[cover]

Never Fade Away

Version 1.0

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Document Revisions Table

Version	Description	Requestor	Date
1.0	Initial Document	Professor Christopher Aaron Barney	12/5/2022

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Level Information

Quick Summary

Never Fade Away is a single-player level where the player will travel to Elpis-γ (one of the volcanoes in "Ring of Elpis") to retrieve research data from the terminal in the volc*ano research lab. Players will get through the coastline section and enemy base section successively, and approach the volcano research lab finally. When the player gets the research data, the terrorists' self-defense protocol is activated and the lab explodes. Due to the explosion volcano eruption, the volcano erupts and the level layout change accordingly. Players need to evacuate the island with limited health and time.*

Design Problem

How to make the backtrack more interesting? For instance, in some games with stealth mechanics, after the player gets the target, the layout may change. In this case, how to design the dynamic of the layout to make the backtrack more challenging and interesting?

Level Feature Overview

Category	Sub-Category	Feature List
Player	Player Weapons	• Handgun with the suppressor • Assault Rifle • Sniper Rifle
	Player Skills/Abilities	• Running • Jumping • Crouching • Health system (all health is instantly regenerated after 4 seconds since the player was last damaged)
AI	Enemies	• Shotgun terrorist • Assault rifle terrorist • Sniper rifle terrorist
	Friendlies	n/a
Challenges	Gameplay Themes	• Retrieving data from the terminal in the volcano research lab • Evacuating from the island after the explosion. • Combats with terrorists.
	Obstacles/Hazards	n/a

Aesthetics	Setting (visual theme)	- External: an island with river and volcanoes including three sections: coastline, enemy base, and volcano research lab - Lab interior: a research lab including a terminal platform, a lava reactor, a helipad, and a warehouse room

Level Maps

Overview Map

Figure 1[1]: Overview Map 1

Map Label	
A	Section A: "Coastline" Section. This is the starting section and only a few enemies guard this area.
B	Section B: "Enemy Base" Section. There are a lot of rocks protruding from the terrain in this section and players can use rocks as cover from enemy gunfire. This is the transition section and many enemies guard this area.
C	Section C: "Volcano Research Lab" Section.. Players need to retrieve the research lab from the terminal in the lab. Terrorists with assualt files and shotguns gun this section and players plan to use the enemies' helicopter to retreat.
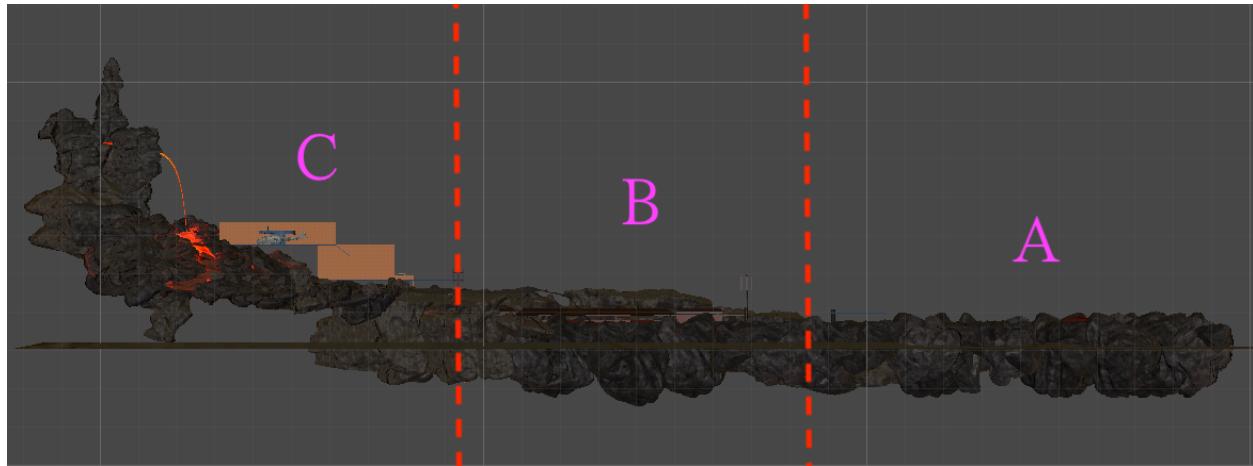
Figure 2[1]: Overview Map 2

Map Label	
A	Section A: "Coastline" Section. The average altitude is about 25 meters. The terrain surface is covered with seawater.
B	Section B: "Enemy Base" Section. The average altitude is about 30 meters.
C	Section C: "Volcano Research Lab" Section. The average altitude is about 70 meters. Players need to take the elevator to reach the platform of the lab.
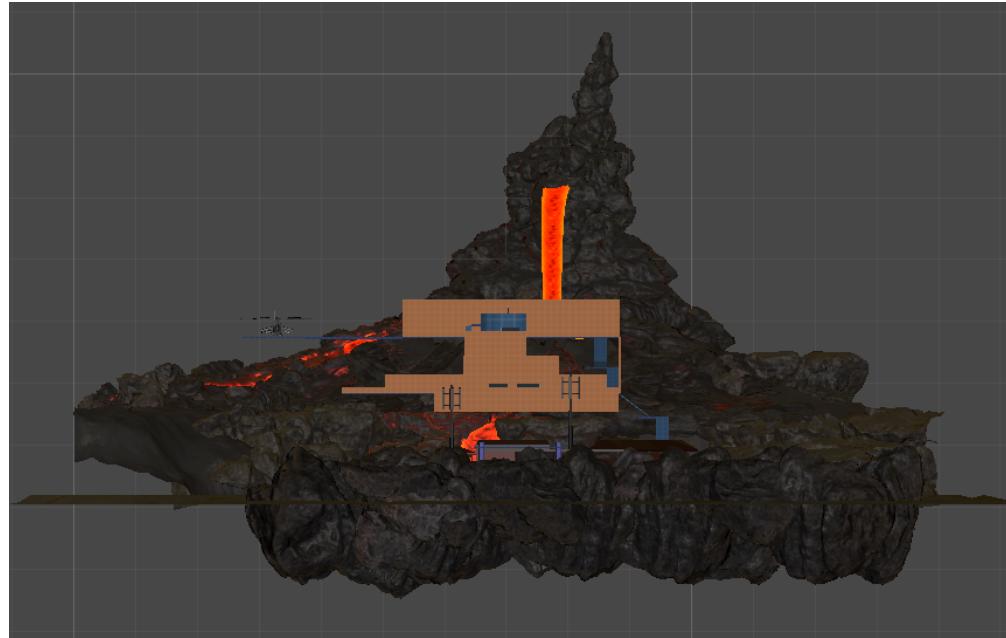
Figure 3[1]: Overview Map 3

Section A (Coastline) first view
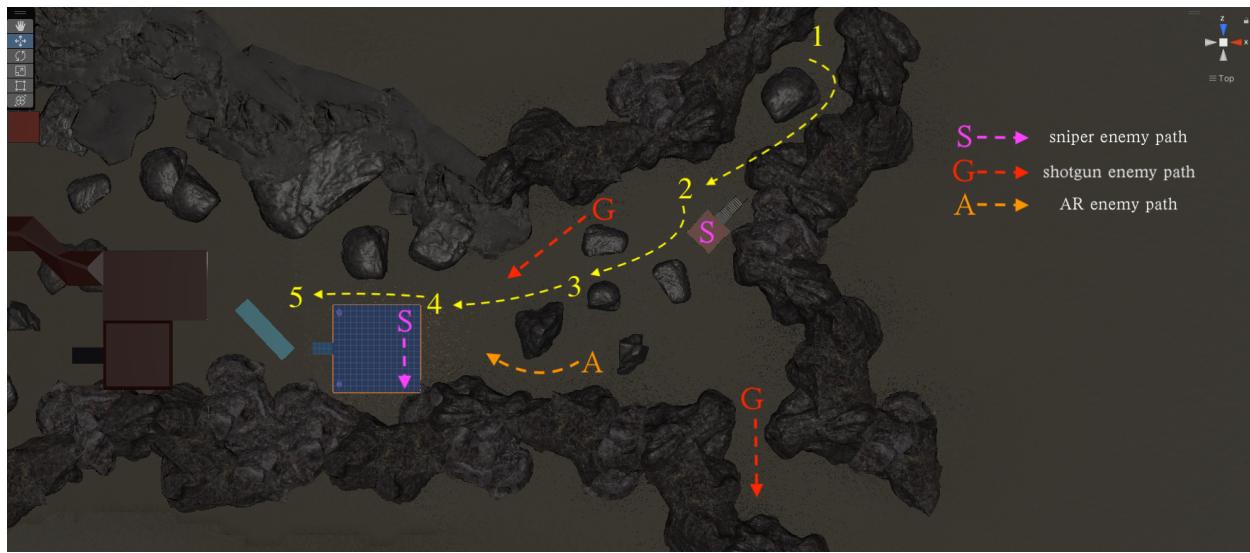
Figure 4[1]: Section A "Coastline"

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern /Property
A.1	Players start the level from here.	Players can get basic information and goal of the level.	1	1:00	
A.2	Players turn the corner and find a guard tower.	The guard tower is occupied with a sniper enemy with its back to the player. The guard tower is a vista point showing players the volcano and the rest of the environment. One **guard twoer**, one **Sniper enemy**. ● An intro of guard tower ● Use mid covers to dodge its attack.	2	1:05	
A.3	Players meet several patrolling enemies.	Protruding rocks serve as cover from enemy detection and gunfire. Similar rock layout pattern is shown in the later section. Five **rocks**, one **Shotgun enemy**, one **AR enemy**. ● An intro of different types of enemy ● Use rock covers to dodge gunfire.	3	1:40	Local Symme tries
A.4	Players approach the enemy outpost.	A sniper enemy guards the enemy outpost and begins fire on players.	2	2:10	

		- Players can takedown the sniper or bypass the enemy outpost.			
A.5	Players pass the enemy outpost.	Players leave the "Coastline" section and enter the next section.	1	2:30	

Section B (Enemy Base) first view

Figure 5[1]: Section B "Enemy Base" Walkthrough a

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern /Prope rty
B.1	Players enter the second section.	Players can see the volcano and lava clearly.	1	2:30	
B.2a	Players reach the enemy base.	Players can use the ladder or use the holes to sneak into the enemy base One **Sniper enemy**.	2	3:00	
B.3a	Players defeat the enemies and go through the corridor.	One **Shotgun enemy**, one **AR enemy**. - Players can use the pillar as cover from enemy gunfire.	3	3:20	
B.4a	Players takedown the enemy and find a secret path.	Players can find a hole on the floor. One **AR enemy**.	1	4:00	

			Approx. Difficulty (1-10)	Approx. Time	Pattern/Property
B.5a	Players find a secret path to the volcano research lab, but the door is locked.	Players jump into the hole and find a path to volcano research lab stairs. However, the door is locked. Players need to find another way to the lab.	1	4:10	Local Symmetries
B.6a	Players need to get through an empty space and takedown the enemies.	Players can see an elevator behind the container. One **guard tower**, one **Shotgun enemy**, one **Sniper enemy**.	2	4:40	
B.7a	Players use the elevator to reach the platform of the lab.	Players leave the "Enemy Base" section and enter the next section.	1	5:30	

Figure 6[1]: Section B "Enemy Base" Walkthrough b

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern/Property
B.1	Players enter the second section.	Players can see the volcano and lava clearly.	1	2:30	
B.2b	Players reach the enemy base.	Players can use the ladder or use the holes to sneak into the enemy base. One **Sniper enemy**, one **AR enemy**.	3	3:10	

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern/Property
B.3b	Players leave the enemy base and enters a space with rocks and enemies.	Players can clearly see the volcano research lab at this location. Players can also find two ways to get to the volcano research lab: - The elevator on the left side - The staircase on the right side	1	3:20	
B.4b	Players meet several patrolling enemies.	Players need to use the rocks as cover from enemy attack. Five **rocks**, two **Shotgun enemies**, one **AR enemy**. ● Use rock covers to dodge gunfire.	4	4:00	Local Symmetries
B.5b	Players takedown the sniper on the guard tower.	Players can see an elevator behind the container. One **guard tower**, one **Shotgun enemy**.	2	4:30	
B.6b	Players use the elevator to reach the platform of the lab.	Players leave the "Enemy Base" section and enter the next section.	1	5:00	

Figure 7[1]: Section B "Enemy Base" Walkthrough c

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern/Property
B.1	Players enter the second section.	Players can see the volcano and lava clearly.	1	2:30	
B.2c	Players turn the corner.	Players can find a patrolling enemy behind the rock. One **Shotgun enemy**.	2	3:00	

B.3c	Players need to takedown the emies.	One **guard tower**, one **Shotgun enemy**, one **AR enemy**.	4	3:30	
B.4b	/	(See information in the previous table)	/	/	

Section C (Volcano Research Lab) first view

Figure 8[1]: Section C "Volcano Research Lab"

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Appro x. Time	Pattern/ Propert y
C.1	Players enter the third section.	Players reach the platform of lab by the elevator	1	5:30	
C.1a	Players can see the helipad.	Players can see the helipad from this location. One **AR enemy**.	2	5:50	
C.2	Players enter the warerhouse where enemies patrol.	Players need to use the boxes as cover from enemy attack. Five **boxes**, one **Shotgun enemy**, one **AR enemy**. ● Use box covers to dodge gunfire.	4	6:10	
C.3	Players go up stairs to the lab.	Players can find the staircase that they don't have access to previously.	1	6:20	

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern/ Property
C.4	Players enter the research lab.	Players can find the terminal (what they need to retrieve data from) as soon as they enter the lab	1	6:30	
C.5	Players need to takedown all the enemies and retrieve the data.	This is the final combat in the first level, and players need to takedown all the enemies in the lab. One **Sniper enemy**, two **Shotgun enemies**, two **AR enemies**. After players takedown all the enemies, they can go to the terminal and retrieve the research data (level goal).	5	7:20	
C.6	Players plan to take the helicopter to retreat.	When players approach the helipad, the research lab explodes. Players are stunned by the shockwave. The scene switches to the backtracking level.	1	7:40	

Section D (Volcano Research Lab) second view

Figure 9[1]: Section D "Volcano Research Lab" Second View

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern/ Property
D.1	Players start the backtracking level from here.	Players wake up and they need to escape from the volcano research lab. - Player's max health is limited to 50 (100 max) due to the explosion.	1	8:00	

		- Players need to escape from the island within 300 seconds or the volcano will erupt.			
D.2	Players can see the change of whole scene.	The explosion leads to rock collapse, and players can use the rocks beneath the window as shortcuts to reach warehouse safely.	1	8:10	
D.3	Players defeat enemies and go downstairs.	One **AR enemy**.	2	8:30	
D.3a	Players can use the stairs as shortcuts to escape.	The stairs are accessible to the players in the backtracking level. It is a safe and time-efficient path.	1	8:50	
D.4	Players defeat the enemies in the warehouse.	Players can see the change of the whole scene clearly and plan their ways in the next section. One **AR enemies**.	2	8:50	
D.5	Players use the elevator to reach the next section.	One **Shotgun enemy**, one **AR enemy**.	4	9:15	

The following sections is applied with Dynamic Difficulty mechanic. The enemy will spawn differently according to the player's in-game behavior at the original level.

1. When the player uses sound suppressor weapons more often and is inclined to sneak, more sniper enemies will spawn to detect the player.
2. When the player uses assault rifle/shotgun rifle weapons more often and is inclined to eliminate the enemies, more assault rifle/shotgun rifle enemies will spawn to fight against the player.

Section E (Enemy Base) second view

Figure 10[1]: Section E "Enemy Base" Second View (Stealth)

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern/ Property
E.1a	Players start section E from here if they use the lab stairs	Players can find the enemy base section in the backtracking level is covered with lava river.	1	9:20	
E.1b	Players start section E from here if they use the elevators.	/	1	9:20	
E.2	Players get through the lava river.	Players can use the sunk containers as platforms to pass through the lava river.	2	9:40	
E.3	Players defeat the enemies and continue escaping.	Players can find the tilted utility pole and walk on it to get to the enemy base. One **Sniper enemy**.	3	10:00	
E.4	Players pass through the enemy base.	Players find the corridor of the enemy base is destroyed. - If players use the utility pole, they can easly pass through to the right section of the enemy base One **Sniper enemy**, one **AR enemy**, one **guard tower.**	4	10:30	
E.5	Players pass though the lava water.	Players use the rocks as platforms to gte through the lava water and approach the enemy base	2	10:30	
E.6	Players takedown the enemy and move to the next section	One **AR enemy.**	3	11:00	
E.6a	Players move to the next section	/	1	11:00	

Figure 11[1]: Section E "Enemy Base" Second View (Combat)

Section F (Coastline) second view
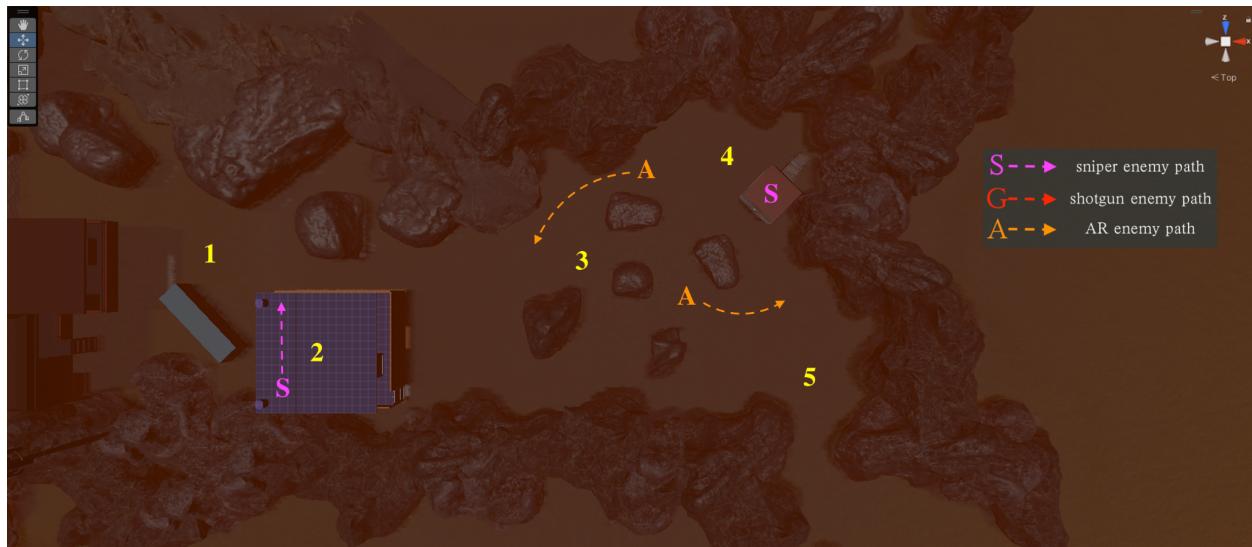
Figure 12[1]: Section F "Coastline" Second View (Stealth)

Map Label	Event Summary	Event Details/Design Logic	Approx. Difficulty (1-10)	Approx. Time	Pattern/ Property
F.1	Players start section F from here.	Players need to pass through the last section to retreat.	1	11:00	

F.2	Players defeat enemies and reach the enemy outpost.	The enemy outpost provides players with good sight of view on the following environment. One **Sniper enemy**.	2	11:15	
F.3	Players takedown enemies.	Protruding rocks serve as cover from enemy detection and gunfire. Five **rocks**, one **Sniper enemy**, two **AR enemies**. ● Use rock covers to dodge gunfire.	4	11:50	
F.4	Players find the original entrance is blocked by rocks.	Players need to find another way to escape.	2	12:00	
F.5	Players successfully escape from the island.	Mission Complete!	1	12:10	

Figure 13[1]: Section F "Coastline" Second View (Combat)

Hooks/Gameplay Highlights

- Interesting weapon.
  - The handgun with suppressor is interesting. Players can use the handgun to kill the enemy without detection.
  - Not too OP because of limited ammos. Before players getting bored, the level is over.

- Backtracking needs players think more.
    - Players need to perform backtracking and the level layout changes. Players need to evacuate the island with limited health and time.
    - Dynamic difficulty mechanic is applied in the backtracking level. The enemy will spawn differently according to the player's in-game behavior at the original level.

Context

- This is a main quest at the start of the game, where the players just know the terrorist orgainization claims to activate the "Ring of Elpis".
- The level should be located at Elpis-γ in the "Ring of Elpis". Before players lands on the island, players don't know the enemy and hostage information. Players are sent by "the Boss" to retrieve the data from the volcano research lab.

Backstory

Set in 2044, famous geologist Albert Alexander finds a group of volcanoes southwest of the Pacific ocean. More importantly, Alexander confirms that the volcanoes have great potential for geothermal energy that can solve the world energy crisis, and he names the group of volcanoes as "Ring of Elpis". Scientists and researchers from different countries join the research team to further investigate the volcanoes. However, many team members disappear after their investigation. Several months later, the notorious terrorist organization, "Faded", claims to be responsible for kidnapping the researchers and also announces that they will blow up and activate the "Ring of Elpis". Scientists estimate that the activation of the volcanos will lead to disaster-level tsunamis and kill millions of people around the pacific coast.

Aftermath

- Give the volcano research data to "the Boss". He will receive it. The Elpis-γ finally erupts and causes an earthquake.
- The earthquake activates other volcanoes in "Ring of Elpis". "The Boss" will send the player in charge of investigating the status of other volcanoes.

Patterns:

Does the game read my mind?

Pattern link: https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/1353

I See Where You Are Going with This

Pattern link: https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/242

It All Depends On How You Look At It

Pattern link: https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/142

Temporally Unavailable Space

Pattern link: https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/176

Same Place, Different Place

Pattern link: https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/856

Oh crap, what can I do…

Pattern link: https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/853

Main Level Pattern: Same Place, Different Place

In the level, After the player successfully lands on the island, the player needs to find a way to approach the volcano research lab and get the research data. The player will get through the island arrival section and enemy base section successively, and arrive volcano research lab finally. The player plans to use the submarine in the lab to escape. However, when the player gets the research data, the terrorists' self-defense protocol is activated and the lab explodes. The player is stunned by the shockwave until the other agent wakes him up with the radio. The agent uses the radio to communicate with the player that the volcano has started to erupt and will erupt dramatically in five minutes. Hence, the player needs to evacuate the island. Due to the volcano eruption, the level layout and scene changed accordingly.

Additionally, the enemy is reinforced due to the explosion. The player's health is decreased to 50 (100 max) in the backtrack due to the explosion.

Level Pattern: I See Where You Are Going with This

In the backtracking level, limited health and time are introduced, and the level layout changes because of the volcano eruption. The backtracking level is challenging, but it is also balanced. The player is familiar with the original level and the level changes are based on the original level. Additionally, the player progresses downstream and takes advantage of the height (information acquisition).

Level Pattern: Temporally Unavailable Space

Temporally unavailable space is introduced in the level to keep players engaged with the backtracking level. For instance, there are several doors and corridors that are inaccessible to the player at the original level. However, the player can use these doors and corridors as shortcuts in the backtracking level. They are safer and more time-efficient.

Level Pattern: It All Depends On How You Look At It

In the original level, when the player lands on the island, a vista shows the volcano research lab and the player needs to progress upstream to approach the research lab. In the backtracking level, the player needs to progress downstream to escape from the island. The "low angle" is adopted here to allow the player to see the full scope of the changed level and be able to plan his/her way.

Backtrack:

Level Pattern: Does the game read my mind?

In the backtracking level, the dynamic difficulty mechanic is applied. The enemy will spawn differently according to the player's in-game behavior at the original level.

1. When the player uses sound suppressor weapons more often and is inclined to sneak, more sniper enemies will spawn to detect the player.
2. When the player uses assault rifle/shotgun rifle weapons more often and is inclined to eliminate the enemies, more assault rifle/shotgun rifle enemies will spawn to fight against the player.

Level Pattern: Oh crap, what can I do…

In the backtracking level, the escape time and the player's health are limited to create a more intense encounter.

Aesthetic References

The level is based on a volcano, and the three sections will be built on the island.

Figure 14[1]: Volcano

Figure 15[1]: Guard Tower
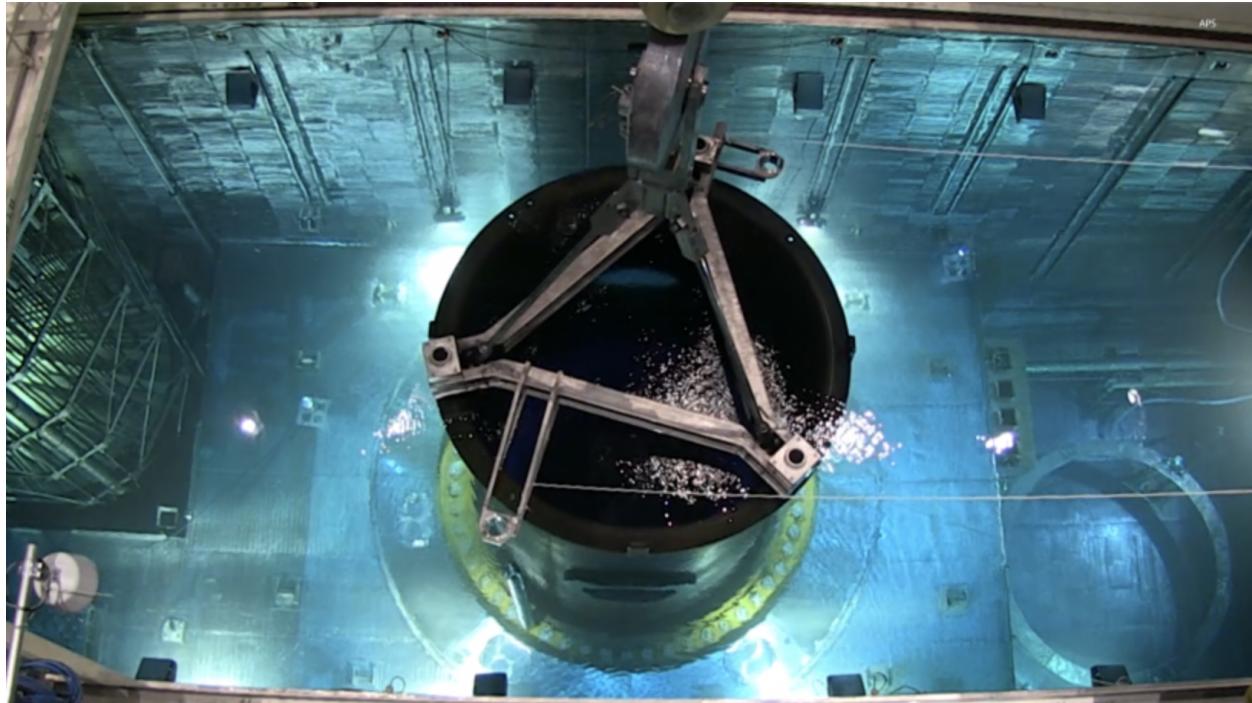
Figure 16[1]: Nuclear Reactor

Figure 17[1]: Lava Rock

Figure 18[1]: Utility Pole

Figure 19[1]: Research Lab

References and Asset Lists

Lava and Rock (unity asset store):

https://assetstore.unity.com/packages/tools/terrain/l-v-e-2019-lava-volcano-environment-2019-147383