
First Person Roaming, Combine model and interaction

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Abstract

Combine is a first person roaming. When I first arrived in the West, I was attracted by Western architecture, so I searched some information online. At the same time, I got the revelation by watching the exhibition of the Moma. I decided to do a building which is a combination of famous buildings in the East and West. I have learned about Western art and architectural history by understanding German expressionism, Dadaism, Surrealism, etc. And I combine the culture of the East and the West to build the building.

The final demonstration is that the player can control the first person character to work through the scene.

Authors Keywords

Combine; First Person Roaming; Eastern Architecture;
Western Architecture

MEETING 4: REFLECTIVE ITERATION 1

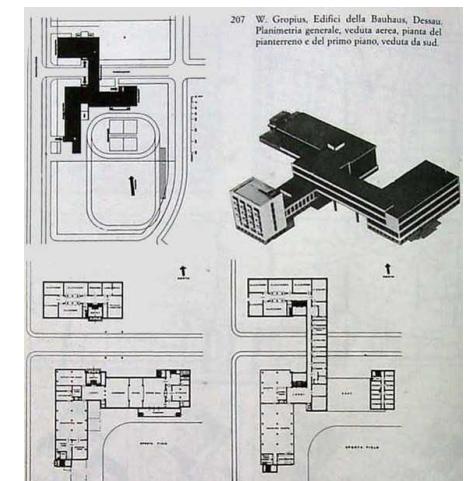
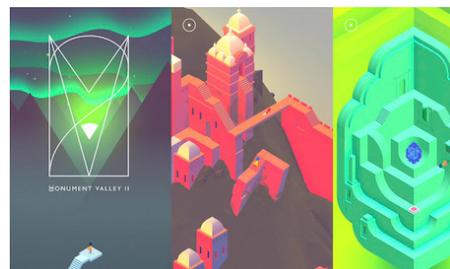
After Kate saw the documentation of my folio1, she thought that I didn't know exactly what I wanted to do. If I just want to learn a skill to make a normal castle or building, this is not convincing enough.

After the conversation, I thought a lot. Architecture is my theme, and how to build a distinctive building has become my main problem. I went to NGV last week to watch the Moma exhibition. The whole exhibition was distributed according to the progress of art development. I found that each period has different artistic expressions. Especially as the industrial revolution progresses, the artist regards beautiful industrial products as a kind of artwork. This is different from the previous definition of art – something created by artists. This concept gave me a revelation that I can combine art with current technology. In particular, George Grosz's painting "Explosion" gave me a lot of inspiration. He tried to break the previous perspective and present the horrors of World War I in a messy building. It shows the disorder of the order of the world after being destroyed by some people. It was just the first time I experienced Western culture for a long time and felt the huge difference between Eastern and Western cultures. I felt that I could combine the distinctive buildings of different regions to create a new type of building.



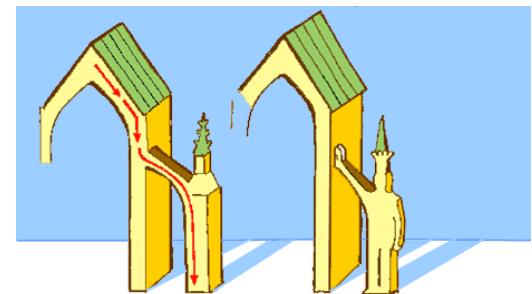
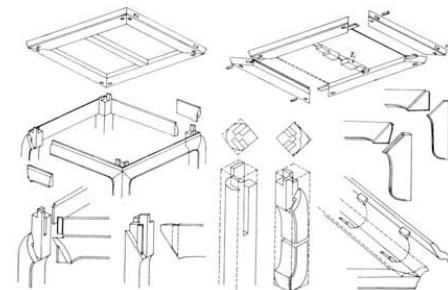
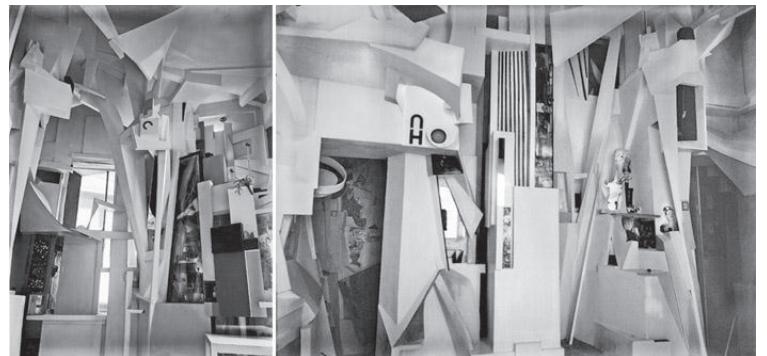
MEETING 5: REFLECTIVE ITERATION 2

I made several attempts on how to combine buildings. The first is to build different buildings around the cuboid, just like the scene in Monument Valley, and we can also walk through the building and add puzzle elements. The second is to combine the architecture of the Bauhaus school building to combine different styles of buildings. Because Bauhaus leads to pragmatism. It has had a profound impact on modern design. This combination of different styles of architecture will produce a fresh aesthetic. And I can also add a maze to the building to increase more fun of the game. After doing this, I discussed it with Kate. She suggested that I could be more bold and combine the new features of the different buildings with the most distinctive features. Kate shared with me The Foxes which draw by Franz Marc's . Marc was influenced by Italian Futurism and French Cubism to break down of the representational into abstract, prismatic forms with rhythmically harmonized colours. He deconstructs the pictures of the animals into abstract blocks and then recombines them to reveal their inner spiritual world. But how to combine it in 3D space is a difficult part.



MEETING 6: CONCLUSION

I have found a lot of information online, mainly about German Expressionism, Dadaism, and Surrealism. These genres are aimed at breaking the tradition and aiming to create new forms of art. At the same time, they respect the inner feelings of people and prevent art staying in the technique. While reviewing the materials, I noticed that the world famous female architect Dame Zaha Mohammad Hadid designed a gallery to pay tribute to Dadaism. I saw some of her concept maps and gave me inspiration. I decided to put different buildings together in a memorable way. In order to increase the interactive experience of the game, I want to add the maze part. Use special parts of different styles of buildings to build walls and build labyrinths of different styles. So it's not just to intersperse the buildings, but to combine them into one. There have been no successes through many attempts. Then I decided to go back to the previous idea which is how to intersperse the building. The structure of Western architecture and Oriental architecture is very different. The east building are made of wood. They used of Sun Mao deconstruction not only does not require nails to fix, but also uses the traction between the wood to prevent earthquakes and prevent the building from collapsing. The West people use Buttress to share the weight of the house. Especially for the application of Flying Buttress in Gothic architecture, it designed Buttress where people can see to break the original structure of the house and building a higher roof. So I decided to use Flying Buttress to connect my building. Flying Buttress is like a human hand, and the gravity of the roof can be transmitted to the ground along the Flying Buttress.



Folio #1

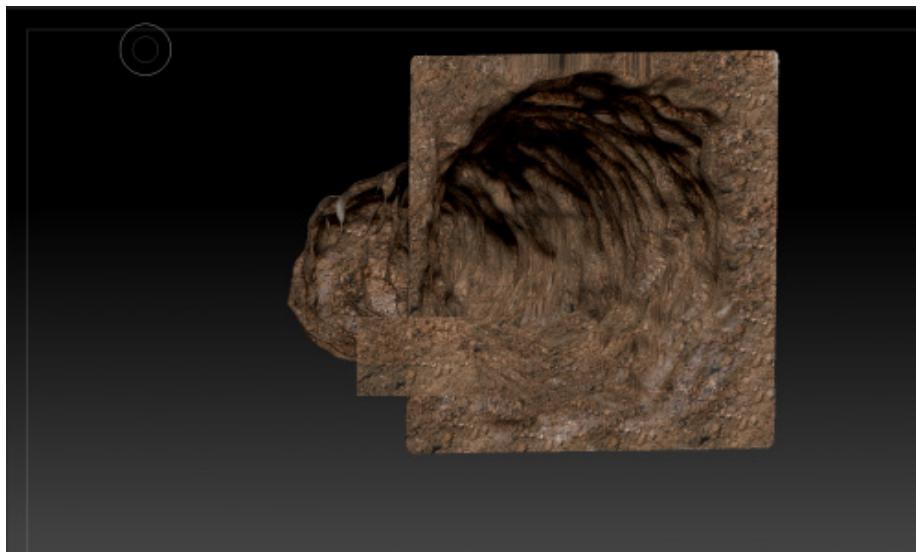
VR RPG Game, Fate

Abstract

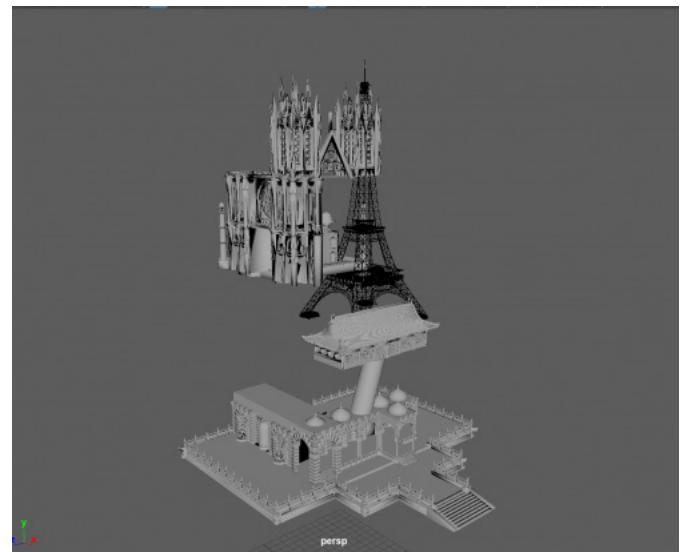
Fate is a VR RPG game. When I first arrived in the West, I was attracted by Western architecture, so I searched some information online and got a deeper understanding of Western architecture. Since I prefer to watch horror movies. I have got a stereotype of Western architecture which are gloomy, horrible, and fighting. So, I want to design this game.

At the same time, I have not used the software which used to make games for a long time. I want to familiarize with Maya and Unity through this production. I have never done a VR game before, so I want to try it this time and make a breakthrough in technology.

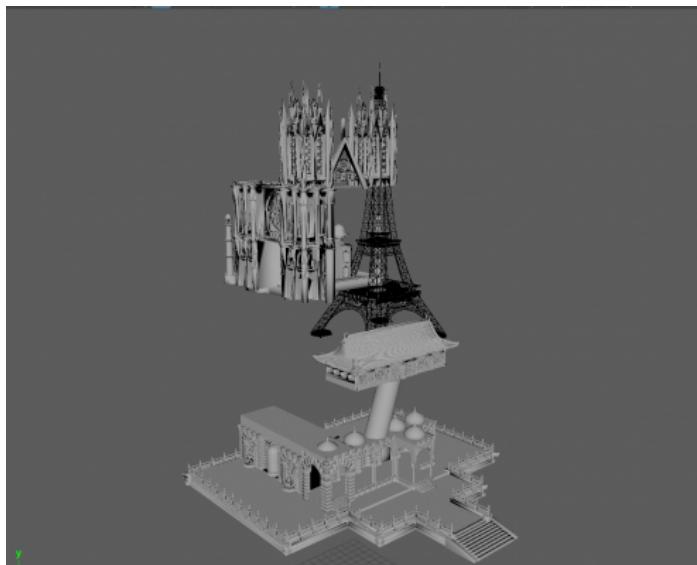
The final demo is that the player can see a forest after passing through the cave with water and an abandoned castle in the middle of the forest.



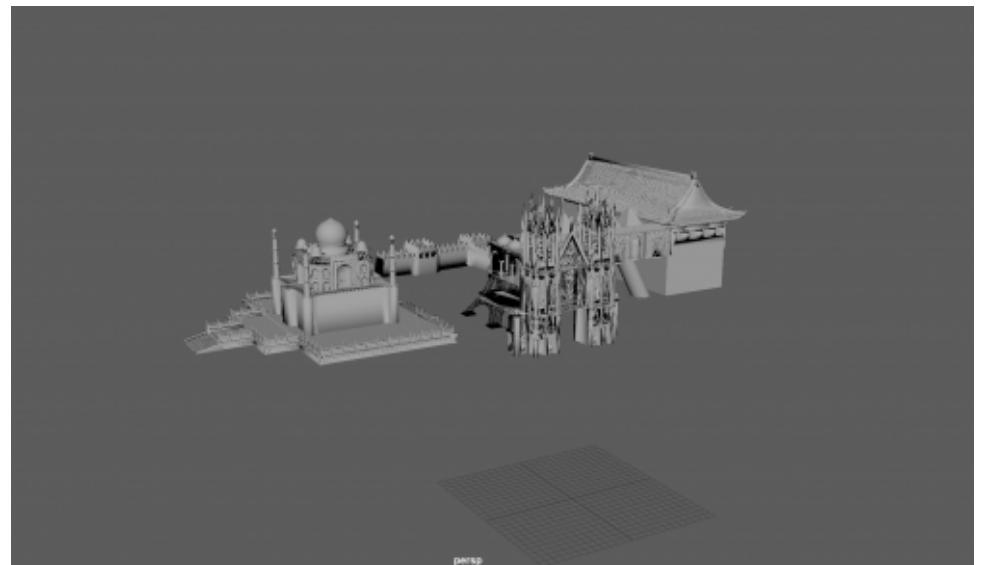
In the seventh week I was working on the folio 1 project. I took a look at ZBrush's tutorial online and learned how to use ZBrush. Then I made a cave.



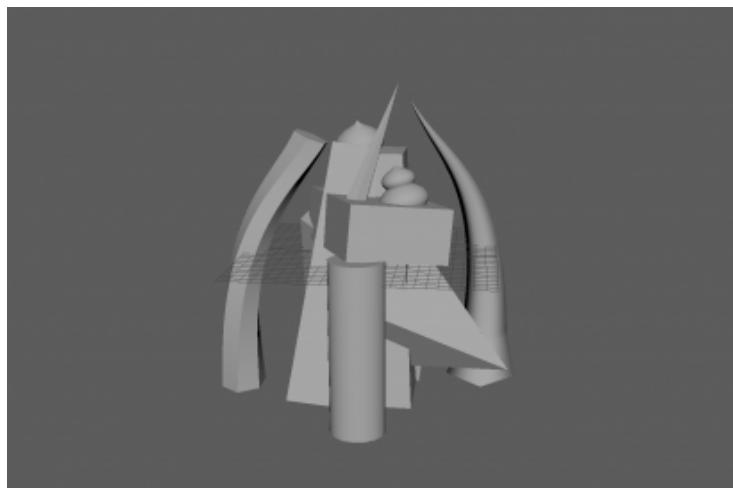
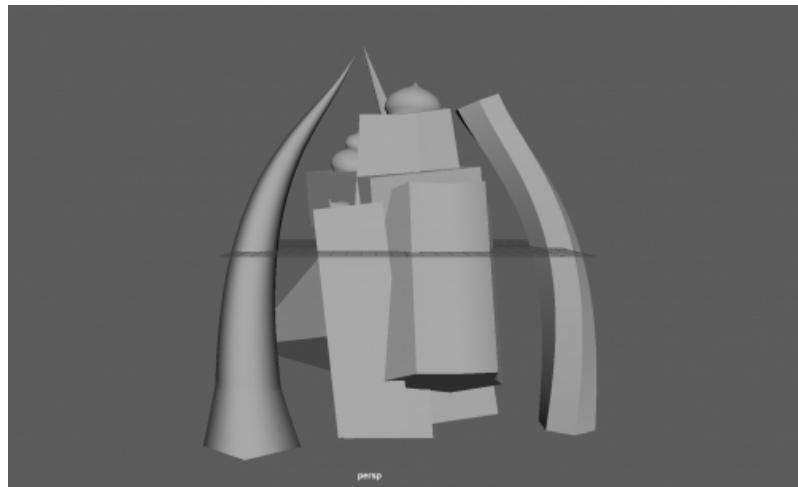
In the seventh week I also learned how to use SpeedTree to adjust all the parameters of the tree I want.



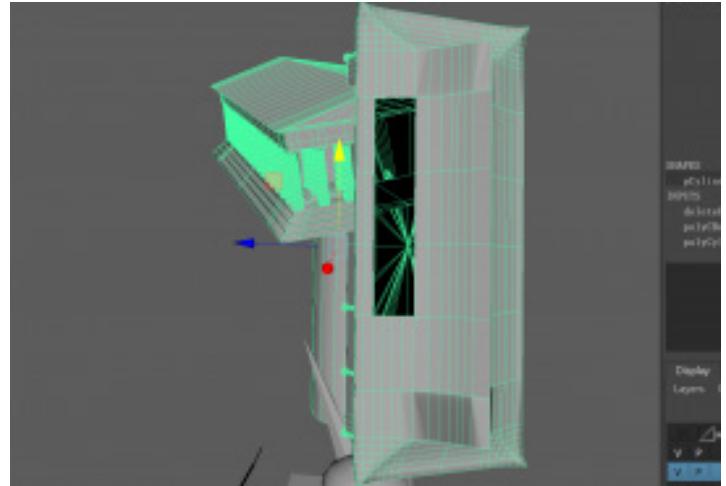
I made several attempts on how to combine buildings. The first is to build different buildings around the cuboid, just like the scene in Monument Valley, and we can also walk through the building and add puzzle elements. The second is to combine the architecture of the Bauhaus school building to combine different styles of buildings. Because Bauhaus leads to pragmatism. It has had a profound impact on modern design. This combination of different styles of architecture will produce a fresh aesthetic. And I can also add a maze to the building to increase more fun of the game.



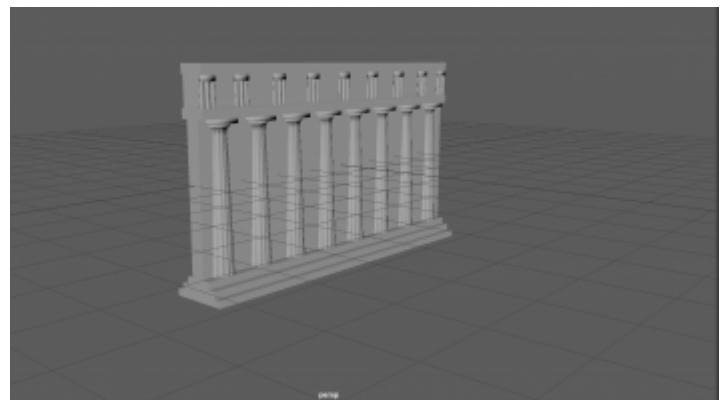
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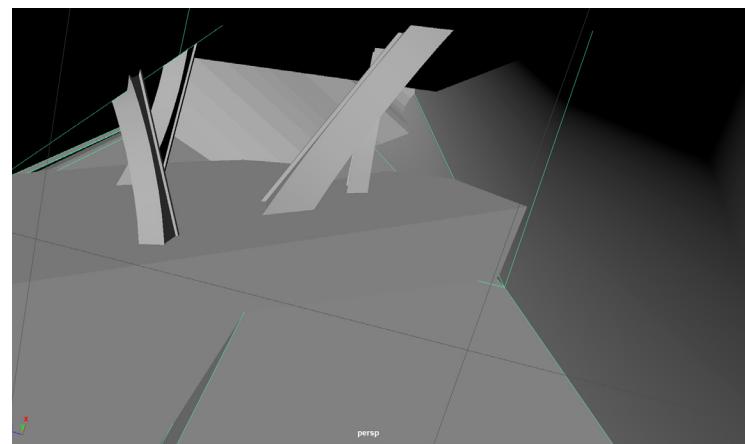
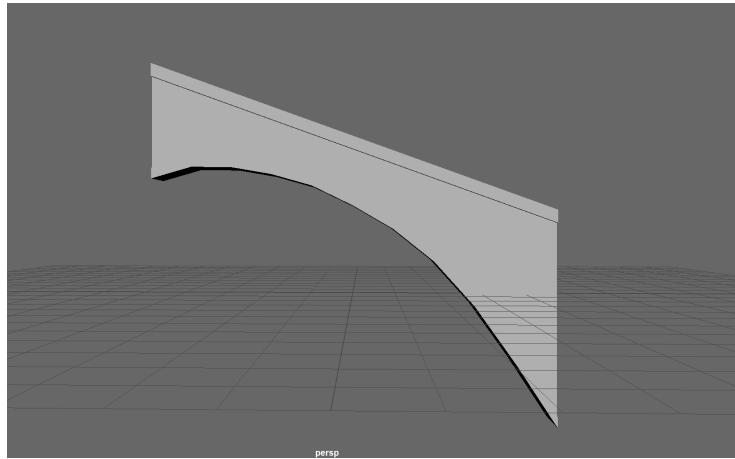
I used some simple models to make a combination which is what I want to build. I listened the advice of Kate and Max, not always mechanically combining the buildings.



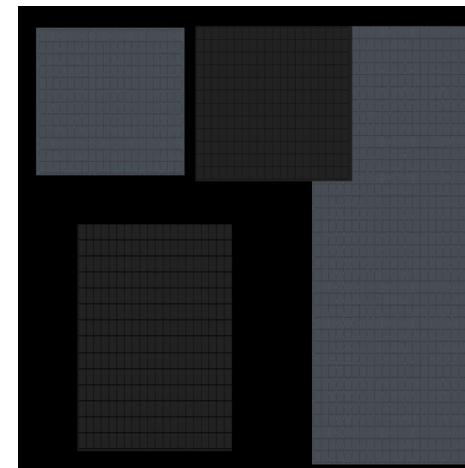
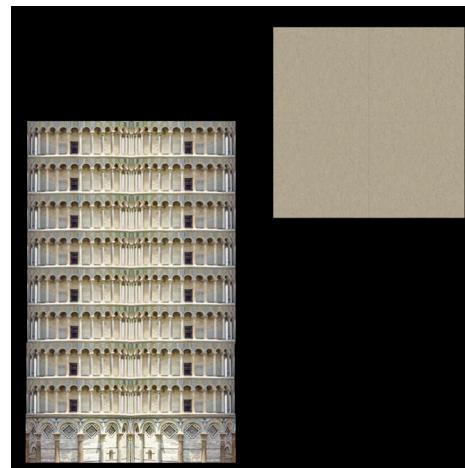
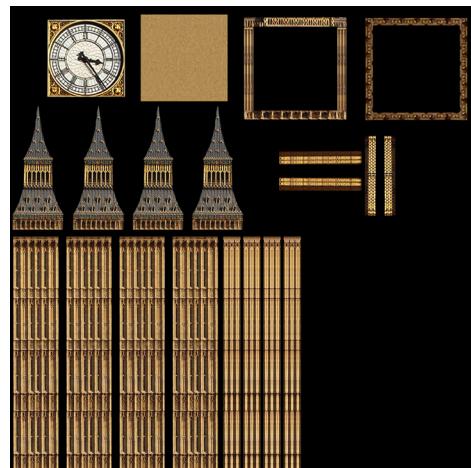
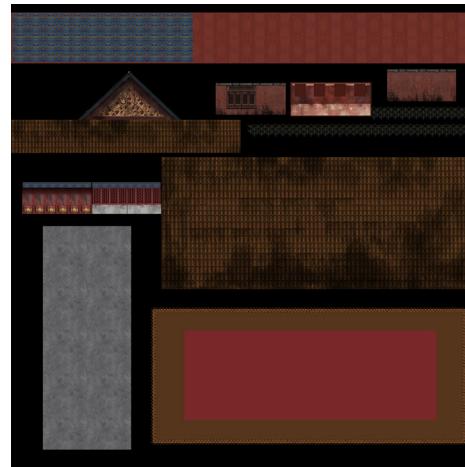
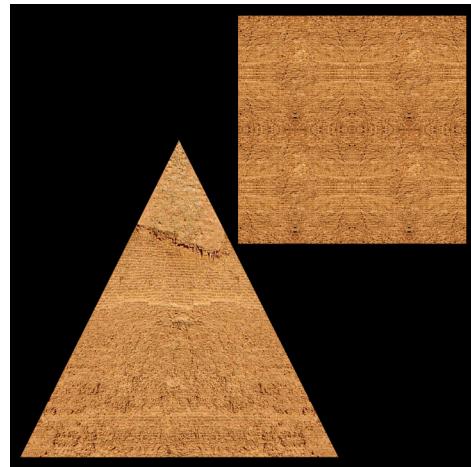
In order to be able to join the maze, I have to really combine all the buildings together. however, I found bugs when using the MAYA combination. If you combine two or more models together, all models will be deleted.



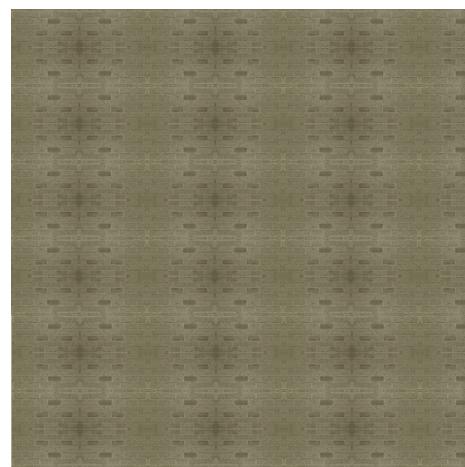
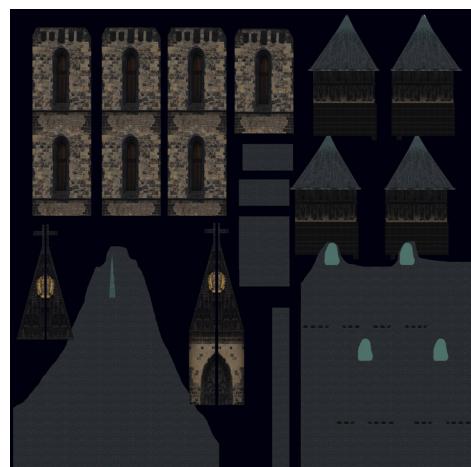
This is a wall made up of the pillars of the Parthenon, which can be used as a partition for the labyrinth in the future.



The West people use Buttress to share the weight of the house. Especially for the application of Flying Buttress in Gothic architecture, it designed Buttress where people can see to break the original structure of the house and building a higher roof. So I decided to use Flying Buttress to connect my building. Flying Buttress is like a human hand, and the gravity of the roof can be transmitted to the ground along the Flying Buttress.



I used Unfold3D to expand the model's UV and use Photoshop to draw the texture. This is the texture for all models.



```

1 using System.Collections;
2 using System.Collections.Generic;
3 using UnityEngine;
4
5 public class characterController : MonoBehaviour {
6
7     public float speed = 10.0f;
8
9     // Use this for initialization
10    void Start () {
11        Cursor.lockState = CursorLockMode.Locked;
12    }
13
14    // Update is called once per frame
15    void Update () {
16
17        float translation = Input.GetAxis("Vertical") * speed;
18        float straffe = Input.GetAxis("Horizontal") * speed;
19        translation *= Time.deltaTime;
20        straffe *= Time.deltaTime;
21
22        transform.Translate(straffe, 0, translation);
23
24        if (Input.GetKeyDown("escape"))
25            Cursor.lockState = CursorLockMode.None;
26    }
27 }
28
29

```

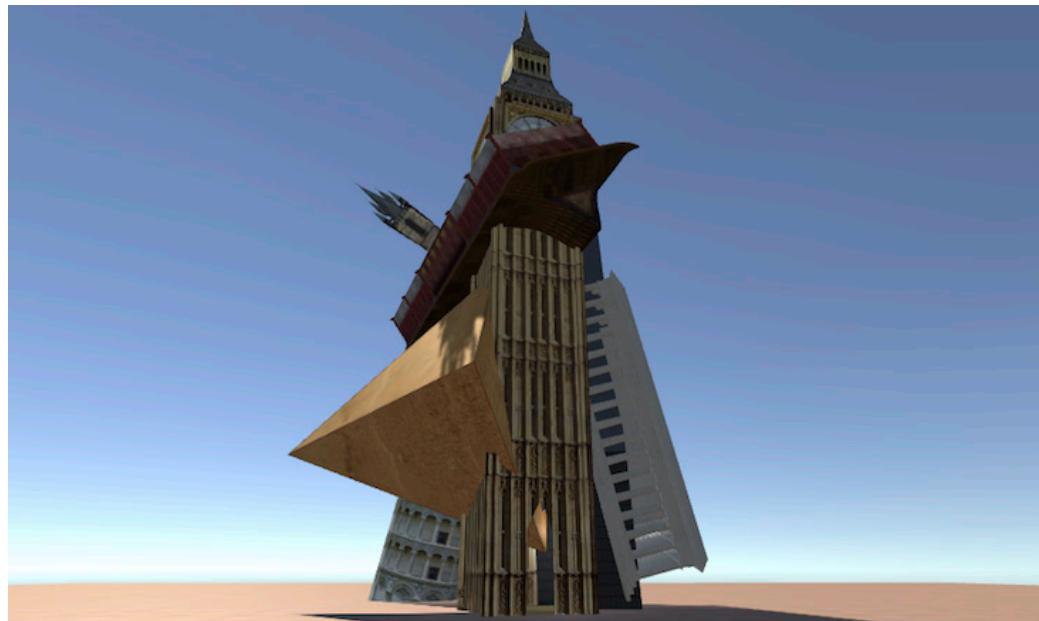
This is the code which I write down by C# can control caretector to work.

```

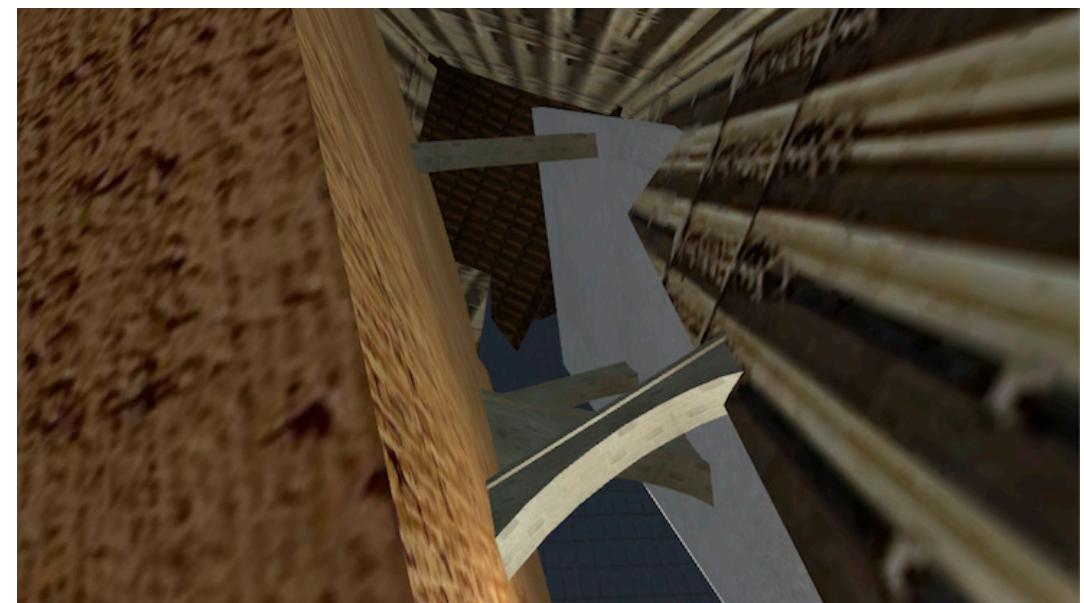
1 using System.Collections;
2 using System.Collections.Generic;
3 using UnityEngine;
4
5 public class camMouseLook : MonoBehaviour {
6
7     Vector2 mouseLook;
8     Vector2 smoothV;
9     public float sensitivity = 5.0f;
10    public float smoothing = 2.0f;
11
12    GameObject character;
13
14    // Use this for initialization
15    void Start () {
16        character = this.transform.parent.gameObject;
17    }
18
19    // Update is called once per frame
20    void Update()
21    {
22
23        var md = new Vector2(Input.GetAxisRaw("Mouse X"), Input.GetAxisRaw("Mouse Y"));
24
25        md = Vector2.Scale(md, new Vector2(sensitivity * smoothing, sensitivity * smoothing));
26        smoothV.x = Mathf.Lerp(smoothV.x, md.x, 1f / smoothing);
27        smoothV.y = Mathf.Lerp(smoothV.y, md.y, 1f / smoothing);
28        mouseLook += smoothV;
29
30        transform.localRotation = Quaternion.AngleAxis(-mouseLook.y, Vector3.right);
31        character.transform.localRotation = Quaternion.AngleAxis(mouseLook.x, character.transform.up);
32    }
33 }
34

```

This is the code I used to control the character's field of view with C#.



This is the final rendering.



References

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