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Archives of Inconvenience

Rick Prelinger

Once upon a time—but whether in the time past or time to come is a matter of little or no moment—this wide world had become so overburdened with an accumulation of worn-out trumpery, that the inhabitants determined to rid themselves of it by a general bonfire. The site fixed upon at the representation of the insurance companies, and as being as central a spot as any other on the globe, was one of the broadest prairies of the West, where no human habitation would be endangered by the flames, and where a vast assemblage of spectators might commodiously admire the show. . . .

“See!—see!—what heaps of books and pamphlets!” cried a fellow, who did not seem to be a lover of literature. “Now we shall have a glorious blaze!”

“That’s just the thing,” said a modern philosopher. “Now we shall get rid of the weight of dead men’s thought, which has hitherto pressed so heavily on the living intellect that it has been incompetent to any effectual self-exertion. Well done, my lads! Into the fire with them! Now you are enlightening the world, indeed!” . . .

The truth was, that the human race had now reached a stage of progress so far beyond what the wisest and wittiest men of former ages had ever dreamed of, that it would have been a manifest absurdity to allow the earth to be any longer encumbered with their poor achievements in the literary line. Accordingly a thorough and searching investigation had swept the booksellers’ shops, hawkers’ stands, public and private libraries, and even the little book-shelf by the country fireside, and had brought the world’s entire mass of printed paper, bound or in sheets, to swell the already mountain bulk of our illustrious bonfire. . . .

—Nathaniel Hawthorne, “Earth’s Holocaust”

Fever and Fervor

On those eternally nagging questions of #archives theory, I suggest we stop “posing questions” and instead propose tentative answers.

—@footage, 2015-10-28¹

Archive fever is not the same as archival fervor. Archives today are the center of much attention but few agendas. Archivists, users and theorists of archives, artists and scholars say much about the record and its keeping, but their voices rarely reach the public or leak across disciplinary boundaries. Even if these conversations were to coalesce, it is unlikely that the speakers would share a common conceptual or discursive toolbox. And if it were not for those working archivists who demand respect as both thinkers and practitioners, the intensity of contemporary interest in archives would be unmatched by any commitment to intervene in archival futures. We have reached a swirling stasis, where archives are active objects of contemplation and contestation, but largely left to themselves to craft their future shape and negotiate with those whose futures will be shaped by their recordkeeping efforts.

To argue that archives can inform the redistribution of power and resources, to advocate that archival theory and practice must converge, to insist on the recognition of archives as material places of gendered, racialized labor and poorly examined workflows, and to engage in actionable as well as notional archival critique—these are all assertions that we owe to thoughtful archivists more than to artists and scholars. We ask more from theories of knowledge than from the institutions where knowledge resides, and while we fetishize books and libraries, we all too often take for granted archives and the raw records they hold. Yet for reasons we should already know and others we have yet to learn, archives need our active support and continuing engagement. We therefore need to dive below a surface of platitudes and case-study narratives that elevate anecdote over argument, and plot a course, no matter how jagged, for memory institutions in an age of precarities and rising waters, whether it be to negotiate uncertain alliances or

pursue fragile autonomies. And, even as it may sometimes feel paradoxical, we need to find ways to break through the strictures that bind archives and enclose their contents while simultaneously celebrating the affordances of inconvenience.

Occasions for Excitement

Archival work & creative practice have converged, which isn't to say artists resemble archivists. Rather, archivists are the new artists.

—@footage, 2012–10–07

But does the feverish world of archival innovation resemble Paris in the 1920s, or the USSR in the 1920s?

—@footage, 2012–10–07

The recent history of archives is replete with inspiring stories of emergence and visibility, but it's also a tale of neglect, of utopian cards unplayed, of disrespect for archival labor, and of theories often too diffuse to be actionable. The gap between actual and potential may help explain why anxiety has become the default mindset in the archival world. Despite these conditions, I'm optimistic about the possibilities that archives afford, not only as bridges between remembrance and action but as arenas of encounter and mobilization. Of all archival affordances we might imagine, historical intervention is perhaps the most exciting: in simplest terms, deploying records of the past in the present so as to influence possible futures. And while power accommodates resistance in symbolic spaces because it is easier to assimilate than resistance in the streets, the record itself is well suited to enable the most pointed and potent of rebukes. And as I will discuss later, evidence offers venues for uneffaced differences to play, opportunities for contestation and critique, and the wherewithal for rendering the excesses of narrativization obsolete.

My intervention—which I explicitly characterize as meditation modulated by provocation—seeks to position archives as places of possibility, as places where we might seek to perform struggle,

4 expose presentism, make theories actionable, refuse dominant narratives of inevitability, and imagine and stage a broad spectrum of futures.² In a time when prolepsis and analepsis cycle rapidly, when boundaries between past/present/future manifest as blurred and even invisible, repositories of records are at once anchorages and launchpads and spaces for retrospect and rehearsal. They are the waysides where media temporarily reposes before it is reborn. And today archives are more than reflectors of extrinsic activity: they have also become laboratories where key social and cultural discourses are proposed, argued, and tested. I therefore hope that through more conscious and less isolated archival practices we may better combat the divide between theory and practice and the power relations this divide reinforces. I complete this text in the hot and fiery summer of 2018, unable to know whether archives will survive their current caretakers or whether our successors (or even ourselves) will watch the record-trail of our species fade away. The futures we theorize cannot be based simply on flows of money and power but must also take into account both species fragility and environmental precarity. If archives are to ride the rising waves, it won't be as arks fully caulked to repel leaks but as permeable wetlands capable of assimilating ebbs and flows—venues where past, present, and future interchange and transform one another. In this lies their greatest purpose and occasion for excitement.³

Archival work is generally taken for granted as a kind of infrastructural activity, but we no longer take water & energy for granted #saa12

—@footage, 2012-08-11

Overtheorized and Underfunded

The “archive” is overtheorized; “archives” (where the labor of record keeping takes place) are undertheorized and underfunded. #archives

—@footage, 2015-02-03

Archivists are confounded by the imprecision that exists between “archives,” which most archivists define as places of collecting,

preservation, access, and archival labor, and “the archive,” which I will propose as an umbrella term for conceptual, philosophical, artistic, literary, historical, or analytical constructs centered around archives and/or archival process. I don’t consider the two terms interchangeable. Most writers and artists have gravitated to the term “archive.” Some also use “the archive” and “the archives” interchangeably without interrogating possible differences. But the fuzziness surrounding “the archives” and “the archive” vexes archivists, who rightfully cringe when the specificity of their workplaces—which are places of labor, not conceptual formulations—is simultaneously invoked and ignored. An unstable amalgam of the unconscious and quotidian, “the archive” has become an undemanding construct, deployed by the critical disciplines as they interact with history and memory, invoked time and again without necessarily requiring sharp definition, similar perhaps to a screen onto which traces of theory flash for long moments before fading.

“The archive” invites flirtation; the “archives,” on the other hand, could not be more demanding. Though their workplaces may seem quiet and their workflows pretend to appear apolitical, archives overflow with contention. To collect is to commit to the survival of certain records over others; to arrange and describe is often to enclose; to preserve is to resist power, violence, and constraint; to proffer access can be to invite misunderstanding and aggression. And yet archives yearn for praxis; even routine archival labor is practice in search of theory. But to how many outsiders is all of this visible and, moreover, urgent?

“The archive” seeks to distance itself from “the archives,” fleeing the inconvenience of material objects and highly gendered and racialized archival labor. For artists, writers, and theorists, “the archive” is like the Detroit that new occupiers and tourists believe they see: a fascinating, exotic wilderness where historical narratives manifest in disconnected, free-to-remix fragments, populated by people whose needs and agency are matters left for others to address; a place visitors believe to be *terra nullius*, open for unchallenged occupation. Just about any contemporary artist-built

6 collection of images, objects, data, or emotions is nonspecifically designated “an archive,” as if to add glamor to assembly. And while artists and scholars express deep fascination with archives and thrill at touring them, they don’t think very imaginatively about real ones.⁴ With few exceptions, scholars see archives as cabinets of curiosities or as glorified warehouses, service organizations tasked with enabling their research, and they outsource the maintenance of their research base to workers whom they insufficiently respect.

My polarized treatment of these terms is not meant to express contempt but rather hope for their reunification and the reconnection of the practices to which they refer. Could we try to reconcile the conceptual umbrella we call “the archive” with the more quotidian work of “the archives”? Could we daylight both archival theory and practice, construct and workplace? And could we try to draw connections between academic, artistic, and archival labor? This would require greater engagement with archives as working entities, and a commitment not only to rendering archival labor visible, but seeing it as decisive.⁵ We might listen harder to the people who perform archival labor and begin to reframe it as cultural work and research in its own right, rather than simply wage labor. Archives are indeed microcosms of the world whose records they contain and organs through which power is expressed, but power and the labor maintaining it exist in covalent bondage. Just as we cannot think of domesticity without domestic labor, and we cannot imagine the university without workers supporting other workers who are paid to produce knowledge, we can neither conceive of nor critique archives without taking into account the core labor of those who maintain them.⁶

Too few have considered the politics of archival workflow. This alone would establish cause for intervention, but the problem may be more fundamental than that. A nuanced and actionable understanding of how day-to-day archival workflow both mirrors and sustains external structures of power requires the kind of attention that art historians might pay to brushstrokes, film theorists to editing rhythms, and psychologists to microaggressions. How

do the protocols of archival film inspection, the removal of staples from archival documents, and best practices of photographic scanning contribute to power differentials and influence the way in which archival records can be perceived, touched, and reused?⁷ Because there are no clean records: records bear the markers not only of their creators and those who may have used them as levers of power but also bear the traces of their archival lives. We should not expect our future archival queries to return us unmediated records. We might instead hope to see traces of workflow and markers of the record's life in the same way we see scratches on old film, scribbling in old textbooks, tearstains on old letters, and the injuries levied by war and conflict.

Utopian Propositions

At stake . . . are not the worlds these collections claim to represent, but . . . the worlds they invite us to imagine & even realize #ArchiveFail

—@bspalmieri, 2014-11-10⁸

Could we discard our predispositions and instead propose a few whimsical and utopian archival propositions?

- A storage and delivery infrastructure for evidence and memory that is as reliable as city water or gravity-propelled Roman sewage systems and flexible enough to remember or forget as needed
- A data corpus that surrounds us like air, manifesting itself through our sensorium and the tools with which we augment our bodies; alternatively, a mycelial network that feeds on data to propagate and spread
- Loci of preservation of information and ideas capable of collecting both the canonical and the quotidian, personal and institutional, hegemonic and oppositional
- An anticipatory network that sniffs out, appraises, and collects records of potential interest

- A fully permeable repository that supports a spectrum of access from casual inquiry to deep touching
- An agnostic system that dissolves formalistic distinctions between physical and digital materials
- A suite of preservation functions that simultaneously support centralized and decentralized storage schemes
- A repository that embodies the power of the record while simultaneously disavowing it, that is to say invoking both privilege and antiprivilege
- A curatorial algorithm that doesn't automatically reject garble and glitch
- A utility that familiarizes us with its holdings through convenience and defamiliarizes them through inconvenience
- An entity that in its scope and outreach crosses anachronistic species boundaries

Even those who never dream of utopia recognize that traditional archives deliver much less than they might. They're compromised by their institutional parentage and bureaucratic structure, gated rather than hospitable, excessively deferential to copyright claims that may never materialize from rightsholders that may not exist, and underresourced islands of precarity in a rich world. These deficiencies separate archives from scholars, who can't always get the records they want in the timeframe and manner they want; from the young, who don't accept pre-Internet limits on information access; and from communities whose records are separated from them forever, enclosed by irrevocable deeds of gift, physical barriers, and access regulations.⁹

But short of utopias, there could be other models. Archives as cities. Could we better understand the trajectories, flows, inputs, outputs, and power relations embedded in and reproduced by archives by thinking of them in the ways we think of cities? To

amplify: archives grow, flourish, die, and morph much like cities do. Both, of course, are repositories of information, experience, and dynamic affect. Both are meccas where unaffiliated records and people find community with others; both are machines of encounters, exchanges, mashings-up. Both take in information and energy and transform it. Both combine territories of enclosure with tracts of openness, abiding under a spectrum of control that is constantly pulsing and sliding as authority reconfigures itself. And in both deference to power coexists with hospitality to resistance. Might we look to the city as a way to better understand the relationship of the record to the present? And might we look to archives as a laboratory for constructing new urbanist schemes? Archives, after all, are a cheaper arena than architecture.¹⁰

On the other hand, are utopian propositions just another projection of external intentions onto the archives, treating them as *terra nullius*? As a professional archivist told me in 2012, “I just like to arrange things.”

Do Physical Objects Have a Right to Exist?

Reporting from northern New Jersey: it’s a frightfully cold winter morning in January 2011, and I’m driving through an industrial area on a road that disappears and reappears, trying to steer between giant ice ponds and the deepest potholes I’ve ever seen. The Manhattan skyline isn’t very far away—perhaps six miles or so—but if that’s the center of the media industry, this is the edge, the place where inconvenient objects go to die. Hidden somewhere in this snowy backwater are the vaults where major movie studios, networks, and distributors store what remains of their nitrate film collections. Municipal fire codes zoned nitrate film out of most major cities many years ago, except for a handful of grandfathered facilities that were built in the early twentieth century. My destination is one of the two commercial nitrate storage facilities left on the East Coast, which has been sold and is soon to become just another obsolete North Jersey industrial site. Right now specially trained truckers are waiting with engines running to move film

10 someone still wants to own somewhere else. I'm here for the same reason I've haunted film vaults and loading docks in the Rust Belt and the Northeast for almost thirty years: to pick up a collection nobody wants. It's hard to believe people aren't clamoring to save this material, but they're not. No matter how wonderful might be the images it holds, this is nitrate film, and it's a thoroughly undesirable commodity.

While few people know much about the fine points of archival practice, just about everybody's heard about the flammability of nitrate film, and this has given rise to the widespread misconception that old film is inherently dangerous. Like most urban legends, those that have spawned around nitrate can be traced back to actual events and partial truths. Huge fires have erupted in film exchanges (warehouses holding films to be sent out to theaters) and projection booths. And yes, several tons of nitrate X-ray film stored in the Cleveland Clinic basement and ignited by an uncovered 100-watt light bulb caught fire in May 1929, killing 123 people, mostly by asphyxiation from the gas that burning nitrate emits.¹¹ And it's indeed true that water won't extinguish nitrate fires: filmed experiments, legendary among archivists, show burning reels submerged in water, bubbling under the surface as the film generates its own oxygen, and raised from the water only to rekindle into bright flame. Nitrate is indeed hazardous material, and it needs special attention when stored, transported, projected, and copied. But much of the fuss over nitrate film is starting to look more like a moral panic than a safety issue.¹² And what I'm going to learn on this visit to the vaults is that the nitrate film issue perfectly exemplifies a question that I think is about to move from bubbling to burning: do physical objects have a right to exist?

Archivists are drawn to nitrate as to an unstable partner; beautiful and dangerous, nitrate embodies all the clichés of bipolarity. Experienced archivists inculcate emerging archivists with a sense of caution as they stand at their benches winding rolls of film. But while pragmatic hazmat precautions are one thing, nitrate's

long-term influence on archivists' senses of self and mission is quite another. A dramatist seeking to find archetypal characters in the archives might first unpack the mystique of nitrate, whose flammability masks far more subversive powers.¹³

Let's stipulate: all media is ephemeral. Nitrate deteriorates and burns with an adrenalin-activating hissy flame; safety-base (acetate) film quietly shrinks and shrivels in irreversible vinegar syndrome; much color film fades; videotape and DVDs flake and rot, and as yet we have no proven strategies for preserving the uncountable number of bits that we're accumulating in the digital era. But nitrate's ephemerality is sensational, mythological. Pioneer film archivists often hid films from fire marshals who might want to destroy them and copyright holders that might want to seize them, and this mixture of caution and stealth imbued archival culture with a deep sense of archivist-as-guardian and archivist-as-last-chance-savior. Relevant keywords: secrecy, fragility, jeopardy, urgency. When U.S. archivists started to decloset and coordinate film preservation efforts under the banner of the American Film Institute in the 1970s, they sought a soundbite for public consumption, and reformulated Canadian archivist Sam Kula's battle cry "Nitrate Will Not Wait" into "Nitrate Won't Wait!" Likening film to a critically endangered whooping crane that might, if neglected, turn into an extinct ivory-billed woodpecker, archivists portrayed themselves as the last line of defense against time and decomposition, heroically snatching film foot by foot from its seemingly inevitable destiny. Since hardly anyone else had stepped forward to systematically preserve films at that point, this wasn't an inaccurate characterization, but the exact nature of nitrate's impatience remained mysterious. To this day we know far too little about the chemistry of nitrate deterioration, though we have at least discovered that cold and dry storage dramatically lengthens the life of film. Widely disseminated statistics (still repeated today, though now understood to be exaggerated) proclaimed that 90 percent of silent film heritage had disappeared.¹⁴ Film studies and film fandom internalized a permanent discourse of loss as cinephiles

12 lamented the disappearance of works they would never see. And in the same way that exaggerated reports of child molestation gave rise to “no touching” rules in schools, film retreated into archives, becoming a hothouse flower to be handled as little as possible, untouchable except by anointed archivists. Perhaps the preservation movement needed a moral panic to take root, but the legacy of the nitrate scare, combined with bureaucratic inertia and fears of copyright infringement, has been to institutionalize archival enclosure. Because film needs to be preserved to be protected, most archival holdings cannot be seen or used unless they’ve first undergone one or another expensive process: digitization or film-to-film preservation. This is also true for deteriorating videotapes that can’t survive repeated plays, as they’re being digitized or preserved into another format.

I’ve come to the Kearny vaults to pack and move two stock-footage libraries that once belonged to Hollywood studios. We’ve all seen this kind of material time and again without thinking to ask what it is. While the kinds of film I collect and sell for stock footage use revel in their antiquity, studio stock footage is stealthy; it’s not supposed to call attention to itself. The intention is for us to believe the studio actually sent a camera crew to Shanghai, to the Lower East Side, or to the North Pole expressly for the film we’re watching. Material shot for one picture, if sufficiently generic and free of known performers’ faces, was salvaged and meticulously indexed for possible use in future films. Stock footage archives are among the least celebrated image collections, but their contents delight: there are locations around the world, including incredible documentation of U.S. cities in the 1930s and 1940s, cans full of galloping horses’ hoofs, gangsters’ cars swerving around corners, hands firing revolvers, mirror balls rotating, and miniature models of buildings swaying in simulated earthquakes. And—most exciting of all—there are the process plates.¹⁵

When classic-era actors rode in a taxi, sat in a dining car, flew a plane, or fled the sheriff’s posse, a rear projection of the world

moved behind them. Specially shot scenes—process plates—were projected on background screens in front of which they performed. Since actors and screens weren't in the same focal plane, the backgrounds often seemed out of focus, jumpy, distorted in the films as released. But when you view the process plates by themselves, they couldn't be clearer—they're rocksteady, razor sharp, detail-rich images of a world that no longer exists. As I write, I'm watching one: it's 5th Street in downtown Los Angeles, sometime in the early 1940s. Fifth Street was Skid Row then, and today it's still a sad, disenfranchised slice of the city, most of its small stores and houses demolished in favor of blank-walled structures hiding social-service organizations or light-industrial shops. But in the world revealed by the process plate, we ride around the block with camera set at a three-quarter reverse angle, enjoying a relaxed, meditative view of a sidewalk where working-class men amble and storekeepers take the air outside their shops. This isn't a fleeting image of a lost landscape that we wish could have lasted longer, but a sixty-second immersion in the past that enables universal time travel. Along the way the camera car passes a hand-painted wall advertisement promoting a natural-foods restaurant. "Live a Hundred Years," the ad promises.

There are thousands of process plates in this collection. They're perfectly suited to establish locations in historical documentaries, and perhaps more interestingly, serve as backgrounds and templates for new digital simulations of the past. But they can also play all by themselves. I want to use them to strengthen the case for using unedited footage as an element in itself—to help establish a new evidentiary cinema that's based on information, not simply on actors and stories, and to help rethink the structure of documentary films. Following the lead of retired Berkeley scholar Bertrand Augst, I have always thought of films not simply as seamless, extended narratives but rather as instances of parataxis—assemblies of semi-autonomous segments that one might liken to walls built from irregularly shaped bricks. Now, many miles away from a classroom, I will see vaults filled with cans filled

14 with leftover segments stored away after completion of the films for which they were shot. I will see alternate takes of films by many famous directors; dogfight footage from wartime films whose titles many of us remember; atmospheric scenes of San Francisco shot for noirish features, and can after can of outtakes from Westerns: horses in the pen, desert scenes, pans over mountainous landscapes. There is three-strip Technicolor, two-strip Cinecolor, and single-strand 35mm monopak, a delicately beautiful film stock much like Kodachrome that was never directly projected onto a screen and flourished so briefly that even the deepest film buffs have rarely seen it.

I arrive at this low-slung complex of twenty vaults marked only with a hand-painted street address, located behind a gate that no longer closes and in front of a creek that occasionally overflows onto the cans stored on the bottom racks. For a moment I'm at a loss trying to find the office, until I realize it's the only door that's not an old steel-jacketed asbestos fire door secured with a padlock. Inside this small, worn room sit Bill and Mike, the two vault managers, whose kindness and sense of humor seem completely unaffected by the certain knowledge that their redundancy is imminent. Today they're working with a group of experienced truckers, members of a tiny group of elite movers who handle nitrate shipments between vaults and archives. No ordinary cargo, nitrate is treated as hazardous material. While it travels via ordinary freight carriers, federal regulations require hazmat-trained personnel to prepare and pack it, according to protocols that seem more suited to nuclear materials than outdated entertainment. Nobody recounts urban legends about nitrate and its flammability this morning, but the vault managers are having a great time pulling up YouTubes of truck accidents, especially wrecked hazmat transports.

Outside the vaults, a group of temporary workers dodge one another on the snowy, narrow catwalk as they pack cans of nitrate film according to federal regulations. After rolling a newly painted steel barrel into position, a worker fills the bottom third of the barrel with urethane packing peanuts. Onto this cushion he lowers

a plastic bag containing precisely 18 cans (totaling roughly 18,000 feet, 200 minutes of film) and surrounds the bag with more peanuts. He works a lid into place, tapping it with a mallet to ensure a tight seal, and bolts it tight with a six-inch bolt and a power wrench. As he rolls each barrel up a steep ramp into the waiting trailer, his feet slip and slide on the icy surface. There are 18 cans per barrel, 120 barrels per trailer, 2160 cans per shipment. If it could carry unlimited weight, and if there were no hazmat regulations, the same trailer could carry ten times as many cans. Plastic peanuts blow in the wind, roll under barrels, get ground into pieces by handtruck wheels, and mix into snow and mud. I imagine they'll inhabit the northern New Jersey environment long after all the nitrate has disappeared from the world's cultural repositories.

When the trailer has been loaded to spec, it's the drivers' turn. The companies they work for charge mightily to move nitrate; quotes I've seen come in at about ten dollars per can for a cross-country move. Compared to the costs of destroying unwanted nitrate film, that's small potatoes—legal destruction can cost up to fifty dollars a can, and sometimes destruction is a necessity, especially when the perceived value of the film fails to measure up to the very real difficulties involved in its care. I've never met these drivers before, but as we start to talk I realize they are unsung players in the ecosystems of media management and film preservation. They know the organization and layout of vaults all over the country, which collections they hold, and their custodians. Two of them tell me about the two weeks they just spent in Chicago backing fifty-three-foot trailers through narrow alleys so as to move my friend J. Fred MacDonald's collection when it was acquired by the Library of Congress. While they may not themselves hold archival jobs, they protect and transport some of America's most valuable cultural resources, and act as de facto archivists while film is moving between vaults, the time that it is most vulnerable.

Mike opens the vaults I'm going to be working in. There are five of them, each an unembellished concrete bunker rented by a particular studio or distributor, filled with metal racks on which sit

16 cans of film, some square, some round, some rusty. The rooms are very dirty, and the lights don't always work. At the back of the vault a vent allows air to pass in and out, but its purpose isn't air circulation—it's a relief vent that, in case of a fire, would route an explosive pressure wave out the back of the vault so that the roof won't blow off. The vaults open up directly to the outside world. At one time there was some sort of temperature and humidity control, but it's no longer working, and the owners have decided to rely on the winter weather for the cheapest cooling and dehumidification they can buy.

But first I have to get these cans out of this rather unpleasant and freezing-cold vault. Wedged between two iron pipes, they sit upright, rather than flat on a shelf, as we shelve cans today. This means that the rolls of film inside the cans rest vertically, which may cause them to warp or bend. And since many stock footage cans are shelved on the bottom rack (a testimony to their lack of importance to the studio that sentenced them to dead storage), they've been baptized more than once by the waters of the neighboring creek, and I can see that the down-facing corner of many square cans has rusted out, and that the rolls of film at the bottom of the cans often show signs of mold and immersion.

All of this is being junked by its owners. Some of it, in fact, was junked once before; this is not the first time it's being saved. It might seem odd that its current owners—masters at repurposing old assets for new markets—don't want this material, but it would be unjust to accuse them of a crime against historical memory. They have in fact agreed to donate it to the nonprofit Internet Archive, with whom I work, in order that we may put it online and make it available to today's media makers. But this is only one of many such collections that have become surplus to corporate needs. And their surplusness returns me to my question, which archivists aren't asking, even softly: Do physical cultural objects have a right to exist? Some, like those in this collection, are uncollectible. It is an authentic archives of inconvenience.

Analog, Revalidated and Devaluated

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I worry that we won't be strong enough to prevent digital stewardship from becoming analog neglect.

—@footage, 2013-07-23

It's been my good fortune to be able to engage in potlatching, an ancient privilege newly reborn with the Internet, since I began collaborating with Internet Archive in 1999 to build an online repository of freely downloadable archival moving images documenting social relations, persuasion and propaganda, place, race, gender, domesticity, travel, and industry (Prelinger and Internet Archive 2000). A project without a mission statement risks failure or irrelevance but also implies the possibility of constant reframing, and this one has taken unexpected directions. I have seen the barriers that often separate archival collections from those who would use them melt away, and have had the satisfaction of seeing materials that had long sat quietly on steel shelves pushed out to anyone who might be interested. Since its launch at the end of 2000, our online collection has supported approximately 160 million access events. Materials that were once marginalized as dated ephemera have been able to float outside the time and cultural frames in which they were produced and find their way into an unknowable number of derivative works, remixable with or without concern for their historicity. Concurrently, however, these 7,000 moving image files live on the Web to serve the development of visual history, to illustrate and hopefully problematize complex ideas and claims, and to serve the evidentiary needs of existing and emergent social movements. The evidence they embody retains context but is also free to shed its provenance, and this body of complex documentation now lives not simply within a single archival classification and retrieval system but as Net infrastructure, which is the greatest honor an archives can receive. Ultimately I hope the collection will deeply embed itself within digital humanities projects and also serve as a testbed for computationally based projects carried out by posthuman agents. The volume of home movies, for instance,

- 18 is so great that their second audience (following the families that made them) is likely to be principally composed of analytic machines.

This experience turned me into a rabid proponent of pushing archival materials out to the world regardless of whether there was an expressed or substantiated need. I learned that an archives' highest calling is to be consumed by its users. I tried to convince my moving image archives colleagues to support mass digitization of their collections, and worked with Internet Archive in the mid-2000s to help build out an open path for mass book scanning that functioned as an alternative to Google's then highly closed and secretive books project. Joining a small group of digitization evangelists who fanned out across the Euro-American cultural sphere, I tried to encourage cultural custodians to make peace with digitality and choose openness.

But concurrently I was working with my partner Megan to build a physical library in San Francisco, which has been open to the public since 2004 (Prelinger and Prelinger 2018). To those who have not visited, this may seem strangely retrograde, but it was and is a thoroughly antinostalgic project. Our principal (if unvoiced) idea was to experiment with opening a repository of physical materials to a noninstitutional community and see what might happen. In the absence of a hypothesis the lessons were even more surprising. We learned very quickly to dismiss all sense of analog nostalgia or digital supersession. It became clear that, to transcode a formulation from poet and artist Jen Bervin, physical and digital materials each had different but closely related jobs to do.¹⁶ Analog and digital affordances were not only distinct, but codependent—as it happened, the physical books served as pointers to the downloadable digital copies scanned at Internet Archive, and Google's index of Internet Archive's online books helped us find books on our uncatalogued shelves. It was pointless to overthink the digital turn or to harp on analog/digital antinomies, unless you were talking about obvious attributes like weight, physical bulk, and dependence on electron flow, or unless you needed conflict for an

otherwise pedestrian news story. Since then I've been convinced that analog-digital hybridity is not a transitional state, and I'd hope it remains a permanent one. Scanning, after all, is just the newest of the book arts.

In my work with our library and my film archives I've come to realize that the turn to digital revalidates the analog. I make digital films that play before audiences who talk while the film runs. I thought this was radical, until I realized I was actually channeling the Elizabethan theater whose front pit was filled with loud and boisterous groundlings.¹⁷ Hybridized analog and digital. But while digitality may revalidate analog, it's rapidly devaluing it. Physical objects are being disposed of and destroyed at an accelerated rate (which is one reason we've been able to collect so much interesting stuff for our library and so much film has come to us for shipping costs alone). That highly impertinent question for librarians and archivists—do physical objects still have the right to exist?—often seems these days to be settled in the negative. Shelves are emptier and stacks shrunken in many libraries. While collectors responsible to no one but themselves make piecemeal decisions to collect objects that match their fancies, libraries and archives are faced with time-consuming and difficult decisions as to whether to bear the expense of collecting, organizing, cataloging, and preserving dead and dying media. Even if the cost of digitization pursued at scale has dropped, pre-digitization processing (paging books from the stacks, inspecting materials for fitness before they go through robotically assisted scanning processes, cleaning and preparing reels of film or videotape for scanning, inspecting phonograph records, then performing quality assurance on files and returning source materials to proper shelf locations, and so on) is inherently artisanal and can be costly. Recent experience is also teaching us that scanning is not a one-time process, and that we will rescan originals from time to time as our perceptions of what constitutes an acceptable digital surrogate evolve along with our technical abilities. From the outside, the choices librarians and archivists make may seem easy to criticize, but these are not simple decisions.

20 Sometimes it's unthinkable to destroy original documents after filming or digitizing them, sometimes not. As with people, society sorts physical objects into classes. At the bottom level are workaday paper documents designed for specific purposes at specific times: cancelled checks, invoices, technical documentation, letters, and the like. A bit higher ranking (but not that high) are published materials of an ephemeral nature, frequently revised and re-freshed; I'm thinking of telephone directories, newspapers, legal materials, and reference books. Some materials in this category, like *The New York Times*, carry recognized historical importance, but few of them are retained in physical form. Higher still are published materials invested with long-term or permanent value, like scholarly books, academic journals, many magazines and periodicals, maps, and government documents—though increasingly libraries are planning shared print repositories where a few “copies of last resort” stand in for many widely distributed copies soon to be no more. At the highest level reside rare books, special collections, manuscripts and original photographic images. The emergent status of digital materials has not yet challenged the auratic primacy of these objects.

And yet—a systematic downgrading of media forms seems to be in progress as the specific affordances of old-fashioned platforms like film, broadcast television, audiotape, and Kodachrome slides are flattening into digital modes of storage and display. I do not mean to minimize the depth, novelty, or importance of digital affordances, but I perceive the disorganized diversity of extinct analog media disappearing into files that (if the walled gardens of the entertainment industry allow) are capable of playing and recombining freely across a plurality of devices. Media that used to rank high on the auratic scale is trickling down; we're witnessing the impoverishment of the genteel classes. Librarians, archivists (and, to be fair, custodians of almost all forms of the historical record) have sinned. They have avoided engagement with records in inconvenient formats; they have deaccessioned, weeded, discarded, recycled, pulped. They have reformatted inconvenient

records into new forms that may for a time seem more compact, readable, accessible, persistent.

Today's persistence is tomorrow's ephemerality, just as today's ephemerality is tomorrow's persistence. #archives #bewaredigital exclusivity

—@footage, 2018-03-31

The crisis ecosystem of evidence-bearing physical objects and their displacement in favor of digital surrogates is akin to urban gentrification, and as scholars and as a society we will one day have to answer for it. The attributes of physical materials like books and vinyl records are not falling out of use, even if they have lost their universality. I cannot completely describe the many affordances of books and paper, but they are sufficient to inhibit the total conquest of e-books.¹⁸ Preserving how we experience and apprehend the record is as much an archival objective as preserving what the record contains. And the system in which the record is created, transmitted, and distributed is itself a fragile assembly of information in need of archival attention. As media archaeologists look at platforms of production and distribution, they may find the leaders, cans, and shipping containers that surround films to be of greater interest than the films themselves.¹⁹

But no matter how many we successfully discard, physical objects are incredibly persistent, and their persistence is inconvenient. They're the table scraps, the leftovers of digitization, and there aren't enough dogs around the table to gobble them down. We are basing entire new phenomenological and philosophical agendas (to say nothing of how we configure scholarship) on one single iteration of technology—the digital turn—and we seem to be fighting a scorched-earth path through physical materials in order to make room for apparent digital abundance.

This issue was very much on my mind several months before I visited the nitrate vault in New Jersey, and as I got more and more enthusiastic about the neglected cans nobody wanted, I remembered

22 a story I had recently heard during THATCamp in San Francisco, a loose “unconference” attended by scholars, geeks, librarians, and archivists, attempting to get people collaborating on digital humanities tools and projects. Archives were a recurrent topic, and there was tremendous interest in leveraging archival holdings to enable new scholarship, build new applications, and modulate the physical world with historical data using augmented-reality technology. There were also provocative moments. My big takeaway turned out to be a throwaway, a comment tossed off during yet another discussion about the importance of metadata—data that describes the contents and structure of information, or perhaps more easily remembered, “data about data.” Someone who had previously worked at an unsuccessful mapping data company explained what happened when the company closed down and its workers rushed to find safe homes for its assets, which were mostly data. This, he told us, was difficult, and it was harder because of the need to describe the contents and organization of the data to potential purchasers. “Data,” he said, “is a liability.”

Tape is a liability. Film is a liability. These are incendiary statements. It might be more precise to say that “aging data is a liability,” or that “old media is a liability.” But just as a society should judge itself by how well it takes care of its most vulnerable members, archivists might similarly dedicate themselves to collecting, preserving, and providing access to words, images, and sounds fixed in dead or dying media. Archivists are in the same position today as the brave librarians who guarded in vain hundreds of millions of volumes like *Congressional Record*, 1920s-era romance novels, and old telephone books. Whether or not digitization and destruction of inconvenient materials is appropriate is indeed a difficult question, but that’s a question for a discussion that rarely seems to happen. In the past, I’ve suggested that we take a leaf from environmentalism and require “digitization impact statements” and “preservation impact statements” when we undertake grand projects, in order to better understand their broad cultural and historical impact (Prelinger 2010). In any case, I don’t think that decisions to migrate and

destroy material should be made in private. While a single decision may seem trivial or obvious, the sum of many decisions will change history.

May I just say it again: Loss is to be avoided when possible, but it's also formative. New histories arise around loss. #pda15 #pda2015
—@footage, 2015-04-24

@mchris4duke: Marginalized, persecuted people have had to destroy their own history for their safety. Loss isn't random. #rbms15
—@john_overholt, 2015-06-26²⁰

I do not universally mourn the loss of physical records. While I condemn intentional destruction of records in order to suppress histories and annihilate identities, I've come to believe that loss can be formative. Absences, too, may be necessary to protect marginalized communities and their cultures, as I will note later. We pursue research precisely because we perceive gaps in the record, or because we come to recognize that the powerful have suppressed evidence about the powerless. Many of the emergent histories of the last fifty years (African American, womens', labor, daily life, and disability, to cite just a few) have moved toward the scholarly center precisely because the need was felt to remediate disappearance or absence. We must learn to work with inevitable loss and, as many archivists have suggested, render absences in the archives as prominent as presences, while sometimes recognizing their necessity. The analog losses we mourn today will be as nothing compared to the digital losses we are already beginning to experience.

Destabilized Digitality

@footage: "the archivist's job is to hack media, so that it can be preserved against its will." #orphans10
—@snowdenbecker, 2016-04-07²¹

I have so far mostly spoken of physical materials. Don't digital materials permit us to slip the surly bonds of paper and film and touch the face of data itself?

24 Digitality is inconvenient in its own ways. Despite its apparent victory over physicality, digitality is fragile. It requires a compliant social order, the accommodation of governments, and the steady availability of energy. It is not a monolith; the Chinese digital world works differently than the North American. And its corporate structures and business models are experimental. We cannot overreact today to a force that will behave differently tomorrow.

The air of romantic obsolescence that surrounds a lot of historical media and communications technology today carries quite an allure, and we might actually enlist it to help build a bridge between media archaeologists and the public, but it isn't quite as defamiliarizing as some media archaeologists might suggest. While landscapes of deindustrialized cities are rich texts filled with evidentiary threads implicating many players, most visitors see only ruin porn.²² Dead media, failed kludges, speculative engineering ventures that pass neither usability nor smell tests and express poorly integrated relationships between information and its embodiments are all deeply fascinating, but we need to squeeze those "neglected margins" hard. And yet anything we can do to alienate the unreasonable faith much of the world seems to have in the robustness and persistence of the digital would be most welcome. As long, perhaps, as we are not fetishizing the digital glitch, the drop-out, the rotten bit. For digital media whose persistence depends on recurrent and heroic human intervention, preservation itself is the ultimate glitch, far more consequential than any scrambled screen.

Many archivists also fetishize extinct media technologies. They are the ones buying all those old film projectors. They sit up at night worrying not about their eBay overspending but about digital precarity. The archival axioms of permanence and provenance don't remap well into the digital domain, where everything is as fragile as the next spike, brownout, or coronal mass ejection and bits thought to be lost can resurface in forgotten directories. In the aggregate, archivists have thought a great deal about the implications and contradictions of digital archives, but like many who

present as futurists, they have yet to reflect on how these peculiar datasets will function socially.

Digital archives are already pervasive. They might be total—meaning they are not simply reservoirs of information that supports power but organs of power as well, like transmission lines that store as well as propagate energy (Jardine and Kelty 2016). Both archivists and nonarchivists try to track and parse the disruptions that digital media and repositories have brought to the disciplines that our predecessors (and even some of us, if we're old enough) secretly hoped we could follow in peace and privilege until our temporary abilities faded. And digital archives embody archival inconvenience skinned in new interfaces. It's all too evident that engineers have a great deal to do with the design of digital archives; they tend to route around what they perceive as inconvenience. The early 2010s will be remembered as a time when the ease (if not the precision) of Google searches rendered older databases inadequate, and the first hit more often than not was the greatest hit. Google's deep pockets enabled the company to hide great intelligence behind a deceptively simple search box, which we now expect to see on almost every webpage even if we don't quite understand where and how it probes. At the same time digital libraries are still industriously writing grants to simulate the serendipity produced for free in library stacks.

As digital repositories become more complex and diverse, they get harder to classify. The databases become soupier, less structured. The loci of intelligence shifts from structured data to smarter queries, as I surmise we're seeing with Google searches. But the engineering goal remains the same: to link queries more closely to results. This is hard for the flâneur in me to accept. What happened to the cyberpunk idea of oneness, of *being* the data, of jacking (hacking) into datasets whose bits directly acted on the senses? There's little serendipity in the hidden algorithms tucked away in a black box. In their insatiable hunger for facts as distraction, Bouvard and Pécuchet would have warmed to the Web for its linkability, but I imagine Google would have frustrated them; a machine that always returned answers to specific questions

26 instead of setting them on excursions into wholly new disciplines would have rendered impossible the intellectually picaresque journey of the two copy clerks and denied the novel its reason to exist.

Query-based searches are inevitably reductive. Deeper research relies on confronting inconvenience and capitalizing on its attributes. And if we are to resist the intentional dumbing-down of digital tools and services, we have little recourse but to return, once in awhile, to analog materials.

I once thought digital would define classical language & analog the vulgar tongue, but I now think the opposite is starting to come true.

—@footage, 2013–08–15

Reverse digital divide: At times I've felt part of a digital vanguard: making CD-ROMs with the Voyager Company in the early and mid-1990s. Putting archival films online. Scanning books from our little library. Feeling for my friends on the other side of what was then a digital crevasse. But now it's different. Digitality and privilege have been inverted. Speaking personally with a bureaucrat, collecting and touching artisanal objects, writing with a fountain pen—these are privileged encounters. The rest of the world wrestles with voicemail menus, cheaply made goods, and poorly designed governmental websites. There are no stray bits in your slow food. And slow media is all the rage. Some friends are building an intentional community in Mendocino County, on the northern California coast. They're installing fiber on their farm, but it transmits data slowly, and when I visited, their Internet service went on between 6:00 and 7:30 am and midnight to 2:00 am. One of the consequences of the universalization of digital labor and the blurring of the barrier between online work and recreation may well be a retreat from digitality by those who can afford to do so.

Stories and Theories

If we really believe humans are a “storytelling species” why do entertainers, filmmakers, curators repeat this statement so incessantly?

—@footage, 2013–08–18

Our newly ex-Librarian of Congress James Billington liked to say: “Stories unite people, theories divide them” (quoted in Mariano and Norton, 2011). I always hoped for the opposite to come true. As Brecht hoped for his epic theater, I place high priority on dividing the audience, and at least for a time I hoped the world would unite around certain theories. And I remain unconvinced of the centrality and absolute value of what today many people call “storytelling.” Storytelling, ubiquitous in almost all documentary and historical media intended for public consumption, is characterized by a highly traditional representational strategy that may include the omnipresence of characters (often good and evil) and a conventional act-based narrative arc in which seemingly insurmountable problems are generally solved (Prelinger 2009). It is often stated that storytelling is hardwired in human consciousness, but I disagree; I believe it is acculturated and culturally specific. The ambiguity and enigmatic nature of images and evidence, which might take us in so many directions, is forced into the most opportune channel to establish a story that can be told within the bounds of budget and mass comprehension, a story that succeeds and thus contributes to a sort of narrative triumphalism. Not every tale is treated fairly by this tactic. And in fact most of the evidence we see drawn from archives is overtold, encrusted with narrative. By contrast, I seek to find a place for foregrounding the record itself with relatively little “storytelling.” In other words, I attempt to encourage new kinds of negotiation between the document and its users, and let a more-or-less contextualized, or even decontextualized document find its own path. This could mean trusting evidence over interpretation. Evidence can be its own narrative; storytelling is a special interest.

I work by arranging evidence as best I can. For the past ten years, I have made films out of home movies and other archival film materials without using music, sound design, narration, or visual effects. I rely on audiences to make their own soundtrack—in other words, to talk their way through my films. I encourage them to identify familiar places, people, and events; to ask questions; to dispute the assertions of their neighbors; to find a place for their

28 voices in the film while it is playing, and thus to determine where and how the film progresses. Home movies play a key role in these films. Evidence might be trustworthy in the morning and devious in the afternoon, and the editor's grip might vary in strength, but there is something irreducibly honest about a document made by a nonprofessional who is motivated, as with most home movie makers, by love for their subject. This is not a universal stance or a normative form of filmmaking, but avoiding overnarrativization lets me breathe more freely, and it validates archival documents over storylines that may have little to do with the documents themselves.²³

Archives could push back against the terms that restrain how far publicly practiced and received histories can stretch. To do this doesn't just mean foregrounding underrepresented narratives and records that have been suppressed by force and violence, but actively daylighting records that represent anomalies, that document uneffaced differences—personalities, cultures, and technologies that don't fit into simplistic, dominant timelines and that refute narratives of triumphalism and progress—and allow them to play freely. Home movies, of course, exemplify this kind of record in the way that they simultaneously document and resist interpersonal commonalities, presenting powerful evidence of race, gender, class, and place whose granularity of detail and richness of expression often cannot be comprehended through shallow and stereotypical interpretations. We are only beginning to realize the potential of home movies (and I extend this to personally generated records of all kinds) to challenge not only existing historiographies but existing dramaturgies as well, and I believe home movies offer one key to rendering the excesses of narrativization obsolete.

I think the covert function of an archive is to make things more complex, to complicate, to serve as a counterbalance to the reductive and endlessly repeated soundbites that constitute much of what we are told is "history."
(Darms 2015)

No one is likely to halt the trend toward narrativizing evidence. At its simplest it is like sorting eggs, and this renders it likely that wholesale narrativization will be done by machines on the fly, in the same way that Storify builds a thin narrative crust out of a tweet-stream or low-budget news services draft bots to write stories. And there will obviously be fancier tools, some of them that may gain credence as default means to touch or to construct windows into archival content. Facebook's Timeline is a narrativizing spine whose genius lay in its merging our personally authored words and images with the record of what we watched, listened to, and bought. Like the devotees who compiled a complete bibliography of every book on Bertolt Brecht's shelves (Wizisla, Streidt, and Loeper 2007), Facebook recognized that our biographies were as much about what we consumed as what we produced.

twitter, you're a kaleidoscopic cacophony of fragmentary, illusive
and momentary information, serving up rumors, fears & wishes
#Ferguson

—@footage, 2014–08–16

And yet let me rehearse a half-hearted argument in favor of storytelling. It is urgent to preserve and disseminate the histories of today's civil rights movement. The greatness of these histories lives in the nature of their creators—grassroots activists, community members, lay witnesses to historical moments—and in their granularity. These histories are principally built of tiny pieces circulated through social media: Tweets, Instagrams, Periscope videos of greater or lesser persistence, calls and responses on Facebook. The assembly of these fragments forms a history that is as difficult to make sense of as it is to read a photograph from its halftone dots. Evidence collides with evidence, generating tangles that might never be unraveled. Here might be a place for some kind of storytelling beyond mere chronology. But if we assume that we can at least display *some* of this material, how do we make it meaningful? How can we respect the evidence without strangling it in narrative, while making some sense of it without privileging a single

30 or oversimplified interpretation? This is the single biggest problem we encounter when we select individual archival documents for display—we end up privileging specific narratives, putting answers before questions.

These materials are often sensitive, and their free use may be restricted by terms of service, copyright restrictions, and concerns for the privacy and legal vulnerability of the people who made social media posts or appeared in someone's photos. They may therefore be likely to be restricted to in-house use in a brick-and-mortar archives or museum, just as Library of Congress's Twitter archives, if ever made ready for public display, will be kept offline. In this respect, the new digital archives will tend to resemble the old physical ones. They will propagate only over the Net when people quote what they read or photograph what they see on the walls. But the reason for making archives of these materials is to construct bridges rather than walls. This argues for accessibility, especially if we are to be hospitable to nontraditional archives users. In recent years we have collectively developed a big box of accessibility tools—data visualization and mapping platforms that are accessible to anyone with the computer literacy of the average gamer—and perhaps we can use these tools to narrativize evidence without losing its power along the way. Or, perhaps, to use the occasion of a museum visit to explain how storytelling can be a tool to expand and contract consciousness alike.

The historical interest of a work is inversely proportional to number of gatekeepers it passes thru. Books vs ephemera; TV vs home movies
—@footage, 2016-04-27

Personal Records and Vernacular Collecting

Erika Mijlin: we regard excessive production of data w. celebration & awe, quite unlike way we regard other waste #poeticsandpolitics2015
—(@footage, 2015-05-17)²⁴

Hoarding can express distress & confusion, but also a need for rootedness & security. This is something for #archives to consider.
#mac16

—@footage, 2016-04-30

Mars's First Hundred settlers in Kim Stanley Robinson's Mars Trilogy discover how to extend the human lifespan by several hundred years but are unable to get as keen a grip on the bioscience of memory preservation. Drawn to remediate their amnesia about events that happened over a century earlier, they frequently search databases to prompt their fading memories. Interestingly, almost all the searches target personal rather than institutional records. From this, and from today's social media-centered Internet, I am tempted to imagine the characteristics of future database queries. It seems quite possible that repositories of personal records and the microhistories associated with individual lives will become far more pertinent to the needs of future searchers than the records of government and institutions—especially if surveillance databases are considered as repositories of personal records.

In any case, there's no question that the volume of personal media production is historically offscale. In such an environment it's really hard to distinguish the archival from the contemporary. Residual and emergent, prolepsis and analepsis, not just coexisting but combining and reframing. Think of YouTube, Facebook, Twitter, Snapchat, even the sadly languishing Flickr, all pseudo-archives that have supported quotation and reframing almost from their beginnings. The majority of personal media production occurs within these constantly refreshed workspaces that share common objects with custodial services that pretend to be archives but whose archival compact with users, as I've said elsewhere, is a noncommittal handshake (Prelinger 2015). We think we are saving our videos, photos, and posts, but we're betting in a game where the house holds an insurmountable advantage. Does the trauma of archival erasure extend across the full spectrum of loss from the destruction of a whole society's records to the closedown

32 of a social media service and the concomitant loss of personal materials? We will unfortunately have the opportunity to ask this again and again.

Personal records have always been intimidatingly infinite relative to the societies that create them. Personal digital materials don't represent a new challenge but rather inhabit a spectrum of personal recordkeeping that begins in the deep analog era: scratches in the sand, drawings on cave walls, clay tablets, papyrus fragments, graffiti, and so on; extending to quilts, diaries, letters, and postcards; then home movies and home video; into contemporary digital media, and finally toward digital and postdigital media we are now seeing and might or might not expect in the future—body cams (Google Glass was only a first effort), location data and metadata from phones, et cetera; CCTV feeds; human metrics, such as the Quantified Selfists collect; endoscopy; sonograms; medical telemetry and, maybe sooner than we think, brain waves. Almost all of these “platforms” gave rise to an abundant record in their time; each posed preservation problems; and long-term survival of the record was rarely an issue.

Personal records are highly granular, typically uncharismatic, eminently unselectable, frequently unreleasable, effectively infinite, extremely inconvenient. Who owns today's personal records? Who maintains them? Who forgets me; how can I be forgotten? There is complex, covert mirroring between records that exist part in open and part in classified worlds, giving rise to the jokes that NSA is our most reliable backup service. The lack of consistency in the way we regard our personal privacy adds to the confusion. It is remarkable how much people are willing to reveal publicly or semipublicly, to “friends.” I have speculated that many people are less worried about the original, granular data we spin off as a function of living in networked culture than they are about others transforming it into ordered timelines or narratives. Unsorted, unmodulated evidence may feel less sensitive than coherent stories others build and attach to our identities.²⁵

Archivists sometimes express fatalism at personal digital archives conferences. Questions turn into imponderables, and in general archivists (at least those who tweet their thoughts) are loath to invade personal privacy. Consequently they often revert to tool building because the big issues are profoundly complex and the mass of data unknowable to civilians. For a time it may feel safer to make analysis and processing tools and experiment on controllable datasets. But in my most optimistic moments, I think the weight of the quotidian record lifts away when we stop fussing and actually engage with it. The flour, oil, and salt some of us store against the prospect of apocalyptic starvation is easier to refresh when it is regularly drawn from. We will have to somehow make it safe to play with secrets, no matter how difficult the rules of that game may be.

I'd be curious to hear from anyone who's written or thought about
#archival activity as a practice resembling #permaculture

—@footage, 2012-10-14

Access to personal records is one issue; long-term, infinite-capacity, robust, and sustainable storage another. Recent research proposing DNA as such a solution (Bornholt, Lopez, Carmean, Ceze, Seelig, and Strauss 2016) has piqued the archival imagination; some archivists wanting to believe that data precarity has been fixed, others clinging to risk eternal. I represent the latter category. What might infinite storage mean? The possibility of infinite storage actually invokes all sorts of fascinating problems of abundance. Infinite storage depreciates the value of individual records. Infinite warehouses make it easier to lose individual pallets. Infinite repositories of memory will enable forgetting on an unprecedented scale. Even the prospect of infinite digital storage revalidates the beleaguered physical artifact. Infinite storage will revivify old-school, artisanal-style curation. The paradox of infinite storage is that it will finally convince many of us not to hoard, because when loss is no longer a possibility, surviving records lose their privilege.

34 Nontransparent societies (most societies, other than perhaps Scandinavian) are unlikely to resolve the question of access to personal records. Archives whose chief *raison d'être* is to preserve nonstate historical and cultural records seek to be open (however the cultural meaning of "openness" may shift in time and place), and they wish to serve needs that do not explicitly facilitate surveillance and control. But for the moment it is impossible to provide the same kind of access to records with sensitive personal characteristics as to public and institutional records (especially government records that have been released or are statutorily open), and therefore personal records tend to be held under conditions that replicate the traditional inaccessibility of most archival collections. We are seeing this today with records of social movements, such as Occupy and Black Lives Matter. Most would agree that preserving these records is an imperative, but when we look more closely at their content and realize the legal and personal vulnerabilities of identifiable participants in these movements, our reservations grow.

There are other important reasons to keep many records quiet or private. Much traditional knowledge and traditional cultural expression is not intended for sharing outside the community or society in which it was created, and often not meant to be shared between all community members. To expose and disperse knowledge with ceremonial or spiritual significance can be an act of cultural aggression that perpetuates the history of wars against Aboriginal, Indigenous, and Native peoples. Many established repositories hold and expose records whose public visibility offends and endangers traditional communities. "Open access for all, to all" cannot be a culturally universal call.²⁶

The paradox, then, is that much of what we must collect must also remain silent. Emerging repositories of personal and community records may inhabit vaults with virtual time clocks corresponding to every person represented in the archives, each ticking toward its own unlocking date. Is this really a situation to avoid?—we might ask. At the very least, it is ironic. The advent of ubiquitous networked digital cultures has forced many cultural and historical

archives to rethink the restrictions they have traditionally placed on access to their holdings. The Internet's ascendancy has also drowned us with senses of entitlement and possibility, allowing us to imagine that, yes, we can in fact collect the traces of all of our lives. But some of the new collections that can dive deep into our individual and community's histories and intentions may for now be too inconvenient to be freely shared.

I could not forget, in an age of space-ships, world wars & publicity, that the real things of the country were hidden & inward. (Brooks 1961)

Amateurism

I'm interested in why we don't refer to "personal analog/physical archiving" but say "collecting" in most cases. #pda12

—@footage, 2012-02-24

Vernacular archival practices by ordinary people are more persistent than standards and workflows of professional archivists. #archives

—@footage, 2012-02-25

Media archaeologists and anxious industry executives share at least one attribute, and that's a special concern for media technologies and practices that originate at the periphery of established media industries. Both keenly track the challenges these may pose to dominant platforms. In so doing they peek into a future when suits and brand names may no longer receive the respect to which they've been accustomed. Archives are equally challenged by vernacular efforts to collect, manage, and preserve the historical record, and only the most courageous archivists have looked into the future and recognized uncoordinated decentralization as positive. Distributed collecting does raise complicated questions: it seems likely to me that the archival future will be much more about the coordination of a mass of collecting efforts than about the niceties of selection and appraisal; what future digital archivists are able to save will result from billions of lucky accidents, and one

36 of their jobs will be to share knowledge of what data persists and keep track of evolving idiosyncratic recordkeeping models.

Popular archival practice doesn't get as much attention as the latest viral video, but it's excitingly disruptive. Personal, independent, and community collections enable research and access in ways that more traditionally organized institutions cannot. They may not be nearly as organized or comprehensive, but they are often more direct and efficient. They may not present our materials on lovingly contextualized and vetted websites but can often shovel a lot of material online to surprise and enrich their users. Nontraditional entities can often be better at collecting specialized materials (nontextual, for instance) that can be vexing to traditional collections. And by defamiliarizing the compartmentation and seemingly mysterious workflows that exist in most special collections, independent collections encourage users and archivists to imagine about how future libraries and archives might work. Of all entities we might call "archival," independent, community and amateur collections come closest to actionable spaces, possessing all the virtues, and of course the flaws, of amateurism.

For a younger generation of feminists, the archive is not necessarily either a destination or an impenetrable barrier to be breached, but rather a site and a practice integral to knowledge making, cultural production, and activism. The archive is where academic and activist work frequently converge. . . . Rather than a destination for knowledges already produced or a place to recover histories and ideas placed under erasure, the making of archives is frequently where knowledge production begins. (Eichhorn 2013, 3)²⁷

Perhaps the firehose of personal records requires centralized institutions that can collect at scale. But already individuals and nonprofessionalized groups are often the first responders and sometimes the most assiduous preservers of personal (and certain impersonal, depending upon their focus) digital materials. If true, we are heading into a delightfully kaleidoscopic period of archival practices, a

panorama of outsider collections whose allure will radiate from the methods by which they were collected and organized, rather than by what they may contain. But while this prospect may be enabled by the digital turn, we do not owe its conception to digitality.

The historian Robert C. Binkley promoted amateur scholarship and collecting before his untimely death in 1940 (see Binkley 2016). He characterized amateur historians, collectors, and independent scholars as a kind of citizen research force whose self-motivated efforts (or organized efforts through such agencies as the U.S. Works Progress Administration) could fill gaps in scholarship and collecting unaddressed by established libraries, archives, and universities. Long before E. P. Thompson popularized the phrase “history from below,” Binkley addressed the work the academy was leaving undone. In several inspiring essays, replete with suggestions and scenarios we still might consider implementing, he imagined a kind of distributed research and publishing system that opened participation in scholarship to amateurs, the uncredentialed, and the unemployed, a system that made use of new reproduction techniques like micropublishing, offset printing, and strike-on typesetting. He promoted (and may have conceived) the WPA program for unemployed intellectuals in Ohio, a public works innovation employing them to inventory local history collections and index historical newspapers. A close reading of his *Manual on Methods of Reproducing Research Materials* (1936), packed with fascinating descriptions of now-extinct technologies that will delight today’s media archaeologists, reveals little foreknowledge of electronics but much anticipation of the attributes of the Internet as a system for scholarly communication, and the turn toward digital humanities.²⁸

Archives of Inconvenience

Those talks on archival materials that conclude sanctimoniously, but worst of all *boringly,* that “archives matter”:

—@ncecire, 2015-02-28²⁹

If all you can get out of your archival materials is that they matter, then they do not in fact matter.

—@ncecire, 2015-02-28

Archival enclosure is a systemic problem and nonproductive inconvenience. But other inconveniences can be formative. Wrangling with inconvenience is like choosing to write by hand instead of typing or dictating; you learn more about the words you are processing (see Mueller and Oppenheimer 2014). My urban history film events have been made possible in part through the productive inconveniences of physical media. Archival film is often inconvenient to work with and difficult to see; it takes time, labor, and resources to inspect, repair, document, prep for scanning, scan, edit, and so forth. Workflow can, however, be exploited to bring other interested parties into the production process: it can involve community members, creators and their relatives, and possibly even motivated scholars. In the same way a gem cutter spends time closely examining the uncut stone, engagement with the physical constituents of a film brings the maker(s) into a closer relationship with the possibilities the film might express.

Inconvenience enables defamiliarization, which is what makes movies (and, in fact, all representation) possible. Inconvenience defamiliarizes not only the deceptive ease of interfacing but foregrounds the problematics of our relationships to interfaces as well as the information that lies behind them. Just as engagement with digital media helps us better understand analog affordances, engagement with digital inconvenience will allow us in time to negotiate clearer terms with the digital turn. Rather than trying to efface the inconvenient attributes of archives, it is time to celebrate and make our peace with them.

But while welcoming archival inconvenience, we cannot overlook archival precarity. Most cultural repositories lack strong advocates, and we must step in to help defend their independence and ensure their persistence. We must find a way to thematize archives simultaneously in two realms: as players in unpredictably evolving media

ecosystems, and as entities that stand apart from the voracious present and offer at least a fair shot at historical accountability. One plausible strategy for scholars and artists might be to engage rather than outsource: to emulate the labor of entomologists, folklorists, and field recorders, many of whom collect their own research material rather than relying on others to supply it. Placing archival practice at the core of our own work permits us to join with archivists in determining the evolution of recordkeeping. The decentralization (and reengineering) of archival practice should not just be the mission of archives but of their users and supporters as well. The active critique of archival practice cannot prevent us from engaging with archives in all of their imperfection and working to bridge the gaps that have separated repositories from users, theorists, and the public.

What archives offer the contemporary mediasphere—perhaps their primary affordance—is the possibility of foregrounding evidence over interpretation and overnarrativization. Whether through physical media, performance, presence, social practice, or digital technologies, new means of evidence-based cultural intervention will continue to arise. And yet I'm not sure we're well served by an excess of affordances. Look at Flaubert's Bouvard and Pécuchet, lost in the nineteenth-century supermarket of ideas, and their homebuilt laboratory filled with equipment used once to perform inconclusive experiments. Or their New England equivalent, the Peterkin family as chronicled in *The Peterkin Papers* (which I interpret as a satire on the Transcendentalists), who, in one story, go to great effort to source for their son Solomon John the paper, ink, and quills he needs for the book he so much wants to write, and then, when he sits down at his desk surrounded by family members he looks up and states, "But I haven't got anything to say!" (Hale 1868).

"Alas! and woe is me!" thus bemoaned himself a heavy-looking gentleman in green spectacles. "The world is utterly ruined, and there is nothing to live for any longer. The business of my life is snatched from me. Not a volume to be had for love or money!" . . .

"My dear sir," said I to the desperate bookworm, "is not nature better than a book? Is not the human heart deeper than any system of philosophy? Is not life replete with more instruction than past observers have found it possible to write down in maxims? Be of good cheer. The great book of Time is still spread wide open before us; and, if we read it aright, it will be to us a volume of eternal truth."

"O, my books, my books, my precious printed books!" reiterated the forlorn bookworm.

"My only reality was a bound volume; and now they will not leave me even a shadowy pamphlet!"

In fact, the last remnant of the literature of all the ages was now descending upon the blazing heap in the shape of a cloud of pamphlets from the press of the New World. These likewise were consumed in the twinkling of an eye, leaving the earth, for the first time since the days of Cadmus, free from the plague of letters,—an enviable field for the authors of the next generation. . . .

"Well, and does anything remain to be done?" inquired I, somewhat anxiously. "Unless we set fire to the earth itself, and then leap boldly off into infinite space, I know not that we can carry reform to any farther point." (Nathaniel Hawthorne, "Earth's Holocaust")

Notes

The point of departure for this chapter is the keynote talk the author delivered at the Terms of Media II Actions conference at Brown University on October 8, 2015, but this text is heavily revised and extended.

- 1 @footage is the author. All textual extracts in this chapter credited to a Twitter handle are verbatim Tweets.
- 2 Bethany Nowviskie (2016a and b) calls for the reformulation of digital collections and digital scholarship "to fuel the conceptualization and the realization of alternative futures," invoking Afrofuturist thought and the fusion of community archival practice with speculative thinking, as exemplified in the work of Rasheedah Phillips's Community Futures Lab. (<https://www.blackquantumfutureism.com/>, accessed April 15, 2017).

- 3 Jarrett M. Drake (2016a and b) critiques “the traditional way of doing archives,” outlines the risks of reformism and describes “the transformative power of liberatory and community archives” in an essential, two-part article.
- 4 Michelle Caswell’s essential paper (2016) describes the “failure of interdisciplinarity” between humanities scholarship and archival studies.
- 5 Tansey (2016) describes the “marginalization from the public sphere” that affects archivists, despite their essential role in maintaining the historical and cultural record.
- 6 As far as I can determine, Jessa Lingel (2016) was the first writer to explicitly link “the fetish of the archive” with the unwillingness of outsiders to recognize archival labor. Archivist Hillel Arnold (2016) suggests that maintenance studies is a framework for understanding archivists’ marginalization and invisibility.
- 7 Greene and Meissner (2005) examined and critiqued the ritualistic nature of textual archival processing in a paper that remains controversial ten years after its publication.
- 8 @bspalmieri is Brooke S. Palmieri.
- 9 Drake (2016a) names and eloquently critiques three characteristics of traditional archives, comparing them to the carceral vision embodied in Philadelphia’s Eastern State Penitentiary, opened 1829: “silence, solitude and surveillance.”
10. Consideration of analogies and relationships between knowledge and information infrastructures and infrastructures of cities populates the work of scholar Shannon Mattern (2016).
- 11 The effects of this tragedy are still seen today in the Draconian fire codes governing storage of nitrate film (Greene and Newell 1929).
- 12 For years nitrate decomposition was believed to increase the danger of combustibility, until Heather Heckman’s (2010) literature survey established that this relationship was based more on faith than on research..
- 13 A stellar assembly of archivists, scholars, and devotees have contributed to such a project: cf. Smither and Surowiec (2002).
- 14 For an exhaustive and well-researched survey of silent feature film survival, see Pierce 2013.
- 15 An entertaining compilation of studio-produced stock footage and process plates may be seen at <https://archive.org/details/InternetArchive35mmStock-FootageSampleReel> (accessed July 1, 2018).
- 16 “Poems are considered frivolous, but they have jobs to do. They offer up space to make sense of not just language, but being.” Jen Bervin, speaking at the Creative Capital Artist Retreat, Williams College, 2013, at <https://aroomof-teresasown.wordpress.com/2014/10/14/quote-of-the-day-jen-bervin/>, accessed August 25, 2016.
- 17 See Schiller and Prelinger 2017.
- 18 A visit to a nontraditional library resensitized Kevin Kelly, a longtime advocate of digitality, to books and their affordances. See Kelly 2011.
- 19 See Soar and Gallant 2016.
- 20 @john_overholt is John Overholt. @mchris4duke is Chris Bourg.
- 21 @snowdenbecker is Snowden Becker.

- 42 22 See Leary 2011.
- 23 As of mid-2018, I have produced 24 film/events of this type, which have been presented before 100 live audiences. See Schiller and Prelinger 2017.
- 24 Paraphrasing Erika Mijlin's remarks at the Poetics and Politics Documentary Research Symposium, U.C. Santa Cruz, May 17, 2015. Mijlin's sentiment hints at the hierarchies and moral panics linked with differing domains of collecting. The moral panics and pathologies that generally surround hoarding should not deter archivists from thinking seriously about what it can teach them. Scott Herring (2014) examines the socially devaluated and highly pathologized practice of hoarding in his thoughtful and courageous book, which is also an examination of vernacular archival practice on another level and a book I highly recommend to archivists and archival scholars. Many people who are seen as hoarders (including Andy Warhol, who assembled more than six hundred of his "time capsules") may well be working toward some of the same objectives archives are organized to address. Anna Chen (2015) encourages archivists to consider "digital hoarding" and "individual organizational practices" as organic activities that may usefully inform archival practices.
- 25 Akin, perhaps, to the escalation in citation of the "mosaic theory" by U.S. federal agencies as grounds for exempting information from public release under the Freedom of Information Act. See Pozen 2005.
- 26 Scholar Kimberly Christen (2012 and 2018) has collaborated with Indigenous communities to develop archival management systems and platforms for managing their curatorial and archival needs. Critiquing generalized calls for "openness," she advocates the incorporation of "a wider range of ethical and cultural concerns into our digital tools."
- 27 By quoting Eichhorn as part of a discussion of amateurism, I do not mean to imply that she privileges personal and community collecting over institutional collecting. "For a generation or two of women born during and following the rise of the second wave feminist movement, inaugurating private and semipublic collections as archives and donating them to established public and university archives and collections is central to how they legitimize their voices in the public sphere" (Eichhorn 2013, 15).
- 28 The book contains tipped-in and glued-in photographs, microfilm and microprint samples, printing plates, mimeographed sheets and newsprint, all of which resist conventional mass-digitization processes. See Binkley 1936.
- 29 @ncecire is Natalia Cecire.

References

- Arnold, Hillel. 2016. "Critical Work: Archivists as Maintainers," *hillelarnold.com*. Accessed August 16, 2016. <http://hillelarnold.com/blog/2016/08/critical-work/>.
- Bervin, Jen. 2013. "Remarks at the Creative Capital Artist Retreat, Williams College." Accessed August 25, 2016. <https://aroomofteresasown.wordpress.com/2014/10/14/quote-of-the-day-jen-bervin/>.

- Binkley, Peter (initial contributor). 2016. Initially created March 17, 2013. Accessed August 28, 2016. https://en.wikipedia.org/wiki/Robert_C._Binkley. Article written largely by Binkley's grandson and contemporary explicator Peter Binkley, which describes Binkley's writing on decentralized and amateur scholarship and links to major writings.
- Binkley, Robert C. 1936. *Manual on Methods of Reproducing Research Materials: A Survey Made for the Joint Committee on Materials for Research of the Social Science Research Council and the American Council of Learned Societies*. Ann Arbor, Mich.: Edwards Brothers.
- Bornholt, James, Randolph Lopez, Douglas M. Carmean, Luis Ceze, Georg Seelig, and Karin Strauss. 2016. "A DNA-Based Archival Storage System." In *International Conference on Architectural Support for Programming Languages and Operating Systems*. Accessed June 25, 2016. <https://homes.cs.washington.edu/~luisceze/publications/dnastorage-asplos16.pdf>.
- Brooks, Van Wyck. 1961. *From the Shadow of the Mountain: My Post-Meridian Years*. New York: E. P. Dutton.
- Caswell, Michelle. 2016. "'The Archive' Is Not An Archives: Acknowledging the Intellectual Contributions of Archival Studies," *Reconstruction* 16, no. 1. Accessed June 28, 2016. <http://reconstruction.eserver.org/Issues/161/Caswell.shtml>.
- Chen, Anna. 2014. "Disorder: Vocabularies of Hoarding in Personal Digital Archiving Practices," *Archivaria* 78 (Fall): 115–34.
- Christen, Kimberly. 2012. "Does Information Really Want to Be Free? Indigenous Knowledge Systems and the Question of Openness." *International Journal of Communication* 6, 2870–93. Accessed July 1, 2018. <http://www.kimchristen.com/wp-content/uploads/2015/07/christen6.2012.pdf>.
- Christen, Kimberly. 2018. "Publications." Accessed July 1, 2018. <https://www.kimchristen.com/publications/>.
- Darms, Lisa. 2015. Introduction to "Radical Archives" section of "Archives Remixed" issue, *Archive Journal* 5 (Fall). Accessed June 24, 2016. <http://www.archivejournal.net/issue/5/archives-remixed/>.
- Drake, Jarrett M. 2016a. "Liberatory Archives: Towards Belonging and Believing (Part 1)." Delivered at the first Community Archives Forum at UCLA on October 21, 2016. *medium.com*. Accessed April 15, 2017. <https://medium.com/on-archivy/liberatory-archives-towards-belonging-and-believing-part-1-d26aaeb0edd1>.
- Drake, Jarrett M. 2016b. "Liberatory Archives: Towards Belonging and Believing (Part 2)." Delivered at the first Community Archives Forum at UCLA on October 21, 2016. *medium.com*. Accessed April 15, 2017. <https://medium.com/on-archivy/liberatory-archives-towards-belonging-and-believing-part-2-6f56c754eb17>.
- Eichhorn, Kate. 2013. *The Archival Turn in Feminism: Outrage in Order*. Philadelphia: Temple University Press.
- Greene, F. E., and H. E. Newell. 1929. *Report on the Cleveland Clinic Fire, Cleveland, Ohio, May 15, 1929, by the National Board of Fire Underwriters and the Ohio Inspection Bureau*. New York: National Board of Fire Underwriters. Accessed August 25, 2016. <http://cplorg.cdmhost.com/cdm/ref/collection/p128201coll0/id/3512>.
- Greene, Mark A., and Dennis Meissner. 2005. "More Product, Less Process:

- Revamping Traditional Archival Processing." *American Archivist* 68: 208–63. Accessed June 20, 2016. <http://www.archivists.org/prof-education/pre-readings/IMPLP/AA68.2.MeissnerGreene.pdf>.
- Hale, Lucretia P. 1868. "The Peterkins Try to Become Wise." *Our Young Folks* 4 (May), 270–71. books.google.com/books?id=GyzyAAAAAAAJ&lpg=PA270&ots=5lxlEnDz-&dq=peterkins%20try%20to%20become%20wise&pg=PA271#v=onepage&q=peterkins%20try%20to%20become%20wise&f=false.
- Hawthorne, Nathaniel. 1844. "Earth's Holocaust." In *Mosses from an Old Manse*. [eldritchpress.org](http://www.eldritchpress.org/nh/holo.html). Accessed June 25, 2016. <http://www.eldritchpress.org/nh/holo.html>.
- Heckman, Heather. 2010. "Burn after Viewing, or Fire in the Vaults: Nitrate Decomposition and Combustibility," *American Archivist* 73, no. 2: 483–506.
- Herring, Scott. 2014. *The Hoarders: Material Deviance in Modern American Culture*. Chicago: University of Chicago Press.
- Jardine, Boris, and Christopher Kely. 2016. "Preface: The Total Archive," *Limn* 6 (March). Accessed August 25, 2016. <http://limn.it/preface-the-total-archive/>.
- Kelly, Kevin. 2011. "The Gravity of Paper." *The Technium* (April 11). Accessed June 24, 2016. <http://kk.org/thetechnium/the-gravity-of/>.
- Leary, John Patrick. 2011. "Detroitism," *Guernica* (January 15). Accessed June 20, 2016. https://www.guernicamag.com/features/leary_1_15_11/.
- Lingel, Jessa. 2013. "This Is Not an Archive," [jessalingel.tumblr.com](http://jessalingel.tumblr.com/post/66108958850/this-is-not-an-archive). November 5. Accessed June 25, 2016. <http://jessalingel.tumblr.com/post/66108958850/this-is-not-an-archive>.
- Mariano, Paul, and Kurt Norton. 2011. *These Amazing Shadows* (film). Gravitass Docu-films. <http://www.imdb.com/title/tt1273222/>
- Mattern, Shannon. 2016. *wordsinspace.net*. Accessed June 20, 2016. <http://www.wordsinspace.net>.
- Mueller, Pam A., and Daniel M. Oppenheimer. 2014. "The Pen Is Mightier than the Keyboard: Advantages of Longhand over Laptop Note Taking." *Psychological Science* 25, no. 6: 1159–68. Accessed August 17, 2016. <http://pss.sagepub.com/content/25/6/1159.full?keytype=ref&siteid=sppss&ijkey=CjRAwmlURGNw>.
- Nowwiskie, Bethany, 2016a. "alternate futures/usable pasts," [nowwiskie.org](http://nowwiskie.org/2016/alternate-futures-usable-pasts/). October 24, 2016. Accessed April 15, 2017. <http://nowwiskie.org/2016/alternate-futures-usable-pasts/>.
- Nowwiskie, Bethany, 2016b. "speculative collections," [nowwiskie.org](http://nowwiskie.org/2016/speculative-collections/). October 27, 2016. Accessed April 15, 2017. <http://nowwiskie.org/2016/speculative-collections/>.
- Pierce, David. 2013. *The Survival of American Silent Feature Films: 1912–1929*. Washington, D.C.: Council on Library and Information Resources and Library of Congress. Accessed August 25, 2016. https://www.loc.gov/programs/static/national-film-preservation-board/documents/pub158.final_version_sept_2013.pdf.
- Pozen, David E. 2005. "The Mosaic Theory, National Security, and the Freedom of Information Act," *Yale Law Journal* 115, no. 3: 628–78. Accessed August 25, 2016. <http://www.yalelawjournal.org/note/the-mosaic-theory-national-security-and-the-freedom-of-information-act>.

- Prelinger, Rick. 2009. "Taking History Back from the 'Storytellers.'" *blackoystercatcher.blogspot.com*. Accessed June 20, 2016. <http://blackoystercatcher.blogspot.com/2009/06/taking-history-back-from-storytellers.html>.
- Prelinger, Rick. 2010. "We Are the New Archivists: Artisans, Activists, Cinephiles, Citizens." Talk presented at "Reimagining the Archive" Symposium, UCLA, November 12, 2010. Accessed July 1, 2018. <https://www.slideshare.net/footage/reimagining-the-archive-keynote-presentation>.
- Prelinger, Rick. 2015. "The Disappearance of Archives." In Wendy Hui Kyong Chun, Anna Watkins Fisher, and Thomas Keenan, *New Media, Old Media: A History and Theory Reader*, 2nd Edition. New York: Routledge, 2015.
- Prelinger, Rick, and Internet Archive. 2000. "Prelinger Collection." Website that originated December 30, 2000. Accessed June 25, 2016. <http://www.archive.org/details/prelinger>.
- Prelinger, Rick, and Megan Prelinger. 2018. "Prelinger Library." Accessed July 1, 2018. <http://prelingerlibrary.org>.
- Schiller, Lucy, and Rick Prelinger. 2017. "Essayistic Interventions: Taking the City into the Theater." *The Essay Review* (Iowa City). Accessed July 1, 2018. <http://theessayreview.org/essayistic-interventions-taking-the-city-into-the-theater/>
- Slide, Anthony. 1992. *Nitrate Won't Wait: A History of Film Preservation in the United States*, Jefferson, N.C.: McFarland.
- Smither, Roger, and Catherine A. Surowiec, eds. 2002. *This Film Is Dangerous: A Celebration of Nitrate Film*. Brussels: International Federation of Film Archives.
- Soar, Matt, and Jackie Gallant. 2016. "Lost Leaders: Countdowns and the Metadata of Film (2011-)." *lostleaders.ca*. Accessed June 24, 2016. www.lostleaders.ca.
- Tansey, Eira. 2016. "Archives without Archivists," *Reconstruction* 16, no. 1. Accessed June 28, 2016. <http://reconstruction.eserver.org/Issues/161/Tansey.shtml>.
- Wizisla, Erdmut, Helgrid Streidt, Heidrun Loeper, and Bertolt-Brecht-Archiv, Akademie der Künste. 2007. *Die Bibliothek Bertolt Brechts*. Frankfurt am Main: Suhrkamp Verlag.