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nano Exhibit Opens at LACMA; buckyballs Bounce in the Portal
In Victoria Vesna's world, science is artistic and art is scientific. Vesna is a media artist, and she defines her art as "experimental research." A professor at UCLA's School of the Arts and Architecture, she is chair of the school's Department of Design | Media Arts and is a renowned master of her genre. A media artist, Vesna explains, is "someone who works with technology and collaborates with many different disciplines, looking at contemporary issues that are raised by scientific and technological innovations."

In her field, the computer is not a tool - it is a medium, like oil colors or a piece of clay. And her creations aren't merely physical – something on display in a gallery or museum. They also exist in the virtual world of the Internet.

"My goal is to show that these worlds have a distinct quality in relation to time and navigation but are not separate, and one is not more important than the other," she said.

Vesna's primary world is art, but in the past decade, her interests and curiosities increasingly have crossed into the realms of science and technology.

She says she finds "science labs much more fascinating then artist studios." As a result, her numerous collaborations with scientists should come as no surprise. In particular, she has been teaming up with those working at the atomic and molecular levels in the field known as nano technology.

One of her more recent works, titled, "zero@wavefunction: nano dreams & nightmares," was created in collaboration with noted UCLA nano scientist James Gimzewski in tribute to her fascination with hexagons and their role in nature. The work incorporates virtual buckyballs – the nickname given to a hollow, sphere-shaped carbon molecule reminiscent of architect R. Buckminster Fuller's geodesic dome.

Zero@wavefunction is meant to simulate the way a nano scientist manipulates an individual
molecule – projected on a monumental scale. Software authored by then-UCLA Design | Media Arts student Josh Nimoy allows a viewer – both in person, looking at a giant screen, and via the Internet – to manipulate the buckyballs by activating a series of visualizations, sounds and texts.

The work has become a permanent installation at the Visualization Portal. Academic Technology Services was instrumental in the work's creation. "Without their help, this piece simply would not have been achieved in time to premiere at the Biennial of Electronic Arts in Perth, Australia, in August 2002," Vesna said.

Vesna also worked with ATS staff as well as Design | Media Arts students when she redesigned the entire California NanoSystems Institute Web site, which, like her artwork, is interactive, allowing viewers to change images as they wish.

Zero@wavefunction is at the core of a new work commissioned by LACMALab. nano opened this month at the Los Angeles County Museum of Art and will be on exhibit through September 2004. Once again, Vesna has partnered with nano scientist Jim Gimzewski to create what she calls a "groundbreaking exhibition that will immerse visitors of all ages in a visceral, multimedia experience of the convergence of computing, nano science and molecular biology."

Vesna says visitors to "nano" interact with multimedia representations of atomic- and molecular-scaled structures. They experience the exhibit through their eyes, ears, hands, "even through their feet as they wander over a reactive floor that mimics the structure of graphite," she said.

The UCLA Technology Sandbox – a place where innovation and collaboration are encouraged - provided Vesna and her team with a testing ground for various elements of nano. "The ATS Sandbox’s support has proved to be critical in the production of these new works," Vesna said. "These projects are viewed by the public at large and support the creative work of UCLA artists, scientists and humanists who work collaboratively to promote new ways of thinking and being in the ever more complex world we occupy."