

Living Data

JPL and PMCA search for beauty in the age of information overload

By Sarah Goodrum 01/22/2009

Some may struggle with the sheer vastness of such a possibility, but all the data collected in 2008 could exceed all the information gathered by human beings over the past 40,000 years.

That somewhat daunting theory poses many questions to two Pasadena visual artists, among them: What is to be done with all this data, and how can it best be used by both artists and scientists to better understand and express the increasingly complex human condition?

Two new exhibitions opening Saturday night at the Pasadena Museum of California Art — "Data + Art: Science and Art in the Age of Information" and "Eye in the Sky: JPL's Mars Reconnaissance Orbiter" — ask viewers to ponder those and other questions while reconsidering assumptions about the relationship between art and science.

"Data + Art" was conceived and curated by Dan Goods, a visual strategist for Pasadena's Jet Propulsion Laboratory, and David Delgado, JPL's Mars public outreach coordinator, who met as students at Art Center College of Design in Pasadena and, aside from this project, are currently collaborating to create a data-driven sculptural project in San Jose. Emma Jacobson-Sive of PMCA notes that enthusiasm for this project stemmed in part from Goods' successful "Hidden Light" exhibition at the museum, which used video projectors to show images inside silhouettes of gallery visitors, copying a JPL technique of blocking starlight in order to see small bodies in space.

Goods describes two kinds of artists represented in the current PMCA show: "Those who are trying to help scientists understand their data better, while others use data as their medium." Working for an artist while at Caltech — whose task was turning scientific data into readable mages, thus visualizing information — is what Goods said got him thinking of the relationship between data and the senses.

Many years later, Goods and Delgado created this exhibition, drawing inspiration from Adam Bly, founder and editor-in-chief of Seed Magazine (seedmagazine.com), who said, according to the Edge Foundation Inc. (edge.org), that last year's total information acquisition would exceed that of the past 40

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millennia. As Delgado recently put it, "We've become so good at collecting data and coming up with new technology, but the problem is you're left with these piles and piles of data ... and one of the questions is 'What do you do with it?' and are the techniques used by people in various fields in the past the best way of dealing with these huge data sets?"

The artists included in "Data + Art" seem to answer this question by modeling multi-faceted approaches to problems or questions presented by an overload of information, utilizing a variety of media — through installation, performance, sound and various types of imagery.

One example is Alex Dragulescu's "Spam Architecture," which uses data gathered by a computer program that analyzes spam and electronic junk mail. The results are visually arresting, even intimidating in their size. As Goods said, "The forms look very aggressive and mean, as you would imagine spam to be." This work falls into the category of an artist who uses data as a medium.

A work that represents another approach is "Diagnostic Sonification," by Jonathan Berger, who uses a new kind of imager that collects more information from human cells than can be understood visually. However, when the information is represented using sound, potentially malignant cell chemistry can be heard within the composition. These overlapping aesthetic and scientific concerns are, according to Delgado, two sides of the same coin. "Whether it was on the scientific side or the art side, people are extracting hidden stories from these data sets. ... It's just that the way they do it is different," he said.

The variety of art works here is sure to give visitors plenty to not only look at but also experience, among them Chris Chafe and Greg Niemeyer's "Untitled," which uses sensors placed around the museum building to collect data — sound, light, temperature and carbon dioxide levels — that will generate an audible melody.

And what of the commonly perceived boundary between art and science, which is so deftly toyed with, analyzed and undermined by "Data + Art"? Goods points out that he and Delgado come from a more advertising and design-oriented background, and that neither is all that comfortable with associating with "the art with a capital 'A' realm," as Goods calls it.

"I don't care if you call it art or not. I want to create an experience that people go to that takes them out of their normal context," says Delgado. "Maybe they'll see things in a different way ... be more curious about the world around them and how they respond to it, through art or science."

In an age of data overload, we have become inured to the constant flow of information all around us. "If you go to the grocery store, and you buy cereal and bread, the bar code scanner is figuring out what you're buying and putting that information into a huge database," Goods observed. If nothing else, these artworks will certainly awaken the viewer to the reality that information has dimensions and can have a real aesthetic presence.

And in case you're wondering about the "observation" required for all this data collection, Goods said "we didn't want to get into Big Brother stuff, but it's really interesting to see it. Hopefully people will start to notice more as they go through their daily lives."

"Data + Art" is accompanied by a second show, "Eye in the Sky: JPL's Mars Reconnaissance Orbiter," which presents images produced by the orbiter's high-powered imaging spectrometer as "photos," once again allowing viewers to experience scientific information as objects of art.

"Data + Art" and "Eye in the Sky" open with a reception from 7 to 9 p.m. Saturday and continue through April 5 at the Pasadena Museum of California Art, 490 E. Union St., Pasadena. Admission is \$5. For more information, call (626) 568-3665 or visit pmcaonline.org.

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