GAZİ ÜNİVERSİTESİ MÜHENDİSLİK FAKÜLTESİ BİLGİSAYAR MÜHENDİSLİĞİ



GAME DESIGN DOCUMENT

Üç Dünya'nın Hikayesi

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1) INTRODUCTION

Üç Dünya'nın Hikayesi combines Turkish mythology with exploration and combat mechanics, offering players a unique experience. Erlik Han's spell, known as the "Dark Shadow," has disrupted the balance of the Three World, plunging humanity into a deep slumber. To restore harmony, Kayra Han entrusts Altay with a mission: unite the Three Realms and save humanity.

Altay has to find ancient keys, fight enemies, and travel back in time to break the curse. Players will make their way through challenging platforms, finding hidden clues and solving puzzles along the way, while fighting foes. There is some hint or reward in every little detail. The more missions are completed, the further back in time the players go to collect sacred artifacts and unlock hidden passageways. Each of the Three Realms is unique, with its atmosphere and challenges just waiting to be discovered.

The ultimate goal of Altay is to defeat the Dark Shadow and bring balance back to the Three Realms. With the help of mythological creatures, players will be collecting sacred relics in order to reach this goal. Taking inspiration from Turkish mythology, the game wants to provide a culturally rich and enjoyable adventure.

2) PROBLEM

The core goal of the game is to be immersive, creating both an emotional connection and a sense of meaningful progression for the player. The ultimate goal of the player is to defeat the Dark Shadow that has upset the balance of the Three Realms and save the humanity. Along the way, the player will have to search and find out all the clues that are hidden, acquire sacred powers from creatures, and travel back in time to get the sacred artifact that would break the curse. The game focuses on the central problem of saving a world whose balance has been disturbed, and because of which humanity has fallen into a deep sleep. This chaos, created by the powerful spell of Erlik Han, known as the "Dark Shadow," is the main challenge that the player will have to face. More specific problems that the player will encounter are the following:

- 1. **Limited Access:** The player needs to gain special abilities or items to access some areas.
- 2. **Puzzles and Obstacles:** The player progresses by solving puzzles, finding hidden passages, and overcoming platforming challenges.

3. **Time Constraints:** Missions such as traveling to the past to retrieve the sacred artifact within a given time frame require strategic thinking.

3) PLAY VALUES

The core gameplay values offered by the game are as follows:

- 1) **Exploration**: Players navigate a vast map, discovering new areas, uncovering hidden clues, and searching for sacred artifacts. This fosters a constant sense of curiosity and motivation.
- 2) **Progression and Achievement**: Gaining new abilities and increasing power allows players to feel tangible progress. This enhances the sense of accomplishment and engagement.
- 3) **Storytelling**: The game delivers a rich mythological narrative, encouraging players to form an emotional connection. Players witness Altay's journey and the salvation of the Three Realms.
- 4) **Challenge and Reward**: Puzzles and platforming obstacles provide opportunities for strategic thinking and skill development, creating a satisfying sense of achievement when overcome.
- 5) **Connection and Empathy**: Players become part of the story by taking on Altay's responsibilities and struggles, deepening their immersion and emotional investment.

4) ANALYSIS

Resources: The project uses the assets from Sketchfab and Unity Asset Store in order to achieve the most flexibility within the Unity game engine. These assets will be used for designing mythological creatures and environmental elements. Adding story elements inspired by Turkish mythology to the atmosphere and narrative, gamers will get immersed in a mythological world.

Constraints: The game features a map structure limited to the Three Realms: Sky, Earth, and Underworld. Nonlinear design supports player progression, wherein access to new areas is unlocked based on acquired abilities. This serves to satisfy the sense of exploration and encourage strategic thinking.

Interaction Patterns: In player-environment interactions, the player is supposed to jump on platforms, find secret places, and befriend sacred animals. These friendships are essential to progress. In player-enemy interactions, Altay uses his sword and acquired abilities to overcome enemies. The player also solves puzzles to reveal the story that unfolds.

Outcomes: The ultimate goal in the game for the players will be to rally the sacred creatures, defeat the Dark Shadow, and restore the balance between realms of Turkish mythology. To be able to do so, players must decipher obscure clues and ancient keys in a journey throughout time to retrieve the sacred artifact that breaks the curse.

Structural Conflict: The whole core conflict is the fight against the Dark Shadow, a destructive spell cast by Erlik Han that broke the balance of the Three Realms and sent humanity into a deep sleep. Altay's quest is to unite the powers of the sacred creatures, defeat this menace, and ultimately save the world. This conflict gives shape to the story and gameplay, giving players a deep and meaningful experience.

5) INITIAL DESIGN IDEA

The game was created to give players a deep experience in both exploration and fighting. The whole game design is based on a young hero named Altay, who embarks on an epic adventure through time to save the Three Realms: Sky, Earth, and the Underworld. In these realms, the evil force Dark Shadow broke the balance and cast humanity into a deep sleep. Altay's quest is to break the curse of the Dark Shadow and restore balance. The story of the game is about Altay's journey to find ancient keys, fight powerful spirits, and travel back in time to obtain the sacred artifact needed to defeat the Dark Shadow. This journey requires players to explore the world, navigate through time, and find the right moment and artifact to break the curse.

CORE FEATURES:

Player: Altay is a young hero who harnesses the power of sacred creatures to destroy the Dark Shadow.

Objective: Save the Three Realms and defeat the Dark Shadow.

Rules: Altay can only access certain areas after acquiring specific abilities. Each new power is essential for overcoming unique obstacles.

Story: Altay's mission is to shatter the Dark Shadow's power, restore balance to the realms, and awaken humanity.

The game challenges players to progress through diverse realms, fight spirits, solve puzzles, and collect special artifacts. At each step, players will uncover new pieces of the story and continue their personal adventure.

In designing this structure, the focus was on intertwining exploration and combat mechanics to deepen the sense of adventure and challenge. This connection allows players' actions to directly impact the narrative progression, creating a dynamic and immersive experience.

6) FINAL DESGIN IDEA

The game was built with a focus on creating a deep and interactive experience that combines exploration and combat mechanics. Core design elements include platforming, puzzle-solving, character progression, and enemy battles. The game aims to provide meaningful and exciting story progression by granting players new abilities as they advance, making the mission to save the world more engaging. The overall goal is to deliver continuous enjoyment and a rewarding sense of progress by offering new information, skills, and challenges throughout the gameplay.

DYNAMICS:

- World Exploration: Players traverse the distinct regions of the Three Realms (Sky, Earth, and Underworld), each filled with unique obstacles. Every realm offers a different experience, including diverse climates, dangers, and mysteries. These obstacles appear as puzzles to solve or powerful enemies to defeat, creating an escalating sense of challenge as players advance to new areas.
- Puzzle Solving and Discovery: Players unlock new areas by finding hidden clues, ancient keys, and solving puzzles. Exploration and puzzle-solving encourage delving deeper into the game's world, constantly motivating players to seek more information.

These puzzles not only test the player's mental skills but also reveal hidden items and clues that aid progression. Exploration is key to understanding the game's universe and uncovering its secrets.

- Skill Development and Combat: Altay uses powers granted by sacred creatures to battle enemy spirits. These encounters rely on timing, strategy, and precise actions. Players must break enemy defenses with melee sword attacks. As battles progress, new abilities and powers bestowed by sacred creatures enhance Altay's combat skills. These powers are critical for overcoming stronger foes and more formidable obstacles. With each new ability, Altay becomes better equipped for future challenges.
- Time Travel and Revisiting the Past: One of the game's central mechanics involves traveling back in time. After completing certain tasks, Altay reaches key moments in the past to find the sacred artifact that can break the Dark Shadow's curse. Time travel enriches the narrative by offering opportunities to solve time-based puzzles in addition to combat. This mechanic adds a layer of difficulty and integrates the story across multiple dimensions of time, deepening the storytelling experience.

MECHANICS:

- Exploration and Puzzles: The game is built around exploration and puzzle-solving, where players collect keys and unlock new pathways. As players navigate the world, they must discover hidden items that grant new abilities and use them to overcome challenging obstacles. Puzzles and hidden routes offer unique experiences in each realm, continuously providing fresh challenges for the player.
- Combat Mechanics: Players must think strategically and use precise timing to avoid enemy spirit attacks. Combat involves not only melee sword strikes but also the powers granted by sacred creatures. These powers offer new offensive and defensive abilities, allowing players to enhance their combat tactics. As players defeat enemies, they acquire new powers for their inventory, gradually strengthening their skills throughout the game.
- Time Travel and Curse Breaking: Time travel allows players to alter specific events in the past. Altay must be in the right moment to obtain the sacred artifact that can break the Dark Shadow's curse. This pivotal point, where past and present converge, requires careful timing and deliberate actions. Time travel involves unraveling past effects and

piecing together key elements of the story, adding depth to the narrative and engaging players in dynamic problem-solving.

RULES:

- **Skill Development**: To progress in the game, players must acquire various special abilities. These new skills enable the player to overcome obstacles and advance through the story. The abilities serve multiple purposes, from navigating platforms to defeating enemies, adding depth and variety to the gameplay experience.
- Puzzle Solving: In each world, players will encounter new puzzles that must be solved.
 Solving puzzles and defeating enemies are critical for transitioning between worlds.
 Puzzle completion not only advances the narrative but also draws players deeper into exploration and discovery.
- Final Quest and Sacred Artifact: At the game's climax, Altay's ultimate goal is to find the sacred artifact to save all worlds and destroy the Dark Shadow. This final challenge requires players to use all the skills and abilities they have gained, presenting a test of everything they have learned throughout their journey.

GAMEPLAY MECHANICS:

The gameplay revolves around the player gaining new powers through exploration, puzzle-solving, and combat. At the beginning, the player has limited abilities, but with each new world, they gain more skills and powers. These abilities are essential not only for defeating enemies but also for overcoming challenging platforms and completing critical tasks like time travel. As the player progresses, they collect new keys and embark on a new journey in each world. This journey intertwines with the goal of finding the sacred artifact needed to destroy the Dark Shadow.

Throughout the game, the player will be faced with new questions, encounter fresh challenges, and uncover deeper layers of the story with each new power gained. This structure provides the player with an exciting and rewarding sense of progression at every stage.

7) IMPLEMENTATION

Screenshots will be included to show the main parts of the game, including the exploration of the Three Worlds, puzzle-solving, combat sequences, and time-travel sequences. These images will help to explain the flow of the game and its mechanics.

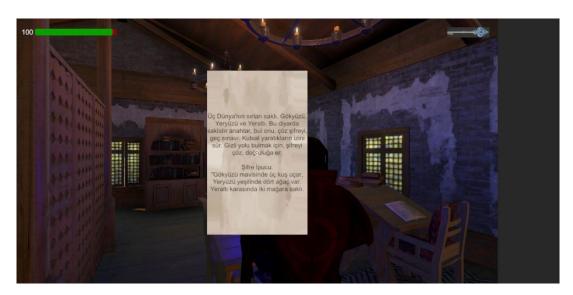
Game Flow:

Introduction: The player is introduced to the world and its lore, followed by the first quests to explore the environment and gather initial items.



Şekil 1 - Introduction

Exploration/Puzzle Solving: Through leveling up, players progress in different areas of the world, unlocking new locations and abilities by solving puzzles.



Şekil 2 - Puzzle

Combat/Enemies: As players progress, they encounter enemies that challenge their combat skills and force them into strategic thinking with newly gained powers.



Şekil 3 - Enemy

Time Travel Mechanics: There are also specific points where the player must travel back in time to change the course of events from the past to affect the present—to discover hidden paths and opportunities.



Şekil 4 - Time travel

Final Desicion: The player is to face Erlik Han in order to bring the Three Worlds back into balance and there by complete the journey.



Sekil 5 - Final desicion

Game Flow Measurement

We will also be able to quantify in-game flow progression by the player through time spent on each section, completion rate of puzzles, and difficulty in combat. Playtesting will also give us information about whether the players felt the game flow was well-paced and interesting. Further refinement of the flow by tracking times taken for important tasks and the number of retries by players in specific sections.

8) EVALUATION

Focus Group Study:

A focus group study was conducted to evaluate the game prototype. This study aimed to gather feedback on the game experience and design elements from the target audience. The focus group consisted of 8 participants selected from different experience levels. The participants were presented with the game prototype and given a series of tasks to guide them through different sections of the game. During the test, players were expected to explore the game world, solve puzzles, battle enemies, and acquire new abilities.

Key aspects observed during the test:

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Player Feedback: Comments from players regarding the comprehensibility of the game

mechanics and whether they found the game enjoyable.

Difficulty Level: The adequacy of the difficulty level in the early stages of the game and

whether players experienced difficulty progressing.

Exploration and Platforming: The players' comfort with exploring the game world and

transitioning between platforms.

Time Travel Mechanism: The clarity and effective use of the time travel mechanism.

9) RESULT OF YOUR PLAY TESTING SESSION

Test Process and Participant Feedback:

During the game test, participants were given 15 minutes of gameplay time and were guided

through their progress from the beginning of the game. The participants had different skill levels

and varied gaming experiences. During the test, general observations were made, and several

key pieces of feedback were collected.

Feedback:

Exploration and Puzzle Solving: Participants appreciated the challenges and puzzles while

exploring the game's worlds. However, some noted that the puzzles at the starting level were

too easy and suggested that more difficult puzzles should be added in the later stages.

Difficulty Level: The initial sections were considered too easy, and some participants

mentioned that more challenges should be introduced earlier in the game. However, difficulties

became more noticeable during certain platforming sections and enemy encounters. This part

was found to be more engaging and exciting by the players.

Time Travel Mechanism: The time travel mechanism was received with interest by some

participants but was considered complex. Players requested more hints and guidance on how

this mechanism worked. Feedback suggested that the time travel mechanic should be clearer

and more understandable.

10) RECOMMENDATIONS & CONCLUSIONS

Difficulty Level Balance:

The puzzles and platforming sections at the start of the game should be made more engaging and challenging. By adding more complex puzzles and obstacles in later levels, we can encourage players to think and find solutions. This will make the game experience more satisfying for the players.

Improvement of the Time Travel Mechanic:

The time travel mechanic was found interesting by the participants, but some players struggled to understand how it worked. To make this mechanism clearer and more fluid, additional tutorial sections could be added or supported with hints. Furthermore, making this mechanic more interactive could make it more appealing to the players.

Expansion of Exploration Areas:

Players were satisfied with the exploration aspect of the game. However, the experience could be enriched by adding more hidden passages, exploration clues, and alternative routes. Additionally, environmental clues and interactive objects would encourage players to explore even further.

CONCLUSIONS:

What Went Well:

The game's story and atmosphere were highly appreciated by the participants. The elements of exploration, puzzle-solving, and discovering different worlds satisfied the players. Additionally, the introduction of new abilities and how these abilities changed the game dynamics strengthened the sense of progression.

Areas for Improvement:

The initial difficulty level was too easy, leading players to feel that the game experience was not challenging enough. The complexity of the time travel mechanic was another notable issue during the test.

Conclusion:

While the game prototype provided a solid basic experience, it became clear that the difficulty level needs to be adjusted, and some mechanics need to be enriched. Based on this feedback, the game's experience can be improved and made more dynamic.