

on the corner of Lomita Dr. and Campus Dr.  
Stanford, CA 94305  
June 4-8, 10

The Frankenstein GRID: Stanford's Monster of Modern Science

## **NARRATIVES [June 6<sup>th</sup>]**

### **8 - 8:45pm glacial ice installation + sound environment:**

1) NOW WE CAN HOLD TIME by Hannah Perrine Mode, 2018. ice (tap water from Oakland; ice core samples from Antarctica; Mendenhall Glacier water from Juneau, AK), stones (Mills College), climbing cordelette, carabiners.

Working across mediums, and often drawing upon scientific research, I use the Earth as both material and subject for storytelling. I make objects and installations that incorporate time-based processes and transformative materials – like cyanotype, ice, and clay – tapping into their aesthetic qualities as well as their utility. Artworks become proxies to document the passage of time, personal experience, and human interaction with our environment.

I am interested in ways to bring the vastness of geologic time to an intimate human scale, and how to make space for vulnerability and empathy within that juxtaposition; I write love letters to glaciers, create and tend to systems of melt and erosion, trace my body along fault lines. Whether performed socially or in solitude, each gesture is an exercise in sincerity, hope, and (sometimes) futility – an attempt to reimagine the flow of the future.

2) sound environment: “See you in a field,” by Dr. Onn Brandman.

### **8:45 - 9pm live performance:**

3) STITCHES live acousmatic performance by Carlos Sanchez. Improvization to the following poem-powerpoint by Charlotte Thun-Hohenstein, ‘Stitches’, 2018.

Hello, World.  
I am a monster.  
I make you facts.  
I give you stitches.  
I bring only right angles.  
I am seen upon contact.  
You may observe.

The Frankenstein GRID is learning to articulate its nascent identity as a being in relation to the world. It does so drawing upon references from

its digital environment, and recites its self-lesson in the form of a classroom powerpoint. Meanwhile, live music alludes to an interwoven multiplicity of experience and association sustaining this development.

### **9 -10pm video programming (looped):**

4) A LONG POSTLUDE by Julie Herndon, 6, 2018.

Alexander Graham Bell developed the photophone in 1880. The device reflected vibrated sunlight to convey speech wirelessly. While Bell thought it to be one of his greatest inventions, it was too impractical to be put to general use.

This piece explores the mystical properties of light and its applications, using text documenting the photophone interspersed with prophecies about light. Light bulbs are absent from the story itself (Bell used sunlight for his experiment). As such, the bulbs become bystanders, independent characters groomed by history, communicating a story of speech by light.

5) ENTROPY by Chris Lortie (audio), 8:04, 2018. feat. ArtX video material.

"Art sets out to expand our awareness, to create room for new concepts that are just now being researched in science. Or, as Paul Klee once said, arts does not reproduce the visible; rather, it makes visible. The same applies to science, especially pure research: it goes far beyond the visible. Sometimes it is the visions of science that open up new forms to art, and sometimes it is the other way round. But at all events both of them, art and science, pursue similar visions. Both deviate from the beaten track of thought and perception to conquer something new with great purpose and creativity. Both risk going down the wrong party in order to take a shortcut or discover new territory. Neither has it easy, because they question the tried and tested and upend the familiar."

-Rolf-Dieter Heuer, Director-General of CERN, 2014

6) PHYTOPLASTIC by Ellie Irons, 3:29, 2012.

*Phytoplasic* tracks the deterioration of a microscopic aquatic ecosystem through exposure to anthropogenic pollutants. Over the course of a few minutes, a small puddle of water containing a healthy community of algae and other phytoplankton grown from a sample of Hudson River water are subject to a barrage of pollutants, from plastic particles to bleach, silt and dish soap, creating a succinct portrait of ecosystem collapse. The piece combines footage shot through a microscope with audio collage to foreground microscopic plant life, which is often overlooked in favor more charismatic forms of nonhuman nature. The footage for this piece was shot through a Motic Compound Microscope at the SVA Nature and Technology Lab. Sound was recorded along the

Hudson River piers in New York City and at Echo Lake in the Sierra Nevada Mountains.

7) LESSONS FROM THE FOREST [part III] by Sasha Petrenko, 5:40, 2018.

*Lessons from the Forest Part 3* explores Lichen, a plant made up of three organisms, fungi, algae and cyanobacteria\*, as a model for symbiosis among community members as well as our relationship with plants through photosynthesis. The reoccurring question voiced by the characters “what does it mean I am not myself,” puts the self into question as science reveals our undeniable dependence on extra human entities and organic systems for food, water, material resources and the air we breath. The multiple languages used throughout *Lessons from the Forest*, namely German, English and Czech are meant to reflect the diversity inherent in a healthy ecosystem and were chosen for reasons of familiarity and convenience. Czech is artist’s mother tongue and as the work began in Germany, german speakers were willing and close at hand. Additionally, the German people and their culturally significant relationship to the forest provided additional source material and context for the ecologically grounded project. The layered quality of the soundtrack, where words are spoken repeatedly, with different languages comprising a single sentence, pushes the words towards becoming more sound and emotion, than symbol and idea. What is left is relationships, between selves, between species. And as the relationships become more essential, the self dissolves into the network and becomes part of the ecological community.

8) PROMETHEUS HIS LIVER by Grahame Weinbren, 10:17, 2018.

*Prometheus His Liver* is a short film featuring medical research scientist John Rasko.

The Myth: Prometheus the Titan, son of Zeus, was the god who stole fire and delivered it to Man, effectively kick-starting civilization. As punishment, Zeus had him chained to a rock in the Caucasus mountains, where every evening a giant golden eagle descended from the sky and feasted on his liver. During the next day, Prometheus’s liver grew back, ready for the visit of the eagle that evening. This cycle was supposed to continue for ever . . .

The Art: A magnificent 17th century painting by Peter Paul Rubens (in collaboration with Franz Snyders) shows Prometheus in chains, eagle’s claws piercing his face and belly, its beak removing a morsel of raw liver from an open wound in the Titan’s side. In contrast, Paul Manship’s kitsch 20th century golden statue depicting a flying Prometheus, fire in hand, presides over the skating rink at Rockefeller Center in New York.

The Science: Incredibly, the liver is the only organ in the human body that regenerates. Up to two-thirds of the liver can be removed, and in a remarkably short time, it will grow back to its original size and

shape. This was confirmed in the 19th century and first demonstrated experimentally with lab animals in 1931. Current research on the mechanisms of liver growth centers on stem cells.

Did ancient Greeks scientists and doctors have knowledge of the liver's remarkable capacity for self-repair? Medical historians disagree. The principle proponents of the idea that the myth was based on established knowledge are also specialists in traditional Chinese medicine. This suggests that the historians who oppose this view might be captive to the biases of Western scientific discourse. Dr. John Rasko, the principle proponent of the latter view and also an experimental pathologist and director of a major research laboratory in Sydney Australia, has enthusiastically agreed to work with us on the scientific aspects of the project.

NB Audio interludes: NEURAL ORDINANCE by Nolan Lem, 10:06.

*“neural ordinance* is comprised of sounds that are a result of my computer being trained to produce industrial noises. In this type of deep learning, recurrent neural nets literally teach the computer how to produce sounds that are representative of machines themselves. As such, this piece focuses on a large corpus of field-recorded sounds that include audio related to industrial drones, server farms, consumer electronics, HVAC noise, etc. After processing these recordings, the computer ‘dreams up’ sound based off of its own idea of what industrial noise is. If we can treat the computer as a superlative machine, the neural network seeks to reify a sonic representation of what the computer itself thinks it sounds like. In this way, it shows the computer trying to listen to itself.

In this instance of the piece, the noise emanating from the speakers on the CCRMA stage were included into some of the training sets used in the synthesis. As a result, the output sound is a mixture of both real-life analog noise and the computer's interpretation of the same. The sounds undulate, swell, and breathe to form an ecology of machine-interpreted awareness, one that suggests a strange convergence of the real and the digitally imagined, the sentient and the synthetic.

The title is taken from the term 'noise ordinance' which refers to the noise regulations that are typically enforced by city zoning codes. In this case, the neural network acts as a governing agency that imposes its own definition of what is constituted by 'noise'.”

## **bios**

DR. ONN BRANDMAN grew up in the Bay Area and has been playing music since he was a 13. He is an assistant professor of Biochemistry at Stanford University. In his job, Onn tries to explain properties of cells that seem magical because we don't understand them. In his music, he tries to create magical experiences that are free from any explanation.

JULIE HERNDON is a composer and performer based in Northern California. She works with song, text, light, and graphics to create multimedia pieces. For more information, go to [www.julieherndonmusic.com](http://www.julieherndonmusic.com)

ELLIE IRONS is an artist and educator based in Brooklyn and Troy, NY, Ellie works in a variety of media, from drawing to gardening, to reveal how human and nonhuman lives intertwine with other earth systems. Recent work focuses on plants, people and urban ecosystems in the so-called Anthropocene. She is a cofounder of the Next Epoch Seed Library and Environmental Performance Agency. She received her BA from Scripps College in Los Angeles and MFA from Hunter College, CUNY, and is currently working on a practice-based PhD at Rensselaer Polytechnic Institute, researching the intersection of socially engaged art and urban ecology. [ellieirons.com](http://ellieirons.com)

NOLAN LEM is an artist and researcher whose work reflects a broad range of influences and mediums. His work examines issues related to emergent dynamics, machine learning and perception, and the synchronization of auditory phenomena.

He has premiered his work and research at a number of spaces both in the US and abroad including the Hayden Planetarium at the Natural History Museum (Manhattan, NYC), Pioneer Works (Brooklyn, NYC), L'HOSTE Art Contemporain (Arles, France), and the Museum of Modern Art Buenos Aires among others. He has held residencies at IRCAM, MassMoCA, Cité Internationale des Arts, and Pioneer Works. He holds degrees in saxophone performance, Electrical Engineering, and received his MFA at Columbia University where he studied at the Computer Music Center.

Nolan is currently a PhD candidate at Stanford University where he studies at the Center for Computer Research in Music and Acoustics.

CHRIS LORTIE is a composer, sound artist, and professional dilettante. His pieces are informed by his interests in psychoacoustics, binaural audio, ambisonics, performance art, installation art, and improvisation. Chris's music has been performed nationally and internationally at festivals and conferences such as SEAMUS, N\_SEME, Electroacoustic Barndance, SPLICE, soundSCAPE, and the Matera Intermedia Festival by renowned performers and ensembles including Quatuor Bozzini, Line Upon Line Percussion, Mari Kimura, Proton Bern, Ekmeles, and the Toledo Symphony

Orchestra. Chris is currently pursuing a DMA in Music Composition at Stanford University, where he studies with Christopher Jette and Brian Ferneyhough.

HANNAH PERRINE MODE is an interdisciplinary artist, educator, and illustrator, originally from the Northeast and currently living in Oakland, CA. Through her work, she helps people to access a more empathic and intimate understanding of climate science, geologic forces, and human geography. She has studied the relationship between people and place while living on fault lines the world – working with a women's weaving co-op in the Peruvian Andes, studying ancient runes in Iceland, and making (mostly blue) art in the Bay Area and Southeast Alaska.

Hannah works with the Juneau Icefield Research Program on strategies for using art as a tool for interdisciplinary learning and science communication – she was the Artist-in-Residence in 2017, and continues to work as the Arts Program Coordinator and Science Communication Faculty in 2018.

In the Bay Area, Hannah organizes a variety of community place-making and storytelling projects, works as a freelance illustrator, and teaches art. She has a BS in Studio Art from Skidmore College and an MFA in Studio Art from Mills College. Her work has been shown at venues throughout the Bay Area, Boston, Brooklyn, and Juneau.

SASHA PETRENKO is a California based interdisciplinary artist-facilitator and Artistic Director of The New Urban Naturalists. Her work utilizes sculpture, performance, prose and new media to draw parallels between ecology and human relationships. Petrenko's projects have been featured widely at national and international venues including the Headlands Center for the Arts, Southern Exposure, Yerba Buena Center for the Arts, the de Young Museum of San Francisco, the Montalvo Art Center, the Santa Cruz Museum of Art and History, the Los Angeles County Arboretum, Robert Wilson's Watermill Center for Performance in New York, Oberpfälzer-Kunstlerhaus in Schwandorf, Germany and at Kulturfolger in Zurich Switzerland. She is a college lecturer specializing in cross-disciplinary and embodied learning and runs a one-woman woodworking business in downtown Watsonville.

CARLOS A. SANCHEZ G<sup>a</sup>-S. is an eclectic multidisciplinary Musician, Engineer and Researcher (he likes the word "Musineer") who seeks in these roles to minimize technical thinking in favor of musical flow creative thinking: "More Muso (playing, creating), Less Tech (clicking, typing, touching)". He started playing guitar and gigging around the world at a very young age as the main guitarist of a renowned and recognized Flamenco Ballet. As a musician he composes and collaborates in many roles (soloist, live and session

musician, co-producer, music and tech advisor), instruments (guitar, piano, keyboards, bass, drums, cajón, ukelele), and genres (rock, metal, flamenco, classical, contemporary). His projects span events, records, radio and TV.

He also completed his Superior CS Engineering Degree and has worked for multiple governments, and Aeronautics and IT Consulting companies in almost every position from programmer to software architect and director. His research puts technology at the service of music, creation and improvisation. He develops software and hardware to this end. Recently, he's been gathering personal projects into a meta-project: \*HF-1MB 3D - HyperAugmented FlameGuitar (Flamenco Guitar) for 1MB (One Man Band) in 3D space\*. This uses a plethora of musical, engineering, tech, devel, and building projects to develop a series of tools and methodologies to allow a person with a Spanish classical or flamenco guitar to be an electronic One Man Band with sound diffused in 3D space, favoring Portability and Lightness (Raspberry PI, cellphones), Ease and Simplicity (less displays and controllers), Freedom and Openness (Open Source, FOSS), Privacy and Security, Cheap and Portable, DIY.

GRAHAME WEINBREN is a filmmaker, writer and editor. His art practice includes interactive installations, artists' cinema, and experimental documentaries. His writings about cinema, media art, and philosophical issues generated by emerging technologies are widely published. He is the senior editor of the Millennium Film Journal and a member of the graduate faculty of the School of Visual Arts in New York City. He studied Philosophy at University College London and SUNY Buffalo.

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