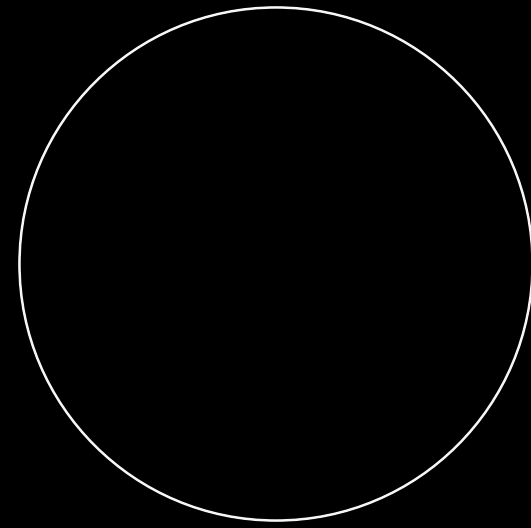
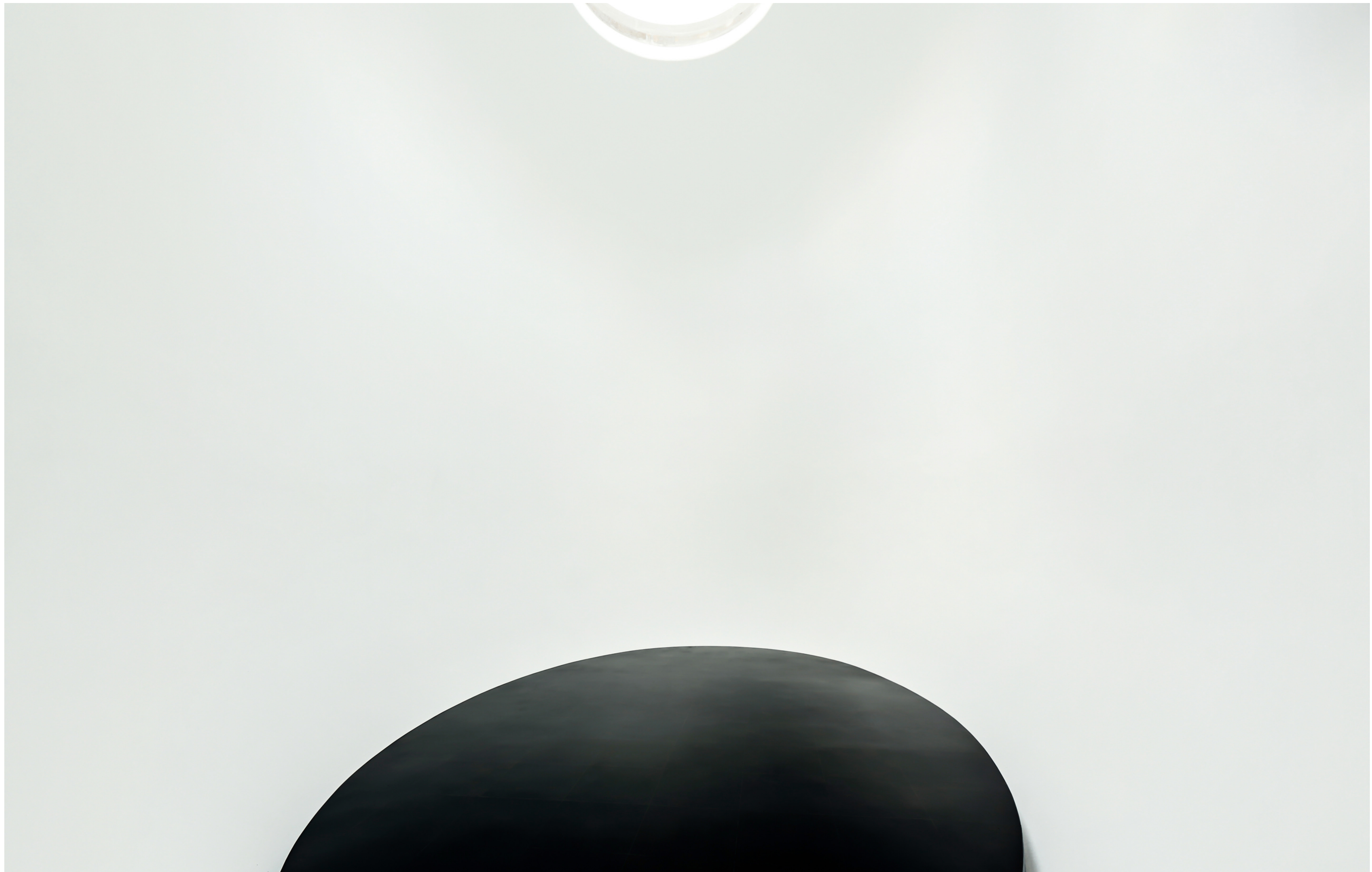


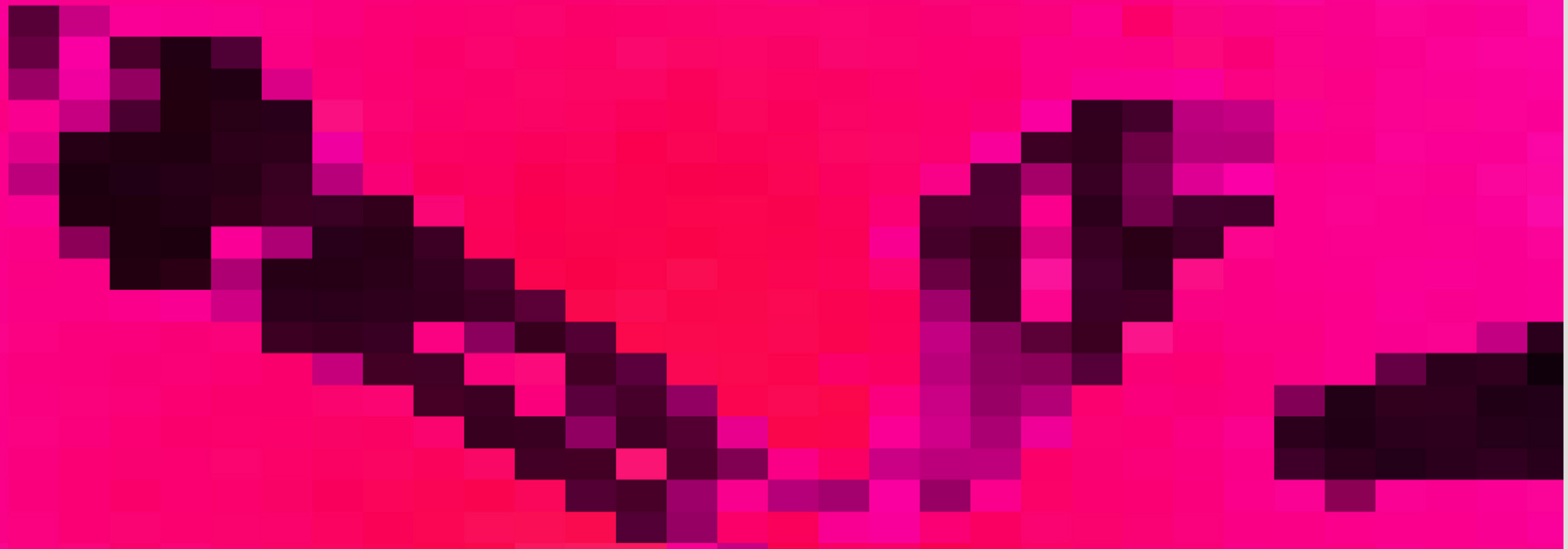
Johannes Girardoni & Harriet Girardoni



Biography  
Works and Exhibitions  
metaspaceLAB  
Art in Architecture  
Chromasonic











Johannes Girardoni (born Austria, 1967) 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.

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 artist: Spectrosonic Refrequencing (SSR).

Girardoni often blurs traditional subject-object relationships by generating reciprocity between viewer and work. Meshing material and virtual content, his orchestrations of light, matter, and data are proposed as catalysts for self-perception and existential self-experience. A central tenet of the 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 modern culture. Girardoni's works amplify viewers' perception and create a non-associative awareness to induce radical states of presence.

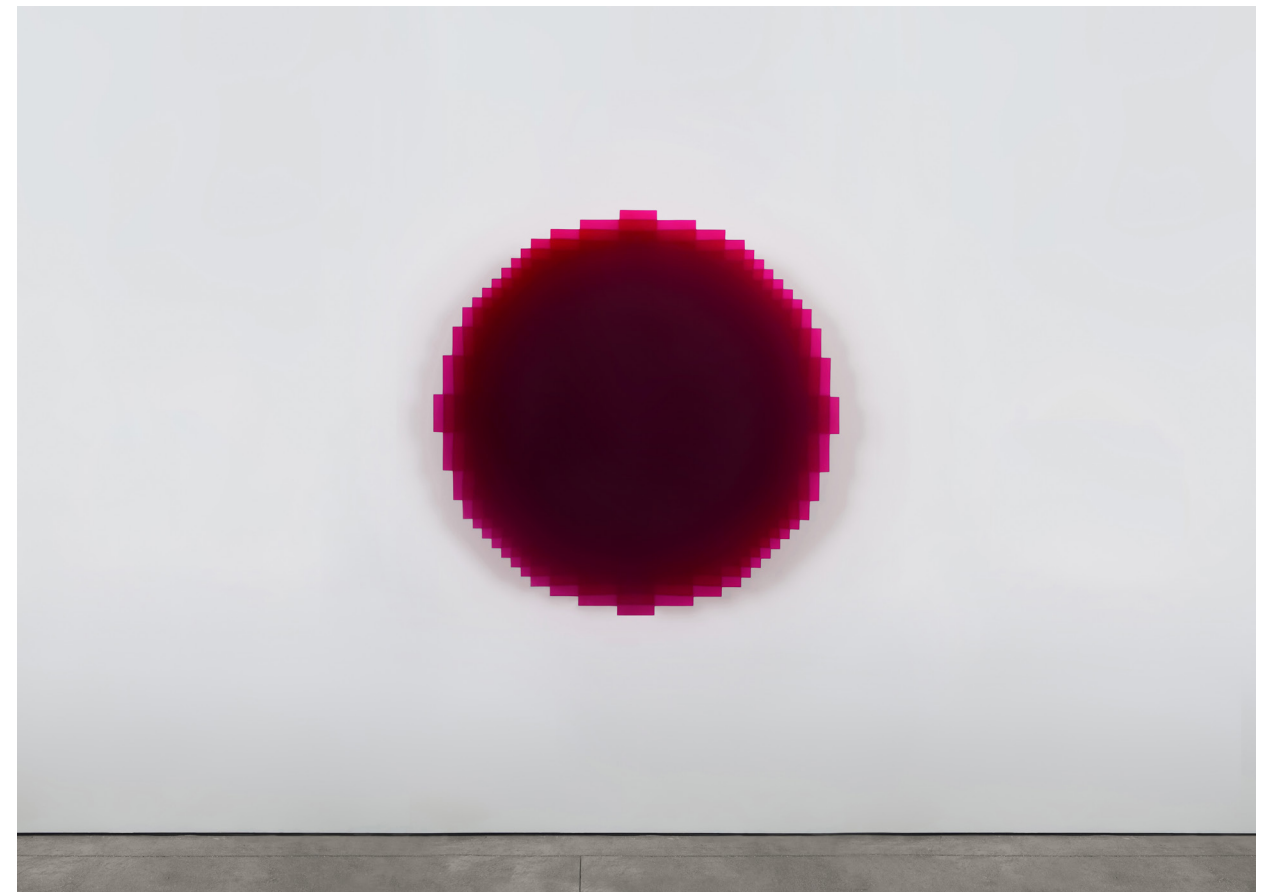
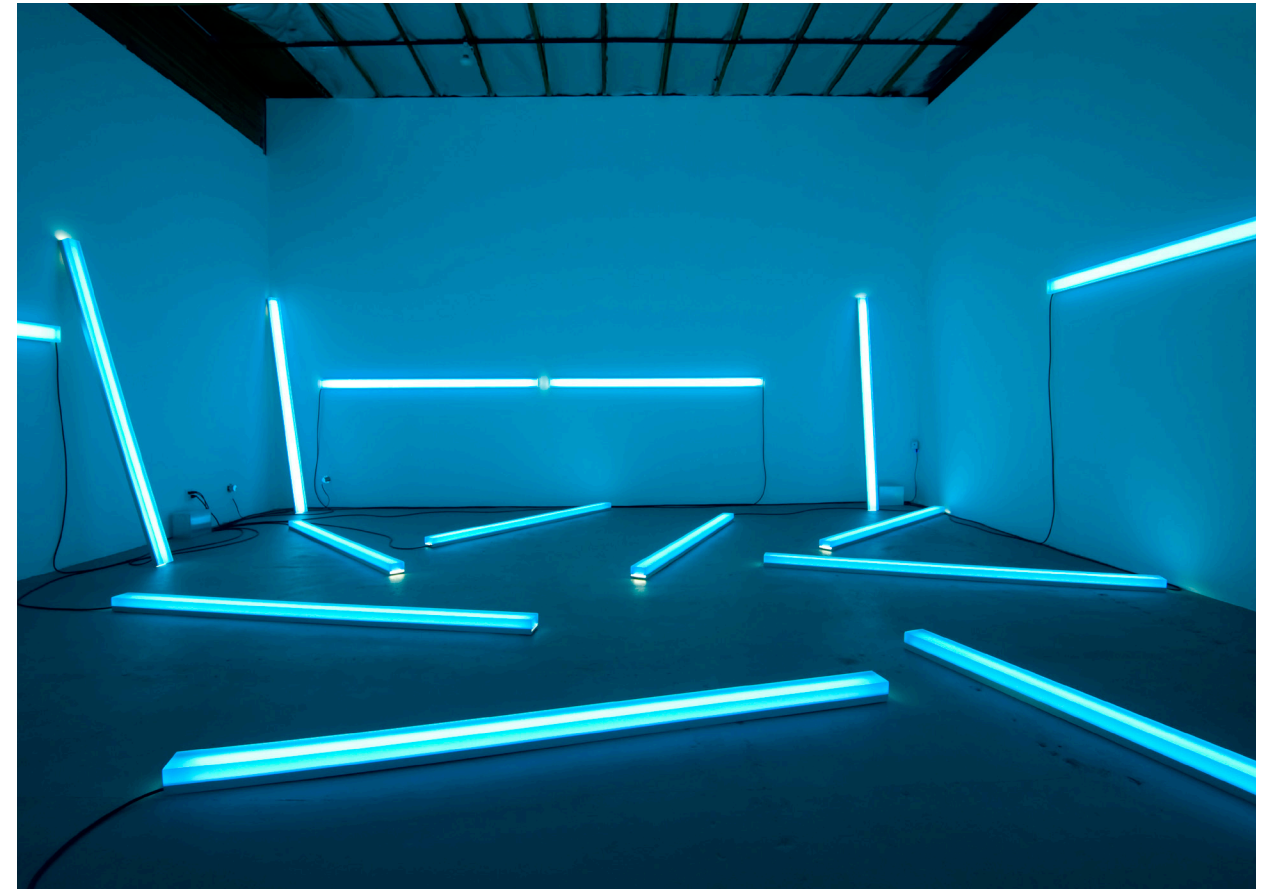
Harriet Girardoni has collaborated on works and projects to expand the studio's multi-disciplinary approach since 2013. Actively cross-pollinating with practitioners from various fields, including scientists, technologists, architects, performing artists, and philosophers, the studio explores how art can impact the future of humanity through new ways of seeing and being, in concert with an ethically grounded evolution of sensory technology.



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

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

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





Johannes 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. His 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.

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.



Above:  
 Colorvoid (Facebox) - Titanium White, 2006  
 Beeswax, pigment, wood  
 14" (h) x 10" (w) x 8.5" (d)

Left:  
 Colorvoid (Trough) - Cadmium Yellow, 2003  
 Beeswax, pigment, wood  
 100" (h) x 11" (w) x 22" (d)





Above:  
Dripbox - Dioxazine Violet, 2006  
Beeswax, pigment, wood  
32" (h) x 36" (w) x 8.5" (d)



Right:  
Colorvoid (Trough) - Titanium White, 2007  
Beeswax, pigment, wood  
98" (h) x 13" (w) x 11" (d)



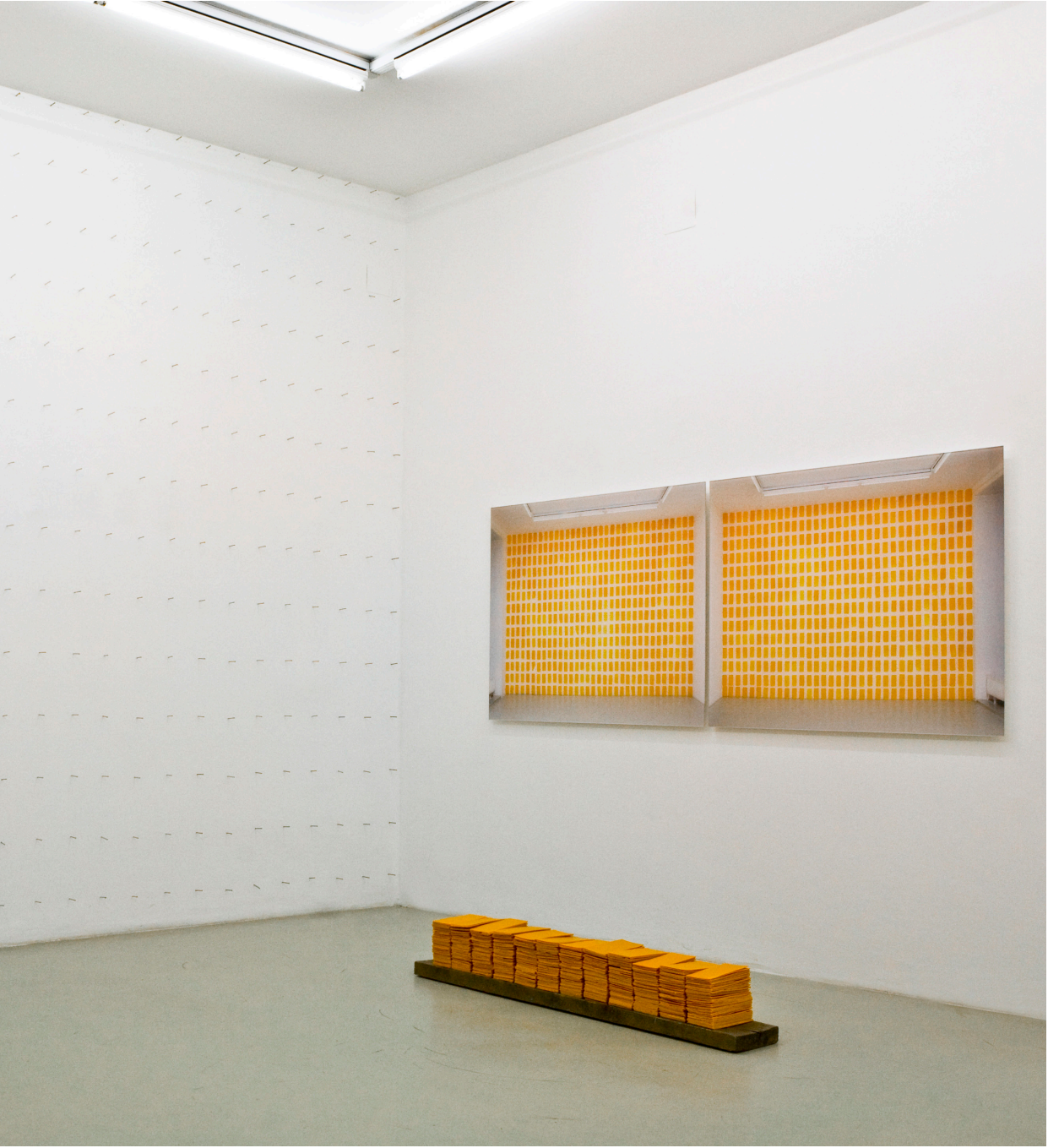


Dripbox - Titanium White, 2007  
Beeswax, pigment, wood  
13" (h) x 96" (w) x 8" (d)





Installation view of In Front of the Plane, No. 8, 2008  
Beeswax, Flavanthrone pigment, wood, nails, and to digital  
C-Prints.







Installation views of The Passage Room  
the first light and sound installation by  
Girardoni Studio that converts light waves to  
sound waves in real time.

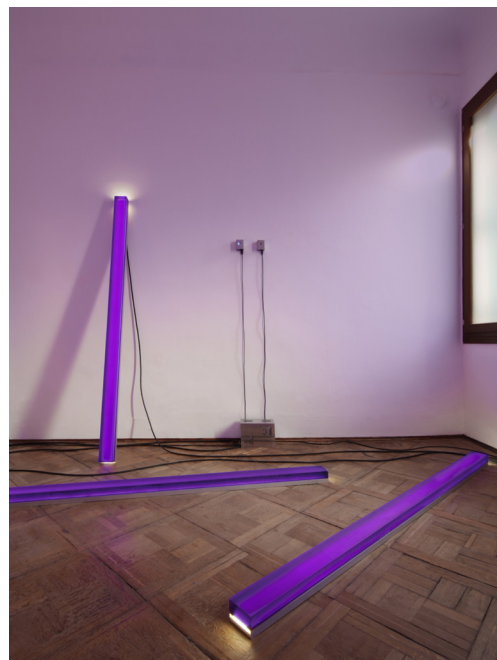
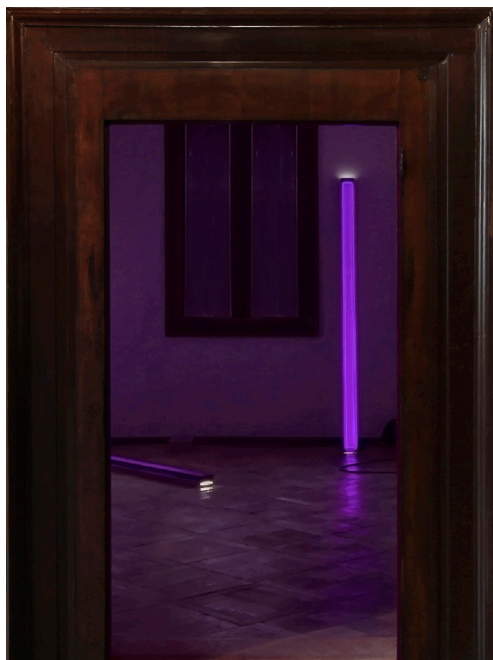
Austrian Cultural Forum, New York, 2009



The Passage Room is a site-specific light and sound installation, which investigates the boundary between manufactured states and perceptual events. It is an architectural intervention of the main exhibition hall of the Raimund Abraham designed Austrian Cultural Forum New York, a space limited by its extremely narrow footprint. The installation is devised as a metaphor for the migratory process, configured for visitors to be drawn into its center and physically move through a narrow passage way composed of two translucent scrims that becomes opaque once entered. The Passage Room creates an immersive environ-

ment by compressing physical and virtual manipulations of light and sound within a spatial setting. Purple light, composed of red and blue light frequencies is converted into sound frequencies, creating a virtual translation of light to sound. The light sequences alternate between pure light and video projections.





54th Venice Biennale, Italy, 2011

Presented as part of Personal Structures, with solo installations by Marina Abramovich, Joseph Kosuth, Peter Halley, Lee Ufan, and Lawrence Weiner, amongst others.

The (Dis)appearance of Everything is an interactive installation that explores the convergence of physical material and light by rearticulating light as sound through Spectroaonic re-frequencing. The installation's architecture questions the limits of perception and activates the border area of natural phenomena and digital systems. Natural and artificial light merges inside five cast resin elements that subtly shift in color and luminosity depending on the viewer's position within the space. Two sensors calibrated to measure both purple and daylight frequencies drive tone generators that convert light frequencies into sound frequencies, making light audible. The sensors also register the presence of the viewer

moving through the space, which modulates the sound. In this setup, virtual and physical information is processed by the viewer and the work, further blurring the boundary between phenomenological and virtual events.

In this series of sculptures and installations, which commenced in 2009, Girardoni investigates the boundary of manufactured states and perceptual events by transposing electromagnetic waves of light onto the mechanical waves of sound through Spectrosonic Refre-quencers, in effect making light audible.

Girardoni immerses viewers in environments that integrate natural phenomena and digital information. The physical and virtual architecture of his work

explores the limits of our sensory apparatus through an interface of digitally reconfigured information and naturally occurring perceptual phenomena. In the current cultural context, where the real and the virtual have started to converge and cross-pollinate in unprecedented ways, Girardoni confronts a new reality with constructs that combine digital and material expression in spatial, atmospheric, and conceptually immersive work. Girardoni deliberately places the viewer at the center of these constructs and proposes a shifting definition of perception.





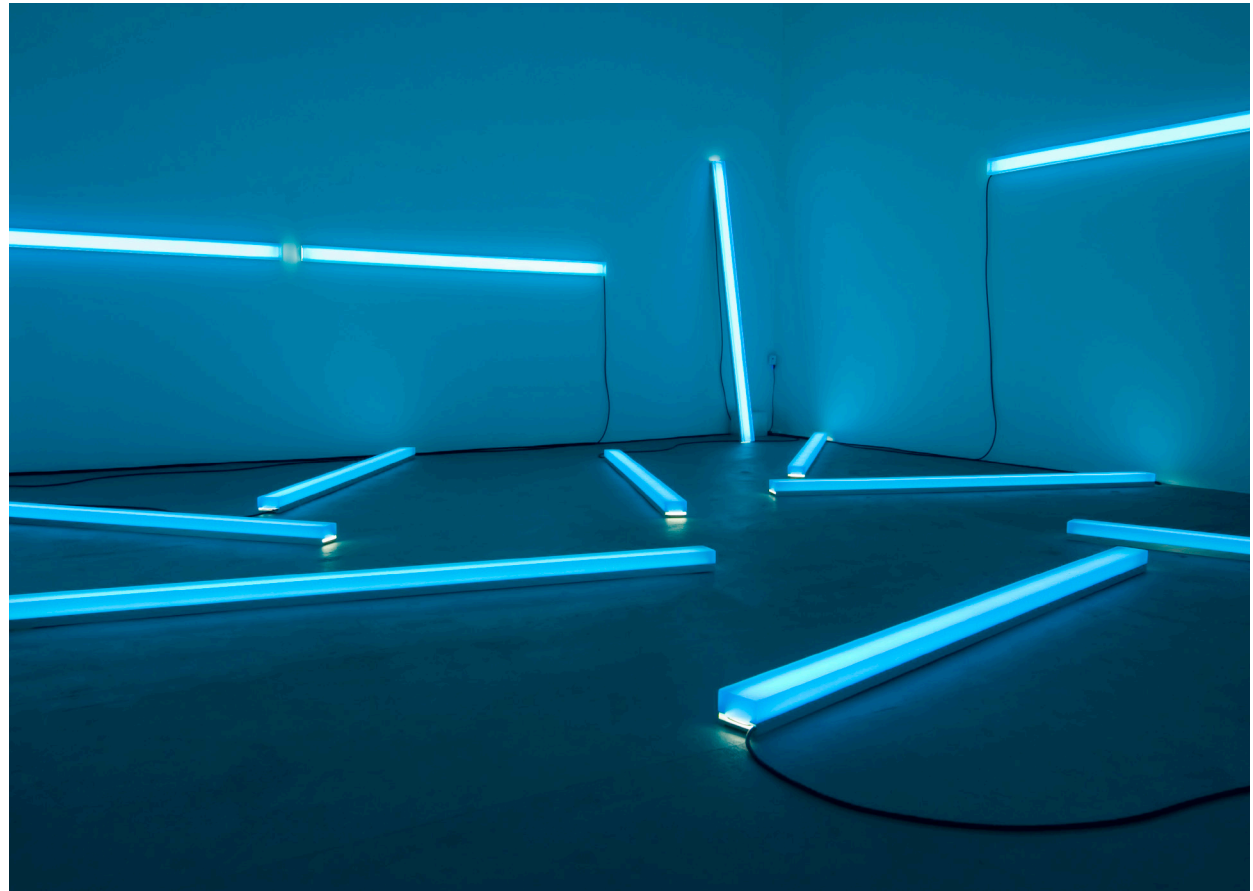
Above:  
Peak Light Extractor - Pint/Yellow  
Resin, pigment, enamel, LEDs, aluminum,  
9" (h) x 147" (w) x 4" (d)  
2013



Right:  
Spectrosonic - Yellow Ping  
Resin, pigment, enamel, LEDs, aluminum,  
Spectrosonic refrequencer.  
2013

Nye + Brown, Los Angeles, CA, United States





Chromasonic Field - Blue/Green is a light and sound installation in which sensors capture light data and sonify it in real time, making light audible.

Above:  
Nighttime (l) and Daylight (r) views of  
Chromasonic Field - Blue Green, 2014

Nye + Brown, Los Angeles, CA, United States

Chromasonic Field - Blue/Green is an interactive installation that explores the convergence of physical material and light by rearticulating light as sound through Spectrosonic Refrequencing.

The installation's architecture questions the limits of perception and activates the border area of natural phenomena and digital systems. A series of semi-translucent, blue/ green cast resin bars are installed in divergent angulations in a space. These elements project artificial light out into the space, while letting natural light flow in. Natural and artificial light merge inside the resin bars, and appear to subtly shift in color and lumi-

nosity depending on the viewer's position within the space. During bright daylight, the resin seems to suspend natural and artificial light within the material, containing all the blue light inside the bars; in low light situations, the bars pale, and a saturated blue-green ambient glow emerges from the resin and fills the space.

Sensors, calibrated to measure both the color frequencies emanating from the resin and the daylight frequencies in the space, drive a tone generator which converts the frequencies of light into frequencies of sound, making light audible. The sensors also register the presence viewers mov-

ing through the space, which additionally modulates the sound. In this set-up, virtual and physical information are processed by both the viewer and the work, blurring the boundary between phenomenological and virtual events.





Installation view of *Resonance*, an interactive light and sound installation.

Dimensions variable.  
Each resin sculpture  
20" h x 20" w x 3.5" d

2017

*Resonance* is an interactive installation composed of multiple monochromatic resin discs, each in one of the twelve fundamental colors of the visible spectrum. The sculptures express pixelated architecture in physical space, blurring the line between virtual and material content. The installation's digital component is *Resonant Lens*, an app that sonifies the color of each disk in real time. *Resonant Lens* acts as an extension of the five senses, augments reality, and allows viewers to hear what they see.





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.

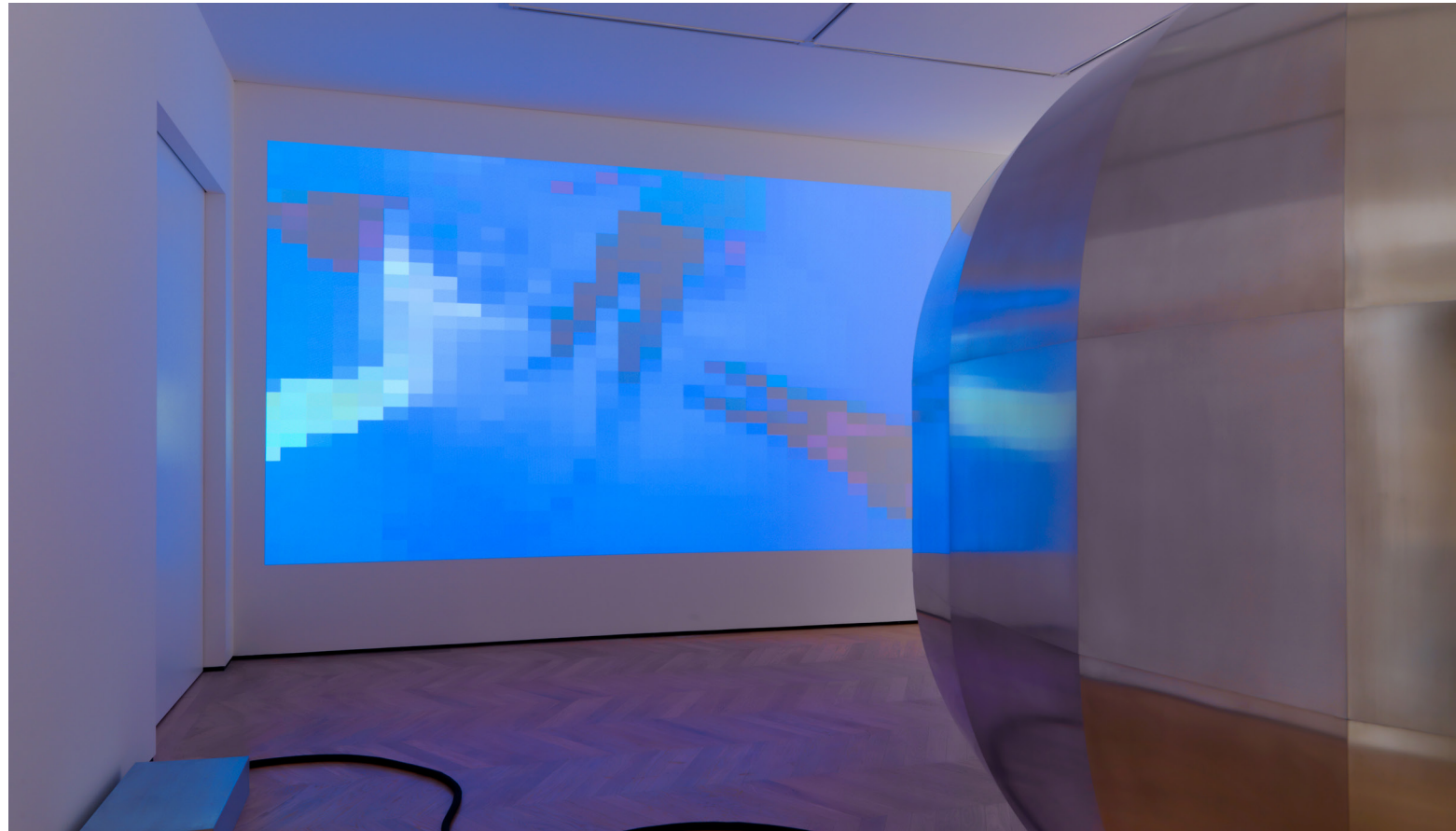
Top right:  
Metaspaces V3 with sensor view projection of  
the installation's "eye."



Metaspaces V3 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 Metaspace V3  
Lévy Gorvy, London, UK, 2018/2019

Left:  
Metaspace 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 Metaspace V3, as participants become part of the light and sound data conversion.





Installation view of Resonant Disks, sculptures with virtual sound emanation perceivable through Resonant Lens technology.

Left to right:

Resonant Disk - Blue Green  
Resin, pigment, virtual Spectrosonic Refrequencer  
51 x 51 x 3.5 inches  
2018

Resonant Disk - Yellow Orange  
Resin, pigment, virtual Spectrosonic Refrequencer  
20 x 20 x 3.5 inches  
2017

Resonant Disk - Red Violet  
Resin, pigment, virtual Spectrosonic Refrequencer  
51 x 51 x 3.5 inches  
2018

Courtesy of Lévy Gorvy, London, UK



*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. 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.*

*– Johannes Girardoni*

In 2012 Johannes Girardoni created the first of an evolving series of 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 early in the design process of architectural projects, Metaspaces can inform the architecture at large as an in situ expression.









Clockwise:  
Exterior view of Metaspaces V2, an interactive sculpture that converts light frequencies to sound through Spectrosonic Refrequencing.  
Metaspaces V2 exterior entry view.  
Projection of the sculpture's tone-generative "sensory eye."  
Metaspaces V2 interior views.

Metaspaces V2 is an interactive sculpture that converts light frequencies to sound, making light audible through Spectrosonic Refrequencing. A raw aluminum shell provides the framework for the sculpture's seamless elliptical interior skin. The sculpture is entered through a low and narrow opening. Inside, the space expands into an immersive light and sound environment that continuously evolves. Monochromatic LED light is projected into the space through a resin lens at the top of the sculpture. The curvilinear geometry of the work scatters the colored light inside, in effect dematerializing physical boundaries and creating a pure color space. Sensors measure the light frequencies of the specific color and drive tone generators that convert the frequencies of

light into frequencies of sound. The visceral sound vibration shifts and modulates as the light condition changes. The sensors also register the presence of visitors' movement in the space, which changes the progression and speed of the color sequence and hence the sound. Virtual and physical information is processed both by the viewer and the installation, creating a feedback loop between the two. Natural and virtual structures, layered on top of one another, create a multi-sensory, immersive environment of phenomenological events and digital systems. Matter becomes light and light becomes sound. At the core of this setting, Metaspaces V2 explores the porosity between the border of natural and artificial phenomena.





Top:  
Exterior view of Metaspaces V4 - Sensorium

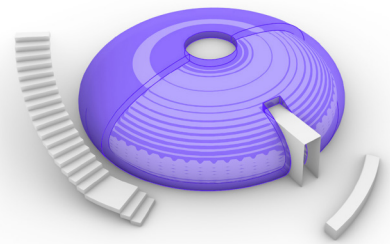
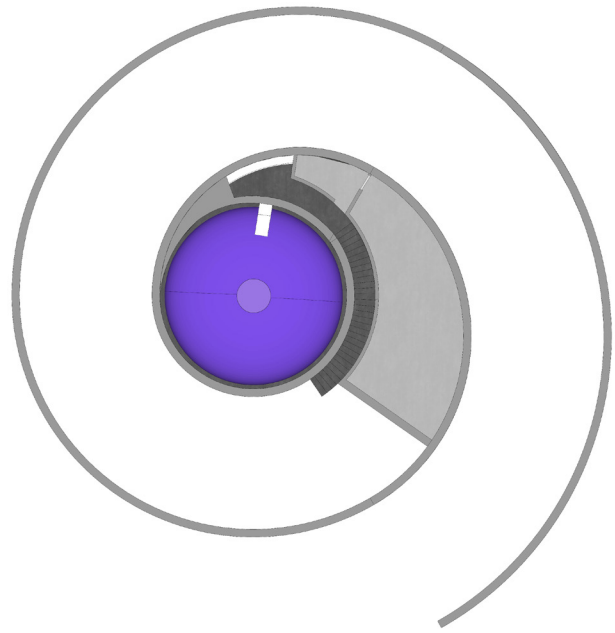
Bottom:  
Section views.

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.



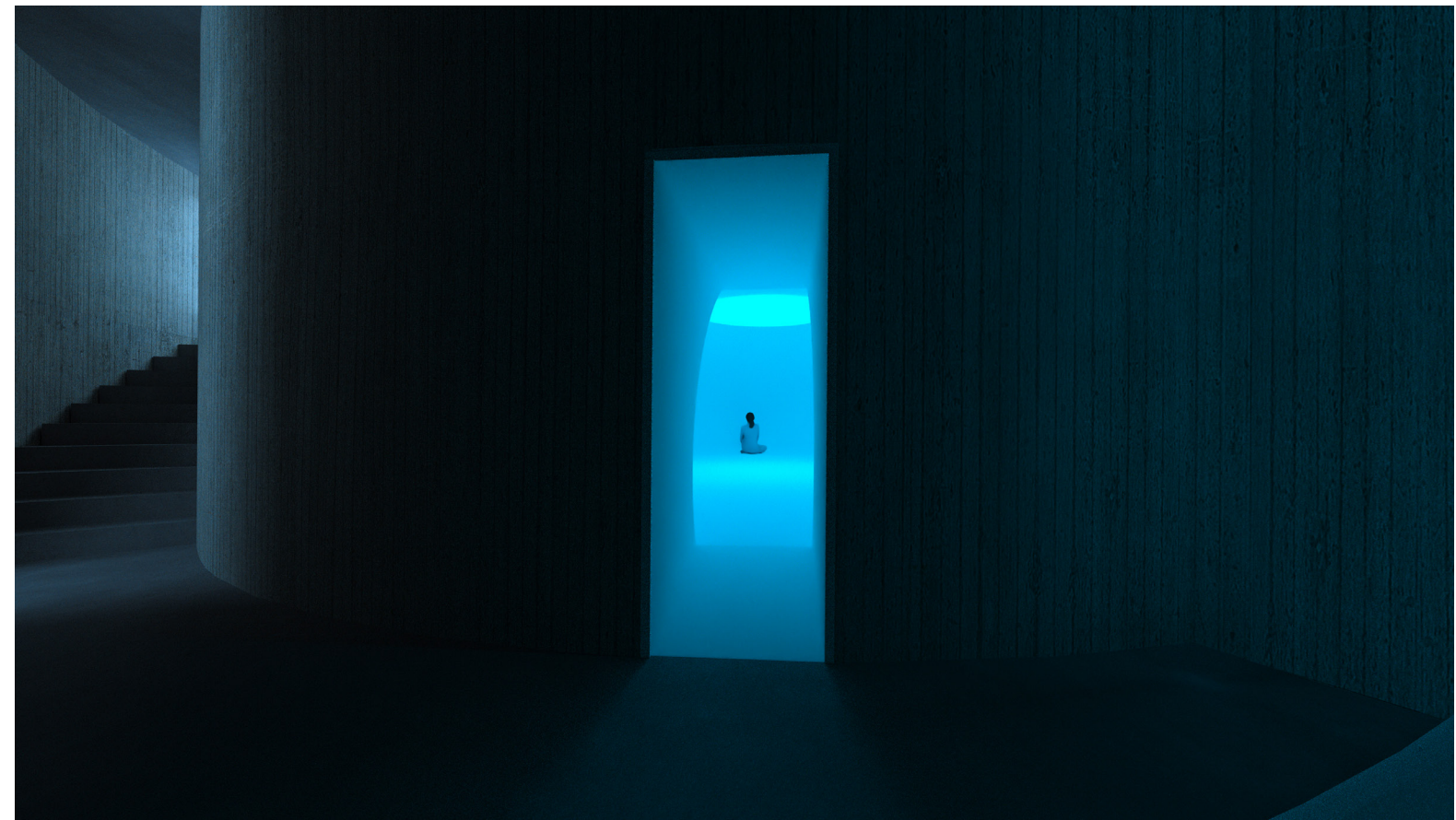




Schematic view of Metaspaces V5 (The Infinite Earth Room), a suprasensory light and sound installation in a project conceived with WHY Architecture.

Next two pages:  
Inside Metaspaces V5 participants experience themselves afloat in algorithmically connected light and sound suspending them in space and time.

Installation view during a white light sequence.







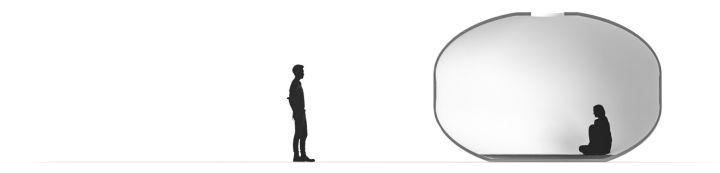
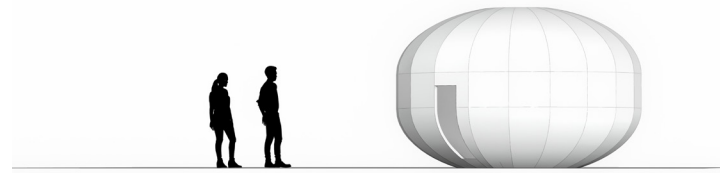






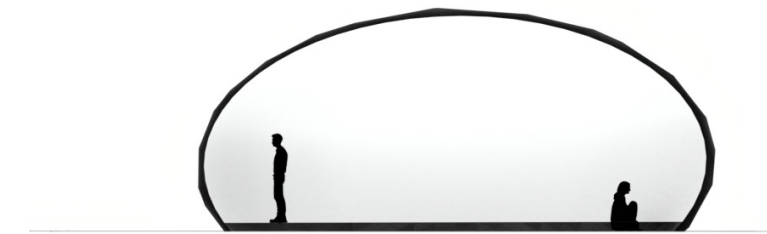
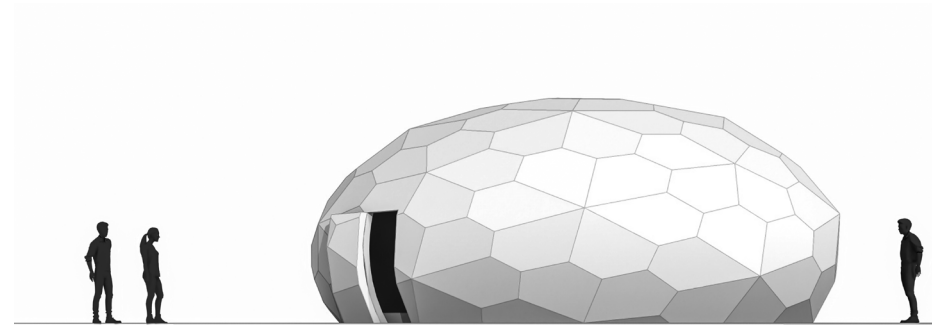
### Metaspace V2 (interior)

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



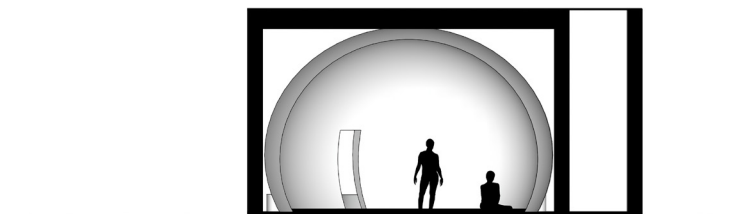
### Metaspace-Suprasensory (outdoor)

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



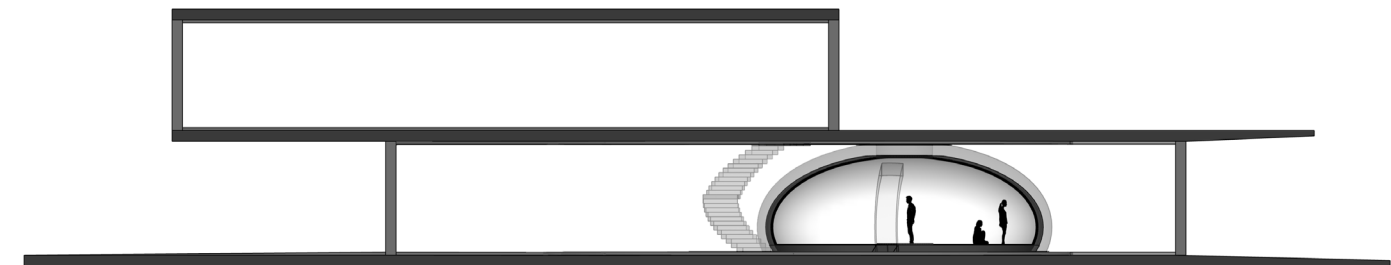
### Metaspace-Sensorium

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.





The studio's work in the built environment explores a hybridization of art and architecture to amplify the experience of self and site. In collaborations with architects, Harriet and Johannes Girardoni's method advocates for site-specific art to underpin the architectural design process. Their approach leans on the idea of "art before architecture." The artists' focus on formulating a conceptual art program in which the art magnifies the sensory activation of the site and architecture. Compressing art and the built environment creates opportunities to blend the physical and the ephemeral, which amplifies visitors' and residents' experience of place.

Girardoni Studio's art in architecture collaborations have ranged from master planning site-specific art programs in large projects to in-situ installations in residential work. The studio has worked with world-renowned architects, including Tom Kundig, EYRC, Rick Joy, and Kulapat Yantrasast/WHY.





Top left:  
Exterior view of The Infinite Room (Metaspace 1)  
at Pieso Poagen with Tom Kundig, OK Architecture.

Top right:  
The Infinite Room (Metaspace 1) is part of the  
building's indoor and outdoor environment.

Bottom right:  
Concept study sketch.



The Infinite Room is a site-specific sculpture conceived as part of a building designed by Cooper Hewitt National Design Award recipient Tom Kundig of Seattle based Olson Kundig architects. Lit solely through an oculus, the smooth curvilinear geometry of the sculpture scatters natural light to create a borderless space. The interior shifts in appearance with changing light conditions, giving The Infinite Room an ephemeral quality. The space appears to continually iterate new versions of itself.

Girardoni's sculpture on the inside and Kundig's architecture on the outside set up experiential conditions that are deliberately in

opposition to one another. Kundig's raw granite boulders, sourced directly from the site, anchor the building's western walls. The rocks' rough, grounding physicality is in stark contrast to Girardoni's pure white, ethereal space. As visitors move from the wide open setting of the natural site, through Kundig's rugged house and into Girardoni's light-filled Infinite Room, the focus shifts from a reflection on nature, to the nature of reflection.







Views of The Infinite Room (Metaspace 1).

Above:  
Visitors enter through a narrow opening.

Right:  
Inside, light passes through an oculus and scatters on the curved geometry of the space, creating a constantly shifting natural light atmosphere.









Left:  
Twilight view of Spectral Bridge House,  
Venice, CA, United States.

Right:  
Spectral Bridge during an evening sequence.

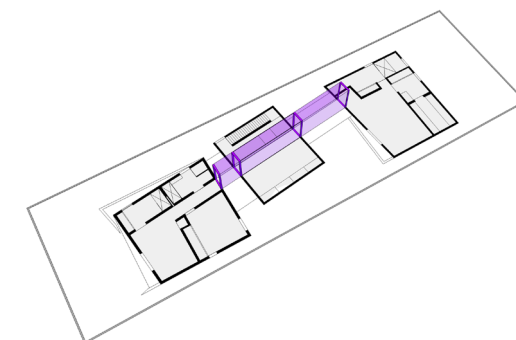
Bottom right:  
Plan view of Spectral Bridge. The bridge  
functions as a spine connecting the three  
structures as a constantly evolving expression  
of light.

Spectral Bridge House, Girardoni Studio's collaboration with architects Takashi Yanai and Steven Ehrlich of EYRC, is a home that doubles as an immersive art experience. The project embodies Girardoni's philosophy of "art before architecture," in which he creates site-specific projects that explore connections between art, design, technology, and architecture to pursue conditions that create experiential states of amplified presence and awareness.

The monolithic shapes of the three two-story living blocks are disrupted by irregular angles, creating in-between spaces that serve as the setting for Girardoni's installation, Spectral Bridge. The installation connects

the three structures, linking the first two with an interior bridge within a glass atrium and the rear two with an exterior glass bridge.

Spectral Bridge runs on a program timed to sunrise and sunset, slowly shifting through color sequences based on a year-long evolution of the spectrum. Visitors experience it from the inside as a series of spaces defined by lines of light, volumes of color, and ambient sound. The slowly evolving interplay of natural light and the monochromatic hues emanating from Spectral Bridge create an ever changing "lightscape." Viewed from the outside, the bridge reads as glowing physical volume, a light sculpture that unifies the architecture.

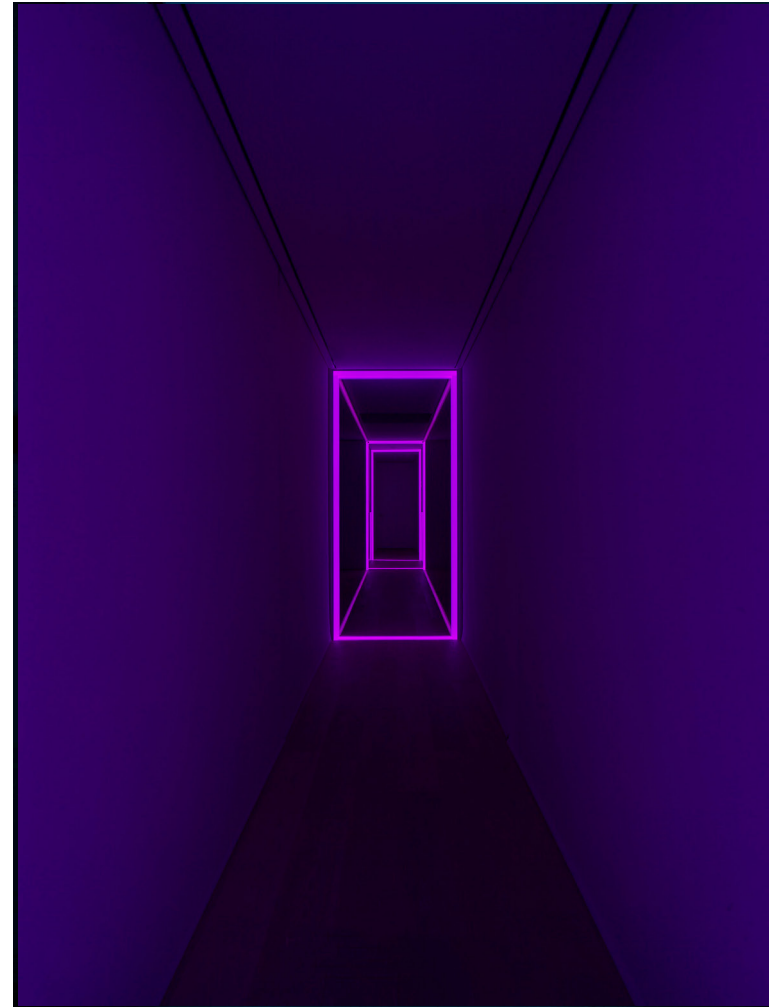
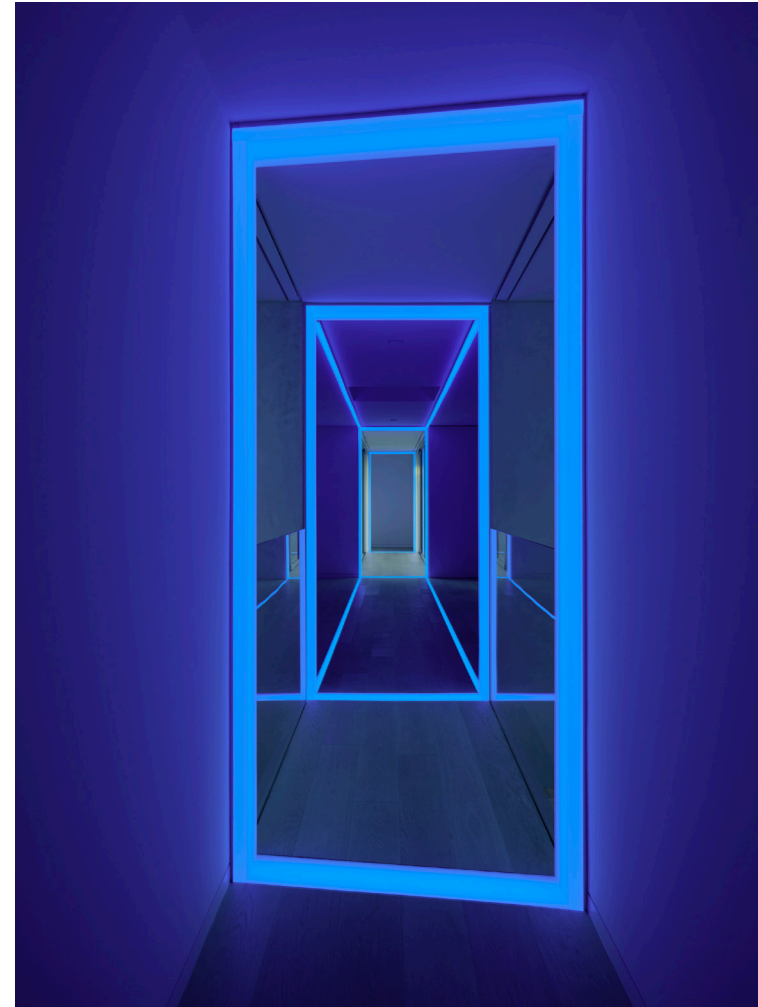
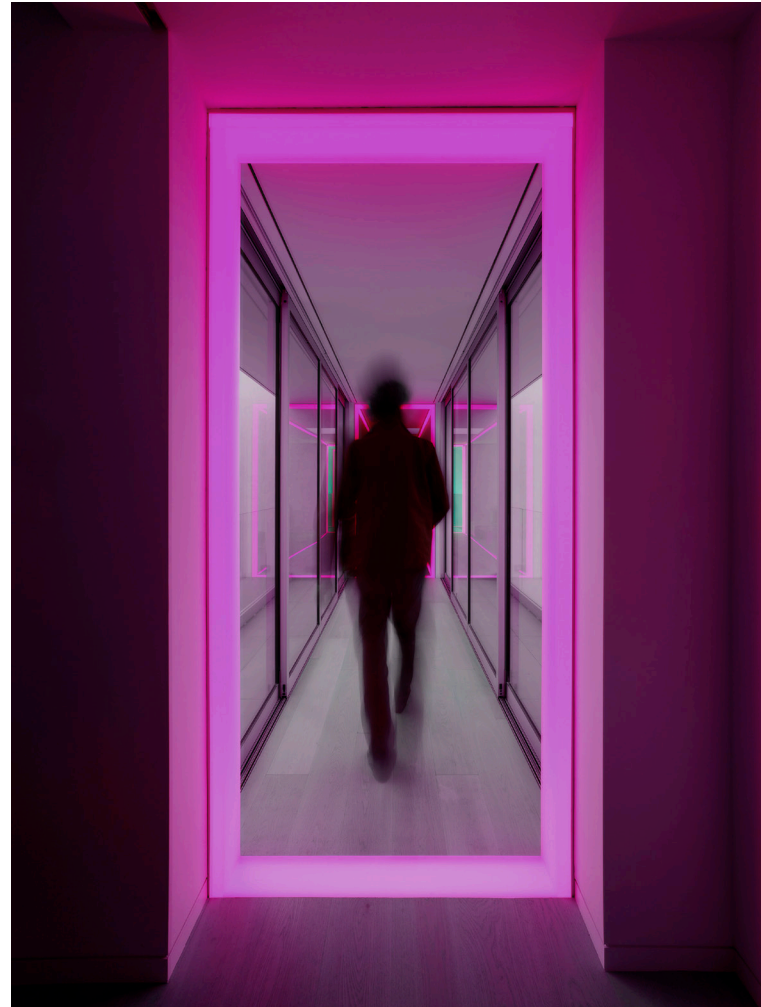






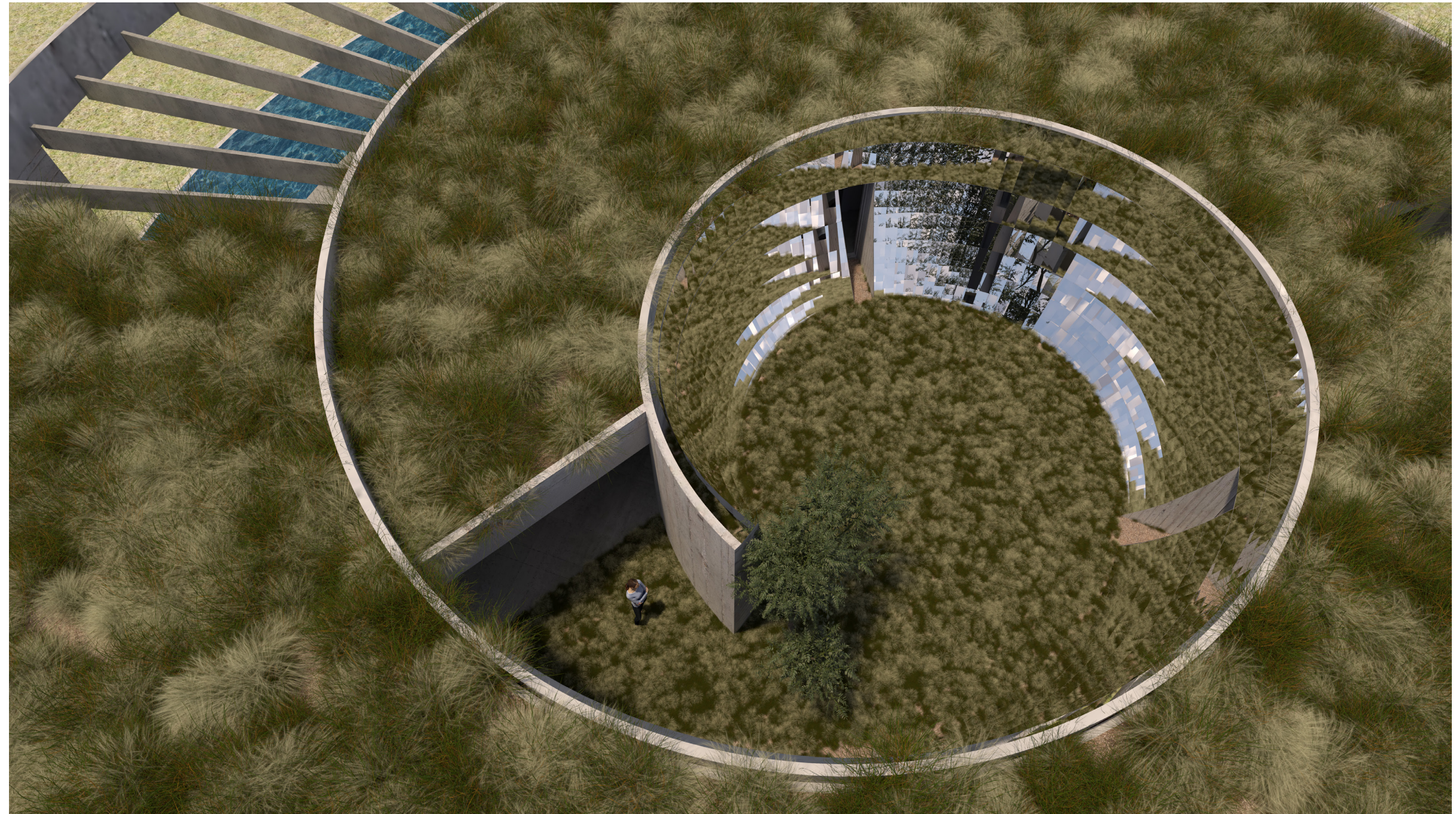
Daytime view of Spectral Bridge. The installation peaks into white light as the sun reaches its highest point above the horizon each day.





Twilight view of Spectral Bridge as it shifts behaviours over a mutli-hour period before and after sunset.

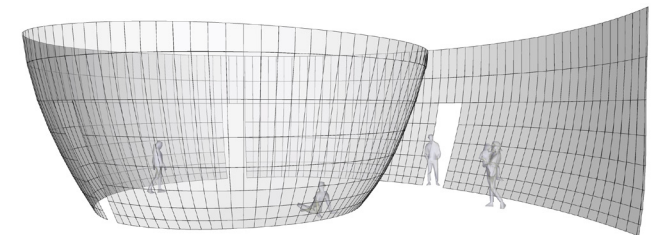




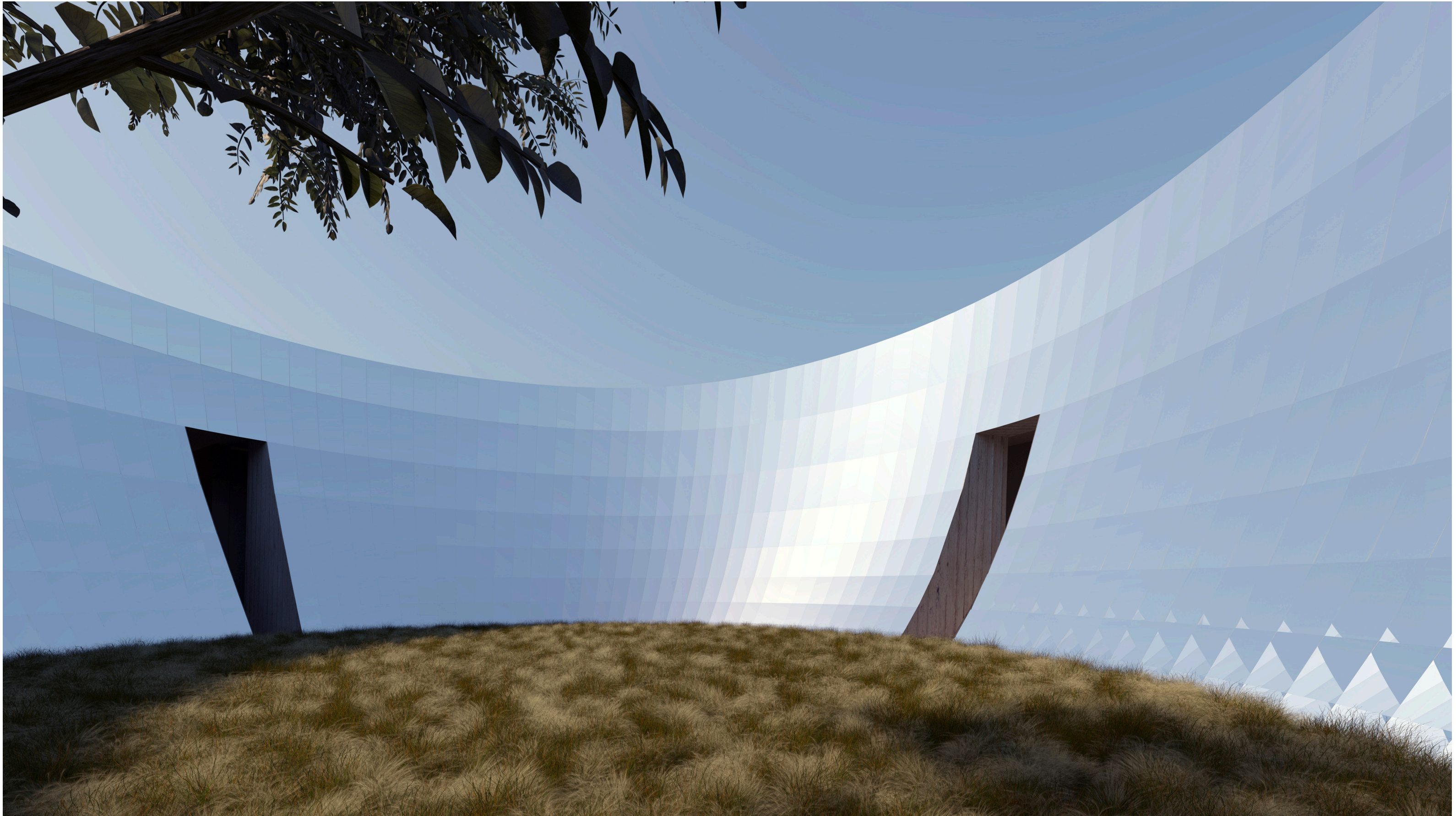
Above:  
Schematic overview of Sky Vortex, in a project  
with wHY Architecture.

Right:  
Wireframe study of Sky Vortex.

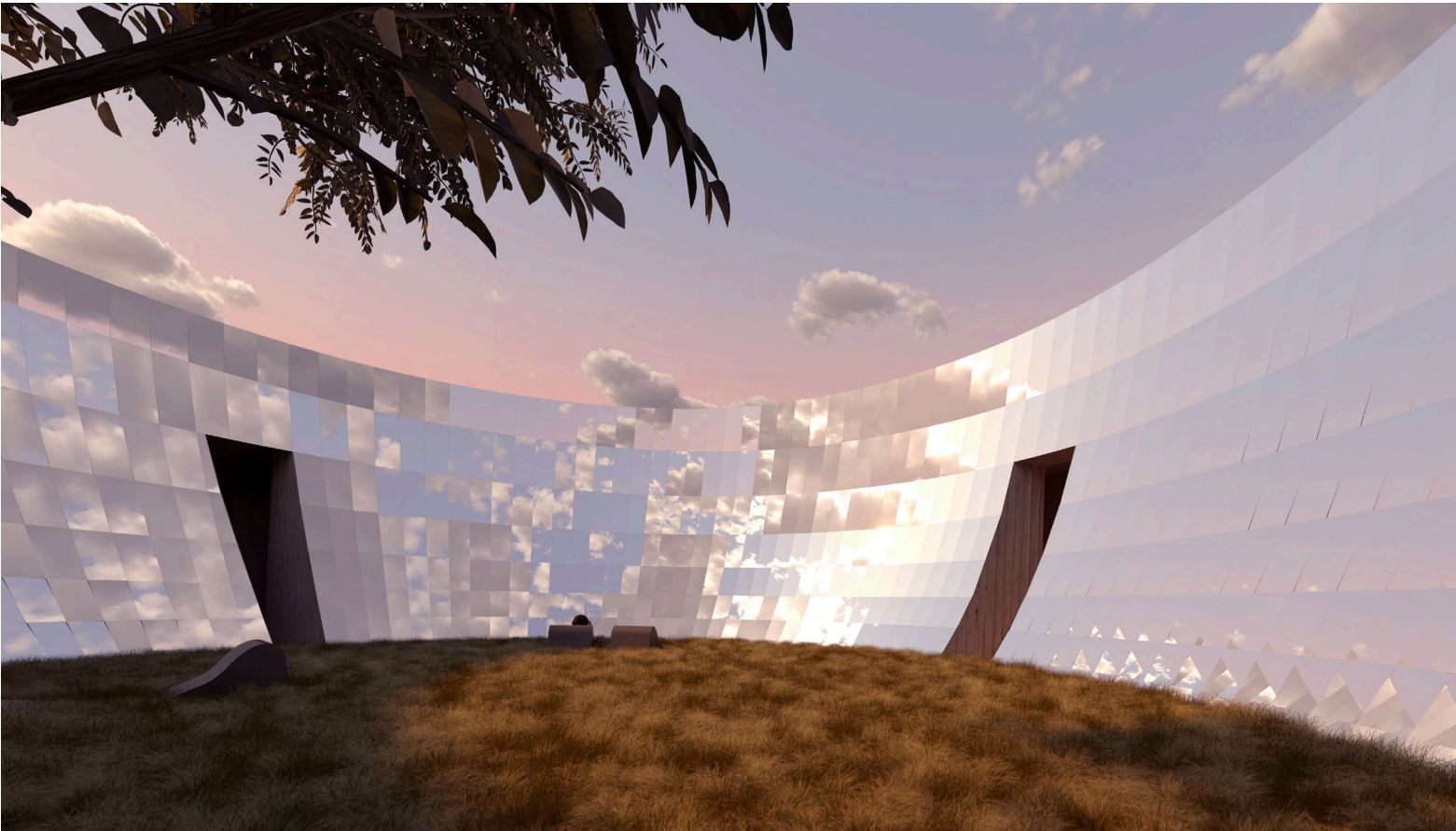
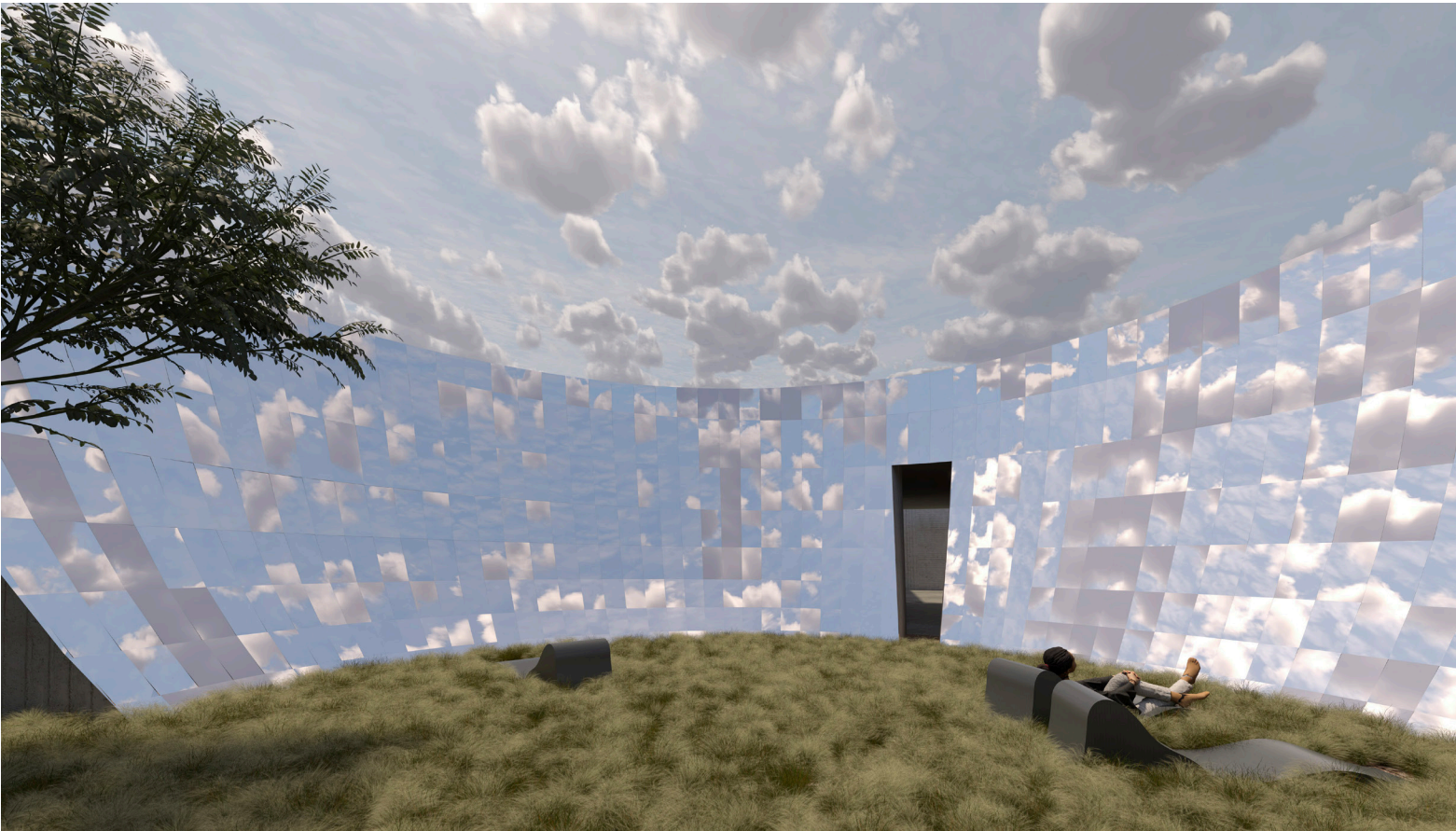
Sky Vortex is a site-specific sculpture that connects participants to the celestial sphere. Composed of mirror-finish stainless steel, Sky Vortex brings the sky's reflection onto the ground plane. Its geometry and material expression create a defacto lens that invites the everchanging natural atmospheric dynamics of the sky into the central courtyard of a building conceived by wHY Architecture. The physical sculpture becomes a medium of light, dematerializing the physical environment. Sky Vortex creates an ever-evolving natural event – a sensory garden to amplify the experience of the sky in its manifold expression.



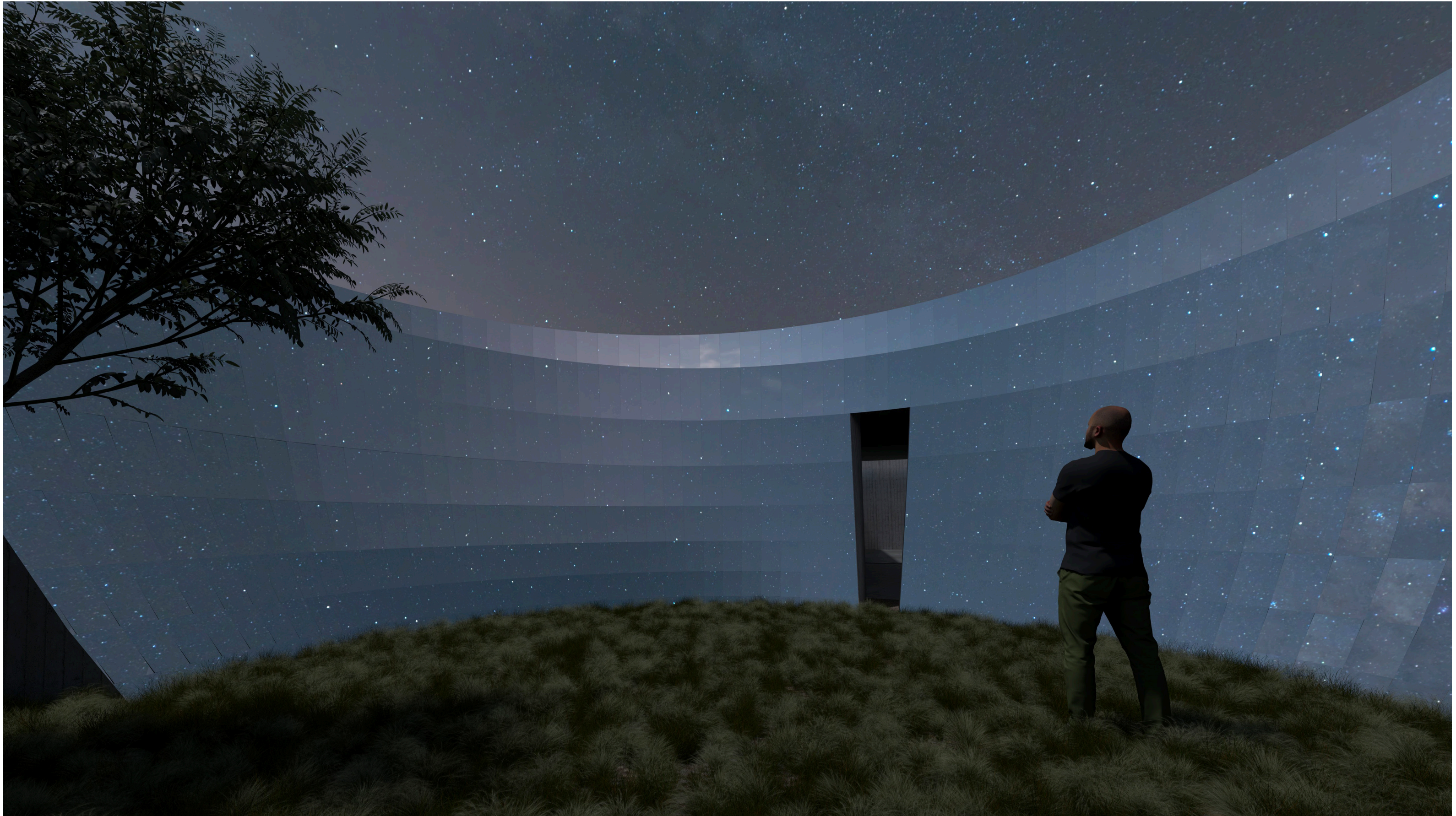














Chromasonic is a cultural impact enterprise that creates immersive light and sound experiences to inspire expanded states of awareness and connection. Chromasonic has developed three experiential site platforms in physical space – Sensory Field, Satellite, and Chromasone – that allow participants to experience harmonic connections between natural and artificial cognition. Satellite One, in Venice, CA, is Chromasonic’s first local site in a planned network of locations open to the public.

Chromasonic installations are synesthetic experiences where participants see sound and hear light. The melding of sensory modalities blurs boundaries between physical and perceived realities, suspending participants in time and space, in situ, to inspire a radical state of presence in community with others. Fusing science with art in light and sound, Chromasonic embraces an ethical use of technology to integrate natural and artificial cognition. Its mission explores the potential of art as a catalyst to harmonize cognitive and somatic states. The networked platforms the studio is working on for the future are intended to benefit the public at large.

Chromasonic started as collaborative studio and research lab formed by installation and multi-media artists Harriet and Johannes Girardoni with sound artists and musicians Orpheo McCord and Joel Shearer in 2019.









Installation view of Chromasonic-Fluid State, a light and sound installation in Deep Creek Mine, Telluride, CO, USA

Chromasonic – Fluid State is a site-specific light and sound installation in Deep Creek Mine, Telluride, CO. The 60-foot long installation is situated in the mine’s longest shaft, a pitch-black space the length of a football field. In the heart of the mountain, Chromasonic – Fluid State is the site’s only source of light.

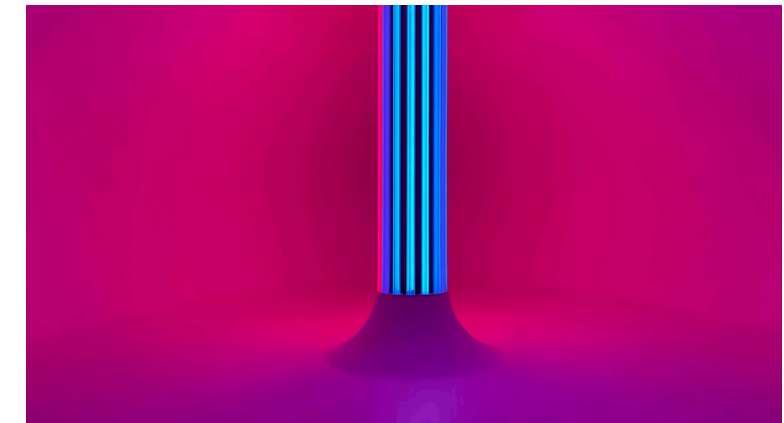
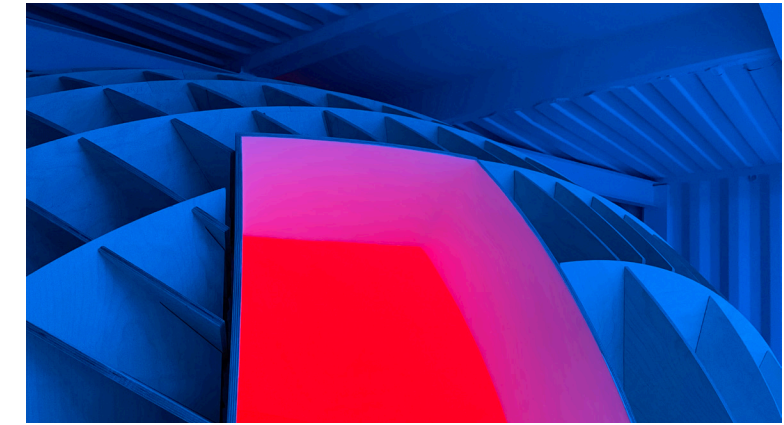
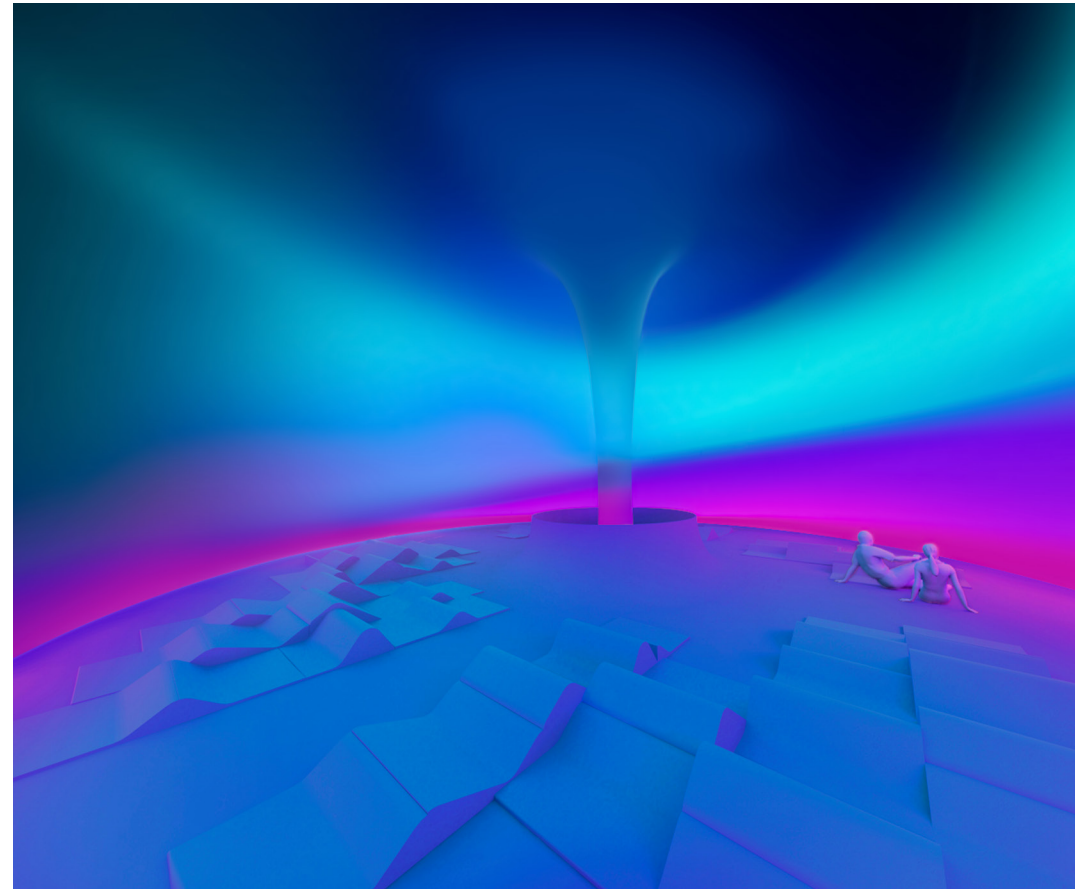
The installation is composed of four connected spaces created by a series of translucent scrims. Light waves generated from sound waves illuminate each of the four rooms using “Chromasonic-Refrequencing,” a real-time algorithmic process that creates fundamental relationships between light and sound. As sound fills each of the four spaces, light



illuminates the installation in correlating hues. The dynamic between light, sound, scrim, and mine, creates an experiential state that is fluid at all times. Fields of view continuously open and close. Space appears to physically expand and contract, depending on a participant’s position and the flow of sound-generated light. This renders the site and its participants – both awash in light and sound – in a continuous flow of perceptual activation and adjustment. At the heart of the mine, this installation brings light into darkness. As a sensory catalyst, Chromasonic – Fluid State is an opportunity to ponder presence individually and in community with other participants. It is an occa-

sion to experience how our environment constantly shifts and shapes what we see and what we don’t see. Chromasonic – Fluid State, in its physically and perceptually immersive layering, can be a meditation on what reality we are able to perceive at any given time.





The three site platforms of Chromasonic:  
Chromasone, Satellite and Sensory Field.

Top left and center: Chromasone exterior and  
interior views.

Top right: Satellite One, exterior and  
interior views.

Bottom right: Schematic view of Sensory Field.

