Interview with Richard Rinehart

Richard Rinehart is the Director of the Samek Art Gallery at Bucknell University in Lewisburg, Pennsylvania. He was formerly Digital Media Director and Adjunct Curator at the University of California, Berkeley Art Museum

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Interviewers: Crystal Sanchez and James Smith

Please start off by talking about your professional work with time based media art and digital preservation.

My undergraduate degree is in studio art, or art practice, depending on how you refer to it; my graduate degree is in art history. I started as a painter, but after I moved to Berkeley I had a post-graduate crisis about where I was heading. I had a job at the U.C. Berkeley library working in the reference services department, and for some reason I was good at these newfangled computer things. They were switching from the card catalog at that time, getting more computers in the offices, and getting more requests from patrons to take away research results on a disc, and I was the person in the office that "got" all of that stuff. It wasn't originally what I was hired for, but it became a big part of what I did.

I was still painting and sculpting at the time, and the developments at the library came to inform my art practice. I looked around and thought, "I don't have to make paintings to do art. I work with these chips, boards, and software all day long. I can make art out of that." So I made a few works like that and became the first artist to sell a work of digital art on eBay; this was way back in the day, and *The New York Times* wrote it up. I was no Cory Arcangel or anything like that, but I got into it fairly early on in the 1990s.

When I started working at the Berkeley Art Museum, I took that interest with me. Anyone my age or older who is active in digital art knows the field has since professionalized a lot recently, but back in the 90s there was no training and no typical profile for a digital curator. People from my generation backed into these jobs in strange ways, and they were coming out of very diverse backgrounds. I got into digital and media collections because I knew the technology, and that became a bigger part of my job description over the years. I also worked on the IT side of things—setting up the remote servers where we could back up our digitized video and that sort of thing. I was the digital-art Jack-of-all-trades.

That's where I started thinking about not just making technology-based art, but exhibiting it, collecting it, and preserving it. I thought, "I'm making this stuff; other people are making

this stuff; net art is taking off." A signal year was 2001, when there were two big shows—one on each coast—that seemed to mark a sea-change moment when digital art started to be accepted into the art world. The Whitney had the shows *Data Dynamics,* and *Bitstreams*. Then across the continent, at SFMOMA, there was the show *010101,* which was their first big show of digital art. Both of those shows got mainstream national press. I started to see that pretty soon we were going to start collecting this stuff, and then it's a short step to preserving it. So I got an interest in media art preservation early on, and initially it seemed totally intractable—an enormous problem for which there was no apparent solution.

In those early days at the Berkeley Art Museum, I got involved with some colleagues from around the country who were interested in similar problems, and we wrote a few grants to research the problem. One was an NEA-funded project called Archiving the Avant Garde, and some of the partners included Franklin Furnace in New York and New Langton Arts in San Francisco; I think the Hood Museum at Dartmouth was part of that grant too.

Other grants followed. We were trying to figure out how to preserve not just digital art, but other non-traditional art forms. We quickly discovered that a lot of the same problems are shared by performance art, installation art, conceptual art—those art forms that sprang up in the 1960s and that museums still have problems with. Certainly, digital art is unique in some ways, but it is not completely different from anything else that had ever happened. So we studied those problems; there was the requisite publishing of book chapters and presenting at conferences and blogging and engaging in panel debates and online discussion groups.

I met Jon Ippolito when he was at the Guggenheim Museum, and that was fairly early on; there were not many of us in those days. The Guggenheim exhibition *Seeing Double* was funded out of one of those grants that I wrote at Berkeley that they were a part of. Jon had started the Variable Media Initiative at the Guggenheim, and I became a member of that. As part of the Initiative, they built this FileMaker tool called the Variable Media Questionnaire. The whole premise of that—which he and I still share—is that we need to create documentation that guides our re-creation of these works in the future. We thought that treating works of digital art as if they were marble sculptures was wrong-headed, and would result in their early death, and that we needed a new approach that did not privilege fixity and stability, but guided the inevitable change in these works over the years.

We both knew that a past- or even present-oriented type of documentation would not be enough. For example, a recording is a type of documentation that looks to the past. It says, "Here is a snapshot of this artwork at a specific moment in the past." That may be indirectly helpful for the future—but only very indirectly. Even a present state of description, which is where a lot of metadata schema come down to, will be purely descriptive: "Here's a work

of art; here's what it is; here's what it's made out of; etc." That type of documentation is also fairly fixed in time, and at best can help indirectly to re-create a work in the future. A type of documentation is needed that takes the approach that we will need guidelines for re-creating these works in the future.

On a separate track at U.C. Berkeley, I had been involved in the development of metadata standards. When EAD (Encoded Archival Description) was being developed by Daniel Pitti at Berkeley, I was trying to figure out if museums could make use of it. Since I had been in that world—working with libraries and archives and standards groups on those early metadata standards—I brought that mentality to this question of preserving digital art.

The members of the consortium agreed on a future-oriented approach, and the main tangible result so far has been the Variable Media Questionnaire tool, which is a template for an artist interview with a container for the answers and parameters. But as yet, we do not really have standards or even a proposal for standards. So I essentially looked at that tool and tried to formalize the underlying ontology—to say, "Okay, here are the assumptions under which this tool functions; here are the metadata elements it wants to capture." So I set about formalizing that, which is what eventually resulted in the Media Art Notation System (MANS), which is an adaptation of the MPEG 21 metadata standard.

I did that for a couple of reasons—maybe one reason, if you bundle it together. When I was looking at the Variable Media Questionnaire and thinking about the documentation that was needed, my background in standards told me, "Don't reinvent the wheel. Look around—is there already a standard we can use or adapt?" So I started to do more research in the field and to look into library standards like FRBR to see if these could be applied to my case studies of this kind of art. But the answer was no; none of the existing standard could be applied in the whole cloth.

So I wrote the MANS, but it really was not so much to propose a technical standard and then shepherd it through the process of getting community input and ISO or ANSI stamps of approval and all of that. It was always more of an exercise to model a metadata standard for the preservation of media art by way of saying "Here's what will be needed in such a system. Here's why you can't use existing standards as they are. Here's where we could borrow ideas and parts of them. And here's what will be needed for this special case."

Some people might adopt it as a standard, but I wasn't aiming for that. And I wasn't willing to devote the rest of my career to seeing it through the standards process. I was more interested in floating it out there, so that if some museum wanted to develop a tool to help preserve media art and it did not want to use the Variable Media Questionnaire—maybe they might not like FileMaker or might have a different take on it—they would have a

formal metadata model that they could refer to. They could look back and say, "Okay, this guy argues that any metadata standard—whether descriptive, structural, or technical—is going to need these elements if it is to serve media art well."

It never became a formal standard, but some organizations did pick it up to a certain extent. In some places, it is maybe just something people read and kept in the back of their minds. Others adopted it a little bit more whole cloth. For example, Steven Gray in the U.K. developed what (I think) is called the Performance Art Data Structure for describing performance art which borrowed from MANS.

Fast forward—I was approached by Doug Sery at MIT Press. He said, "You know, there aren't any books on this subject. Do you want to do a book on it?" I said yes, and told him Jon Ippolito would be a great partner. So we're doing that now; the manuscript is done and it should be out next year. Even though we started this a while ago, there still aren't any books on this topic per se, although there are books on curating digital art, books about its impact on museums, and all sorts of stuff that hovers around the topic. But nothing specifically on the preservation of digital and media works; there are journal articles and conference proceedings, but still no book. This will be important, because in a book, you have a lot more space to unpack your arguments and provide historical context. It is intended for a fairly broad audience. We determined early on that we did not want to write just for the 25 other people in the world who have been doing this for as long as we have. We want it to be useful, for example, for graduate schools that have programs in this area, or people in other disciplines who want to learn more about what's going on in the arts.

I recently became the director of the Art Gallery of Bucknell University, and they hired me in part because of my background in all this weird, crazy computer-art stuff. Unlikely as it may seem in this small college town, that's what they wanted. Last spring, I put on the first show of digital art ever presented in central Pennsylvania. The next step will be thinking about the collection; I'm looking at whether it would make sense to make digital art one of the focuses of our collection. We already have some media art—film and video. But if we do go in that direction, I want to do it right, and in a very rigorous way. So that brings us up to now.

Are you familiar with current efforts to come up with improved systems for documenting media art, such as adding a media art module to TMS? And how do they tie into your efforts with MANS?

For a while, I was a board member and president of the Museum Computer Network. Groups like that are gathering places for vendors of computer-based systems, especially collections management systems. In that group, there was a lot of conversation among

museum professionals and systems vendors. I'm much less informed now about those sorts of things, but that's exactly the reason I put MANS out there—as a way of saying "Hey, if you are a museum and you are developing your own tool, or if you are a vendor and you are thinking about creating a tool or module for the documentation and preservation of media art works, here are some things to keep in mind; here are some metadata elements you need to include; here are some relationships that need to be explicit."

I'm a fan of not inventing whole new systems if there are already systems out there like TMS that might be modified in the necessary ways. A lot of those systems have been modified, in the sense that they are better able to handle past- and present-oriented documentation for these works. It is easier to put into those systems objects that capture past installations, as well as present-oriented data elements like duration—which originally were not part of TMS- because paintings aren't measured by their duration the way videos are. They have come a long way in that regard, but based on my most recent knowledge, they are still focusing on capturing past and present information. There is still not a lot of emphasis on the question of how, in 50 years when we have different technology, we can go about re-creating a work.

So you see MANS as more of a conceptual framework that would guide the modification of tools such as TMS? Is that the relationship you see there?

Yes—and not only practical tools, but also other metadata schemas. It tries to build awareness of the unique issues surrounding digital art into metadata systems.

Museums often look to library standards, either adopting them wholesale, or slightly adapting them. That's because libraries are much bigger than museums—there are probably ten libraries for every museum—and because they started the digital revolution a lot earlier, with their OPACs. I encourage that kind of borrowing, because you get good cultural interchange and don't end up re-inventing the wheel. But the downside is that a lot of the library systems are based on assumptions that don't necessary hold for digital art collections. That does not mean you can't use those systems, but they probably will not work just as they are. You will have to tweak them; that's where the idea of MANS came in.

It's okay to cobble together something with pieces from existing or developing standards. That's an accepted practice: RDF and XML and METS—they all exist at different levels and work well together. I did not invent anything new for MANS. For example, I did not invent any new data elements; everything is straightforward MPEG 21. I just adapted them: "Here are some use guidelines for using MPEG 21 in the case of digital art." It was the same for descriptive metadata. Why invent something new? The Dublin Core is perfectly serviceable for that level of information. And so on down the line. If you read the fine print, MANS is a

set of usage guidelines for other standards, and is not itself a technical metadata standard. It says, "Here is how we should use MPEG 21 and Dublin Core and all this other stuff." It's more at the level of the OAIS model or something like that, which is not so much a technical standard as a set of guidelines for how to use standards.

Part of the reason I wanted to put it in the language of a formal XML schema was that the ideas were already out there—the Variable Media Questionnaire already reflected a lot of that thinking—but in the metadata world, people were not prepared to look at a FileMaker tool and extrapolate its conceptual assumptions. For one thing, it was just not on their radar. For another, a lot of them do not come from the art world, so even if they did try to extrapolate those assumptions, they might get them wrong because of their disciplinary background. The people who were developing METS were not going to pick up this FileMaker tool and say "Oh, there are a lot of assumptions in here that we should take into account when we're developing METS."

So I thought, "Let's meet them halfway; let's build a bridge." MANS is a kind of bridge. We are over here in the art world and have done a lot of work on how to preserve this stuff. You are over there in the library/archive world—and also at the Getty and other places in the museum world—developing standards. We'll put our ideas into your language. Here's our thinking in metadata-speak.

How were you able to get awareness of MANS out there, so people knew it was available? When something like MANS is created, what is the best way to distribute it?

Luckily, both Jon and I are bombastic enough that we occasionally grab the attention of our peers. We both remain active online, at conferences, in journal articles. The article was published in *Leonardo*, and I've presented on it at numerous conferences; it will be re-capitulated in the book that's coming out and reach other audiences that way.

But I knew from other people's experience that to get something adopted as a standard, you need an evangelist who devotes a good number of years, if not a whole career, to promoting it. I made a specific choice to get the word out about it as a model, not as a standard per se. But I was curious to see if it would take hold as a standard without having that kind of evangelist behind. If I did not take that role, would it be taken up by someone else? I'm still curious about that. If it serves a purpose, somebody should propose it—or take half of it and call it something else. I'm not at all propriety about it retaining that name or that form. It's more like, "Take what you need."

Did it get out there enough? I don't know. Maybe not. Maybe that's why I still feel like the book is necessary and I still need to be a bit of an evangelist—not for MANS per se, but

rather for the fact that these issues remain relevant. What I do feel passionate about is that the issues I raised are not forgotten. Hopefully, the book will help with that.

Just by dint of being in the game early, I did incite a lot of discussion. I have my own vanity Google alert, and I see myself popping up in various theses, papers, journal articles, and other stuff like that—usually as some kind of footnote from the Jurassic Period. That actually makes me feel good. It's good that someone has taken up this or that part of the argument, and that those things are resonating with somebody. Certainly, I would be very pleased if a vendor wanted to develop a new module for preservation of media art in TMS or something like that, and they used MANS as the guideline for developing that module.

In your role as a museum director, what is your acquisition process with media art works? Are there policies you can apply to similar types of objects, or is every work unique?

That last point is really important, because that is an important distinction between museums and libraries. Museums do item-level conservation and cataloging, and we pay attention to each object separately. Libraries, because of the volume and homogeneity of their collections, can have more systematic approaches to classes of items. That's an assumption that library technical and metadata standards bring in to their schemas and ontologies that is sometimes not explicit. They want a blanket approach that can, for instance, automatically update all the file types for 7 million PDFs to the next generation. By contrast, museums have always paid attention to the individual needs of each work very closely. The fact that a work is digital does not change that; it has nothing to do with the materiality of the work.

Some people in the art world who have been debating how to preserve this stuff have been arguing to the opposite extreme, that everything has to be case-by-case. I think that is erroneous, because conservation does have its methodologies, and you can have a consistent methodology that you apply uniquely to each work. I believe that's what you need to do with digital art. You need methodologies that support certain baseline assumptions, and yet are flexible enough to adapt for each individual work.

For example, Jon and I have both argued that we need to document media artworks in such a way that it guides our re-creation of the work in the future. That means that we have to make explicit a lot of implicit information—which is what metadata is all about. But we don't propose that every work of media art should be preserved forever. You just need to be explicit about what is supposed to happen to it in the future. It might be that you can preserve a work indefinitely by changing out certain parts, and that's okay. In another case, a work might have an entirely different trajectory; an artist may insists that after the Mac

SE that it was created on dies, the work should die with it—that the work should live no longer than this underlying machine.

The point is that you can use the same methodology for both cases. You are just making that future-oriented information explicit. If you just describe the work as it is now or as it was installed in the past, you wouldn't necessary know what is allowed to change. It is important to make that information explicit

Does your work as an artist affect your approach to acquiring and preserving other people's works?

Making this art myself has definitely made me a better curator and director, because I understand the process from a different angle. Especially in those early days, I had to do a lot of the technical work myself, so I had to understand the technology at a geeky, detail-oriented level. I had to know how to write a CGI script that could query a FileMaker database over the Internet—stuff like that. Having that kind of practical, hands-on knowledge definitely informed all of the other discussions around this stuff.

At Bucknell, we already have a pretty big collection for an organization our size—about 5,400 objects. It's mostly traditional painting, sculpture, and a lot of works on paper. It has been developed by various curators and directors and staff over the last 160 years. Since there is no major endowment devoted to the purchase of new works, it has been acquired mostly through gifts, which means that accidents of history have shaped the collection. The collection has to be fairly encyclopedic, because it supports research and instruction in a wide variety of disciplines. As it continues to develop, it will continue to need to have a certain amount of diversity.

I only have three people on my professional staff; then there are some semi-professional staff and a gallery fellow and student employees and whatnot. I am definitely what you would call a small museum, with limited resources. So as much as I would like to be the evangelist for digital media acquisitions, I have to look at the big picture and say, "I already have a collection of 5,400 objects that I need to take care of. So how much can I responsibly devote to this newfangled stuff?" I can't just leave the other stuff behind; it is not only in our care, but it is still used for teaching and exhibitions.

So that's half the equation—I'm stepping back a bit because I have to look at the bigger picture. But the other half of me says that even a small university museum is trying to make a contribution to social memory. We are all doing our part to preserve certain pieces of culture and world heritage. Are we making a distinctive contribution? So far, I would tend to say that we are not. Of the work we have been collecting, similar works or works by the

same artists are collected by pretty much every other college that has a collection in the United States, if not the world. We collect lots of works on paper—drawings, prints, and photographs—because they are cheaper to acquire and easier to store. There are practical reasons for that; but if everyone is doing it, what is Bucknell's contribution?

If we did have a focus on media art, we could be in at the beginning. Even among the big museums, there are very few that are seriously collecting this stuff. In Pennsylvania, everyone talks about the Barnes Collections; Barnes was able to build that collection because he was buying at a time when a lot of it wasn't as expensive as it is now. That's where we are now with a lot of the digital art. Many of the artists are still alive, a lot of them are young and hungry, the work is being produced in great numbers, it's historically important, and it's available even to small players like us with limited resources. In that way, we could make a unique contribution.

So those are the conflicting variables I have to factor into my decision-making. I've talked it over with the administration, and perhaps surprisingly, they have said "You are right; this collection should have a focus. There should be some kind of vision guiding the collection. Media art is not a bad vision, and that's part of why we hired you. So if that's what you want, go ahead and do it." Right now, I just got here and I have a lot of administrative stuff to do. But that's what's in the back of my mind, and I'm hoping in couple years I can turn my attention to the collection in that way.

Metadata standards usually come from the big players—the Smithsonian, Getty, LoC, U.C. Berkeley, Harvard, these kinds of places. As the director of a small museum, I'm seeing the collecting of digital art going that same route: the Whitney and MoMA are serious collectors, and they're hiring professional digital conservationists to work full time. It's very scary for any museum to collect this stuff, but at least the bigger museums seem to have the resources to hire the appropriate staff and so on. They can send their staff to the various conferences to keep them up to date on the state of the art. The smaller museums are less able to do that, so they seem less eager to jump in.

I'm curious how this will play out in the field. Will this new art form in its historically important early period be collected only by the bigger museums? Museums collectively already filter out 99 percent of the art that is made, in terms of what they collect. The top ten biggest players will filter it down even more. Do smaller places have any role to play in this? Or is it just too daunting for us to take on? I don't want to take it on if we're too small to do it right. Do we just have to stand on the sidelines and see this play out? That's a big unanswered question for me.

With MANS, I wanted to make something that was tractable, low-cost, and relatively easy to understand. I did not want it to be something you need a full-time technical person to implement. I was interested in solutions that serve art organizations of all sizes, and for obvious reasons: you get more diversity of curatorial view points, more things are likely to be preserved if you have more places collecting them… There are lots of reasons why you want the small players to be involved. But how do you make that practical?

Cost is really the bottom line for everybody. But cost depends on the methods we develop as a community. You might think a certain kind of work requires $X to take care of, in some absolute sense. But that's never how it actually works in the real world. Ideally, the paintings in our care require a lot more than most museums are giving them; but we still collect them, and we give them the best care we can. There's always that trade-off. If we gave every work of art the level of care that *ideally* it needed, only 100 works in the whole country would be preserved! We have to make compromises, and the same can be true of digital art. We can come up with a Cadillac system and then be afraid to collect anything, or we can come up with a practical system that will actually allow us to preserve more works.

At one point, you were teaching digital art. Did you want your students to think about preservation issues when they were initially creating works? Is that appropriate?

One thing that seems to always come up at conferences is that people say, "Oh, this would be really interesting to artists. We should have all the students in our media art classes scoring these works using a media art notation system. Artists should be trained in all of this and encouraged to use only durable file formats." Etc.

I reject that entirely. Maybe that's my background as an artist. Artists need to be free to experiment, which means they need to be free to work in terrible materials that fail utterly. That's where we as a culture need to let them go. If they limited themselves because of preservation concerns or only used durable formats that would limit the range of artistic expression available to them. That's not their job.

However, I do think the artist community should be informed about these issues, so they can make up their own minds. It's just like photographers: do you want to just work in digital formats, or do you want to print things out on archival paper? Well, it's up to you—as long as you know what you're doing and what your issues are. So I like to introduce these issues to studio art classes. Students are usually intrigued by the thinking about how their work will survive.

I encourage that kind of thinking in other ways. For example, at Berkeley, one of the assignments I gave a class was that they had to make artworks for Superfund sites that

communicated to people 10,000 years from now that the site was dangerous. They had to take into account all sorts of cultural variables: that English may no longer exist as a language, that none of the political entities we now know as nations may exist, etc. The message was, don't assume anything—make an artwork that still communicates the idea that this site is radioactive and dangerous. How can you make a work now in such a way that it endures for that long? What sort of durable formats should you think about?

The students were brilliant, I have to say. You would think they would all just say, "Make a big obelisk out of granite and carve warning signs on it," or something like that. No. They were much more creative. One student came up with the idea to put the site coordinates and various warning signs on millions of pieces of glass that would be distributed across the world. If millions were deposited around the world, some would survive even when the obelisk is gone. Maybe that's how we have to think about digital art.

We have opportunities with digital art that we don't have with paintings and traditional media. For instance, co-collecting. Why not have 100 museums all collect the same work, and share the cost of preserving it?

Do you see any areas of this field that specifically need more research?

I'll turn that question around: I see some important work emerging right now because the field is professionalizing a little bit. There now are (just barely!) some graduate programs emerging, like the Moving Image Preservation Program at NYU with Howard Besser; some people are graduating from there with an emphasis on media art. There are young professionals like Ben Fino-Radin, who was at Rhizome and is working at MoMA. There's a lot of great stuff coming out of there—especially digital forensics. I'm less involved with that, but I think it is promising and should be watched.

But in some ways, I still feel like the canary in the coal mine. I keep finding myself saying "Wait a minute—you can't just take a library metadata system and plunk it down on digital art; there are some different issues." I even feel that way about digital forensics; yes we need it and yes it is great that we have smart professional people who can do it. But are we still forgetting the artistic issues that need to be considered before we even get to the technical solutions? How you frame an artwork, and where are its boundaries? What is important to preserve about it? Is it just its behaviors and functions? Or is it also its form and historicity? Where are you going to draw that line? Art is different from a library book, because you have those kinds of questions. Art works are nothing if not carefully considered instances of the relationship between ideas and media. You need to have those conversations before you preserve the files or implement any kind of practical solution. At the same time, I don't want to be the grumpy guy who stands up in front of these people

and yells, “Hey, wait a minute! Let’s talk for five more years before we do anything!” So I guess I have to let these smart people do their work and help the field where I can; the answer lies in parallel processing.