

## Searching for the Unexpected by David Works

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Digital tools can be used in processes that continuously present unexpected visual opportunities. Randomness can be an integral aspect of this process, and I think of it in two general ways -- as structured randomness and experiential randomness. Structured randomness uses rules and structure to bound random operations, producing visual elements rather than a uniform snow that would result from pure randomness. Experiential randomness can include purely deterministic processes but presented in ways that allow an enormous range of unexpected possibilities through interaction.

### Structured Randomness

I developed a program to explore structured randomness -- the goal was to quickly provide compositional possibilities that I could reject or accept for further development (e.g. in Photoshop). It started out as simply placing random geometric forms (rectangles, ellipses, triangles, lines) of random sizes at random locations on the screen. I soon found out though that I needed more structure if I wanted a greater success rate -- a higher proportion of compositions that had possibilities. So the program evolved with a number of structural parameters, including recursion, that then required their own randomization to make the program easy to use. What I learned from this is that several interacting orders of structure and randomness can produce interesting compositional possibilities.

Dynamic

### Deterministic with Randomness

Cellular Automata is a deterministic process. You start out with an initial cell population and a set of transformation rules - processing the rules leads to an inevitable and unique result. Of course, varying the initial population or the rules provides an extremely large set of possible results. I decided to explore this by using images as the initial cell population (the digital matrix is the cell population) and randomly varying the rules. Although there are often small scale cellular artifacts (sierpinski triangles, sliders) common to many results, the overall effect on the images is unpredictable. Instead of creating new compositions, this approach jumps existing composition to new, unpredictable states.

### Mask CA3

Mask CA2 This jumping of images is a technique that can be exploited by many Photoshop filters, and has been discussed by other digital artists. Some filters include a randomization option that makes exploration of the unexpected much easier. Many of the Flaming Pear filters include this randomization of the structure to provide a huge range of image alternatives.

### Experiential Randomness

Most of my recent work does not use digital randomness, but employs a framework that provides the experience of randomness. A simple but effective approach is to use imagery as light gels in 3D software. This is equivalent to wrapping a transparency around a light source and projecting it onto a surface. Rotate the light and you get a new composition. Add a second light with a different image gel and you have a whole new order of interactions. Simply spinning one or both of the lights presents a new, unexpected compositional possibility. These possibilities can be multiplied by changing how the image gels are mapped, the relative position of the lights, the nature of the receiving surface etc. So, from an experiential point of view, simple interactions result in virtually unlimited compositional possibilities and unexpected surprises. And perhaps the mind of the artist is the random aspect in this approach, depending on how the interactions are approached.

### Projection A15

### Projection A12

### The I-Ching as an Attractor

I see this approach to image making as a way of exercising perception. The challenge is to be open to new possibilities, to be free to go off on tangents that stimulate new conceptual thinking. Underlying all of this is the artist's aesthetic sensibility -- that which identifies something in the open perceptual field that is interesting and worth pursuing. Another way to think about this; a random field is rather chaotic, and the artist's mind is the attractor that stabilizes the field into something coherent that can be worked with. And there is the inverse of this -- that the perceptual field may push the artist's mind into chaos until a new aesthetic attractor is discovered.

I recently attempted a series of works (Fractal Changes) where an attractor was "held in mind," that is, out of the possibilities presented, I pursued those that linked or related to the attractor. I used the I-Ching out of my own interest and because it has a conceptual overlap with this approach to making images. The I-Ching can be seen as employing structured randomness in finding the situation, and open ended possibilities in finding meaning (through consulting the text, the deterministic aspect). This was all very subjective, but reflected an attempt to consciously engage this part of the process. Parting and Meeting

### Difficulty

Although this exploratory approach can lead to a lot of "dead ends" and failures, I've found there are enough good surprises to make the effort worthwhile. It can stimulate aesthetic and intellectual reflection and the development of new skills. I think the digital environment is unique in providing these exploratory capabilities.

My work is displayed at Eye-Jam .