Rafael Lozano-Hemmer
Caressing the Circle

Sept 4 - Oct 26, 2024

bitforms gallery

bitforms gallery

Caressing the Circle
Rafael Lozano-Hemmer
September 4–October 26, 2024

Opening reception: Friday, September 6, 6:30–8:30PM
Gallery hours: Tuesday–Saturday: 11 AM–6 PM

bitforms gallery is pleased to announce Rafael Lozano-Hemmer's seventh solo exhibition, presented in tandem with the artist's solo display at The Armory Show. A statement from the artist's studio serves as the press release for this exhibition.

Prenez un cercle, caressez-le, il deviendra vicieux !
(Describe a circle, stroke its back and it turns vicious.)
–Eugène Ionesco

Aquí comienza el campo inexplorado
Redondo a causa de los ojos que lo miran
(Here begins the unexplored territory
Round on account of the eyes that behold it)
–Vicente Huidobro

How to orient in these times? How to position ourselves — individually, yet always in relation to one another — amid the moment's perpetually shifting terrains? When the topologies of our lives — the contours of where and how and with whom we exist — are flattened into extractable packets of data and reduced to nothing more than coordinates upon some grid, what becomes a horizon? "Here," as Huidobro writes, "begins the unexplored territory."

Caressing the Circle roams the perimeter of such questions, at moments traversing them, negotiating a singular throughline, and, at others, tacking away toward uncharted ground. Through computer sensors and cameras in the round, the works on view have a panoramic experience of the public, not the other way around. The exhibition's five artworks experiment with co-presence, modes of detection, and the interplay of translucency and transparency. Here, bodies and their shadows, architectures and their atmospherics all merge and move together in fluid dynamics. Presence generates perspective; or, as Duchamp put it, "The spectator makes the picture." The sense of partiality permeates each piece, with a built-in instability that results in a transitional presence, always becoming something else.

Shadow Tuner is a new interactive artwork, first presented on a huge spherical balloon as a public art installation in Abu Dhabi. The piece is a digital globe that links to thousands of geo-located radio stations that playback when a visitor is in front of them. Like the artist's pioneering installation *Frequency and Volume* (2003), the body of the visitor becomes the antenna or tuning dial to scan for sound signals, only instead of scanning the local radioelectric spectrum, *Shadow Tuner* offers a global polyphony of live streams. The piece has a built-in AI analyzer so that spoken word content gets priority over music, thereby highlighting world language diversity.

Next, *Standards and Double Standards, Subsculpture 3* consists of a single fastened belt suspended at waist height from a stepper motor on the ceiling. Controlled by a computerized tracking system, the belt rotates automatically to follow the public, turning its buckle slowly to "face" each passer-by. The piece creates a "material absence", using the belt as a fetish of paternal authority, asking questions that Lozano-Hemmer's work has been posing for three decades: who is the observer and who is the observed? how can an absence be made tangible? and, where are the authorities?

Cardinal Directions is a kinetic sculpture consisting of a surveillance monitor that displays an extract of Huidobro's poem "Altazor" (1919-1931). Referring to the geography of his native Chile, Huidobro wrote: "The four cardinal directions are three: North and South." When a presence is detected by infrared sensors, the monitor starts to rotate.

starts to rotate. As the poem is “geolocated” it always aligns itself to the earth's cardinal points, and the public must walk around the piece in order to read it, like a periscope.

Premiering at bitforms gallery, *Transparency Display* is a stand-alone interactive glass triptych that reveals and conceals participants in real-time using the transparency and translucency of liquid crystal pixels embedded in glass panels. The piece is an architectural screen that is translucent by default, impeding the public to see through it; when a visitor is detected by an on-board computer vision camera, the piece automatically "opens up" a region of the display, like a digital shadow, that is fully transparent, creating an aperture. Through these fleeting "portals" a visitor on one side can see visitors on the other, creating an uncanny and ever-changing line of sight between them. Inspired by Dan Graham's reflective and refractive glass pavilions, Kit Galloway and Sherrie Rabinowitz's *Hole in the Wall* performance, and Lozano-Hemmer's own installations that overlap participants' shadows, such as *Body Movies* (2001), the work converts an architectural subdivision into a connective switchboard for eye contact, shadow play, and sous- and sur-veillance. The piece is made with the artist studio's own "pixel glass" technology, which is a variation of traditional "smart glass" treatments, but pixel-addressable and dimmable.

Finally, *Recurrent Lloyd Wright* is a recursive algorithmic animation that draws together the vast corpus of Frank Lloyd Wright’s “Usonian” architectural blueprints and evaporates them into a fluid atmosphere. In this piece, the modernist utopian vision of Lloyd Wright’s designs drift back and forth, and are endlessly remade. The sense of context and materials at the core of the architect’s poetics is dissolved into a virtual and speculative existence. In rendering atmospheric Lloyd Wright’s grounded design, *Recurrent Lloyd Wright* is, at once, a commentary on the fate of modernism and a blueprint to imagine future, possible architectonics.

–Atelier Lozano-Hemmer

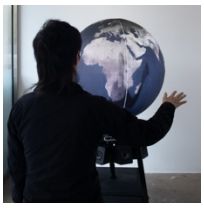
b. 1967, Mexico City
Lives and works in Montréal, Canada

Rafael Lozano-Hemmer is known for creating large-scale interactive installations in public spaces throughout Europe, Asia, and North America. Using robotics, custom software, projections, internet links, cell phones, sensors, LEDs, cameras, tracking systems, and often employing vanguard technologies, his “Antimonuments” challenge traditional notions of site-specificity, and instead focus on the idea of creating relationship-specific work through connective interfaces. His smaller-scale “Subsculptures” and his work in photography, video, and installation explore themes of surveillance, perception, and deception. Since his emergence in the 1990s, Lozano-Hemmer has mixed the disparate fields of digital media, robotics, medical science, performance art, and lived experience into interactive artworks.

His public artworks have been commissioned for the Philadelphia Association for Public Art (2012); La Triennale québécoise, Montreal, Canada (2011); Winter Olympics, Vancouver, Canada (2010); Federation Square, Melbourne, Australia (2010); the 50th Anniversary of the Guggenheim Museum, New York (2009); the memorial for the Tlatelolco Student Massacre, Mexico City (2008); Madison Square Park, New York (2008); Trafalgar Square, London (2008); Québec City’s 400th Anniversary (2008); the Expansion of the European Union, Dublin, Ireland (2004); the opening of the YCAM Center, Yamaguchi, Japan (2003); and the Millennium Celebrations, Mexico City (1999).

Featured recently in solo exhibitions at the Hirshhorn Museum and Sculpture Center, Washington D.C.; San Francisco Museum of Modern Art; the Fundación Telefónica, Buenos Aires; and the Museum of Contemporary Art, Sydney; Lozano-Hemmer was the first artist to represent Mexico at its national pavilion at the 52nd Venice Biennale. Collections holding his work include the Museum of Modern Art, New York; Tate Modern, London; Art Gallery of Ontario, Toronto; Cisneros Fontanals Art Foundation, Miami; Colección Jumex, Mexico City; Museo Universitario de Arte Contemporáneo, Mexico City; DAROS Latinamerica Collection, Zurich; Borusan Contemporary, Istanbul; 21st C Museum of Art, Kanazawa; Manchester Art Gallery, UK; MUSAC, Leon; MONA, Hobart; ZKM, Karlsruhe; the Musée d’art contemporain de Montréal and Singapore Art Museum, among others.

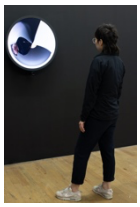
Past exhibitions of his work have also included The Barbican Centre, London; The Museum of Art, Hong Kong; and La Gaîté Lyrique, Paris; Kulczyk Foundation, Poznan; Art Basel Unlimited; and art biennials in Moscow, New Orleans, Shanghai, Sydney, Singapore, Liverpool, Istanbul, Seville, Seoul, Graz, and Havana. A recipient of the International Bauhaus Award in Dessau, his honors also include the Golden Nica from Ars Electronica, a Rockefeller Fellowship, a Daniel Langlois Foundation grant, two British Academy of Film and Television Arts awards in Interactive Art, and the Trophée des Lumières in Lyon.



Rafael Lozano-Hemmer
Shadow Tuner, 2024
Spherical LED display, depth cameras, speakers, powdered coated stainless steel base, custom software, power distributor, sound card, video controller, computers, amplifiers
31.5 in / 80 cm, diameter
67 in / 170 cm, height
Edition of 6, 1 AP

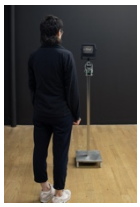
Rafael Lozano-Hemmer
Standards and Double Standards: Single Belt Version, 2004
Leather belt, ceiling plate with stepper motors, surveillance camera, tracking system
26 x 26 in / 66 x 66 cm, ceiling plate
Height variable
Edition of 6, 1 AP

Rafael Lozano-Hemmer
Transparency Display, 2024
Custom-made addressable liquid crystal glass panels, aluminium frame, computer, digital cameras, electronic boards, custom software (color, silent)
133.5 x 124 x 24 in / 339 x 315 x 61 cm
Edition of 3, 1 AP

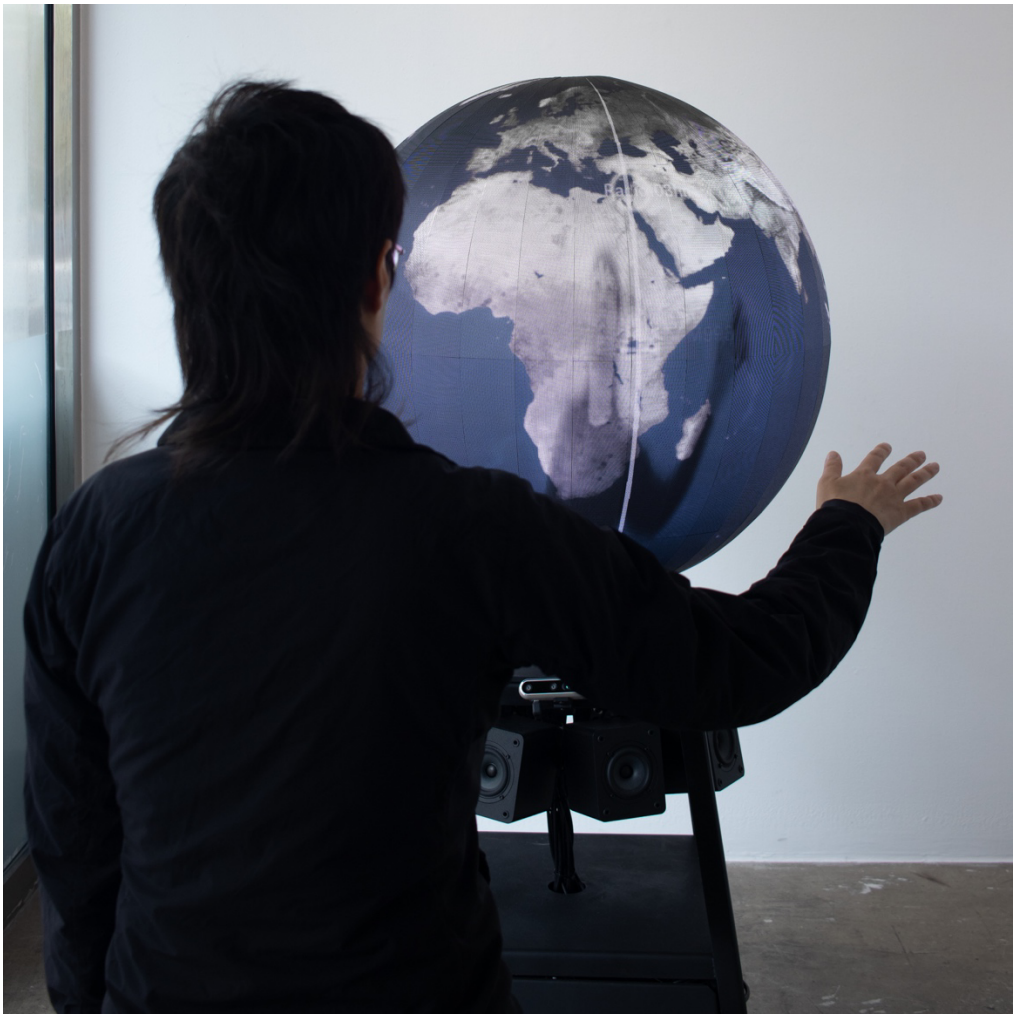


Rafael Lozano-Hemmer
Polar, 2018
Custom generative software (color, silent), custom screen, LED, computer, camera
19.7 in / 50 cm, diameter
4 in / 10 cm, depth
Edition of 6, 1 AP

Rafael Lozano-Hemmer
Recurrent Frank Lloyd Wright (Display Version), 2024
Custom software (color, silent), camera, computer, display
Edition of 6, 2 AP



Rafael Lozano-Hemmer
Cardinal Directions, 2010
Surveillance monitor, embedded computer, infrared sensors, robotic actuator, slip ring, stainless steel support, custom software, metal certificate
51.1 x 11.8 x 11.8 in / 130 x 30 x 30 cm, free-standing sculpture
Edition of 12, 1 AP



Rafael Lozano-Hemmer
Shadow Tuner, 2024
Spherical LED display, depth cameras, speakers, powdered coated stainless steel base, custom software, power distributor, sound card, video controller, computers, amplifiers
31.5 in / 80 cm, diameter
67 in / 170 cm, height
Edition of 6, 1 AP

Video documentation: https://vimeo.com/1008985225

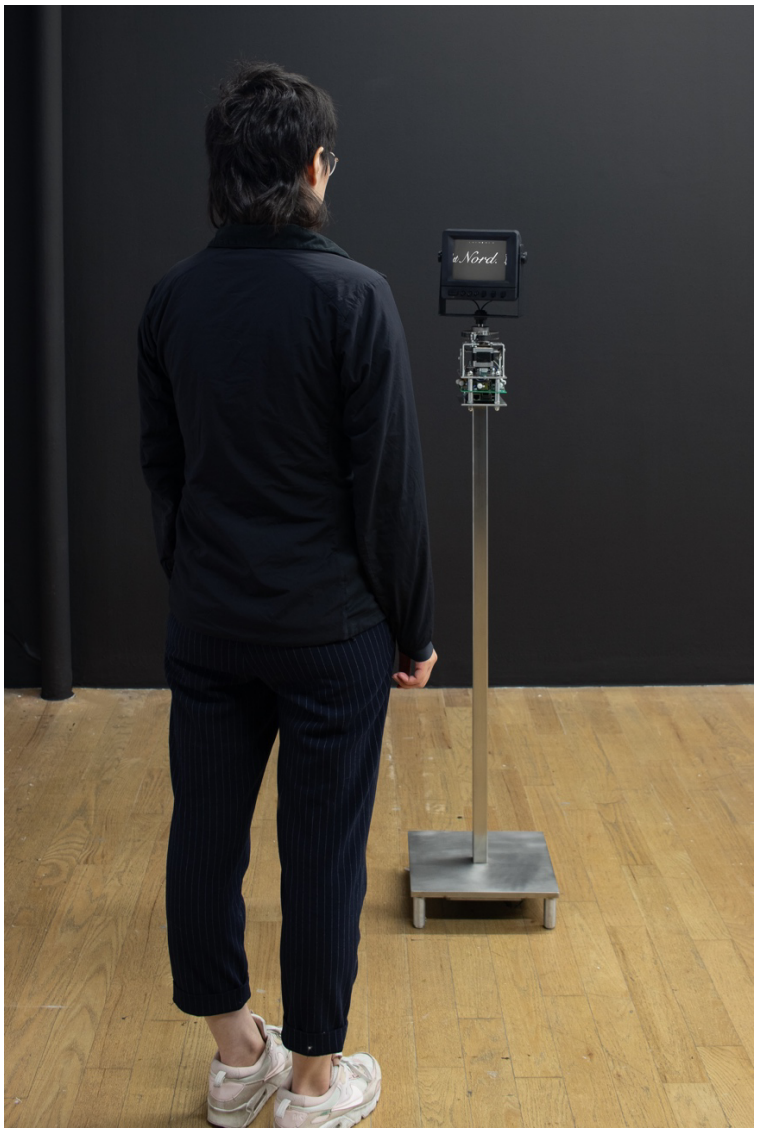
Shadow Tuner is a new interactive artwork, first presented on a huge spherical balloon as a public art installation in Abu Dhabi. The piece is a digital globe that links to thousands of geo-located radio stations that playback when a visitor is in front of them. Like the artist's pioneering installation Frequency and Volume (2003), the body of the visitor becomes the antenna or tuning dial to scan for sound signals, only instead of scanning the local radioelectric spectrum, *Shadow Tuner* offers a global polyphony of live streams. The piece has a built-in AI analyzer so that spoken word content gets priority over music, thereby highlighting world language diversity.

Rafael Lozano-Hemmer
Transparency Display, 2024
Custom-made addressable liquid crystal glass panels, aluminum frame, computer, digital cameras, electronic boards, custom software (color, silent)
133.5 x 124 x 24 in / 339 x 315 x 61 cm
Edition of 3, 1 AP

Video documentation: https://vimeo.com/1008904116

Transparency Display is an interactive glass triptych that reveals and conceals portraiture in real time using the transparency and translucency of liquid crystal pixels embedded in glass panels. The piece automatically creates low-definition portraits of the viewers, which can be seen from either side of the triptych, regardless of the lighting conditions or time of day. Through these fleeting portraits, a visitor on one side can see visitors on the other side, creating an uncanny and ever-changing portal between them. Inspired by Dan Graham's reflective and refractive glass pavilions, Sharon Grace's digital pictures in the picture, and Kit Galloway and Sherrie Rabinowitz's *Hole in the Wall* performance, the work converts an architectural subdivision into a connective switchboard for eye contact, shadow play, and sous-and surveillance.

The project is made with a new array of computerized Liquid Crystal cells developed by the artist's studio. This approach is far different from existing "smart glass" technologies because it can exhibit live content, be applied to very large surfaces, dim, have low electrical needs, and a very long lifetime. Switching between transparency and translucency—far from a practical approach as a source of privacy—creates a constant awareness of the balance between artificial and natural lighting, for the boundary between indoor and outdoor to become porous, and to produce a subtle, but readable, platform for the presentation of digital content far from the tawdry "architainment" color-changing and LED approaches.



Rafael Lozano-Hemmer
Cardinal Directions, 2010
Surveillance monitor, embedded computer, infrared sensors, robotic actuator, slip ring, stainless steel support, custom software, metal certificate
51.1 x 11.8 x 11.8 in / 130 x 30 x 30 cm, free-standing sculpture
Edition of 12, 1 AP

Video documentation: https://vimeo.com/33924663

A surveillance monitor shows an extract of Vicente Huidrobo´s poem “Altazor” (1919-1931). Refering to the geography of his native Chile, Huidobro wrote “The four cardinal directions are three: North and South”. When a presence is detected by infrared sensors, the monitor starts to rotate. As the poem is “geolocated” it always aligns itself to the cardinal points, and the public must walk around the piece in order to read it, like a kind of periscope.

Rafael Lozano-Hemmer
Standards and Double Standards: Single Belt Version, 2004
Leather belt, ceiling plate with stepper motors, surveillance camera, tracking system
26 in / 66 cm, ceiling plate
Height variable
Edition of 6, 1 AP

Video documentation: https://vimeo.com/1008903983

Standards and Double Standards, Subsculpture 3 consists of a single fastened belt suspended at waist height from a stepper motor on the ceiling. Controlled by a computerized tracking system, the belt rotates automatically to follow the public, turning its buckle slowly to “face” each passer-by. The piece creates a "material absence", using the belt as a fetish of paternal authority, asking questions that Lozano-Hemmer's work has been posing for three decades: who is the observer and who is the observed? how can an absence be made tangible? and, where are the authorities?

Rafael Lozano-Hemmer
Recurrent Frank Lloyd Wright (Display Version), 2024
Custom software (color, silent), camera, computer, display
Edition of 6, 2 AP

Video documentation: https://vimeo.com/1008903736

*Recurrent Lloyd Wrigh*t is a recursive algorithmic animation that draws together the vast corpus of Frank Lloyd Wright's "Usonian" architectural blueprints and evaporates them into a fluid atmosphere. In this piece, the modernist utopian vision of Lloyd Wright's designs drift back and forth, and are endlessly remade. The sense of context and materials at the core of the architect's poetics is dissolved into a virtual and speculative existence. In rendering atmospheric Lloyd Wright's grounded design, *Recurrent Lloyd Wright* is, at once, a commentary on the fate of modernism and a blueprint to imagine future, possible architectonics.

Rafael Lozano-Hemmer
Polar, 2018
Custom generative software (color, silent), custom screen, LED, computer, camera
19.7 in / 50 cm, diameter; 4 in / 10 cm, depth
Edition of 6, 1 AP

Video documentation (additional documentation forthcoming): https://vimeo.com/1007019060/b194427607

Polar converts a camera's cartesian grid of photo sensors (X, Y) into a representation in polar coordinates (r, phi). A radar-like rotation is mapped to the baseline of the live camera to add an element of time, emphasized by a quiet ticking sound. *Polar* constantly zooms into areas of activity detected by an optical flow algorithm and features a custom-made circular display constructed from 59,881 LED pixels and an integrated 6-core computer.