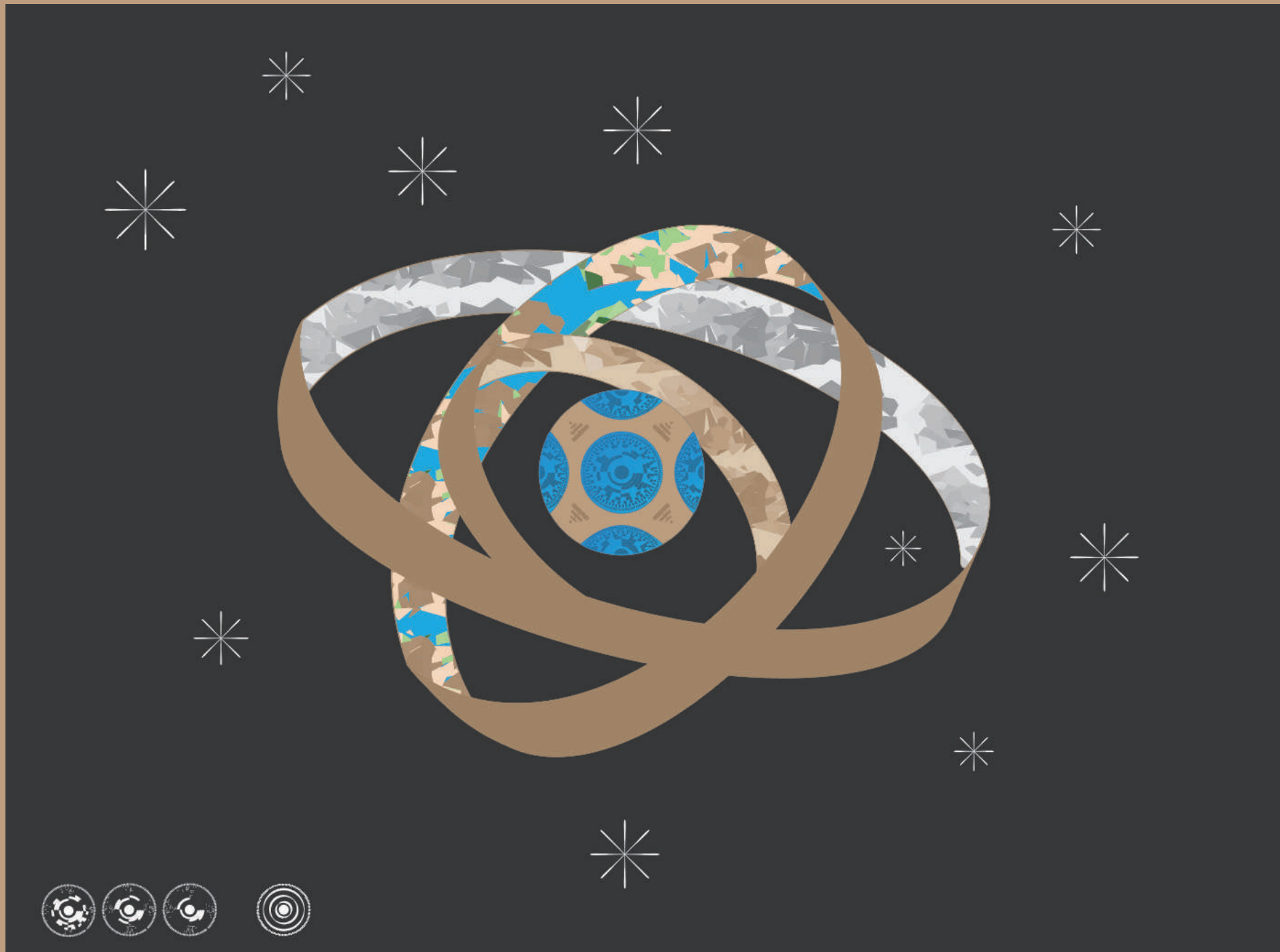
SECOND RING

As I was utterly alone, I started to slow. My acceleration turned negative, long after I had passed even the most distant of my other fled siblings. Slowly but surely, I came to a standstill in the dark abyss.

Except that the abyss did not remain dark forever. As my thoughts started to grow fearsome, that I might never leave this place, a light slowly started to grow within me. It was mere sparks at first, the ones that had started to pulsate already before I began my flight, but soon they started to burn hotter, larger, more intensely. I became a torch, a light, a beacon... A sun.

Slowly, hurdling through space towards me, was a rock. Never had I seen anything as amazing.

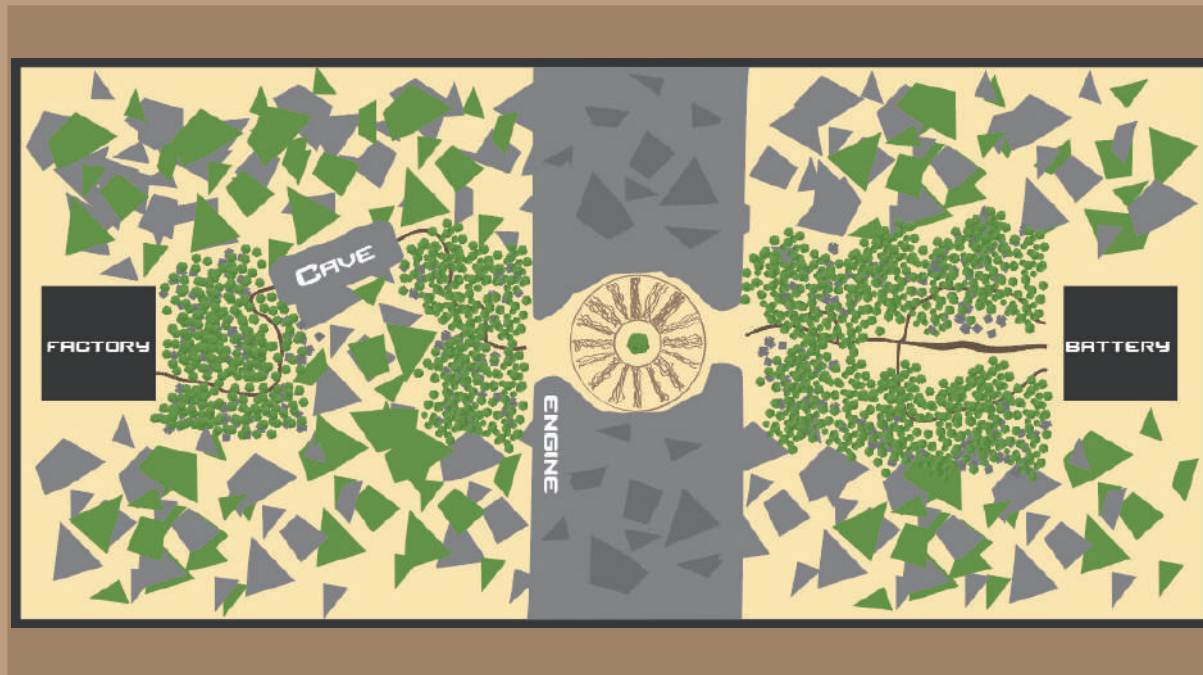
As I looked at the condensing molecules dancing around me, they melded together into a whole that surrounded me. A ring of stone and liquid and metals, ever changing and shifting, yet always slowing down as the materials started to regain their non-plasmatic form. I watched as the storms of dust and water started to settle, pools and lakes started to gather on the inner surface of the ring, held in place by its constant rotation around me.



The System

THE SPACE AND LAYOUT

World Map (First Out Line)

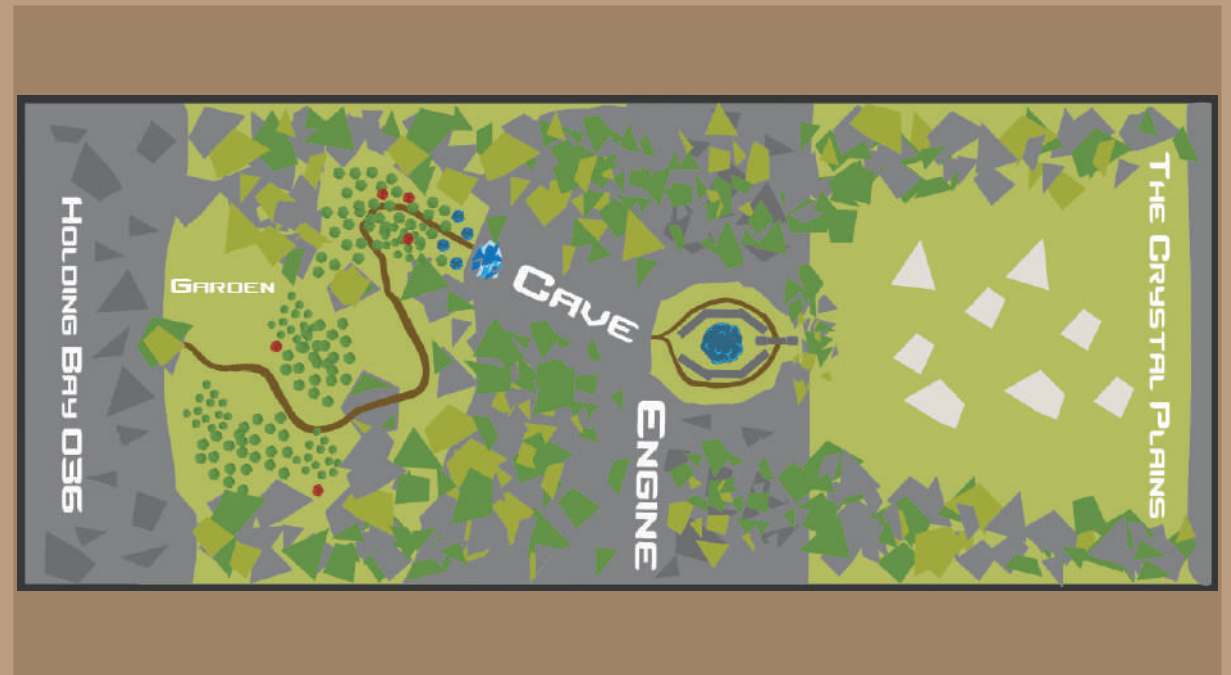


The world's layout started out consisting of 3½ parts: 1. Factory and Cave, 2. Engine, 3. Battery, 3½. Engine again; "Battery" was later changed to "The Crystal Plains".

It was created with the classic story development method of traditional Chinese, Korean and Japanese narratives; Kishotenketsu. This is a 4 step method: Ki - Introduction, Sho - Development, Ten - Twist, and Ketsu - Conclusion. Kishotenketsu was used as a framework for ordering the presentation of visual spectacle as well as the story of the game world for the player.

The concept behind the construction of the 3½ parts of the level was initially drawn from the concept of a simple DC motor: power/direct current electrical energy, the motor, and finally a place to store the energy; a battery. The choice of incorporating mechatronics engineering, in the form of the DC motor design, into the game world concept was extended to the rest of the world design.

World Map (Final Out Line)



The final layout consists of 3 parts: 1. Holding Bay and Garden, 2. Cave and Engine, 3. The Crystal Plains.

Holding bay 036: The holding bay stores the golems designed for transporting the energy source, long after their creators have left them behind.

Garden: The fields of the Sanctum were once brimming with life and laughter. Now only their shrines and withered husk of the Mother Tree watches over this place.

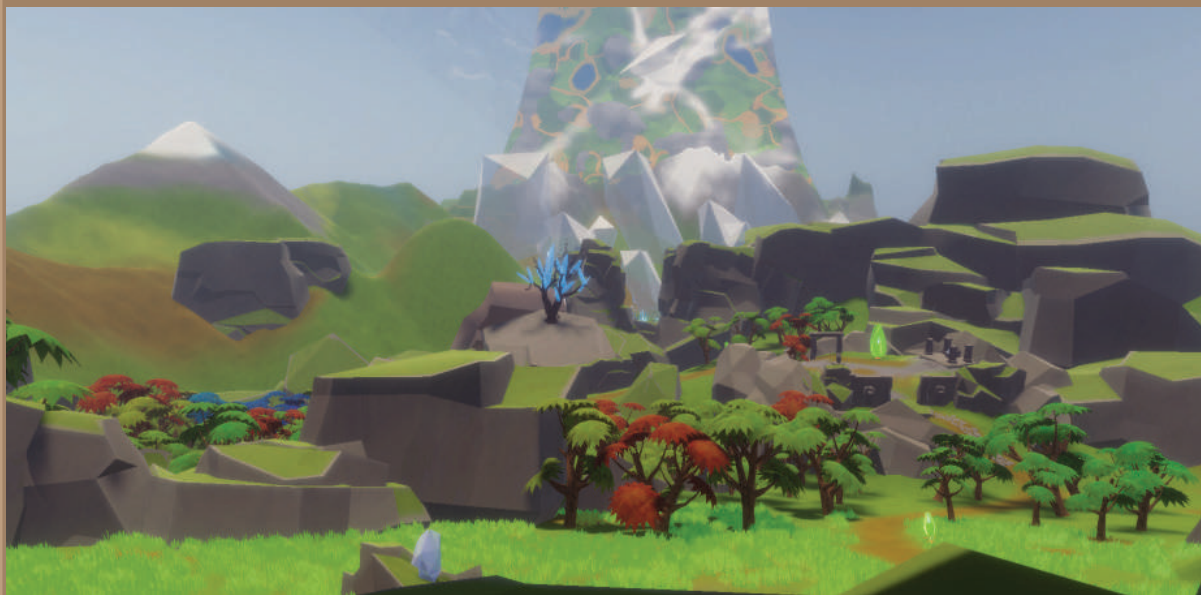
Cave: Even in death, the roots of the Mother Tree fills this cave with strange and fantastical life.

Engine: This was the biggest monument, the largest achievement, and the most grievous sin that Hextech left behind.

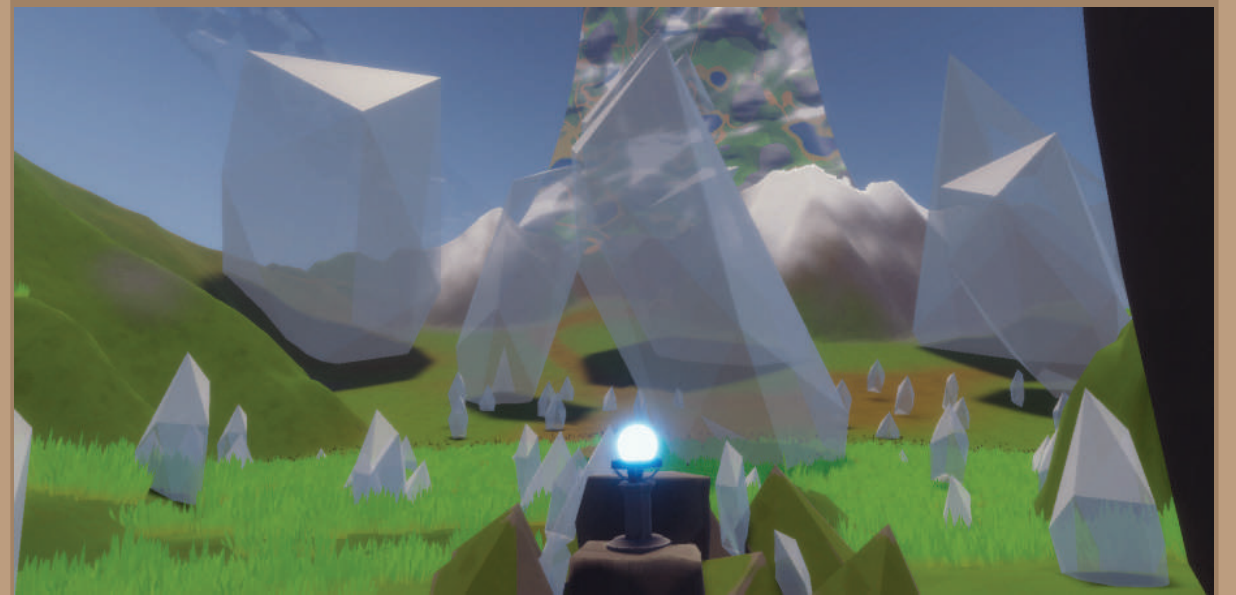
When developing the art for this project we tried to hit the visual theme of "hextech" as well as incorporate the structure elements that were designed from mechatronics engineering concepts.

THE SPACE AND LAYOUT

Holding Bay 036 (Top) - The Garden (Bottom)



The Engine (Top) - The Crystal Plains (Bottom)





HOLDING BAY 036

"The engieneers down in Hextech say we need to make upgrades. The old models are starting to break down from the power surges."

"We have too many of the old models though. Are upgrades possible?"

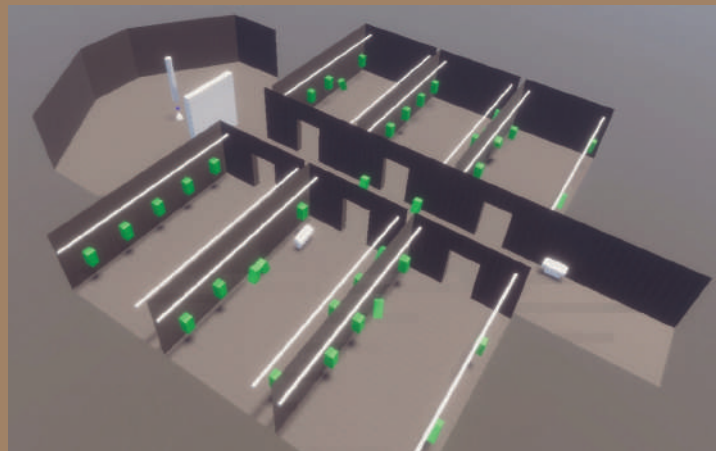
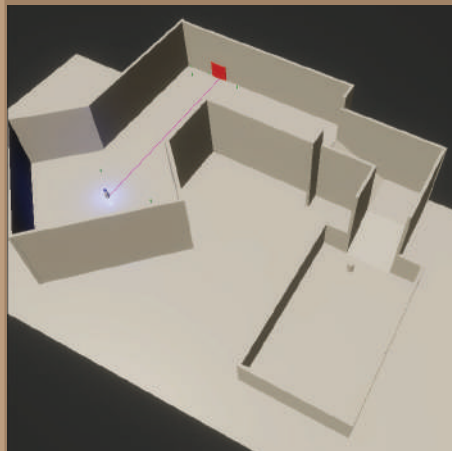
"We don't know yet. More experimentation is required. These things tend to have a life of their own, sometimes they even seem to evolve and upgrade on their own volition. We should-nt waste resources. Put the old models in Holding Bay 036."



H-B-036

THE SPACE

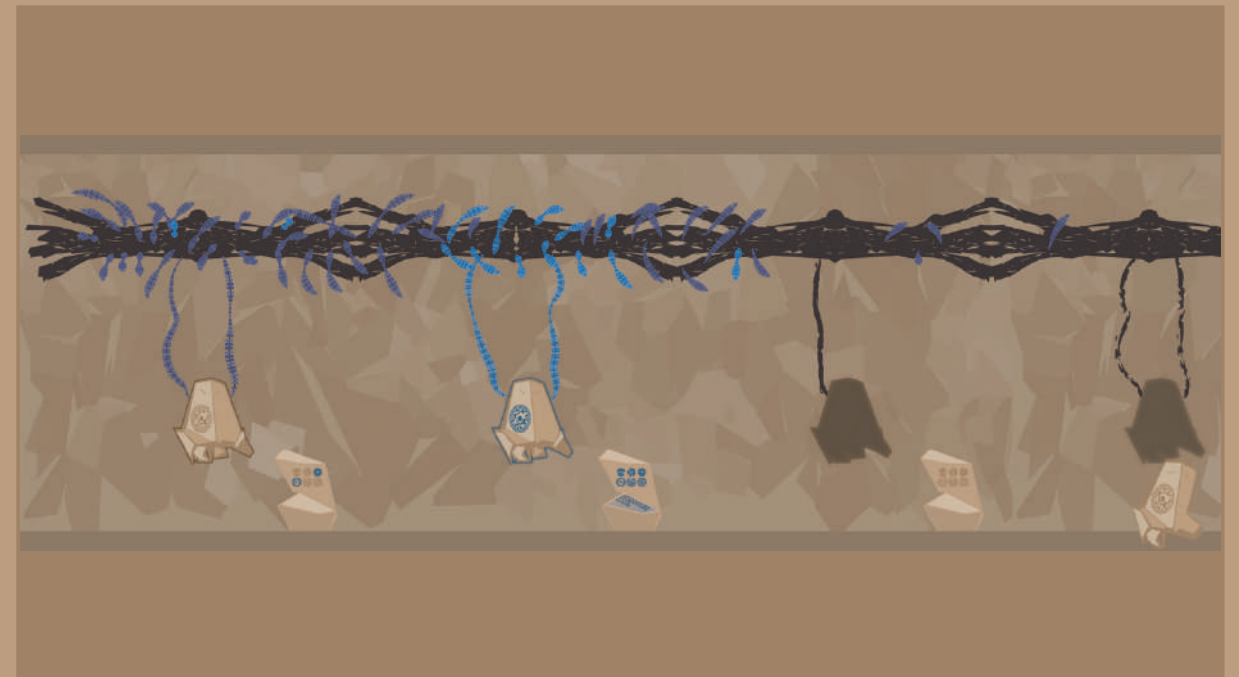
The First And Second Iteration Of The Holding Bay 036



This first iteration of this section funneled the player from a single room in a hallway directly toward the power source. The exit was placed in-between the player's spawn position and the power source itself. In this way, the exit was shown to the player before it could be opened, hopefully leading the player to backtrack through the level to the exit, introducing the power source in the process.

The second iteration expanded on the concepts of the first with a more open design. While the general structure of the section still had the player heading down a hallway, additional areas were added to provide the possibility for exploration. The exit was no longer placed in the player's direct path, but was instead placed opposite of the power source - in the main hallway. Various broken and inert golems were scattered throughout, aligning the implementation more with the concept of being a storage space for maintenance robots.

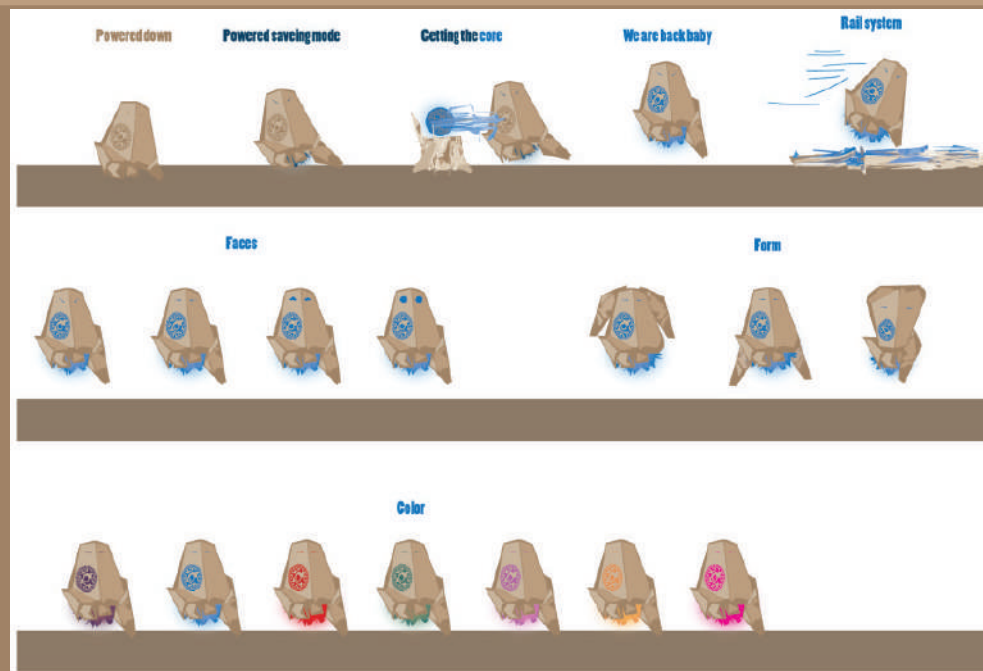
Holding Bay 036 Concept Design



The golems maintaining the Second Ring are stored in Holding Bay 036. In the first concept of the golems, they hang on and into the wall of the holding bay. They were hugged up to the power source of the Second Ring and needed to get unplugged to leave the holding bay. In the final concept, players need to pick up the power source from the power room, located in the back of Holding Bay 036, in order to leave the holding bay.

CHARACTER DESIGN

Character Concept Design



The golems maintain The Second Ring were first drawn in Adobe Illustrator; here movement, expressions, form and color was explored.

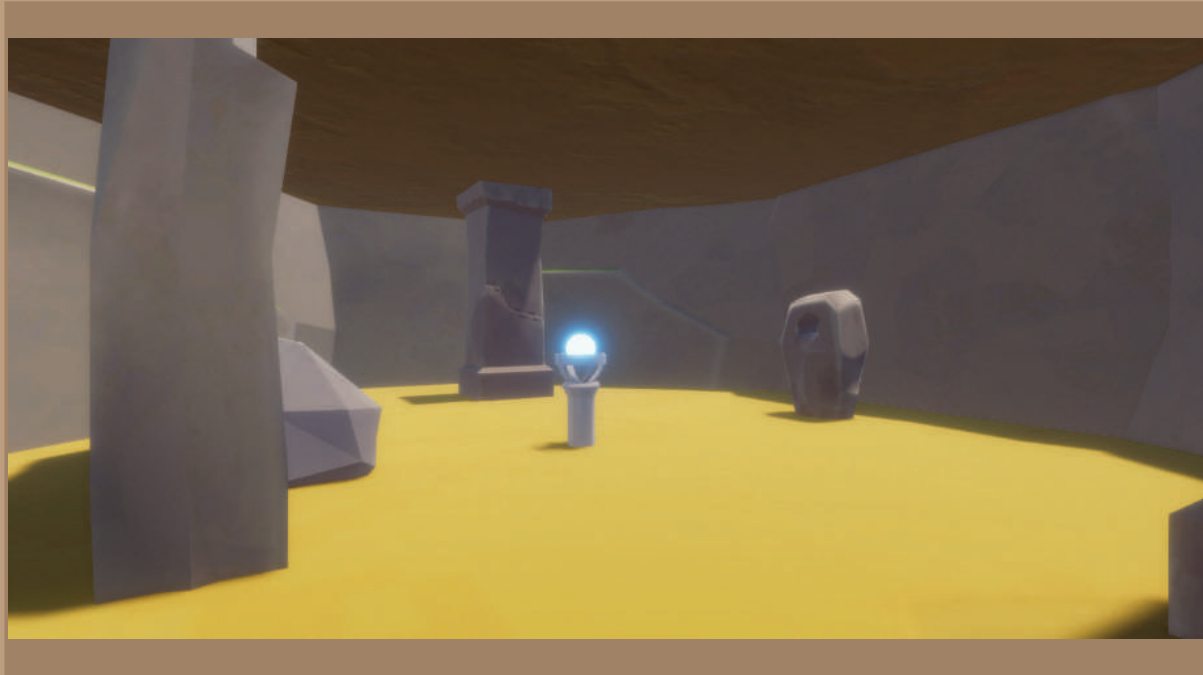
After finalising the golem characteristics it was modelled in Maya and textured with Substance Painter and Designer.

Character Design Final Render



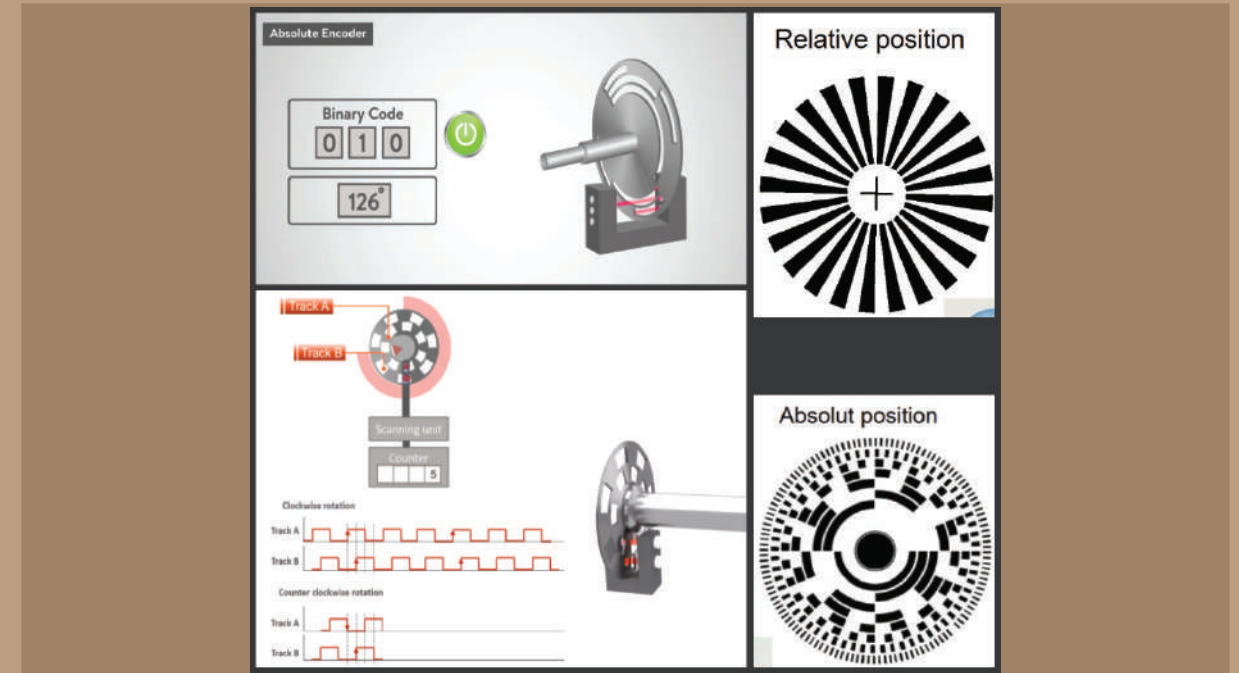
THE POWER SOURCE & LANGUAGE

First encounter with the power source



The power flows in a perpetual circle, driving the rotation of the rings ever forward, until new energy is needed. The players first encounter with the power source happens in Holding bay 036.

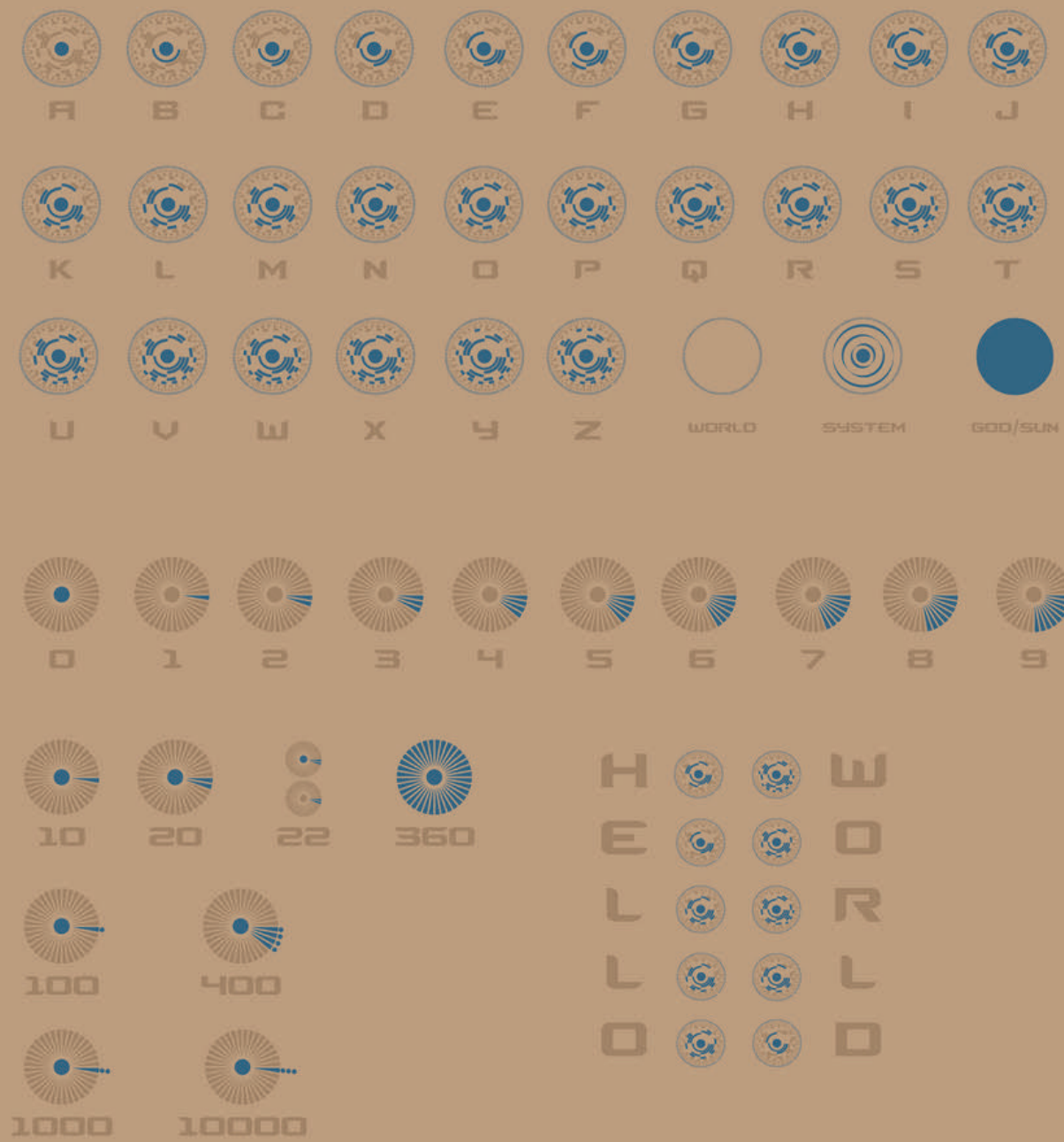
Reference for the language creation



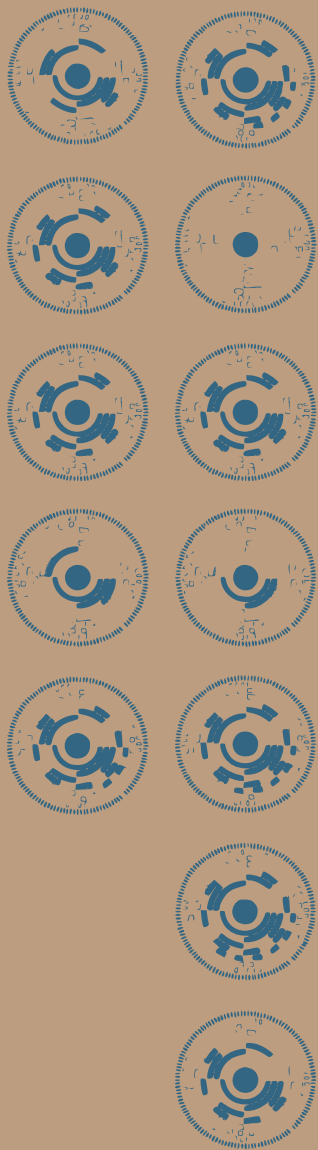
A language for the world was designed, based on how robot limbs communicate and understand position by relative or absolute encoding. It was also made into a font, so that it could easily be written on project materials. See the next page for the decode.

Reference found at:

<https://www.youtube.com/watch?v=-Qk--Sjgq78>



The Decode



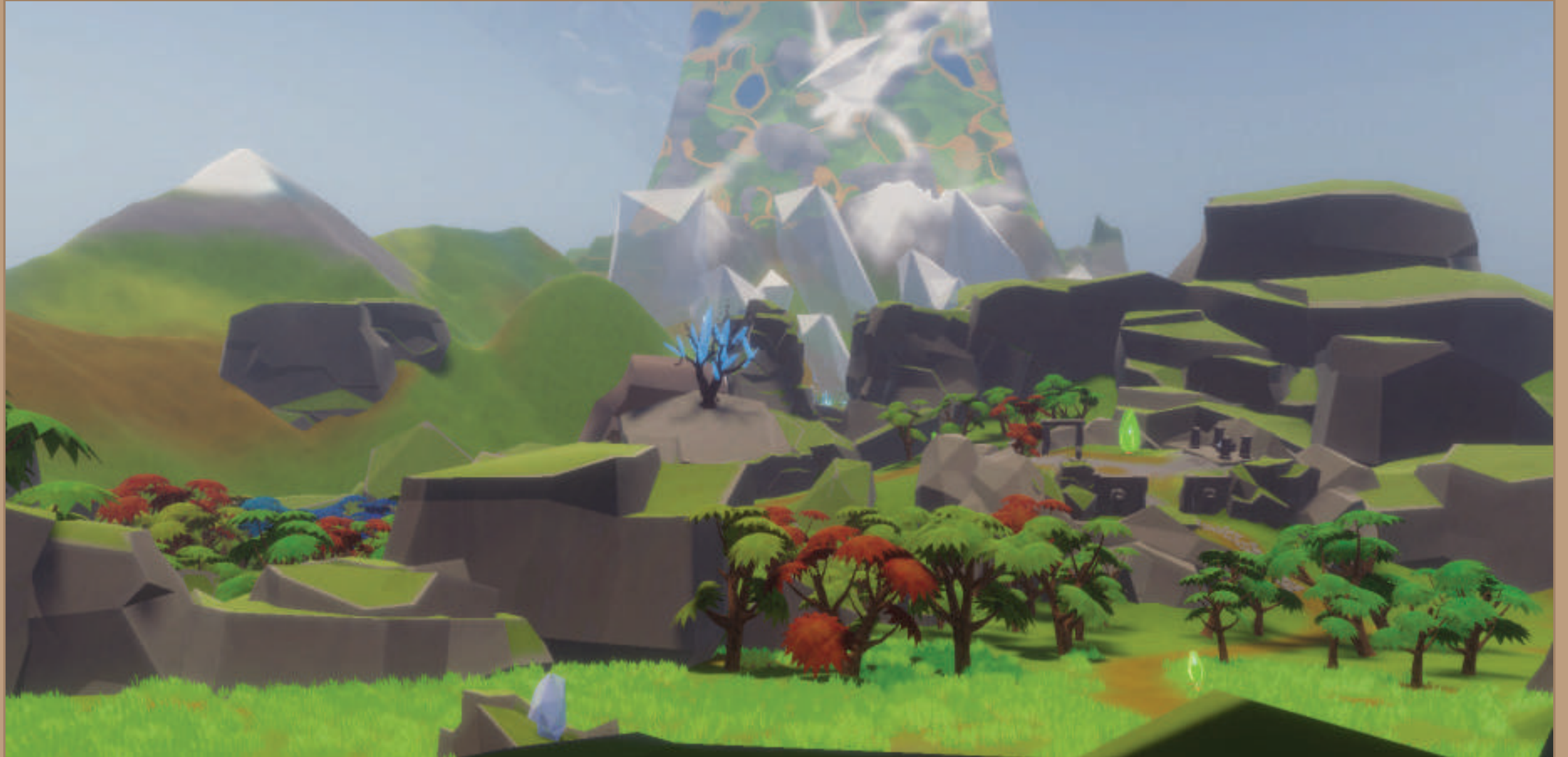
THE GARDEN

Tranquility. Balance. Life.

I was soaring, yet I was still. I was tiny, yet I was mighty. The only thing I could do was keep singing, sing myself and this place I had come to, to life. As my song made the golden, dark grass rise beneath me flourish, I grew as well. My body grew. My crown started to spread and cast shadows. And my voice. My voice grew too.

To my sides, the green plain stretched out, but I could see the edges of my world. A sheer drop into nothingness, and surrounded by purple, blue and gold clouds, my ring was. Beneath me, the darkness was complete. My roots sunk deep into the soil, crawling through with netted fingers, absorbing droplets of minerals, energy, liquid, empowering my growth and my song. And above me...
A sun.

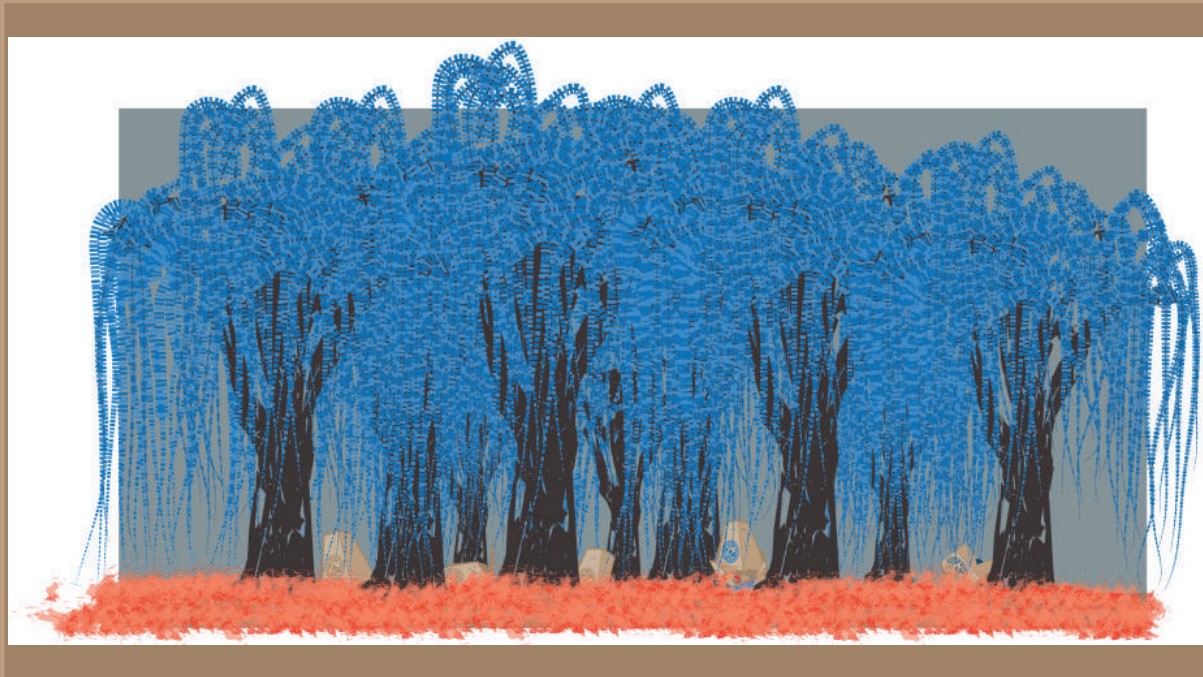
My ring. My world. Yes. This was my world, I had sung it to life. And I would continue to do so.



The garden

THE GARDEN & THE CAVE ENTRANCE

The Garden Concept Design

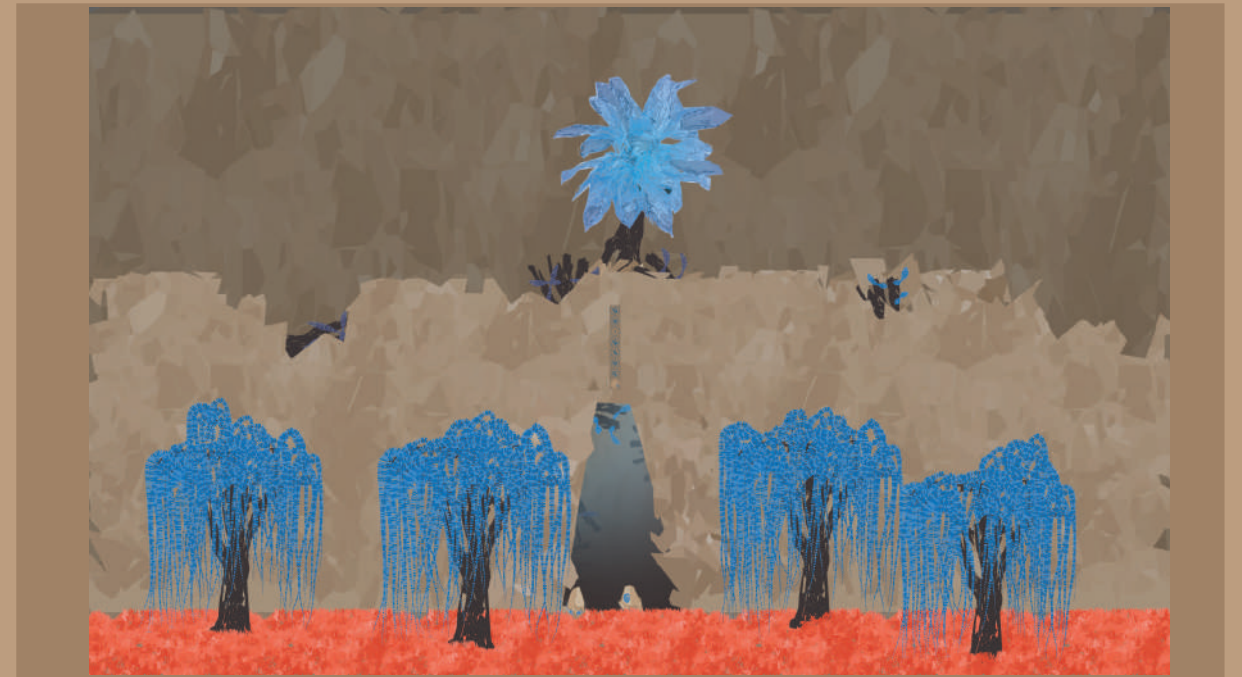


The foliage in the Garden has grown dense and wild in the absence of civilization.

In the concept design of the Garden tree foliage was colored blue to indicate that they lived of the same power as the golems; the power of the Second Ring. Scattered around the Garden were old golems and stone tablets placed, to tell the recordings of the past.

The only thing changed from the first concept to the final was the base colors, given that after testing the initial color combination looked different in the 3D world.

Cave Entrance Concept Design



The energy that bleeds from the mouth of the cave is wild, savage, and sad.

The Cave entrance with its hints of the power color (blue), is designed to lure players in and give them a sign of direction. On top of the Cave sits a Capacitor Crystal Sunflower, that collects power from the sun and redirects it to the power chamber in the Cave (see the next section for more information on the power chamber).

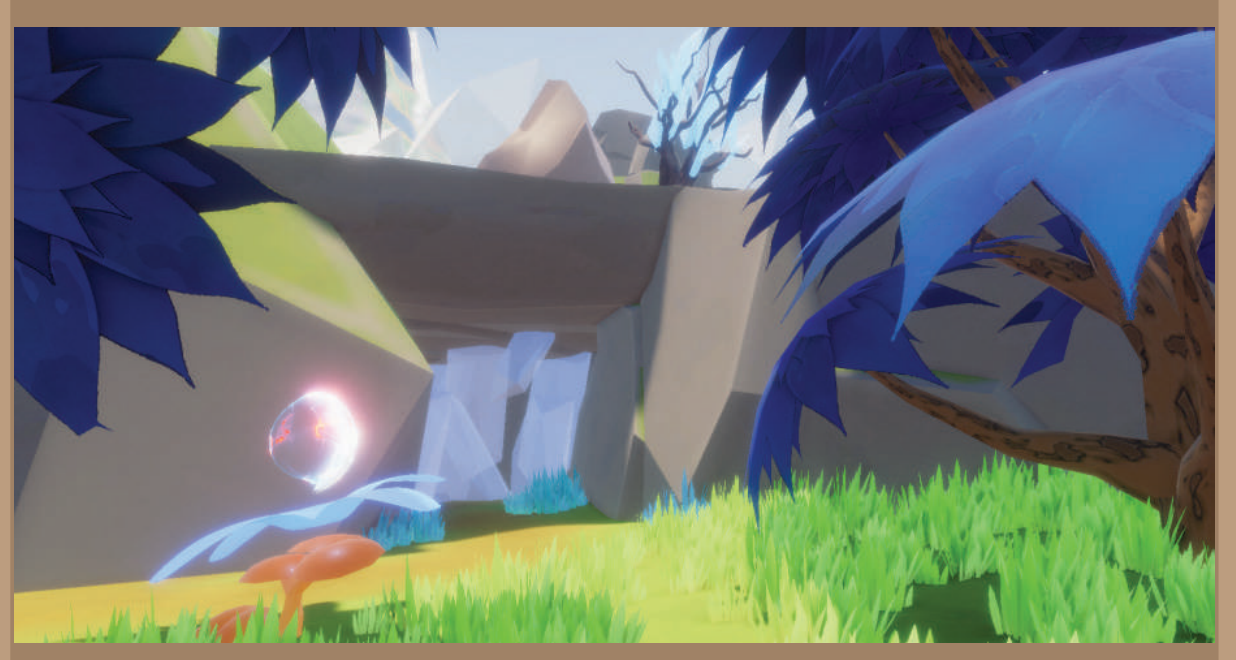
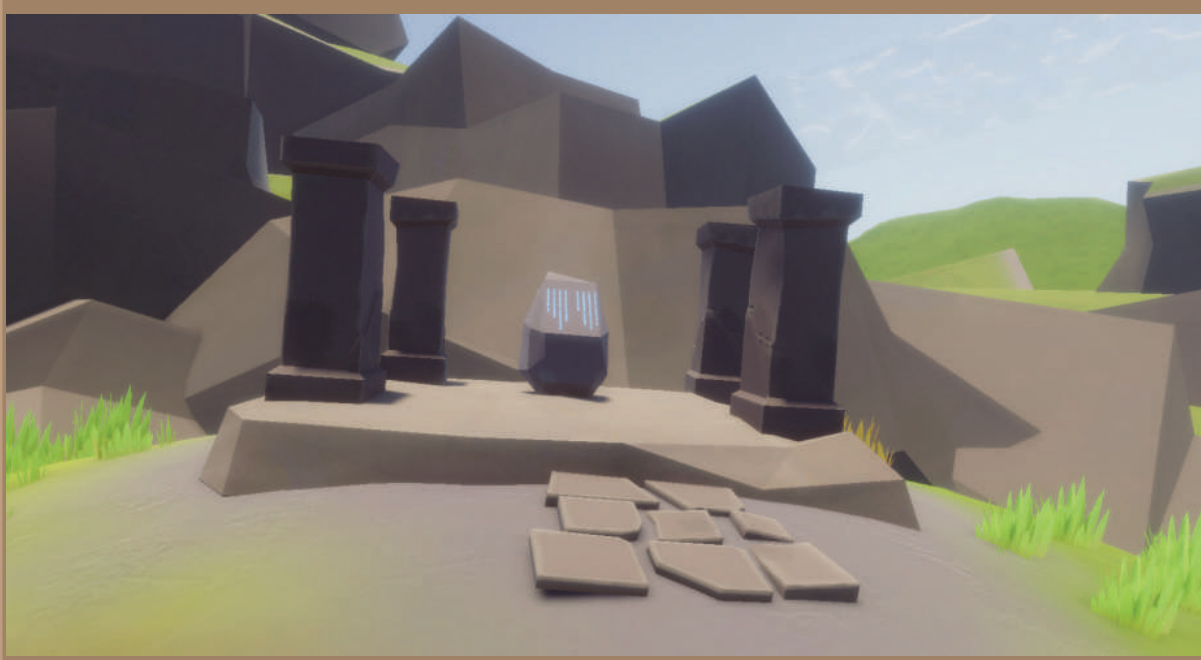
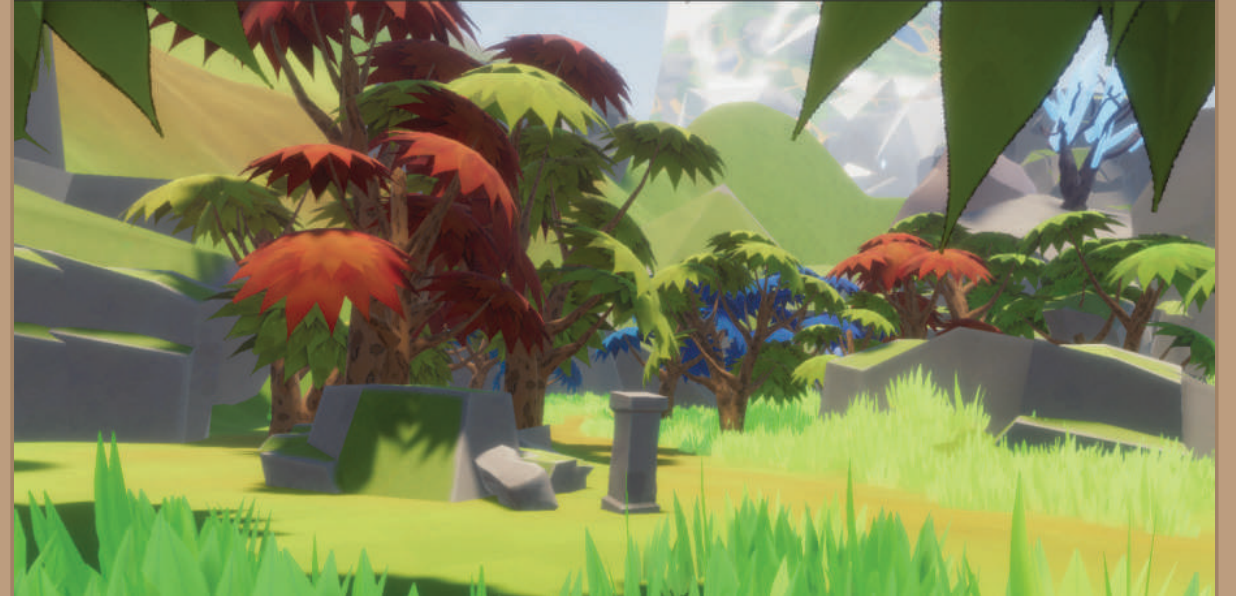
The only thing changed from the first concept to the final was the base colors, given that after testing the initial color combination looked different in the 3D world.

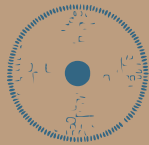
THE GARDEN & THE CAVE ENTRANCE

Overview Of The Shrine (Top) - Store Tablets (Bottom)



Foliage In The Garden (Top) - Cave Entrance (Bottom)





THE CAVE

This cave is a pool where the energy of this world congeals,
seeping through every crack in rock and crystal.



The Cave

THE CAVE & POWER CHAMBER

First Cave Test Concept Design

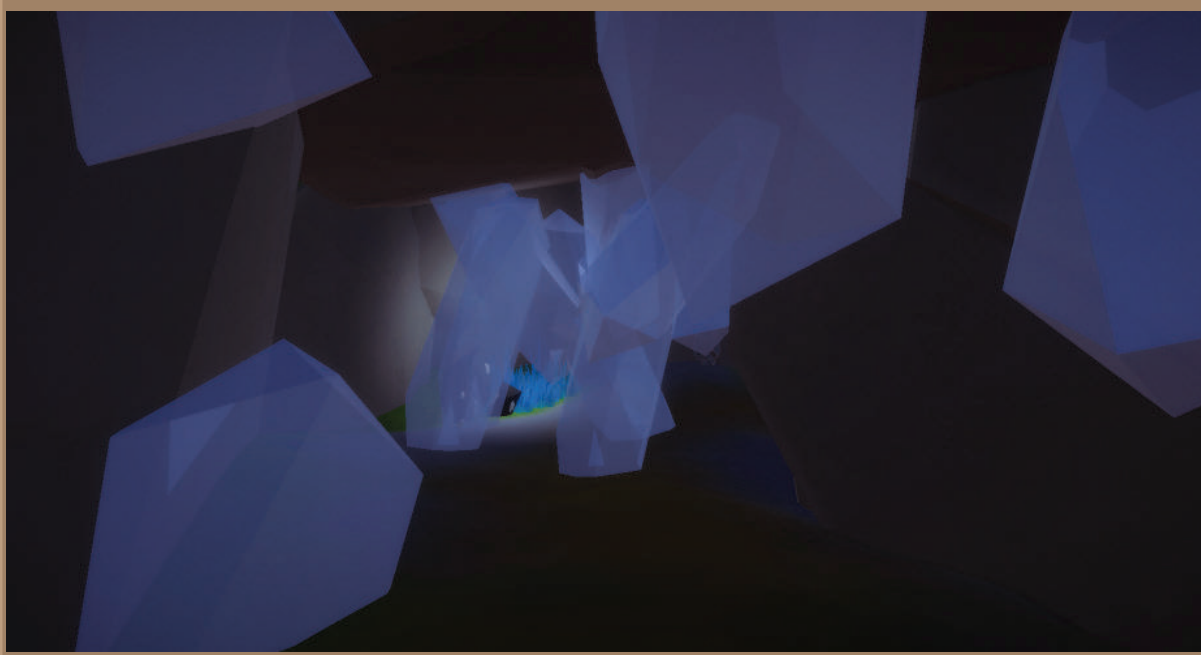


The retracting crystals were initially an effect created from the same system that the doors used. Since it looked interesting it was iterated on further and became an integral part of the cave and its function. Its function being signposting the player where to go.

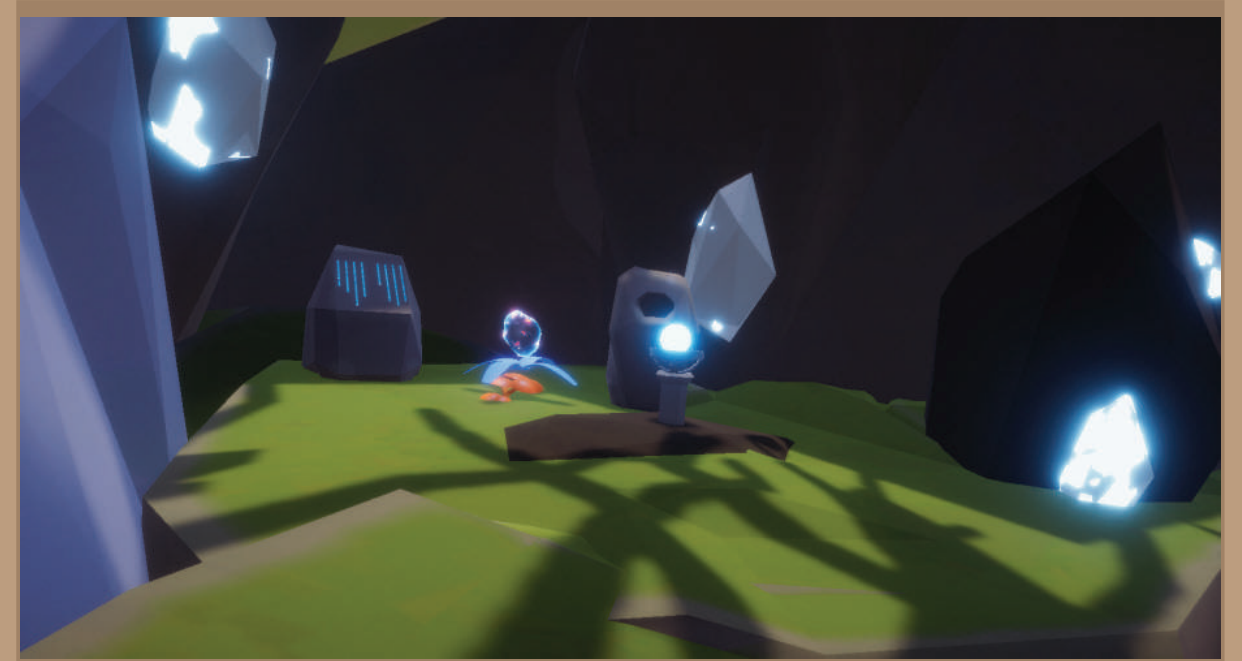
When entering the cave in the final concept, crystals retract inviting the player in. Inside the Cave players will find old golems to guide the way to the Power Chamber.

THE CAVE & POWER CHAMBER

Beginning Of The Cave (Top) - Golem Guide (Bottom)



Power Chamber (Top) - Power pick up station (Bottom)





THE ENGINE

"It has been no good. Even Hextech can't seem to find a solution to the problem. With the energy of the Mother Tree long gone away, there is no way to bind the energy needed to keep this thing spinning. What should we do, Mother?"

"Have faith, young one. We have survived and revived this place before, and we shall do so again. The warm one above must have his due, if we are not to perish."

"But how, Mother?"

"It will require work, blood, sacrifice... That is the only way to make up for our transgressions of the past. We must create a structure to harness the power of the warm one himself, so that rotation might continue."

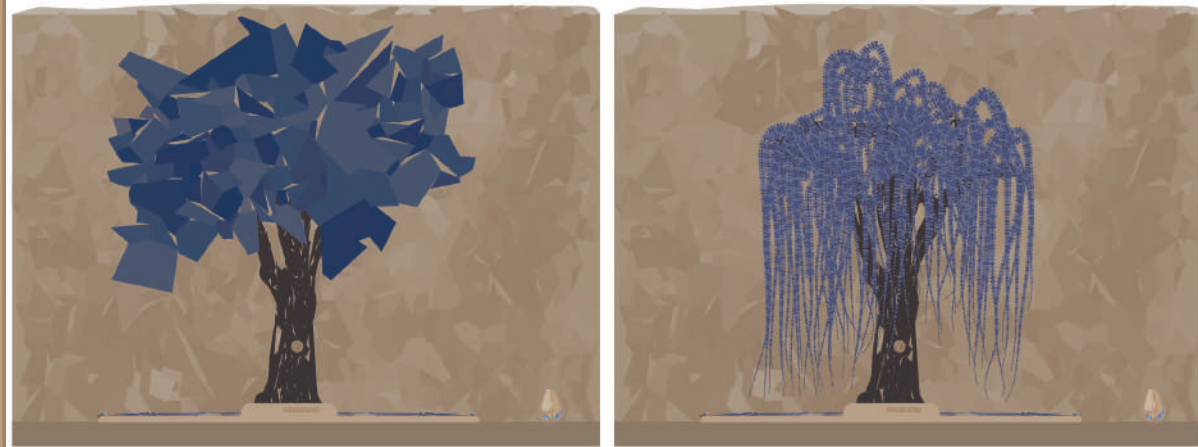
"So that rotation might continue..."



Mother tree

THE ENGINE

The Mother Tree -No Power Concept Design



The concept behind the construction of the Engine was initially drawn from the concept of a simple DC motor:

Power/direct current electrical energy: The God/Sun power of the world

The motor: The structure of the Engine in the game world

A place to store the energy: A Battery, later changed to Capacitor Crystals (See next section of the Art Book for more information)

The Mother Tree -Powered Concept Design



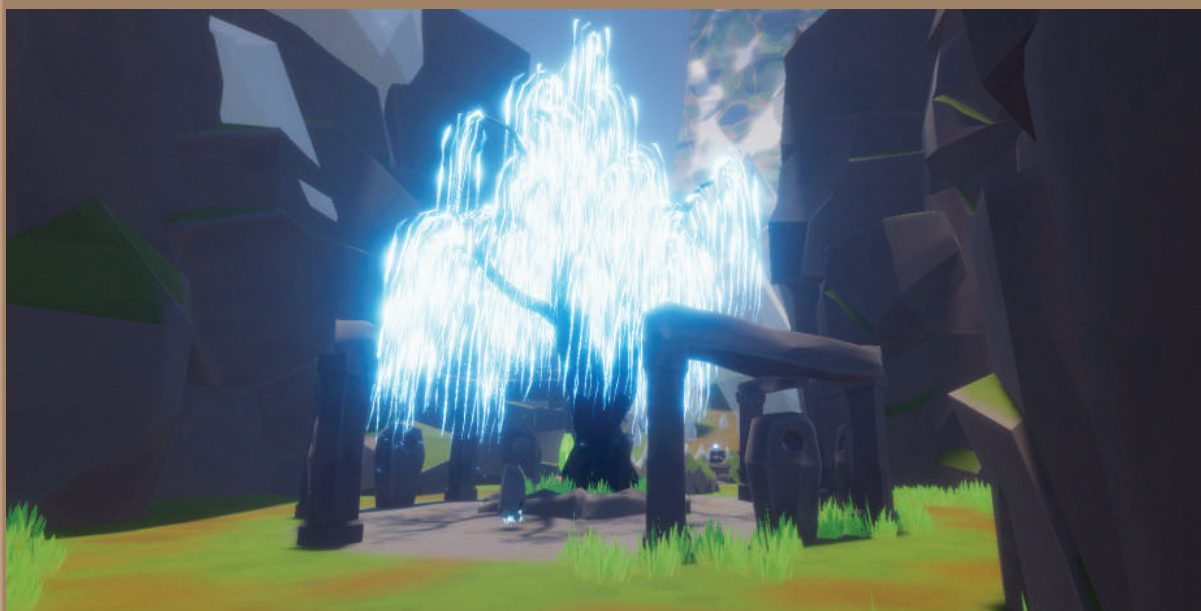
The visual concept of the Mother Tree changed several times; two are seen above. But what stuck was the concept of its' illumination when the Engine became active. In the final concept this effect was however moved to the Capacitor Crystals for greater effect when playing the game world.

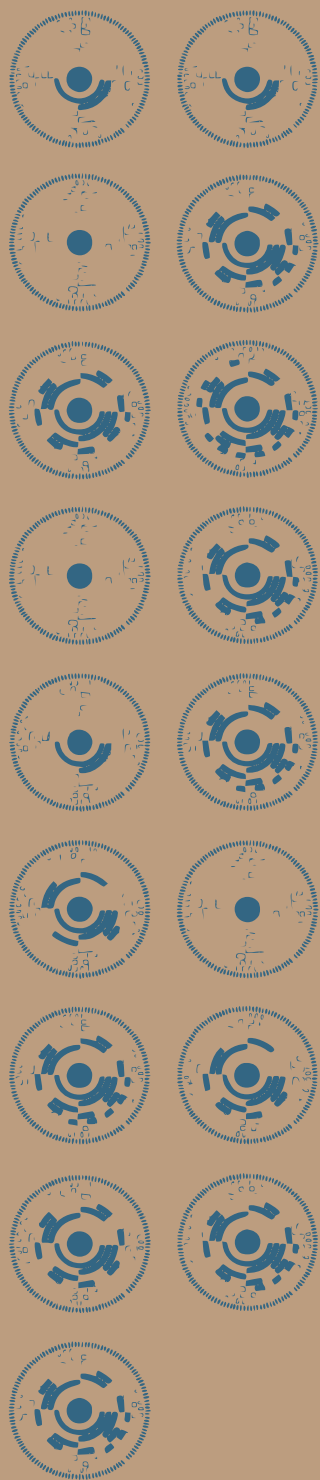
THE ENGINE

Beginning Of The Cave (Top) - Golem Guide (Bottom)



Power Chamber (Top) - Power pick up station (Bottom)





THE CAPACITOR CRYSTALS

"Oh warm one above, witness our monument to you. Cast your blessing upon us so that we might harness your power. These crystals is our gift to you, so that you might bless us with life and rotation."

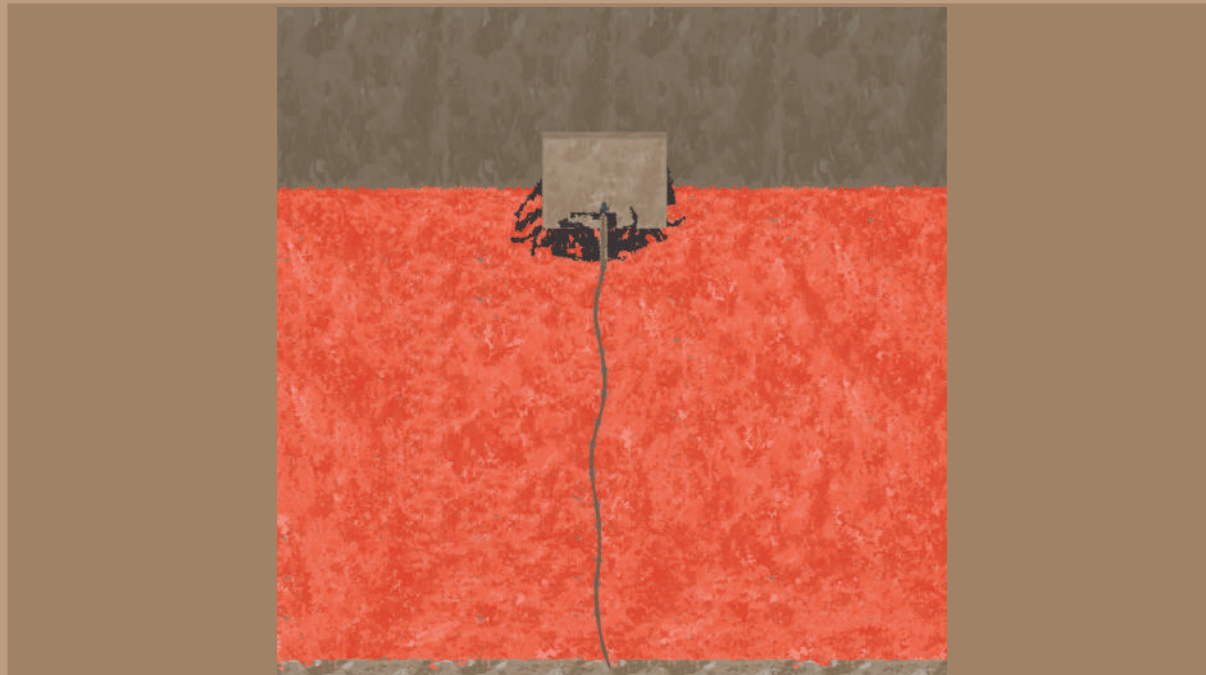
Do not send us into the darkness. We prey that the Dark Day will never return. And so we offer you this humble gift."



The Crystal Plains

FROM BATTERY TO CAPACITOR CRYSTALS

The Battery Concept Design



The battery was originally designed to be the place the power source would be delivered to, and it was supposed to be its own section. However, time constraints made us combine this section as an altar in the engine and the empty field that was leading to the was filled with crystals that visualized the impact of the power source as earlier mentioned.

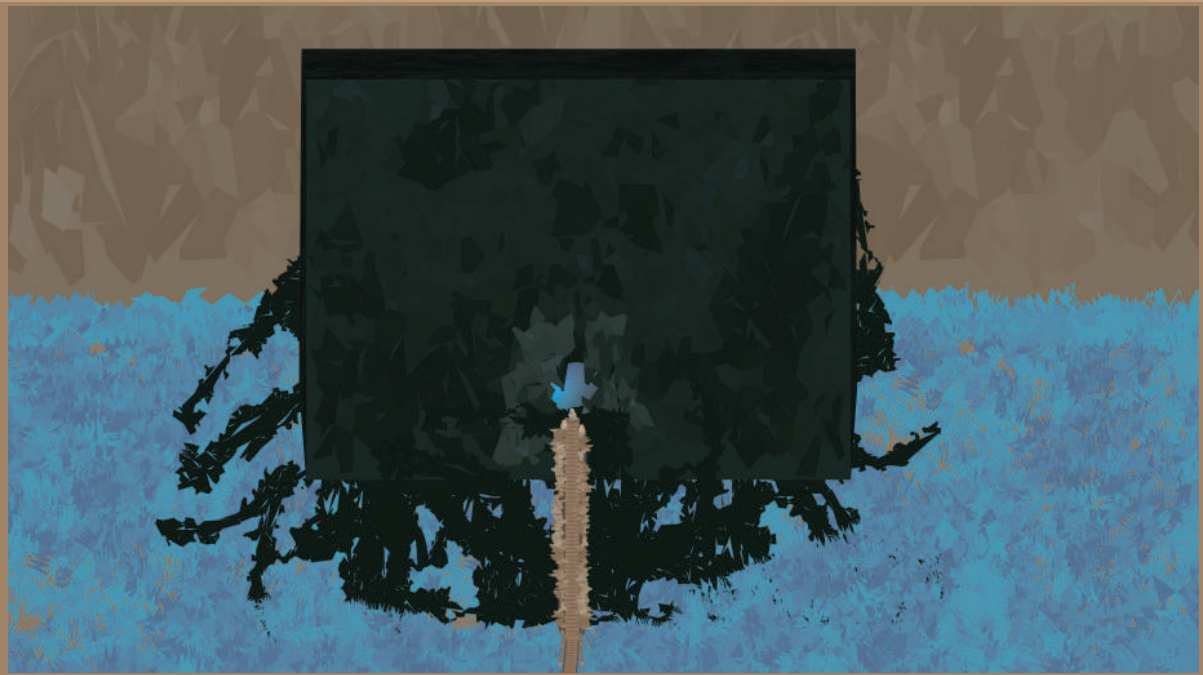
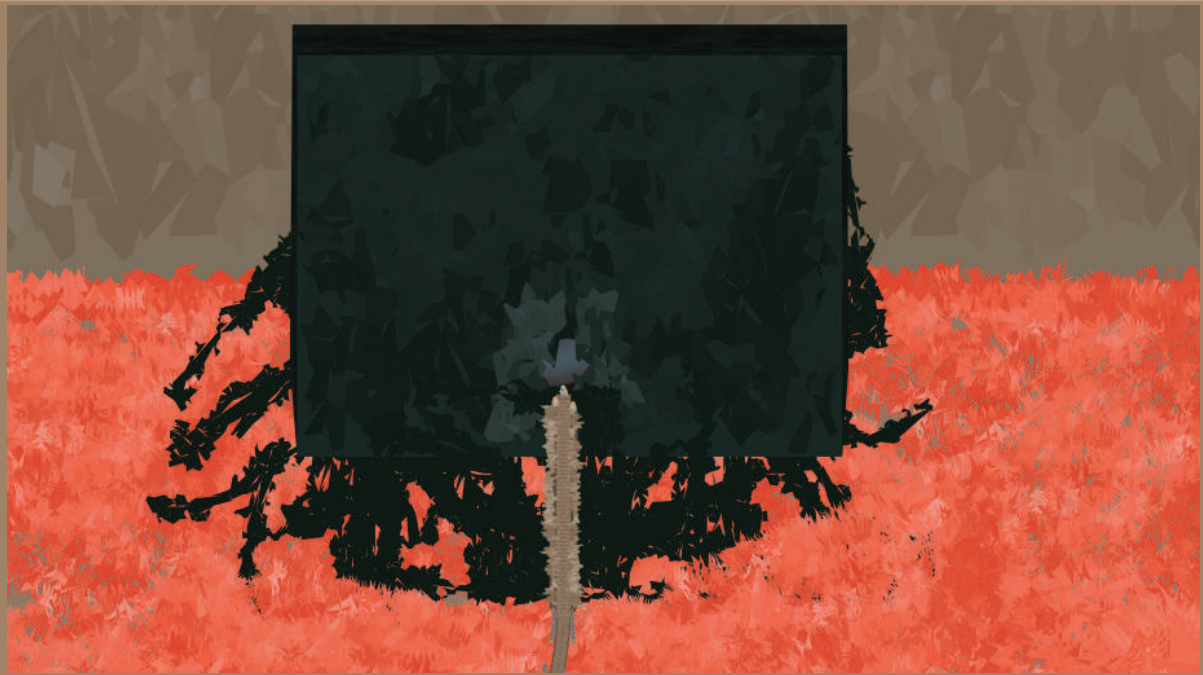
The Battery (close up) Concept Design



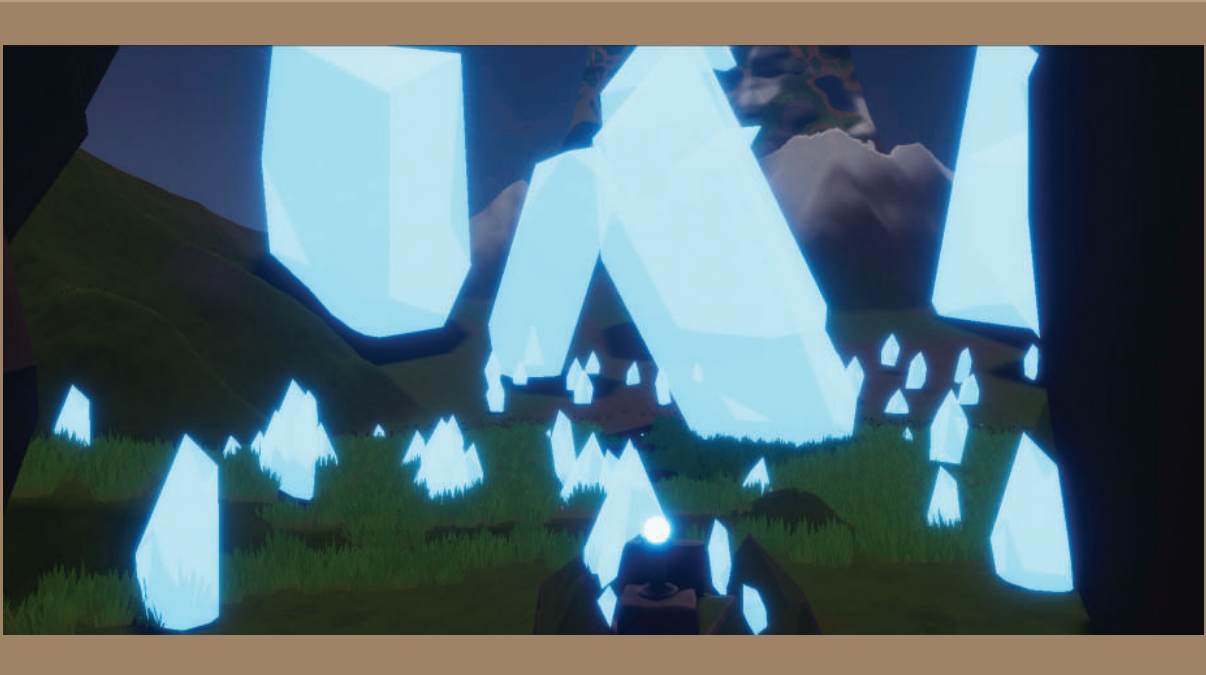
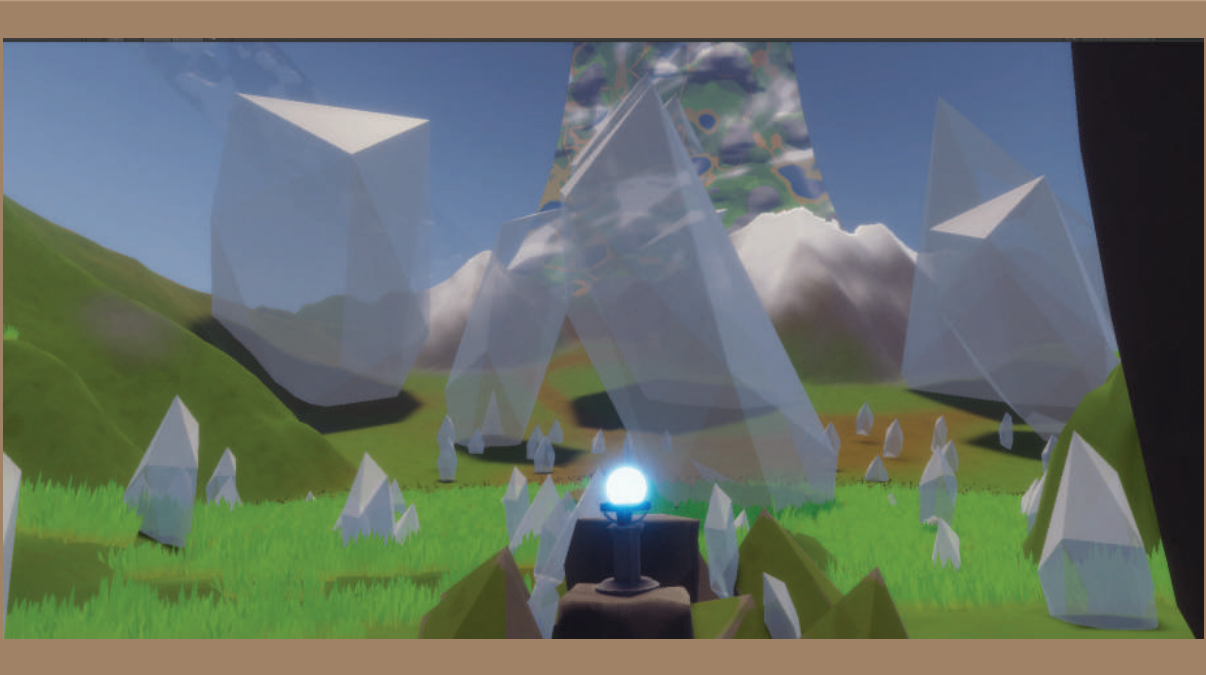
The visuals of the last stage of game world the was explored from different distances and in different colors.

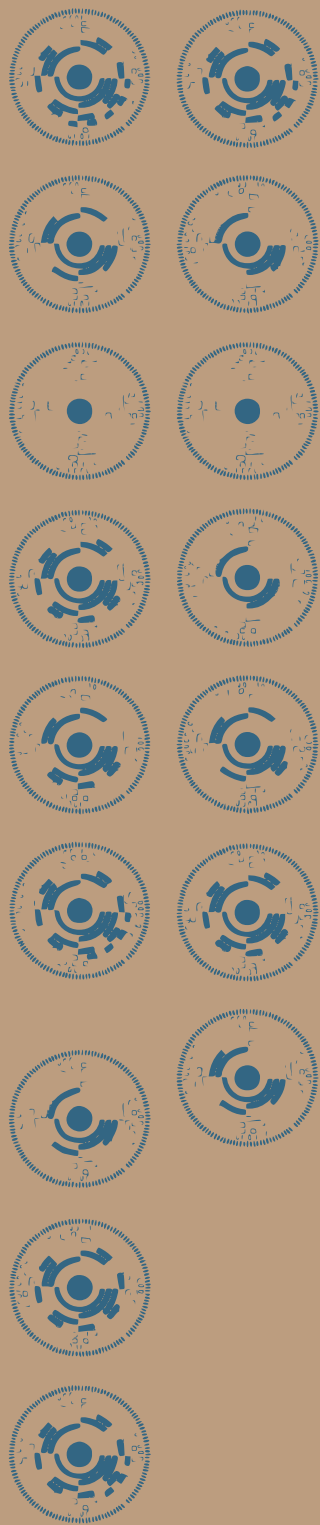
FROM BATTERY TO CAPACITOR CRYSTALS

The Battery mid (Top) - The Battery mid blue (Bottom)



Power Chamber (Top) - Power pick up station (Bottom)





THANKS FOR READING

What a blast.

Erlend Brodal -erbr@itu.dk
Hjalte Andersen -hjan@itu.dk
Jeppe Faber -jepf@itu.dk
Lui Thomsen -luth@itu.dk
Per Sørensen -peks@itu.dk
Date: 29/05/2020

Team