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Public Sculpture Installations: A Conversation
Sara Garden Armstrong & Helen Hiebert

Helen Hiebert, *The Wish*, 2014, 7 x 7 x 7 feet, handmade abaca paper, bamboo, wood, audio; an interactive and multi-sensory permanent installation at Anythink Huron Street Library in Thornton, Colorado. The dandelion sculpture is made of 300 handcrafted paper seeds, representing the wishes of individuals from the Anythink Huron Street community and around the globe. The installation also includes a motion-activated audio component by local sound artist Jim Green, featuring recordings of wishes from community members of all ages.

Sara Garden Armstrong, *Sentient Matrix*, 2014, 16 x 21 x 20 feet, abaca and kozo paper fiber, acrylic, gel medium, programmable light-emitting diodes, microcontroller, aluminum, stainless steel, PVC; a permanent installation located at the University of Alabama Civitan International Research Center in Birmingham, Alabama. Sentient Matrix is an abstraction of the central nervous system (CNS). Within translucent abaca forms, moving lights suggest the linear rhythms of nerve impulses. When the light stops, it mimics the blockage of the nerve impulse in multiple sclerosis (MS), which damages the myelin and nerves.

We met at Dieu Donné Papermill in New York City in the early 1990s, when Helen was there as program director and Sara was making her work in the studio. We reconnected about a year ago when Sara contacted Helen about advice on designing and building forms for her new public commission Sentient Matrix; at the same time, Helen was working on her first public commission, *The Wish*. We started emailing, and a great conversation began.

Helen Hiebert (**HH**): I'm curious about the basis of your work. I'm thinking about *Airplayers*, a piece you created when I first met you, and your most recent installation for the MS Society. There seems to be an interest in how the body works.

Sara Garden Armstrong (**SGA**): The *Airplayer* series involved breathing, a play between the man made (life-support systems), the natural (respiratory, nervous, and circulatory systems), and the natural landscape. Sentient Matrix was a commission based on the disease multiple sclerosis, which I explored by making the science visual through art. How about you, can you tell me what inspired *The Wish*?

HH: I don't recall the direct inspiration, but a lot of my work involves pointing out similarities that all human beings share. It's quite basic actually, and I started thinking about wishes and how many of us have similar desires— for health, happiness, peace, an end to suffering. And when I started asking people to tell me their wishes, I found that I felt empathy and compassion towards them. The dandelion became an obvious metaphor for wishing, and I like to imagine that if everyone in the world could share a wish, and in turn, everyone could listen to each other's wishes, that our global problems might dissolve.

SGA: Community involvement seems to be a key element in your work.

HH: Yes, another community-engagement project I did was called *The Mother Tree Project.* I envisioned hundreds of crocheted strands surrounding a large paper dress/tree sculpture. When I realized that I wouldn't be able to make them all myself, I reached out to friends, family, and community members. There was a ripple effect; strangers and friends sent me stories and crocheted strands made from fibers I'd never even thought of, like seaweed. It was wonderful. Another point is that I find my studio time quite isolating and really enjoy connecting with a wider community and hearing their ideas. For *The Wish*, I created an online form where anyone with access to the Internet could contribute a wish. I was also interested in collecting voices as well and set up a Google voice account, but the recordings weren't very high quality. I ended up working with Jim Green, a sound artist who recorded and mixed voices and wishes on a soundtrack that accompanies the installation at the library. Actually, the library had already worked with him on a previous project, so they were willing to hire him to produce the sound component for my installation. In this way serendipity played a big part in this project. Even before receiving the commission for the library, I had started constructing it on my own. I was telling the public-art coordinator in the Vail Valley about it and she said she heard that a library in Thornton was looking for a book artist to facilitate a community project. Long story short, I convinced them, via email and an in-person meeting, that I was their artist. And it even turned out that the 7-foot-diameter dandelion fit perfectly in the space.

SGA: WhatKismet! My project was also unusual although commissioned in a more conventional way. The commission was from the Alabama-Mississippi Chapter of the National Multiple Sclerosis Society that raises money through their Legacy of Leadership award each year. In 2013, Miller Gorrie was honored, and as the honoree, he got to select an artist to do a commission for the community. I was selected and Mr. Gorrie requested a sculpture that relates to multiple sclerosis. He also wanted the work to interest and stimulate both the scientific researcher and the layperson. This was the first time in the Legacy of Leadership's history that the honored person asked that the art relate to multiple sclerosis.

HH: I understand that you built a model and then had to translate the model into actual materials?

SGA: Yes, first I studied the science endlessly, on the Internet and by talking with people involved in MS research. My studio felt like a science lab with so many images of the brain and what happens with MS as it affects the central nervous system. I built a model; focusing on the neuron, with the movement of light representing the nerve impulse as it moves through the axon (the nerve fiber) and the glial cells that support the neurons. The overall form of the sculpture is an abstraction of the brain shape and the spinal cord, which is the "root system" electronically

connecting and feeding impulse to the whole form. The glial forms are the connecting lines in the sculpture.

After building the model, I struggled to find materials to translate the model into an actual sculpture. The translucent glial forms in the model were made from hot glue, and I eventually developed a way to use layers of a clear gel gloss medium with a gesso aluminum wire and kozo fiber for these shapes. I constructed sprayed abaca forms with embedded kozo fiber for the myelin sheath that wraps around the nerve.

Then there was the lighting component. I knew I needed to control the lights and their movement from point A to point B through the nerve fiber. Ultimately, through a friend at a science museum, I ended up in the electronics world, using programmable light-emitting diodes, LEDs, with a microcontroller. Each LED had to be individually controlled for color, value, and length of on/off time. As this was very complex, I hired an electronic programmer and circuit designer. We spent many weeks experimenting with various electronic microcontroller boards, different LED strips, and solving issues with the various components.

How about your project? How did you decide on your materials and construction process?

HH: I worked through several material considerations in my head. I always knew how the paper disks/dandelion seeds would be constructed, but I considered wire, then dowel rods, and finally decided on bamboo for the "stems." I found bamboo stakes that are 3 feet in length that were rigid and slim. I consulted a physicist and an engineer who helped me determine how many holes could be drilled into a wooden core (which was hand turned), how to plot the points at which those holes should be drilled, and the diameter of the paper disks.

I had done all of these steps prior to getting the commission, so I was able to show my client the actual parts. I also created a simple scale model so that they could see how the piece would fit in the space, and we discussed where and how it would be hung, taking into account issues such as keeping the piece out of reach, where the existing beams on the ceiling were, and the way the piece would be viewed upon entering the room. For the paper disks, I chose highly beaten abaca pulp for its high-shrinkage qualities, translucency, and durability. I made the pulp and the disks in my papermaking studio. Where did you make your paper components for your project?

SGA: I have never been a "real" papermaker, but paper has been one of my main materials. I set up pulp-spraying areas in my studio in New York in the 1990s, but always ordered pre-beaten pulp. For the commission, I was in Alabama getting ready to spray a very large number of forms. I had to have control over the beating of the pulp, so I purchased a "Big Critter" from Mark Lander in New Zealand. I set up a spraying area outside in a sculptor's yard next to my studio, and I was intently reading your book, *The Papermaker's Companion*, to understand how to achieve certain qualities such as translucency and strength in the abaca forms.

HH: How did the installation go? Any major challenges?

SGA: The installation was quite complex—the model, built at a scale of one inch to a foot, became the road map for installing. The electronic components had to be connected in prescribed locations, so a chart was developed. Via a laser and the model, points were determined for the ceiling connections. We installed ceiling hooks first, and then segments of *Sentient Matrix* were attached systematically as we moved across the space. This installation took more than a week to achieve. What about your installation?

HH: My studio was too small to construct the piece fully, so I had to trust that it would all come together on installation day. Thankfully, it did. I also live two hours from the library, so I had to figure out ahead of time how to construct all of the pieces for transportation and then installation.

SGA: What types of longevity and maintenance issues did you have to address since your piece is a permanent installation?

HH: I talked with several paper artists, including you, who have done permanent installations, and there does not seem to be a protocol for treating work. The main issue with *The Wish* will be cleaning. I recommended a dusting every six months. The piece has 300 individual seeds that are somewhat precariously attached. I suggested to the library that they lower the sculpture and hand dust the individual seeds using an architectural dusting brush. How did you approach *Sentient Matrix's* permanence?

SGA: I am very confident about the paper since I have done previous permanent works in paper, but mainly I was concerned about the permanence of the lighting system. We devised a backup—a complete system installed in the tube inside the abaca forms with an additional microcontroller in the control box. I was very concerned about the lighting breaking, and I knew that I could not go back into the sculpture to repair the LEDs.

HH: How was your interaction with the client?

SGA: I really wanted to research what happens with an MS patient. I worked with a doctor who has an MS research lab at the University of Alabama in Birmingham to understand how the central nervous system works and how MS affects it. It was extremely interesting, and we developed a friendship out of this experience. There were a large number of people involved with the progress of the work, and each added something to the sculpture. How did it go for you at the library?

HH: I had several meetings with the library staff including the head of the library, the communications person (who was my main liaison), and the head of the branch where the piece would be installed. Prior to the installation, I did a workshop at the branch and we had a whole team collecting wishes that day. I asked the group what they wished for and one of the women, choking back tears, said she wished that she could have one more day with her mother. It was quite moving. That is a special quality about public art commissions—we make them for shared space, and they serve as a way to connect us.