SPELUNCKY

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WSO A3003 A: GAME DESIGN

MDA GAME ANALYSIS: LEVEL DESIGN

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2. I have used the author date convention for citation and referencing. Each significant contribution to and quotation in this essay from the work or works of other people has been acknowledged through citation and reference.

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4. I have not submitted this work, or a substantial portion thereof, for assessment previously.

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Introduction

Spelunky is a 2-D platformer game which is a bit unique. This game is about an avatar exploring a cave, they would need to hunt/collect for as much treasure as they can during gameplay, the avatar has to save damsels in distress and kill enemies while at it. The levels of game are randomized, and this becomes quite challenging to the player as they reach level. (Spelunky, 2013)

Spelunky was developed and published by Mossmouth, LCC in the year 2008 but was remade during the year 2013 (Speluncky, 2013). This discussion is going to analyse level design in *Spelunky* using Robin Hunicke, Marc LeBlanc, Robert Zubek's MDA framework. This framework is "a formal approach to game design and game research" (Hunicke, R., LeBlanc, M., Zubek, R, 2004). *Spelunky* is a unique platformer and I think it uses a unique way to design their levels and this will be shown through its aesthetics, dynamics and mechanics.

MDA?

MDA is a formal approach to analyse different types of games. The analysis is going to be based on how the player experiences the game through their perspective. Aesthetics are the desired emotional response that are raised from the players when they are interacting with the game (Hunicke, R., LeBlanc, M., Zubek, R, 2004). Dynamics are the "responses" or effects of the mechanics in reaction to the inputs the player makes during gameplay (Hunicke, R., LeBlanc, M., Zubek, R, 2004). Mechanics are the actions and control mechanisms that are in the game which are presented to the player and these make the game 'function' (Hunicke, R., LeBlanc, M., Zubek, R, 2004).

Aesthetics

The first glance you get of the game is that its aesthetics are very similar to a rogue-like, which use procedural generation of levels and grid-based movement, figure 1.2 is *Spelunky* and figure 1.1 is a type of rougelike game. The grid-like layout of the levels is similar visually. *Spelunky* uses old-school, retro aesthetics and this is shown from the use of UI elements to the character design. The **player** is shown the storyline through the text, use of animation and sound design. The game gives a great setting that the avatar is exploring inside a cave. However, each level will never look similar to another, the procedural generation of each levels creates different layout of each level where players are given different maps. The game uses a journal to show these different levels' maps, monsters, traps and items to

communicate to the player and inform them about what have they already encountered on the level. For example, during the tutorial session the player encounters a snake as a monster and the journal records that encounter.
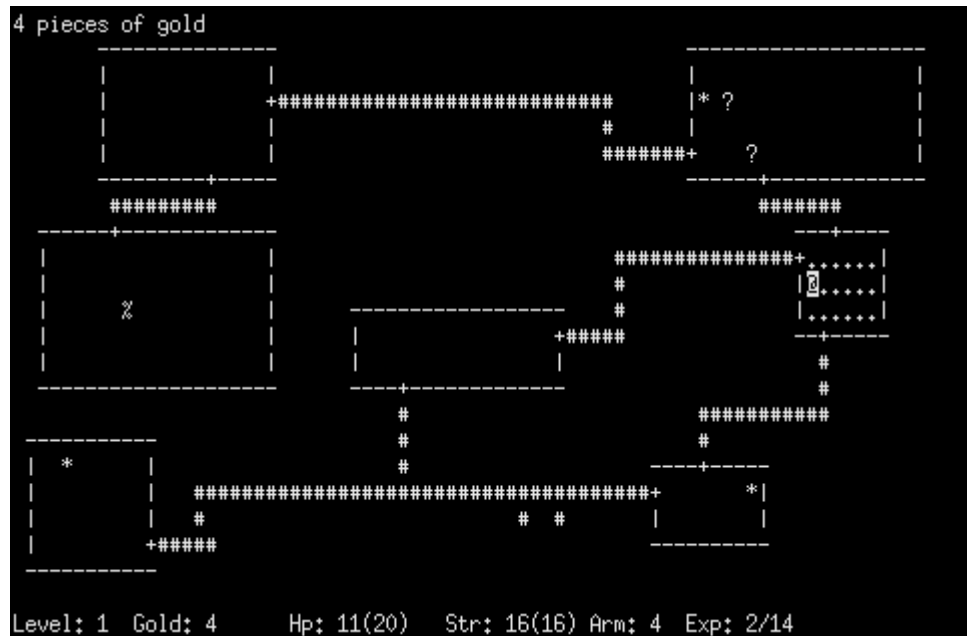
3.

Figure 1.1 (Courtesy of https://upload.wikimedia.org/wikipedia/commons/0/0c/Rogue_Screenshot.png)

Figure 1.2 (Courtesy of https://www.freegamesutopia.com/public/screenshots/spelunky-04.jpg)

Dynamics and overall gameplay

This being an exploration game, how the levels of this game are designed determines the reaction of the player during gameplay. There are inputs that give a player feedback while they are playing the game. Whether they are getting damaged or getting more gold. For example, every time a player collects a very important item on a level, there is loud sound that comes through and this communicates to the player that they have 'unlocked' or discovered something important like a jewel. This sound design on each level gives the player a feeling of sensation every time they discover something new. There are new dynamic elements that come through in each different levels, for example at some point of the game, the players encounters and the whip gives the player the ability to 'fight' back by killing the bats using the whip. This creates a feeling of needing to survive during gameplay.

Mechanics

Moreover, **mechanics** are the things the player can do during the game. (Hunicke, R., LeBlanc, M., Zubek, R, 2004). The mechanics of movement are conventional to traditional, platformer character movement. However, there are few inputs that are not so conventional. Players use conventional movements of arrows to go left, right, up, or down but there is a use of the key Z to jump which is not a conventional input of movement. The players can use the combination of shift + Z in order to jump higher. This combination movement becomes helpful as level design gets harder each level. The game uses generated level design which randomizes each level as they go, these levels will not look identical to another. Players will encounter levels such as saving the damsel in distress and helping them escape in order to increase avatar health.

The damage mechanic is very permanent and quick, for example if the player gets bit by a snake they die quick and have to restart the level. Each level comes with new items due to the use of the items systems, and because this is an exploration game, the use of network of secrets works great with their level design as players will always have the need to discover something new. (Podgorski, 2015). The game also has a level editor where you can design your own levels and get rid of randomization of levels.

Conclusion & Evaluation

The level design of *Spelunky* is a bit different to the conventional platformer games, from its use of mechanics during each level straight down to use of aesthetics. They manage to keep the same objective throughout each level but managed to keep the game interesting and fun through the use of randomised level design during gameplay. Do I agree that the game uses level design effectively? Like I had mentioned in the introduction, yes, I think Spelunky uses level design in platforming quite uniquely.

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