

February 14, 2002

High Tech Artists Create Interactive Installation Addressing Poetics of Presence

Innovative Graduate Program Fosters Creative Collaboration Among Visual Artists, Composers, Computer and Electrical Engineers

Santa Barbara, Calif. -- "Speaking/Sensing Space" is an interactive installation that takes part in the fifth Annual Activating the Medium Festival 2002. As such it debuts Feb. 15 and 16 at the San Francisco Museum of Modern Art and Feb. 21 at the Performing Arts Center of California Polytechnic State University in San Luis Obispo.

Next summer the installation will be available to Santa Barbara audiences at their University of California campus in conjunction with a workshop on "Noise" being held July 29 to Aug. 3. In the fall, the artists intend to stage the installation at the International Computer Music Conference in Gothenburg, Sweden; the Ars Electronica Festival in Linz, Austria; and the International Symposium on Electronic Art in Nagoya, Japan.

If initial encounters are any indication, those are just the beginning dates for appearances of this extraordinary artwork, itself a complex and subtle blend of visual and auditory components whose unfolding depends on the actions of the audience in the exhibition space. The installation addresses the poetics of presence, random textures, composed and non-deterministic sound events, and short phrases--all triggered by the movement of the public in the gallery.

In contrast to the literal narratives of the cinematic model, the intent of the experience of interaction in this work, according to its creators, "is to provide a contemplative environment where the beholder may bring meaning to the work rather than the work dictating how it should be received."

One mode of the visual component--ASCII characters abutting each other in shifting black and white patchwork-quilt-like patterning--resembles pebbles being raked in a Zen meditation garden. And some of the sounds result from digital transformations wrought on the Mandarin Chinese of T'ang Dynasty poetry and the rim-rubbed-ringing of a Tibetan bowl bell.

The creators are UC Santa Barbara visual artist George Legrady and composer Stephen Pope and three graduate students in the new and strikingly innovative Media, Arts, and Technology Program (MAT-P).

That program is one of the components of the California NanoSystems Institute, initiated by Gov. Gray Davis to seed California's high-tech future. MAT-P seeks to lead graduate students to the edges of music and visual arts, on the one hand, and computer science and electrical engineering technology, on the other.

The three graduate students put the infrastructure for the installation in place. They wrote the software that makes the pieces work--i.e. tracking by the video camera, conveying of data for sound synthesis, overall computer networking.

Although with such a project and such a graduate program the demarcation between artist and engineer is not clear-cut, one graduate student Gilroy Menezes inclines more toward computer engineering; another Gary Kling, toward music composition; and the third Andreas Schlegel, towards visual art.

Schlegel left the company he co-founded in Germany that did web-page design to participate in the Santa Barbara MAT Program. What his client-companies wanted of their web pages amounted, he said, to doing the same thing over and over. Hence, he was attracted to the greater artistic and technical challenges offered by the interactive installation art of George Legrady.

Last summer Legrady's collaborative installation "Pockets Full of Memories" was mounted in Paris at the Centre Pompidou Museum.

Legrady emphasizes narrative, whose simplest form, he said, is the movement from one state to another. "When somebody walks into 'Speaking/Sensing Space,'" he explained, "that person's movement wipes away patches of the first layer of imagery projected on a large screen, and a second layer emerges."

There is the first layer of abutting ASCII characters, and the second layer of green lines, that in turn break into line fragments of different widths that together look like brick patterns on the face of a building. That blurs and then evocative phrases are temporarily brought out into focus from the blurred background.

Said Legrady, "As people walk through, they bring out cultural information. These phrases came from my students at the San Francisco State University Information Arts' program as a brainstorming resource for class projects. They consist of three types of cultural information that may affect our lives: everyday situations that we normally don't think about, systems in our life, and the effects of technology on us."

Examples are "change collecting in a jar," "hypocrisy in democracy," and "dna evidence in courts."

Legrady points out that he is addressing larger issues associated with how "one constructs a narrative through using digital data."

He said, "The data by themselves are meaningless. I see this as a key area for nanotechnology, which involves creation and production at the molecular level. To see and be present at the nanolevel requires metaphoric visualization similar to being present in cyberspace. Both are simulations that must be culturally meaningful to the viewer.

"Designers are very skilled in how to visualize something. The kind of research that takes place in this visualizing will have pragmatic uses at the nanotech level," said Legrady, "but this research can only take place in this kind of experimental form. And it isn't something people traditionally consider to be scientific research."

As Legrady talks about the visual experience of "Speaking/Sensing Space," Pope talks about the auditory experience. Neither much talks about the other's domain.

At the beginning of the collaboration, Pope explained, "We said, 'Let the sound and the image be separate, self-sufficient media, but let's have the same kinds of policies governing them, which will in turn create a synergy between the media.'"

Pope summarizes the overall approach: "There should be certain elements that change slowly over time, and other layers that are highly responsive."

Spatially speaking, the installation occupies a rectangular space with one wall consisting of a large projection screen. A camera integrates the movement of the audience into the visual and auditory composition. There are six channels located in pairs by the three remaining walls. And a sub-woofer to assist with the constant rumble that defines the installation space, and is not responsive.

In addition to the rumble, there are four more layers of sound: bells and water and phonemes and chanting. The "phonemes" come from six speakers in five different languages. Some of the sounds are attractive--i.e. voices follow a person; other sounds recede in reaction to human presence. All of the sounds are natural, but one. In keeping with the Legrady sense of narrative, there is a synthesized clearing sound akin to panpipes that accords with the movement from one auditory layer to another. Finally, there is a fifth layer of chanting constant like the rumble but at times evident and at times not.

One of Pope's key approaches to composition begins with dismantling speech into its constituent sounds or phonemes and then using the phonemes as units of composition. It's the use of speaking voice as instrument in a manner completely different from the traditional use of singing voice.

"I use programs," Pope said, "that can take speech apart and then change the accent of the speaker, for example. I've been making pieces based on deconstructing and reconstructing speech for 14 years." For Pope, sounds--all sounds--are the constituents of music. "I don't differentiate," for instance, he said, "between music and speech."

In the experience of "Speaking/Sensing Space," the word "gibbons" sounds. It comes from a translation by Pope himself of a Chinese poem "To my Younger Brother (One of a Pair)," composed by Du Fu around 760. Here is Pope's full translation: "My shadow sticks here to the haunted trees where the gibbons scream at night, but my spirit whirls about in the sky by the towers where sea-serpents breathe the salt air." Or go directly to <http://www.mat.ucsb.edu/~g.legrady/sespsp/index.html> . For sound examples, go to <http://create.ucsb.edu/~stp/SeSpSp.zip> or <http://create.ucsb.edu/~stp/SeSpSp.sit.hqx> .}

Images



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