Far Flung

Game design document

Designed by: Sitara Daniel

Contents

Document overview

This document covers the art, design and programming aspects of the game **Far Flung** comprehensively. It acts as a reference for the prototyping phase of the game's development, and will be maintained as development progresses.

Document history

Date	Author	Ver.	History
8 November 2021	Sitara Daniel	0	Created **Game overview**, **World**, **Levels**, **Gameplay** and **Mechanics** sections
9 November 2021	Sitara Daniel	0.1	Added **Characters** section
15 November 2021	Sitara Daniel	0.2	Added **Mechanics** and **Story** sections
16 November 2021	Sitara Daniel	0.3	Expanded **Gameplay** section
17 November 2021	Sitara Daniel	0,4	Expanded **Mechanics** section
18 November 2021	Sitara Daniel	0.5	Expanded **Characters** section
25 November 2021	Sitara Daniel	0.6	Expanded **Characters** and **Experimental design** section
4 December 2021	Sitara Daniel	0.7	Expanded **Flow**, **Levels**, **Art** and **Experimental design** sections
16 May 2024	Sitara Daniel	1.0	Updated formatting
6 June 2024	Sitara Daniel	1.0	Updated formatting

Document references

- Game design doc: 📄 Far Flung GDD
- Level document: 🟨 Far Flung level document

Game overview

Concept

A girl Zeb and her shadow have been split apart: she stays in the present while her shadow has gone into the future. Each must navigate their versions of the world to be reunited, with the girl in the present being able to change her shadow's world.

Target audience

Adolescents and adults under 35, with casual to mid-level experience playing platformers.

Genre

A co-op puzzle platformer for two players.

Game flow summary

The game begins with a brief narrative segment that sets up the story's main conflict and explains how the girl is separated from her shadow: this segment features one-person gameplay. Co-op gameplay is unlocked after this, and both players are free to move around and explore the first area.

The players can move into the second area once both of them have reached the end of the first one. Both players proceed sequentially through each area of the game.

Area	Present	Future
Ruins	Zeb can explore the first area at will, but has to keep an eye out for enemies	Shadow will reach a point after which it can't proceed without Present's help (water obstacles)
Mountain	Zeb needs to make sure that the saplings survive in the present	Shadow waits for Zeb to save the saplings, and then proceeds with platforming and dealing with arboreal threats

Look and feel

Pencilled and inked illustrations for children's books. Uses a three-dimensional style in 2D (so the player should be able to see the world with perspective, and not in flat 2D with only one side visible at a time).
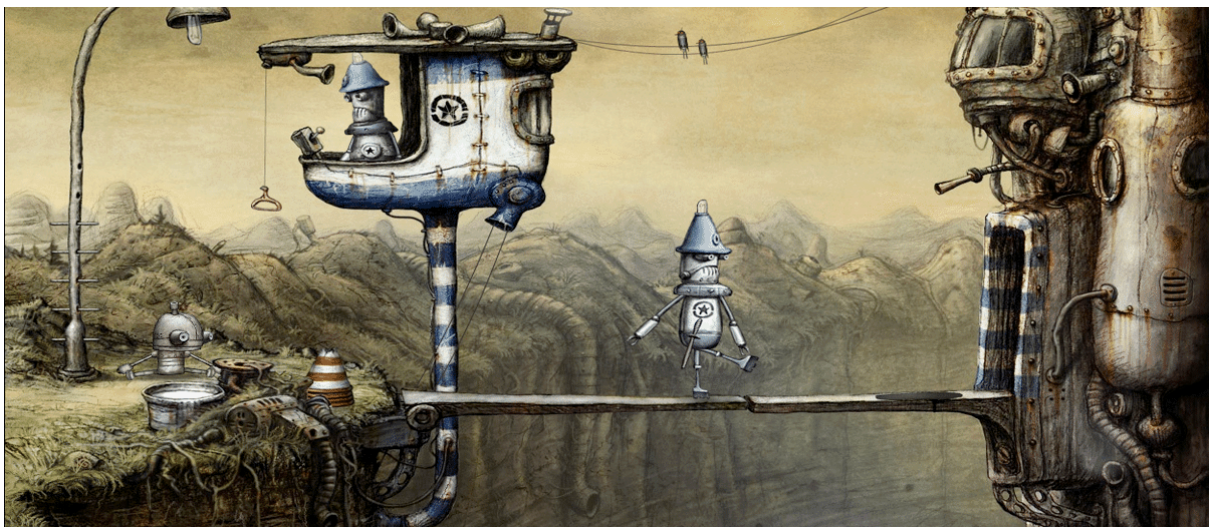
Feel

Both characters feel small and alone in a vast, unknown world. Present is always aware of her responsibility and is desperate to reverse the split. Shadow is more confused about their environment (being able to see less of it and traversing it with less ease): it often goes instead with Present's judgement and decisions.

Gameplay

Objectives

- **Story objective:** reuniting the present and future character
- **Types of level objectives:**
    - Moving objects from one point to another
    - Getting a creature's attention
    - Leading a creature in a particular direction
        - Leading it with sound
            - Taunting it within its range
            - Making sounds while hidden
        - Leading it with a trail of food: involves picking up objects and then dropping them
    - Escaping creatures
    - Trapping creatures
    - Destroying parts of the environment
    - Dodging attacks from above (birds swooping down, boulders thrown by giant apes, other flying enemies)
    - Moving while avoiding detection through an area

Game progression

Types of objectives and actions in ascending order of difficulty:

- Basic traversal (running, jumping)
- Moving objects
- Dodging
- Climbing
- Escaping a creature by running from it
- Stealth (knowing when to move, which places to avoid, where to crouch)
- Trapping creatures
- Boss enemy confrontations which must result in enemy's death

Play flow

Game beats for the Present and Future players (pacing for both players):

Area	Present	Future
Ruins	Intro with demonstration of enemy behaviour, platforming and time mechanics	Intro with demonstration of enemy behaviour, platforming and time mechanics
	Two pathways for crossing the first lake (involving platforming and an enemy chase)	Platforming
	Two pathways for crossing the second lake (enemy chase or pulling objects)	Platforming
Desert	Intro with demonstration of new time mechanic	Intro with demonstration of new time mechanic
	Place objects to help light the Future Player's path	Find and send objects to the Present Player
	Wait for restored water pump to proceed	Restore a water pump for the Present Player
	Preserve palm tree for the Future Player	Platforming involving switching bright sunlight and shade mechanic
	Preserve a fox whistle for the Future Player	Locate a fox in the storm using the whistle

Challenge structure

No.	Present	Future
1		Something blocks Future Pl's progression through the area
2	Present Pl will have options to remove the obstacle in Future Pl's world	
3	Present Pl needs to successfully complete any of these options	
4		The obstacle will be removed from Future Pl's time

Puzzle structure

Objective	Solutions
Shadow needs to cross the first lake in the Ruins	Zeb can either: Cause an Octo extinction event (or) Plant vines at an arch in the middle of the lake
	Zeb needs to preserve a boat in the present so that it still exists in the future
Shadow needs to cross the second lake in the Ruins	Zeb can either: Knock a tower down and make a bridge of rubble in the future (or) Cause an Octo to burrow in the sand and remove the lake from the future
Shadow needs to find its way through a sandstorm	Zeb can light the path up with shards that Shadow sends to her time
Zeb needs water to survive the Ochre Desert	Shadow can restore a water pump at an oasis in the desert
Shadow needs to cross an area with bright sunlight	Shadow can hold up a palm leaf for shade
Shadow needs to cross a stretch of dunes	Zeb can send Shadow a fox whistle

Note: each puzzle has a different structure, see level design section for more.

Controls

Key	Action
A	Move left
D	Move right
Space	Jump
Left control	Crouch
E	Interact

Mechanics
Rules
The game's central mechanic: the Present Player can cause change in the Future Player's world.

Explicit rules:
- Only some present-time actions have an impact on the future.
- Actions in the present always have the same impact in the future. Ex: seeds that are intentionally planted in the present will always grow into trees of the same scale in the future (there will be no possibility of one seed failing to grow, or not growing to the same size).
- Living creatures that linger at the edge of the mysterious water split into two, the same way Zeb is split.
- Zeb's Shadow cannot move past water or patches of bright sunlight. Shadow will not die instantly when exposed to either, but will have a few seconds in which it's visibly withering in the water/bright light. Shadow can attempt to backtrack in these seconds, but will die if they don't move away quickly enough.
- Zeb has an invisible stamina metre. After holding a movement key down for more than 10 seconds, Zeb's running speed will halve. After another 20 seconds of sustained running, Zeb's speed will halve again, becoming a quarter of her original speed. If Zeb continues to move at her slowest speed, she will return to her original speed after 10 seconds. If she stops to take a break, her original speed will be restored in 3 seconds.

Implicit rules:
- Plants grow over time.
- Geographical formations erode over time.
- Creatures can become extinct.
- Materials can be damaged with different amounts of force.

Physics
Modified laws of physics for the players, to tune the feeling of movement:
- Gravity scale
- Linear drag

Some parts of the environment follow our real-world physics (like ice being slippery, the player sinking into sand while moving, branches moving while the player walks on them).

Other parts don't: for example, an object will not move if the player walks into it. The player will need to press a key to interact with it first, and then drag it to move it.

Character movement
- Running
- Jumping
- Climbing
- Crouching

Objects
How to pick them up and move them:
- Long press E while next to an object that can be picked up.
- Press E once to drop an object on the ground. (This action will only be available at specific waypoints.)
- Some objects can be grabbed by long pressing E while next to them.
- They can be dragged left or right with the character movement keys.
- And released by a short E press.

Combat and conflict
Combat (resulting in the death/removal of one or the other):
- Enemies can attack the player when they make close contact (like the octopedal when it catches up to the player, or the large bird when it swoops down).
- Zeb can die during environmental destruction (being crushed by ruins or thrown objects).
- Shadow dies if it slips into water, or stands for more than a few seconds in bright sunlight.

The player characters don't have a health bar and die in one strike.

Screen flow
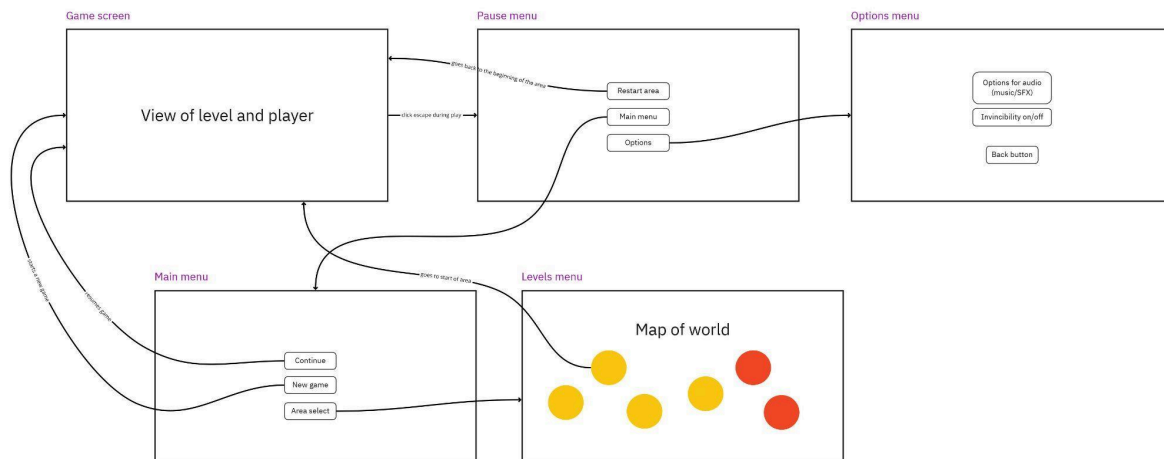
Game options

Instead of fixed difficulty options at the beginning of the game, players will be able to switch invincibility on and off for themselves.

Replaying and saving

Saving:

- No manual saving.
- The game saves for each player at different waypoints within an area.
- Waypoints' positions are relevant to the area: each player will have waypoints before a potential fail state encounter.
- The individual player is sent back to their most recent waypoint when they die; ex, if Present Pl dies when overtaken by the octopedal monster, only Present Pl is sent back to a waypoint before the enemy encounter. Future Pl remains unaffected.

Replaying:

Both players can replay an area that has been successfully completed, by picking it out of a list of completed areas. Replaying an area doesn't affect progress in any other areas.

Story

Plot elements

Inciting incident:

The game begins with Zeb falling asleep beside a lake in the Ruins. Her shadow slips into the water as the sun moves across the sky. When she wakes again, she

finds that her shadow is no longer attached to her: not only can they move separately now, but the shadow seems to be in a different version of her world.

Rising action:
Zeb and Shadow move through the Ruins. There's no narrative justification for how the two characters are communicating with each other, since Zeb cannot actually see any part of Shadow's world in her own or vice versa. Both characters need each other to have reached the end of a level to be able to proceed into the next one.

Both of them venture further and further into their unknown worlds, crossing tall mountains, harsh deserts and dense forests in the hope that they'll find something that will fix their predicament. Neither of them know what they're looking for.

Climax:
After making it through the Old Forest, Zeb and Shadow are attacked by a large scaled water monster that gulps them both down. When the monster exhales, both of them are thrown into the air by its spray. Inside a tunnel of air and water, Zeb and Shadow try and hold on to each other as they're propelled upwards.

Falling action:
When they reach the end of the tunnel, Zeb and Shadow once again find each other split by time. Zeb is stuck on clouds high up in the sky, and Shadow falls back to the ground because these clouds don't exist in the future.

Time moves more quickly for Zeb in the clouds, and from her vantage point she sees how the world changed between her time and Shadow's, and how their actions played out. Eventually she reaches Shadow's point in time, and she falls back to the ground as well when the clouds disappear.

Resolution:
Zeb and Shadow collide at the end of her fall from the sky, and become one again.

Game world

Game world look and feel
Zeb's version of the game world has a feeling of destruction: there are signs of recently-collapsed civilisation, and humans like Zeb living nomadically in the aftermath.

Shadow's world looks like it's at a more advanced stage of destruction, with the implication that various things went wrong between Zeb and Shadow's time. Things like eroding rock, desertification, flooding and extinction events have occurred between their two times: these things take thousands of years in our world. But in this game world, there's ambiguity about how long into the future the Shadow is.

Both worlds feel hostile, with few safe havens in between. The ecosystems that the two players characters move through, and the creatures that inhabit them pose a variety of threats that the players have limited defences against (neither carry weapons with them, and their physical strength is limited).

The worlds also have fantastical elements: the mysterious lakes that split creatures into two, fictional creature designs.

Areas
- Ruins
- Mountain
- Desert
- Old Forest

Ruins
In the game's first area, Shadow is stuck in a world partially submerged while Zeb is still on dry ground. In Zeb's version, large many-legged creatures roam the ruins of a small city built of stone and mud bricks. In Shadow's version, these same creatures have adapted into an amphibious state: they've grown gills and fins and tails and continue to prowl the waters. The ruins have also further deteriorated.
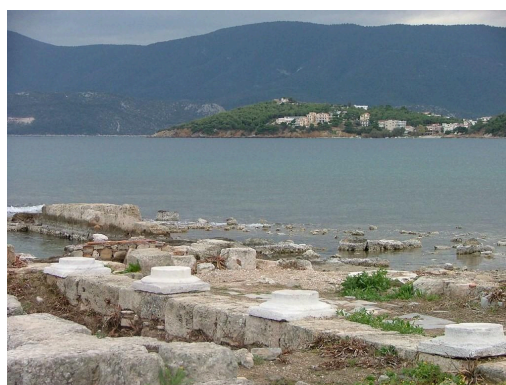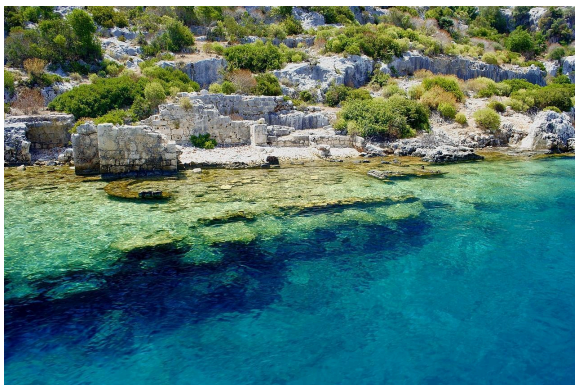
Connections to other areas
The ruins lead into an area at the base of a mountain.

Mountain

In the second area, both characters need to scale a mountain. Zeb's version is occupied by large birds that feed on the young saplings at the mountain's base. The Shadow's version has no birds, but the mountain has become unstable and is plagued by frequent landslides. The mountain's terrain is also easier to navigate in Zeb's world; it's steeper for Shadow.

Connections to other areas

The other side of the mountain leads into the desert area.

Desert

The third area is a desert for both characters: it's in its early stages in Zeb's version, and more intense in the Shadow's version. A massive sandstorm rages in the Shadow's version, while Zeb's version is still a flat and barren expanse.

Characters

Zeb

Back story

Zeb is a nomadic girl roaming the outskirts of a ruined city, looking for shelter and subsistence. She's been looking after herself for a while: she was separated from her people many years ago and barely remembers human interaction. This

is partly why she's so disoriented by the sudden appearance of another figure when her shadow splits from her.

Personality

Zeb is resilient and willing to take risks: she confronts creatures much larger than here and puts herself in danger even when unaware of what it means for her Shadow in the future. She does all of this with an amount of desperate helplessness though: she never considers any alternative to reuniting with her shadow.

Appearance

Zeb is a child younger than twelve. She's small, gangly and looks malnourished. It shows in her movements: she looks like she struggles when she's running. She dresses in loose clothes and ragged blankets.

Zeb's Shadow

Back story

Shadow isn't Zeb's shadow in a strict sense, and its separation from her is one of the first signs of otherworldliness in the game. Shadow only becomes a sentient character after the splitting.

Personality

Shadow's gameplay needs it to depend on Zeb most of the time, which makes it seem powerless and blindly following Zeb. Shadow gains more agency as the game progresses, and actively works with Zeb to overcome shared challenges.

Appearance

Shadow matches Zeb in appearance, except its colour has the same iridescence that the Splitting Lake has.

AI use in creatures

Internal name	Present	Future	AI use
Octo	Eight-legged land creature	Amphibious, with fins and gills	Chases the player when taunted, or when the player comes too close. Burrows into the ground when agitated.

Roc	Large bird of prey	(Has become extinct)	Swoops down on the player if they stand out in the open for more than a few seconds.
Pongo	(Does not exist in this time)	Giant ape	Sits in vantage points and throws large objects at the player when in line of sight
Mean swan	Toothed bird that attacks as a swarm	Shadows of the same birds	Attacks player when spotted in range
Monkey	Arboreal mammal, slightly bigger than Zeb	Shadows of the same monkeys	Isn't hostile towards the player. Roosts in the trees in the Old Forest.
Gator	Small reptile that moves in herds	Shadows of the same gators	Follows Zeb when led by sound/trails of food (but Zeb must remain hidden). Splits in two when it passes over the same kind of water that split Zeb (which creates a shadow version in the future). Attacks and kills Zeb and Shadow when they enter line of sight.
Ox	Large and slow-moving, looks like an ox or yak	Shadow of the same ox	Isn't hostile towards the player, and doesn't react if the player comes near.

Levels

Links for higher-resolution images of level design:
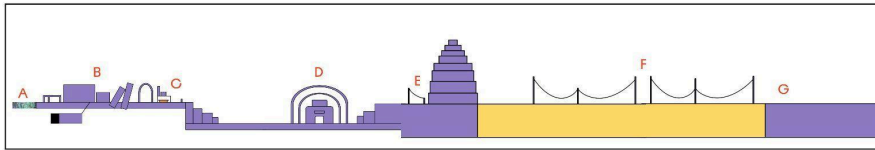🔲 Far Flung level document
https://miro.com/app/board/o9J_liYJ5SM=/?invite_link_id=991808834961

Three level designs:
- **Level 1:** the Ruins (intro level)
- **Level 2:** the Ochre Desert (mid-game level)
- **Level 3:** the Old Forest (end-game level)

Level One

A: introduction area with tutorials for platforming and Octo behaviour
B: pathways for two possible objectives so that Future Pl can cross D section
C: essential objective for Future Pl to cross D section
D: complete one objective here for Future Pl to cross water
E: start of Big Octo and tower section
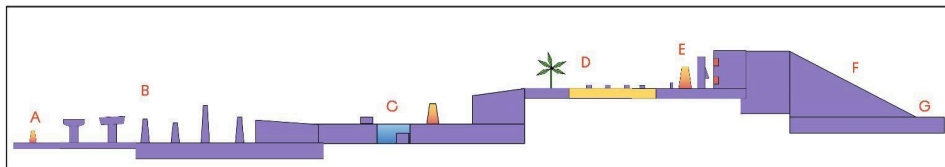**F:** Big Octo chase section
G: end of level

Future view
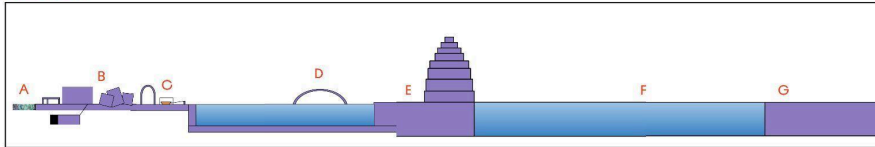
Expected playtime

A: <2 minutes
B: 10 minutes (completing two objectives)
C: 2 minutes (completing one objective)
D: 3 minutes (completing one objective)
E: 5 minutes (completing one objective)
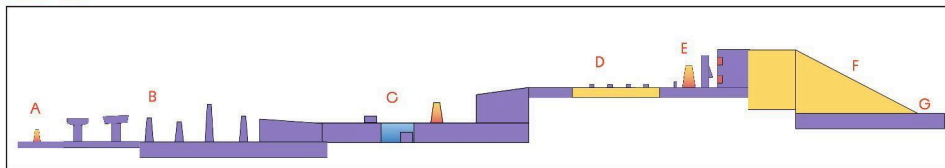F: 8 minutes (completing one objective)

Level Two

Present view

A: introduction to Suspended Resin's mechanics
B: platforming section in which Present and Future Players need to coordinate timed jumps
C: water pump area
D: palm tree area (with intermittent sandstorm and bright sunlight)
E: fox whistle area
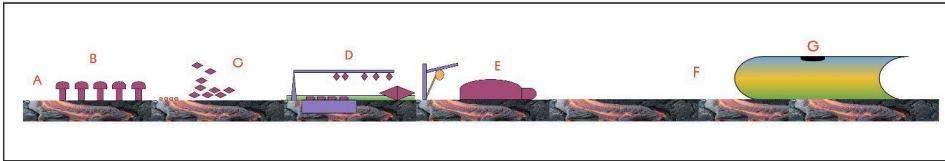**F:** slope
G: end of level

Future view

Expected playtime

A: <2 minutes
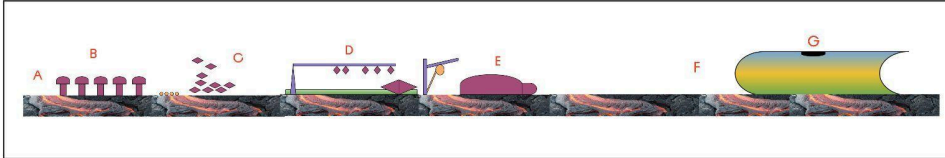B: 10 minutes
C: 5 minutes
D: 8 minutes
E: 2 minutes
F; 1 minute

Level Three

A: introduction to False
Reunion lake's mechanics
B: dodging attacks from
carnivorous plants
C: toothed birds area
D: section with gators,
monkeys and ox
E: sleeping turtle section
F: turtle and scaled
monster confrontation
G: end of level

Future view

Expected playtime
A: <2 minutes
B: 5 minutes
C: 8 minutes
D: 10 minutes
E: 5 minutes
F: 10 minutes

01 Intro level

Objectives

To complete the level: Shadow needs to cross the water in the future

This is accomplished by the Present Pl: chaining up a boat, planting vines or causing an Octo extinction, and causing a big Octo to burrow

Environment

The Splitting Lake: an iridescent lake that Zeb goes to sleep beside, and wakes up to find herself split with her shadow.

The Ruins: a crumbling city of mud and stone in the present, and partly-submerged in the future.

Present Player's critical path

Dig up vine roots and/or cause Octo extinction > chain boat to post > plant vines on arch > knock tower down to make bridge or provoke Octo into burrowing

02 Mid-game level

Objectives

To complete the level: the Future and Present Players send objects to each other using Suspended Resin, to make it through the desert.

Environment

The Ochre Desert: a dry and rocky desert in Zeb's time, the Ochre Desert is plagued by frequent sandstorms in the Shadow's time.

Present Player's critical path
Plant beacons to light up Future Pl's path > pour resin at a palm tree > coat a fox whistle in resin

Future Player's critical path
Find and coat glass shards in resin > fix broken water pump > cross storm/sunlight section using palm leaf > call a fox

03 End-game level
Objectives
To complete the level: Zeb and Shadow must coordinate their movements and make sure all their actions match while they can see each other in the lake.

Environment
The Old Forest: a dense rainforest that has remained identical between Zeb and Shadow's times. The forest's wildlife has become accustomed to the lake, and the living creatures can afford to not match with their shadows. Living things in the forest don't have shadows that are doing the exact same thing they are: this rule only applies to Zeb and Shadow, strangers to the forest.
False Reunion Lake: an expanse of iridescent liquid that resembles the Splitting Lake from the beginning, but has the viscosity of lava. While passing over it, Zeb and Shadow can see each other but remain separated.
Interface
Visual system

Interface
- 'Press E' hint when near an interactable object
- No other progression or health bars, or HUD for either player

Menus
- Main menu
- Controls page
- Area select menu

Camera model
2D orthographic (side-scrolling view)

Art
Area 1, the Ruins
Characters
- Player present sprite

- Player future sprite
- Small Octo
- Large Octo
- Octo queen

Environment materials
- Iridescent water
- Regular ground
- Soft ground (limestone)
- Vines
- Backgrounds:
    - Trees (present)
    - Grass (present)
    - Eroded rock formations (future)

Architecture
- Basement building:
    - Basement window
    - Roof with lower terrace
    - Basement area:
        - Ramp
        - Cracked floor
- Basement building (crumbled in future)
- Domed building
- Boat shed
    - Boat
- Large building with arch and dome in the terrace area (between the steps)
    - Steps leading to and from this area
- Tall tower with bricks that can be pulled out
- Poles with ropes stretching between them

Sprite ordering (order in layer, Unity sprite renderer):
- 10: player characters
- -50: sky backgrounds
- -49: rocks background
- -48: grass in present
- 0: tiles
- 1: ground (on which player walks)

Experimental design
Genre tropes for platformers
- A level usually requires you to move from the start to the end by overcoming/avoiding obstacles and enemies.
- Challenges require dexterity and quick reflexes from the player.
- Character movement systems include things like jumping and double jumping, grabbing onto something, wall climbing, dashing, stamina metres, changing direction while mid-air, jumping being affected by the player character's momentum.
- Checkpoints are positioned before difficult segments, where the player respawns after failure. Checkpoints usually need to be unlocked within each level.
- Exploration: finding paths, objects and collectibles, and multiple paths or approaches to a challenge.
- Distinct environments, with their own mechanics, aesthetics or enemy types.
- Game feel: character movement and physics need to feel satisfying and reliable.

Experimental features
The two players don't exist in the same game world. The Present and Future worlds have different mechanics, different level design, and different objectives. They're required to interact with their world in different ways. While they help each other by solving puzzles in the same way that many two-player co-op games work, they do so indirectly. One player completes an action and the other observes its effect, albeit in two different worlds and times.

The players don't see each other on the same screen, and need out-of-game communication to coordinate locations or strategies. They won't know the effects of their actions without discussing it (or looking at the other player's screen if they're in the same physical space). This kind of communication is common in any kind of multiplayer experience, except in most multiplayer games a player has some kind of reference for the other players' activities: like being able to see their locations in an in-game map, or a list of their actions. This game's prototype uses split screen as a stand-in, which is the usual approach for local co-op games. Ideally the game would be split between two screens, with one screen displaying the Present world and the other with the Future world.

Reference games
Platformers that use puzzles:

- Fez
- Portal/Portal 2
- VVVVVV
- Thomas Was Alone
- Limbo
- Inside
- Ori
- Rayman Legends
- Mario
- Braid
- Little Nightmares
- Fru
- Celeste
- Trine

Platformers that use time manipulation:
- **Blinx: The Time Sweeper (2002):** slowing, speeding and stopping time, reversing time, and recording a moment in time to complete a task with two characters (one being a clone of yourself)
- **Prince of Persia: The Sands of Time (2003):** rewind time, slow and freeze time
- **Braid (2008):** rewindable time, slowing down time, glowing objects that are unaffected by time, time that is affected by the player's movement (moving left reverses time, moving right progresses time, standing still pauses time, clone-recording and playback mechanic using a "shadow" character
- **The Misadventures of P.B. Winterbottom (2010):** using a recording mechanic to make clones of yourself and solve puzzles
- **Chronology (2014):** uses a device to switch between Before and After

Similar games with co-op:
- Unravel Two
- Snipperclips
- DYO
- It Takes Two
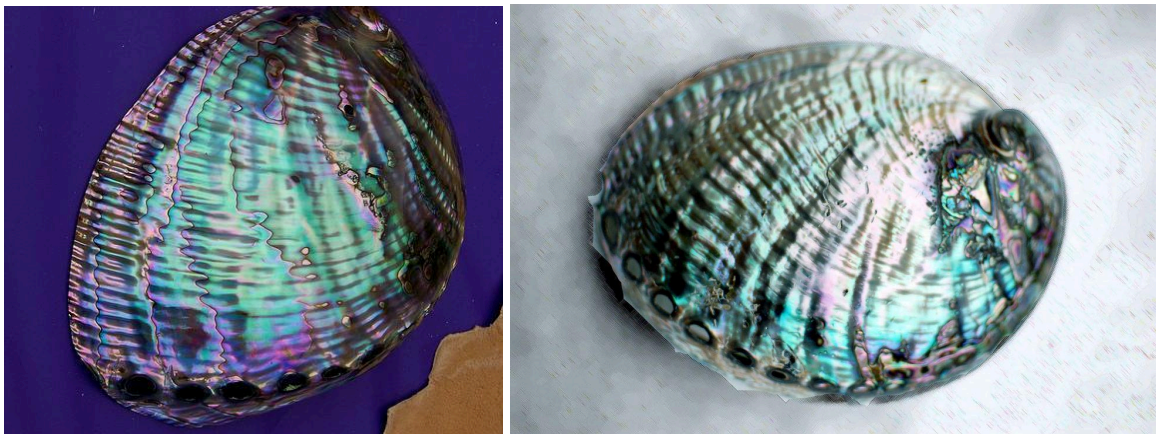- Portal 2
- Biped
- Brothers: A Tale of Two Sons

Brainstorming

Things in the world to work with:

- Land creatures
- Water creatures
- Amphibious creatures
- Plants
- Ruins
- Mountains and geological formations
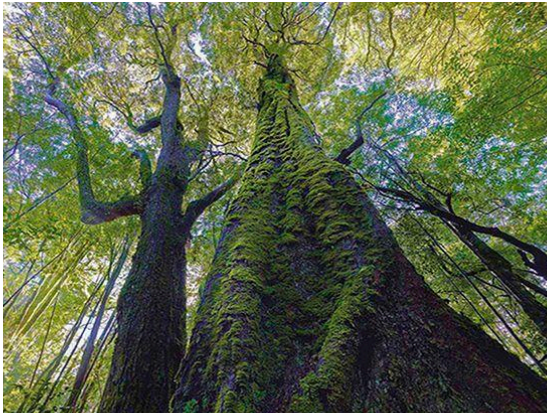- Water bodies
- Glaciers

Environment references

For the splitting water, iridescent shells:

For the resin trees in the desert, baobab trees:

For the trees in the mountain area, giant trees in the Tarkine, Tasmania:

Enemy references

For the Pongos (giant apes), orangutans:

For Gators, this concept from a archosauriform fossil:

Unity setup
Scenes
- 00_StartMenu

Scene name	Contents	Order
00_StartMenu		0

Folders

1. Art
2. Audio
3. Build
4. Layouts
5. Scenes
6. Scripts

Unity scene contents

A game by Sitara.

NĀNNARI
SARBATH

by
Sitara