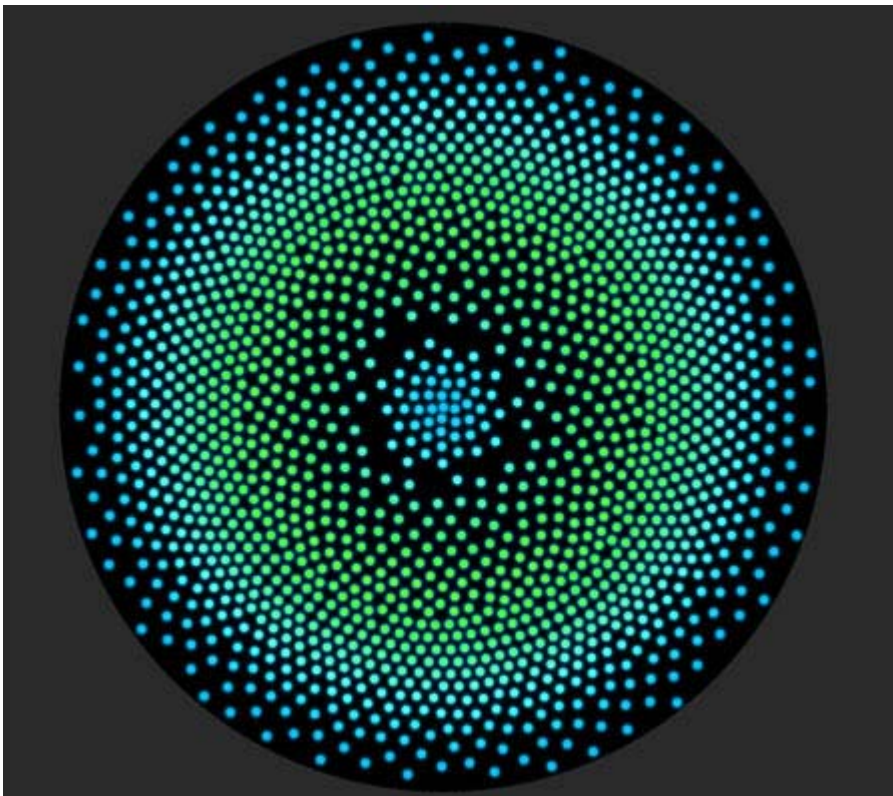


Thursday September 25, 2008

Lights, Viewers, Action: Leo Villareal's Light Sculptures



DAZZLING, MESMERIZING, LEO VILLAREAL'S wall-sized light sculptures suck you in. And behind the scenes, the **New York**-based artist defines geek-chic; he designs every aspect of his pieces, from the color to the circuitry codesigning to the lights themselves.

[Villareal](#) has a solo show of new work going up at **Conner Contemporary** on Saturday, and is assembling a large installation at the **National Gallery of Art**.

» **EXPRESS:** What've you got up at Conner?

» **VILLAREAL:** There are two pieces. One is called "Diamond Matrix," and it's a grid of white LED [lights], which is about 5 by 5 feet. They're these new LEDs that I've

worked with some engineers to develop. It's a custom-designed circuit board, and everything's designed by us. We do the hardware, the software.

» **EXPRESS:** Tell us more about those LEDs.

» **VILLAREAL:** They're tiny. They're smaller than a grain of rice. They're really small, and very bright, and they're white; it's very high-contrast, since the piece itself is black.

» **EXPRESS:** How many of them are there?

» **VILLAREAL:** It's a 60 by 60 [LED] grid. 60 by 60 is just slightly larger than an icon, so I'm dealing with very low resolutions. You can't really show video and expect it to look like something — you have to create things from the ground up for that scale.



» **EXPRESS:** What's it like to watch?

» **VILLAREAL:** It has this radiating quality, of energy being released. [The lights] have a range of brightness, so there are many layers happening at once. There's depth to the piece, a complexity.

A lot of the sequencing is particle animation. You see a single particle, and that one will burst into thousands of different particles, and there are all kinds of rules governing their motion or behavior. It's almost like the artificial life program Conway's Life.

» **EXPRESS:** You mentioned another sculpture up at Conner.

» **VILLAREAL:** There's a piece called Big Bang. It's a circular piece, which is 5 feet in size as well. Big Bang has 1600 [full-color] LEDs. I wrote some software to create the layout for this piece, which is something that I'm really excited about.

» **EXPRESS:** How hands-on are you in the making of your sculptures?

» **VILLAREAL:** I work with a whole team of people — engineers, fabricators. I work with programmers as well; there are some things which are beyond me. Early on it was important for me to write the programs myself; but now that I'm [making larger pieces] and need more sophisticated software, I've found people I can work with to help me develop these tools. But at the end of the day I'm responsible for using those tools to create the [animation] sequences.

» **EXPRESS:** Is the animation random? Will it repeat?

» **VILLAREAL:** There's a lot of randomness. I've been [generating random sequences], then grabbing moments for the final piece. They're being played back in a random order and for a random amount of time. It's an elaborate shuffle — very different from an ordered video loop. So you may recognize a pattern, but it will never happen in the same order or in the same amount of time.

- » **EXPRESS:** Why not let the computer make up sequences on the fly?
- » **VILLAREAL:** I love randomness and chance. I like to set up the conditions and let it happen, whatever it is. That's a very important part of the process. But I think another important part is being there [as an artist] to recognize when something compelling happens. It's a filtering process.



- » **EXPRESS:** Have you made pieces that interact with your viewers?
- » **VILLAREAL:** I did some interactive pieces early on; I found that it's very hard to create a satisfying interactive experience. [As a viewer,] usually you're not quite sure what you're doing or how the piece is responding. It might as well be random. There are some people who are very good at [making art like] that, but it's its own art form, really.

- » **EXPRESS:** How's Conner's new space?
- » **VILLAREAL:** I've seen the gallery throughout its construction, and I'm very excited about the space. It's a big change. It's wonderful.

- » **EXPRESS:** You're also installing a piece around the National Gallery's moving walkway.
- » **VILLAREAL:** They're different, you know. One's a site-specific installation and the other's a gallery show. The National Gallery piece is very unique — it's 40,000 lights. That's a lot of them, in a very large space. It's a scale issue.

- » **EXPRESS:** Are you hooked on big? Why work with small galleries if you've got big commissions?
- » **VILLAREAL:** I like both. I really enjoy making smaller works. Making something you can hold in your hands is wonderful — it has its own charm.

» **EXPRESS:** Would you go into mass production?

» **VILLAREAL:** I like the idea of everyone being able to have my work. I've made some prototypes.

» **EXPRESS:** Do many of your pieces end up in private homes?

» **VILLAREAL:** Yeah. Also collectors, museums, corporate environments. I love working site-specifically and custom-designing things for specific places.

» **EXPRESS:** What's the lighting look like in your own home?

» **VILLAREAL:** I have one piece in our home. It's in a spot that had been a translucent wall that we decided to take out, and I wanted light there, so it seemed like a good place.

» **EXPRESS:** No crazy algorithmic lights in the bathroom?

» **VILLAREAL:** No, I save that for my clients.

» [Conner Contemporary Art](#),

1358 Florida Ave. NE; Sept. 27-Nov. 9, free; 202-588-8750.

Written by Chris Combs (Express)

Photos courtesy Leo Villareal / Conner Contemporary Art