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“What are we doing? and Why? Motion Picture film
and the digital transition era”

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[[Slide #1: Intro]]

In 2010, Jen Sidley asked me to be on an AMIA panel to discuss my experience with scanning motion picture film. My archive had commissioned Jeff Krienes to build the prototype model of his Kinetta motion picture film scanner. At the time of that talk, I had been scanning film for over a year, really just playing around to see what was possible, how things looked, what on the scanner needed improvement. Here it is, 2014, I still haven't created a digital preservation master by design. Some may see this as dragging my feet, but I'm inclined to see this as a good thing. I believe we still have much to learn about what is actually possible in the realm of imaging motion picture film. This is what I've been doing.

So what are we doing? We are the Association of Moving Image Archivists, so one might say that one of our goals is to preserve the “moving image.” True enough. But this in itself provides no direction. As we attempt to figure this out, let me put forward four rhetorical strains that have structured much of our conversations about moving image preservation in the past decade: *digitize analog media or lose it ; film is dead ; manage your digital assets (or lose them) ; access leads to preservation*. While there is truth in

¹ This talk was delivered to the Association of Moving Image Archivists at its 2014 annual meeting in Savannah Georgia on October 10th. I chaired a panel that included Ken Weissman (Library of Congress National Audio Video Conservation Center) and Jim Lindner (Media Matters). The order of presentation was Wilsbacher, Weissman, Lindner. This talk was accompanied by 15 presentation slides.

each of these, together they don't lead to a clearer understanding of what we should do with our motion picture film during this transitional era.

[Slide #2: let's be very specific about what we're talking about when we speak about digitization and preservation. "Moving Image" and "Audio/Visual" are handy, but they risk muddying the waters.]

We are now routinely confronted with the language of "crisis," with declarations that we must convert our analog moving images now, or lose them. Examples aren't hard to find, so much so, that this mode of thinking has become, in effect, normalized in our discourse. The AVpreserve's video describing the rationale for its recently released "Cost of Inaction Calculator" trades in this language with quotations from Richard Wright and Mike Casey.² In fact, that video invokes the specter of a natural disaster as a metaphor for our current preservation 'crisis' to motivate our work between now, and the year 2028, "The End" for what it calls "audio visual media."

Alongside the convert it or lose it rhetoric flows the death of film rhetoric, for which the collapse of commercial motion picture film production is the poster child. Despite the recent efforts by stakeholders to coordinate the continued availability of Kodak film stocks there is no doubt that Kodak's long history as a motion picture film manufacturer is coming to an end. Others might manufacture film (Orwo and Ferrania) but watching the buildings at Kodak Park being ground to dust (something those of us who toured the

² Available online: <https://coi.avpreserve.com/rationale> Accessed on October 10, 2014 in final preparation of the talk.

Kodak plant in 2007 witnessed) remains a powerful testament to the substantial capital needed to produce motion picture film stock within the quality control tolerances demanded by this community.

Whether we are working with video tape or motion picture film, clearly we cannot live in the past. But further adding to the stress of this transitional era is an uncertainty of what lies ahead in our digital future. This, at least, is something we share with everyone else in the world--which is why we have initiatives sponsored by government and private entities to think through this problem not only for cultural heritage communities but also for the fundamental continuity of government and commerce. Still, every time digital data loss makes the news or we try to open a media file (and fail) we're reminded of how difficult it is to feel at ease with something we really can't see and how much we rely on the expertise of outside groups to help manage our digital assets.

All three of these rhetorical strains have converged on us to ill effect during this transitional era. However, the more aware we are of how this language operates on us *as rhetoric*, the better positioned we can be to tease apart these specific issues and find a sense of clarity and purpose with respect to film.

For example, if we are discussing the survival of analog video tape (or other magnetic media), the urgency is without doubt. But unspecific pleas to rapidly digitize our "audio-visual" or "moving image" heritage in effect transpose the real short-term issues facing magnetic media onto motion picture film stock and this in turn risks

misrepresenting to the public and key funding sources the issues facing motion picture film specifically.

We should not respond to the now inevitable end of motion picture film production by implementing the mass digitization strategies devised to migrate video tape. These are entirely separate issues. The video tapes on our shelves would still be degrading even if Kodak's film business was booming.

[[Slide #3: Conservation is a fundamental bulwark against base, binder and image decomposition. We should take maximum advantage of its benefits.]]

The principle benefit of conservation and passive preservation is TIME.

Motion picture film decays. The Third Law of Thermodynamics applies here as elsewhere. Absent storage at zero degrees Kelvin, motion picture film will decay. Sounds scary, but the fact of decay isn't the problem (everything in this room is decaying). Our problem is the rate of decay, which is fundamentally a factor of micro and macro climate conditions, and is something that we can control. The rate of decay is NOT in any way correlated to the commercial health of Kodak as a company. The motion picture film elements stored in vaults throughout the world will not decay faster because new no new motion picture films are being manufactured.

Unlike video tape formats for which long-term conservation of the carrier leaves unaddressed the complex electrical-mechanical systems needed to extract the content, long-term conservation strategies for motion picture film continue to extend over time our option to access this media without the need to maintain original playback systems. In the presence of robust conservation initiatives there is no need to rush to digitize motion picture films that are not in advanced stages of decay in the name of preservation. One exception to this. Mag stripe film.

Film is not dead. Rather its function in our culture has changed from a medium for producing and distributing culture and information to that of a de facto archive of information and culture. As a consequence of the de facto archive of existing motion picture films we should become more conscious of the relationship between access and preservation.

[[Slide #4: Access and preservation adhere to different logics and may, thus, come into conflict. Saying 'no' to access to address a legitimate preservation goal is valid]]

When we most often use the term "Access," we mean access in the here and now-- in this sense access follows the logic of short term needs. Preservation, however, follows the logic of the future--it is governed by the logic of the long term. Theoretically, preservation is also a form of access in that its goal is to sustain the object over time so that those in the future may enjoy access in their own time. These two imperatives: the

present and the future must be kept in balance. Saying "no" to access now in order to serve a legitimate preservation goal is a valid response.

As it has in the past, overemphasis on access may have unforeseen preservation consequences:

- home movies transfers to video (1980s) . Done in the name of access, this era led to the abandonment and/or neglect of original film elements. Only inferior copies remain.³
- "nitrate won't wait" -- driven in part by a real desire to access and preserve films available only on nitrate, films that had become unavailable, this initiative depended on the rhetoric of a "crisis" that necessitated the destruction of nitrate film elements in order to justify the production of "new", "safe" and "accessible" copies. In the absence of conservation science, poor conclusions about nitrate's longevity were made and equally poor assumption about the longevity of acetate films were made -- we continue to live with the consequences of those judgments.⁴

I believe we have entered a period of growing imbalance between access and preservation when we hear slogans like "preservation without access is meaningless" in close proximity to the many, many, many voices eager to see all of our films online now. Satisfying the demands that everything be digitized and online in the next 10-15 years

³ Comments about the VHS conversion era were extemporaneous but followed this train of thought.

⁴ Only a brief mention was made of the 'nitrate won't wait' movement.

will certainly generate copies unable to function in the future as comprehensive representatives of motion picture culture--and by that I mean those digital files that contain a faithful representation of the the material film element itself. In some cases wholesale digitization of films might lead to the neglect of the physical elements because from perspective of some administrators and funders, "Hey, they've been digitized".

⁵ Short term access priorities must remain balanced with long-term preservation imperatives..

[[Slide #5: BoraxMan Movie]]

Proposal: Double down on motion picture film culture even though the economics of the industry point to a rapid decline in the production of new film stock. By this I do NOT mean refusing to move forward into the digital future. Rather, I mean honing a sub-culture of motion picture film preservationists, curators and conservators to continue the study of motion picture film as a material object and experiment with the broad possibilities of how motion picture film culture can be moved comprehensively into the digital future through imaging. In the process, we should prioritize films in advance stages of deterioration for digital preservation and use these films as training grounds for creating digital surrogates that can function as preservation masters.

⁵ Italicized text was not read.

[[Slide #6: Moving the culture of motion picture film into the digital future. Digital Surrogates of the material film object]]

What might a digital surrogate entail? As you'll see in Jim Lindner's presentation, the future might hold many things. I think that at present it means the full edge-to-edge overscan of each frame stored as DPX or TIF. This is the fullest safeguard we can create right now that could virtually stand in for the material film element.

[[Slides--7 through 10: examples images]] discuss...⁶

[[Slide #11: But can't this extra-frame, material 'stuff' be presented textually?]]

We could try to account for all these things through metadata--this approach is a century old and was necessary in bibliographic circles:

[[Slide #12: example of descriptive bibliography-- James Joyce's Ulysses⁷]]--discuss.

[[Slide #13: PBCore Slide--XML record of "Sandy Island Film"--shown in slide #8]]

⁶ Comments focused on the importance of visualizing the entirety of the film element so that edge codes, camera gate marks, optical sound, etc. good be seen. Slide ten presented the case for imaging camera negative film of historic events as a negative image.

⁷ Descriptive bibliography example from Michael Groden's syllbus for English 9002 (Fall 2013), University of Western Ontario. Accessed online at, <https://instruct.uwo.ca/english/9002a/Assignment2.doc>

But why try describe what we see? The metadata approach places a huge burden on the single evaluation of a film element done by one person.⁸

[[Slide #14 : Graphic information should be retained as graphic information when possible]]

Why not digitize this graphic information for later analysis?

[[Slide #15: full edge-to-edge clip from Fall of Jerusalem]]

Talk ends with this slide.

⁸ Additional extemporaneous comments were made at this point.