

Assignment 3 Creative Code Design: The Spirit of Flowers

Design Inspiration & Concept

One firefly may seem too tiny, and one flower can die within no time, but as they come together, the scene can bring a great sense of serenity that's almost magical and last in one's mind for a long time.

The project was inspired by an ancient Chinese myth “腐草为萤” (Fǔ Cǎo Wéi Yíng, the spirits of rot grass transform into fireflies). Coming from a background in landscape, I've always found myself appreciating the cycle and transience of life. Therefore, I would like to use this project to recreate this mythical scene and bring the audience to see the beauty of transient nature through the lens of generative art.

Design Justification

Aesthetic

To stimulate the vulnerability of the scene, I used curves based on Perlin noise to form petals, which look as thin and soft as flowing fabrics. The overall colour palette was rather pale to emphasise the fragility, hence evoking the tender beauty of transience.

Drawing thousands of lines within one frame, however, can potentially slow down the frame rate.

Interactive

Users are encouraged to play around with the sketch by clicking and moving the mouse around. By clicking on the blank canvas, the user can evoke the blooming of a new flower, and click on the flower again to make it withered. When hovering over a blooming flower, it will be triggered and hide as a bud.

Background music and sound effects are also applied along with mouse clicking to further evoke the magical feeling. The sound effects will pan according to the x coordinate when clicking, creating a more immersive experience.

Generative

Each flower has its own random appearance (size, number of petals, colour...) and a randomised lifetime between 5-10 seconds. Once a flower reaches its lifetime, it will wither and die. These unpredictable factors represent their states in nature that cannot be controlled by human

beings. When a flower withers (either reaches the lifetime or is eradicated manually), new fireflies are born from it.

Responsive

Aside from windowResized event that allows the project to match various window sizes, the dimensions of the canvas are adapted for creating flowers so that the size of each flower stays in a reasonable range.