Week 4: Life Within Objects



Initial Concept

This week's project focuses on *Artificial Life and Emergence*, exploring how simple rules and code can generate complex forms and behaviours.

At the beginning, I was interested in the relationship between artificial objects and natural life. I started thinking about whether something that is originally lifeless could become a place where new life begins.

This led me to the idea of using broken Chinese porcelain as the main element of the project. Porcelain is fragile and can easily break, but I wanted to explore the possibility of life growing from these damaged objects. Instead of treating broken porcelain as something abandoned, I imagined it becoming a new environment for organic growth.

Visually, I wanted to combine contemporary Chinese aesthetics with surreal natural forms. I imagined several partially broken porcelain vessels resting in a quiet lake, surrounded by traditional Chinese landscape elements such as scholar rocks, water and mist. Strange plants would gradually grow from the cracks and openings of the porcelain, creating a contrast between fragile artificial objects and living organic structures.

For the technical part, I planned to combine environment design in Blender with procedural generation using Python. Rather than manually animating every plant, I wanted to explore how code could control the growth and branching of organic structures. I also considered adding a flock of birds, using simple behavioural rules to create a sense of life within the environment.

Visual Research & Exploration

During the visual research stage, I explored different ways of combining traditional Chinese aesthetics with surreal organic forms. I wanted the environment to feel poetic

and peaceful, but also slightly unusual, as if a new form of life was slowly appearing in a familiar world.

One of my main inspirations was a digital artwork showing human sculptures covered with coral–like structures and organic growth. I was particularly interested in how the plants seemed to become part of the sculptures, rather than simply growing around them. This inspired me to explore a similar relationship between broken porcelain and artificial life.





At the same time, I looked at contemporary Chinese–inspired digital artworks, especially their use of porcelain, scholar rocks, reflective water and delicate botanical details. I was drawn to the soft colours, elegant materials and carefully arranged compositions. However, I did not want to recreate a traditional Chinese garden. Instead, I wanted to extract some recognisable Chinese visual elements and place them in a more surreal environment.



I also explored unusual botanical sculptures with forms inspired by coral, flowers and other organic structures. Their irregular branches and abstract shapes helped me think

beyond realistic plants. I wanted the life growing from the porcelain to feel unfamiliar, somewhere between a natural organism and an artificial creation.

After several visual experiments, I decided to simplify the composition. Instead of using large floating islands or complicated architectural structures, I chose to focus on a few partially broken porcelain objects placed on a calm lake. The surrounding rocks, water and mist would support the atmosphere without distracting attention from the growing life.

I also wanted the porcelain to keep its original shape, even when damaged. The broken edges and openings would become the starting points for new life, creating a visual contrast between destruction and growth.

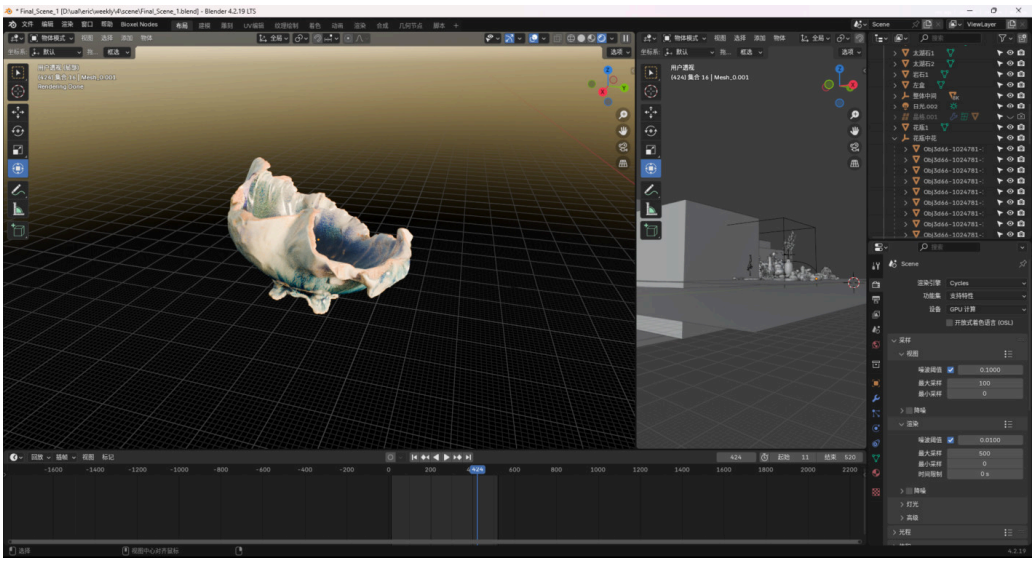
Object & Environment Design

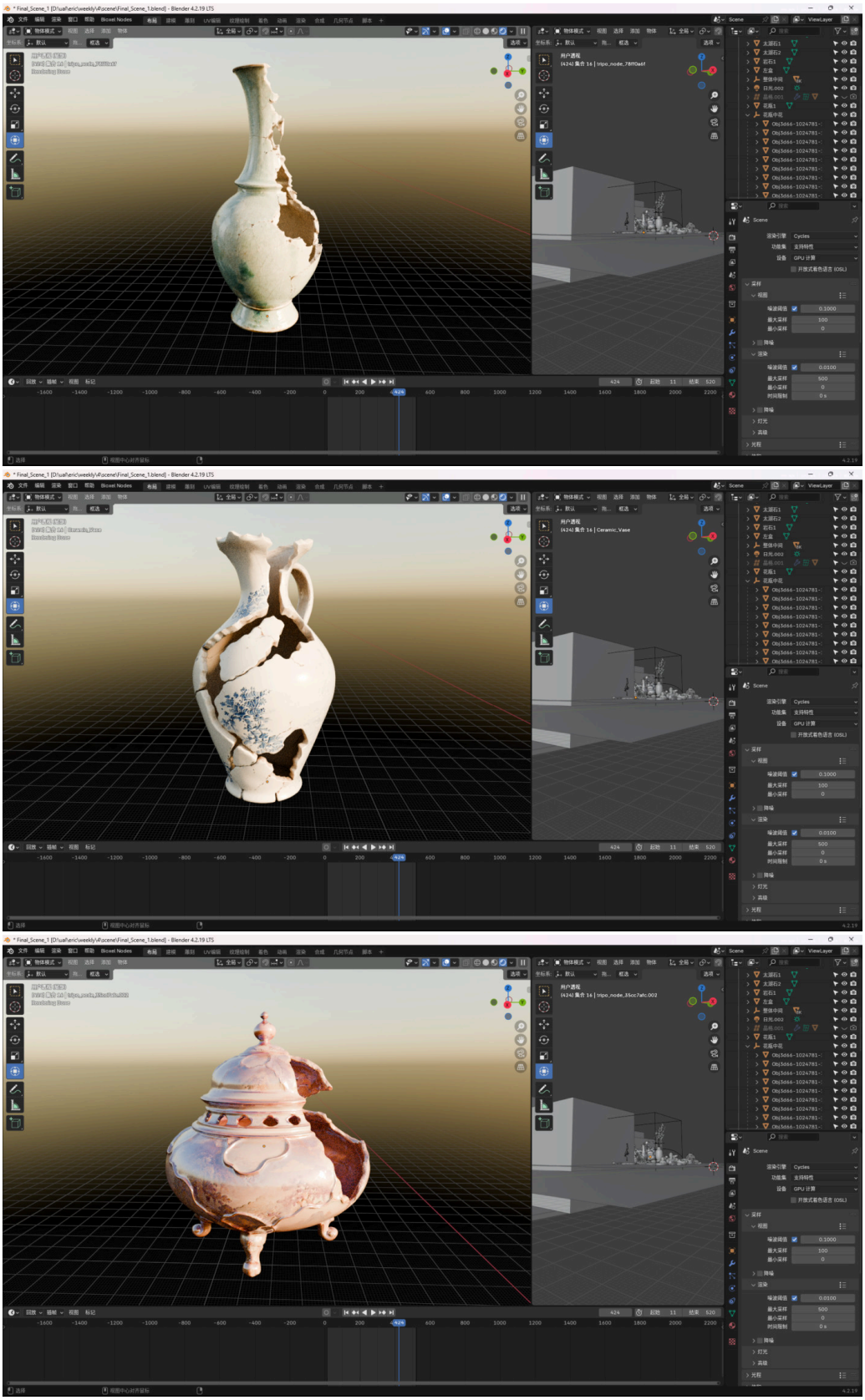
Porcelain Design

After deciding on the visual direction, I started developing the main objects for the environment. I chose Chinese porcelain as the central element because I was interested in the contrast between its fragile material and the organic life that would later grow from it.

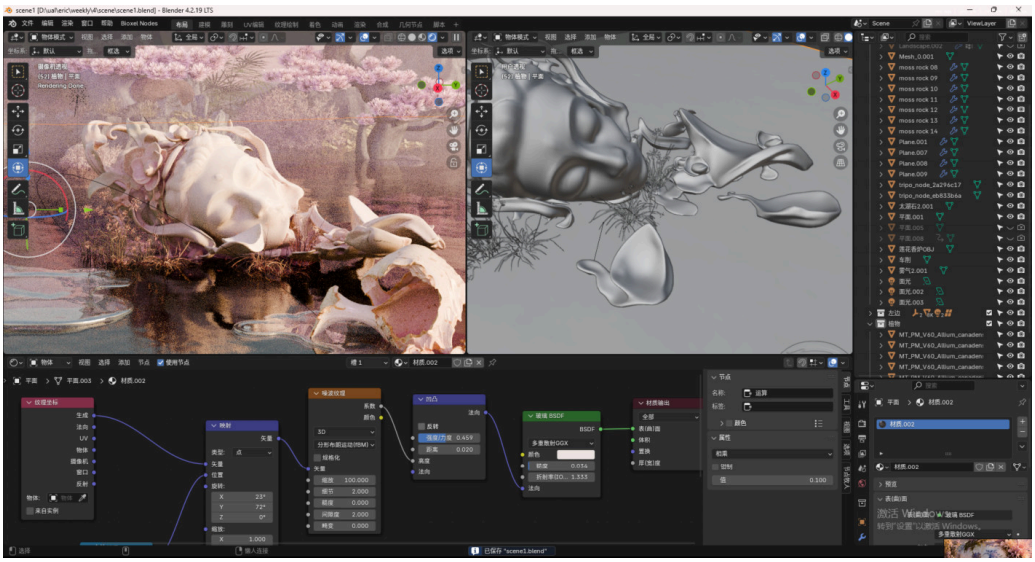
I explored different shapes and proportions of porcelain vessels, including tall and narrow vases, rounded ceramic pots and smaller decorative objects. I wanted each object to have a different silhouette, so the overall composition would feel more natural and visually balanced.

One important decision was to keep the original shapes of the porcelain recognisable. During the early experiments, some objects appeared too fragmented, making them look more like piles of broken ceramic pieces. I gradually reduced the amount of damage and focused on larger openings and missing sections instead of many small cracks.





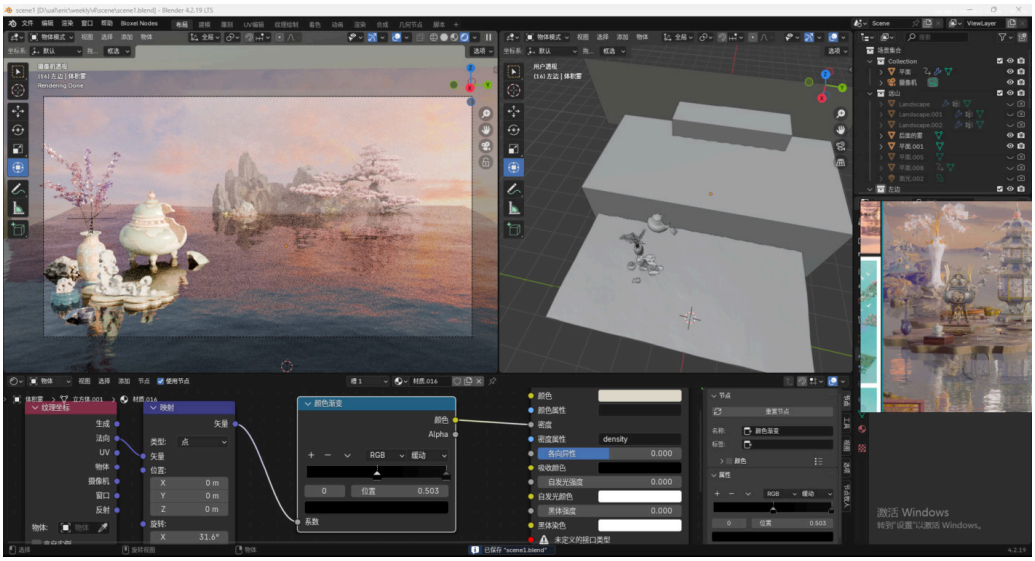
These broken areas were also important for the later procedural growth. I imagined plants emerging from the openings, extending along the edges and gradually spreading into the surrounding space. In this way, the damaged parts of the porcelain became an important part of the life–generation concept.

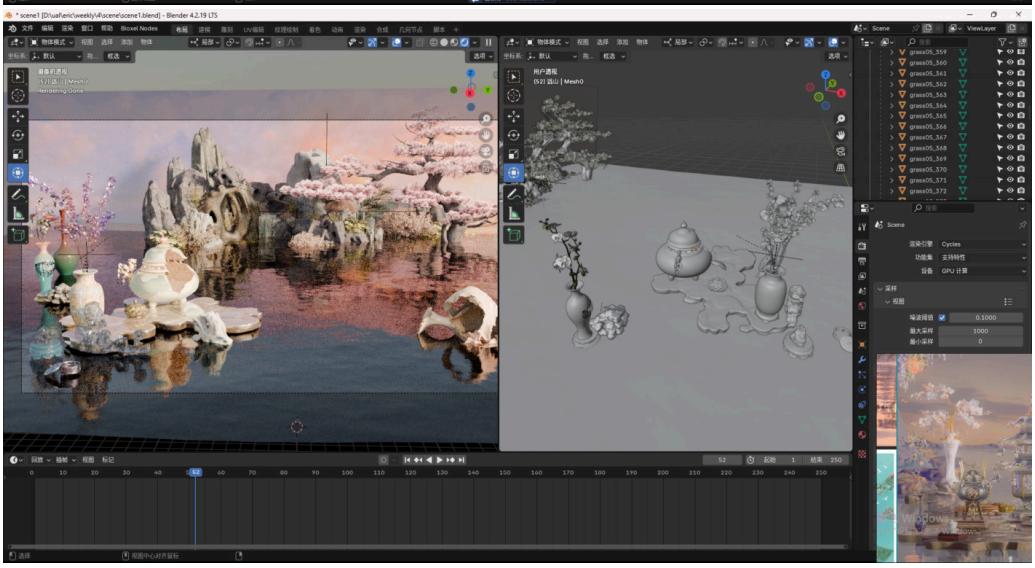


Environment Design

For the environment, I wanted to create a peaceful Chinese-inspired landscape without making the scene too complicated. I used water as the main environmental element, with several porcelain objects arranged across the lake surface.

在环境设计上，我希望创造一个具有中式意象的宁静景观，同时避免场景过于复杂。我以水面作为主要的环境元素，将几组瓷器错落地布置在湖面上。





I also included traditional landscape elements such as scholar rocks, distant mountains and soft atmospheric mist. These elements helped establish the Chinese aesthetic, while keeping the main focus on the porcelain and the organic structures growing from it. During the composition experiments, I found that placing large porcelain objects too close to the camera made the scene feel crowded and reduced the sense of space. I therefore adjusted their scale and position, leaving more open water between the objects. This helped create a calmer composition with a clearer sense of depth.

Materials and Atmosphere

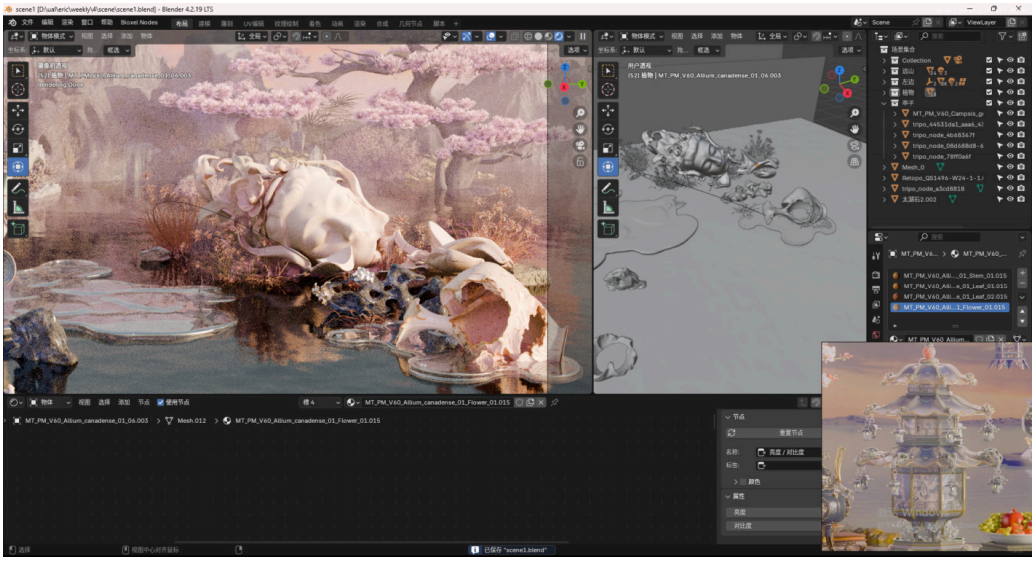
For the materials, I explored a combination of blue–and–white porcelain, pale celadon, ivory–white ceramics and slightly translucent surfaces. I wanted the objects to have different textures while still belonging to the same visual world.



I also paid attention to the relationship between the porcelain materials and the surrounding water. Soft reflections, gentle lighting and a slightly desaturated colour palette helped create a dreamlike atmosphere without making the environment feel overly artificial.

At this stage, my main goal was to establish a visually balanced environment that could support the procedural life–generation system. Rather than filling the scene with

decorative details, I wanted to leave enough space for the growing plants to become the main visual focus later in the animation.



Integrating Procedural Life into the Environment

For this project, my main responsibilities were building the environment and creating the porcelain models in Blender. Other team members were responsible for developing the procedural life–generation system using code.

Although I was not directly involved in writing the algorithms, I needed to consider how the generated life would interact with the objects and the surrounding environment.

When designing the porcelain models, I paid particular attention to their broken edges and openings. These areas were important because they could provide natural starting points for the growing plants. I wanted the organic structures to feel as if they were emerging from the porcelain itself, rather than simply being placed on top of it.

I also considered the scale and arrangement of the objects within the environment. I left enough space around the porcelain so that the growing plants would have room to expand without making the scene feel overcrowded.

Our team explored using code to generate organic growth and movement. Through this collaboration, I became more interested in how procedural systems could be combined with visual environment design. The code–generated life and the manually created environment were developed as different parts of the same visual experience.

This process helped me understand that artificial life is not only about the algorithms themselves, but also about how the generated behaviours are presented and experienced within an environment.





Reflection & Conclusion

This week's project gave me an opportunity to explore the relationship between traditional objects, digital environments and artificial life. Compared with previous projects, I became more interested in how a visually designed environment could work together with a code-based system.

My main responsibilities were creating the porcelain models and building the environment in Blender. Through this process, I learned to think more carefully about the relationship between individual objects and the overall composition. I also realised that sometimes simplifying a scene can make the main concept much clearer.

One of the most interesting aspects of this project was working with the procedural life-generation system developed by other team members. Although I did not write the code myself, it helped me understand how computational processes could become part of an artistic experience, rather than simply being used as technical tools.

If I had more time, I would like to explore a stronger relationship between the porcelain and the growing life. For example, the plants could respond more directly to the shapes

and damaged surfaces of the ceramic objects, making the connection between artificial materials and organic growth feel more natural.

Overall, this project helped me understand that artificial life can be explored not only through programming, but also through visual design, materials and spatial composition. It encouraged me to think about how different creative approaches can come together to build a more meaningful digital environment.