EXPECTED OR UNEXPECTED

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1. Introduction

This work is about computational aesthetics by not only human, but also computer. Most of the time, artists use computer as an assistant tool. However, this work lets computer have an opportunity to participate in an art work with its particular characteristics: exactness and randomness.

In the title, 'EXPECTED' stands for human's work, drawing algorithms, which define abstract shape of scenes. On the contrary, 'UNEXPECTED' indicates the variant use of drawing algorithms with computer's random number, which will determine the final scene. Therefore, by the combination of expected and unexpected aspects, we can imagine abstract shape of scenes, but not the exact final scene. Also, this work is aimed to escape from typical and iterative graphic scenes such as Fractal Art; the result would not have uniform shape adopting human's algorithm. This work pursues harmony between human and computer.

2. Concepts and Techniques

This work was inspired by a few questions such as "what if machine copies Picasso's drawing, is it still art?", "how do people recognize art?", even "can computer do art?", and so on. After, we came to an assumption that computer can do art by incomplete experiments in history (e.g. Meta-matic[JEAN 1959], Computer Cantata[LEJAREN and LEONARD 1963]). So we decided to keep experimenting it, step by step. In this work, two items are implemented: an application that tests drawing algorithms, and a movie as the final output of whole process.

The application employs Microsoft Windows Graphic API for primitive drawings such as circle, line, and point and supportive effects such as inversion and time delay. It also contains drawing algorithms that are focused on three main concepts of this work: (a) sharp shape, (b) expected pattern, and (c) varied scene.

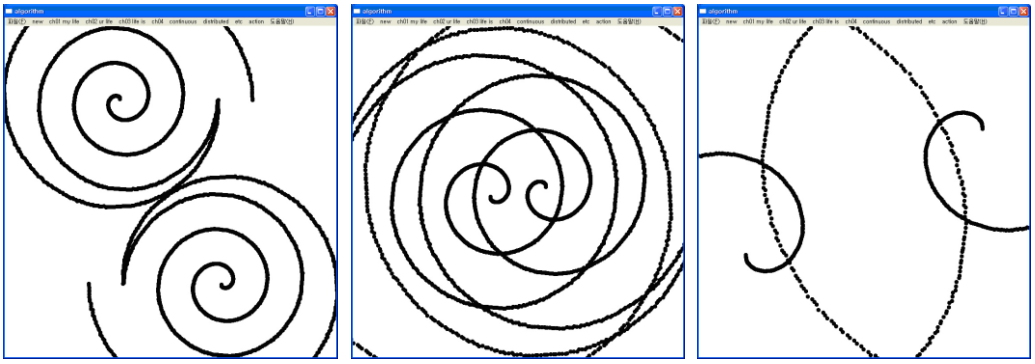

Figure 1: The same algorithm with random numbers

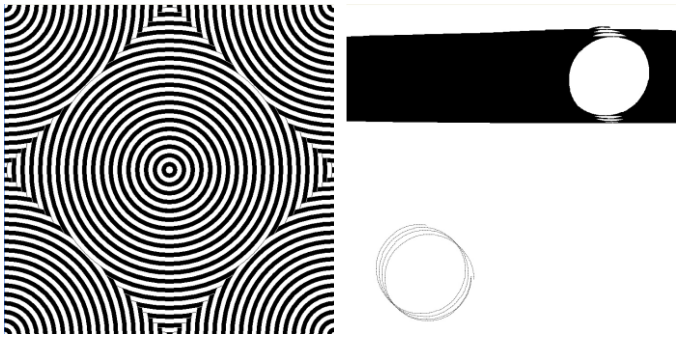

Figure 2: Each represents (a) sharp shape and (b) expected pattern,
(b) expected pattern and (c) varied scene, respectively

The movie is successive screen images, captured with a software 'Camtasia', with background music, BT(Brian Transeau)'s 'godspeed'. The intro of movie uses DirectX for better visual effects.

3. The Result

The movie comprises a series of scenes, harmonizing three elements: human's algorithm, computer's random number, and the music. They are working on their own parts in the art work.

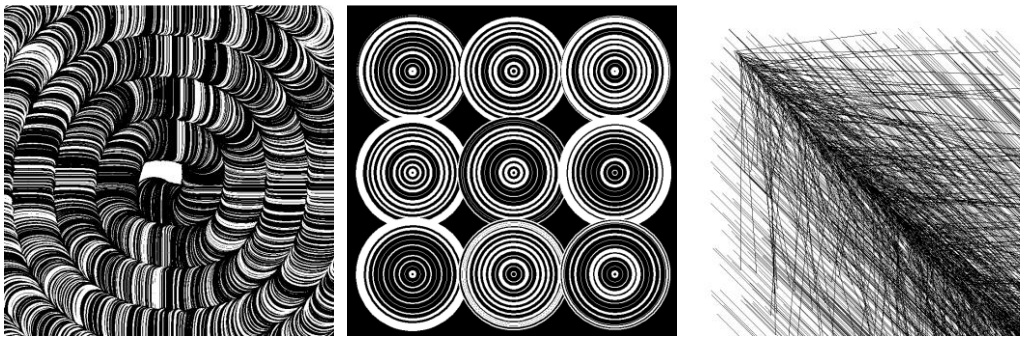

Figure 3: Scenes in the movie

4. Conclusions and Further Work

Although this work is about performing computer art, it was almost impossible to bring a perfect solution at one time. Therefore, specific conditions were required. First, drawing algorithms adopted primitive shapes like point and line due to two reasons; computer itself cannot draw complex shapes and also we considered basic shapes would rather fit into the concept of computer art. Secondly, the background music is outsourced in spite of computer's beep sounds that may be more appropriate for computer art because we pursued movie's better harmonized quality. And, we configured the scenes only in black and white color under the purpose of considering color itself as another aesthetics and concentrating more on the concept, art done by computer.

This work seems successful for achieving varied and un-patterned scenes comparing to Fractal Art. However, it also brings a new challenge to lack of computer's own message, which is essential for art. Also computer should decide what scene to make, not like this time that human indeed provides it.

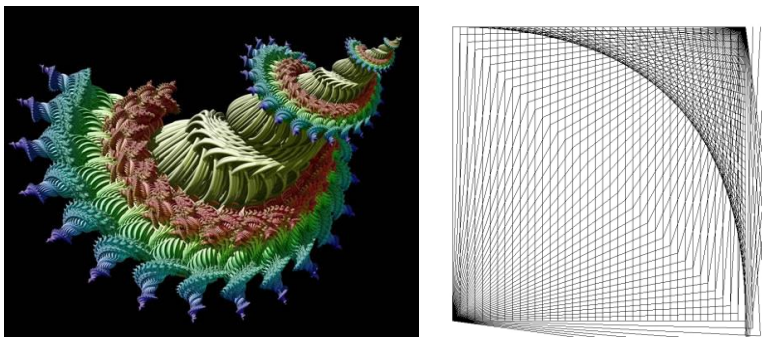

Figure 4: Comparison between Fractal Art and this work

5. Reference

[1] ALFRED LAING, 2007, Spiral Fantasy

[2] JEAN TINGUELY, 1959, Meta-matic.

[3] LEJAREN HILLER and LEONARD ISAACSON, 1963, Computer Cantata