

Artist Statement: Through the intermixing of synthetic, natural, digital, animal and human substances I explore the conflicted relationship our culture has constructed relative to nature. This was originally inspired by a nine-year experiment in selectively breeding my own specialized line of show rabbits. My obsession with the pursuit of the "perfect rabbit" was a way in which I could feel I was affecting the natural world. It was a powerful feeling; however, the fact that I was directly shaping these animals according to a human agenda was disconcerting. Selective breeding requires the "non-selection" of many animals. I quit the rabbit-breeding project long ago, but my interest in the desire to experience an idealized version of nature by technologically controlling it remains.

My work engages viewers in a visual, tactile and auditory realm, to elicit a dialogue regarding the relationship between technology and our changing concept of nature and self. I am interested in the way that our increasingly enhanced and extended human capabilities allow us to perceive the world in micro and macro modes, explore it more thoroughly and even make attempts to remedy past ecological errors. That technology can simultaneously ruin, reveal, reinvent and repair nature is a paradox I investigate in my work.

WHY LOOK AT ANIMALS? 2008

(5' x 9' x 3.5') Materials: projected video (14 minute loop), acrylic fur, fabric, wood and wire.



In the video installation, viewers can capture video images of animals on a furry, handheld animal-shaped screen. The videos were collected from various animal webcams over the course of a year and compiled into a continuously streaming loop. I was inspired by the essay, "Why Look at Animals?" by John Berger, in which he considers how human-animal relations have changed since the 19th century. Berger notes the breakdown of "every tradition which has previously mediated between man and nature". In my installation, I consider this strange new tradition of mediation and interaction, where we point our webcams at animals and then use our internet browsers to watch them. Perhaps it is because they look good on camera and merely provide a spectacle for us, but it could also be that animals matter to us and we want to know what they are doing when they are not with us.



FARM FOUNTAIN, 2008

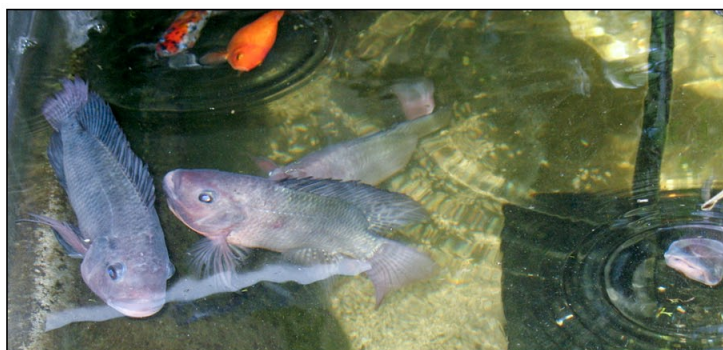
Materials: Live plants, live fish, 2-liter soda bottles, clay balls, stones, Plexiglas, steel, timer, pump, filtration system, LED bulbs.



A constructed, indoor ecosystem for growing edible and ornamental fish and plants. Based on the concept of aquaponics, this hanging garden fountain uses a simple pond pump, along with gravity to flow the nutrients from fish waste through the plant roots. The plants and bacteria in the system serve to cleanse and purify the water for the fish.

This project is an experiment in local, sustainable agriculture and recycling. It utilizes 2-liter plastic soda bottles as planters and continuously recycles the water in the system to create a symbiotic relationship between edible plants, fish and humans. The work creates an indoor healthy environment that also provides oxygen and light to the humans working and moving through the space. The sound of water trickling through the plant containers creates a peaceful, relaxing waterfall. The Koi and Tilapia fish that are part of this project also provide a focus for relaxed viewing.

Farm Fountain is a collaborative, opensource project started by artists Ken Rinaldo and Amy Youngs. We wish to inspire others to innovate on this concept. Illustrated instructions of our home version of Farm Fountain are available online at www.farmfountain.com



CUTE PARASITE, 2008

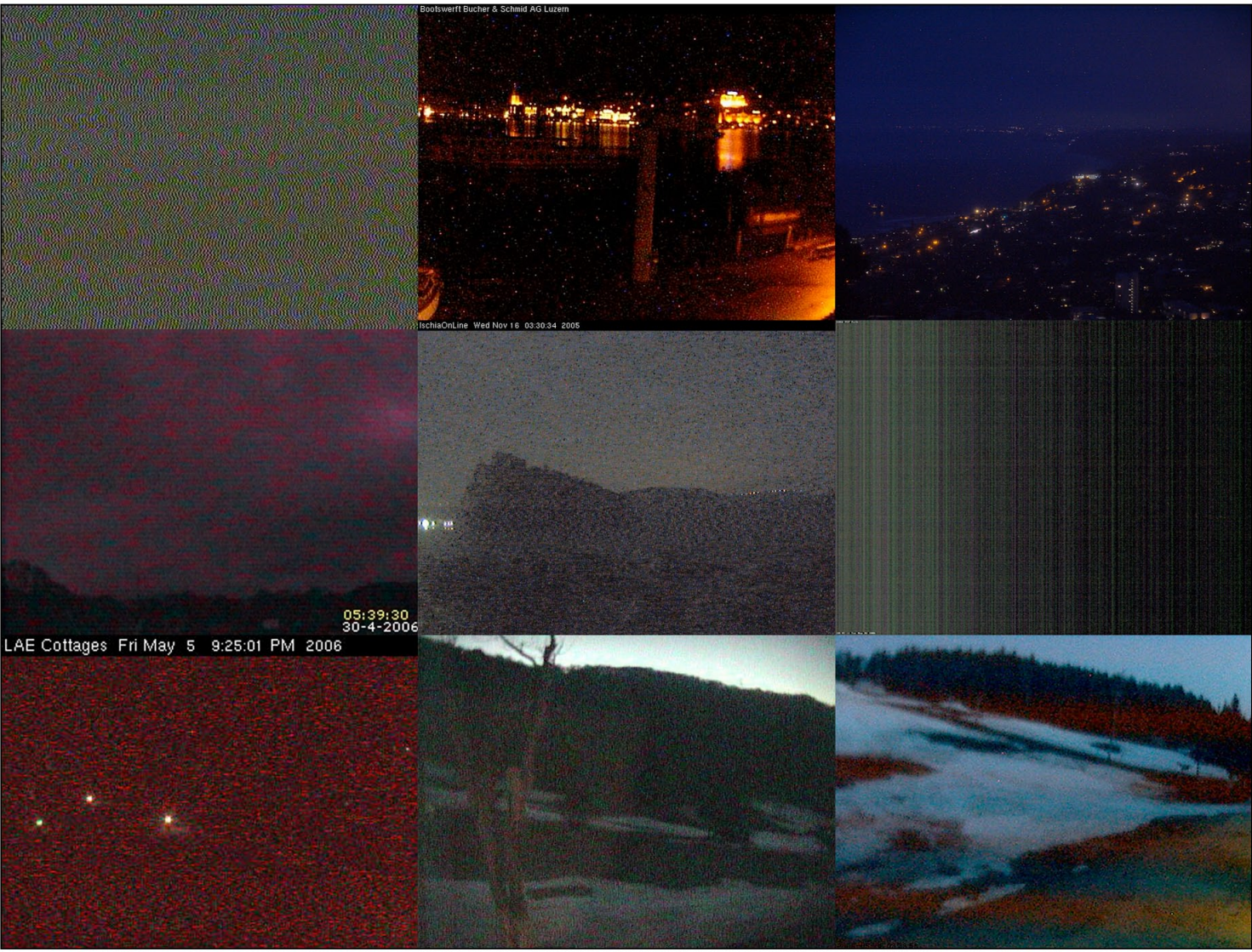
A series of 12 live grafted cacti with feathers, rabbit fur, real and fake human hair, fake eye-lashes and rubber bands



Grafted cacti are monstrous and delightful parasites, horticultural ornaments and life-support systems. Fluorescent cacti are mutants that lack chlorophyll and cannot feed themselves. They rely upon other cacti for their food and they also must depend upon humans to physically graft them onto the other cacti. We play a key role in the survival of this cute mutant parasite. In this installation, I have taken the liberty of "overgrafting" multiple types of cacti and have included elements such as my own hair, the fur of rabbits, bird feathers and dead cactus spikes.

ARTIFACTS FROM THE SCREENING OF THE WORLD - Light, Lens, Dark 2007

(10' x 6') Installation of webcam screenshots on inkjet transparencies, with fabric and curtain rods.

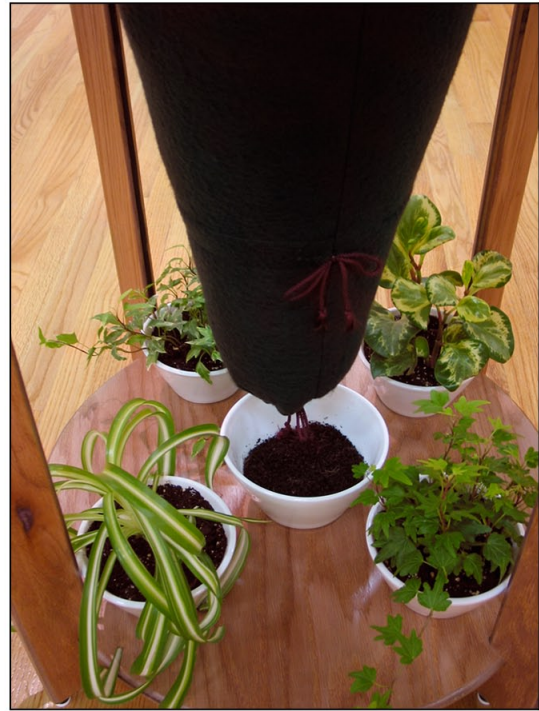


I collect artfacted images from publically-available, landscape webcams. I have thousands of images that reveal more information about the camera's imaging capabilities within a challenging environment than about the outdoor visual scene they are meant to display for internet viewers. As the camera struggles to image a scene that includes the bright afternoon sun, or ice on the lens or a scene that does not contain enough light, interesting artifacts show up - pixel streaks, chunky graininess, light flares and other mysterious light and glitch effects. This installation includes a sampling of my collection, organized into 3 categories of artifacts: Light, Lens, and Dark.



DIGESTIVE TABLE, 2006

(48" x 36" x 46") *Materials: Live Red Wiggler composting worms, sowbugs, food scraps, shredded paper, landscaping fabric, polyethylene, security camera, LCD screen, infrared filters, live houseplants and FSC (Forest Stewardship Council Certified) oak plywood, stained with red cabbage and worm compost tea.*



A living ecosystem of worms, sowbugs and bacteria are invited to this table. They are a part of the digestive system that starts with a person discarding food leftovers and shredded paper into the portal at the top. The bacteria and sowbugs begin breaking down the waste and the worms soon join in to further digest it into a rich compost that sprinkles out of the bottom of the fabric bag that hangs beneath the table. This compost is used as a fertilizer for plants, such as those at the base of the table.

The human plays an important part at the table by eating, feeding the food waste to the worms, feeding the resulting fertilizer to the plants, or by simply sitting and appreciating the living ecosystem he is a part of. A cross-section of the activity inside the top 9 inches of the compost is made visible using an infrared security camera connected to an LCD screen built into the table. On the screen, viewers can see the live movements of the worms and sowbugs inside.

HYDROPONIC SOLAR GARDEN, 2005

Materials: Hand blown glass vessels, live plants, water and solar-powered pump.



This installation is a collaborative project with Ken Rinaldo that resulted from discussions about indoor, sustainable gardens. It is our hope that such systems could become alternatives to purchasing vegetables that have been grown on petroleum-powered farms and trucked to grocery stores (produce purchased in the US travels an average of 1,500 miles from farm to fork). This hanging hydroponic garden also serves as a sculptural, indoor waterfall. A solar pump raises the water when the sun shines, allowing aeration, circulation of nutrients and the sound of trickling water. The glass containers are designed to offer a view of the complex root structures of plants; an important element we normally do not get a chance to see.

HOLODECK FOR HOUSE CRICKETS, 2005

Materials: Live crickets, glass, sand, microphone, video projection and computer running MaxMSP/Jitter patch.

A video installation environment that is interactive for live crickets. This glass enclosure for house crickets that offers a safe, yet highly artificial environment, complete with pelletized food, gel water, glass rock food bowl, glass pond, glass waterfall, plastic plants and a pastoral video scene projected on one side. The crickets are given control of the simulation of motion through the landscape via a custom computer interface which uses the data from the high pitched sounds of crickets to advance a video clip. This allows the crickets to "interact" with their projected environment by chirping. Each chirp advances the panoramic, cricket-eye-view-video footage of outdoor scenery. Actual nature would be a bit harsh for these domesticated crickets, as they are raised in climate-controlled tanks as food for reptiles and would freeze if released outdoors in the Midwest winters.



INTRATERRESTRIAL SOUNDINGS, 2004

(7' x 9' x 5') Materials: worms, dirt, infrared camera, projected image, wood, fabric, vinyl, acrylic fur and sound amplification equipment (microphones, laptop computer, firewire pre-amp interface and guitar amplifiers).

An installation designed to offer human participants an opportunity to tune into - and bodily experience - vibrations made by worms and tiny soil-dwelling insects. The live sounds inside an active worm box are amplified and directed into speakers attached under a worm-shaped couch that visitors to the installation may sit or lie upon. Visitors are able to feel the vibrations of the creatures that are going about their regular activities of eating, moving and making fertilizer. An infrared camera provides a real-time view of the activities at the surface of the compost. It is meant to offer a different sense of the life inside the earth; one that goes beyond the scientific and instead approaches something more akin to fellowship, communion or appreciation.





SEEING THE SKY AROUND THE WORLD, ALL AT ONCE 2004

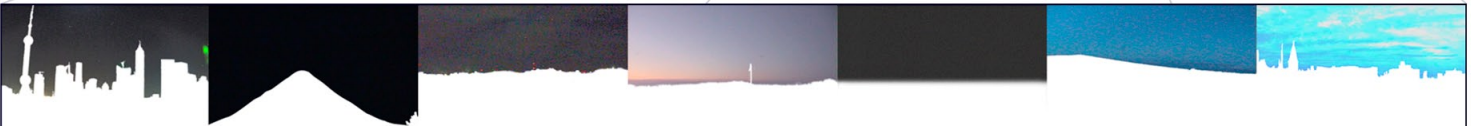
(1' X 10') C-print

What would it be like to see the sky around the world at the same moment in time? While it is not possible to experience this directly, live webcams stationed across the globe do permit a form of simultaneous sight. To capture and synthesize this information, I utilized 52 webcams around the world that include the sky and took screenshot images of them at noon and midnight (Eastern Standard Time), on October 4, 2004. All but the sky is removed from each image and they are arranged in order of their longitudinal location, starting with Columbus, Ohio (82° 59' W), proceeding eastward to Orlando, Florida (81° 22' W), to Ottawa, Canada (75° 43' W), etc., until ending at Cincinnati, Ohio (84° 30' W).

The sky images are printed out as a ten-foot long panorama, with those taken at noon placed at the top and those taken at midnight inverted and placed at the bottom.



(detail)



Shanghi, China

Kamchatka, Russia

Noumea, Micronesia

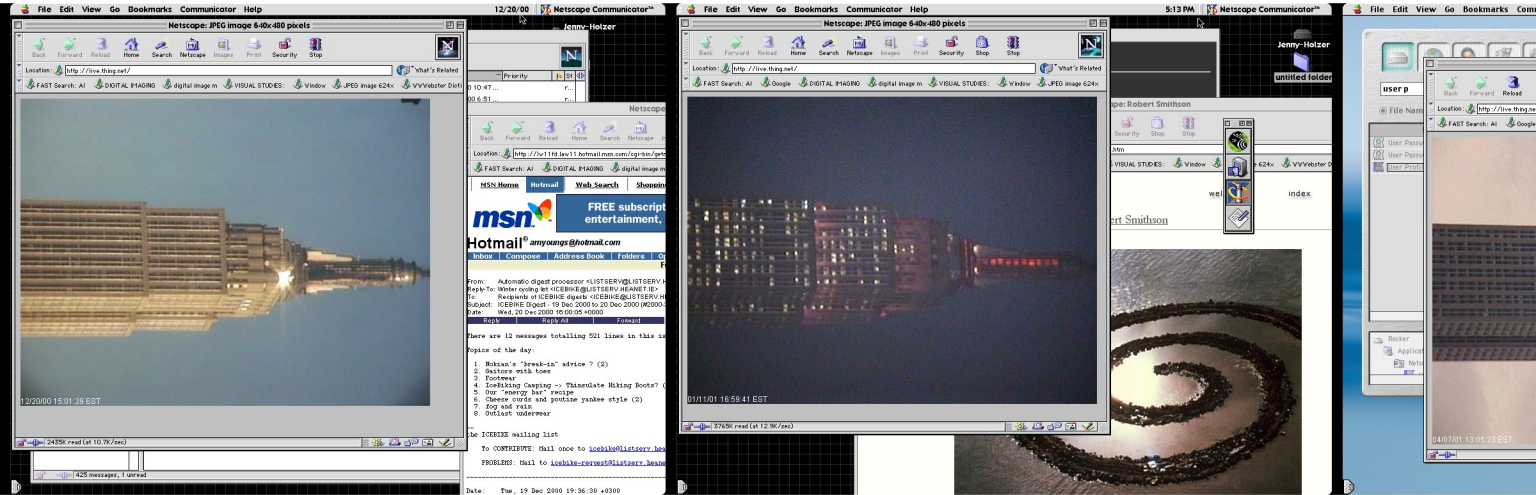
Scott Base, Anarctica

Christchurch, New Zealand

Mauna Kea, Hawaii, USA

Fairbanks, Alaska, USA



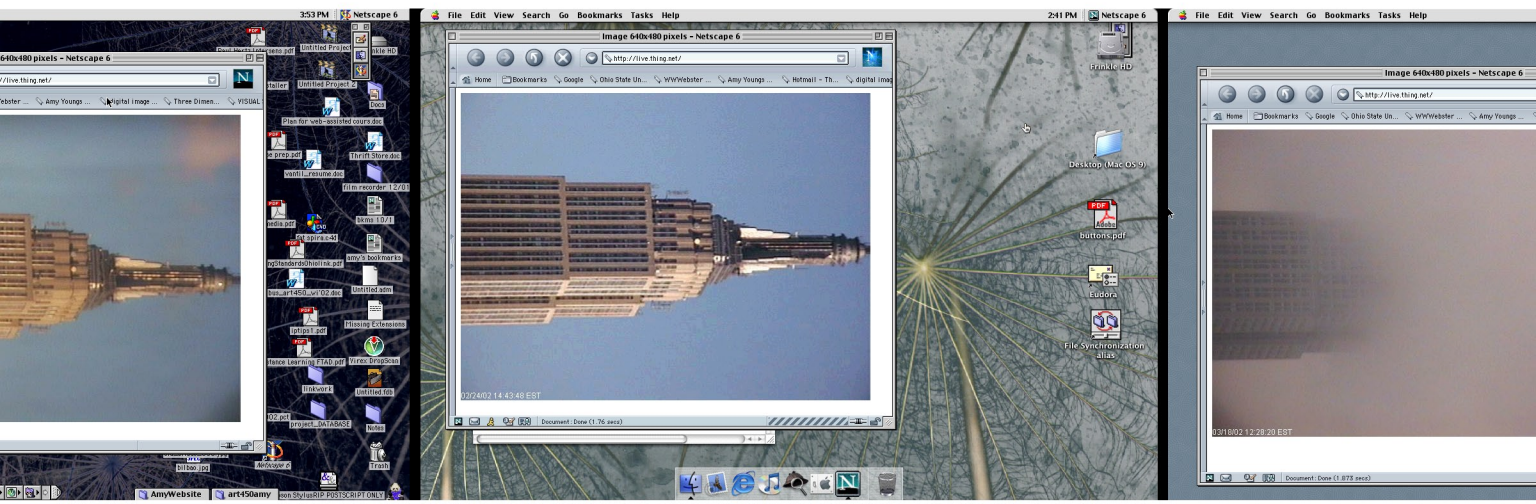


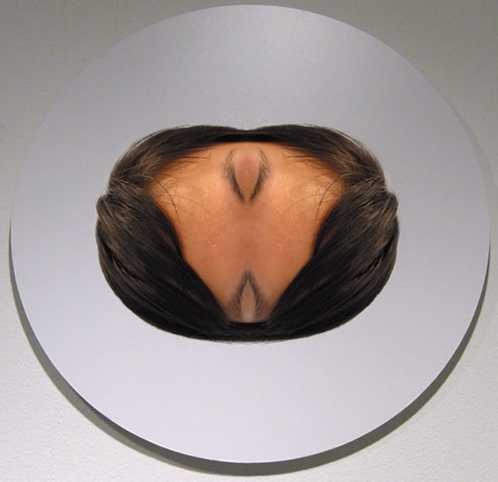
SCREENWINDOW 2003 - an experimental video piece on DVD 3 minutes, 24 seconds

This video chronicles my personal relationship with a web cam; the live, 24-hour web cam of the Empire State Building in New York.* In November 2000, I began taking pictures of the images I saw on my computer screen. I did not use a camera, but instead took thousands of images using the screen shot function built into the operating system of personal computer. The video shots are compiled into a video diary of the distant building in an internet browser window, as it sits on my computer desktop.

The ability to experience, capture, “own” and care about the remote building kept me engaged. As I sat in a windowless computer lab for hours on end, I came to understand that the ability to see the weather and natural light patterns reflected in this icon of human engineering was what was so compelling to me. Perhaps even more compelling is the ability to see it through someone else’s camera - a person I have never met in a space I have no physical knowledge of. At times, the existence of life in the same room as the camera is revealed through the close observation of the web cam, shadows, handwriting on a window and jogs to the camera.

*<http://live.thing.net> – operated by Wolfgang Staehle





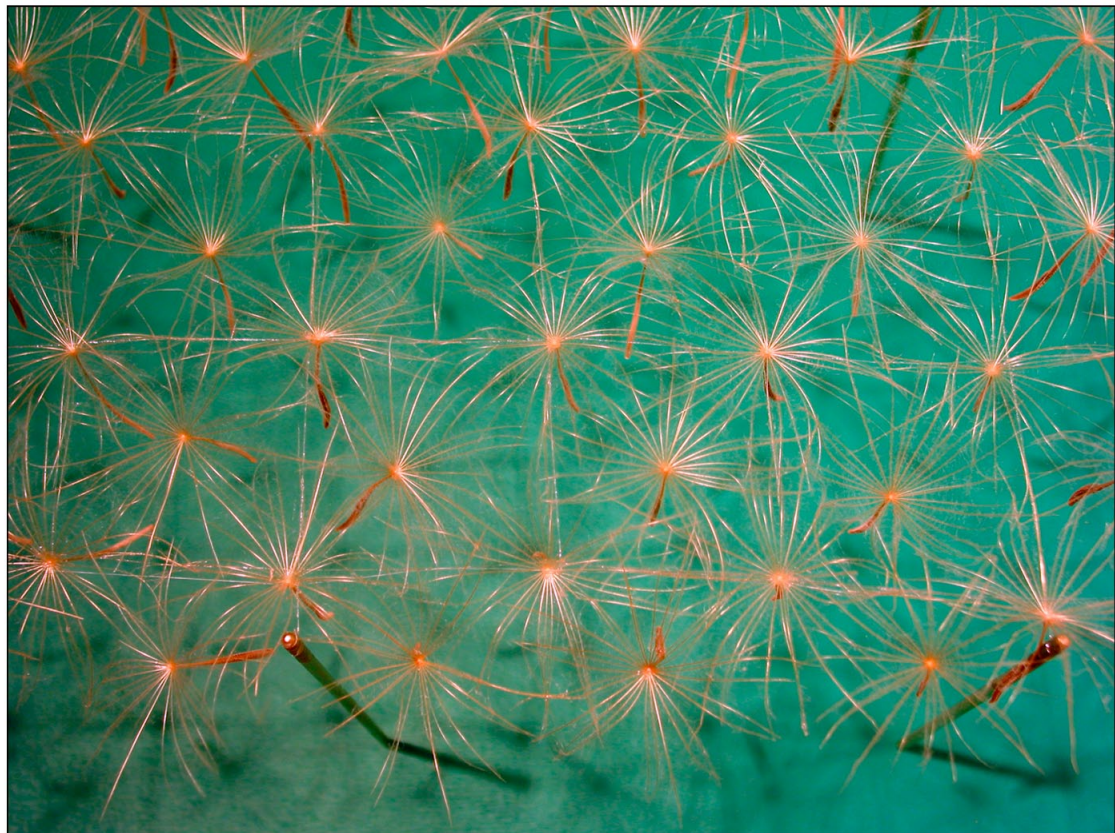
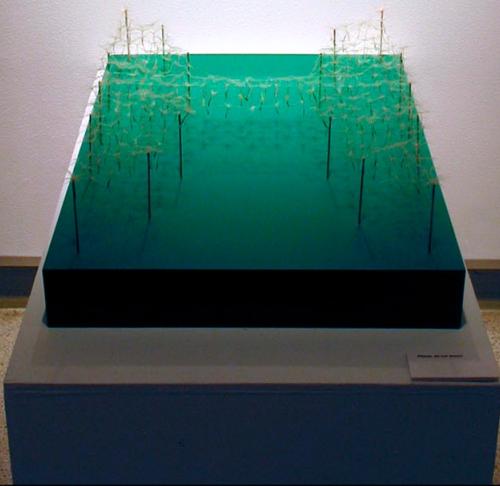
MICROPROPAGATION, 2003 (11' x 7' installation) C-Prints on Sintra board.

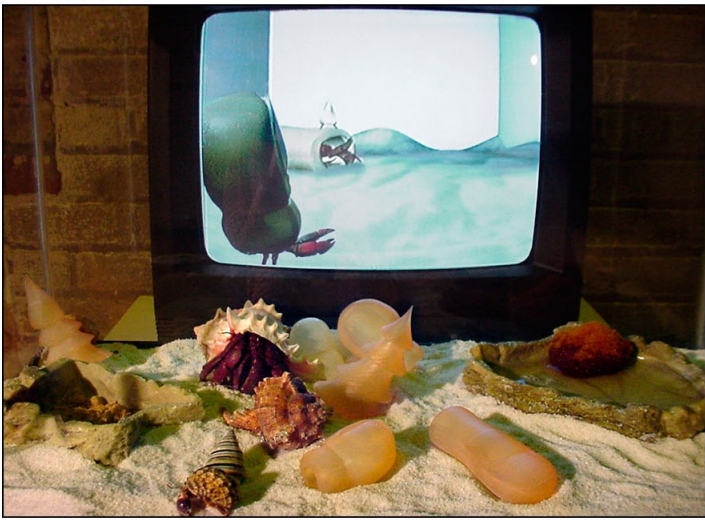
Digitally manipulated photographs as a visual exploration of the idea that humans could be cultivated in the same manner in which we cultivate plants and animals. What makes us "valuable" are our brains and these "natural resources" are selectively cultivated in this installation.

***HYPERNATURAL INDUSTRIES:
PROJECT DANDELION, 2002***

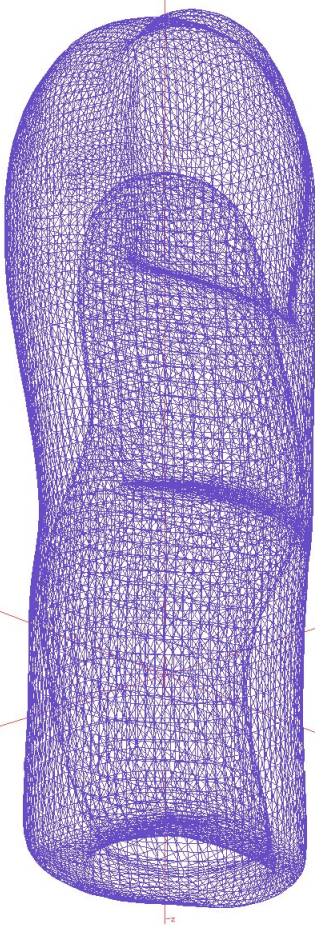
*(variable dimensions) materials:
dandelion seeds, artificial hair, brass,
digital print and wood.*

This installation is a speculation into the kind of “improved plants” I might create if I worked as a genetic engineer. I named my company *Hypernatural Industries* and set out to redesign a plant that is traditionally seen as “weed”, into something that would be considered to be a desirable ornamental. I chose to create a blue dandelion because blue is a statistically more popular color than yellow among humans. Also, to avoid the untidy, random distribution of traditional dandelions, these seeds are pre-engineered to grow into patterns. This would likely be used for advertising which would, ironically, remake the dandelion into a corporate darling.





PROTOTYPES FOR HERMIT CRAB SHELLS
2001 (2' x 3' x 1.5') Live hermit crabs, computer-designed and selectively laser-sintered plastic shells, aquarium and 3D animation. Created in collaboration with Matt Derksen.

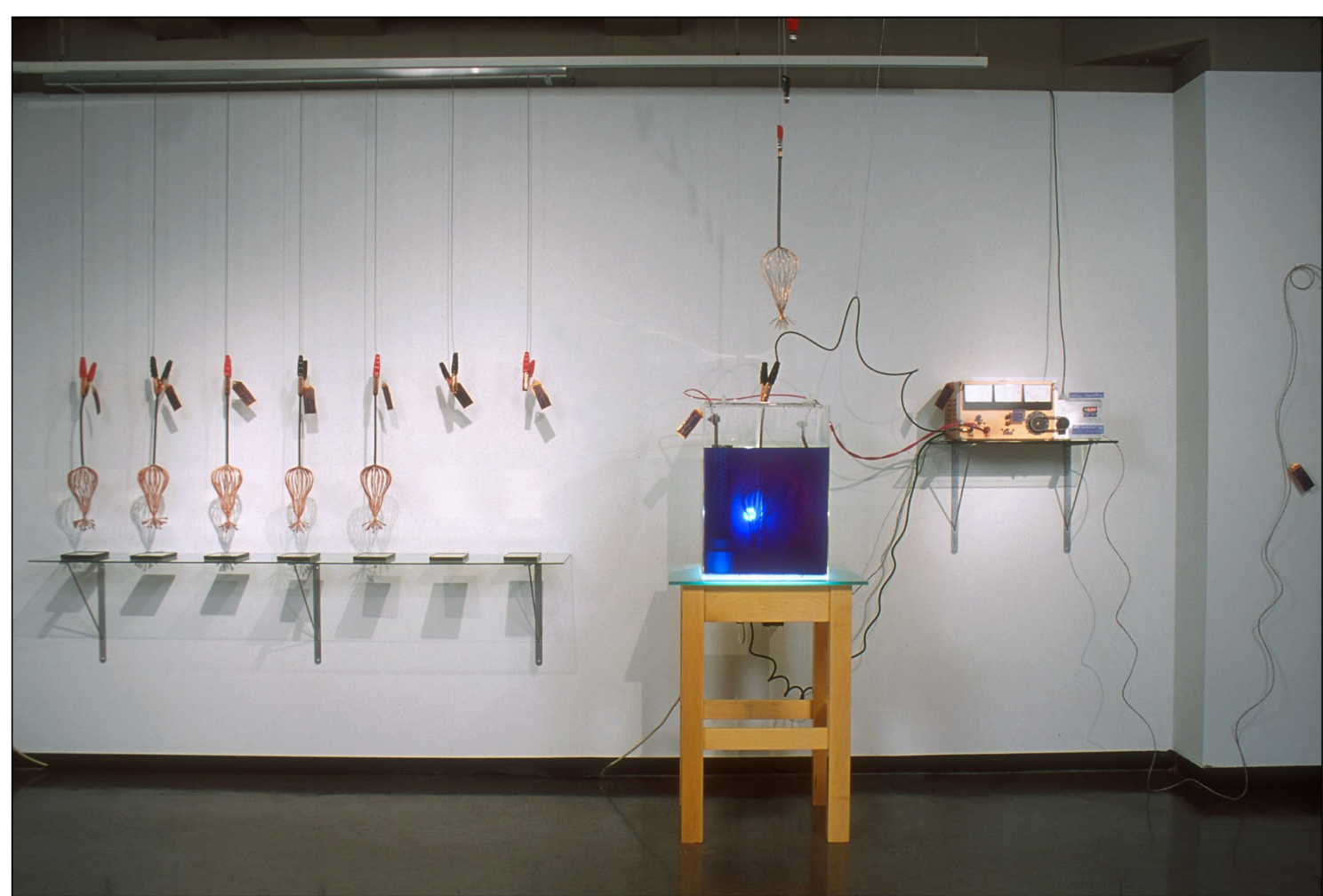


Hermit Crabs cannot grow their own shells, so they rely upon snails to produce the shells they use to protect themselves. When they grow out of the old shell, or find another that suits their fancy, they will move into a new one. It was my hope that they would want to move into these shells that have been designed and rapid-prototyped especially for them. I realize that it is entirely possible that the shells I designed will fail to meet their expectations, given the long-standing evolutionary relationship they have with the snail shells they currently use. I consider this to be a work in progress, as with the medium of rapid prototyping, many trial and error designs can be realized in a rapid, hyper-evolutive process; allowing the hermit crabs themselves to be the ultimate judges of what works.

HYDROELECTRIC INVERT, 2001
(7' x 3' x 1') materials: rubber, lights,
CD player with waterfall audio,
speakers, light switch and a motor.



A pseudo-waterfall sculpture made of rubber, light, motion and the booming sound of a waterfall. It is inspired by the way in which Niagara Falls is manipulated and constructed to serve humans as both an industrial and natural spectacle. The activation of this sculpture resides in a light switch mounted on the front of the piece, giving the viewer control of this artificial nature experience. Another important feature of this sculpture is its full extension, all the way into the outlet it plugs into. Pointing directly at its source of electricity, it refers back to the natural processes (such as waterfalls) that are used to produce it. This sculpture inverts an outdoor waterfall power source into an indoor, controllable version.



ALCHEMICAL BLOOM, 2000

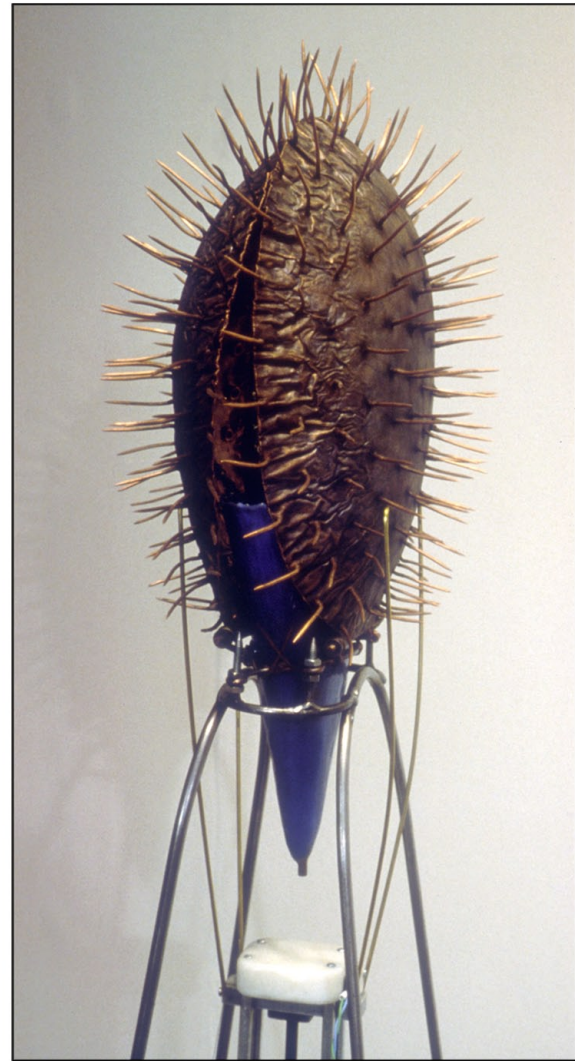
Materials: weather, digital thermometer, microprocessor, custom electronics, servo-motor, voltage rectifier, copper anodes, electrolyte, titanium, steel, fluorescent lights, glass, aluminum and wood.

This installation is a system of artificial growth using information gathered from a natural source. A new copper sculpture "grows" every week; the size and texture of which is affected by the weather. Using information from an outdoor digital thermometer, a controller varies the amount of power supplied to the electroforming tank where the copper sculpture grows. The colder the temperature is, the higher the voltage is in the tank, which causes a faster, grainier growth. A warmer temperature lowers the voltage, resulting in a smaller object with a smoother texture. The completed sculpture is removed from the tank each Wednesday evening and hung on a wire in chronological order of production. The bloom quickly develops a patina, while the excess copper sulfate drips onto an aluminum canvas underneath, creating crystalline designs. Process, product and by-product all become "the art" in this transmutation of weather, electricity and chemistry.



**REARMING THE SPINELESS
OPUNTIA, 1999**

(60" x 30" x 30") Live Spineless Opuntia cactus, motor, copper, steel, aluminum, rubber and electronic components including ultrasonic sensors and customized microprocessor.



The sculpture is a machine designed to protect a spineless cactus. The *Spineless Opuntia* is an actual, living cactus that has been altered by humans so that it lacks its spines. It is, therefore, easier to eat and to feed to cattle than its relative, commonly known as the Prickly Pear cactus. Because humans find it to be an economically valuable plant, we will cultivate it and protect it, however, I began to imagine what might happen if humans abandoned the *Spineless Opuntia* and it were left to fend for itself. The machine I built for it is an armor that will close when people approach and open up again as soon as people move away from it. It is a prototype for possible future ways to engineer technological remedies for ecological problems we are responsible for. A way to technologically protect other living things from ourselves.

ENGINEERED FOR EMPATHY, 1999

(24" x 19" x 12") Live cactus (*Mammillaria Elongata Monstrosus*), clay, soil, wood and electronics - including Qprox capacitance sensor, microprocessor and light emitting diodes.



Inspired by the creation of transgenic tobacco plants that glow with the genes of fireflies, I endowed this cactus with a pulsating glow. It is a speculation as to what might be possible in the new plant species in the future. Beyond the creation of visual aesthetics or economically engineered species, I imagine a plant that responds to humans and conveys emotions in ways understandable by us. This cactus is engineered to elicit empathy from humans, presumably so that we will be compelled to take care of it. Its signal to us is a pulsating, glowing heartbeat that speeds up as a person comes near it. If the cactus is touched, its pulsing behavior changes to a frenetic flashing.

HYPERDOMESTIC CACTI, 1998 - 1999

Live grafted cacti, rubber, cactus spikes, clay, rocks, plastic and soil.

These are selections from a series of works which projects humankind's aesthetic ideals of nature onto real and fictitious cacti. Taking existing examples of human engineering such as strangely altered grafted cacti, and genetically enhanced, human friendly spineless cacti, this body of work imagines the possible future permutations of these living forms. Now that we have engineered a spineless cactus (widely available at Home Depot nurseries), we may begin to miss the beauty of the spines and so design the next version to include soft, "ouch-less" spines. Perhaps we will engineer future houseplants - our surrogate nature - in ways that enable them to show us their emotions or desires, or reflect ours back to us. Indeed, it is possible that our new creations could affect us in ways that bring about a greater appreciation for, and conservation of, the non-human world.



Hyperdomesticate III, handmade rubber spikes on live Spineless Opuntia cactus.



Hyperdomesticate I & II, A live, grafted cactus (right) consisting of five distinct varieties, posing next to a rubber cactus with real cactus spines.



Grafting process. - one of many attempts to create living, grafted cacti sculptures.

CRICKET CALL, 1998
(65" x 26" x 24") Live crickets,
plant, custom electronics, amplifier,
telephone, video camera, copper,
Plexiglas, fabric and wood.

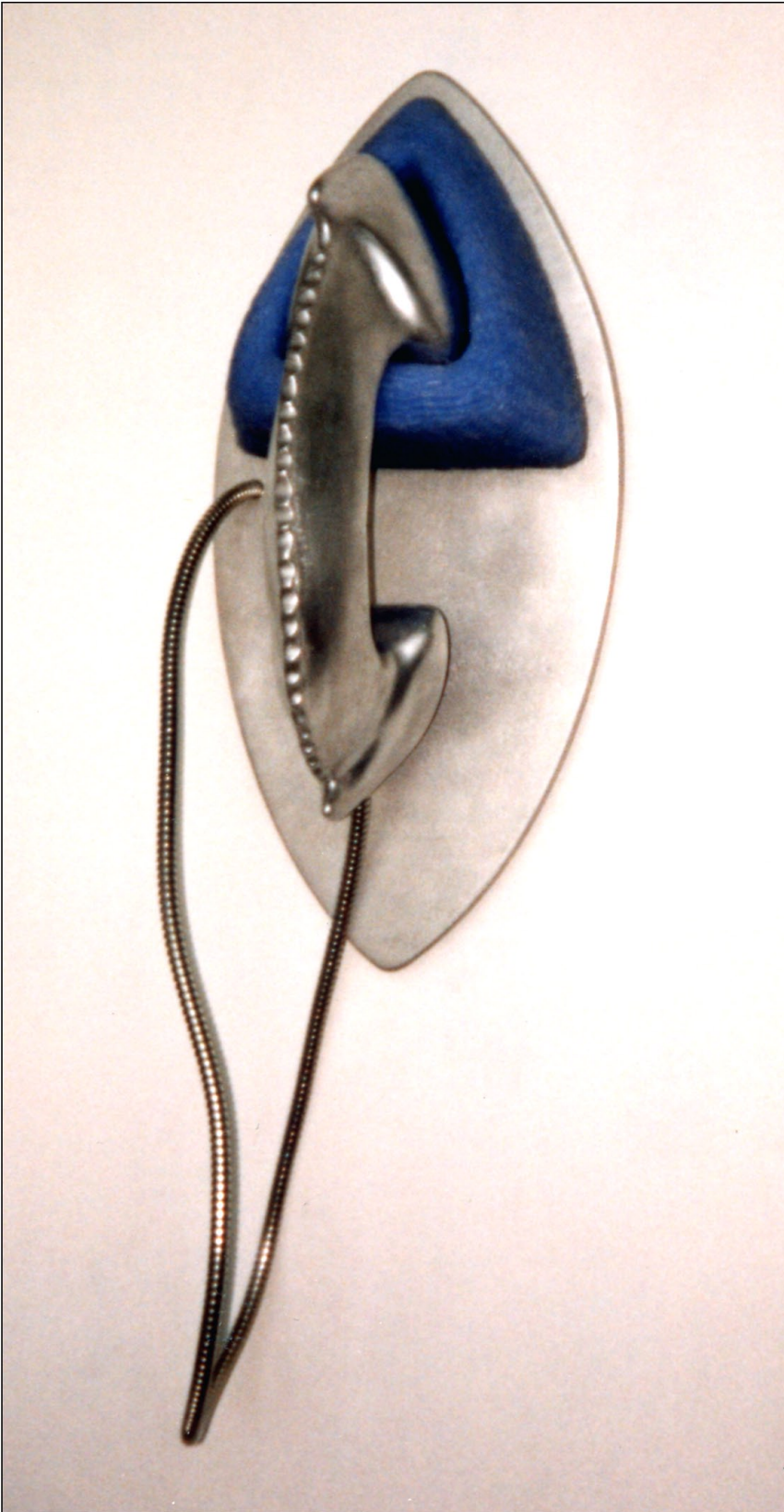


This technologically-enhanced nature experience attempts to facilitate communication between crickets and humans. The cricket participants live in a glass-walled, human-like environment which, when a human participant is present, includes a televised human on their own scale. For the human, there is a telephone interface which receives the amplified chirping sounds of the actual crickets and sends voice-activated electronic chirping sounds to the crickets.



SOMEONE SOMEWHERE ELSE, 1998

Installation detail (18" x 9" x 8") materials: cast and welded aluminum, rubber, steel and electronics.



The Concept:

Through the simple act of picking up a telephone, people may become uninhibited to speak to the person standing next to them on the train platform. This sculptural phone is one element of a larger public piece designed for *Live Live*, a partnership between Museum of Contemporary Art in Chicago, the Chicago Transit Authority and Robert Morris College. The installation was designed to be a catalyst for conversations between people who do not know each other. The distance that is inherent when speaking on the telephone makes talking to strangers on the phone easier than talking to them in person. By taking advantage of this phenomenon, it was my hope that this installation could provide an experience that would help people break through the barriers that keep them from conversing with each other in public spaces. Unfortunately, the Chicago Transit Authority pulled out of the partnership, preventing the installation of the projects.

MNEMONIC DEVICIVE, 1997

(23" diameter x 7") *Electronic Theremin, amplifier, tire, wiring, switches and knobs.*

The array of devices inside the tire entices viewer participation. As a hand reaches out to it, eerie sounds emanate from the piece. If any of the devices are touched, the sounds responsively change to a dramatic squeal. The experience is intentionally designed to be inscrutable. It is a device that stands to remind us of our individual lack of technological knowledge. As humanity impresses itself with its technological invention, individually we understand very little of it. Even old technology. We may have a general understanding of mechanical technologies such as switches and tires but the Theremin, which was invented in 1927, is an electronic instrument that is full of invisible forces that seem mysterious. Even though I built this Theremin by hand, I remain perplexed and humbled by electronics.

