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Rafael Lozano-Hemmer takes the 'Pulse' of electronic art

The artist's exhibition at Irvine's Beall Center for Art and Technology, his first in California, captures the vital signs of people and ideas.

By Jori Finkel, Los Angeles Times
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Artist Rafael Lozano-Hemmer shows his latest art installation, Pulse Tank, one of three of his large-scale interactive Pulse Show works at UC Irvine's Beall Center for Art & Technology. (Allen J. Schaben / Los Angeles Times)

Most art museums still don't know what to do with it. Art critics still don't know what to call it. Over a decade since the dot-com boom and bust, the field known as new media art, digital art, interactive art or electronic art still occupies a sort of ghetto, with its own biennials, festivals and even its own exhibition centers.

"I work with technology because it's inevitable. Our politics, our culture, our economy, everything is running through globalized networks of communication," says Rafael Lozano-Hemmer, a prominent artist in this field, which he prefers to call "experimental" art. "But these kinds of works are not very popular with art critics. They're seen as a form of gadgetry."

Lozano-Hemmer waved at one of his artworks — a large tank of water rigged to sense your heart rate and create corresponding ripples in the water — as if to prove the point. "This looks like something straight out of a science fair. There's an electrocardiogram, solenoids, a ripple tank — everything about it is nerdy."

The artist was explaining why technology-based art does not always get critical respect.

He was also explaining why he found himself in Irvine at the Beall Center for Art and Technology and not in a major contemporary art museum for his first solo show in California.

Born in Mexico City and now based in Montreal, Lozano-Hemmer has had major gallery shows in New York and [London](#) with Bitforms and Haunch of Venison. He represented Mexico in the 2007 Venice Biennale. He created a Web-based, user-driven light show above English Bay in Vancouver for the [2010 Winter Olympics](#). This year the Guardian called him "arguably the world's most famous electronic artist." But he has not had a solo show in California until now.

"It's surprising," says Beall Center curator David Familian, who has organized shows of other tech-savvy, crossover artists like Jennifer and Kevin McCoy and [Jim Campbell](#). "This is a guy who does major public commissions in Europe. You would think that a larger museum with a larger budget would be doing this show instead."

Instead, Lozano-Hemmer was sitting in a 2,500-square-foot campus gallery in Irvine before the opening of his exhibition there, talking about why he likes California. "I love the beach for the way it brings together such a mix of people," he says, wearing a T-shirt of his own design that says "United Apostates." ("It's my brand," he says with a laugh. "I have many.")

The previous week he had staged a project on the Santa Monica beach, just south of the Pier, for "Glow," the not-quite-all-night festival. His dark tan was proof. "The rest of my team hates us. We spend the day setting up work on the beach in perfect weather," he says, "while they are setting up a show in Manchester, England."

His work for Glow, called Sandbox, was an experiment in scale, eliciting a cat-chasing-virtual-tail sort of interaction. Infrared surveillance cameras detected people walking on a certain 3,000-square-foot stretch of sand so they could be projected as tiny dot-like images onto a sandbox Lozano-Hemmer built nearby. At the same time, the hands of anyone in the sandbox were picked up by other cameras and projected in large scale, so that images of massive, monstrous hands could reach down and touch (visually if not physically) the people who were walking in that stretch.

"Some people find my work empowering and fun. Others find it frightening," he says. "My works are on the border between being very seductive, inviting, inclusive and being predatory, ominous, Orwellian."

The three installations in Irvine, all from his "Pulse" series, do not invade your personal space in especially threatening ways. But they do take intimate bodily information, your heart rate and, in one work, your fingerprint too, and broadcast it large for others to see.

The artist says he had the idea for "Pulse Room," the first work in the series and by far the largest in the Irvine show, four years ago. "This is a cheesy story, but my wife was pregnant with twins, and we once got two ultrasound machines so we could listen to both of their hearts simultaneously. The syncopation they were creating was so interesting."

He describes the effect as "rhythmic and symphonic," in ways that recall the minimalist music of [Steve Reich](#). And it gave him an idea: How could he visualize the electrical signals of the heart?

Ultimately, for an installation at an old textile factory in Puebla, Mexico, and then for the Venice Biennale, he decided to hang 100 pear-shaped 300-watt incandescent light bulbs in even rows from the ceiling and create a device with handles to read your heart rate. Only instead of seeing a number flash on an LED display, like from a stationary bike, the light bulb closest to you overhead will slowly light up, filament brightening, and then flicker at the rate of your heart. Once you release the handles, that bulb dims and your heartbeat animates the next bulb, so that at any given point the 100 bulbs reflect the heartbeats of 100 participants.

Participation is key for Lozano-Hemmer, who worked in radio and performance art after he got his bachelor of science in physical chemistry from Concordia University in Montreal. "There's a switch in the way we understand art," he says, riffing on [Marshall McLuhan](#)'s notion of technology as a second skin. "It used to be all about the viewers waiting for artwork to inspire them. Now it's the artworks that are waiting for people to feel, sense and inspire them."

"His work is unusual in that it's as much fun to watch others participate as it is to participate yourself," says Familian.

The Frankenstein-like notion of the artwork coming to life also applies to the other two works in the show at Irvine. Once you insert your finger into the sensor for "Pulse Index (2010)," an image of your fingerprint pulsates on a flat-screen TV to the beat of your heart. But much like "Pulse Room," the image you generate is not alone — it becomes part of a larger community of 509 fingerprints on the screen, representing 509 people. "This show is a collaboration of people's vital signs," the artist says.

Likewise, a still bed of water at first glance, "Pulse Tank (2008)," comes to life when you insert a finger into a metal holster or place your palms flat down on a tray attached to the table. One person generates ripples in the water. More than one person participating at the same time creates complex patterns of interference, which cast shadows on the floor and ceiling that can be distractingly beautiful.

The patterns are not predictable. For the artist, this is one of the great pleasures of participation-based art. "I like how it creates a situation that is out of control — out of control for the artist, the curator and the critic."

This kind of work often escapes the grasp of museum conservators as well. "Museums are afraid of this work because it can break," Familian says. "A lot of museums don't even have a preparator specializing in A-V equipment."

And then there's the perennial obsolescence question: How do you preserve works in which the technological platforms so often become outdated? In some cases, the artist says he follows the conceptual art tradition of [Sol LeWitt](#), who determined that his artwork resides in a certain set of ideas, while conditions of its installation can vary. For example, Lozano-Hemmer has told the Tate Modern that it can replace the projector and programming code used in an artwork they own, which involves projecting conjugated verbs onto visitors that follow them around the gallery until they touch another person, then the phrase jumps to them. "The artwork is this idea," he says, speaking of surveillance

systems and intimacy in crowds.

Yet in the case of "Pulse Room," which was originally sold in an edition of four, the artist says the work simply would not exist without incandescent bulbs, which have already been banned by several countries and will be phased out in the U.S. by 2014.

"I'm in love with this particular form, with the burning of the filament; I've told collectors the piece will die without those bulbs." (So yes, some collectors are stockpiling them.)

For Lozano-Hemmer these are not just pesky logistical issues to solve but philosophical issues worth exploring. It's a chance for him to think about how an artwork evolves beyond the artist and moment of creation and what technology-based work means apart from its particular form of technology.

Above all, he doesn't want his work to be defined by the devices that power it. "There are all sorts of devices that capture not just heart rates but body temperature, motion, voice, brain waves," he says. "But the richness of the work comes from its symbolic meaning, not from the development of platforms."

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