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TITLE /TOPIC: MDA ANALYSIS – LEVEL DESIGN

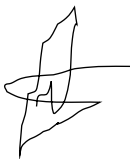
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CHOSEN TOPIC: SPORE

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After playing *SPORE*, it is evident that it is an excellent example of a game that demonstrates level design. Following the reading of Hunicke, LeBlanc, and Zubek, the *Mechanics, Dynamics, Aesthetics framework* can be used to analyse just how each component of the game works and their effects on overall functionality, specifically looking at its level design. *SPORE* is a full 3D game created by Electronic Arts (EA) which was released in 2008. Firstly, the analysis will deconstruct how the player interacts with *SPORE*, what controls are used and how exactly this tie into level design. It is important to note how the mechanics of *SPORE* integrate into the dynamics that it produces. The controls create player behaviour, such as making decisions on how their creature will evolve and how this impacts their later gameplay. This is done using an intricate level design, where there are many branches of options that the player may choose to follow. Using level design as a basis of analysis, the aesthetics of the game evidently indicate this information through animal enhancements over time and changes to the player's creature, however this will be expanded thoroughly further into the analysis. The analysis will begin with the Mechanics and controls of *THREES*.

SPORE's Mechanics will be analysed according to the context of Level Design. According to Hunicke, LeBlanc and Zubek (2004, p. 1722), the definition of a Mechanic is “the particular components of the game, at the level of data representation and algorithms” (Hunicke, LeBlanc and Zubek 2004). When looking at *SPORE*, there is far more than one mechanic. The theme of the game is evolution, starting from the cell stage where an organism grows big enough to walk on land. Thus, the next level begins where the cell is turned into a pre-mature simple land creature. The cell stage only needs WASD keys on the keyboard to move the cell and eat other cells in order to survive. As the cell gets bigger and gains DNA points by eating others, the player can enhance their cell with buying new appendages to place on, as seen in Figure 1 below.



Figure 1: An example of how to add appendages to a cell organism in Spore. (*SPORE*, 2008).

The player earns DNA points through finishing goals on the top right of the screen in Figure 2. This is what is used to enhance or add appendages to their creature. The game thus progresses, and the player will eventually reach the Creature Stage. DNA points remain a constant unit throughout the Cell to Creature Stage. This is where more mechanics are introduced. Players can click other creatures to kill them and turn into a carnivore or click on plants to eat them. Players are also given the option to interact with other NPC's (Non-Player Characters), such as Impressing or Attacking, or in other words, making allies or enemies.



Figure 2: An example of skill icons that can be clicked on to active in Spore. This creature is currently singing to the other creatures to impress them. (SPORE, 2008).

When adding even more appendages to their creatures, new skills can be unlocked and give bonus skills in which will give their creature more of an advantage, may it be being easier to kill others or making friends. An example of these skills is seen at the bottom of the image in Figure 2. These skills need to be clicked in order to use. Their creature can be controlled with WASD to move and SPACEBAR to jump.

Eventually hitting the Tribal Stage, controlling the individual creature with WASD and SPACEBAR is non-existent anymore and every creature is controlled via clicking. The game turns into a management system, where the player controls more than one unit with their mouse. This carries on until the final Space Stage. There is clear evidence that this game progresses in different stages as its level design.

Focusing on the Dynamics of the game, the player's first choice is to decide if their organism is a carnivore, herbivore or omnivore. The player chooses which playstyle they will go for,

whether it may be an aggressive or passive stance in the game. If the player chooses to be aggressive, they need to improve their species enough to become an apex predator. If the player chooses to be a herbivore, they need to logically go for defence on their species. They would also need to choose appendages which can help them make allies (such as certain horns that can make music). An example of this is present even in the very beginning, where in Figure 3 below shows an appendage being put on in the Cell Stage and what skill it gives the player. In this case, the creature has a defence mechanism.



Figure 3: An example of a defence skill in Spore. The "Spit Poison". (SPORE, 2008).

With these Dynamics in mind, the player goes through the game following the same type of playstyle. In one case, the player will choose aggression because they are a carnivore. Their goal is to earn DNA points by killing other species and wiping out other apex carnivores. DNA points are needed to evolve their species and become stronger. The stronger the species, the more capable they are to survive and not go extinct.

The game dramatically shifts after the Creature Stage. When the Tribal Stage begins, DNA points turn into Food Points. Looking at Figure 4, the right shows all the tribe members, and the player can click on each to view them. Food Points are used to increase tribal members, build more huts and upgrade the state of living for the newfound tribe.



Figure 4: An example of what the Tribal Stage looks like. (SPORE, 2008)

These points change at the Civilization Stage as seen in Figure 5. It is important to note when the player passes through each stage, there is a larger scale in which they must control, and the camera zooms out at each level.



Figure 4: An example of what the Civilization Stage looks like. (SPORE, 2008.)

The final unit of currency is Galaxy Points, in which the player can use to upgrade their civilization. This slowly pushes the player towards the final stage, the Space Stage, where the player can take over other planets with their superior species. This is the end game.

It is evident that the game shows its level design through its different stages in mechanics and dynamics, however with Aesthetics, it is communicated through subtle differences in camera as well as UI (User Interface). When the player starts out as a cell, the camera is focused on the singular cell and follows it around as the character moves it. It is top-down, meaning that the playing surface is flat, and the player is looking at their character in an ariel point of view.

When reaching the creature stage, the camera is placed behind the creature that the player has made. It becomes full 3D and the player can orbit the camera around their creature. In Tribal Stage, the camera is zoomed out further and the player can fully control the camera in order to watch more than one unit that they are playing with.

In Civilization Stage, the player can see the edges of the planet and is far away from any individual creature, only buildings are visible as well as vehicles that come out of the city. As this explanation was long, it is critical to explain because it shows how the visual information of the game indicates evolution. Everything is getting bigger and bigger. There is a game feel, the impact when a player is put on the next level. This can be seen through Figures 1, 2, 4, and 5 as a reference.

The camera gets bigger, the visual range on the map on the bottom right of the screen gets broader and there is a big visual change between stages. In the Tribal Stage, the creatures live in huts, as for the Civilization Stage, there is a large modern city in a birds-eye-view.

To conclude, *SPORE* is such an excellent example of level design. In summary, the levels are designed as Stages in the game. As the creature progresses through different stages, there are different mechanics that are presented to the player. This gives the player the feeling of progression. As previous decisions in early gameplay affect the player later, this is a good example of consequential actions that affect later levels in the game. This makes the game flow in a logical sequence, as a creature who is aggressive and wipes out a tribe in the beginning will not see that tribe progress into the Civilian Stage. Overall, *SPORE*'s evolution makes for a great case study in level design as it is the perfect theme to create stages and progress the player into something satisfying enough for the time put in.

References

Spore.com. 2021. *Spore*TM. [online] Available at: <<https://www.spore.com/>> [Accessed 11 April 2021].

Hunicke, R., LeBlanc, M. and Zubek, R., 2004, July. MDA: A formal approach to game design and game research. In *Proceedings of the AAAI Workshop on Challenges in Game AI* (Vol. 4, No. 1, p. 1722).