

Fractal as Innocence

Is nature a distraction to see our innocence? If we are ever successful in visualizing our innocence, won't there be any natural objects that are familiar to us? Kandinsky, Mondrian and Agnes Martin surely seem to think so. They eliminated all those organic or natural objects from their paintings by saying they are distractions, and instead used only Euclidean geometry like grids, circles, and rectangles.

What is innocence? It is the state of mind in its purity. It is our consciousness that forms oneness with the universe. I do not think it is the mind of one's childhood, which is distorted by its selfishness for mere survival. Humans develop existential quality of reasoning later in life, and this quality seems to be a revelation of innocence, if ever. The universe is the manifestation of the highest order of being whether it is words of God, the source, the principles, the truth or whatever people call it. We are part of the manifestation. As such, we are living in nature and we will always be. As Dutton claimed in his book, *Art Instinct*, our sense of beauty has been deeply carved by evolution of human species. Our positive response to a certain arrangement in nature has been rewarded as our survival. This response is out of innocence that we cannot escape from. Now, I claim that our emotional response to nature is not a distraction in revealing our innocence, but instead it carries the very core of innocence. It only becomes a distraction when we bring our own interests such as utility, functionality, social and cultural associations rather than the disinterested quality of nature.

In his pursuit of pure beauty in nature, Cézanne looked for Euclidean geometric forms like cubes, cones, cylinders and spheres as the visual elements. I wonder why. He must have seen chaotic shapes in nature, but perhaps wasn't able to come up with a simpler way to abstract them other than Euclidean geometry. Nevertheless, his novel idea of abstracting nature as Euclidean geometry was taken by Braque and Picasso when they invented Cubism. Braque actually applied this idea to his early landscape paintings. But, he soon changed his subject matter to man-made objects where Euclidean forms are inherent. An Euclidean geometric form is the result of functionality and utility by humans. It is created by the economic principle that serves the purpose with the least amount of time and effort. It is the form of industry. It fails to reveal any indication of the past and the future. Instead, it only shows the present, ignorant of connectedness in time, similar to any plastic objects in our modern world. Hence, it does not carry any sense of changes over time found in nature. It is the form of death. As a complete departure from nature, the consideration of aesthetic beauty in Cubism lies in its plastic tactility of the painting surface itself rather than its content; It is the push and pull effects that are often found in a Greek relief.

A shape in nature often indicates changes in space by growth or weathering over time. It is reminiscent of casualty, the very principle of nature that we are experiencing at any moment in time and space. It has the quality of repetition with randomness, self-repeating in multiple scales, ordered in a larger scale yet completely random in a smaller scale. It delivers a sense of unity in variety. The pattern appears in the biological world as well as rivers, clouds, mountains, and even in the cosmos. The pattern, although we can only seize the present moment, reveals the past and the future at the same time. It is the shape of life and continuity. In the 1970s, a French mathematician, Dr. Mandelbrot came up with a mathematical formula, called fractal, that explains growth and weathering in natural shapes. Unlike Euclidean geometry, the fractal formula has no interest in a final shape, but describes the process of how each sequence of

events changes the shape. The formula simply states that the current event is calculated based upon the prior setting with a certain level of randomness. The repetition of such events yields all the shapes in nature that we see. The process presents continuity in causality. We see clouds, trees, rocks, and river paths now, but expect them to change over time. The shapes in fractal geometry trivialize any narrative bound to the present. Only the sense of ordered randomness or unity in variety transcends individual snapshots of the present. With fractal discovery, our pursuit of innocence no longer has to shy away from nature just because its present is chaotic and incomprehensible. The underlying process is indeed very simple and elegant. It displays the present as a relentless manifestation of causality. Perhaps, this is the quality of nature that our innocence is wired to respond positively.

Although there are not many artists who pursued the fractal quality of nature, I consider Jackson Pollock as a pioneering figure. In the paper "Fractal Analysis of Pollock's Drip Paintings" appeared in *Nature*, 1999, Richard Taylor et al. claimed that Jackson Pollock was creating a fractal dimension as he thought it was a true pattern of nature back in the 1940s. I think Jackson Pollock was a naturalist at his core. An Abstract Expressionist, Hans Hofmann visited Pollock's studio, saw no still life or models in the studio, and asked Pollock if he worked from nature. Pollock responded: "I am nature." Hofmann then warned: "You don't work from nature, you work by heart. That's no good. You will repeat yourself." Hofmann's warning makes sense in that human consciousness is trapped inside and any art from this trap will not make progress. However, Pollock's claim of himself being nature implies that his consciousness itself is a nature, thereby changing over time. Pollock mentioned multiple times that his paintings were manifestations of his inner self. His dripping technique relies upon spontaneity and gravity while traditional painting with brushes relies on our wrists and shoulders that are trained with our daily function. The dripping technique was most likely a necessity for him to be married with ordered randomness as his state of mind.

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