Interview with Lincoln Schatz

> Lincoln Schatz is a contemporary American artist, best known for his pioneering works that create portraits of people, places, and processes utilizing video and software to collect, store, and display images.

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Interviewers: Crystal Sanchez, James Smith, and Isabel Meyer

The National Portrait Gallery recently acquired your artwork, Cube*. It is a very complex work, in terms of the number of file components it has and the way those files related to one another. As an artist, what are your greatest fears about what might happen to a work like* Cube *over the next 5, 10 or 50 years when it is in the hands of an institution that is responsible for its preservation in the long-term?*

I don't think it is so much fear, I think that any artist working in new media realizes that they are working in a progressive media that changes constantly, day by day. We make decisions about what we as artist—what I as an artist—want to put out to the world. And ultimately, how archival that will be—and that is in juxtaposition to the idea. If I may invert your question and say, instead of the fear, what is my hope? My hope is that the institution will preserve it. By preserve it, I mean maintain its functionality over time as much as it can without it being an extreme financial burden on the institution.

When you are working on a piece, do you have a standardized process of thinking about the long-term needs of the work? If so, does that happen during the creation process or post-creation?

I think that over time, it has become parallel to the process. There is a realization, by virtue of having gone through this process, that eventually these works are going to have a home and someone is going to need a roadmap to them. As time progresses and best practices change, it is a constant process of updating what those best practices are. So, from a civilian standpoint, in terms of how data is backed up, how the process is described so that it can be recreated in the future, if need be. Realizing that my studio eyes will not be the only eyes on the works, we need to create something that will be knowable by people, such as conservators and archivists, who will deal with the works at different points in time. My studio needs to give them information about the way that we created it and the technical decisions that we made. We need to give them a roadmap or flowchart about what the artwork does so that in 20 years when every operating system that we have is obsolete, someone could figure out how to recreate it and make it work.

When you conceptualize a project or an artwork, do you have a preset notion as to what tools or software you are going to use? Or, do you conceptualize the work first and then go out and see what is available that you could utilize?

Ultimately, it is informed by both poles. One being the idea that is driving it, and then we look to available tools to accomplish that, some of which we have or we are familiar with already, and some of which we don't have. The constant in the studio is looking at other practices, to understand what other people are doing, and for a while, I've been looking at a lot of snowboarding and skateboarding videos to understand how they are filming them and what they are doing. There are so many parts to this process that there isn't any single process, because we are capturing, editing, and writing software, we are using displays; there are a lot of pieces. It is an organic and evolving process. In the last couple of years, it is more streamlined because we are utilizing similar approaches for different projects.

Do you ever make decisions about the technical specifications of components of your work in relation to the long-term needs of the file formats, etc.? Or the output of the components [file formats] influenced by production?

I started doing this 12 or 13 years ago —I took my time wading into the water, as I wanted to understand the landscape of new media. An early decision that I made was that I was not going to create my own hardware. Many artists do, and I have a deep respect for their practices. But for me, it was immediately apparent that creating your own hardware created long-term archival problems. For example, I love the work of Jennifer and Kevin McCoy. They make a lot of their own hardware. I have spoken with them a number of times about their work, and they talk about the need to maintain a very large inventory of parts. I wasn't interested in that because of the fast pace at which technology changes. So, that basic idea extends into software and other things as well. We use QuickTime file formats for video, a format that has been supported for a while, and it looks like it will continue to be supported. We try to stay with formats and software that is supported. A while back, we were using open-source software to create work and we made the decision years ago to move away from that because we didn't think that the future of that software platform was sustainable.

It was a very conscious decision because open source software is reliant on a user base to keep it going, and from a user standpoint, what we would find, is that if there was a bug, we would have to wait until somebody threw his or her labor at it to make it work. That just didn't make sense that people would keep doing that. For support, we had to rely on people's goodwill to answer questions and solve a problem, as opposed to licensing existing software to use as a platform to build on, where there is a robust support system and user group. There is a for-profit motivation behind the company's sustainment of the software.

If you look at it like a pyramid, we found that with open source groups there is a large base of users who are drawn to it because of the price-point, then you have a few at the top who are hardcore technologists who are writing and debugging. The for-profit software had a much more evenly distributed pyramid – the bottom is thinner because the price-point is higher, but the people who are using it are committed and in a sense are sustaining the future of the software by making it profitable for the company. There is a lot of decision-making made based on these capitalist ideals.

Your position is interesting, as many people are drifting towards open source. I have been in the technology industry for a long time and I always take the position that open source, while it is free, it is very expensive to implement and maintain. I shy away from open source for that reason, but I know that I am the minority.

That really informs everything, all the way through conservation. The best practices are being defined by the people with the most skin in the game.

Do you think other artists are consciously making these types of decisions too?

I don't know. Artist is a big word. I can speak generally, not with authority, about the group that I think I am a part of—artists who are working with galleries and museums. If you are in that group, you are paying a lot of attention to these questions because if someone is going to buy your work, the collector will ask, "How do I maintain this? How do I preserve this?" You are going to hit that T in the road very quickly. As the price-point goes up, in fact, you are asked that more. Collectors want to know, "What do we do with this?"

In 2001, when I started making new media works, I worked with Bitforms Gallery in New York. They were showing "new media" and at that time that meant something, now, I don't think it means that much. I think people now identify as artists and not so much as new media artists. Back then, when those questions were asked, there was kind of a wink and a nudge, people were told, "don't worry about it, it is going to be fine." But, knowing full well that it would have to be professionalized and standardized to some extent.

As I continue to make work that is collected by different private collections and different collection types, all the work would have to have redundancy for back-up, redundancy for software, we would work with collectors to get the longest possible warranties for all hardware. Sometimes we would use third party vendors to get extended warranties on hardware. This is a long way of answering your question. It is always a conscious part of the decision making process. It has to work ultimately.

Are there places that artists can go to learn about how to prepare their pieces for collection? Are there resources?

It's a good question, but I don't know. Galleries often act as the mediators. If you look at the flow of goods from artists' studios into museum collections, the majority of it is mediated through galleries. Galleries are a natural place for that education to be requested or demanded. Certainly, I went through a learning curve over the years. Steve Sacks at Bitforms, he and I went through a tremendous learning curve in the first 5 years that we were working together. He was pioneering web work and everything and trying to commodify that for the market. We had so many discussions about what the best practices should be. I think that galleries are in the front line—I'm sure you have seen this. Some artists will put firewalls around themselves and let the dealer work with the problems. Another artist, I think Bill Viola has a client portal on his website and they are very proactive about being able to support works. I think that is where these conversations started, and I don't know if this has been standardized, I assume that through education institutions that there are programs for this, but really the best practices that I think that I, as well as others look to are in the parent industries in the different subsets of technologies that we use. For example, for video preservation—I don't know anything about video preservation—I'll look to the digital film archive or MPAA's recommendations and guidelines for this stuff, or what does Sundance have. Their problem is much larger than my problem. When artists get hip to the fact that they really have to think about how to preserve their works, they start to look to the professional organizations. If they don't do that, their careers will be very short in the art world. It is no different from deciding to paint with some elusive self-destroying paint, if you did that, you'd have no future.

In relying on the industries for a lot of this information, have you noticed any holes or things that you would like to see in terms of guidelines and best practices specifically for the work that you are doing, or for artworks?

It would be great to have information about best practices amalgamated in one place. It would be great to have a definitive resource, because there are differences between the way these different organizations think about it and it is constantly changing. If a website hasn't been updated in 12 months, it's of limited use. For example, let's just take one aspect of it, let's say this was simply for time-based media; it would be wonderful to have a place where I could find out what was the preferred coding file format right now, according to archival museum standards. That would be great. The Tate has Matters in Media Art and they have a best practices guide with some other organizations. I think that would be great for the individual aspects of new media and technology-based works, if there are definitive best practices.

The process that we went through for the acquisition of the *Cube* project with the National Portrait Gallery, that was eye-opening; we spent so many meetings with them- looking at what is the file format, what is the digital migration strategy, and the software will be

obsolete at some point so let's create a giant flowchart that shows how to remake it. I don't think a lot of artists think about that when they are making computational work.

That was all part of the acquisition phase for the National Portrait Gallery?

Yes, Anne Goodyear called and said, "I think we can do this, but we have one question, we want to be able to turn it on in a 100 years. How do we do that?"

I said, "Give me a couple weeks." We came up with a strategy strictly on the software side to create a roadmap.

One of the thoughts I have as we are storing these works in our repository is about the protection and tracking of them when we start to loan these objects, which is sort of similar to industry's concern about copyrights and people copying and sharing video. Do you have any insights or ideas on the loaning or sharing of digital art works that would be different from the video industry?

When we loan works out from the studio, they usually fall into two categories: computational and fixed loop in Blu-ray format. Generally, we follow the standards of the gallery or the museum in terms of how they are accounted for, insured, and all that. We will sometimes create an exhibition copy for the computational works. That copy can go out and get beat up a bit while the original one stays home. As for copyright, I believe the horse is already out of the barn. It has already happened. I think attempts to create digital keys to restrict use- I think it is a different culture now. For example, would I be irked if I saw my work had been shot in a museum and changed? I don't know. I might be interested and engaged in it. To be honest, artwork is low level in the larger world of media consumption. I think most artists would feel that if their art is getting out there in some format, on a net balance, it is probably positive. I remember years ago there was a group that was interested in doing a digital encryption for digital artworks and that may at some point happen and make sense. However, the market wasn't big enough and there just seems to be more people trying to get their work out than restrict the viewing of their work.

You mentioned that the process that you went through when the Portrait Gallery acquired your work was a protracted process, or at least involved a lot of meetings, but at the end of that, was there anything that emerged that you could transfer to similar situations in the future? Or, do you think with these types of works, it really has to go work-by-work and looking at all of the individual idiosyncrasies of the individual piece?

I think that question can be answered in a couple of different ways. On a macro level, absolutely. Anne's question was, "In a 100 years, someone is going to turn this on and it isn't going to work, so how is this work remade?" She was really asking, "What is this? Walk me through the process. Walk me through the intent. Walk me through what you

want it to look like. Give me everything that I need to understand what this is." When we create a work in the studio, I certainly think that way now. We know that we have to document every step, for everything, for usability, for archives.

On a micro level, this is where we see the differences between how artists produce work and what tools they are using. But at the highest level, it was a great question that Anne had. How can you make this work knowable to somebody else in the future?

When you are packaging a work, depending on where it is going—if it is being collected by a museum, etc.—are you able to make classes of works where you can rely on certain formats, at least for now? Are you able to standardize that in some way?

It used to be that it would all go out on DVD. Now we do Blu-ray to get HD and longer play times. We try to do that too because the flip side is that you create a logistical nightmare on our end if you have 10 different things, a flash drive, DVD, etc. We have been standardizing some of our practices in the studio.

The generative pieces are so complex with thousands of files. Are you able to package that in a way that museums can more easily acquire it?

Yes, we are very clean in our software architecture and our file formatting. We always approach whatever we send out—beyond a Blu-ray—knowing that we may have to talk the recipient through it, maybe over the phone. So the more consistent that we are in our structure and the way we put things together, the easier our jobs will be in the long-term, for both troubleshooting it and preserving it. We'll always know how everything fits together. We'll know something from 5 years ago, exactly how that piece was made, what the components are and where they are located, and what their names are.

Working in new media, we maintain a "tech line" essentially. When something goes wrong, and it does, people call us. Our archive here, we have to be able to look that work up, what the components are, what age each component is, what the software hierarchy is, where it should be in there, and then try to walk them through troubleshooting it. With a number of collectors, we have remote access to their works, so we can troubleshoot remotely. In addition, we do upgrades. If there is a software or hardware change in the larger technology world, we will contact our collectors and suggest that it is a good time to upgrade, for example, we'll say, "The machine is 7 years old and is nearing its lifespan, let's migrate up to a new software platform with new hardware, and here's what it will cost." We always try to keep our studio costs at an absolute minimum because we want them to do it.

That is impressive diligence in the maintenance of the works. Do you feel that responsibility belongs with the artist? Whose responsibility do you think it is?

In the food chain, who is it going to fall to? The artist. The gallery is not going to do it. They are not prepared or equipped to do it. If you think of a typical gallery with 20-30 artists, who is dedicated on staff to know if a machine is going to be due for an upgrade, nobody. Bitforms Gallery has been around for 12 years they are at the top of their game in this field and they don't have the ability to do it. So, I think it comes down to the artist.

So, the question is, "What happens when it breaks?" And I say, "Call me." Then they say, "Great, but what happens if you get hit by a bus?" [Laughter] I tell them that we have everything archived and backed up in a vault here in the studio. Whoever is responsible for the [work] will have a clear roadmap as to what they they have and how it is preserved.

I'm interested in the setup of your studio archive. Could you tell us more about it? How did you decide to set it up? What resources do you use? Do you look at standards from the archive field or digital preservation fields? How do you stay informed to develop best practices for your studio archive?

Again, it is a component-by-component basis. On the video side, we'll know that some of the works sitting in our safe are 5 or 6 years old and are on QuickTime, we'll know that we should think about migrating them to the current generation of QuickTime to make sure that we stay current, and then archiving the original version. We bought a fireproof gun vault with an Eagle on it, keep everything in there.

On the software side, it is constantly changing. That isn't really archive based or best practice based, that is just mandated by the software platform that we are using. We use Mac MSP and Jitter which are programming language originally designed for MIDI music, and the company Cycling 77 is constantly issuing updates to their software, so that is somewhat self-perpetuating forward. Those are the two main components that we use. Everything else is hardware based and there are a lot of forced changes because there are technological shifts, for example a Firewire from cameras into computers for capture is outdated. Therefore, we have to reprogram around USB 2 or different formats. It is a constant migration. What we have more control over is the stuff we archived, which is the software and video. For the rest, we sort of roll with the changes.

It sounds like you use your knowledge of current works to be diligent about past works and migration.

Sure, it's knowing there is the new version of QuickTime and we have to migrate up because it is a substantial change.

As an artist well versed in technology, or at least the technologies that you work with, are there any resources that you utilize to stay informed? Are there any listservs or websites?

Two and a half people work in my studio. One of whom, James Murray, does the software development in house and everything technical. So, a lot of what we are looking at, since we are using QuickTime off of Apple's website, is things like Apple's website to stay current. It is almost that simple. That's on the video side.

On the other side of it, there is a lot of stuff that will do with—for output there is a lot of computational work that will be pushed to a graphics card rather than have it turn to a CPU. James is constantly looking at what efficiencies can we get in utilizing graphics cards. There is a lot of that kind of stuff. But, it is changing constantly. Gaming is driving that, it's not video art that is driving that.

Do you try to stay up-to-date with tangential fields?

Oh, sure, I look to other people who are professionally producing in other fields, and looking at what those people are using.

I'm interested in the work of many professional filmmakers, and they will talk openly and candidly about what they are using, how they are using it, how they are storing it, how they are shooting it; there is no one place that we are looking, it is a very wide net that we cast.

In working with technology, is there anything specifically that has been challenging?

The challenging part is the typical duality: the greatest strength is also the greatest weakness. The greatest strength is that you can do whatever you want to do; you can create whatever you want. The greatest weakness is maintaining this stuff. That is the complexity of working in new media. It is not like painting, sculpture, or printmaking; and despite its historical linkage to photography, it is still very different from photography. I think that is the biggest, single challenge. Out in the real world it is still a nascent art form that is slowly being institutionalized through museums and larger private collections. So, you end up wearing two hats all the time, one of being an artist and the other of being somebody who is really paying attention to the technical side of it. For thirteen years before I did this, I made sculpture. There were large, craft-based organizations, where I could go for answers on how to weld steal or cast bronze. That was pretty straightforward. However, this is a completely new area to work in, so the challenge is staying abreast of something that is constantly changing, and being up for it as well.

A lot of students who come through my studio interested in this, they wind up on the agency side, working for ad agencies, and I stay in touch with them, and there is no eye towards long term there- because the things that you are asking about are obviously very specific to a specific group of people.

It is pertinent to our group also, as a collecting organization that is drawn to this type of material, and that has a responsibility to care for it.

I have a friend who has a film production company. Over the years, he has really helped me to understand best practices for archiving, creating redundancies, storing and updating things, from his lens. For professional development in these areas, that is who [we can watch]. The film industry has the most to lose; therefore, I think there is more time and energy spent in perfecting their strategies.

Are there any training opportunities that you would be interested in? And what would those look like?

The learning curve that I went through with Anne Goodyear's question is one that I think would be great for other artists to go through. That would be a phenomenal thing. I can see it on the front of your TBMA webpage: "We want to turn this on in a 100 years, how do we do it?"

I think trying to answer that question would provide the greatest resource—how do you think about this long-term? What are the challenges and what are some of the solutions, or ways of thinking about it? I think that would be a great resource. A lot of the information out there is designed for institutional use. So I think your job would be a lot easier if it started on the creation side, the artists' side, in forming best practices.

I don't know the answer to this question but, at Columbia College here in Chicago, they are good at instructing students in film; I would bet that they have a best practice for preserving stuff in their program. I think it is awareness. I don't know if everyone has to go to the end of the road and create roadmaps for each piece, when there is the question of whether or not it will be collected or purchased, but I think an awareness of, "how does this stuff work? What will happen to this stuff?" Putting it on YouTube is not archiving it.

I think those are all questions. I think it is very easy to get bogged down in details. A place to start would be to create a kind of detailed genealogical survey of all the different subsets of new media, at a parent level.

What did we forget to ask you? Any parting thoughts?

I think the larger—and having spent a while on the gallery side of this—the Smithsonian was the most diligent and comprehensive in asking archival questions, by far. I think that that recursively made me think more about my practice and how to make it conform or be in line with these ideas.