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**LIGHT SPECTACULAR:** For Toronto's Luminato arts festival, Lozano-Hemmer concocted the largest ever installation, using powerful robotic searchlights that were connected to the viewers via heart rate sensors, creating a breathtaking criss-cross effect visible nine miles around the harbor

# Watching the Detectors

Tweaking systems of surveillance, artist Rafael Lozano-Hemmer crafts interactive installations that question who's in control and what's really on display

Writer PAUL YOUNG

You could say that artist Rafael Lozano-Hemmer spent his formative years in hell. After all, his parents owned a Mexico City nightclub called Los Infernos. "My father always wanted me to become a bartender," says the Mexico-born, 40-year old Lozano-Hemmer. "So I did the next best thing: I moved to Canada and got a degree in physical chemistry." Since then, Lozano-Hemmer has made a staggering array of intoxicating concoctions of his own, which just happen to be full of flashing lights and kinetic projections. They're not discos per se, but highly sophisticated interactive artworks designed to encourage play, connectivity and in some cases, absolute awe.

"Pulse Front" for example, which kicked off Toronto's inaugural Luminato arts festival last June, featured 20 of the world's most powerful searchlights strategically placed around the city's 10-acre waterfront complex. Each light was accompanied by a sculp-

ture, which was connected to both a central computer and an individual pair of handgrips that anyone could use. These handgrips converted each participant's heart rate into pulsating light beams, which could be seen for miles around. What's more, a software program orchestrated the entire affair, tilting and panning lights in unison, creating a criss-cross effect. The night sky became a symphony of "luminous autographs" as Gregory Burke, curator of the installation, described them; a complex matrix of dancing lights that were, in effect, a visual reading of Toronto's collective heart.

The overwhelming scale of such pieces – Lozano-Hemmer has brought similar projects to Japan, the UK and Mexico – often lead people to pigeonhole them with more mundane spectacles, like fireworks and laser light shows. But he makes a distinction between his work and the use of special effects, which is, by definition, designed to manipulate >



through awe and wonder. "From Nazi architect Albert Speer to Pink Floyd concerts to Hollywood," explains Lozano-Hemmer, now based in Montreal, "spectacles are about feeling very small in the face of overwhelming grandeur."

While that description might apply to most of his work, Lozano-Hemmer also creates participatory situations through his ephemeral, shape-shifting pieces that don't have a central viewpoint, narrative structure or concrete end. "Most importantly," he says, "the viewer can personalize them by actually taking control and manipulating them in a variety of ways. What I'm trying to do is shift from intimidating experiences to intimate ones."

Lozano-Hemmer created a half-dozen such beautifully intimate affairs for the 52nd Venice Biennale – where he was the sole representative of Mexico – including "Pulse Room" and "Wavefunction." The latter consisted of 50 vintage Eames chairs grouped together into a rectangular formation. Each had its own internal electronic piston, which was connected to a surveillance system. As a viewer approached, the nearest chair would immediately bob up and down, triggering a chain reaction in the adjacent chairs much like ripples running through a body of water. It was a bit lighthearted, yet oddly soothing, and could be read as a playful subversion of modernism's interest in uniformity. "I chose the Eames molded plastic side chair because that particular model signaled the ascendance of modularity and mass-production," he says "but I wanted to look at it through a contemporary lens and introduce the notion of turbulence."

For Klaus Biesenbach, the Chief Curator of the Department of Media at MoMA, Lozano-Hemmer represents a new movement in contemporary art that owes a debt to both performance and conceptual artists of the '70s, many of whom experimented with perceptual tricks, light and the physical experience of space. But this new generation, he explains, is dealing with a different kind of audience, one that is utterly at home with manipulating images of every stripe, thanks to modern technology. "The average consumer is becoming a proactive 'chooser' and 'selector' of content," explains Biesenbach. "Today's phenomenon of interactive art is partly grounded on artists anticipating and responding to this development."

More importantly, what makes such interactive pieces so compelling is that they invert our notions of what art can be. Lozano-Hemmer's work literally listens to viewers, anticipates their movements, and reacts in real time. "If there's a common theme running through my work," explains Lozano-Hemmer "it's watching the watchers." **PY**

**HEARTSTROKE:** (Clockwise from left) "Wavefunction" uses a group of undulating chairs that respond electromechanically to the public's presence via surveillance cameras; "UnderScan" features interactive portraits projected on the floor within the viewers' own shadows; "PulseRoom" is based on sensors that record viewers' pulses and convert them into incandescent light bulb flashes

