Quantum entanglement is a physical phenomenon that occurs when pairs or groups of particles which have interacted in the past continue to influence each other even after they become separated. For instance, if an electron spins in one place its former partner should spin no matter how far away it has travelled—the particles now exist in a quantum state, and must be measured as an interdependent system.

The theory haunts physicists because it is stubbornly difficult to prove or disprove, and it undermines the fundamental, mechanistic way we have approached the sciences since Newton—in order to understand reality we need to break down systems into their component parts. In The Turning Point: Science, Society, and the Rising Culture, Fritjof Capra writes, “In transcending the metaphor of the world as a machine, we also have to abandon the idea of physics as the basis of all science... different but mutually consistent concepts may be used to describe different aspects and levels of reality, without the need to reduce the phenomena of any level to those of another.”

Describing the phenomena of reality is very different than quantifying them. If describing is thought of as a human action used to give an account of the relevant qualities of something, then we need additional methods beyond empiricism to understand, or at least make meaning from, the workings of our world.
Art, when thoughtfully rendered, can be one of those methods and an excellent example is artist Naomie Kremer’s newest exhibition *Age of Entanglement* at the San Jose Institute of Contemporary Art.

Kremer’s works include video, hybrid paintings, and hybrid sculptures. Her paintings combine highly-colored abstract compositions with video projections to produce an effect that blurs the distinction between the two mediums, leaving the viewer unsure of where the virtual begins and the physical ends—she applies a similar technique to her sculptures. There were many impressive pieces in her new exhibit, but two, in particular, warrant extra attention when discussing quantum entanglement.

*Chance Operations* is a layered painting in which Kremer inscribes a prose poem on top of one her abstract compositions. She video-recorded herself making the painting, which she then projects back onto the surface of the finished piece. The effect makes the surface of the painting glow—moving forward or backwards does not determine what is pigment and what is projection. The layering of the process over the finished product reminds viewers that the object before them is connected to the creative act, though separated by time.

*Dictionary, 2008* is a work that addresses the issue of banned books from a personal perspective. Kremer’s father was born in a small, isolated village in Poland. He read a dictionary incessantly as it was his only link with the outside world. His older brother discovered the book and destroyed it, convinced it was a secular distraction. To recount the event, Kremer photographed the words of the story from a dictionary, and then projects the story in a 3 1/2-minute narrative animation onto a dictionary placed on a stand. The hybrid sculpture can be approached on all sides, as well as viewed from different vertical perspectives. The use of story gives the piece a very human touch, it is more than the conundrum proposed by contrasting visual devices—events and places are connected through the use of object.
Kremer’s works evoke the hybrid world in which we live. Digital images come and go, but affect us in ways that are difficult to understand. Like the particles in a quantum state, we remain connected. Though seemingly clever at first, I believe her works speak to something deeper. By fusing the digital and the physical, the then with now, we are forced to engage different methods of investigation--cerebral, visual, and embodied. Our current reality is a dynamic composite, entangled with our events and creations.

*Age of Entanglement* can be viewed at the San Jose Institute of Contemporary Art through September 19th.

San Jose Institute of Contemporary Art, 560 South First Street, San Jose, CA 95113
Tel: 408.283.8155 , Email: SciArtinAmerica@gmail.com
http://sjica.org/exhibitions_and_programs.html