



*We now occupy a cultural condition in which we are not the only ones sensing. Artificial perception extends our own sensory apparatus and creates a new reality. An environment that we sense while it also senses us, and then changes as a result, heralds the end of the primacy of human perception.*

– Johannes Girardoni, 2013

*We are at a point in time where technological and human perception are cross-pollinating, even merging – this is the beginning of a sensory singularity.*

– Harriet Girardoni, 2018

In 2013 Johannes Girardoni and Harriet Girardoni created the first of an evolving series of data sculptures called Metaspace, which blend natural and artificial perceptual systems. These sculptures and installations feature ellipsoid geometries with seamless curvilinear interiors that scatter light, creating an infinite color space and perceptually dissolving physical matter.

A fundamental paradigm of Metaspaces is the cross-pollination of natural and artificial sensing through sensory technologies that capture light waves and convert them to sound in real-time. The algorithmic connection of light and sound expands natural perception, making light both audible and haptic.

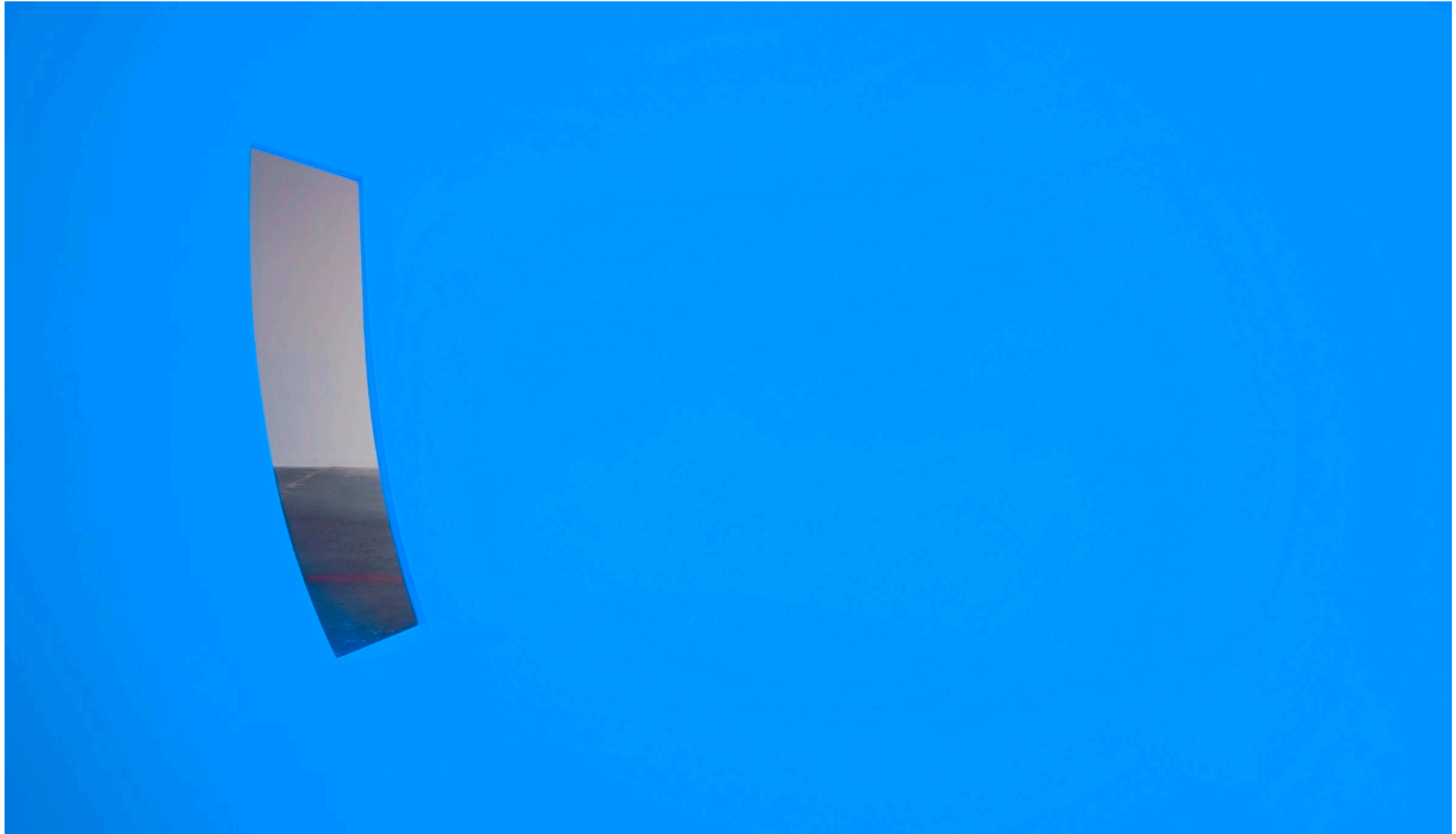
The specific spatial configuration of light and matter in Metaspaces, together with their technological capabilities to express sensory input, render traditional subject-object relationships obsolete, creating an environment that feels boundless. As participants explore these environments, they experience a synesthetic phenomenon that can blur physical and perceived realities and can feel as if suspended in time and space. With the pervasive evolution of technological systems in our culture, Metaspaces investigate how integrated relationships between natural and artificial cognition can impact our experience of self and our connection to our environment.

Harriet and Johannes Girardoni are developing this series of works as a central component of the studio's ongoing research and practice. The artists express Metaspaces as autonomous indoor or outdoor sculptures, as freestanding pavilions (known as Metaspace-Sensoriums), or as integrated sites in new or existing built environments. When incorporated in the design process of architectural projects, Metaspaces can inform the architecture at large as an in situ expression.





Metaspace V2 | Exterior view with sensor projection









Installation views of Metaspaces V3  
Lévy Gorvy, London, UK, 2018/2019

Above:  
Interior view of Metaspaces V3, a sculpture  
that converts light to sound, making light  
audible.

Top right:  
Metaspaces V3 with sensor view projection of  
the installation's "eye."



Metaspaces V3  
Aluminum, fiberglass, resin, LEDs.  
Spectrosonic Refrequencer  
14' (l) x 9' (w) x 9' (h)

Metaspaces V3 is an enveloping interactive light-soundscape that connects natural and artificial perception. Inside the sculpture, light is projected through a resin lens and casts saturated color sequences onto the sculpture's seamless skin. To the human eye, this appears as an endless color void. Participants within the sculpture, however, are not just physically part of its environment; they are also digitally quantified by embedded sensors that capture an array of information, including light frequency, live video, and motion tracking data. Processors merge these constantly changing data points with algorithms that map the visible spectrum to the audible spectrum.

The artist-developed reality augmentation technology, Spectrosonic Refrequencing (SSR), converts digitized light information into sound in real-time. Through SSR, viewers are fully immersed in a synesthetic sensory experience by perceiving light as sound. Girardoni's commingling of natural and virtual structures, layered on top of one another, creates a suprasensorial environment where phenomenological events and digital systems blur. Matter becomes light, and light becomes sound. Ultimately, at the heart of this setting, Metaspaces V3 questions the border between natural and artificial phenomena.





Installation view of Metaspaces V3  
Lévy Gorvy, London, UK, 2018/2019

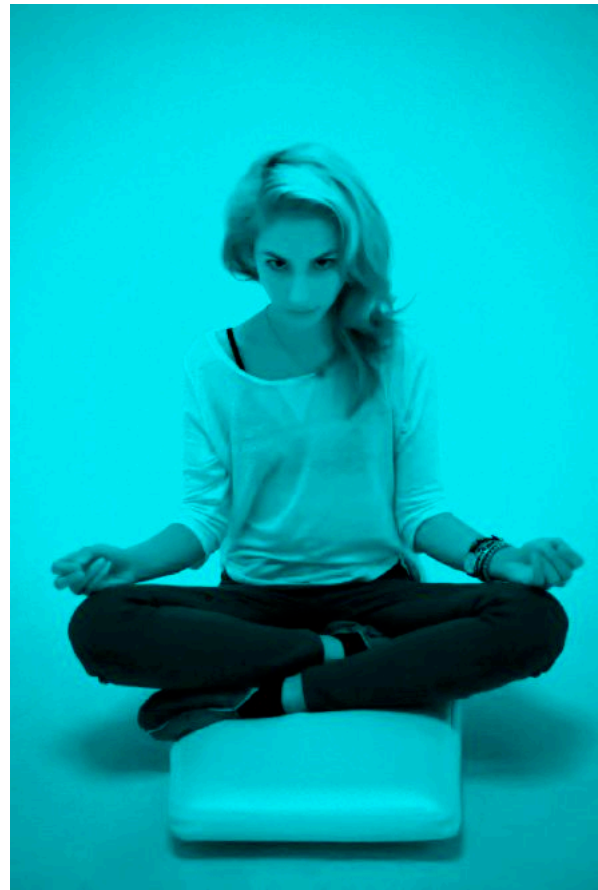
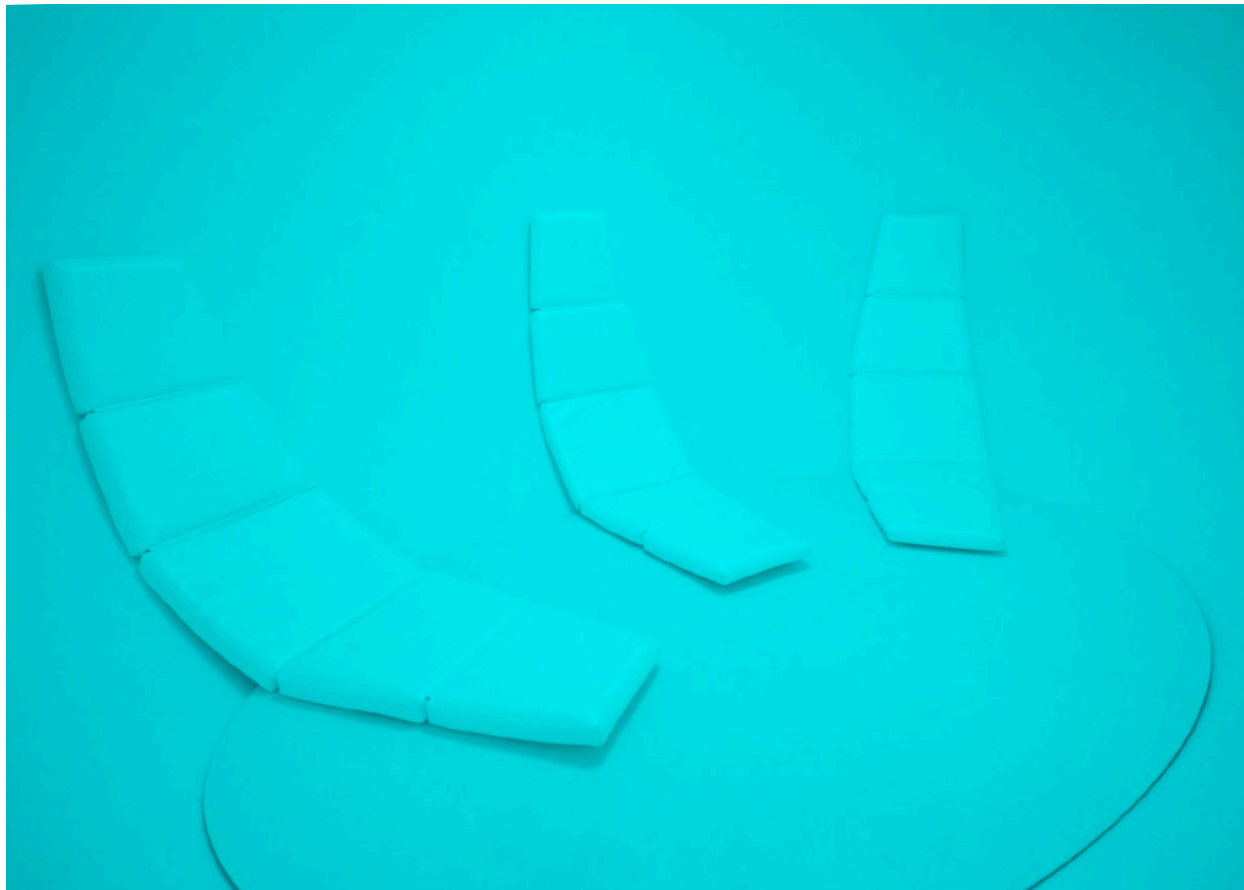
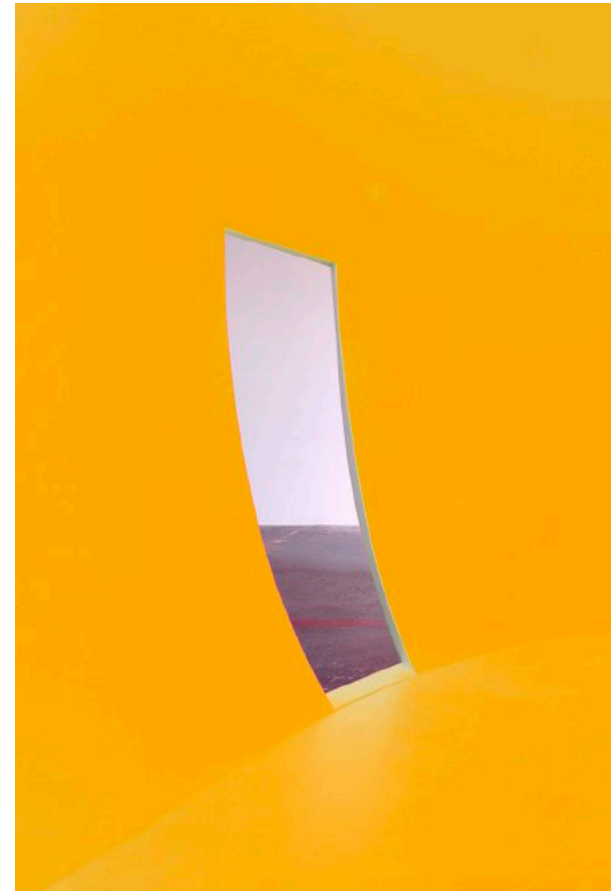
Left:  
Metaspaces V3's sensor projection of the sculpture's eye. The 1224 pixels, each a dynamic data container, drive as many tone generators to generate sound from light.

Right:  
Interior view of Metaspaces V3 as participants become part of the light and sound data conversion.



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# Johannes Girardoni & Harriet Girardoni

Metaspace integrates a closed-loop sensory system in which natural and artificial perception connect.

Metaspace is an interactive, poly-sensory installation that extends human perception through sensor technology and algorithms.

Metaspace makes light audible.

The interior of the sculpture appears as an endless void that emits ambient sound vibrations and saturated color sequences.

Metaspace creates an immersive art experience that is at once visceral, ethereal, heady, engaging and profound.

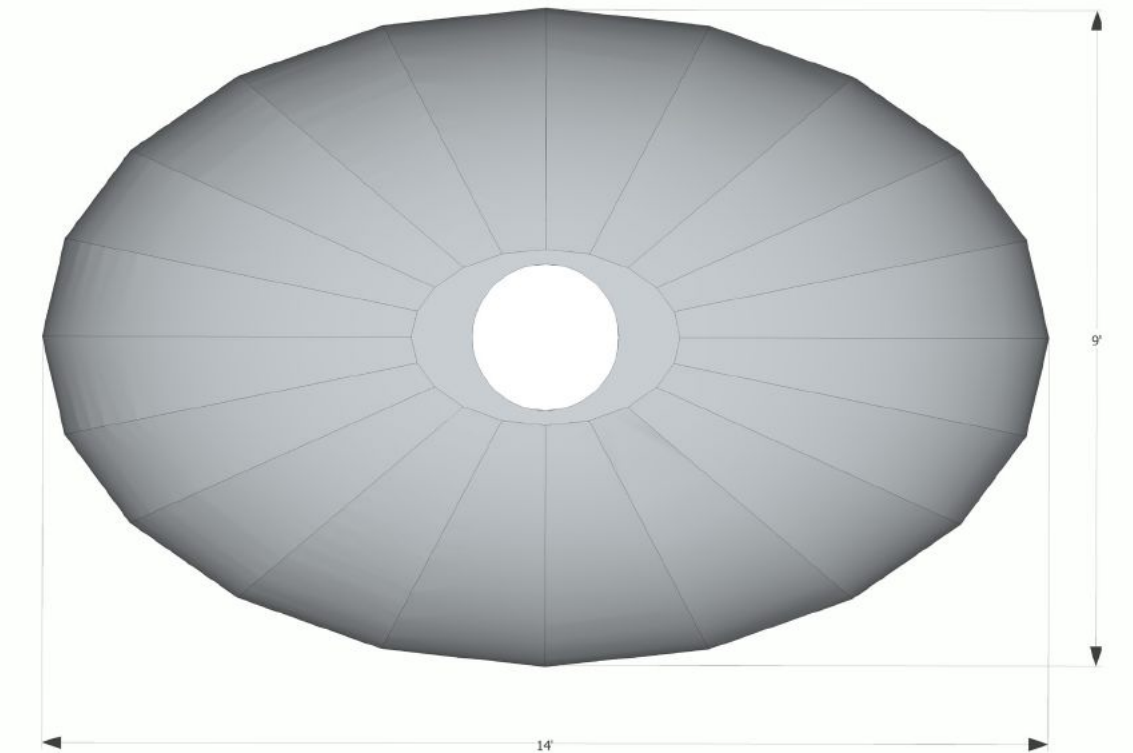
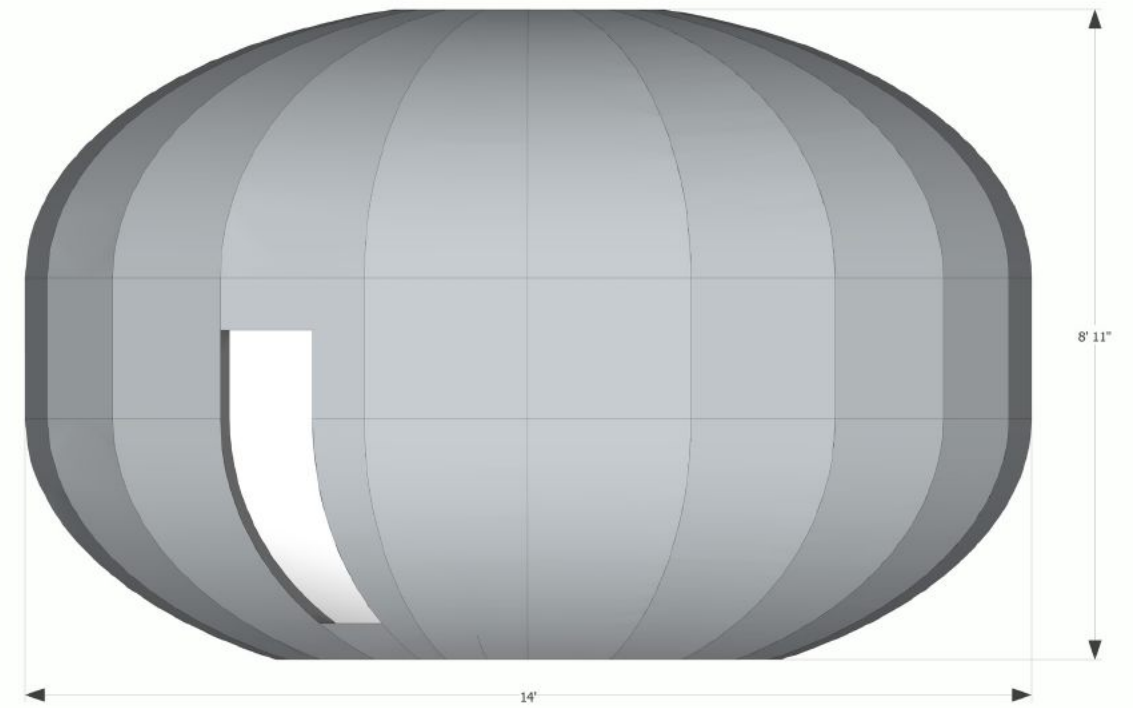
For short visits, the sculpture accommodates up to 6-8 people standing. For longer stays, lounge cushions are provided for up to 4 people.

Each instance of exhibiting Metaspace creates a new version of the sculpture based on a technological evolution of the software driving the sculpture which affects the experience. Metaspace therefore is dated and titled accordingly: Metaspace V2, 2013; Metaspace V3, 2018, etc.



The Sensor Projection is a large-format projection displayed within the gallery space where Metaspace is installed, tailored to site-specific conditions. For future exhibitions, the projection will be mapped onto all surrounding walls where Metaspace is exhibited.

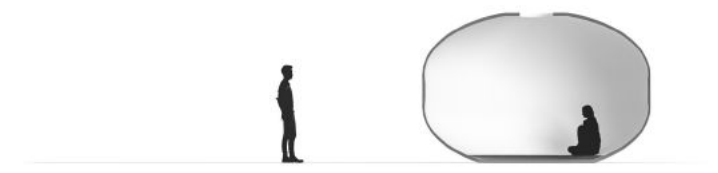
Metaspace  $\mapsto$  Dimensions / Specifications



**Metaspace**  
Aluminum, fiberglass, resin, LEDs,  
Spectrosonic Refrequencer  
14'(l) x 9'(w) x 9'(h)

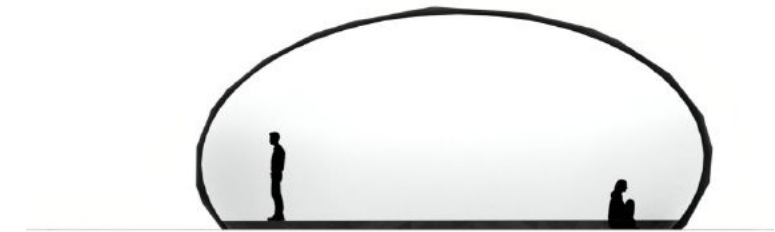
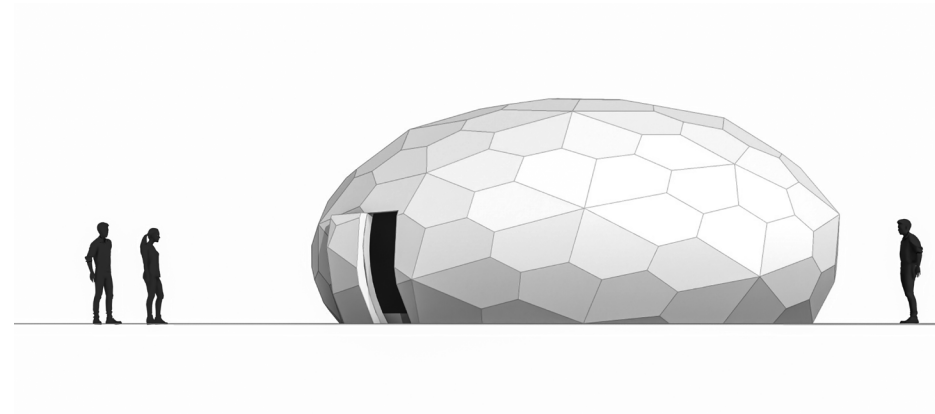
### Metaspace V2 (indoor)

Metaspace V2 is the first Metaspace integrating a closed-loop sensory system in which natural and artificial perception connect. Edition of four, plus AP.



### Metaspace-Suprasensory (indoor / outdoor)

Metaspace-Suprasensory is conceived as a series of freestanding indoor or outdoor sculptures in varied geometries at different scales.



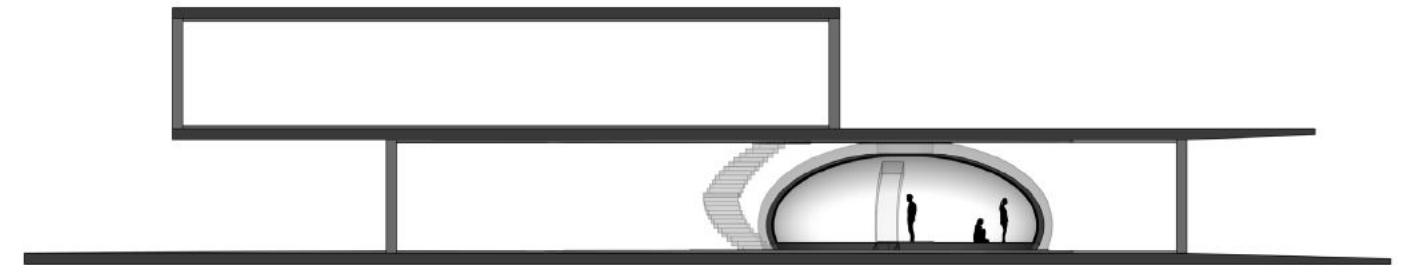
### Metaspace-Sensorium

Metaspace-Sensoriums are conceived as autonomous, free-standing pavillions. The pavillions are commissioned at various scales, and are designed based on site conditions and patron intention.



### Metaspace-In Situ

Metaspace - In Situs are conceived and installed in response to existing space, or, when integrated into new architectural projects, can serve as a catalyst for art and architecture collaborations. Metaspace 1 (The Infinite Room, 2012) is the first in situ Metaspace conceived as part of the built environment.





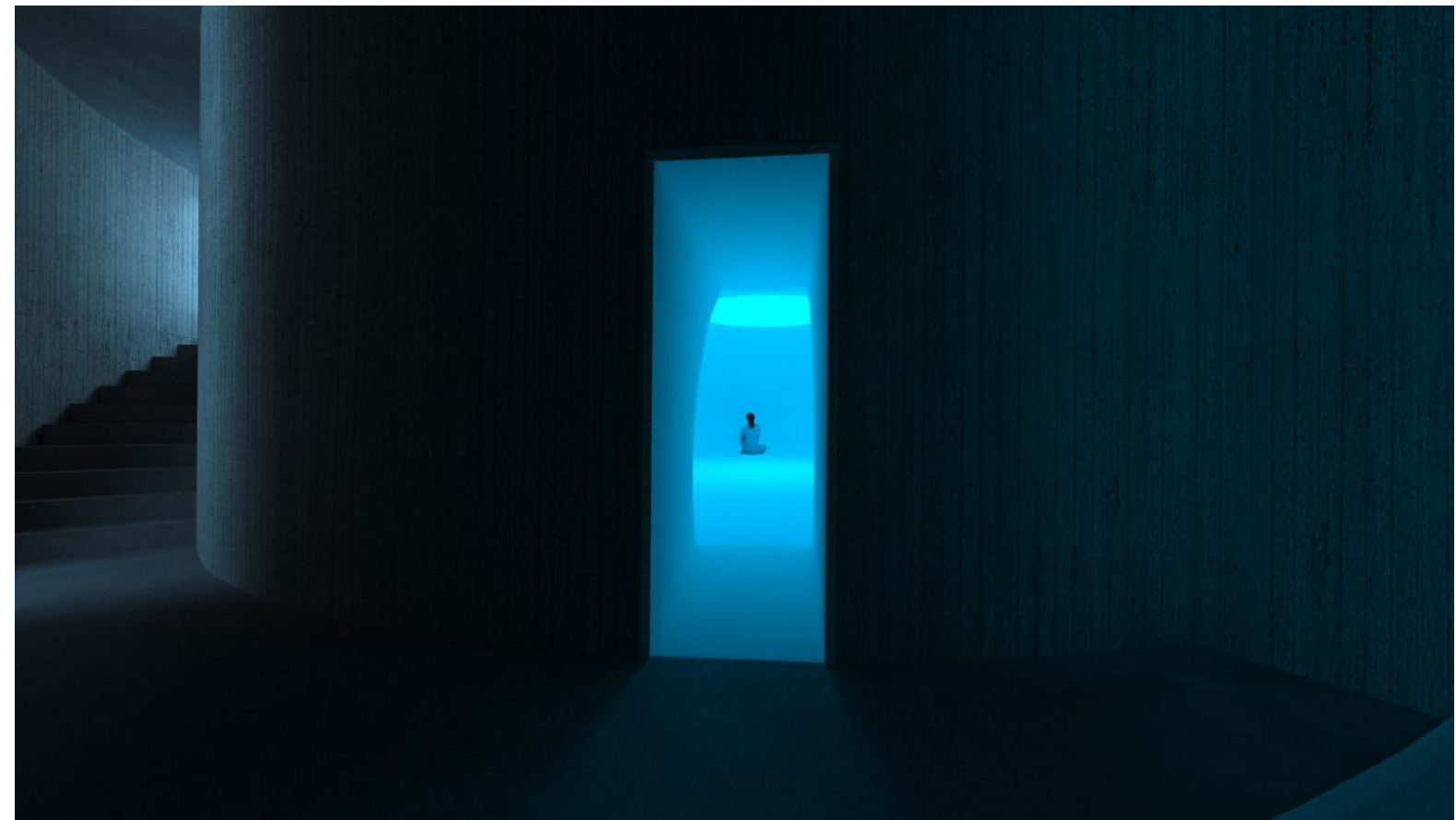
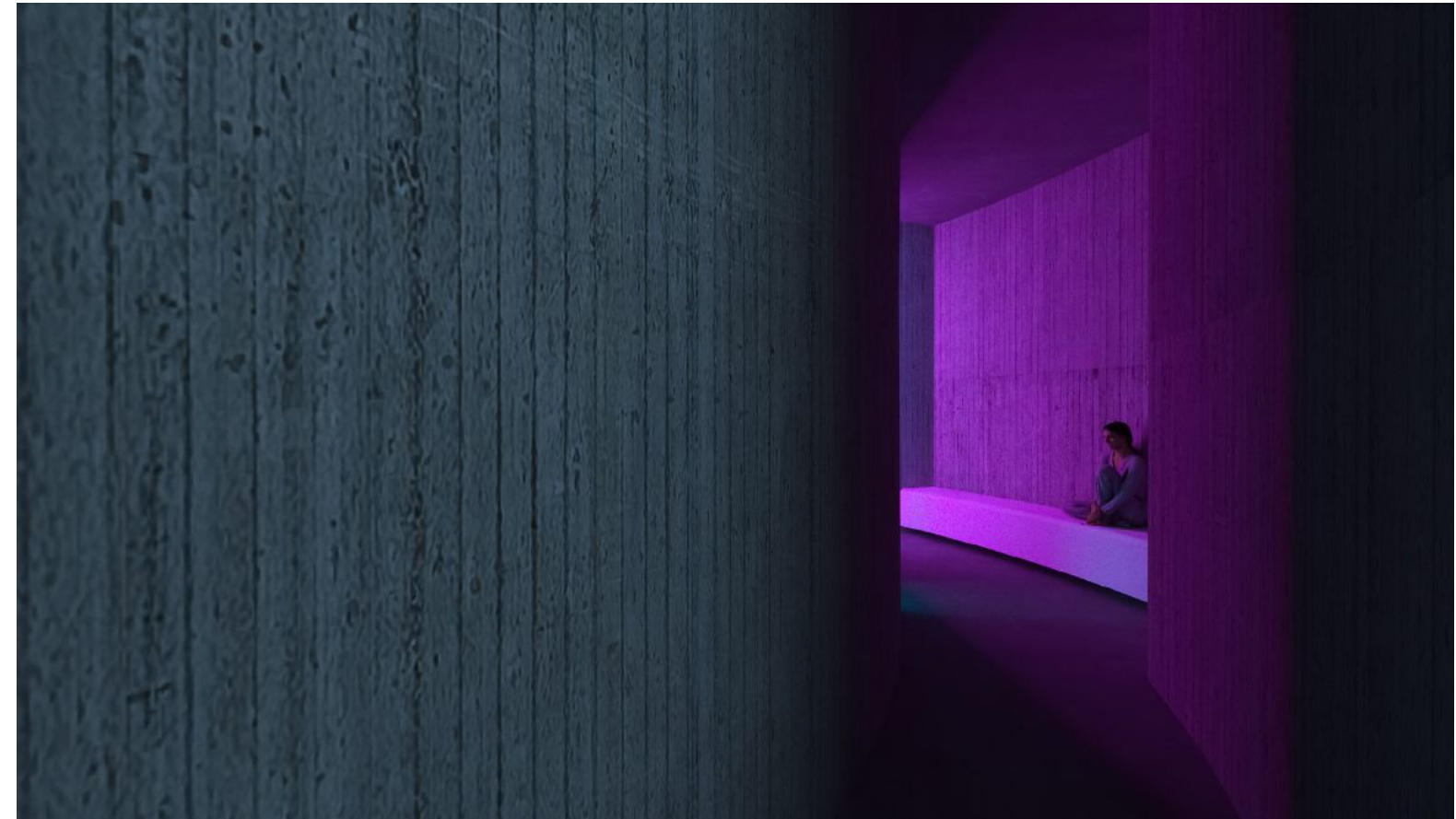
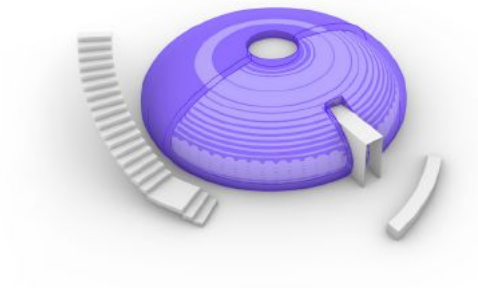
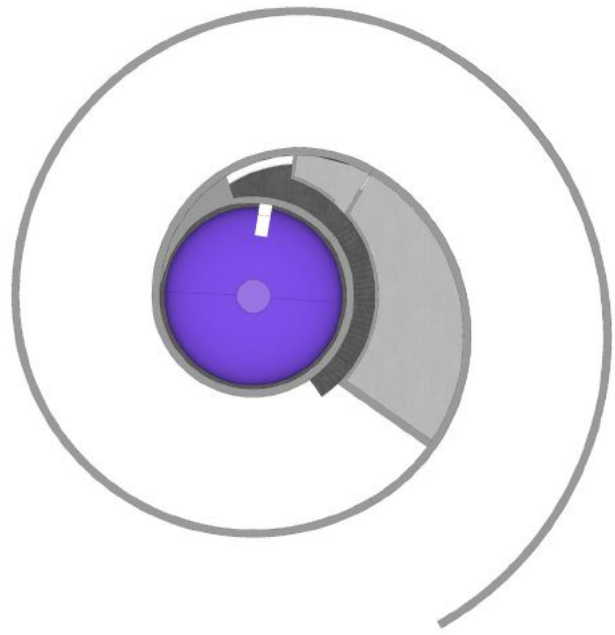
Top:  
Exterior view of Metaspaces - Sensorium

Bottom:  
Section views

Metaspaces-Sensoriums are autonomous pavilions conceived as architectural expressions in response to existing site conditions and built at various scales. Participants enter the structure through a narrow opening and transition into the sculpture's seamless, curvilinear void. Once inside, participants are enveloped by the Metaspaces-Sensorium's boundless light and sound filled interior. Through real-time conversion of light to sound, and with generative behaviors, Metaspaces - Sensoriums explore the boundaries between natural and artificial cognition as well as new reality formation in collaboration with organic sensory technologies.

In a time where mediated realities continue to become increasingly pervasive, Metaspaces-Sensoriums provide a place and space to not only critically reflect on the impact of technology on our perception, but an opportunity to explore modes of sensory engagement that allow new connections to self and the world around us. These pavilions are immersive, multi-sensory environments that expand participants' perceptual capacities and ways of sensing and knowing the world.













Johannes Girardoni is an Austrian-American multimedia and installation artist. Girardoni's work explores the relationship between matter and light, how that dynamic affects perception, and why combinations of natural and artificial phenomena, including algorithms, can fundamentally shift our experience and understanding of site and space.

Harriet Girardoni is an American artist who has collaborated on works and projects to expand the studio's multi-disciplinary approach since 2012. Actively cross-pollinating with practitioners from various fields, including scientists, technologists, architects, performing artists, and philosophers, the studio explores how art can impact the future of humanity through new ways of seeing and being, in concert with an ethically grounded evolution of sensory technology.

Johannes Girardoni's diverse works range from purely non-technological, using only base materials such as found wood and wax, to suprasensory installations in light and sound that blend human and artificial sensing and perception. A primary example of this is Girardoni's use of sensors and algorithms that allow viewers to hear the sound of light through the use of an organic sensory technology developed by the artists: Spectrosonic Refrequencing (SSR).

The artist team challenges traditional ideas of subject-object relationships by generating reciprocity between viewer and work. By combining physical material with virtual content, their orchestrations of light, matter, and data provoke self-reflection and existential awareness. A core principle of their studio is that the suprasensory conditions created through the works can act as counterpoints to and inform a critical discourse about the influx of mediated realities in contemporary culture. The Girardonis' works amplify participants' perception and create a non-associative awareness to induce heightened states of presence.



Clockwise (l to r):  
Metaspace 1 - The Infinite Room, 2011-2015  
WA, United States

Chromasonic Field - Blue Green, 2013  
Light and sound installation with refrequencers.  
Los Angeles, CA, United States

Resonant Disk - Red Violet, 2019  
Resin, pigment, virtual Spectrosonic Refrequencer.  
51" x 51" x 3.5"

Johannes Girardoni and Harriet Girardoni's work has been shown in galleries and museums worldwide, including at the 54th Venice Biennale, Italy, the Ludwig Museum, Germany, The Austrian Cultural Forum, New York, as well as at TED2014 in Vancouver, British Columbia. Johannes Girardoni's works can be found in the collections of the Akzo Nobel Art Foundation, Arnhem; Museum Voorlinden, the Netherlands; the Harvard Art Museums; the Margulies Collection, Miami; and the Progressive Art Collection, Cleveland, among others.

Studio Girardoni has been the subject of features and reviews internationally, including in The New York Times, The Wall Street Journal, The L.A. Times, ArtNews, Art in America, and Sculpture. In 2018, Girardoni presented a survey exhibition titled Sensing Singularity at Lévy Gorvy, London. Girardoni is the recipient of numerous awards, including the 2019 Francis J. Greenburger Award, presented at the New Museum, New York, for exceptional merit and contribution to the world of art.

Harriet and Johannes Girardoni's Spectral Bridge House, an art in architecture collaboration with EYRC, received the 2019 A.I.A. California Honor Award and the Architizer+ Award for Architecture and Art, amongst others. In 2020, the artist team formed Chromasonic, a cultural impact enterprise to bring the transformational power of art as explored in their studio to a broad audience. The networked platforms the studio is working on with Chromasonic are intended to benefit the public at large.

Johannes Girardoni emigrated from Austria to Southern California in his teens. The artist studied at Bowdoin College and the M.I.T. Media Lab. Harriet Girardoni studied at Wellesley College and has an M.A. in Clinical Psychology from Pepperdine University. The artist team currently lives and work in Los Angeles.

