Dassie Town
Game Design Document

Semester project - Tim Group 1

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Executive Summary

- **Design Goals**
    - Exploration of the world as a core mechanic.
    - Reliance on character interactions for progression.
    - Minimalist mechanics for interacting with the world.
    - Use of color to indicate progress & direction to the player.
    - Creation of casual gameplay with no lose conditions or high stakes.

- **Game Concept**

    Dassie Town is a narrative puzzle game where the player takes on the role of a dassie-plumber. The player has to bring back water to a small, drought-ridden karoo town by laying pipes across the map, in order to connect various machines and houses to various water sources. Some areas on the map are blocked off until certain machines are connected, and there is a limited amount of pipes made available to the player at first. By talking to the townsfolk and figuring out the best routes to lay pipes, and what machines to power first, the player can satisfy everyone's need for water and explore a lovely desert town full of characters. Exploring the area will yield more pipes to work with and some more water sources to add to the network. Talking to characters will give hints and ideas about how best to proceed, and allows for the player to learn more about the town and the interesting life-tales of its

residents. The game only ends once all the people of the town have their water needs met.

- **Game Genre**

  As a narrative puzzle game, the project will focus on blending a slow paced puzzle across a large map with a story focusing on the struggle on a small town during a drought, immersing the player in a quaint world as they get to know the townsfolk and explore Dassie Town through their work as a plumber, laying down and adjusting pipes in an attempt to get water to everyone. The main puzzle element, the laying of pipes, is also added to by a resource called ‘flow’ which represents the total amount of water in the system. Certain machines require a certain flow, meaning the player needs to find and connect new sources to access other areas.

- **Audience**

  The game is targeted at an audience seeking a casual gameplay experience - similar to other casual narrative games like *A Short Hike*, by focusing on calm and simple gameplay where the player is not under pressure and is encouraged to explore the world slowly and chat to many appealing characters, without any dark themes or visuals, but in a generally cute and lighthearted space. The aim is also aimed at audiences that enjoy narrative-based and explorative games, as this is one of the main features of the game. Players are able to unfold the narrative of the drought-ridden town through the personal experiences and stories told by the townsfolk, as well as through exploration of the town itself - learning about all its quirks and tales.

- **Project Scope**

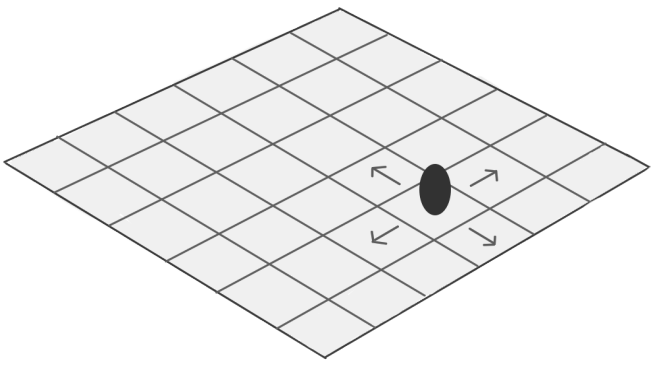
  In terms of the scoping for Dassie Town, we aim to create a 2D, isometric game that is mainly focused on narrative and exploration in order to create a casual gameplay experience for players. The game world will be created and set on one large map, encompassing various town locations and townsfolk for the player to interact with in order to

make progress within the game's narrative. We intend to implement simple mechanics (both in their implementation and use), with which the player can use to interact with resources in the game world (water and pipes) and solve various puzzles in order to achieve their desired outcomes. These mechanics allow for the maintenance of player engagement, as well as gives the player something more to do in-game - other than just exploration and narrative discovery.

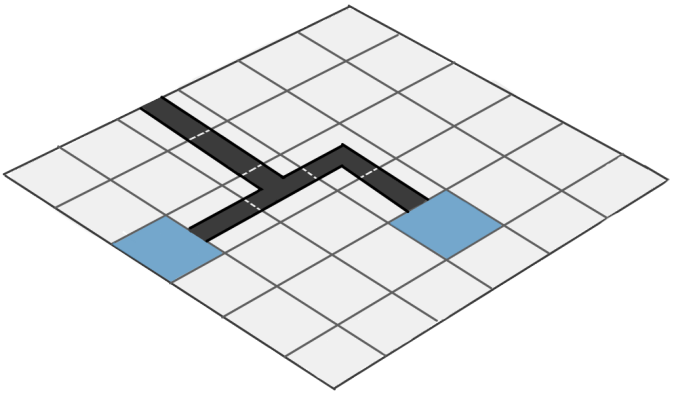
Our intention in the choices we have made is to create a game that will be mechanically more simple to create, in order to spend more time and focus on narrative, world and character development. Character interactions will be the most detailed aspect of our game, and the player can talk to characters to learn things about the town, the character's story, or even get hints and ideas on what to do in terms of restoring water to the town. The game is not intended to have any lose conditions or stakes and the player will only receive feedback from townsfolk expressing either their content or their concerns about the player's achievements at water restoration in the town.

Mechanics

- **Movement**
  - **Player Movement**
    - The player will move across the map using normal WASD directional controls, with the player moving a set speed in the chosen direction. While the world is isometric the player won't be confined to the grid and can move freely between tiles or inbetween. This can be seen in the diagram below, the player is represented by the black capsule:



- **Object/Resource Movement**
  - The game will contain two resources which the player will need to manage in order to progress, one of which is called flow, and it represents the total amount of water in the pipe system. Flow comes from the amount of connected sources (inputs) and a set amount of flow is required to operate certain machines (outputs). Because flow comes from circuits of pipes, and it will be possible to have the player disconnect pipes from the original source, or be hooked up to multiple sources.
  - Players also have a limited amount of pipes which they can place, and this number will be displayed on the UI permanently. Placing a pipe will remove the amount that can be placed, and will go back up if pipes are removed. Pipe placement can be seen in the diagram below, where each grid block is one pipe and the blue grid blocks represent water sources:



- **Interaction**
  - **Character Interactions**
    - Players interact with all objects in the game by clicking on them. When nearby a non-player character clicking on them will bring up a dialogue window. The current dialogue text will be shown, and clicking on a button in the UI will move on to the next piece of dialogue until all the dialogue is finished and the window will automatically close. Because there are no timed elements or challenges in the game, dialogue does not pause gameplay, just freezes the player.

- **World and Map Interactions**
  - The player's main interaction with the world will be the placing and removing of pipes. This is done by moving the mouse on to any tile near to the player, if the tile can be built on it will have a subtle highlight effect. Left clicking will place a pipe, if one is available, on that tile. Pipes automatically adjust for neighboring pipes, becoming corners or junctions, and will have the flow of any connected pipes. Right clicking on any existing pipe will remove it, adding back to the player total pipe resource, and will refresh all connected pipes to recalculate their flow and if they are still connected to a source/machine.
- **Water Pipes and Flow**
  - While mentioned before briefly, the pipes in the game are an integral part of the mechanics, and while simple, have some specific functions that need to be explained more. The pipe in general works like a circuit, requiring connection from an input to be powered (having flow in them), in order to activate the output. So any freestanding pipes will not have any flow in them, and breaking the pipes halfway will remove all flow further down from the input. This means that multiple pipe circuits with different sources and connected machines can exist at the same time.
- **Machines**
  - Machines exist as a broad category for anything in the world that can have a pipe attached to it. All machines have a set flow requirement, and once they are connected and this is met, they will be counted as activated/on. Machines will be themed and have unique art, like dams, houses and sprinklers, while all functioning the same mechanically. Some machines will act as triggers, so when powered they will open up new areas of the map, such as opening doors or filling places with water, while other machines simply do nothing except add to the game's win condition.

- **Win Condition**

- While each individual NPC responds to the activation of specific machines, there will be one single NPC who will check every single machine in the game. This NPC will then end the game and show a win screen once all the required machines in the map are activated. This is straightforward but also allows the player to interact with a specific NPC, get dialogue, and then have the game end, instead of having a screen come up in response to connecting the final machine.

Game Inspiration

- **System Inspiration**

  Since our game is primarily centered around water and the use of water it is accurate to say that our games system (the mechanics within the game) takes inspiration from games called Terra Nil, and Timberborn. These games have a heavy emphasis on the use of water in order to progress through the story. In Terra Nil the player must bring life back to a wasteland by spreading water and plants, a type of reverse city builder if you will. The player creates channels for water to run through and buildings that make use of this water in order to create different types of ecosystems. In Timberborn the player manages a small faction of beavers that have to collect water in order to run certain buildings and plant crops. The player also has to use and store water wisely because once they run out, beavers start to die. Our game will be making use of a mix of these game mechanics, where the player will have to manage water in order to help grow crops or power certain buildings but we will not have any world building included. The most we will have the player influence is perhaps the placement of pipes in order to transport water. There will still be a heavy emphasis on water as this will be what allows the player to travel through our storyline.

- **World Construction Inspiration**

  Our world will be in an isometric view with inspiration deriving from games such as A short Hike or even animal crossing, where our

gameplay will be more story orientated. This means that our world will be set in stone (There will not be any random world generation like in some survival games such as don't starve together) just like in the aforementioned games. Our player will travel within a small Karoo dorpie where they will be able to interact with the same characters time and time again. Our world will be dry with life only being abundant around water sources although there will be local fauna such as aloe plants dotted around the map so that it is not all derelict. Inspiration for this can once again be seen from Terra nil, where life follows the water. Our world will always have the same options but the choices made by the player will affect what areas are available to them in their specific playthrough.

- **Character Inspiration**

  Our main character takes inspiration from a small animal called the Dassie. The Dassie is a small mammal that primarily lives in rocky outcrops found near mountains or cliffs. They can be found in many locations around Africa. Possibly all of our characters within this game will be dassies. The reason we chose dassies to take on the role of our characters is because we found it fitting given the location that this game takes place in and we also wanted to stay away from using humans as we wanted to make a game that didn’t focus upon any one group, making it easier for us just to focus on the gameplay itself.

- **Art Inspiration**

  The art for our game will take some inspiration from games such as A short hike and Pikuniku where we want our games aesthetics to be enjoyed by the player as much as possible. The art will be fairly simple and non cluttered so that the player does not get lost in a sea of pixels and so that they can clearly see where they have to go to complete their objectives.

Design Pipeline

- **Story**

  The general story of Dassie Town is about the explorations and interactions of a little dassie plumber in none other than a small karoo town named ‘Dassie Town’. Recently, the residents of the town have experienced quite the dry spell, having gone through one of the worst droughts in Dassie Town history. All hope is not lost, however, because a few water sources have appeared and the townsfolk need the help of a talented plumber to restore water to their town, slowly but surely. Every character has their own story to tell and experiences to share, guiding the player through telling them about old Dassie Town folk tales and revealing hints along the way.

- **Locations**

  Dassie Town is a small karoo town that is made up of places that mostly cater toward the townsfolk’s needs. It is intended to somewhat resemble the locations found within real-life South African Karoo towns. These locations include places like: Animal, crops, and windmill farms, residents houses, the marketplace, the hospital, the church, mayors building, hotels etc.

- **Characters**

  The characters found within Dassie Town each have their own personality, background and story to tell. Each character is meant to be unique and add to the player's experience of the game. Some characters will guide the player, whereas some will act as pure entertainment or even annoyance. Some of the characters that we intend to include are the mayor, hospital staff, hotel staff, farmers, children and other random townsfolk.

- **Level Design**

  The level design of Dassie Town will be developed in a way that only a few locations will be accessible to the player initially. Locations have to

be discovered and accessed as the player progresses through the game and learns more about the town and its people, as well as helps restore water to the town. The level design is intended to be scenic and enjoyable, as well as hint at and guide the player toward certain aspects or parts of the game.

- **Puzzle Design**

  Specifically speaking on the design of the puzzle/s, because Dassie Town does not have fail states for the player, the focus instead is on route optimisation and repeated experimentation to figure out the solution to the overall puzzle. Overall the puzzle will be treated as a singular thing that the player has to solve, being broken down into smaller sections as the player opens up new areas and gets more resources, with a general requirement being the disassembly of existing pipes in order to meet new objectives, until there are enough pipes and sources to reconnect everything. This is also important as not every machine has a beneficial effect, with many just being simply there to satisfy NPC conditions, so that only with enough pipes can the game actually be beaten, and non-essential machines will need to be connected at the end of the game when all the exploration and gaining of resources has been completed.

Asset Pipeline

- **Music**

  The music in this game will be fairly ambient based with no real beat that could cause irritation or distraction when it plays on repeat. We may make use of Ambient African music to keep to the theme of the Karoo.

- **Sound**

  We will make use of sounds to communicate progression through the story. For instance when you connect a pipe to a building, a sound will play to signal the completion of your current objective. There will also

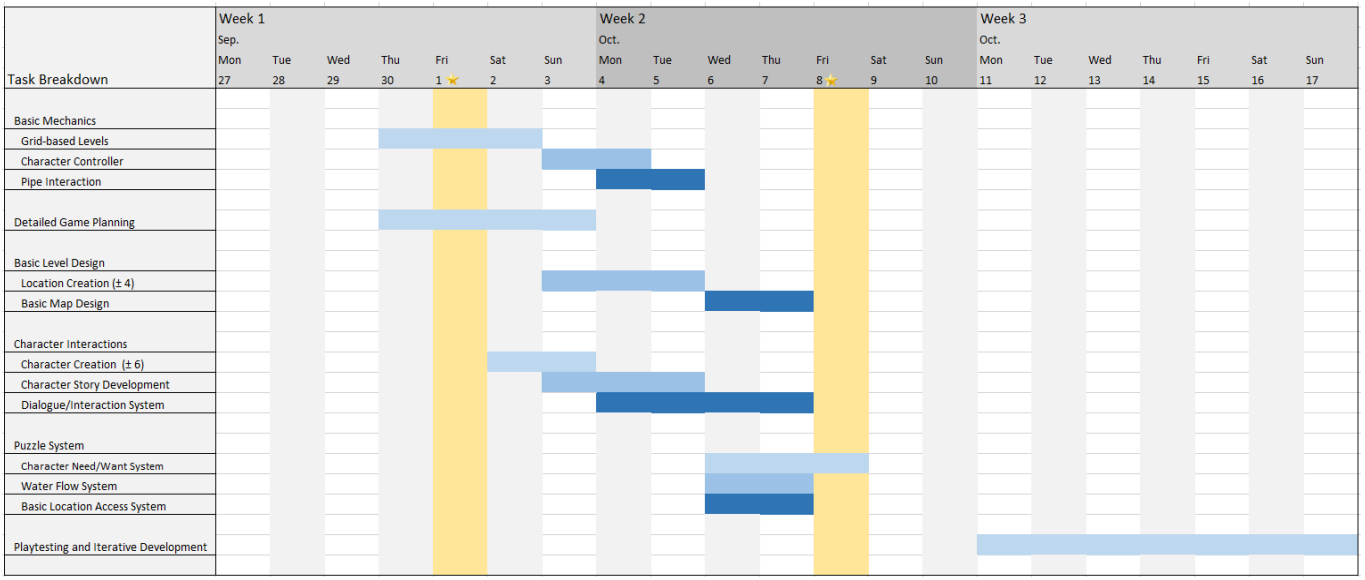
be general sounds made by the characters when communicating with one another, when actions are done, and possible ambient sounds to the environment (such as animals moving over twigs etc..)

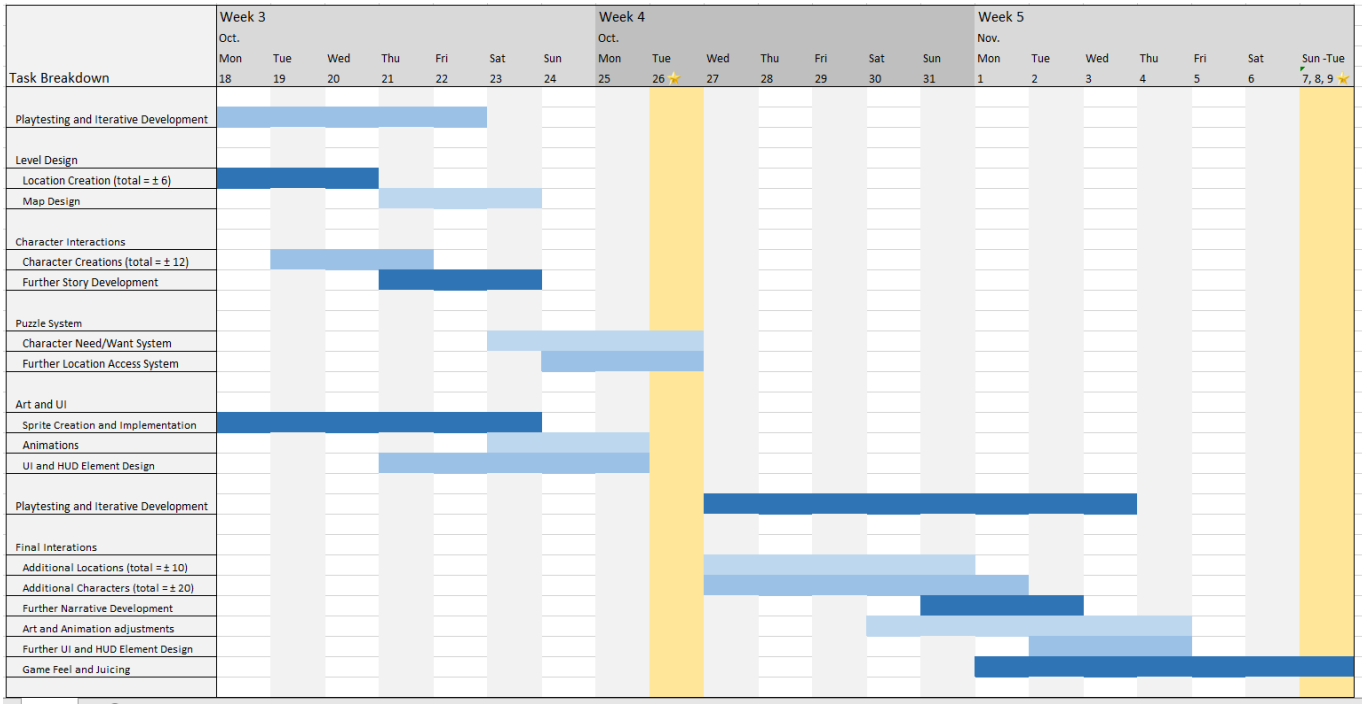
- **2D Models**

  All the models within the game will be 2D pixel art based. The buildings will follow a small karoo town theme and the characters will look like Dassies. There will be models of local fauna that will populate the general area.

Timeline

*These timelines are provisional and aspects thereof are subject to change, as due dates are not finalised and have been accounted for based on assumption.





The Timeline for Dassie Town has been broken down into the various tasks that we would like to have completed by each milestone. The general categories of tasks that have been included, a brief description of them, as well as the sub-categories that fall under them, have been allocated as follows:

- **Basic Game Mechanics**

  These are the main, simple mechanics that we need in the game, in order for the player to be able to have control of their character as well as interact and carry out actions within the game world:

  - Grid-based level design (for movement and pipe placement)
  - Character controller
  - Pipe placement and interaction

- **Detailed Game Planning**

  This is the detailed planning that will go into the development of our game in general, including aspects such as the general narrative development,

intended route of player progression, general town set up and design, character types and interaction, location placement on map, etc.

- **Level Design**

  Since our game is largely centered around its explorative aspects, it is essential for the level design to be well thought out and designed:

  - Location creation and design
  - Location placement and map design
  - Location locking and access

- **Character Interactions**

  Character interactions within Dassie Town is another important aspect of our game. The player is required to talk to and interact with the characters of the townsfolk, in order to discover new information, access new locations, find ways to solve the water crisis in the town, and overall just add to and enjoy the intended gameplay experience:

  - Character creation and placement within the game world
  - Character story development
  - Dialogue and interaction system

- **Puzzle System**

  The puzzle system of our game makes use of the mechanics and pipe-placement system available to the player. The various parts that affect and indicate the player's achievement in this area are:

  - Character needs/wants being met (in terms of water restoration)
  - Water flow system
  - Assignment of location access based on water flow

- **Art and UI**

  The art and UI aspects of Dassie Town will contribute greatly to the enjoyment of the gameplay experience. However, the art and UI is not essential in the initial stages of our game as they are not required for the basic function of our game to be implemented and tested. The art and UI include:

  - Sprite creation and implementation
  - Animations
  - UI and HUD element design (such as an in-game map, etc.)

- **Playtesting and Iterative Development**

  Throughout the production of our game, we will spend quite a large amount of time playtesting the game in its various stages. Iterations and adjustments will be made according to the feedback received from these playtests, in order to achieve the best possible outcome in terms of our intended gameplay experience.

- **Final Iterations**

  In the final iterations of our game, we would mainly like to focus on adding more to the gameplay experience and game narrative, as well as polishing the game, making it feel better and adding more to the general enjoyment of our game. The aspects that we will focus on are:

  - Adding more locations
  - Adding more characters
  - Further narrative development
  - Art, animations and UI design iterations
  - Adding game feel and game juicing