





**I type this introduction into my iPhone with my thumbs, sitting atop a volcano at 3900 meters.** From this vantage point I have a close up view of two sister volcanoes, both tops lit up with red-orange sparks. Out of one flows lava. Atop the other rests a cell phone tower. Watching the core of the earth flow out of this peak as the earth rumbles beneath my feet is magnificent. But as I turn to watch a man take a call with one hand as he builds a fire with the other, I am reminded that the global mobile phone network is no less impressive.

On the one volcano rests an artifact of human impulse to remake the world so that it serves us. From the other flows a constant reminder of the planetary forces that despite all of our technologies, render us powerless. Our environment shapes us; we shape our tools and they shape us; and we, in turn, shape our environment: on purpose and not. Over a third of the earth is now considered a 'novel' ecosystem: shaped by human forces, self-sustaining, and without historical precedent. A better term, some argue, is 'emerging ecologies:' paying tribute to what is in constant flux.

The artists in Systematic Sampling approach science, history, technology and ecology in rigorous, personal, inventive and sometimes quirky ways. Some begin with a specific ecology or technology, and arrive at time. Others render ancient planetary forces visible with the tools of today. Yet others prompt us to consider the impact of the decisions we make, and their consequences, that we can or can't foresee, later, in time.

—Miriam Simun

***Situated Sampling Set*** is a highly site-specific series of works which show the results of unique computer simulations. Within the depicted scene, an assembly of objects at first appears random, yet each item relates to a practice of measuring, surveying, documenting. Ranging from mineralogical reference cubes to calibration targets used in NASA's space photography, they are the forensic markers which provide the meta-data for a later use of the image. In *Situated Sampling Set*, those objects are being simulated in accordance to the physical location, orientation, gravity and lighting conditions of the respective place, resulting in an image whose indexicality goes far beyond a conventional visual representation. Each instance of the work is thus not only a document of its own situatedness in the world but one which will transpose this meta-information into any disseminated photo of itself.

**Sascha Pohflepp** is a German-born artist, designer and writer whose work has been known to probe the role of technology in our efforts to understand and influence our environment. His interest extends across both historical aspects and visions of the future and his practice often involves collaboration with other artists and scientists, creating work on subjects ranging from synthetic biology to geo-engineering and space exploration. **Chris Woebken** is a German-born artist interested in the culture and the history of thinking about the future. Chris collaborates with scientists, organizations, artists to propose new methods and tools for envisioning future scenarios, embodied as artifacts in familiar, present-day contexts. Chris is co-founder of the Extrapolation Factory.







*Alpha, Beta, Gamma*, 2011  
Prepared Fluorescent Light Fixture  
Geiger Counter, Custom Electronics

***Alpha, Beta, Gamma*** was created as part of an ongoing project to sample ambient radioactivity and present it in different contexts as visible and tangible. Stearns' practice deals with the complex nature of media tools and technologies as rich material for cultural, media archaeological, and anthropological investigation.

**Phillip David Stearn's** work is centered on the use of electronic technologies and electronic media to explore dynamic relationships between ideas and material as mobilized within complex and interconnected societies. Deconstruction, reconfiguration, and extension are key methodologies and techniques employed in the production of works that range from audio visual performances, electronic sculptures, light and sound installation, digital textiles, and other oddities both digital and material.



***Invasive Pigments*** is an ongoing project focused on the migration and proliferation of certain plants in tandem with dense human populations. Irons gathers unintentional plants (also known as “weeds”) living in her local habitat and mines them for pigments, creating hand-made watercolor paints that reflect the palette of the landscape from which they arose. She uses these paints to make maps and pigment diagrams that demonstrate connections between plants, humans and urban environments. The project takes on a variety of forms, from paintings, videos and gardening experiments to web guides and xerox handouts for walking tours.

**Ellie Irons** is an interdisciplinary artist and educator pursuing the long tradition of the artist-naturalist in a contemporary, hybrid format. Focusing on urban ecology, she uses a variety of media, from walks and workshops to drawing and video, to explore how human and nonhuman lives intertwine with other earth systems. The objects and experiences she creates often probe the concept of the Anthropocene, a hypothetical geologic age defined by massive interplay between our species and all other matter.

*Invasive Pigments Color Sampler, 2013*  
Plexiglass, Deep Well Slides, Plant Based Pigments in Gum Arabic



***The Iceberg Orders Series*** takes its name from the strategy that high-frequency traders use to disguise buying or selling large orders by breaking them up into smaller sizes. This method is used to prevent other trading algorithms from anticipating a large order so that the price remains the same. *Tray* is a functional object that renders the financial value and trading activity of oil companies, like Exxon and BP, as iceberg-like forms. Photographs of these ice sculptures build on the connection between the financial system and the natural resources it speculates, and draws inspiration from the “ice porn” visual imagery that inspires people to take Arctic cruises and witness glaciers before they melt.

**Genevieve Hoffman's** practice relies on data as a means for comparison. Oftentimes, she develops an algorithm that takes a dataset from a set of comma separated values to a physicalized form. Feeding different datasets into the same algorithm allows Hoffman to see the similarities and differences of the entities behind the data. While ultimately more interested in drawing metaphorical connections between the data and the medium with which she chooses to render it, Hoffman leverages the implicit truth we bestow to data visualizations as a means to understand the world.

*Tray (Iceberg Order Series)*, 2013  
Polystyrene and Melting Ice



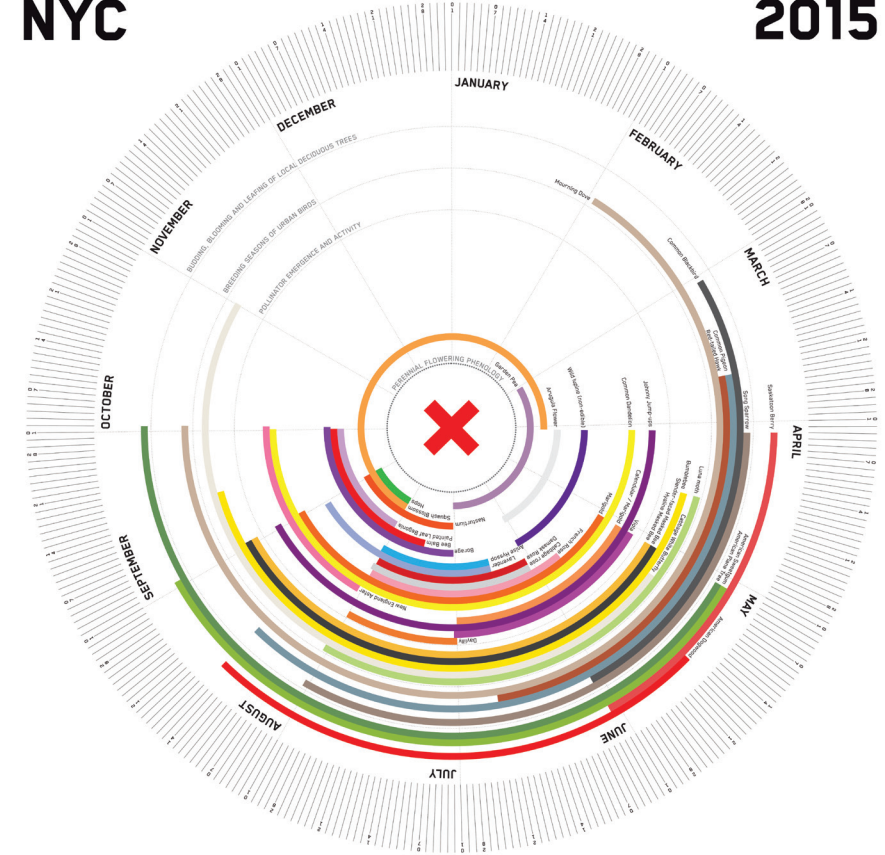
**The phenological clock** displays when local organisms bud, bloom, emerge or migrate on a January thru December clock face. These observable seasonal events are arranged in concentric annual circles, one for each species: perennial flowering plants in the innermost circles; the insects, butterflies, bees and moths that are dependent on these are in the next surrounding set of circles; the birds, dependent on insectivorous resources are next; and then local trees and their large biomass and habitat provisions are positioned as the outmost annual rings. This clock re-presents time as the dynamic coordination of diverse and interdependent organisms rather than as the mechanical movement of gears, pendulums or quartz in conventional time pieces. These are the actual material biogeochemical processes that define time. Phenology is our most sensitive indicator of climate destabilization and understanding this will inform the creative collective work of reimagining and redesigning our collective relationship to natural systems.

**Natalie Jeremijenko** blends art, engineering, environmentalism, biochemistry and more to create real-life experiments that enable social change. Jeremijenko directs the **xDesign Environmental Health Clinic**, approaching health from an understanding of its dependence on external local environments; rather than on the internal biology and genetic predispositions of an individual. The xDesign phenology team includes **Jake Richardson, Blacki Li Rudi Migliozi, Tega Brain, Annelie Berner, Fran Gallardo and Rona Benay**.

NYC

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*Phenological Clock, 2014*

Acrylic, Vinyl Print, Arduino Uno, Stopper Motor, DC Power + Digital Poster Print





*Siphonal N9604Z*, 2014  
Shell, Laquer, Electronics

***Siphonal N9604Z*** The acoustic phenomenon produced by the siphonal canal has been molded by its environment over hundreds of millions of years. Over the last century aural by-products of our machines have come to be as ubiquitous, regular, and even as calming as the waves of the sea. *Siphonal N9604Z* begins with the exoskeleton of an ancient species and rapidly evolves it: as if passing it through a worm-hole sound barrier, the bioaccumulation of machine-made noise is suddenly materialized into an unexpected life form.

*“For whatever we lose (like a you or a me) it’s always ourselves we find in the sea”*  
— E.E. Cummings, 1958

**Nanu Al-Hamad** is an artist and industrial designer. He is founder and Director of Design of the Al-Hamad Design Studio, focusing on high-end furniture, lighting, and concept object design that is shaping a new movement in design. Al-Hamad is also a member of the art collective GCC, that adopting the guise of an inter-governmental body makes work that is both inspired by and addresses the contemporary culture of the Arabian Gulf. **Miriam Simun** is a research-based artist interested in implications of socio-technical and environmental change. Working across mediums, much of her practice is based in scientific, historical and ethnographic research.

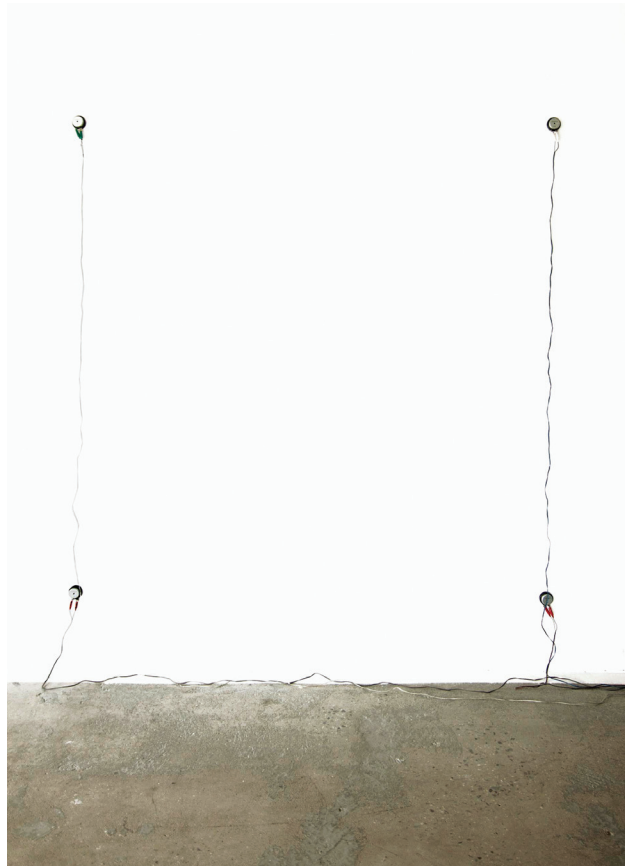
***Breathing Room*** is a site specific architectural installation capturing natural airflow into and out of a room in breathing motions. As the bags appear to inhale and exhale, attention is drawn to one's own breath as well as architecture as a living organism.

**Audra Wolowiec** is an interdisciplinary artist based in Brooklyn, NY. Through sculpture, installation, text and performance, she makes conceptually driven work with an emphasis on sound and the material qualities of language. Her poetic installations mine themes of communication, allowing experiences that merge the sensory with the ephemeral.

*Breathing Room, 2012-14*  
Plastic Bags, Air, Thread, Frame







*Meta*, 2013  
Sound Installation (Quad Ear-to-the-Wall Listening)

***Meta*** is a quadraphonic piece, which means that the audio is composed to be moving along the four assigned channels. Gareth's work focuses on investigating, exploring, and drawing attention to background noise and the sounds that we encounter in our common spaces. In many ways these sounds are derivative of our own experiences, actions, and choices. They become emitted by commodities, means of communications, and our own relationships with technology. *Meta* references this, and mimics simply an objectification of a mundane experience.

**Richard Gareth** interweaves various media including moving image, sound, expanded photography, and multimedia performance. In work ranging from modified environments to installation with specificity towards media and space, Gareth constructs immersive situations that reflect on the nature and experience of time. His pieces are informed by the background noise established not only by mass media culture but also by the collective experience of the world that surrounds him.

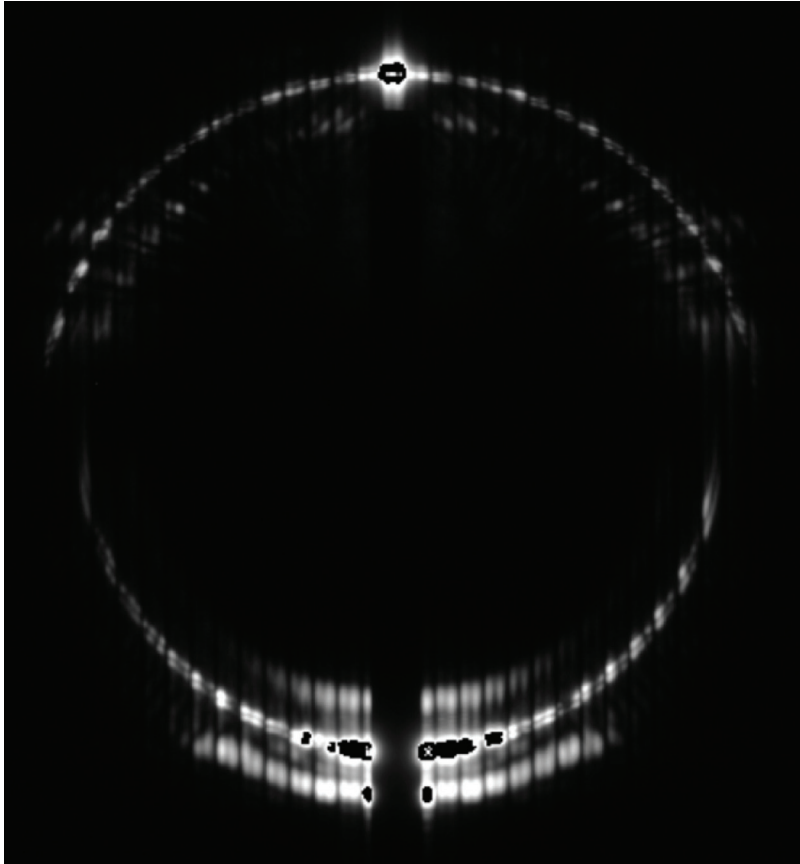


***Spectral Resonance*** Solid state electronics meet fluid open systems. Hydrogen and oxygen bubble and float into space, copper is ionized liquid blue, crystal structures emerge. Multiple regions of the electromagnetic spectrum interact, feeding back through matter transforming, sound-experience embedded within. Bronze string from Ellen Fullman's *Long String Instrument*, Winnipeg 2014.

**Erin Sexton** is a Canadian artist who works in sound, performance and installation. Based in Montreal, she builds electronics, grows crystals, amplifies architecture and sonifies the ether. Exploring the materiality of ephemeral phenomena, Sexton works to embody the theoretical and (meta) physical within immediate experience. She is represented by Perte de Signal (CA), also having FÜNF and Ænth as collaborations.

*Spectral Resonance*, 2014  
Copper, Magnesium sulfate, water, glass, electronics, plastic, bronze





***Ambiguous Records of Reality*** In an era of “big data,” one way we can explore this information is to sonify the data, converting the numbers into sound. In this piece Rowland, Schedel and Yager sweep through X-Ray scattering data like a clock hand, making timbre-based sonifications by synthesizing sine waves with loudness based on the intensity of the data and pitch based on the position. The images are visual representations of the same data. The sonifications are played on a variety of flexible home-made speakers to underscore the fact that aesthetic and technical decisions must be made in order to translate data into the sensory domain.

**Jess Rowland** is a sound artist, musician, and composer currently represented by Edgetone Records. **Margaret Anne Schedel** is a composer and cellist specializing in the creation and performance of ferociously interactive media working as an Associate Professor at Stony Brook University. **Kevin Yager** is a materials scientist at Brookhaven National Laboratories where he uses X-Rays to probe the structure of matter.

*Ambiguous Records of Reality*, 2014  
X-ray scattering images, Sonification, Home-made speakers



**Postcards from Paradise** is a sequential art project that considers the route of a proposed coal export corridor through the lens of the larger history of industrial exploitation in the American West. Pierce traveled to 26 small towns between Gillette, Wyoming and Blaine, Washington— a route that Peabody Coal hopes to use to export coal via rail to terminals on the coast and then ship to China. He photographed empty public spaces in each of the small towns, printed the photos, and painted imaginary monuments on top to honor the legacy of profiteering in the West. Pierce then rephotographed the paintings and printed them as a series of postcards. Project subscribers will receive one card every two weeks, retracing the journey with the artist's sardonic commentary en verso.

**Ryan Pierce** is an Oregon-based artist who has exhibited internationally and received accolades from The Joan Mitchell Foundation, Ucross Foundation, Ford Family Foundation, Art Papers, and Art in America, among others. He is the co-founder of Signal Fire, an organization that provides wilderness residencies and retreats to artists of all disciplines.

*Postcards from Paradise #3: Hardin, Montana, 2014*  
Flashe paint on digital photograph reprinted via offset and digital printing







***Cities are Natural*** Using contact microphones and other devices, Clarke recorded arrays of frequencies from buildings and urban structures around her Kent Avenue studio and Bushwick. The Williamsburg and Bushwick areas in Brooklyn being a hotbed of demolition, building and change demonstrates the natural progression, although harsh for many and politically infused, of a city in constant cycles of change. She then visualized that data and transformed them into geo-landscape like visualizations, mimicking the acoustic imaging work she's worked with in the past. The visuals are then projected within a small paper and glass structure informed by the locations. Sue Ngo designed and created the paper structures and collaborated on the fabrication.

**Melissa Clarke** is a Brooklyn based interdisciplinary artist whose work employs data and generative self-programmed compositional environments. Working at the intersection of science, technology, and art, Melissa's "neolandscapes" dissect and re-inform the way we think about data, nature and experimental art. Clarke often works across mediums as a way to look at hybridizations of wilderness and technological spaces—towards considerations of nature at the center of human experience, myth, science, and information collection. **Sue Ngo** is a designer and artist living in Brooklyn. As a cofounder of Brooklyn research, she specializes in digital and soft fabrication. Her work focuses on exploring the environment through e-textiles and biometric sensing. She has been featured in core77, Anderson Cooper 360 and Fast Company.

*Cities are Natural*, 2014

Contact Microphones, Custom Software, Glass, Metal, Custom Paper Fabrication, Projection



The shape of ***Embodied Entity*** comes out of a vocabulary of forms developed by Brenna Murphy over the course of three installations in the year 2013. The piece exists in a variety of scales, from 2 inches long to 2 meters long. It also lives in the virtual realm, appearing in Brenna's virtual spaces and web labyrinths.

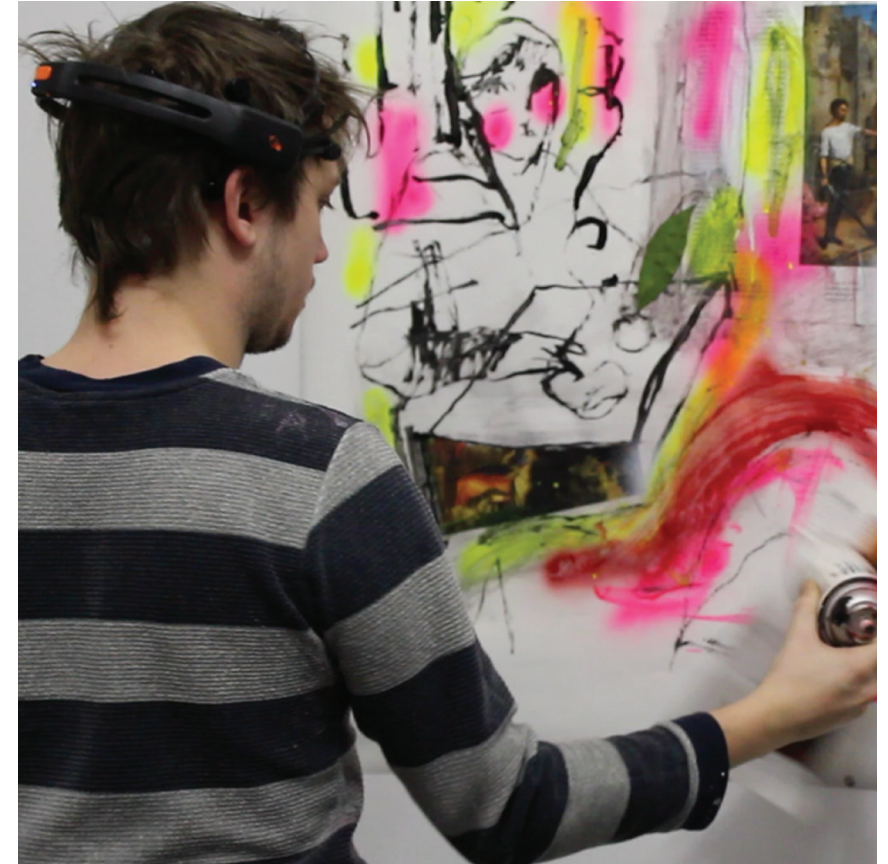
**Brenna Murphy** weaves trans-dimensional labyrinths with the use of personal recording devices, computer graphics programs and digital fabrication. Her work is an ongoing meditation on the psychedelic composition of sensory experience across physical and virtual realms. She also collaboratively creates sculptural analog synthesizers, interactive sound installations and rituals with Birch Cooper under the collective name MSHR.

*Embodied Entity*, 2013  
3d Printed Plastic Resin



***Dean painting day 3 11.12.2014.01.24.17*** is an excerpt from an experiment exploring how visual experience is translated into art. The video depicts test subject Dean Cercone creating artwork and shows his brain activity while painting, as recorded using an Emotiv EEG device, in real time. It features an instance of recall, where the subject inserted novel images he was previously administered into his artwork. Novel images were sourced from Allen Brain Atlas and viewed on a MacBook Pro at 2.5 fps.

**Tricia MacKenzie** is a neuroscientist and geneticist who uses neurophysiology as a means to explore the hidden universes inside herself and other beings. She received her Ph.D. from New York University and her B.S. from University of Washington, Seattle. Her research explores creativity, influence, and free will.







Curated by **Melissa F. Clarke** and **Miriam Simun**, ***Systematic Sampling*** examines how artists contend with emerging ecologies in a series of art works and performances situated on the continuum between “technology” and “nature,” often exploring this inextricable link. The diverse group of artists all share a proclivity for using research methods and information-parsing in their process towards meaning-making. Sampling explores these questions with a collection of inventive art works that uncover hidden systems and emerging signs of life.

Special thanks to the **Stream Gallery Team** for making the first exhibition possible.

