

*Cast Aside*

*Penumbra Productions*

Game Design Document

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# Tagline

This is a cozy friendly puzzle solving game in which the player controls a little ball head character and must manipulate and rotate shadows to move around the map solving those puzzles to progress the game state forwards, they can also unlock other characters with different looks and animations.

# Basic Information

Platform(s): PC

Porting: possible to Phone (Android/Apple)

Target Audience Primary: Young adult women

Target Audience Secondary: Mature adult women

Game Genre: Exploration Puzzle Game

Theme: Ancient Egypt primary biome

Overlapping Theme/Mood: Cute, colourful, cozy, low poly

Type: 3D Isometric

Online: Nil

Basic Loop: Utilise Shadows that the PC can rotate to complete puzzles and progress through

the game.

# Synopsis

This game is a cozy soft toon shaded 3D isometric game in which the player explores the map and completes puzzles to push the game forwards.

The difficulty will be that the player character is restricted to the shadows, nothing stops them leaving, but doing so will incur a health penalty and may kill them.

Given the cozy nature of the game there is minimal NPC risk or trap risk and instead the only way for the player to die is to fall into the water or stay in the sun too long.  
The players primary objective is to solve the four puzzles and complete the zone, however there are secondary activities such as exploration and finding the other characters to play as.

# Configuration

The game is to be 3D cute and cozy combined with an ancient Egyptian themed primary biome. It is to be made for windows PC and have a default runtime resolution of 1920x1080.  
  
For the scenes there should be 2 initially for the vertical slice; the main menu and the first game level.   
However as the project expands it should contain 1 additional scene for each additional level up to a maximum of 3 level scenes.

# Main Menu Scene

On the Main Menu scene should be 4 options; start game, character customisation, options, and quit game.

## Start game

Should take the player immediately into the new game scene or continue if saved data exists.

## Character customisation

Should open a UI panel showing the available characters, what their unlock status is, and how the player can unlock them within the game state.

If the player has unlocked them and clicks on the respective picture that should allow the player to immediately swap to that character into the menu scene and game scene(s).

## Options

Should contain a list of generic options, such as rebinding keys, what the current keys are, audio settings (i.e. master, environmental sounds, effect sounds, and sound track options), screen resolution settings, and if necessary, levels of detail. Note this last one should be unnecessary for now, as we are largely low poly.

## Quit game

For the player to leave if they wish, colours should be obvious such as a red button, so the player can find it.

# Main Game Scene

The main game scene should consist of approximately 4 terrain squares.

Within those squares an Egyptian themed town should be created with a high emphasis on shadows for the player to utilise the specific mechanics.   
To that end lots of walls, fences, shelter is expected, as well as plentiful tower type buildings.

Main points of interest and set pieces will be; the 4 puzzles spaced throughout the map area, the fountain, the slave market, the bazaar, the military camp, the tomb, the pyramid, and the two temples.

There are other less focused buildings that will be used more often and this will be discussed within this document as well, however they are not unique as such and can be used to filler out the map somewhat.

The puzzles will be focused on in the mechanics as each one operates differently.  
For now this will focus on the other POI’s.

## Buildings

* The Fountain  
  The fountain is a 4-way platform to be used at cross roads on the map. It should have some greenery in each corner and steps leading up to the central feature that is the fountain. It should have a few pillars to allow the PC to move around in the shadows across the fountain game object.
* The Slave Market  
  The slave market should have an area filled with human sized cages, an area where slaves are sold, and some tented shelters for the bidders, it should be fairly open aired, but with some walls as thematically it’s a prison type place, and also bounce more shadows around the area.
* The Bazaar  
  The bazaar is a goods market area and so it should contain various stalls with barrels, crates, and fresh goods, lots of shaded areas to move around, and given the time period this is inspired by, would be ok to see some Greco-Romano influences, such as marble statues, or painted pottery.
* The Military Camp  
  The military camp should be a largely tented area, with some fires (think cooking, warmth, light) and some weapons and weapon racks if possible. Thinking maybe 4-5 tents with one as the main tent at the end, with the 4 normal tents pitched in 2 files facing towards either the centre or each other.

### The Tomb

The Tomb should be an underground structure with an entrance, there should be some pillars stretching down the centre of the room (Think movie inspired) with torches on them, perhaps a secret area where the player can find a chest, what will be in the chest is a TBC.

### The Pyramid

The pyramid should be a large landmark that overshadows part of the map. This is a distinct land feature of Egypt and so should be included. It can either be new (White with gold cap) or classic (Sand coloured, worn away). This is thematic and will depend upon the rest of the level design.   
Ideally it should be enterable to allow the player further exploration opportunities and encourage their curiosity. Would be nice if there can be a reward inside so we can trip the players satisfaction.

### The Temple (A)

Temple (A) should be where the player spawns, this temple should have the tutorial very close to the spawn point to introduce the character to the controls. The tutorial should not be forced, if the player wants to walk away that is ok, however if we can get the tutorial guy being a bit smartassy if the player returns that might add to the playful humour, such as “Oh your back to listen to me this time, very well…”  
The other important part here is the world quest tracked obelisks that will light up as the player completes each puzzle. This combined with a UI indicator (In UI section) will inform the player of their current progress and will hopefully elicit the response of “I have to find the other puzzles to light the obelisks and open the gate).

### The Temple (B)

Temple (B) has been added a little later, however this one will likely lead into puzzle 4 in mechanics and help set that one up, as this POI is envisioned as having lots of utilisable shadows for the puzzle due to lots of columns.

This temple is more pictured as an open area with a number of coffins with dead people being prepared to cross over. Think things like canopic jars, an altar, perhaps a table to allow for all of this, maybe put a skeleton or a mummified body on it- note if this approach is taken keep it friendly in appearance. We are not going for gore and disgust; we are going for “oh that’s what this place is for”.

### Houses

Houses will be filler objects for paths, if possible, they should have an interior area for the player to go in and explore. They should be filled with clutter indicative of what the people would have in their homes, jobs, etc.   
If possible, we should explore ways to allow the player to explore vertically or cast higher shadows for the player to utilise.

### Filler Buildings

These houses and other buildings are not to be enterable; they are to fill out the map and paths some more and provide more shadows for the player to use for movement, this is also non-building type features like altars, shrines, etc.   
As long as its thematic it can be anything.

### River

The river should be a feature of the terrain and cut through the town. It is fine if it does not go all the way, but it should go enough that it is believable that a town popped up around the water source. Colours should be toon blues or greens. People should be able to see similarities to this and the Nile even if it’s not.

# Mechanics

## Puzzles

The puzzles are a central core component of the game, and solving them is how the player will progress the game state forwards. When the player solves them a light/smoke source should fly towards a game object that represents that puzzle. Currently that is an obelisk/head type thing, located at temple (A). There is to be one for each solvable puzzle on the map, allowing the player a physical representation of progress.   
There should be signage near each puzzle to very quickly give the player an idea of what they have to do but not explain the whole thing. Part of the fun should be in thinking about the problem and solving it.

### Puzzle 1

Puzzle 1 is a puzzle on a 5x5 grid surrounded on the edges by columns, each column has a range of 2 grid squares. The player must rotate the shadows of the columns, turning certain grid squares dark. When they are dark the player will be able to push the cubes occupying that square one over. The idea being to move the coloured cubes into the corresponding-coloured slots. Upon completion a smoke/light should indicate the player has completed it.

### 

### Puzzle 2

Puzzle 2 is on a circular platform, with 5-6 torches around the inside edges. Columns going round the side connecting to a large object above. A button in the centre of the platform. When the player steps on the button it will drop the large object a little, allowing the player to rotate the shadow of it and decipher numbers in the shadows indicating in which order the torches must be extinguished with the shadow. Once the player has extinguished all torches the puzzle is complete.

### Puzzle 3

Puzzle 3 is the simplest puzzle here, it is effectively using the shadows to push/bounce a box around obstacles and onto a button/weighted platform, doing so will complete the puzzle. This one is fairly open ended for the design, as it can work with most things. Things to be careful of is the player pushing the box out of bounds, and needing it to reset. Despite this being the easiest it is also the most likely to break due to velocity/force on the moving cube.

### Puzzle 4

Puzzle 4 is somewhat similar to puzzle 2, in that the player must use shadows to find hidden hieroglyphic words dotted around the area to the total of 4, they must then take them to a nearby alter and put them in the correct order. If they put it in the correct place but get the overall puzzle wrong then it should highlight briefly the correctly placed glyphs. Allowing for the player to progress without getting frustrated. For this first one it will be based around temple (B) and so should be sign posted for the player. Once the player gets them all correct the alter/obelisk should glow and show its completed.

## Character Customisation

In this game there will be some light character customisation. It is hoped for the vertical slice that we will have 3-4 of the initial characters completed. The way the player unlocks these characters is through exploring the area and interacting with glowing treasure chests. At the moment they are classic treasure chests, however it would be preferred if they were thematic to the biome, for Egypt the lean towards is Canopic jars with a very low poly head of the respective character it will unlock.   
Once the player unlocks these, they unlock them for good. Each one should be different in terms of colour and/or animations to allow a unique experience for each and to allow the player more choices. In terms of physical abilities at this time none are planned however that may change. Basic animations on all of them should be; pose, idle, move, and feed.

### Character 1

Character 1 is the primary character of the game and who the game is based around. This one will be the default unlocked. To fit the narrative and theme it should be a ball of dark energy with smoke pluming out of it. Colours should be black for the energy ball and purple, green, or blue of a deep shading for the smoke and accents.   
Its movement should be floaty and in the air. This one will be internally known as ghost.

### Character 2

Character 2 will be an unlockable, this one in the Egyptian theme should be a frog as should the icon for it on the canopic jar. With a frog in mind it should be green, with big bulging side of head eyes, a tongue that flicks out as well would be nice. Its movement should be to hop around, and its idle unfurling flicking its tongue, its eating animation should be to grab the eating object with its tongue and pull it in.

### Character 3

Character 3 is also an unlockable and their theme should be Egyptian dog based on images of Set. It should be black and jackal like head. Should be ground moving, with some sort of dust kicked up as it moves forwards, it can have its tongue hanging out if it matches the theme or kept in, its idle can be panting, and its feed can be a downward consuming prey type animation.

### Character 4

Character 4 is another unlockable their theme too is Egyptian bird, based on the falcon of actual canopic jar history. Colours to be a dark blue and white. Though it’s a head it should include some small comical wings, and flap them as it moves around, its idle can be preening, and its eating can be facing down consumption. Its movement should also be floaty/flying, if it can land great, but its not required.

### Character 5

Fly or cat, this one is undecided, and likely won’t be implemented for the vertical slice, but as a later point it should be a housefly or a cat, a cat is more likely to be received well by our target audience and so we should probably lean towards that by default, however the fly if done in a toon and comical fashion might also find a place with the demographic. It is possible we could do both if time permits downwind, but for now lean towards cat. Colour can be dealers choice, whatever they get a feel for. Animations should be sleek as best as possible within the head type, maybe add a tail, no legs, ground movement. Idle could be preening. Eating should be delicate.

## Game Loop

The game loop is primarily aimed at short bursts of possible episodic gameplay, however the player may wish to spend longer or shorter, so saving and loading should be implemented and functional. How it is envisioned is the player will turn on the game, look at the customisation, see that they can unlock things, then jump straight into the game.   
They will likely spend a few minutes observing the scenery and completing the tutorial. Note the tutorial should not be mandatory, if the player wants to wander off fine, but it would be nice if they do and then come back to figure it out the tutorial guide can be a little smartassey like “oh you are back now, do you want to know how to play?”

After the tutorial there should be some form of indicator to push the player towards the major points of interest, however this may work against us on gameplay time and take away from the exploration aspect. It might be better to have POI’s marked on the map and let the player get there when they wish.  
It is expected that in combination with the shadow mechanic the player may spend 10-15 minutes just exploring. The remaining time may go onto the puzzles, which while not complex really, will need a few minutes each for reading the signage and figuring out what to do.   
To reward their exploring we will dot around some treasure chests that will allow the player to unlock new characters and encourage exploration and taking risks in relation to the sunlight and health damage.  
The player will take damage in the sunlight and will spend the mana-health by moving the shadows, they can charge it up really slowly by waiting in shadows or much faster by eating little critters known as leeches that will provide a one-time full recharge.   
The sunlight will be the only danger for the vertical slice, as we don’t want to challenge players through tension and stress, but through puzzle solving.   
  
It is estimated the player will spend 30+ to find all the characters and complete all the puzzles and complete the first biome.

## Win/Lose states

### Win State

The win state is the player completes all four puzzles and leaves the zone via temple (A).

### Lose State

There is no true lose state, if the player dies, they will be returned to a nearby respawn point. We are not aiming to punish the player or otherwise drag out their time except for exploration and puzzles.

# UI

## Mana Health Icon

The mana health is one icon, it is effectively a representation of the players ability to operate the shadows in the real world and how much resistance they have to the sun, should it reduce to 0 the player is respawned. As a representation of this it should be a bar; a dial and orb have already been tried and did not stick right. So it has gone back to bar, however it should be as wonderful as possible and still be thematic to shadows and plumes of smoke. This should be in the bottom right of the players screen. However it could be moved under the puzzle complete icons if it suits.

## Puzzle Complete Icons

To allow the player a UI heads up of their progress and enhance the UX we should have a set of 4 icons on the screen representing the puzzles, as the puzzles are completed their corresponding head UI icon should light up in conjunction with the real-world obelisk object. It has been decided they will be heads similar to the easter island heads with light up effects when completed in respective colours to the task. This should be in the top right of the players screen.

## Minimap

The Minimap is a new addition and should be added to either bottom left or top left. This will allow us to show points of interest from a birds eye view and will also help enable the player to more visibly see where they should. As our game is isometric the view might otherwise be limited and the player may feel a bit blinded by not seeing as much as they could in third/first person or top down.   
This will hopefully bridge the gap and allow for a more positive experience and player direction and enable us to icon points the player should go towards.

## Way marker

The way marker is a relatively new addition based on feedback. Players said they felt unsure of where they were going, this should be a plume of low poly smoke or particles that drift towards the puzzles as the player gets closer towards the way marker. It would be nice if the colours match the colours of the puzzles complete colours but its not mandatory, rather a stretch. They should disappear once the player has completed the respective task. A fifth end of level one should appear once all the puzzles are done. This will significantly help the player but might reduce exploration time as they are now being creatively guided.

# Audio

## Music

The music we use will initially be limited and thematic, it should not overshadow the sound effects or be blaring and take away from the players experience.

### Main Menu Music

Should be soft, upbeat, and a little catchy, to build an audio sensory theme in the players mind and create a welcoming environment for them to keep playing. Sounds should be either in house or sourced from Free Sound.

### BG Music

BG music should also be soft, and chill, allowing for the SFX of the game stand out, and for the player to get immersed. Only 2-3 tracks should be required for the vertical slice. However we will do more post slice.

## Sound Effects

### Task completed

An audible sound for when the player has completed the task. It has to be short, but otherwise up to design discretion, just ensure it suits the theme and mood of the game.

### Fire

There should be a low fire crackling sound for all of the glowing fires and braziers we shall have dotted around the level. Should not be too loud, but should be audible. It is more to compliment the mood and setting.

### Wind/Shifting Sands

This was requested in the feedback. People wanted to hear that stereotypical shifting sand and wind blowing that is often heard in desert type media. So we should look to add it similar to the fire, a low, non-competing sound to fill out the background audio.

### Metal Gate

There is a locked metal gate that is unlocked upon completing the puzzles and walking on a platform/button, there should be a grating sound simulating the raising of an old, rusty gate finally moving. It should be a short brief sound effect.

### Platform/Button

This should be a sound effect for stepping on a stone platform and having it slowly moving down into place, as though a great weight is being moved and rubbing against other surrounding stones. This will also serve as an audio cue that the platform has been moved.

### Clicking on Menu Buttons

This sound should be a short light and soft sound within the aesthetic and is literally just to say this input has been interacted with, largely under design direction, just fit the aesthetic.

### Character Locked

This sound should be a type of buzz sound or a chain sound to indicate that yes, the player clicked on it, but it is not currently accessible, this combined with the writing coming up and instructing the player how to unlock the character should be sufficient for them understand.

# Animations

## T-Pose

This should just be a default pose of the character, used for returning to normal state, and placement of the game object/ prefab around the level.

## Idle

This should be a short cycling clip of the character going through its respective idle animation over the course of 4-10 seconds.

## Movement

This should be a cycling clip of the characters movement respective to what character it is, it should be 2-3 key frames over 2-4 seconds.

## Feed

This should be a cycling clip of the character grabbing and eating one of the leeches respective to its character type, the length of time can vary as can frames based on the character model and stages to demonstrate it, however it should be no longer than 6ish seconds.