ABOUT THE ARTISTS
Ken Goldberg, Sanjay Krishnan, Fernanda Viégas, and Martin Wattenberg

Ken Goldberg is an artist, inventor, and UC Berkeley Professor who explores robots and other phenomena that disobey the dichotomies between digital/natural and art/science. Ken is craigslist Distinguished Professor of New Media with appointments in the College of Engineering, School of Information, and Art Practice. Ken's installations have been exhibited internationally at venues including the Whitney Biennial, the Pompidou Center, the Buenos Aires Biennial, and the ICC in Tokyo. Ken is an IEEE Fellow, co-Founder of the Berkeley Center for New Media, and Founding Director of UC Berkeley's Art, Technology, and Culture Lecture Series. He is represented by the Catharine Clark Gallery in San Francisco. http://goldberg.berkeley.edu

Sanjay Krishnan is an Electrical Engineering and Computer Science Ph.D. student at UC Berkeley. He works on projects in Social Media, Visualization, and Statistics.

Fernanda Viegas and Martin Wattenberg investigate the art and science of visualization. Wattenberg has a Ph.D. in Mathematics from UC Berkeley, and Vi√©gas has a Ph.D. from the Media Lab at MIT. Together they lead Google‚Äôs ‚ÄúBig Picture‚Äù Visualization research group in Cambridge, Massachusetts. Before joining Google, the two founded the studio Flowing Media, Inc. and at IBM, created the ground-breaking public visualization platform Many Eyes. Their work has appeared in The New York Times, is in the collection of the Museum of Modern Art, and has been exhibited at the Whitney Museum of American Artand the Boston Institute of Contemporary Art.

The artists thank Catharine Clark of the Catharine Clark Gallery, Richard Allen, Doug Neuhouser, and Peggy Hellweg of the UC Berkeley Seismological Laboratory for ongoing access to their stream of live seismic data. They also thank David Nachum, Vijay Vasudevan, Woj Matusek for contributions to earlier versions and Anne Wagner for insightful comments.

About the Nevada Museum of Art

The Nevada Museum of Art is a museum of ideas. While building upon our founding collections and values, we cultivate meaningful art and societal experiences, and foster new knowledge in the visual arts by encouraging interdisciplinary investigation. The Nevada Museum of Art serves as a cultural and educational resource for everyone. The Nevada Museum of Art is the only art museum in the state of Nevada accredited by the American Allliance of Museums.

About the Center for Art + Environment

The Center for Art + Environment (CA+E), is an internationally recognized research center, whose mission is to be a global leader in supporting the practice, study, and awareness of creative interactions between people and their environments. The goals of the Center are threefold: To encourage the creation of artworks expressing the interaction between people and their natural, built, and virtual environments; To convene artists, scholars, and communities to document, research, and analyze such artworks; and To increase public knowledge of these creative and scholarly endeavors.

NEVADA MUSEUM OF ART

Donald W. Reynolds Center for the Visual Arts | E. L. Wiegand Gallery
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BLOOM

Ken Goldberg, Sanjay Krishnan,
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Nevada Museum of Art

BLOOM

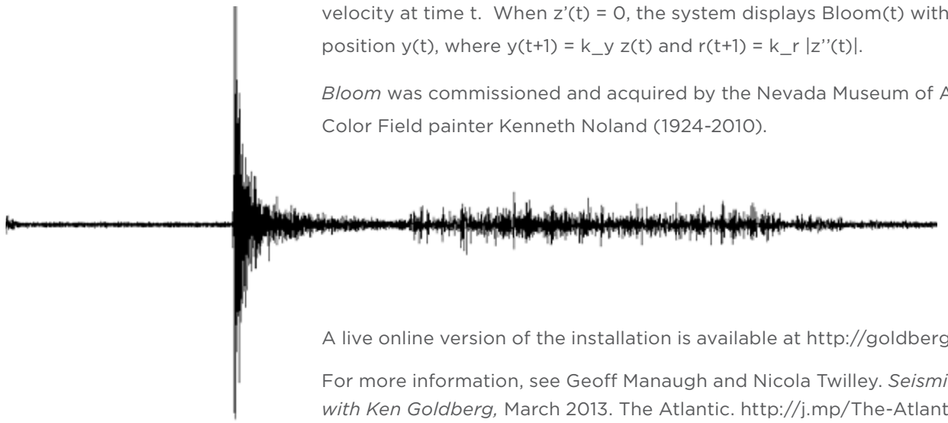
"In the tradition of all memento mori, Bloom reflects our collective destiny to return someday to the Earth. As I grow older, I'm seeing this more in the flowers than skulls" **Ken Goldberg**

According to the 2008 Uniform California Earthquake Rupture Forecast, the Hayward Fault has a greater than 30% probability of rupturing within 30 years, making it the likeliest site for the next major California earthquake.

Bloom is an internet-based Earthwork that transforms seismic data into an exhuberant display of color. A seismometer at the Hayward Fault continuously measures the Earth's motion and transmits this data over the Internet to the installation, where the data is processed in real time to produce an abstract field of unpredictable circular blooms. In contrast to the distractions of contemporary life, *Bloom* is a meditation on growth and geological endurance.

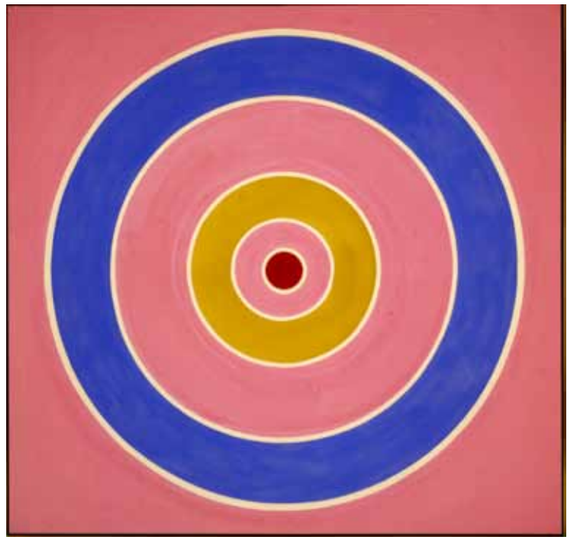
The Earth is in constant motion in response to global seismic events (when a large earthquake occurs, the Earth "rings" like a bell for months). In *Bloom*, this signal is processed to generate an infinitely evolving and non-repeating color field display. Let z(t) be the earth's vertical velocity at time t. When z'(t) = 0, the system displays Bloom(t) with radius r(t) at vertical position y(t), where y(t+1) = k_y z(t) and r(t+1) = k_r |z''(t)|.

Bloom was commissioned and acquired by the Nevada Museum of Art and is dedicated to Color Field painter Kenneth Noland (1924-2010).



A live online version of the installation is available at http://goldberg.berkeley.edu/art/Bloom/

For more information, see Geoff Manaugh and Nicola Twilley. *Seismic Signals: An Interview with Ken Goldberg,* March 2013. The Atlantic. http://j.mp/The-Atlantic-Earth-Art



Kenneth Noland, *Untitled (Target)*, 1963. Acrylic on canvas, 90 x 94 in. Collection of Lenore S. and Bernard A. Greenberg Partial gift to The Museum of Contemporary Art, Los Angeles. Art © Estate of Kenneth Noland/Licensed by VAGA, New York, NY

"In a serendipitous yet intuitive fashion Kenneth Goldberg has selected as the point of departure for Bloom the work of Color Field painter Kenneth Noland. In so doing, Goldberg and his team have expressed precisely what Noland, one of the most dedicated converts to computer technology in the mid-1980s, when the technology was still a new tool in the hands of artists, envisioned and described to me. According to Noland, the greatest significance of the computer was its ability to set colors into motion and to wash a scene with different hues. In 1987, Noland created a series of monoprints by outputting a group of his computer-generated images as 35 mm slides and had them photo-engraved. After they were inked and printed, he enhanced them by hand with acrylic paint. I can only imagine Noland's delight with Bloom!"

Cynthia Goodman, author ***Digital Visions: Computers and Art (1987)***

"Who can resist flower power?" **Ken Goldberg**