REVIEW

WHERE ARE WE NOW?
"New Experiments in Art and Technology" at The Contemporary Jewish Museum in San Francisco

Micah Elizabeth Scott. Photo credit: Johnna Arnold.

By Joe Ferguson
Contributor

Art and technology have always proceeded hand in hand. Impressionists abandoned the studio and headed to the field with the invention of the paint tube. Cubists reconstructed still life when they encountered motion photography. Futurists denounced artistic traditions and militantly embraced the speed and power of machines and steam engines. All of these movements attempted to interpret technology's influence on our changing lives. It wasn't until the mid–20th century, however, that artists started to feature technology itself as art.

A seminal event occurred in 1968 at the Brooklyn Museum. "Some More Beginnings" was the first international art and technology exhibition of the non–profit art organization Experiments in Art and Technology—E.A.T.—founded in 1966 by engineers Billy Klüver and Fred Waldhauer, and artists Robert Rauschenberg and Robert Whitman.

The founders of E.A.T. realized that the arts and technology were developing in isolation. They sought a collaboration that would act as a catalyst to stimulate greater involvement between the two fields. Their hope was that working together would result in thoughtful industrial initiatives and more pleasurable, meaningful experiences for technology's users.

It's been nearly half a century since that original exhibition, and our relationship to technology has changed. How it has changed, and how art has evolved, is the focus of a new exhibition at The Contemporary Jewish Museum in San Francisco.

"New Experiments in Art and Technology"—"NEAT"—presents the work of nine San Francisco Bay Area digital artists and artistic teams. The exhibit looks at the rapidly–evolving relationship between artists and technology. It includes several digital and robotic sculptures as well as works in light, sound, and video.

To get a better understanding of this important and fascinating exhibition, we interviewed three of its chief contributors.

Renny Pritikin—Chief Curator at The Contemporary Jewish Museum

Joe Ferguson: *Tell us about Experiments in Art and Technology that happened in New York about 50 years ago.*

Renny Pritikin: The main figure was Billy Klüver—he got his degree from the University of California, Berkeley. He talked Bell Labs into funding a festival of art and technology. The idea was they would supply engineers to work with the artists to manifest their ideas. They did a performance series in '68 and it became a landmark in the emergent field of science and digital artwork. The organization Experiments in Art and Technology—E.A.T.—continued for about 15 years.

JF: *Why was it important to revisit Experiments in Art and Technology?*

RP: Our exhibit "NEAT"—"New Experiments in Art and Technology"—just opened and the idea is to acknowledge that seminal moment and think about what has changed in the 50 years since.

A key difference is the big change from artists needing engineers from the corporate world to manifest their work. Artists now have been trained in programming and many of them are engineers themselves—people like Jim Campbell and Alan Rath have electrical engineering degrees. Artists are combinations now of programmers and aesthetic makers.

Another difference is the importance of the San Francisco Bay Area. In the 50 years since E.A.T., the Bay Area has been the center for the most important artists and break-throughs in art and technology. All these artists have been attracted here because of the availability of peers and scientists to talk to and places to buy surplus electronics that you can't get anywhere else.

The impact has been controversial—for instance, the effect on housing and the struggle for non-profit organizations—but there are places like Autodesk, with its artist-in-residency program which is an artist's dream—a stipend, studio, access to state-of-the-art equipment that they could never get. Dolby is commissioning

artists for its new building. That is a very generous thing that positively impacts the Bay Area. I wanted to put on the table the positive and negative impacts of tech on the Bay Area.

JF: *How has the curatorial process changed since the original exhibit?*

RP: Whenever you talk about tech among curators, what comes up is the frustrating reality of changing platforms. You buy something and five years later there is nothing to attach it to—anything that plugs in creates that problem. It's a huge issue for museums.

Another change in the curatorial process is that you used to have to be there—especially if something was a performance—to see it. Now, you can do a great deal of preliminary research online and you can pretty much trust what you see. It's a tremendous change in the curatorial practice to be able to do your research at your desk and not have to travel all over the world.

An important change is that curators have to have a commitment to educating themselves. You don't want to walk into a museum or gallery and have no clue what you're looking at. You have to read and visit museums and know artists and talk to artists. There is a necessary education for people who are trained mostly to look at paintings, prints, and sculptures, to learn how to look at digital art. From there you have to be able to write about it, and help the public appreciate it.

It seems like a battle that should have been won, but it hasn't been. The general public—when it comes to a museum—often has certain expectations of seeing art that is familiar or they expect art that's going to be emotionally moving or emotionally reassuring and most digital art has different ambitions. Helping the public understand what the artists are doing—what they're looking at—gets difficult when you're not trained. You don't have the jargon.

Above: Alan Rath, Voyeur III, *2007. Fiberglass, aluminum, G-10, custom electronics, LCDs, 79 x 44 x 51 in. Courtesy of the Artist and Hosfelt Gallery, San Francisco. NEAT: New Experiments in Art and Technology, on view October 15, 2015 through January 17, 2016. The Contemporary Jewish Museum, San Francisco.*

Entangled by Camille Utterback. Photo credit: Johnna Arnold.

I have to really listen to the artists in order to reproduce it for the public.

JF: *Interactivity is an important part of digital and tech art—this is relatively new in the art world. What kind of challenge did that pose?*

RP: One of the perennial issues with a curator is signage that reads "don't touch." Essential to the experience of these shows is moving the body. It really harkens back to the birth of installation art for me because with installation art, for the first time, artists were taking into account the movement of the body through space, the experience of the body temperature–wise, light–wise, smell—all these real–world factors became part of the artwork.

I want to make exhibits that are accessible, but that are also rigorous historically, aesthetically, and intellectually. You don't want the situation where people are pressing buttons and running around and laughing and it's just bells and whistles and it's all just fun. I want people to understand how this fits into art historic and intellectual contexts.

JF: *The CJM is producing its first digital catalog. Tell us about that.*

RP: It was purely an aesthetic decision. I started to do a traditional catalog and I was asking artists for photographs. We commissioned almost all these pieces, so those photos didn't exist—the artists didn't know what to send me. You just can't capture this kind of work in 2D. I talked to my staff and we brainstormed and we decided to put up a website. It got very exciting because we could have everything that a normal paper catalog has—checklists, we have three essays, we have bios, all that stuff—but we also have video of each installation. We have all 10 artists in the show talking about their work. It's important to us that the Jewish context is part of our thinking, so we also have four Jewish scholars and tech advocates talking about Judaism and technology, which is great. We're very excited about it. A thousand times more people will probably see the online catalog than the paper catalog.

Paolo Salvagione—Curatorial Advisor and Participating Artist

Joe Ferguson: *The E.A.T. exhibit happened more than 50 years ago. What was happening at the time that led to that first show?*

Paolo Salvagione: The intersection of tech and art would be the best way to describe it. I feel like scientists poke at the edges of the world and figure out what can be done that's new, and then technologists come in and take that science and turn it into something that I or any artist can touch and play with. There were two curves crossing—the technology was getting more affordable, and artists wanted to have access to it.

JF: *So you decided to revisit it, to see how far along we had come?*

PS: Yeah, exactly. Kevin Kelly, pretty early on, said, "technology is anything that doesn't quite work yet." After something works—a light switch, for instance—it's no longer considered technology. It becomes invisible or ordinary. The lack of it becomes something that's noticed, not the presence of it. We wanted to look at what was present.

JF: *What are the significant changes since E.A.T.?*

PS: I think the older generation of artists had to work with microprocessors and components that were dictated by, for instance, the aerospace industry. Whereas now, the ability to create your own chips or your own 'black box' is easily done.

JF: *So, what you're saying is that artists have far greater access to technology. Previously, they were appropriating what was available and now they're creating from the ground up.*

PS: Exactly. When you think about artists like Campbell or Rath, they started by going to flea markets to find these components because they were so expensive and then they would construct their work out of that. Younger artists, however, don't go to flea markets—they can get a developer kit for 50 bucks.

JF: *Is there something way out on the fringe that we're not yet seeing?*

PS: I haven't seen a lot of work that's been critical about what's going on in the tech world. I think it would be interesting to see what that would look like. There is a deeper set of questions we need to ask as we take these algorithms and embed them in the technology we use.

For example, my camera takes a picture that never existed. I've got a group of friends and I take a dozen pictures in burst mode. The processor in the camera goes through these images and if somebody wasn't smiling, it finds a picture where they were. If someone's blinking, it finds a picture where they weren't and it concatenates this into the picture where everyone's eyes are open and everyone's smiling. That's a picture that never happened, a moment that never occurred.

There's the critique about 'Photoshopping' people to look like they're not supposed to look, but we're also now taking pictures that never really happened and we're embedding algorithms into devices' ideologies. How does that change or facilitate what the future will look like?

JF: *Tell us about the piece you have in "NEAT,"* Rope Fountain.

PS: I wanted to do a work that used water in a gallery or museum, but that is not really possible. The phenomenon of pushing a piece of rope up into the air has been known for a couple hundred of years. So, it was a matter of design. How do I get an array of these things? How do

I choreograph them in a playful way and kind of get into this water space in a museum? Then, of course, there's the technology and how to control it.

The cases for the motors were 3D printed. The motors are out of the RC airplane and helicopter world. I picked two-dozen motions that I was really enchanted with and then kind of rearranged them from time-to-time so that it doesn't become monotonous.

JF: *Your piece has a very aural or sonic quality that sets the tone for the exhibit being multi-sensorial. How did that come about?*

PS: I originally worked hard to remove as much as possible—the early pieces were much louder. I wanted the viewer to know that there was a mechanical component and that there were motors running. I really like the way they sound all collected, like a drone.

JF: *You've been an artist-in-residence at Autodesk. Did* Rope Fountain *come out of that?*

PS: They funded almost all of the parts that went into that project as part of my residency: tools, materials, and a stipend. I wouldn't have been able to realize the work at that level—I might have been able to make one or two units, not the six I did for NEAT.

JF: *What do you hope people take away from this exhibit?*

PS: At a fundamental level, there is a place where art and technology meet that creates works like the ones in "NEAT," which are interesting, compelling, and enjoyable. The works are fun to look at, fun to interact with, and they reward investigation.

First, you see one of the artworks. Then, there's this moment when you realize you're in the presence of it. Then you start inspecting it, and you realize there's more there. For instance, Jim Campbell's LED installation changes as you move closer or farther away. If you get close enough to Micah Scott's piece and look inside of it you see a different world than what you saw when you entered the space. You are overwhelmed when you first encounter Paul DeMarinis' work—your first reaction when you walk in is like, "Ah, a monsoon in Southeast Asia, coming down hard." Then as you look around, you realize these aren't just speakers playing this sound—they're mechanical objects. All of those things lend themselves to that additional layer of investigation and curiosity. They re-ward curiosity.

Camille Utterback—Participating Artist

Joe Ferguson: *One of the distinguishing aspects of contemporary digital or tech art is interactivity. How did you get started with interactive art?*

Camille Utterback: I have a very traditional arts back-

Alan Rath.
Photo credit:
Johnna Arnold.

ground. I was an art major at Williams College but at a time when computers were black and white, and I was not interested in them whatsoever. I did a lot of painting, but I also made sculptural objects that viewers were meant to pick up and rearrange. I also made pieces that people wore—they were based on the idea that if you're wearing this strange thing you change your encounters with other people.

A couple years after I graduated, I started seeing CD-ROMs and early internet stuff, and there was the idea that you could create a whole world for people where you could change the rules about what was possible. I liked the possibility to affect culture with what I saw coming down the pike, so I decided to go to grad school. I went to the Interactive Telecommunications Program at New York University. There were a lot of people there doing camera–based, motion–capture work. I had a familiarity with programming language, so I was able to work on some of that really early stuff. Once I started using the camera for motion–capture, I found there was so much possibility for how people can engage with computer or software systems.

JF: *Why is interactivity important in your work?*

CU: I've always been interested in how an artwork can change your lived experience and not be just a thing you look at, but something you engage with in a much more physical way.

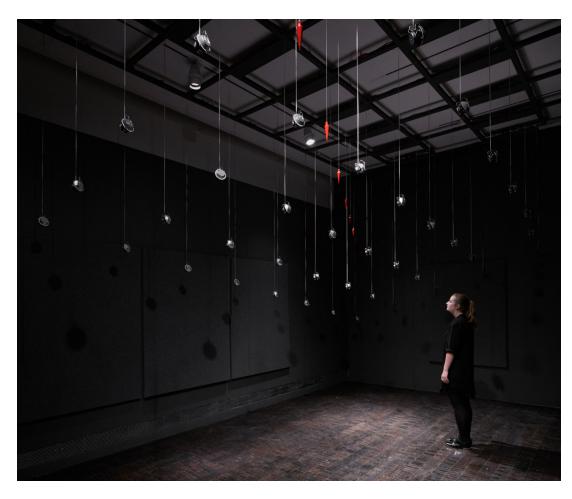In my pieces, I want to create situations where people use their bodies in really beautiful ways, even if they're not trained—the system elicits that. I think that if there's a way that these systems I'm making can shift, even subtly, how people are physically moving in a space, that maybe some of that goes with them when they leave.

JF: *There's also a social aspect to your work. Tell us about that.*

CU: Early on there weren't very many models for how you could create a social space with computer interaction. The focus in that era, while I was still at NYU, was on immersive, virtual interaction where the user had to put on headgear and gloves—it was a totally individual relationship with the system. It was through experimentation with camera–input work that I noticed people liked being able to interact with a computer without having to suit up and be alone. It was such a different model to engage with the system while not having to leave your social situation and your body.

I think we're still struggling with that now. You watch people on their phones completely losing sense of what's happening around them, attempting to multitask by maintaining a conversation while walking down the street gracefully. Hopefully we can learn to take advantage of what we do well physically and socially and not give up on having a virtual presence or having distant relationships with people.

JF: *A traditional view of art appreciation relies on passive reflection. How do audiences respond to your interactive pieces?*

Paul DeMarinis. Photo credit: Johnna Arnold.

CU: The work is super accessible, so you don't need to know anything about art history, the art world, or any of the discussions that have been happening for years to walk into one of my pieces and have this kind of playful experience. You can make your own hypothesis about why something is moving the way it is and then you can test it. There's this initial sense of something on screen reacting, but I hope that is interesting and complex enough so that people have to start asking what's going on.

The computer interaction responds to the viewer's body in a subtle way, not in a game interface way—you're not whacking things with your hand, or your body is not turned into a mouse. It's more about being immersed in a system or another world that, I think, has a relationship to painting. It's like when you sit in front of a painting and you get lost—I hope that there's a connection with that.

JF: *Tell us about the piece you have in "NEAT."*

CU: What's really different about *Entangled* is that it's two interactive systems superimposed on each other. There's a camera on each side of a set of three theatrical scrims and a projection onto either side—the imagery of each projection is generated by what's happening on that side of the scrim. What it creates is a double-layered space, where both sets of imagery can be seen on top of each other. I was interested in finding out if I could make a visual space by combining two physical spaces, and if by having people looking at each other through the scrims I could create a different kind of physical dialogue between those people.

In terms of visual imagery, it's one of the first times I've used more realistic images as part of the building blocks for the more painterly space. In the past, I've often scanned in hand–drawn marks of one form or another, but in this piece I used different images of electrical cabling, earbuds, and ropes. The tangling of those strings, cables, and cords that we all deal with now is kind of a visual pun about being entangled with our technology.

JF: *There have been a lot of technological changes since the original E.A.T. exhibit. Do you have concerns about how interactivity will be used in the future?*

CU: There are more and more higher–level tracking libraries that allow the user to follow a shape and find the pointy parts and figure out which one is the hand and which one is the foot, but in order to do that these systems have to have a definition of a human body. There's this idea that there's a certain body that has four limbs and that's a human body—anything other than that falls outside of the definition and is excluded. We need to consider the unintended consequences of the systems we build.