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THE ARTIST STRIPPED BARE OF HIS PAPERS, EVEN: AN INTERVIEW WITH CORY ARCANGEL

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ABSTRACT

We have all heard some version of the story where a hard drive sits, oddly juxtaposed, next to a priceless painting in the conservation lab. But, how exactly does one initiate the conservation and preservation of new media (e.g., digital, hypertext, or hacked objects), moving image materials, and artworks in preparation for museum acquisition? What will artists' digital notebooks look like in the future, particularly if the artist is not around to explain file naming and hierarchies, or even hint at relationships between files? Using examples from a collection assessment of artist Cory Arcangel's (b. 1978) early optical storage media, videotape and hard drives, this presentation provides one approach being taken to ensure the intelligible longevity of non-traditional media.

INTRODUCTION

The instability of archival practice with regards to artist-generated data is both terrifying and exhilarating. What will survive of contemporary artists' "digital papers" once these artists are no longer earthbound? The best work, or the best-organized work?

In the spring of 2009, the digital artist and general computer enthusiast Cory Arcangel and I worked together on an assessment of some of his personal files and older computer artwork, circa 1999, which had been saved to CD-R optical data discs. The goal was to create a replicable example of organizing and understanding artists' computer files by establishing basic and standardized directory

structures, distinctions between "working" component files and "finalized" files, and file naming conventions "series" categories into which we would try to define all of the CD-R data.

Starting with a sample swath of the discs, we migrated data from 31 unlabeled CD-Rs to new hard drives. A data cataloging software called CDFinder spat out an inventory list of all of the files, 13,118 in all. This inventory included only the most basic info about the files—usually the date of creation, and some kind of file extension code. Some of these extensions are pretty obvious and still in use—it's not like anyone is frequently repurposing ".wav" or ".doc"—but many are less familiar. This is especially the case when considering files from the mid-1990s, or when working with a technologist who recreationally plays around with antiquated software.

PART I: "SO LONG, METADATA"

Legacy computer files (those created on obsolete equipment and software) can sometimes be divorced of their original metadata (info about the files) and their relationship to directory structures (folders in which they were stored) once they are migrated off their original hardware. Stripping a file of its technical metadata is actually a pretty simple thing to do, and can even be something other software is programmed to do naturally when reading files. For example, just try embedding some simple audio metadata in the ID5 chunk of an MP3 file, using the open source software Audacity (e.g., song title and artist). After saving the file, open it in Apple's iTunes and you'll quickly see how easily such basic yet important metadata can disappear. Without the artist or creator around to identify just what the heck a file and its function are when approaching the contents of a hard drive full of data, identification and categorization can be a gargantuan challenge rife with inaccuracy.

Take LHA files as one random example. Files with ".lha" extensions were something likely created on a Commodore Amiga DOS system, which often used Haruyasu Yoshizaki's 1988 freeware LHA compressor to make them smaller in size. But, can we really be sure that is what they are? What kind of file were they before they were compressed with LHA? What role did the compressed file play within the context of a larger artwork or project? Was that work ever finished and intended to persist for history, or is it simply the product of a fun afternoon of playing around? As an artist interested in programming and deconstructing computer software and hardware, Cory's case makes one feel like that anthropomorphic, sad-faced icon that appears on-screen when a Mac Classic crashes.

Application and software files present another example of this file-identification conundrum. For Cory's collection, what should a "digital conservator" make of early Apple LISA application files, stored on old CD-Rs? Is this application something common, quotidian and unremarkable–like me downloading RealPlayer in order to listen to RA files of Harry Shearer's *Le Show* broadcasts? Or, as was the case with Cory, is the file something that a digital artist was once hacking, basing new programming software on, and even creating version-specific files with? (Oh, yeah, for perspective's sake, remember the likelihood that there will be hundreds or thousands of different file extensions.) A logical recommendation would be to save everything, but such an approach doesn't get us very far in understanding such "artists' papers," or deciphering their nature and relationships to other files. Sadly, saving everything via drive mirroring/imaging, is the extent of preservation strategies in many institutions. Even if the artist is alive, will digital conservators and curators be able to convince an artist to certify (or even guess at) the nature of each individual file?

> **Walter Forsberg:** Man! In 30 years, what will you say to art conservators staring at your hard drive in their conservation laboratory? "Good luck?"

Cory Arcangel: Well, it's gonna take a little extra work and a little extra specialized knowledge. It's gonna need personal care. It'll be a big puzzle… but it could also be completely un-navigable.

WF: Yours may be a somewhat exceptional case, but do you think that museums and collecting institutions employ the kind of technical expertise required to solve these kinds of dilemmas?

CA: I don't know. Some museums employ like 500 people, so I would hope that at least someone would know. Do you think that's a bad answer?

WF: No, I just don't believe it.

CA: It's so hard to say. The ideal would be to leave everything orderly and discernable, but that will never happen.

WF: At a recent screening, the filmmaker Ben Russell said something to the effect that, as contemporary society raced towards notions of complete knowledge and meaning, he became inversely more interested in the obfuscation thereof. Sometimes, I contemplate similar things about the possibilities of archiving and saving "everything." Not only will there be too much crap to ever sift through, but material will be infinitely less exciting to discover—kind of like how targeted Internet advertising can kill the magic of coincidence and happenstance discovery. I'm thinking here of a Jean Baudrillard phrase, from a different context, "the tragedy of a Utopian dream made reality."

CA: I often think of my emails. I don't know if I have *all* of my emails since college, but I think I do. So what about that? At a certain point that's even more than what we normally have in archives for past artists. We might have the odd saved letter or correspondence. But, I write, "yeah, that's great," or, "keep me up to date on that," like a hundred times a day. It's just this ocean of mostly meaningless communication.

PART II: EMULATION/ITERATION

Sorting out original computer file hierarchies and making "digital artist papers" intelligible may surely be a technical hurdle for future archivists and conservators, but the task of making antiquated technology function beyond its commercial lifespan, when it's integral to the exhibition of an artwork, will likely be a more significant (and plausibly impossible) challenge.

This quandary has a greater body of precedent, with the often-trumpeted approach being emulation—the idea of programming newer software to mimic the operation protocols of old hardware. In essence, old software and files can be made executable in the future via a strategy of basic platform trickery—so long as a museum or gallery can afford to hire a savvy programmer.

Jeff Rothenberg, the former senior computer scientist at the RAND Corporation, is the man synonymous with the emulative approach to digital preservation. This is mainly due to: (1) a paper on the subject he wrote for the Council for Library and Information Resources in 1999 (Rothenberg) and (2) for his consulting role in the Solomon R. Guggenheim Museum's restaging of Roberta Freidman and Grahame Weinbren's interactive video/computer artwork, *The Erl King* (1983–1986), for the 2004 Guggenheim exhibition *Seeing Double*. Rothenberg posited that emulation was pretty much the only way that any long-term digital preservation strat-

egy could remain, "completely neutral to the form and content of the digital material it preserves" (1999). Nintendo enthusiasts enjoying many a Friday night round of the 1980s masterpiece, *BurgerTime*, on their new PCs would seem to offer strong supporting evidence for this claim. But as Rothenberg discovered consulting on *The Erl King*, emulating an artwork presents a whole different universe of case-specific problems.

WF: What are your thoughts about emulation in the future, for something like 2005's *Super Mario Bros. Movie* (made in collaboration with Paper Rad)? There are online emulators that enable watching the ROM version at home, but how will it be exhibited in a gallery when there are no more functioning NES (Nintendo Entertainment System) decks?

CA: I would never want the ROM exhibited in a gallery context, but certainly within the exhibition publication and press materials and website I would want the ROM pointed to as something you tell people, "download this and watch it on your personal computers." Because I think that when people personally interact with a ROM and an emulator, they understand what is happening. To a large extent, they understand that emulation of an original *something* is happening. Whereas if you take an emulator and put it in a gallery people think it is just a video.

WF: So you wouldn't ever "fake" the NES deck artifact while using an emulator? Like that recent DJ trend of using their old Technics turntables with the Serato software to virtually "scratch" their MP3 files?

CA: I would never want to fake anything. If, in 100 years, it doesn't work—then you have to show documentation of it, like with performance art. You know, I went to the Whitney's [Alexander] Calder show last year and none of the works moved anymore, which was kind of a disappointment. He made all of these mechanical moving things, but I think that they're just too old to function anymore. They might work but to show them would damage them more. Maybe someone should make versions that move again, but it wouldn't be Calder; it would just be a museum educational display made by conservators.

WF: But, because of format specificity *vis-à-vis* obsolescence, doesn't the idea of the artwork, in a way, become the artwork in the long-term? Works will need to be re-imagined, re-staged, and "cooked" again according to a recipe, no? Furthermore, how do you claim authenticity for a certain version of a work, in this context? Like, what exactly will *Super Mario Clouds* (2002-) be in 25 years—a hacked physical item, an instruction manual for others to do the same, a ROM code, or just a scrolling video loop on some random website? Plus, didn't you completely rewrite the ROM code for that piece in 2009? Are certain versions more authentic than others?

CA: Yeah, that sounds good. I mean the phrase, "it's an idea," sounds kind of annoying. And, for someone to say that just makes your eyes roll. Aside from that, when I was making it I knew that it was going to exist in these different ways. It

wasn't necessarily a conceptual project, but more that this kind of stuff exists like that. The artwork itself isn't necessarily about it being distributed in different realms, but I knew that that was going to happen. And, I made it friendly enough so as to kind of push people towards that. They're all part of it, and one is not particularly more *Clouds* than another. Each of them works in a different kind of context and none of them are more important than the rest because they're all part of the original. And, when someone in Japan makes one out of a Famicom cartridge and spells my name, "Coly Arcangel," I consider that a success. Or, when it gets put on UBU Web or whatever, like all these weird people who take the GIF and put it on their website. Those particular works were about revival dispersion.

WF: Like some kind of graffiti tag—you, going around the Internet and tagging everything?

CA: Yeah, yeah! The best project like this was by Olio Lialina, who made GIFs of herself—one hula-hooping, one dancing—and they just look totally like normal cute little GIFs. She just put them on her website and they spread to all these user pages. That, I think, is the best project that deals with vernacular use of artwork. It's one of my all-time favorites.

WF: This reminds me of your intern Joe helping you remake some of your *Color Gradients* (2009) [enormous *objet d'arts* tableau reproductions of Photoshop color scales].

CA: That's right–he helped me figure out what I originally did because I lost the piece of paper I had it written on. Those could be remade. But, then again, in ten years I could just say that those shouldn't be remade anymore; there's another answer. That's another possibility.

WF: So, what will be a more valid instruction for the piece? For someone whose job it is to conserve stuff, should they listen to you now or listen to you in 10 years?

CA: As an artist, I would say that you should always listen to the artist's most recent wish… which is like saying you should listen to a storm. Cause, it's gonna blow in a different direction every two seconds. I remember reading about artists who withdraw movies from their filmography and, some days, I'll just delete works off my website when I wake up in the morning and decide that I don't like it. But that is the historian's job to go back and discover these things and connect them to the path of the artist.

WF: Should we take George Lucas to task for not letting us see the original, unadulterated *Star Wars* (1977) anymore?

CA: He's doing exactly what creative people do, because it's interesting. It's a terrible thing to do in a way, but I relate to it because I do it too.

CLOSE COMMAND

Whether the goal is the preservation of personal correspondences and notebooks that will inform the future study of an artist's body of work, or the successful exhibition of computer-based works for many decades into

the future, media preservationists and art conservators will need to radically alter how they collect such documentation. While the concept of data migration may be readily understood by information technology specialists, such a strategy requires a far more frequent and ongoing regimen of care than analog media once demanded, or than some fields of art conservation are used to. Professionals in both art conservation and media preservation fields will need to begin to actively seek out artist's papers and documentation in advance of their passing, and establish a working rubric for how, and what kinds of, data is organized for the long term.

As proved in the case of the assessment of Cory's CD-R files, even the simple demarcation of files into basic series-level categories such as image, sound, or video files, and "working" vs. "finalized" files, can be invaluable for understanding the relationships thereof. Even if an artist is alive, this may be the extent of first-hand organization that time and resources permit. More granular analysis of file relationships, post-facto, may reveal more about the files and associated works, but it is unlikely that any retroactive understanding or explanation of file relationships can be as reliably helpful when compared to a digital preservation model that stipulates organizational relationships for the front-end of production. Getting artists to employ such a model at the point of production is another matter, but that does not mean that they might not periodically deposit a selection of such "working" files with an institution's digital repository—many already annually deposit hard drives with galleries. Simple best practices like standardized naming conventions for files is a great example of how this seed of preservationist perspective can be planted at the point of artistic creation.

While legacy data is unlikely to have an original MD5 or SHA checksum (or, bit order verification) value associated with it (especially if stored on a CD-R), migration of the data (and the subsequent generation of checksums for the data) is a crucial procedure that will help to ensure the integrity of bit streams over the long-term—long after the original CD-Rs are unreadable (due to organic dye layer separation, hardware obsolescence, etc.). Additionally, the value of geographically-dispersed redundant copies is a lesson perhaps most incredibly learned in the case of the Dawson City Collection (silent-era, 35mm nitrate films, considered forever lost, that were inadvertently stored in the Yukon permafrost for decades), but is equally relevant in the realm of equally fragile data.

Already an accepted imperative procedure, artist interviews will need to evolve to not merely include an art conservator or curator, or both, but also a specialized technologist who will be better capable of asking specific questions to inform future conservation decisions made about an artist's digitally-produced work. In the daunting face of politicking and bureaucracy, museums and galleries will need to aggressively acquire the information technology, library science, and metadata skill sets if they are to maintain their ever-important curatorial and custodial roles into the future.

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