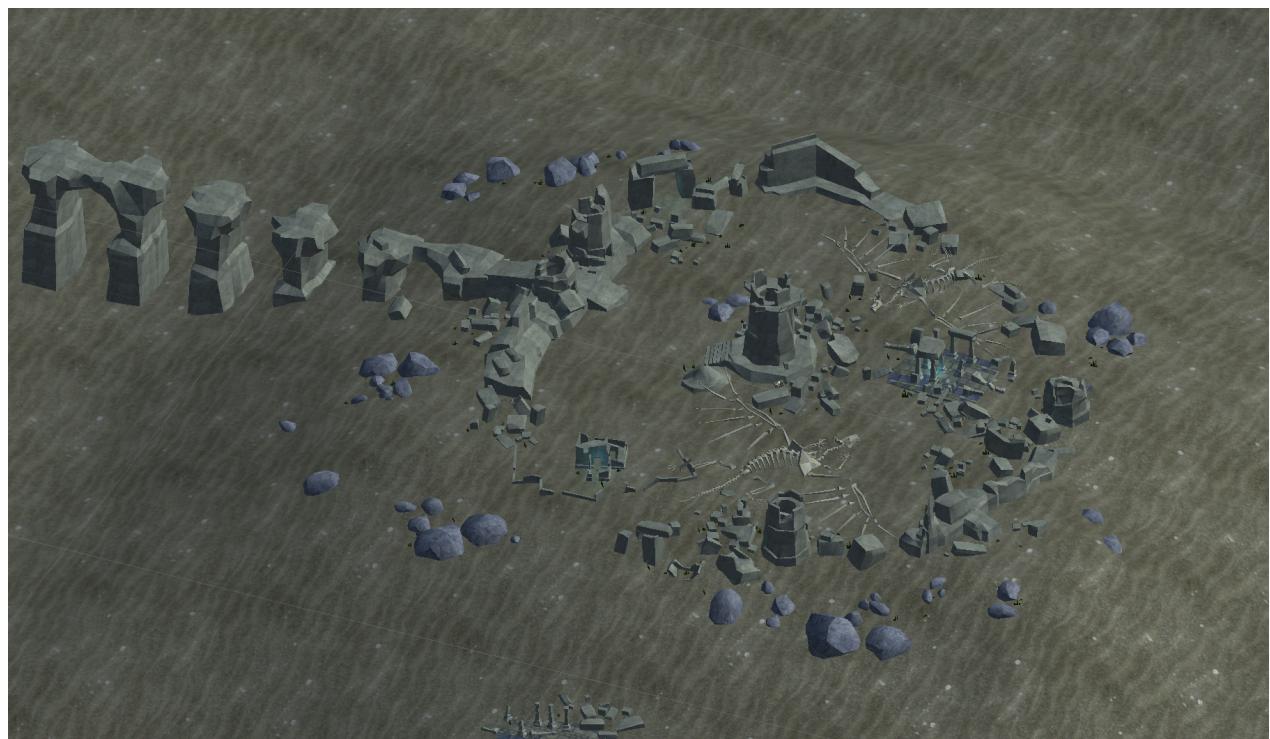
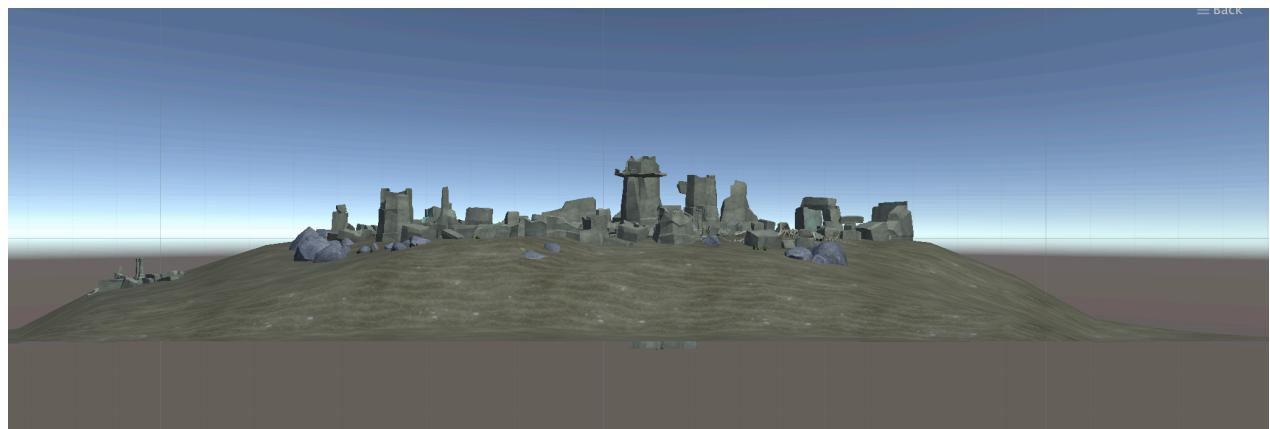


Introduction

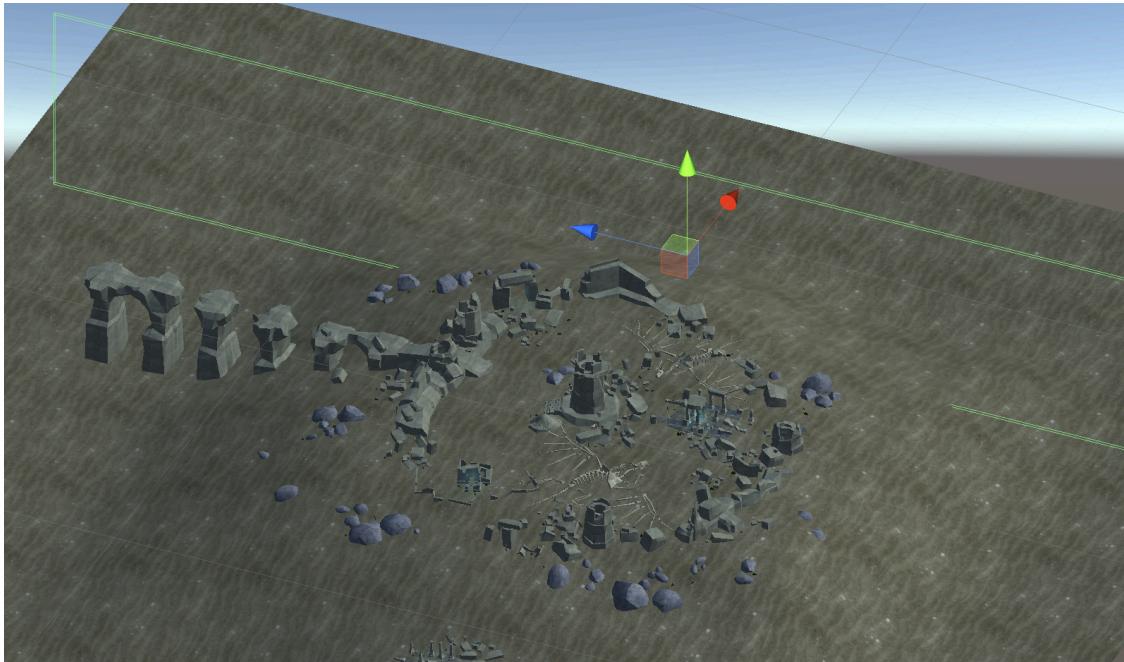
The game is set in a 3D ruin environment. This game has 2 scenes connected by a portal. Scene1 is relatively vast and you can see the remains of the temples, towers, walls and a bridge, as well as remains of giant dinosaurs. In this scene, the player could find and change the gun and is supposed to find the teleport. Scene2 is a combat scene where there are 3 enemies. The player should approach and shoot them to win the game.

Scene 1

Overview of the Ruins

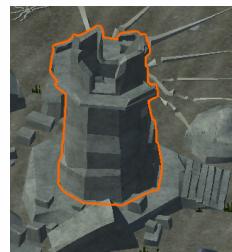


The game does not have a complete wall to restrict player's movement, so we use 4 gameObjects as boundaries. The effect figure is as follows:



This scene combines with 481 objects, which all with background have 25,259 polygons or 24,928 verts. Textures in TIF file format, 512x512. The materials are obtained from the Internet. Some main materials are listed below:

1. The central tower and the base

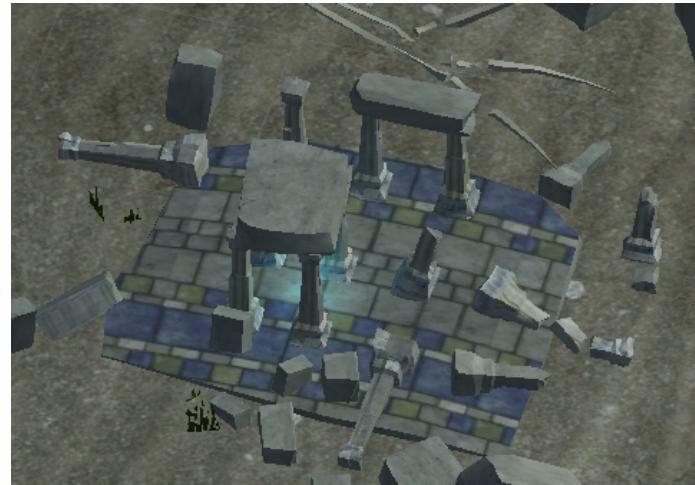


An ancient building.

2. The bridge



3. The remain of the temple



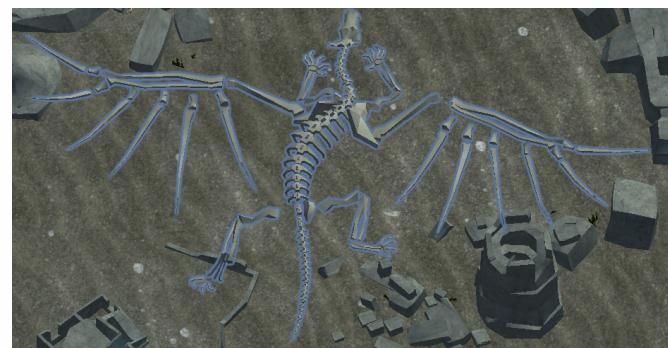
This Greek style temple is built by rocks, columns of different shapes and a base.

4. Walls



These are separate walls of different styles contributing to the ruin.

5. The remaining of the dragon



This object obtained from the Internet consists of over 100 bones.

6. Grass

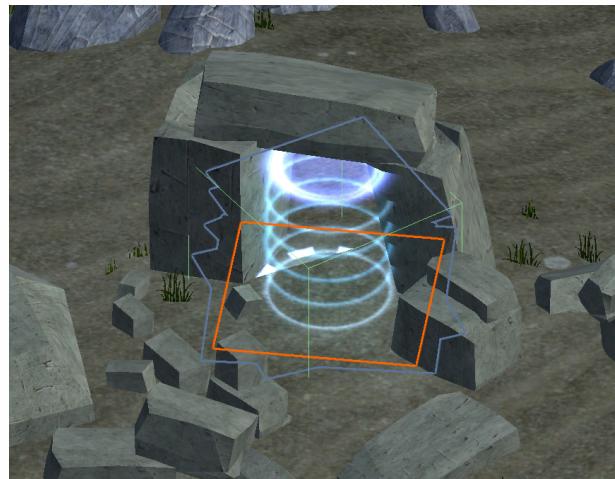


7. Supply station



At that spot, the player can get and use this gun. After that the blue display effect, which uses particle effect and will be introduced later, will disappear.

8. Portal



This spiral portal can teleport the player to the scene2 and its implementation method is similar to the previous supply station.

9. Gun



Display in the supply station. The material is fetched from the Internet. In this scene, there are 2 guns in total for supply. If taking the original gun provided at the birth into consideration, you could choose one out of three to equip yourself by pressing the "1", "2" or "3".

Here are the demonstrations when the character takes different guns:



Later, we will introduce the function of switching guns by looking at scripts.

10. Other bricks and rocks



Particle Effect in Scene1

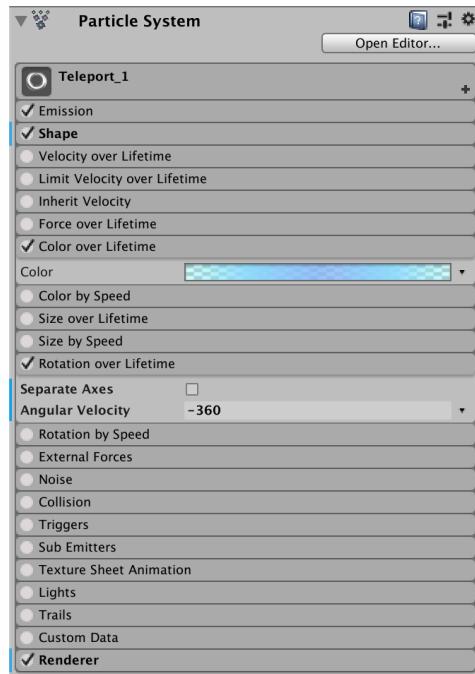
The particle system is a two-dimensional image rendered in three-dimensional space, mainly used for effects such as smoke, airflow, flames, ripples, etc. A particle system consists of three independent parts: a particle emitter, a particle animator, and a particle renderer.

1. Supply station

The effect of the halo in the supply station is mainly made up of three parts, dotted light, columnar light and the glow at the bottom.

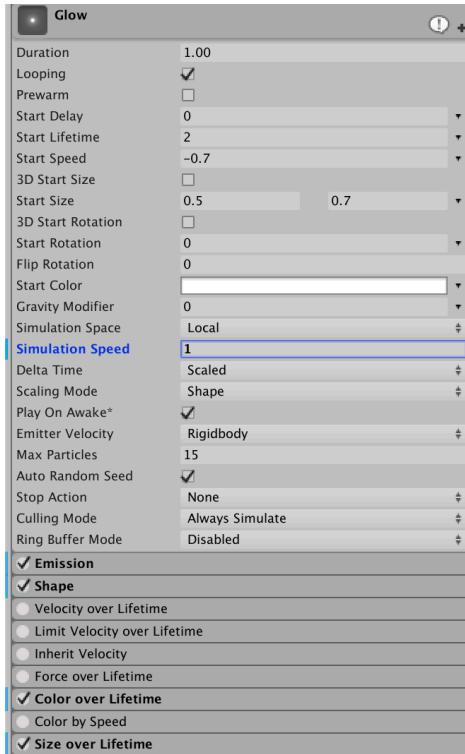


Here is the property setting of this particle effect:



Specially, the attribute named "rotation over Lifetime" contributes to the aura rotation effect making the halo dynamic.

As seen in the screenshot before, there are slowly falling starlights. They are implemented by the settings below:

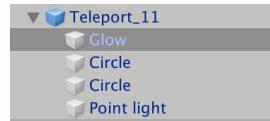


Specailly, the line marked as blue determines the velocity of falling.

Lastly, the Cylinder object is to enhance the columnar stereo effect. All in all, these made from particle system contribute to a marvelous effect.

2. Portal

This portal uses a spiraling blue light effect, creating a strong sense of technology. The object is organized as follows:



The spiral rise effect is achieved by the following settings:



Other objects deal with some details. And they together contribute to the cool portal.

Scene 2

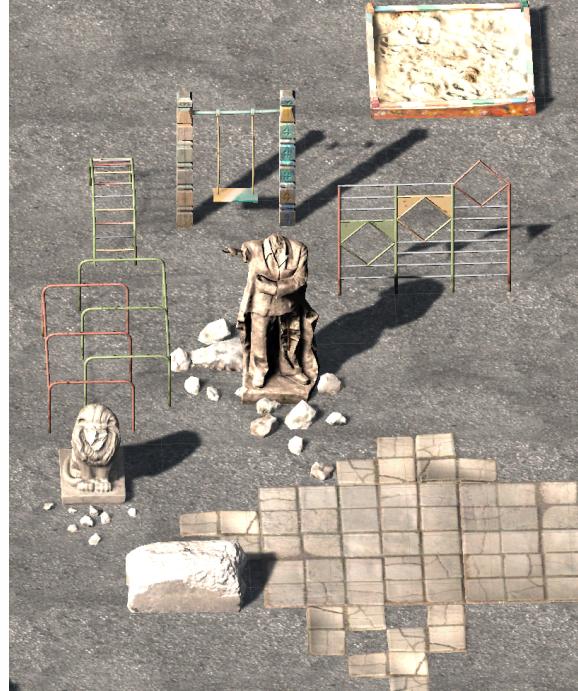
Overview of the scene



In this scene, the player should shoot down three enemies and win the game. Specifically, these enemies will shoot you when you approaching, which is awful and you should avoid this situation. This scene is quite even and has walls to constraint the movement of the player. There are some barriers and bunkers you can cover on the ground.

Most of the materials in this scene are obtained from the Internet. Some main materials are listed below:

1. Decorative items





2. Broken wall



The player can go through the doorway.

The materials in Scene2 are almost static and fetched from the Internet easily.

Scripts

1. The function of switching guns

When the character reaches the supply station, colliding with the box of the particle effect, he can get a new gun. That is implemented by the script as follows:

```
1 public GameObject gun1;
2 public GameObject gun2;
3 public GameObject gun3;
4 public GameObject flame; //the flame at the muzzle
5 private Animator anim; //the character
6
7 private void OnTriggerEnter(Collider other)
8 {
9     if (other.transform.name == "Teleport_1") //the supply station
10    name
11    {
12        gunMode.gameObject.SetActive(false);
13        other.gameObject.SetActive(false);
14    }
15 }
16 void Update()
17 {
18     if (Input.GetMouseButton(0))
19     {
20         //when press down the Left, display the animation of the
21         gun flame
22         flame.SetActive(true);
23     }
24     else
25     {
26         flame.SetActive(false);
27     }
28     if (Input.GetKeyDown(KeyCode.Alpha1))
29     {
```

```
28         //display the animation of switching guns
29         anim.SetBool("isCut", true);
30     }
31     if (Input.GetKeyUp(KeyCode.Alpha1))
32     {
33         anim.SetBool("isCut", false);
34         gun1.SetActive(true);
35         gun2.SetActive(false);
36         gun3.SetActive(false);
37     }
```