

Statement of Work

My work combines art and engineering practices as a means to explore human awareness, uncertainty, and interconnection. To this end I have been inspired to create durational experiences comprising code, gold leaf, microprocessor controlled LEDs, fiber optics, and sensors. To be appreciated they require collaboration from the viewer or performer, whose movement and sound inform and transform the underlying rhythmic patterns.

Years ago at the Whitney Museum, I stood before a Rothko and spontaneously entered the painting. I found myself immersed in a silent, sacred space, free from worry, doubt, fear, and especially, from thought. To stand in front of a Rothko painting is to be enveloped by stillness and the sublime recognition of our profound interconnection with the world around us. This occurrence, outside of the realm of anything I had previously experienced, came as a shock. And in that moment I was forever changed.

Since then I have been driven by the impulse to comprehend that which makes us conscious and to attain that same sense of surprise, curiosity, and interconnectedness in my work. My personal pursuits and professional work have been governed by these objectives.

As part of my academic research I began a series of prototype artworks comprising generative, geometric patterns that interact with sensed data including sound and motion. I call them “performative” drawings.

As visual analogues to music, my real-time, interactive, performative drawings (*home to the immortals, fragments of paradise* and *flickering light, unto sleep I concede*) experimented with code that responded to amplitude data produced while musicians played and, in particular, to the silences during the musical rests. These intensely collaborative experiences with Wichita State University’s Impulse Percussion Group debuted in 2016. From our first meeting to the final dress rehearsal, we were adapting to each other. The musicians adjusted their rhythm, articulation, and dynamics to the interactive drawings while I recoded on the fly to respond to the nuance of the music. We really did not know precisely how it would turn out. It was an exhilarating and daunting experience for the students and for me. I found myself trembling with uncertainty and felt profoundly rewarded when the audience applauded enthusiastically.

Building on the experience of this collaborative musical performance; my next project is inspired by Rumi who wrote, “the quieter you become, the more you hear.” I believe the most complete experience of all, the only one superior to music, is silence. As such, I created a sanctuary of light for a solo show titled *resonate with stillness, experience light*. Housed within were gold leafed canvases woven with side-illuminated fiber optics lit by Arduino-driven LEDs. The viewer-participants were encouraged to quiet their minds and become aware of the silence within and connect to with the art.

In the first series, microprocessor-controlled changes in light were synchronized to the pre-programmed rhythm of my slow, steady breathing. As viewers relaxed into the space and instinctively slowed down their breathing to match, they had the experience of synchronizing with, or even controlling, the light transitions. In the second series of canvases, data from PIR sensors changed the colors of the fiber optic weavings as viewer-participants moved about. If they stood still, the light of the canvases would transform into blue light to mirror their stillness.

The designs in these works are influenced by the interlocking geometric patterns created by the indigenous Shipibo women of the Peruvian Amazon. The women paint these designs on their faces and on their ceramics, embroider them onto their textiles, and use them in healing rituals.

In my travels to Peru, I learned that the Shipibo have a notion of time that is different than our linear one. They understand the so-called “mythical past” as a “distant present.” This concept allows them complete freedom to maintain, transmit, create, and change their “traditions” and thus their culture. This made a lasting impression on me, and the integration of the geometric designs foregrounds this non-linear concept of time in my artwork.

Building and exhibiting these performative works showed me how important it is to step outside the constant stimulation of our modern civilization and our torrent of mental activity. We need a rest from our own minds. By residing in stillness, a place beyond time, we replenish the storehouse of energy needed for the next activity, inspiration, or innovation.

Even the process of making the work reflected the importance of silence. It was my first foray in electrical engineering. I hounded the engineers at the Wichita's Makerspace for help. I had never soldered before, let alone gone from breadboard to circuit board design. I loved the process and collaborating with hardware engineers. While I soldered I was in the flow/play state that I first recall experiencing while making things as a child.

The work also provided me insight into user experience questions around our expectations of how things should be or should not be. The user experience of this work corresponds to Nassim Taleb's "antifragility" framework, which sheds light on how we might behave, thrive and innovate in a rapidly changing and increasingly uncertain world. Taleb writes:

"Some things benefit from shocks; they thrive and grow when exposed to volatility, randomness, disorder, and stressors and love adventure, risk, and uncertainty... Antifragility is beyond resilience or robustness. The resilient resists shocks and stays the same; the antifragile gets better. This property is behind everything that has changed with time: evolution, culture, ideas, revolutions, political systems, technological innovation, cultural and economic success, corporate survival ... even our own existence as a species on this planet.

Antifragility has a singular property of allowing us to deal with the unknown, to do things without understanding them— and do them well. Let me be more aggressive: we are largely better at doing than we are at thinking, thanks to antifragility. I'd rather be dumb and antifragile than extremely smart and fragile, any time."

Our challenge has always been adapting to change; I believe ideas like cultivating stillness, antifragility, and openness to indigenous wisdom may help us to become more resilient in the midst of uncertainty. By definition these strategies encourage risk-taking, make us willing to fail, and help us find that which we are uniquely suited to contribute to the collective. Instead of burying our heads in the sand we are impassioned to enter into the swirling, changing world and contribute the work we alone can do.