

# Artist Is Light Minded



## New Building

Leo Villareal manipulates lights using computer software for his LED installation at the entrance of the Nerman Museum of Contemporary Art.

**O**n a warm summer evening, a breeze helped cool Kansas temperatures as impressive thunderheads loomed to the north. Like

artists for ages before him, Leo Villareal enjoyed working in the out of doors, only this 21st century sculptor uses 60,000 points of light as his medium and a mouse attached to his laptop computer as his modeling tool.

Villareal, a New York sculptor specializing in LED (light emitting diodes) installations, sat by himself in an old webbed lawn chair under the cantilever of the Nerman Museum of Contemporary Art, using computer software to manipulate lights for his commissioned piece.

“At this point, I am creating the art, which is really exciting,” Villareal said. “There is no way to set up a piece this large in the studio. I like being here and making it happen.”

What’s happening is an almost infinite number of variable patterns of white lights constantly moving and changing across the 25-foot by 55-foot cantilever over the north entrance of the Nerman. There are 12,000 individually controlled LED light nodes (each node contains five points of light) partitioned into four-inch stainless steel squares.

“The image is abstract. You don’t see any image or text,” Villareal said. “I am presenting information through light, which is very evocative.”

The finished piece is a culmination of months of behind-the-scenes work. Villareal has a research lab in New York with a team of people who help him build controls. Since early on, he has worked with Kyu Sung Woo Architects and J.E.

Dunn Construction. A Kansas City custom metal fabrication firm, A. Zahner, was tasked for the metal fabrication, and Michaels Electric, Long Island, completed what Villareal refers to as “intelligent lighting.”

“The LED is a remarkable piece of technology, allowing limitless possibilities in light sculptures,” Villareal said.

Villareal writes his own software code for light sculptures – a code, which he says, is constantly evolving. He refers to his work as “art driven by technology.”

Villareal earned a bachelor’s of art degree in sculpture from Yale University in 1990. He merged his interest in computers and art with a master of professional studies degree from Tisch School of the Arts, Interactive Telecommunications Program, New York University.

“Tisch attracts the mad-scientist type, and it was the perfect place for me to learn technology,” Villareal said. “I later taught two classes at the school – *Virtual Spaces* and *Experimental Digital Video*.”

While Villareal’s work is a combination of art and technology, it’s the visual manifestation of programming that interests him most. He writes code, based on an old game program, and uses formulae to vary the parameters for the light. Even under the prescribed conditions, the movement constantly changes. It’s like raising teenagers: the rules are set, but how the lights



operate within those rules is startling and always in flux.

“I create the conditions and see what interesting things happen. There is never the exact same repetition of patterns,” the artist says of his installation. “Even though you might recognize a sequence of lights, there is always a variation in its velocity or the number of times it is repeated.”

Villareal is inspired by rules, chaos theory and nature, where small particles build together and then break apart like ocean waves crashing against the shore. Similarly, in his installations, light fractals cluster together, then diminish and eventually disappear.

But don’t dwell too long on the computer code or theory. Villareal doesn’t want the viewer to think about the technology at all.

“Light has a primal effect. I hope the work captures people’s attention, then as they look at it longer, they see more and more in it. People will have different experiences with the piece. They will see it very legibly from the road, and as they approach the front of the museum, they will see it at different scales. I want the piece to give the museum a sense of life and animation. I want it to give the sense that something exciting is going on inside the building.”

As a site-specific work, Villareal says the piece can transform the way people see things around them.

“I need to be on site to tune the installation, just like a musician tunes an instrument; it has to be integrated into the pattern of movement around it – the traffic and pedestrian flow. The piece

has to feel right for this location.”

Villareal is pleased with the all-white lights.

“The white has purity; it’s austere and elegant, and has the same color as the museum’s stone,” Villareal said.

While not Villareal’s largest work (*Supercluster* on scaffolding covering the south wall of the P.S. 1, Long Island, is 45 feet by 120 feet), the Nerman piece has the largest number and concentration of LED lights. In addition to the P.S.1, Villareal has an impressive resumé with solo exhibitions throughout the United States and abroad including galleries such as the Conner Contemporary Art Gallery, Washington, D.C., and Gering & Lopez Gallery, New York, and site-specific commissions at the Albright-Knox Art Gallery, Buffalo, N.Y., and Palm Beach Institute of Contemporary Art, Fla.

The LEDs have a long life span that is purported to be 100,000 hours or 11 1/2 years. Villareal’s work will be lighted from 10 a.m.-9 p.m. daily.

“Leo Villareal’s light installation for the new Nerman Museum is beautiful,” said Bruce Hartman, director, NMOCA. “It’s an extraordinary union of art and architecture.”

A first test of Villareal’s LED installation took place at sunset June 27.