

### **Patterns: First Theory**

Life resists the world's flow toward physical uniformity and instead self-organizes to generate irreversible patterns across time. In other words, patterns manifest vitality.

### **Patterns: Second Theory**

What defines the temporality, circumstances, and emergence of a particular pattern? Patterns occur through the involvement of the body and materials, encompassing everything from individual traits to socio-cultural contexts. This gives rise to various styles—of writing, of art, of playing shogi or go. Generation is a balance between homeostasis and transformation.

I plan to collect time-series data on the generation of unique patterns through drawing using an observational apparatus. In this case, the apparatus consists of a series of photographs documenting each stroke I make. Since February 3, 2023, I have spent a year making approximately 600 drawings, resulting in roughly 18,000 photographs of time-series data. In addition to documenting the drawing process, I established several conditions, including rules for drawing lines (as two repeating strokes), the use of a consistent format and identical materials, and the aim to create a total of one thousand drawings.

#### **•Two Rules of Drawing**

1. Form a pattern using two repeating strokes
2. Do not erase or fill in any marks once they have been made

Rule 1 dictates that these drawings consist solely of reproducible brushstrokes. Their compositions include no accidental or spontaneous lines that cannot be replicated. My attempt to systematically capture the plastic thinking [*zōkei shikō*] that arises from the brain-body-environment nexus is premised on the belief that line drawing can be recursive.

Rule 2 reflects my intention for these drawings to prioritize process and ensures that each stroke remains explicit in the finished work. In addition to looking at the patterns that now appear directly in front of them, I anticipate that viewers will imagine the steps by which the drawing was created. In fact, the data I have collected enables the tracing of this process.

#### **•A Consistent Format and Identical Materials**

Painters often modify the conditions in which they paint. They change their supports and materials to create work in different environments. This practice could be seen as a tactic for artists to avoid boredom. Alternatively, it might be viewed more positively as a means to preserve one's own style while adapting to new surroundings—a way to maintain a sense of self while producing varied works that blend into their environment. However, producing one thousand drawings of the same format entails working within a remarkably fixed environment. As a result, the content of the drawings are subject to constant change and the self to drifting away.

#### **•The Task of One Thousand**

The task I set for myself—to create one thousand drawings—differs significantly from most artistic endeavors, for here the aim is to train neural networks with time-series data. Consequently, I found that my focus naturally gravitated towards efficient production. It would be impossible to create a sufficient number of drawings if each one were intricate and laborious compositions comprising many brushstrokes. Therefore, the strokes needed to be beautiful, capable of functioning as various compositional elements, while leveraging the hand's mobility without constraining its freedom. Patterns that could cover large areas were also given priority.

It is interesting that the patterns that emerged under these conditions began to resemble feathers and wings, or the fins on a fish (organs homologous to the hand that catalyze motion in air and water).

#### **•Changes in Patterns Over Time**

I identified two ways that patterns change over time: gentle, continuous change (in color and materiality), and incremental changes (in composition and process). While interconnected, these appear to be two different modes of evolution. I only noticed changes in intensity, such as variations in the weight of a stroke or its color, retrospectively, after a considerable passage of time. Shifts in my sensibility, which became more fragmented and increasingly attuned to subtleties, were not easily reversed.

On the other hand, in terms of changes in composition and process, I experienced at least eleven distinct phases that can be described as having emerged over the course of one year of drawing. These developments include changes to the arrangement of strokes and the procedure, as well as the invention of new compositional methods. I have listed these emergences of composition below:

**Phase 1: No. 1-83 Two-dimensional composition, color**

Emphasis is placed on enriching the colors of earlier drawings.

**Phase 2: No. 84-134 Three-dimensional composition, space**

With No. 84, I unwittingly encounter three-dimensional space. Just a few steps into the work, I realize that an unexpected space has appeared. I continue drawing to expand this space.

**Phase 3: No. 135-173 Bird images referenced**

By chance, an image of a beautiful parrot catches my eye and I decide to incorporate its impression into the pattern. The image I encountered, however, is not a sketch from life but a stylized illustration.

**Phase 4: No. 174-225 Emergence of 'feather pattern'**

While attempting to translate the image of the bird into brushstrokes, I begin to make marks that resemble a sawtooth wave. I combine this with radial lines and the 'feather pattern' is born. This pattern appears frequently in subsequent drawings.

**Phase 5: No. 226-289 Space between 'feather pattern' and axis line**

I establish an axis line as a reference against which to construct spatial depth so that the 'feather pattern' can be placed into the three-dimensional space seen in Phase 2.

**Phase 6: No. 290-336 Architectural space [two floors]**

Until now, I have been arranging the two repeating brushstrokes laterally, but this gradually shifts into a vertical composition resembling architectural space. I am reminded of Deleuze's discussion of façades in Baroque architecture in *The Fold*.

**Phase 7: No. 337-424 Architectural space + afterimage**

I repeatedly layer the sawtooth wave 'feather pattern' in order to create an image of motion that functions like an afterimage.

**Phase 8: No. 425-486 Architectural space + strokes connecting vanishing points + strokes with perspective**

The architectural spaces become increasingly complex, containing multiple vanishing points. I devise a brushstroke to connect these points and draw lines with consideration of perspective. As the brushstrokes become increasingly situated within the space, they mature.

**Phase 9: No. 487-567 Architectural space [three, four floors] – parallel superposition 'Venn diagram composition'**

The transition into Phase 9 is heralded by No. 458. I layer identical brushstrokes, moving laterally and vertically, to create a pattern that polymerizes in the center. This makes it possible to introduce a noniterative element to the surface. I call this the 'Venn diagram composition' for its similarity to the Venn diagram, which expresses the relationship between multiple groups. A byproduct of this development is that my smartphone camera begins to mistakenly detect text in the image.

**Phase 10: No. 568-590 'Venn diagram composition' [lateral]**

I further develop the composition from Phase 9 laterally.

**Phase 11: No. 591-Present Meta-'Venn diagram composition' [lateral/vertical]**

I return to the compositions from Phase 9 and earlier and combine pieces of them into a meta-pattern.

**•Erroneous Detection of Text From Phase 9 Onward**

As a byproduct of the 'Venn diagram composition' from Phase 9 onward, smartphone cameras began to mistakenly identify text in my drawings.

According to media history, text emerged from pictures. As pictograms were arranged linearly, pictures became metacode for text. The first misdetection of text in my own drawings occurred in No. 488 during Phase 9 (there were no such cases prior to this). Text was mistakenly detected in thirty percent of my subsequent drawings (try it with your camera too). My smartphone likely began to detect text falsely because my drawings had started to approximate the patterns of languages from all over the world that the phone, a reinforced learning system, had been taught. Does this fact suggest that my patterns evolved from drawing to writing? In any case, it is possible that my drawings have developed some of the properties of natural language. I will analyze this process of emergence, collected in the time-series data, in my future research.