

From June to September 2023, I designed 4 levels for Sondering Studio's upcoming game, [Gold Lining](#). Gold Lining is a narrative puzzle platformer about Yunli, a Chinese American girl, who must find her way back home from a fantastical realm inspired by Chinese mythology.

At a glance, this is what I did:

- Sketch ideas for mechanics and puzzles organized in Figma
- Implement and playtest whitebox prototypes in Unity
- Document design intent with annotated screenshots and videos
- Analyze how mechanics are communicated in other platformer games

I have included screenshots and notes for my level design process in this document

The levels will be referred to with the placeholder names **Thorn Level**, **Storm Level**, **Dock Level**, and **Cave Level**.

Yunli (player character) mechanics summary:

- Jumping
 - Tap for lower jump
 - Hold for higher jump
 - Jump again while in air for double jump
- Rock breaking mechanic
 - Progresses throughout story
 - Begins with simply destroying rocks which fall straight down
 - Later, broken rocks will reform into new platforms
- Death
 - Dies to dangerous plants, deep water, lightning, etc.
 - Respawns at certain respawn points

Thorn Level on next page →

Thorn Level

Goals:

- Communicate frustration
- Somewhat fast-paced and stressful
- Introduce danger/respawning and rock breaking mechanic
- Create light-based puzzle mechanic (use obbs, glowing orb creatures)

Early sketches and notes:

yunli placed at respawn points

solid platform = 

dangerous plants = 

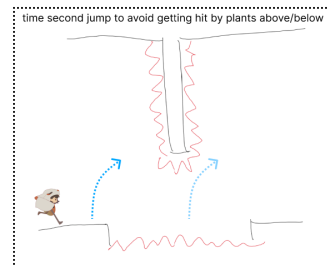
breakable rocks = 

rock platform = 

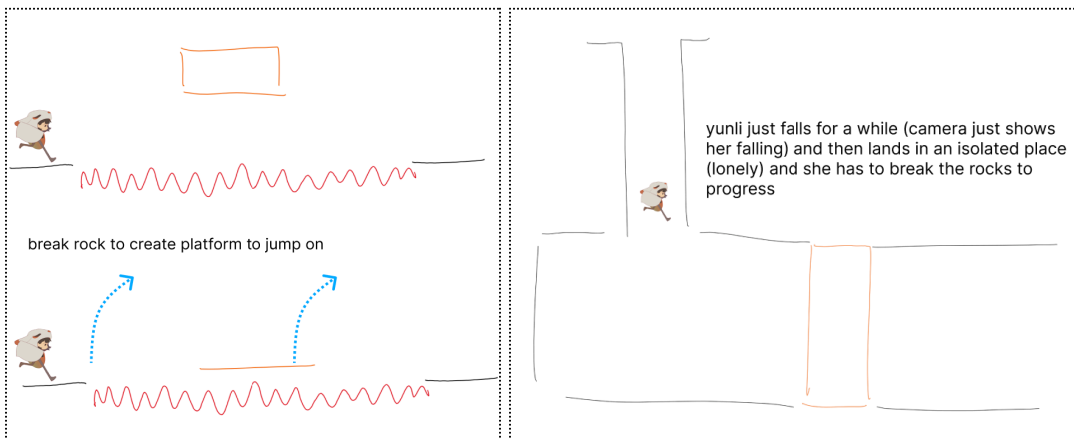
- danger (plants)
- introduce rock breaking

jump 1

double jump



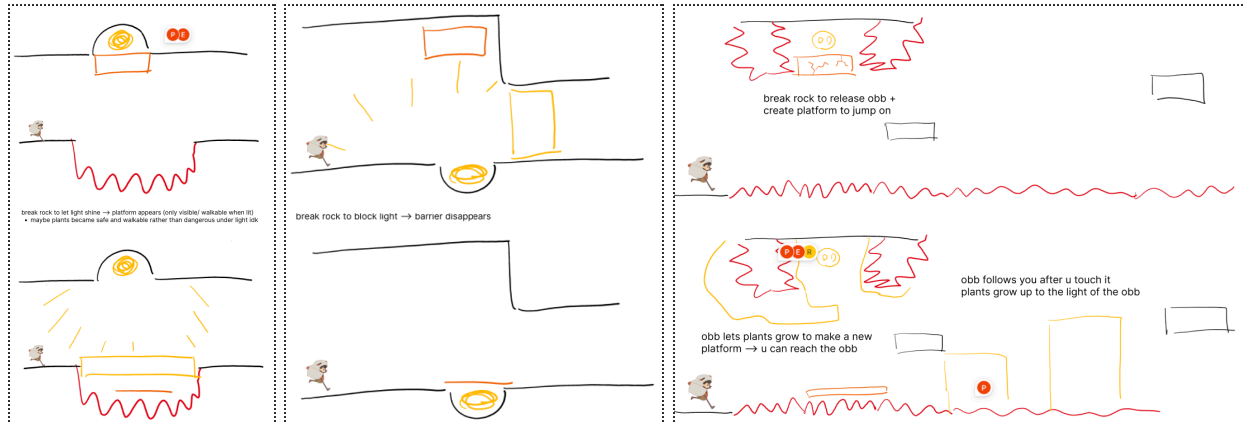
i think it could feel nice to have a sequence that's like short jump → long jump → double jump



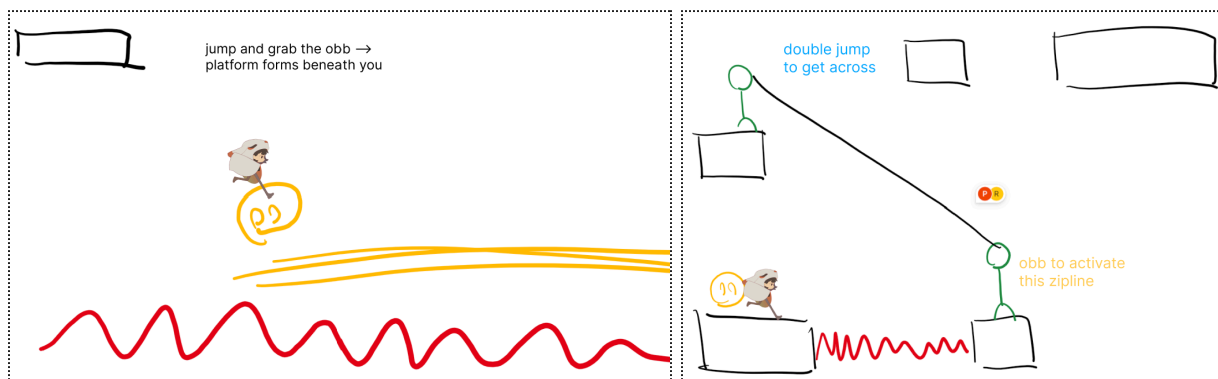
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Light-based puzzle mechanic ideation:

light source = ☉
lit platform = □
obb = ○○



- These earlier ideas were scrapped since they were difficult to define clearly
- Final decision:
 - Players approach obbs, and obbs follow
 - Obbs form safe platforms under player on thorns
 - However, obbs can only support a player on thorns for a certain period of time (add visual indicator for when the obb will run away, leaving the player to fall on the thorns and die)
 - Obbs leave the player when approaching obb nests
 - Obb nests can be found at the base of unactivated ziplines, and obbs will activate these ziplines



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[illegible][illegible]

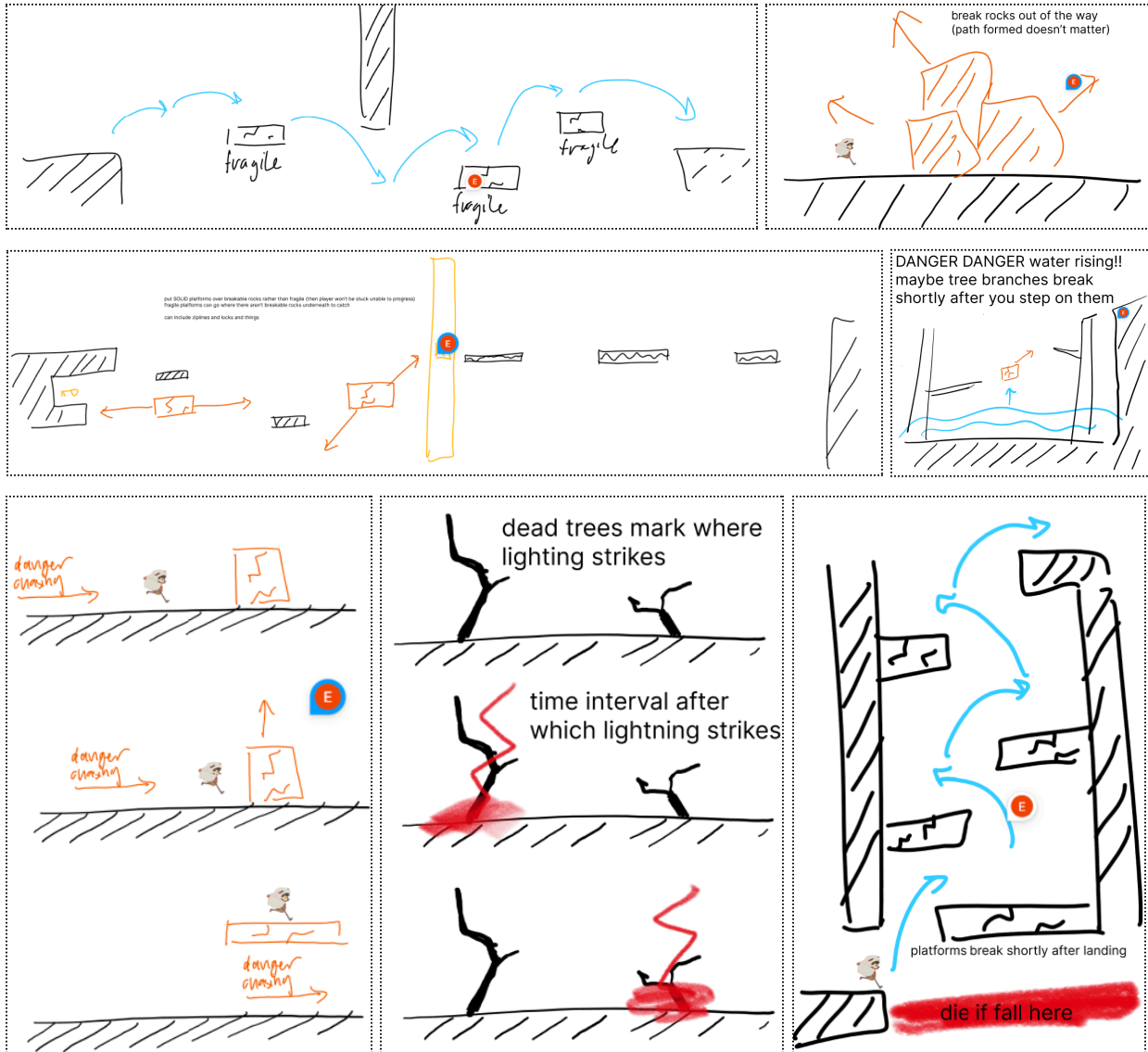
Storm Level on next page →

Storm Level

Goals:

- Communicate rage released after being pent-up
- Incredibly fast-paced and intense
- Create mechanics befitting a stormy mountain

Mechanics ideation:



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Mechanics for level:

- Fragile platforms (denoted in green)
- Lightning (flashing yellow-white diamonds)
- Rolling rocks (not implemented, visually represented by black diamonds)

Screenshot of entire level prototype:



Annotations for level prototype:

fragile

overview

- *prototype only, not meant to be kept*
- fragile platforms denoted with bright green
- fragile platforms are reenabled after disappearing
- design goals
 - introduce fragile platform mechanic
 - introduce in conjunction with rock breaking
 - tension of breaking rock and moving before fragile platform disappears

notes for future:

Peter Sutarjo Today at 10:08 AM
random idea: what if we have a long platform but parts of it break off incrementally. we could accomplish this technically by chaining together smaller platforms and setting the timer so that they break regardless of where the player lands

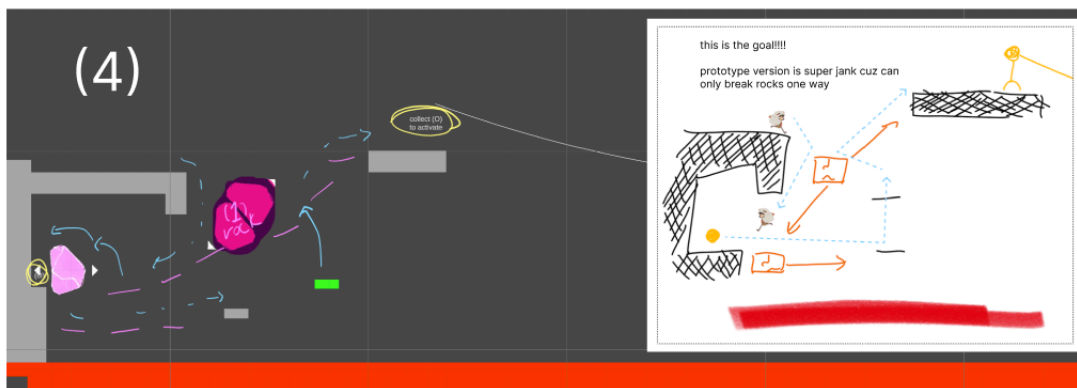
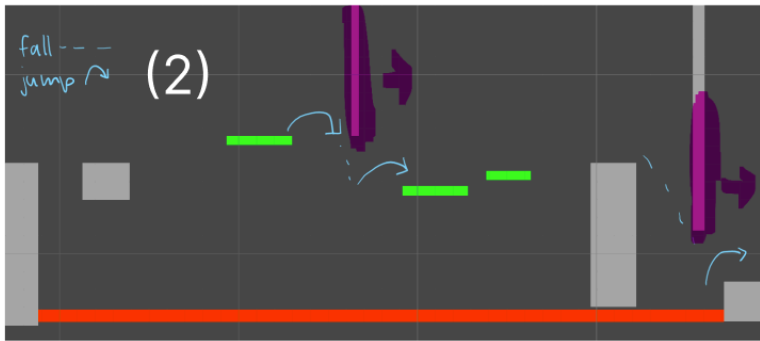
(1) (2) (3) (4) (5)

(1)

player MUST land on fragile platform to progress
shows fragile platform mechanic in a SAFE place

The image shows a series of five small screenshots labeled (1) through (5) illustrating a sequence of events in the level. (1) shows a player character on a platform. (2) shows the player moving. (3) shows the player on a green fragile platform. (4) shows the player on a red platform. (5) shows the player on a gray platform. Below these is a larger screenshot labeled (1) showing a player character on a green fragile platform. A text box above the player says "player MUST land on fragile platform to progress" and "shows fragile platform mechanic in a SAFE place". The platform is a long gray bar with a green segment in the middle.

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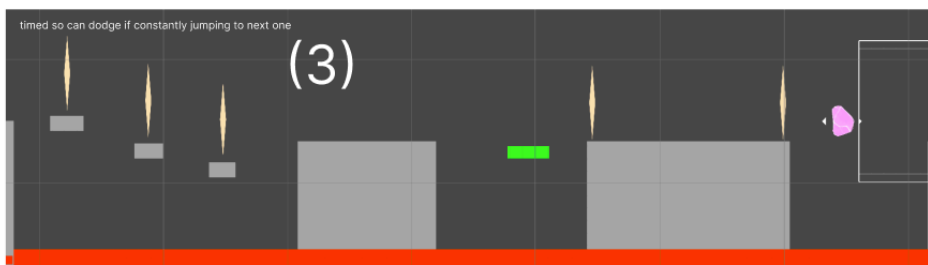
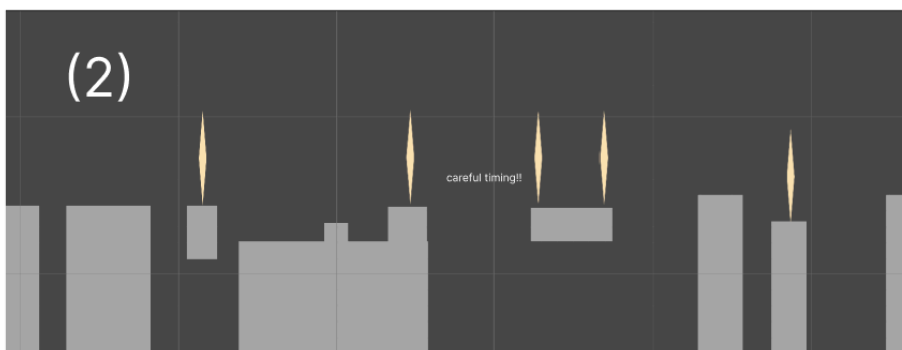
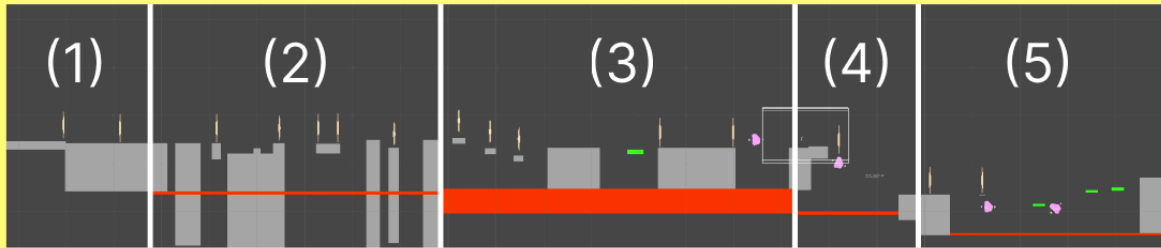
lightning

overview:

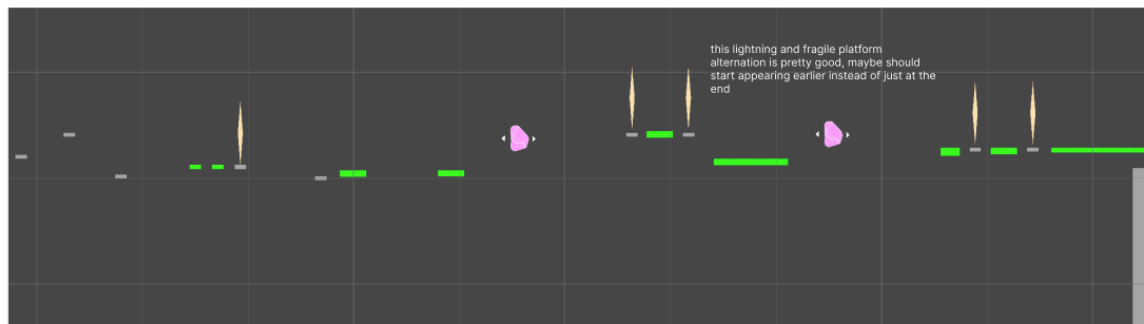
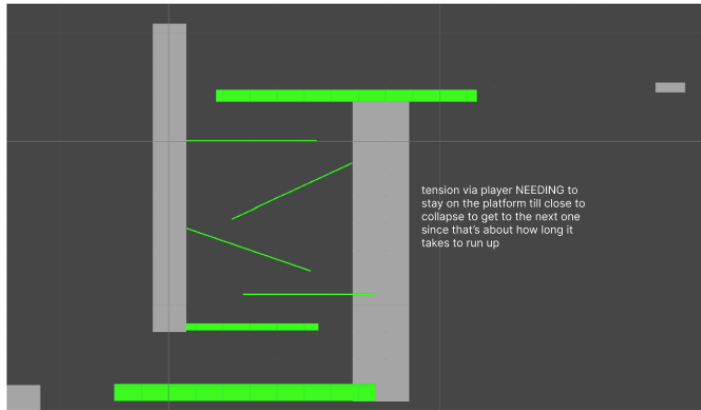
- introduce lightning mechanic
- need visual cues for when lightning is about to strike
- lightning respawn point should be the same as the fall respawn point for that section

future notes:

- if need more platforming, good to add it in this section (fragiles + lightning good combo)
- direct interaction between lightning and rock breaking: yunli can break rocks to SHIELD herself from lightning
- peter's save idea:



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- I tried to make the sections modular so they would be easy to rearrange and place into new sections

Full Prototype Playthrough Video: <https://youtu.be/X8HWNCDPgK0>

Cave Level on next page →

Cave Level (note: this was made prior to the Storm Level)

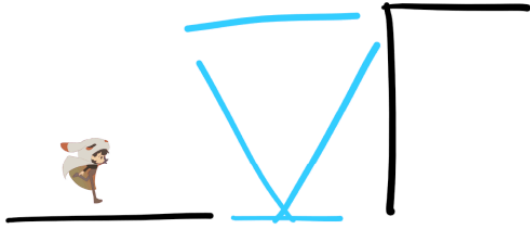
Goals:

- Communicate isolation
- Slow-paced, give players time to appreciate the environment
- Navigate upward out of a cave by solving puzzles
 - Rock breaking mechanic now turns a rock temporarily into a new path
- Introduce geysers, which can either knock Yunli back or boost Yunli upwards

Early sketches and notes:

introducing geysers

(too high to double jump)



would be nice to just walk thru and splish splash in water and stuff before the geyser as a bit of a preview

geysers

- feel *fun* and *surprising* and *helpful*
- focus on launch, not knockback
- player suspended in air and freefalling can open gameplay options
- no excessive chaining (gameplay shouldn't feel fast-paced)

most basic way to introduce two paths w/ rock breaking



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Screenshot of entire level prototype:



- starts in bottom left, ends in top right
- generally player should be able to see enough to know where to break a rock
- not much tuning of geysers and rocks breaking placement done...



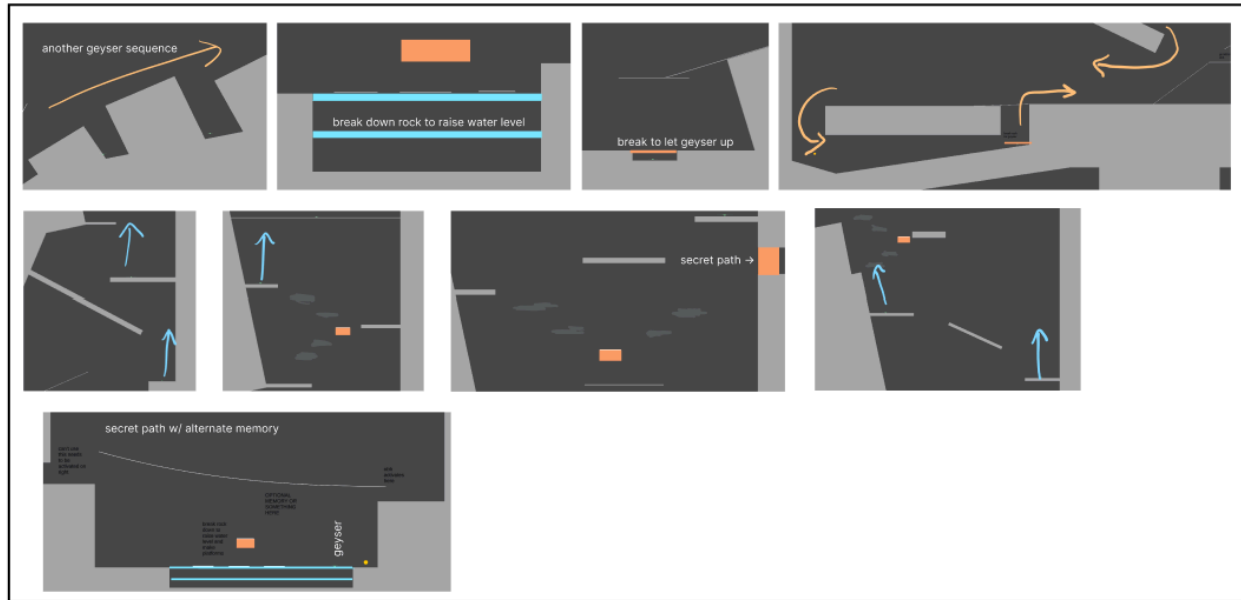
Annotations for level prototype:

part 1

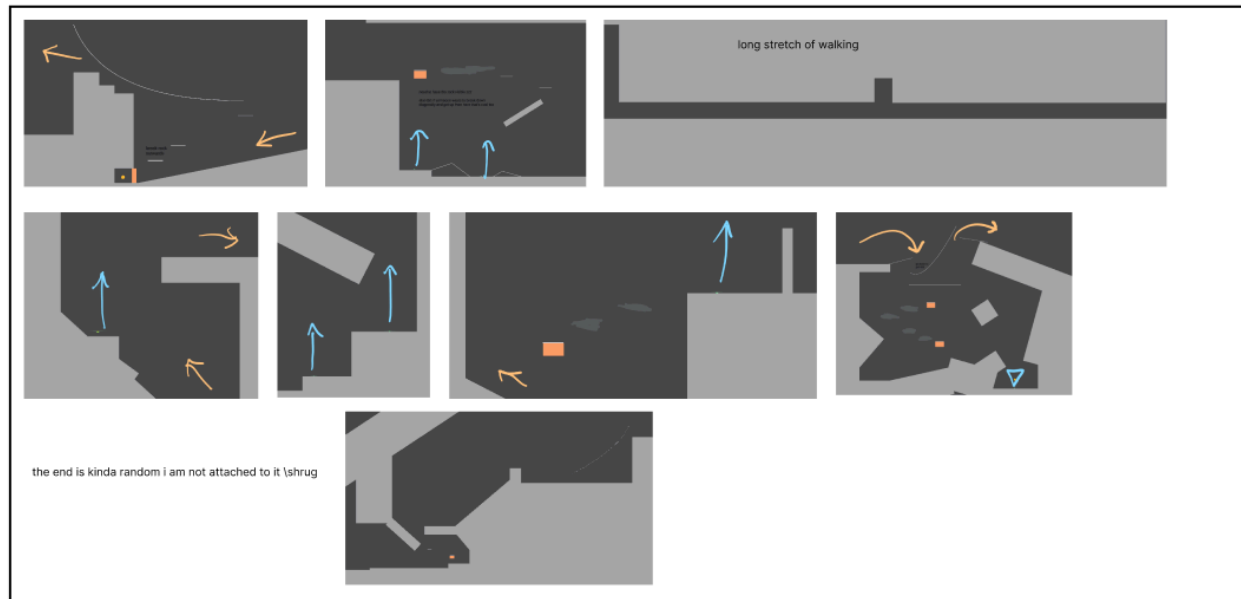


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part 2



part 3



Full Prototype Playthrough Video: <https://youtu.be/vO17NTYiRSE>

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Reflection:

notes:

- i think this current iteration doesn't have a good sense of progression since the mechanics are mixed up together all throughout
- I don't like the breaking rocks into water idea as much now since how it works is hard to define + don't know if it is being used outside of that level
- rather than breaking rocks to unleash geysers, unlock a barrier so you can use the geyser to progress (since rock breaking forms platforms and that doesn't seem like a fun interaction with geyser)
 - SEE RIGHT FOR
- might be better to be more focused on unlocking barriers to progress over ziplining since **geysers should be the main event**
- i think emphasize "exploration" over "patience", player can appreciate environment thru camera ZOOMING OUT and showing a whole huge room at once
 - i feel like rather than appreciate surroundings, a player waiting for a geyser/rock to break would more likely be waiting in *anticipation* of their next move

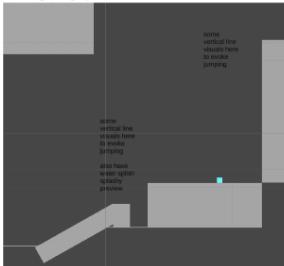


geyser is active the whole time, but need to collect (1) and (2) to unlock barrier so can launch up w/ geyser to progress!

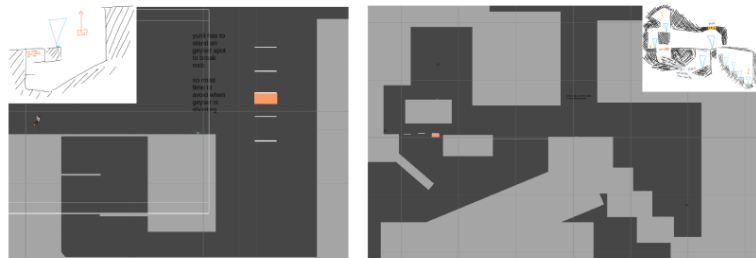
also multiple keys can lead to more needing to backtrack/stay in an area/ **explore more** without progressing linearly (celeste strawberry or gris stars vibes)

visually, keys could either float after yunli or it cutsscenes to show one more lock breaking when collected

changed geyser intro



added 2 new puzzles at the end



- This level was designed prior to the key/lock mechanic brainstormed for the Storm Level, so looking back, I think key/lock would be well-utilized here

Dock Level on next page →

Dock Level

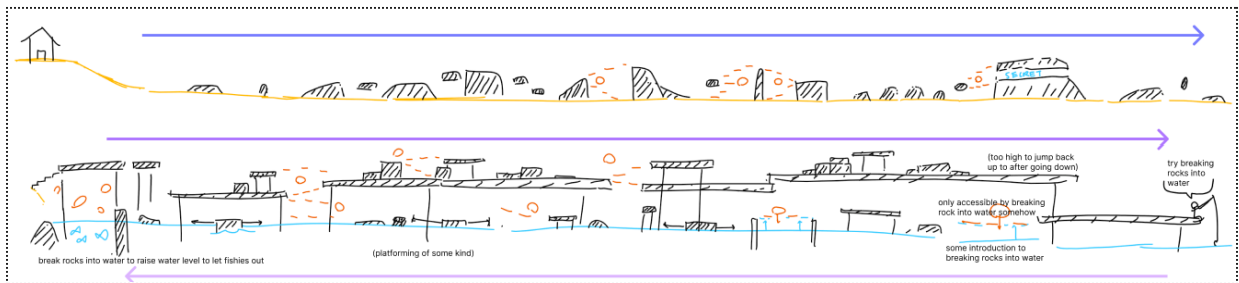
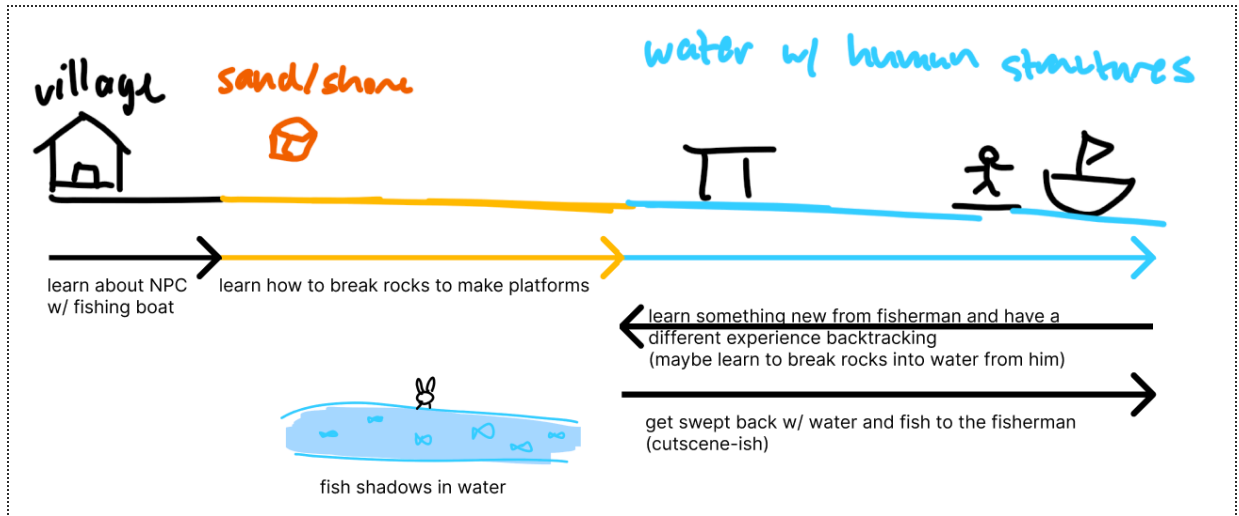
Goals:

- Communicate grief through slower and heavier gameplay
- Design puzzles pairing rock breaking mechanic with water

Sketches and notes:



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No Unity prototype for this one since water-rock interactions were not implemented.

end of document.