Permeable Boundaries – A Sign of Mind

Personal Reflections on my Art Making

Introduction

We live in the time of digital representations of Mind, also in the arts. This fact changes -- or at least can help us change -- how we think about, and therefore teach, art making. It gives us an opportunity to break out of institutionalized boundaries between the arts put in place in our present education system. Computers, or rather the algorithmic thinking attached to them, give us an opportunity to go back to a Bauhaus-like global esthetic and philosophy of teaching art.

I speak from experience.I came to the arts in the "mid-century modern" period of the 1950s, when the computer was just emerging as a tool for art making, first in music, and much later in the visual arts. I stumbled upon the digital esthetic by going to "New Music" festivals, and by listening to "computer musicians" (Xenakis, Koenig, Hiller, Babbitt, etc.). These artists had begun to use *controlled random* procedures in their work. This was of immediate interest to me since it seemed to allow me to understand my artistic mind given that I had to delegate certain responsibilities to software. Working with controlled degrees of random in art making also carried the promise of overcoming stultifying traditions that were set against possibilities for integrating different artistic media.

It was not immediately apparent then that working with random generators of various kinds actually introduced a new esthetic. In that esthetic, the artist gained the freedom of choice as to what part of the artistic process should be left to the machine, and what part to the human mind. For me, this shift put *real-time composition*, that is, the moment-to-moment interaction between the living consciousness of the artist and the frozen knowledge embodied in computer software into the center of reflections on art. As an artist, I seemed to be able to work with my Other (Alter Ego) cast in software, and thus not just new tools, but a partner in creating art.

Another, more technical, aspect of work with computers in the arts concerned the opportunity of working at the *atomic level* of artistic materials, something that had been impossible previously. We were dealing with a partial and pixel revolution. By now, it has become quite clear that there is little procedural difference between manipulating acoustic partials (as in electroacoustic music) and visual pixels (as in digital photography and painting). In both cases, the artist is operating at the atomic level of the respective materials. As every animation unquestionably demonstrates, the two kinds of manipulation can be flawlessly combined, and increasingly are merged.

The new burden that artists were initially taking over was that of programming, on one hand, and of waiting for results to come back from the bulky machine, on the other. This waiting could be days-long, by which time one had forgotten what one had programmed or edited, so that the sounding result was somewhat useless. I myself never became a good programmer, but I was disciplined and patient. Over 50 years, I picked up diverse kinds of software that I thought I

could integrate into my own task environment or work flow, initially in music, then in poetry, and finally in the visual arts.

On the whole, computers became for me tools for "getting out of the way" of myself. This meant putting a distance between emotions and mind, so that I could exercise my mind independently of immediate emotions coming to the fore, and get rid of (or minimize) what the poet Charles Olson in his essay on projective verse (1950) had called "lyric interferences" and "second thoughts". The computer promised to make possible beginning art making with a clean slate.

On Mind

Because my focus has always been on how the mind works it is hard for me to believe in the cultural demarcations set up between music, poetry, and visual arts as truthful, non-arbitrary or even helpful. They are mere "product lines" in today's economy. I respect expertise in this or that art form, but expertise is only a tiny aspect of mind. Coming from philosophy, I am curious about how the artist's mind develops and how it works when engaging with appropriately selected materials. I think that this fact is the foundation for my not acknowledging firm demarcations between art-forms, and for being interested in creating hybrid art forms (such as animations which combine music, readings of poetry, and images).

Software, of whatever ilk, enables me to make a clear distinction between "my own mind" (a universe in itself) and the mind that speaks to me via software via a computer screen. The mind embodied in software presents materials to me, asking: "what does this material want from you?" The preliminary answer to this question starts a work flow; the ultimate answer is the resulting art work itself. However, it is not the software *per se* that matters, but the RELATIONSHIP I have or develop with it. In this relationship, a mind objectified in software stands over against my living mind. My work in three or four different artistic media has been based on this relationship.

The computer as the artist's Other has become a lot friendlier over the years. It was initially quite forbidding, threatening with the challenge of programming in low-level machine languages. Present-day software is much more intelligent than it used to be, and often icon-based. It is also much more domain-specific and layered. For almost two decades (1965-1985) I had to work with nothing but numbers as encodings of tones or acoustic partials, and had to connect a compositional idea regarding sound sequences to numerical representations of sound printed on paper. Or, if I did not have an idea in mind yet, I had to assume that when the numbers were realized acoustically through software or in traditional notation, sounds would emerge that carried a musical potential I would recognize and could work to develop.

In short, I had to assume that there is something like MIND.

I am still in awe of the fact that I could work on a piece of music over several years (like in the case of my third string quartet, 1992-1999) based on numerical scores, and the resulting music nevertheless emerged unified, consistent in itself. How was this possible? I don't know. I only know that Mind allows for such feats.

Looking at the artistic Mind in terms of my own development, it seems that a switch from one esthetic medium to another is not a big deal. What's different in different media is only the "material" and the use-conventions and the discourse attached to it. A color is not a sound only because that is how my senses work; but this distinction is not essential to my mind which works on a meta-level to the senses, and thus is able to manage their differences.

I wish this fact would be made more clear in art education. The source of creativity is a unitary one and only obfuscated when cut up into art disciplines. This unitary source is called Mind.

Paul Klee, in his book on "Visual Thinking", spoke of *Aufzucht der Mittel*, meaning something like "pay primary attention to your materials and forget all ideas about art, just look at what the material seems to require of you and what you can do with it given the tools you have before you!" Since I came upon this definition of composition at age 24, I have never forgotten or abandoned it. I made Klee's thought the anchor of my creative process. In music, what was before me was different than in poetry and visual arts, but these differences were slight compared to the unity of the mind working on such materials.

So when I now work on a photographic still (or maybe I should call it a painting?), this is the question I am asking myself: "que me veux tu, matériel?" (what do you want from me, material?). Of course, my mind can answer this question only to the extent that I know and master the appropriate tools. If my knowledge of my tools is limited, so will be my answers to the question asked of me by the material. It's here that "expertise" comes in, but only as an assistant to the mind in answering the question, not as the main actor.

Permeable Boundaries Exemplified

You might ask: "why, when starting work in the visual arts in 2009, did you stop making music and writing poetry?" I didn't. I just shifted the creative process into another dimension, and may well go back to music. You might ask further: "why did you proceed in the order of poetry to music to visual arts in your life?" That is an interesting question.

Poetry was in my mind early; it revealed to me what seemed to be my innermost core. I used to run home to write down a poem that emerged while I was walking. I was under its control. I tried to keep poems alive by reciting them while running to get paper and pencil under my hands. Later, under the influence of Charles Olson, I became suspicious of "lyrical interferences" and, in order to cleanse my mind of them, used a probabilistic sentence generator computing texts based on controlled random that I could edit into poetry. This process replicated my work in music where I interpreted tables of numbers in terms of acoustic instruments and voices to produce musical scores.

Having been put down as "unmusical" by a piano teacher when I was 11, I came back to music via a detour, that of musicology. Initially, when taking up piano playing again after 12 years, it did not occur to me that music could become an artistic medium for me. It was only after having listened to a 5-minute long piece by Anton Webern that I thought "if this is *music*, it could become an expressive medium for me". At that time, the first computers were beginning to be

used in music composition, either for generating numerical materials for "scores" (Europe) or for generating number tables for "sounds" (USA), a divide overcome only in the 1980s by way of intelligent software.

Poetry and music are of course related in the medium of sound, so that it is easy to become aware of their relationship. It is different in the silent world of the visual arts. For me to approach the visual domain, I first had to "forget" instrumental and vocal music and become a master of electro-acoustic music composition. I had begun this endeavor in 1966 using only oscillators and filters, far before they got embodied in software. It took me nearly 30 years of composing electro-acoustic music to be able to feel the results were fully worthy of, if not superior to, my instrumental and vocal works.

Having achieved electro-acoustic mastery, around 2009, I lost interest in making music per se. I replaced it by using my compositions as materials for musical collage in generating animations. Since then, all of my music making has been in the visual arts where my knowledge of music composition has become my guide to what is a "good enough" image.

I am now primarily interested in "frozen music" as it manifests in digital drawings, paintings, and photography, almost as if I no longer needed to listen to music but could now *see* it. (This is another phenomenon of Mind.) For me, my visual works now capture the energy flow and tension I once expressed through music composition. This transformation occurred in steps. Between 2011 and 2012, I composed three animations, two of which combine music, poetry, and images. These animations became for me the bridge to making visual art. One might say that I took a "cinematic" approach to visual art, in the sense that I first composed films and then used selected frames as negatives for my visual work.

The Next Step in Doing Away With Boundaries

I am back to being up against conventional demarcations now. My visual work brings me in conflict with the well-established convention of separating "photography" from "painting" and "drawing". Not to speak of the higher valuations of hand-made versus digital art in the market place and showroom.

Entire art associations have been based on the distinction between photography and painting which, in the digital arts, makes no sense at all. When I start working on an animation still, presently the source of my imagery, I don't know in advance whether the resulting work will be in one or another category. How can I know? I have not yet fully understood what my material requires of me! And why should I care what others want to call the results of my artistic process?

This clearly shows me that we need to rethink the "visual arts" in their entirety. The old distinctions just don't hold water any more, however reassuring they may be to some artists.

In the future, there will be painters who master both work in oil or acrylic and visual software and printing (perhaps even a mixture of the two, by using a digital photograph of their painting as basis for further work). Future software will become so refined that it can render a painting or

photograph even in three-dimensional form. Even if the brain "sees" a painting differently from a photograph, and if the artist's subjective impression of either remains distinct, the mind when willing certainly can unlearn the distinction and merge these two media.

One way to bridge the conventional gulf between "painting" and "photography", and other such fixations in art, is for individual artists to describe the (mental) process that is the source of both when considered on a meta-level "above" the senses. This might open up, for young minds, a new way of thinking about the medium they are presently working in, and thereby help them transcend self-generated boundaries.

We are still not at the end of what happened in the arts in the first decade of the 20th century. Just think of Kandinsky's "On the Spiritual in Art" (1911) in which the secondary relevance of all materials was disclosed to the bewildered mind who used to feel very secure in its learned convention of separating art forms as different one from the other!

But because there is something like MIND, all artistic boundaries are permeable!