

THE ESSENCE OF NATURE IN THE ART OF CHARLES SELIGER

What shall we make of nature? Here are some things I, as a scientist, see in the natural world:

1. There is intricate detail in the natural. Here is one small example of the wonder that we have found: A bacterium symbiotic with legumes, using a little chemical factory, an enzyme, the enzyme containing a cluster with seven iron atoms, one molybdenum, and a few sulfurs thrown in...that bacterium, that enzyme, that cluster take the diatomic nitrogen molecules of the atmosphere and most efficiently transform them into needed ammonia. Something no plant, no animal can do. Except for human beings. We, who are physiologically incapable of fixing nitrogen, have invented chemical processes, and built factories, to do just that. We do it very differently from the bacteria, and pretty much as efficiently.

The enzyme molecule has tens of thousands of atoms other than the iron and molybdenum I mentioned, tangled up in a complicated shape. The variety of atoms, their connections, the intricacy of the curling of the protein allow the molecule to do what we cannot. The god is in the details.

Now I look at Charles Seliger's work. His small paintings reveal in detail. From thousands of lines and dots a feeling grows that Seliger is constructing a world. One that achieves its aims by the many choices that variation in detail allows.

2. Back to nature: I see it not only in detail, but also rules and constancy, a framework for understanding. A carbon atom can form at most four stable bonds to its neighbors, a hydrogen typically one strong one. The combining rules of chemical valence (this is actually what I work on!) are limiting. And yet we have made over fifteen million molecules in the laboratory containing carbon and hydrogen (and other atoms), and envisaged countless billions more. How can that be?

In Seliger's paintings the frame is inevitable, necessary. But it is not the only formal principle at work. Look at the layering of acrylic that makes for a texture, a density that surpasses that of enamel. Or the way that a pattern is worked out from a line of small dots. The technique is stunning; it allows Seliger's painted organic world to exist.

3. There are mechanisms for building up in nature that inevitably lead to elaboration, complexity and infinite variability. Chemical combination, or synthesis, and evolu-

tion are the driving forces of the plan that is not a plan. The world emerges, in staggering variety. Molecules combine and arrange themselves—this is called chemical reactivity and supramolecular chemistry. Then there are cells, tissues, organelles—possibilities grow astronomic; no, they are human. Imagine adding in human cultural variation, proceeding along evolutionary lines, but much faster than biological evolution!

There is also chance. I imagine here the accidents of stellar and planetary development that led to the diverse environments of the planets in our solar system. And the way niches, climate change, mutations, migrations and sexual reproduction inject the random into evolutionary mechanisms. Because of chance, there are few straight lines, literal or figurative, in nature.

Is any of the paintings in this show like any other? Even if the technique follows a pattern, Seliger's method ensures that no one organic structure in his paintings could possibly be like any other. We see evolution at work, and a remarkable transformation of chance into necessity in each painting.

4. There is color in nature. The energy input to our planet from the sun ranges across the visible spectrum, and into the ultraviolet and infrared as well. Given that, there can be no doubt that nature would evolve to make use of the entire spectrum. The colors of the natural world are so pleasing to us that we occasionally succumb to the notion that...it was for us that flowers are colored. But that's just an affectation; we're lousy pollinators.

As for color and light, so for density, phases of matter (vapor, gas, liquid), temperature, thickness, sound, texture, the chemical senses of smell and taste. The world makes use of all distinctions.

If I were to point to a single controlling attribute of Charles Seliger's paintings, it is their stunning color. Only in flowers, feathers, or insects, close up, does one see such intensity as he obtains from natural (and synthetic) pigments. The range of colors in these paintings is the full range of the natural world.

To me, Charles Seliger's paintings, a human creation, are a lesson in the book of nature. They also point to full use of human creativity for extending, through art (and science) the first evolutionary world, that of nature. There is nothing like them, and yet they are truly natural.

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220% of actual size



QUARRY, 1995
acrylic on masonite
10" x 12.5" / 25.4 x 31.7 cm