Link

Playing with triangles

Playing with squares

Playing with ellipses

Brief Description and Concept

My project basically experiences lines. Lines itself can be simple, yet when cooperate with computer programming, it can achieve complex effect. Though some of the nine patterns might seem disconnected, some of them came from the intermediate products I made during making other patterns.

Visual documentation

Development:

At the beginning I played with triangles and accidentally generate a pattern like this:

By adjusting its colors, doing its symmetric transformation, repeatedly drawing, rotating, I drew several different patterns.

While playing with triangles, I wanted to try square and ellipse as well, which led to the other patterns.

Coding:

The coding bothered me a little, as I used several transformations. The essential part is to use “push” and “pop” properly. One important discovery is that if I put the “for loop” within “push” and “pop”, the for loop will only generate once. After putting “push” and “pop” within the “for loop”, I could make repeat transformations.

Reflection

How is drawing by hand from observation different from programming the computer to draw for you? Can you think of some commonalities as well?

I encountered more unexpected results when drawing by programming than by hand. When coding, I always got outcome that beyond my design due to the “mistakes” of programming. Yet, the “mistakes” can sometimes inspire new ideas. What’s more, programming the computer bases on less labor than hand draw when I want to draw repeat patterns. Though two ways of drawing have different experience during the process, the goals of the two kinds of drawing are both to use visual effect to express the idea of the creator.

What properties have you manipulated in the repetition? Describe your observations and visual outcomes during the process.

I used loop, rotate, transform, scale functions to create the pattern. They are helpful when I draw a simple pattern and want to use it repeatedly to create a new picture. When they combine, sometimes it can create surprised visual outcome. What’s more, the loop function can make it easier to draw repeatedly or with some small changes each time.

What makes a good generative pattern?

Personally, a good generative pattern should make full use of the calculation ability of computer and try many possible outcomes fast to find the good pattern. Also, I would like to achieve visual harmony.