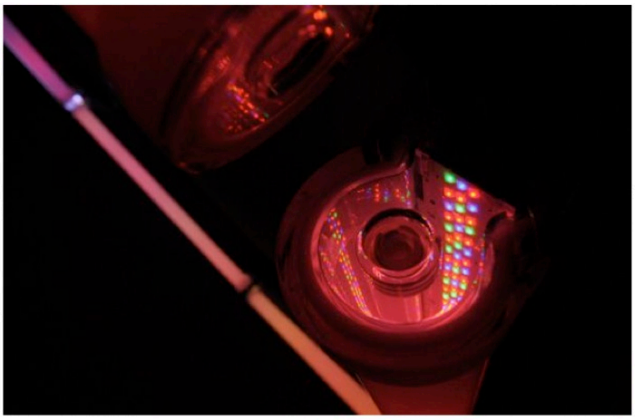
CNET News, 22 de septiembre de 2010

geek gestalt
a blog by daniel terdiman

When LEDs and math equal high art



reporter's notebook SAN JOSE, Calif.--Can math make art? Can logic inform patterns and sequences that are visually compelling? Is light a medium suitable for the artistic canvas? Clearly, the answer to all those questions is yes, and people like James Turrell and M.C. Escher have offered years of proof of that. But now anyone in or near Silicon Valley has a chance to take in a fantastic collection of light works by the New York-based artist Leo Villareal at the San Jose Museum of Art (see videos below). And having gotten a chance to see the show this week, I have no trouble reporting that it's much more than even I hoped it would be.

When I heard that Villareal, who is behind some of my favorite Burning Man LED art, was having a solo show here, I knew I had to go see it as soon as I could.

But even as a fan of what's possible with modern LED control software and hardware systems, I was blown away. The show, which comprises 19 pieces from throughout Villareal's artistic career, left me speechless. Yet, while I was tempted to think of these beautiful pieces as a stunning collection of visual imagery and creative thinking, I don't have the art history or criticism background to properly put Villareal's work in context. But others do, including JoAnne Northrop, the curator of the exhibit.

Northrop explained to me that after having curated a 2006 show of artist Jennifer Steinkamp's digital animation projections, she wanted to expand her reach into "digital art that is accessible to the mainstream of contemporary art." "I'm very interested in the kind of art that is digitally based and uses light that can also be appreciated by connoisseurs and art world people, but also average...viewers."

As Northrop searched for the right artist, she came across Villareal's work, and after reaching out to him "out of the blue" to propose a collaboration, this exhibit--which will tour the United States after leaving San Jose in January--was the result. To Northrop and other art world professionals, Villareal's work is important because, as she said, "he really does bridge the world of contemporary art and the world of digerati."

From Burning Man to beyond

I had actually heard about Villareal's show while I was at Burning Man this year. A friend, San Francisco Art Institute professor Mark Van Proyen, mentioned the exhibit, and said he expected it to be well worth a visit. So after seeing the show, I asked Van Proyen to tell me why he thinks Villareal's work is worthy of a show at a museum like the San Jose Museum of Art.

"Whereas most of the art [at Burning Man] reaches upward to connect heaven and Earth," Van Proyen, who wrote an essay for the book version of the Villareal exhibit, said, Villareal's "projects electrify [the event] laterally and represent the diffuse nervous system of [Burning Man's] social space, beacons that bring people together and facilitate navigation in what I claim to be the re-inhabited desert of the real that [philosopher Jean] Baudrillard proposed to have been evacuated and abandoned by the realm of the virtual...The platonic choreography of the lightworks can be seen as an abstract mirror of the convivial comings and goings that take place at [Burning Man]."

Of course, Villareal's work has appeared in many places beyond Burning Man. Indeed, he has completed major pieces for, among others, the National Gallery of Art, in Washington, D.C., and museums all around the country. And one consistent factor seen throughout his work is the presence of mathematics, logic, and coding in the pursuit of what could be seen alternately as incredibly simple, or truly complex installations.

"My work is focused on stripping systems down to their essence to better understand the underlying structures and rules that govern how they work," Villareal told CNET News. "I am interested in lowest common denominators such as pixels or the zeros and ones in binary code. Starting at the beginning, using the simplest forms, I begin to build elements within a framework. My work explores not only on

the physical but adds the dimension of time combining both spatial and temporal resolution. My forms move, change, interact and ultimately grow into complex organisms.

'Inspired by mathematician John Conway's work with cellular automata and the Game of Life, I seek to create my own sets of rules," he continued. "Central to my work is the element of chance. The goal is to create a rich environment in which emergent behavior can occur without a preconceived outcome. I am an active participant, serving as editor in the process through careful selection of compelling sequences."

But it doesn't end there, Villareal said.

"These selections are then further refined through combination with other sequences through simple operations such as addition, subtraction and multiplication," he explained. "The sequence's opacity, speed, and scale can all be manipulated through custom software. Ultimately, complex compositions are formed and then displayed in random order and for a random amount of time in the final artwork. I am interested in the idea of generative art and rendering the patterns on the fly, but have not found a way to generate compelling sequences enough of the time."

Northrop, for one, is enthralled by the idea that code can have so much impact on the artistic representation of light, and that light is merely the manifestation of the "sensual experience" that can come from nothing more than series of ones and zeroes. "I think it's just fascinating," Northrop said, "that you can start with something that's just a set of simple rules, and from those simple rules, you can create these lights that can behave in uncanny ways."

And the possibilities inherent in Villareal's work seem almost endless, at least as far as anyone looking at his work is concerned. Villareal said that LEDs combined with his software and hardware systems, give him the possibility of millions of colors with which to work. And that, among other reasons, is why he has chosen LEDs as his primary media.

"Solid state lighting is exciting for several reasons including longevity and energy efficiency," Villareal said. "The ability to create over 16 million colors is truly incredible and offers a tremendous range of subtle and sophisticated possibilities." To Northrop, being able to present Villareal's work to the public--especially an initial Silicon Valley public that is likely to appreciate the technology of it--is a rare chance to impact not just what people see, but also the way they feel. "I think that what's interesting to people is the immersive quality of his work," Northrop said. "It doesn't just talk to your eyes. Your entire body reacts to it. Sometimes [you get] the feeling that these works are trying to communicate with you directly."

Added Northrop, "In a way, he's a modern Dr. Frankenstein. He's creating something alive from inanimate materials."