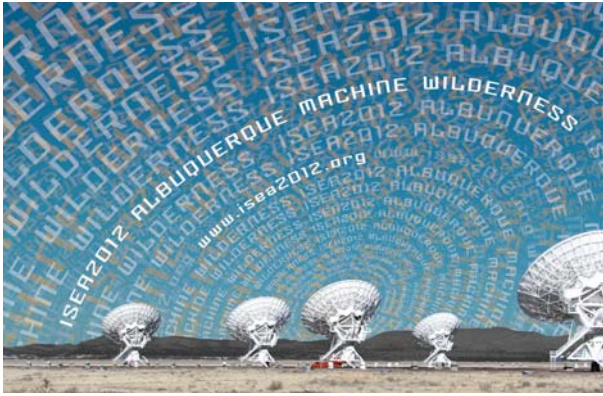# Where art & science meet

Art/technology happening looks to Sandia for ideas

By Nancy Salem

The place where art, science, and technology come together moves around the world, landing in a different city each year.

Recently it's been in Istanbul, Turkey; Ruhr Valley, Germany; Belfast, Ireland; and Singapore. In 2012 it will return to the US for the first time in six years. The spot is Albuquerque, and Sandians are being asked to play a part.

AS PART OF AN INTERACTIVE PUBLIC ART PROJECT, Mexican artists Ivan Puig and Andres Padilla Domene created this vehicle that travels on roads and abandoned rail lines. It uses photography, video, audio, and text to record surroundings in mostly remote areas of the country, and will travel from the US/Mexico border to Albuquerque for ISEA2012. (Photo courtesy of ISEA)

"This is a great opportunity for Sandia to present the latest digital technology we create here to a local, regional, national, and international audience of experts and innovators," says Juan Abeyta (3555), who sits on a planning committee for ISEA2012. "It's a coup for Albuquerque to host an international conference of this magnitude and a great way for Sandians to showcase their technologies and create new connections with colleagues worldwide."

ISEA, the International Symposium on Electronic Arts, is a prestigious, wide-ranging conference that for more than 20 years has brought together people from around the world who work in the art/technology arena. Albuquerque was presented to the international community as the 2012 host city at this year's ISEA in Istanbul.

"Normally the conference is held in much larger cities," says Suzanne Sbarge, ISEA2012 executive producer and executive director of Downtown's 516 ARTS, which worked with the University of New Mexico (UNM) on the city's host proposal. "It is very validating for Albuquerque's artistic and scientific communities to be selected."

ISEA2012 is titled "Machine Wilderness," and will include a conference in Albuquerque from Sept. 19-24, an international exhibition at 516 ARTS and The Albuquerque Museum from Sept. 20-Jan. 6, 2013, and an expansive, regional collaboration throughout the fall of 2012 including art shows, public events, performances, and educational activities. More than 1,000 people are expected to attend the core conference and about 40,000 to participate in the overall, four-month collaboration.

Juan says Sandians are being encouraged to apply to present at the conference, show in the exhibition, and

THIS MULTIMEDIA INSTALLATION in Buenos Aires, Argentina, is part of the (x)tree project, a collaborative experiment in open source data visualization, video mapping, and participatory art. Artist Agnes Chavez of Taos worked with a team to produce the open source video mapping code that captures data live from Twitter, converts it into branches of trees and allows it to be projected onto buildings. The project's creative team will use this new medium to create a socially interactive virtual forest for ISEA2012. (Photo courtesy of ISEA)

participate in activities. "It's a natural," he says. "We want Sandians to submit proposals and be represented in the program." Juan says about a dozen people from the Labs have expressed interest in ISEA2012. "We would like to see a lot more," he adds.

The exhibition and conference will be juried and curated through an international call for proposals. The submission deadline for panels, workshops, papers, artworks, performances, and residencies has been extended to Nov. 15. To apply, visit www.isea2012.org. Sbarge says applying is free and simple. Proposed projects do not have to be completed, and can be in the conceptual stage.

ISEA defines electronic art as both visual and performing arts, including music and sound, in which technology, such as computer software, the Internet, databases, wireless devices, electronic components, and physical computing, played a role in the creation.

"Science and technology are central to what ISEA is about," says Andrea Polli, artistic director of ISEA2012 and an associate professor of art and ecology and the Mesa del Sol endowed chair of digital media at UNM. She's also the person who spurred Albuquerque's ISEA bid a year and a half ago. "I think especially now with some of the crises we're experiencing there's even greater need for everyone to put our heads together and use our diverse expertise to come up with innovative solutions to these issues."

The conference title, "Machine Wilderness," refers to New Mexico as an area of rapid growth and technology development alongside large expanses of open land. Its goal is to present artists' and scientists' ideas on how technology and the natural world can sustainably coexist.

"New Mexico is a strange combination of a wild, open, and natural environment holding some of the most advanced technology and science," Polli says. "The Machine Wilderness tries to bring those concepts together."

ISEA2012 themes include Power: "Gridlocked"; Creative Economies: "Econotopias"; Transportation: "Dynamobilities"; Wildlife: "Trans-Species Habitats"; and the Cosmos: "Radical Cosmologies." Sbarge says there are countless presentation options within each track and that proposals outside the tracks are welcome.

Juan says Sandia's research in energy, robotics, imaging, materials science, and biotechnology are ripe for showcasing at the event.

Among the special events at

ISEA2012 is a track on science, technology, engineering, and math (STEM) education through art, spearheaded by Intel Corp. and targeted to middle- and high-school students. There's also a Latin American forum showcasing digital culture, critical theory, and media arts from south of the border. Juan is on the advisory board for that forum.

And Sandia is part of ISEA2012's New Mexico Scientists/Artists Research Collaborations (NM-SARC), a pilot series of professional artist residencies in science laboratories, field settings, and neutral zones. NM-SARC is envisioned as the start of an ongoing arts and sciences collaborative program. Sandia and Los Alamos National Laboratory have signed on as partnering science research centers.
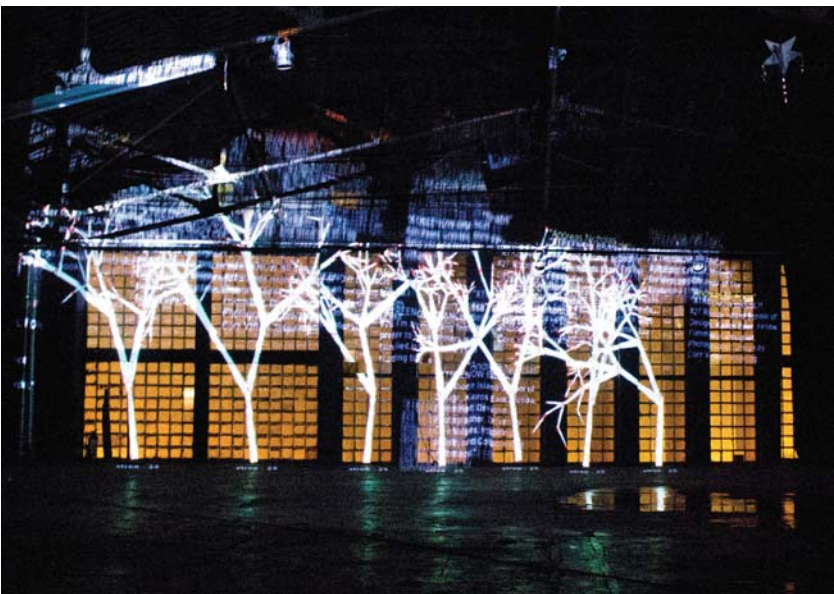
"Art and science, when combined, demystify each other and become more mutually accessible," Sbarge says. "Some scientists may think they're not artistic or they don't relate to art, and many artists don't feel like they are scientific. But art/science collaborations engage artists in science and scientists in art, offering a tremendous opportunity for creativity and innovation in both fields."

ISEA builds electronic arts network

The symposia series was launched in 1988 to establish and maintain an international network of those active in electronic arts. The network evolved into an association, ISEA, founded in the Netherlands in 1990 as an international nonprofit fostering interdisciplinary academic discourse and exchange among culturally diverse groups and people working with art, science, and technology. Its main activity is the annual symposium.

The board and membership of ISEA have remained international. The headquarters moved from the Netherlands to Montreal in 1996 and to the University of Brighton, United Kingdom, in 2009. That same year, ISEA switched from an association to a foundation. The organization is now managed by the ISEA International Foundation Board, whose main role is to oversee content of symposia in each selected city to maintain the continuity of identity and quality.

ISEA2012 is organized by 516 ARTS and hosted with UNM and The Albuquerque Museum. The collaboration includes more than 65 partner organizations throughout New Mexico as well as in El Paso, Texas, and Tempe, Ariz., representing city government, economic development groups, businesses, scientific and technological communities, museums, colleges, arts organizations, and environmental groups.