

Sheridan

Honours
Bachelor of
Game Design



Game Design Document

Dogma - Child of the Fallen

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Honors Bachelor of Game Design

Capstone Year

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Game Overview

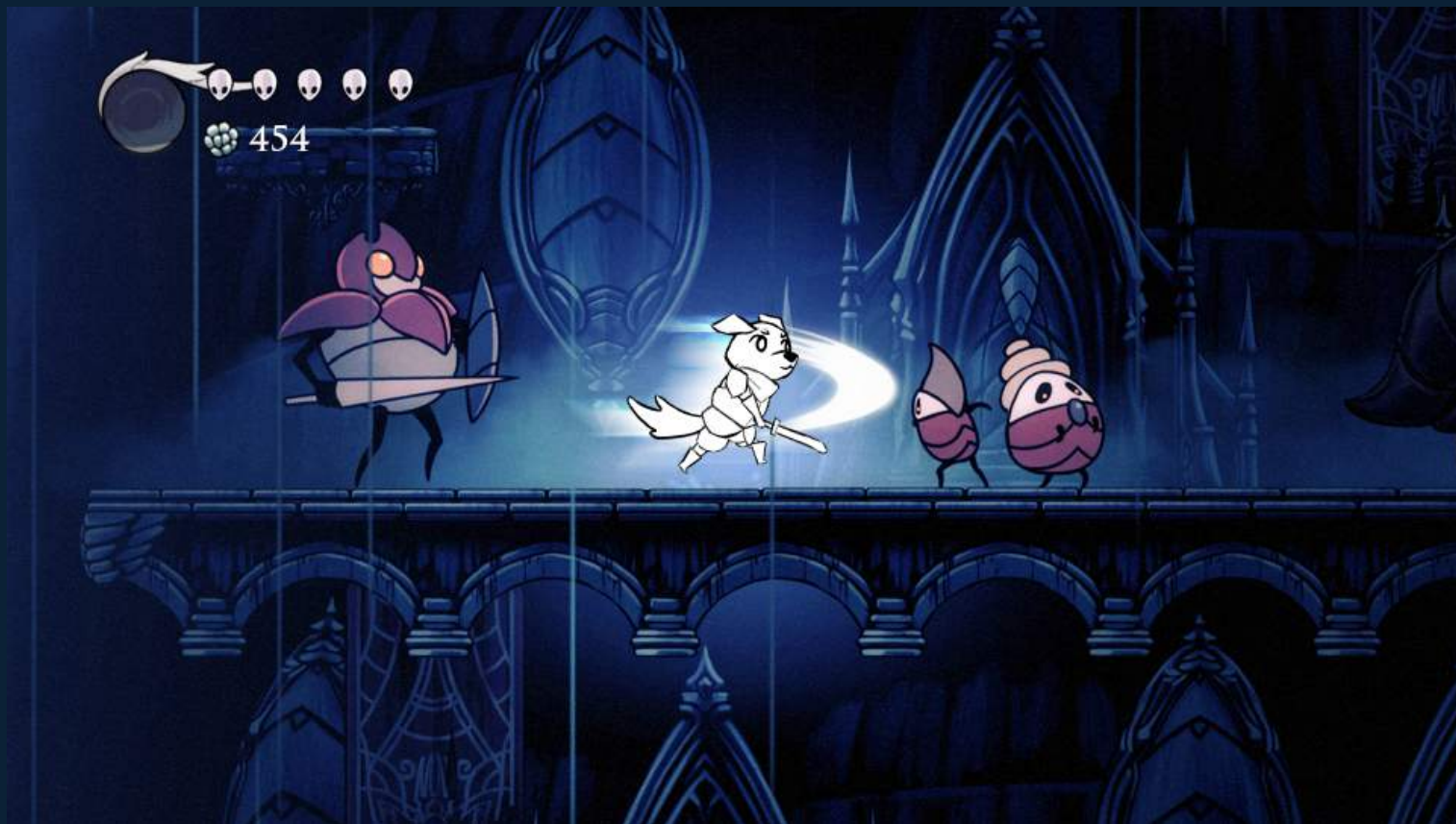


Fig.1: An edit of our work in progress Protagonist in Hollow Knight; used for visual design pillars representation purposes

Game Concept

Dogma - Hero of the Fallen is a Metroidvania about delving into unknown danger to rescue your mother and her adventuring party. Finding them one by one and learning their powers before fighting the ancient evil that they lost to 15 years ago. Our metroidvania is inspired by hollow knight, super metroid, and castlevania. As is classic for the metroidvania genre, our main pillars are combat and exploration.

Look and Feel

Our characters have a quite simple almost cute style as a deliberate smoke screen for the pervasive dark tone of the story.

Occasionally the angst is cut by moments of levity and the protagonists unending optimism as to avoid the general game feel becoming dull and to instill hope in the player.

Target Audience

PERSONA PROFILE


PRODUCT/GAME GENRE:

Metroidvanias, platformers, *Hollow Knight*

NAME: Jordan Green

PROFESSION: High School Student

AGE: 17

PERSONAL BG: Started playing games at a young age because of his dad. He got introduced to retro titles like Super Metroid since his dad still owned his old consoles, and from there he has become an avid gamer when he isn't in school or working part-time.

INTERESTS:

Gaming with his family and friends

Streaming on Twitch

Listening to music

Doodling occasionally

POWERS:

He has a part-time job so he can purchase a lot of his own games

He has time after school and work to play games for hours if he wants

Has a bit of a consistent watcher-base on Twitch

NEEDS:

To feel a good sense of challenge when he plays a game

More money so he can buy more games

BEHAVIOURS:

Will often buy indie games if their art style or premise intrigues him

Will get too into gaming for hours that he loses sleep

VALUES:

Games that feel memorable, unique, and nostalgic

Heartwarming stories

Challenge and difficulty when he learns new things

Being able to game with his family

ASPIRATIONS:

To become more popular as a Twitch gaming streamer

To get better at his art skills

Our project will meet the needs of the market by meeting all the criteria that a Metroidvania has (satisfying character controller, levels that have multiple entry points and varied play, varied enemy types, compelling and unraveling narrative, pleasing art style). The unique feature we have, which is our Bone Armor system, will meet the needs of the market by having a unique way players can regain health and gain defense which creates unique and engaging play.

Game Mechanics

Mechanics

Movement

The movement abilities in the game are locked using our progression lock map detailed below in gameplay.

- Traditional platforming left and right movement
- Jump with variable height
- Dash
- Double Jump
- Wall jump

Actions

In the game you will be able to engage an action in a few places.

- Interact with NPCs to hear their dialogue/see their wares (If a selling NPC).
- Interact with switches.

Combat

Fight enemies using mechanics acquired during gameplay and exploration. Beating enemies rewards the player with bones, which they can use for upgrades as well as for the moment to moment combat loop as their primary health restoration system.

- Basic Attack
- Bone Armor Recharge Ability
- Double jump downwards attack
- Bark Stun

Gameplay

Core Game Loop

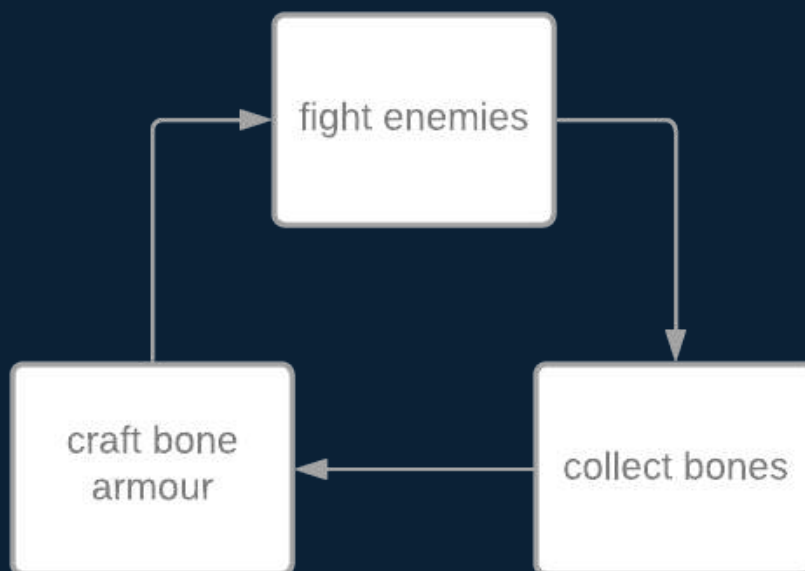


Fig.2: Core Game Loop Diagram

Our core game loop is set up to encourage the player to fight enemies. We do this by rewarding the player with bones whenever they defeat an enemy; these bones can be used during moments of rest to build up bone armor. This mechanic allows the player to build up a secondary health bar that stacks on top of the player's regular health bar. Unlike the regular health bar this one does not replenish overtime (only at rest points) and requires more bones to be rebuilt again.

Secondary Game Loop

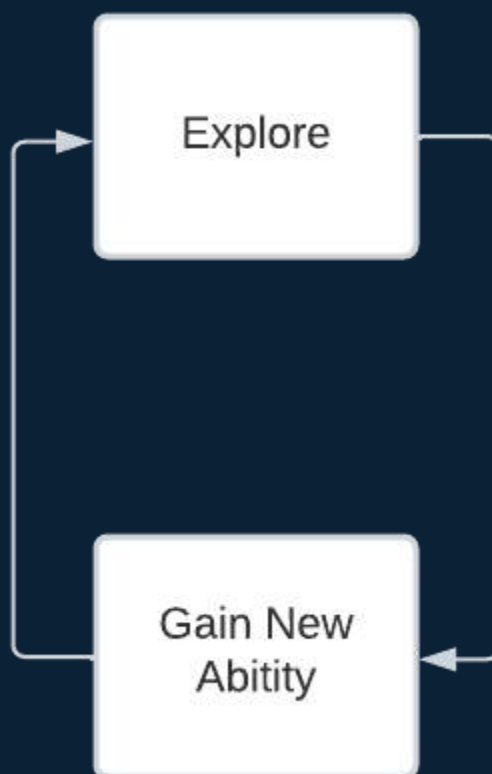
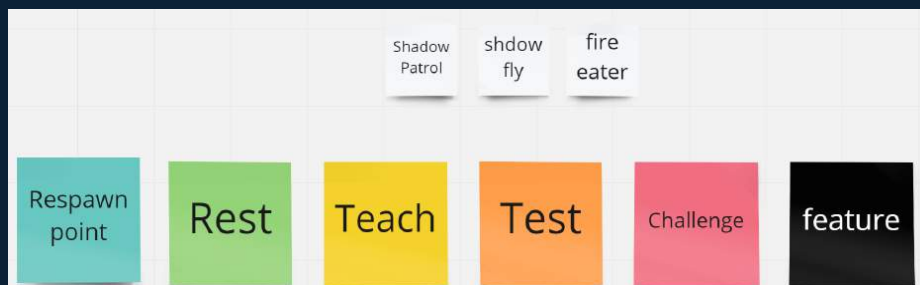


Fig.3: Secondary Game Loop Diagram

Our secondary game loop has been designed to facilitate feelings of exploration, victory, and growth. Whenever the player explores they will eventually find an area that will *challenge* the player based on what they've encountered so far, reinforcing the skills that they acquired along their journey. After achieving victory over the area players are then rewarded with a new ability that will help them explore which will lead to the player wanting to explore again and so the cycle goes on. Exploration leads to victory, victory leads to growth, growth leads to exploration.

Exploration

Explore new areas to unlock and use new mechanics in order to progress to areas only reachable through the practice of new mechanics. Game levels are organized into *zones* which are then split into *rooms*. Each *zone* has its own theme and a core mechanic, that each *room* primarily conforms to. The level design rationale is based on a *teach, test, challenge*(and *rest*) format. This means that each *zone* has its *rooms* arranged in a way to first introduce and *teach* the *zone's* mechanic to the player, then *test* their ability to use it and eventually *challenge* their mastery of the mechanic, with points of *rest* in between obstacles.



Beat Map

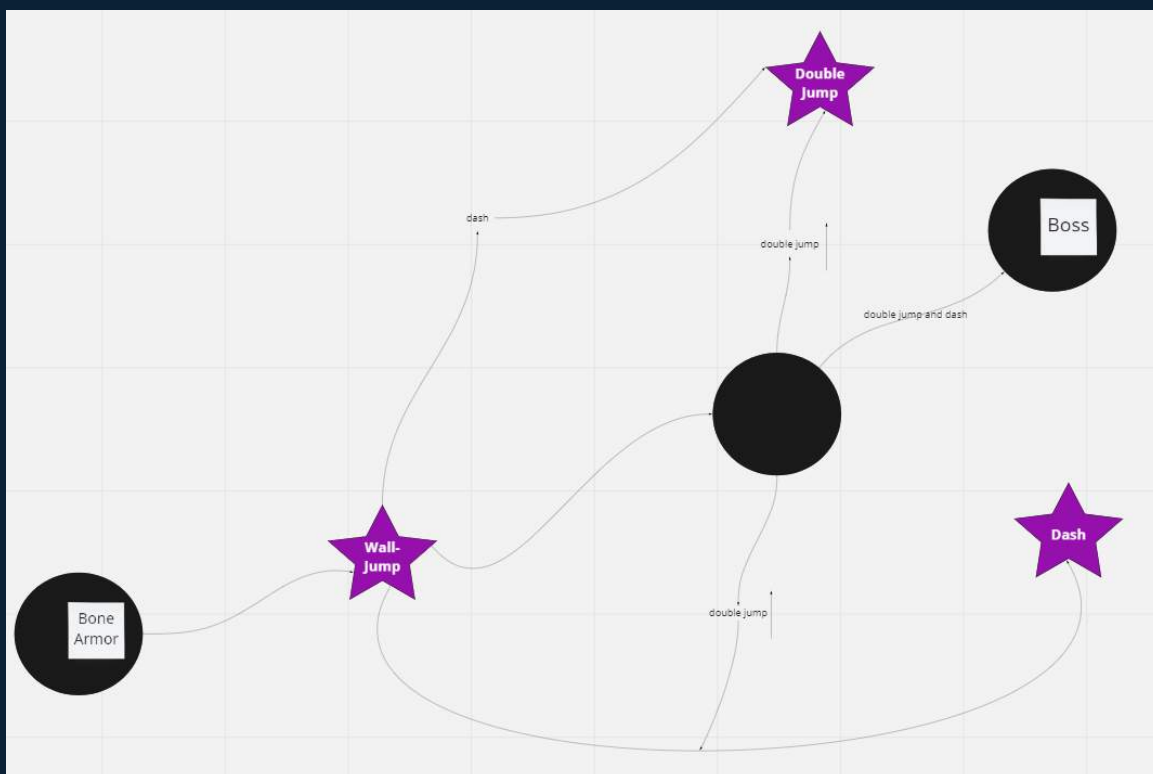


Fig.4: Progression Lock Map/Beat Map

This is our progression lock map. It gates your progression based on which areas you have beaten and what mechanics you have unlocked in previous zones.

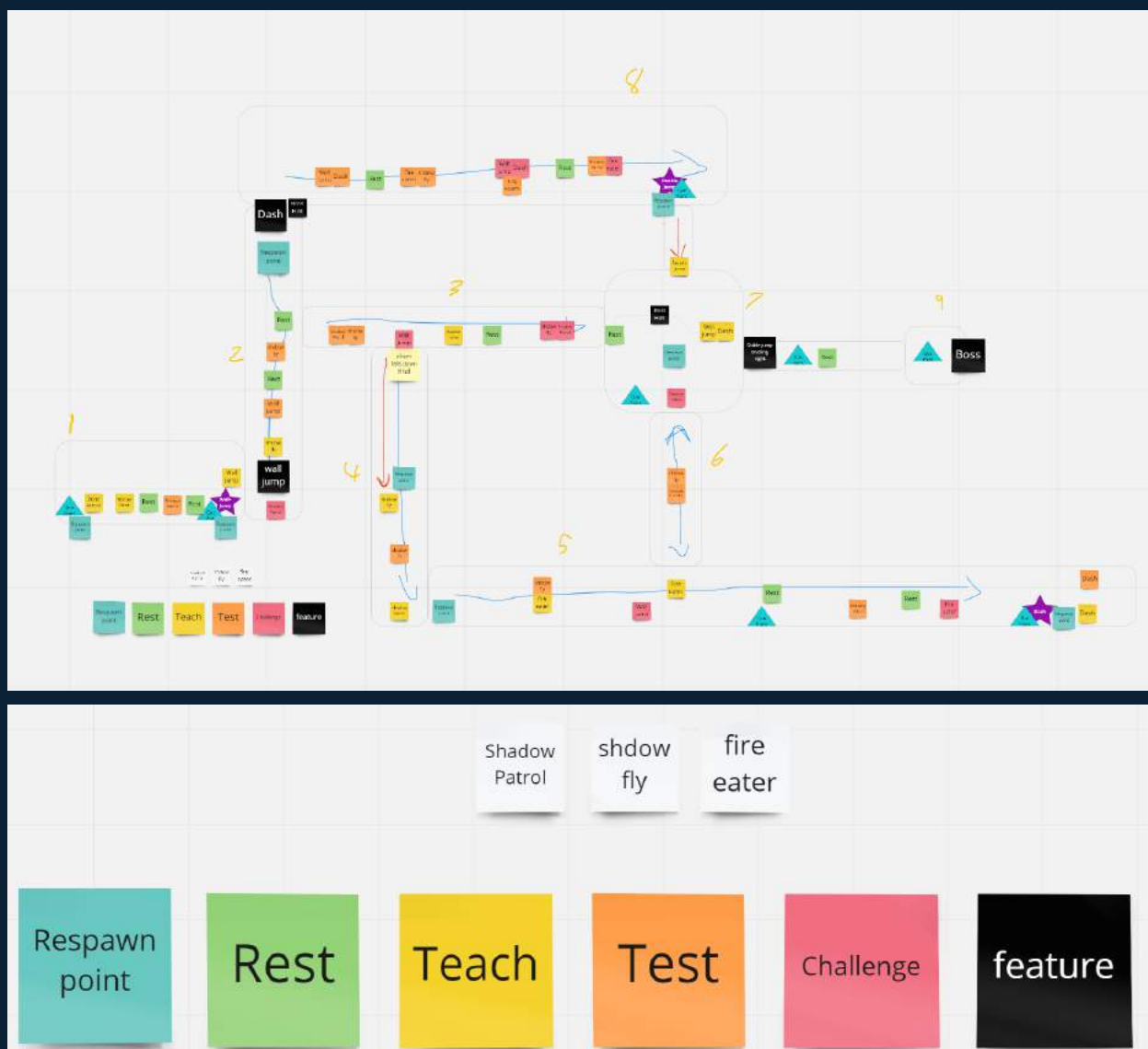


Fig.5: Detailed Beat Map

Artificial Intelligence

Tools

We will be using Behavior Designer to design the behavior trees for our enemies in the game. This more visual workflow will speed up both initial implementation as well as bugtesting.

Enemy Designs

Our pipeline for enemy creation is currently set up to run from functional concept (below) to implemented greybox. When we have a fun toy to interact with we pass it off to the art team to decide what something that does that should look like/which area it belongs in.

Fire Eater

Description:

Small creatures of stone that live in lava flows, they're territorial but weak and will sometimes explode when attacked

Metrics:

Size: 1 unit tall by 1 unit wide

Combat Range 5 units

Behavior:

Idle: Fire Eater sits under the surface of a lave pool

Peeking: Fire Eater peeks above the surface of the lava for 2 seconds

Attacking: Fire Eater jumps out of the lava and shoots a small fireball at the Player

Exploding: Fire Eater will jump onto land and glow briefly before creating a large explosion then dying

Behavior Tree:



Shadow Fly

Description:

small flying creatures that can be found in any biome. they do damage on contact and die on contact. they are blind and will only detect the player if the player is moving

Metrics:

Size: 1 unit tall by 1 unit wide

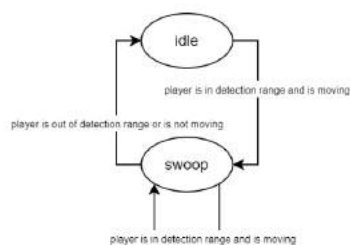
Detection Range: 10 units

Behavior:

Idle: Shadow Fly flies around the volume of its area. it will turn when it hits a wall

Swoop: Shadow Fly dives at the player. if it hits the player it deals damage and immediately dies. if it does not hit the player Shadow Fly continues on a parabolic arc.

Behavior Tree:



Shadow Patrol

Description:

medium-sized creatures of smoke and shadow, they are blind and deaf and will only detect the player when in melee range. they patrol back and forth across the length of their room.

Metrics:

Size: 2 unit tall by 1 unit wide

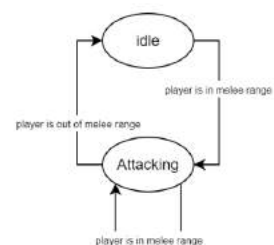
Melee Range: contact

Behavior:

Idle: Shadow Patrol will walk back and forth across the length of the room its in

Attacking: Shadow Patrol will make a melee attack when it runs into the player

Behavior Tree:



Art & Animation

Art Direction

Dogma - Hero of the Fallen will take a very cartoony, stylistic approach to its graphics. We want to keep the sprites mostly solid colors with cell shading only on back limbs (to show layer difference) so that the rigging and animations of the characters can be done easier. We also plan to implement either a) a shader that makes our game's sprites look like storybook doodles, or b) 2D sprite reactive lighting effects (similar to the lighting in the game *A Night in the Woods*).



Fig. 6: Protagonist moodboard showing our game's style reference

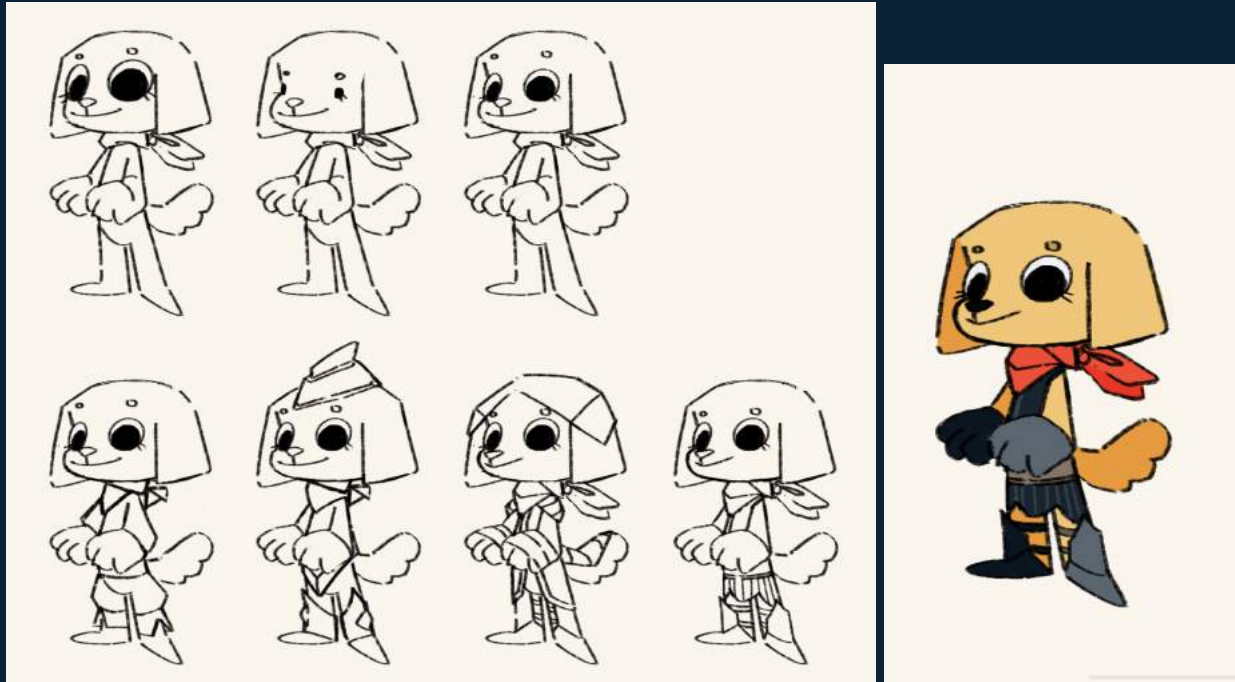


Fig.7: Protagonist concept sketches and final colors



Fig.8: Final Protagonist Concept

Animation

Done using Unity's 2D animation package and AnyPortrait respectfully. Unity's Particle System will be used for visual effects.

Pipeline

The base pipeline used to make art starts with creating a moodboard, sketching preliminary idea explorations, finalizing design, color exploration and creating the final in-game asset which is broken down. Following, it is passed down to animation where the asset is rigged and animated.



Fig.9 - 12: Enemy Concepts

Backgrounds

For the platforms players can interact with and the backgrounds, the team decided to use the Unity add-on Ferr2D to help optimize that process. Since we were going with a flat and simple art style, this makes making tilesets in Ferr2D easy as we keep them in white and adjust their colors in-engine to suit the level.



Fig.13: Background mock up in-engine using our tileset and Ferr2D



Fig.14: Environment pieces done to help decorate some of the levels

Visual Asset List

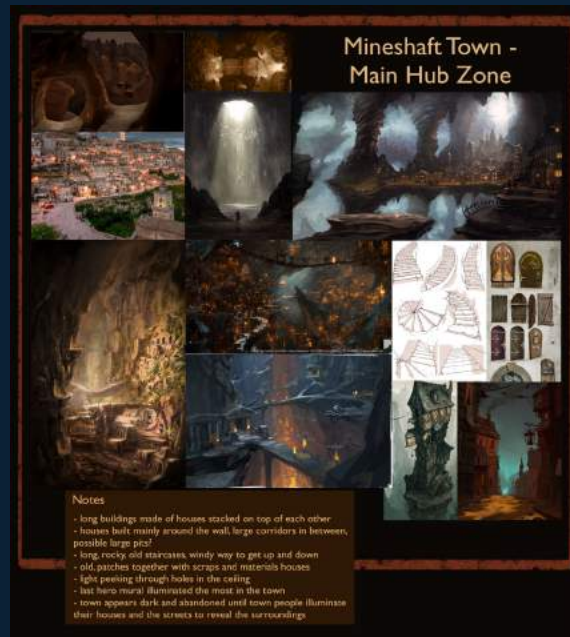
CANDY CUBE - Visual Asset List

Fig.15: Moodboard for the main hub area

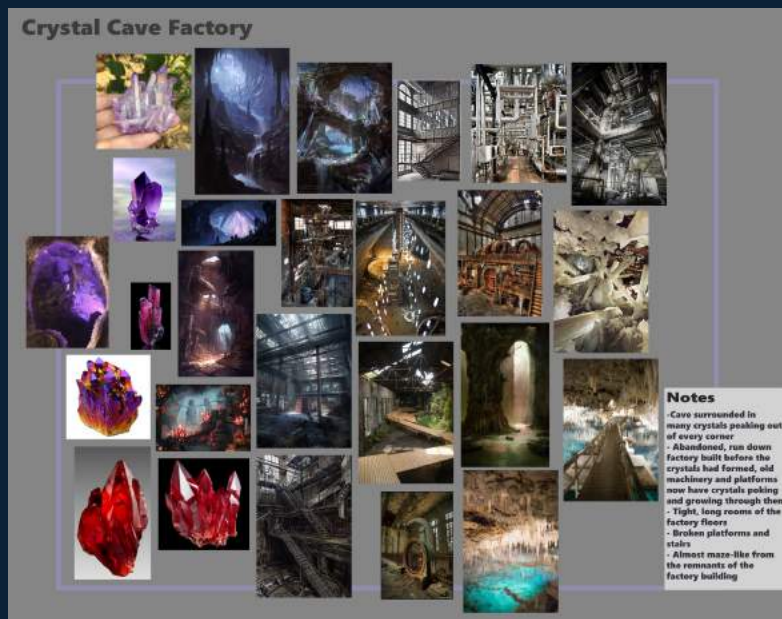


Fig.16: Moodboard for the crystal factory area

Narrative

Overview

From the moment Ashwyn was born she was thrust into the life of an adventurer. her mothers party was the only life she ever knew and it was a good life. Ashwyn's life changed forever when she was made to wait outside while her mother and the party went into a cave to purge the great evil from it. she was assured that they would be right back.

Fifteen years later Ashwyn has a prophetic dream calling her back to the site of the disappearance, only by conquering the dream will she have any hope of finding her family.

Narrative documents

 DOGMA COTF NDD.docx

Audio

Music

We will employ vertically adaptive music based on your proximity to the bard (who is your respawn checkpoint and bone storage point).

There will be 3 given tracks for each level.

- The ambience - Played in general exploring
- The bards solo - Based on proximity to the bard. Should work layered into ambience or the song.
- The song for that area - General combat/interesting point song.

Sound Design Asset List

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