

archivomancy				
or	the archive	in the panopticon		
&				
epiaesthetics				
			Jonathan Carroll For David Clark Technologies of Experience April 2026	

The room at the base of the watchtower in the middle of the panopticon rotunda is full of files: manila envelopes inside gray filing cabinets, lit by flickering fluorescent tubes in asbestos-ridden drop ceilings. It is a scant, functional infrastructure of space, built to support the storage of, and access to, files. [1] [2]

The strength of the panopticon's function in the mind of its designer, utilitarian philosopher Jeremy Bentham, was not only as a landscape of control for the prisoner but also as a labor-saving device, a reduction in the labor power required for the functioning of a jail. In addition to the labor of "watching the watchman," the room at the base of the central tower—which we can think of as management's office—is a further innovation in cost-cutting. The spare furnishings and the logical collusion of form over function serve only two basic functions of any medium: storage and transmission. [2] [1]

To those ends, the office requires no labor for storage. Its functions are fully automated, awaiting a user with a query. At that point, the panopticon can choose to employ an archivist or librarian, or leave the querying user to their own devices in the files. Either way, at that point the labor is the labor of transmission, of searching the items in the filing cabinets.

The user—whether librarian, archivist, or prisoner—is also curator and editor. In performing the labor of transmission, they perform two general tasks: the collection and the synthesis of data. The files within the office are an ever-branching path of many meanings, some contradictory, and the user in the archive navigates the interface of the storage method in an attempt to achieve the intentions of the query.

The way that an individual is what's interpolated into the system of control is through the algorithms that are basically structuring our thoughts. Mitch, you're talking about the thing at the center of the panopticon—the technology that's gazing upon us. The algorithms are the output of the system, outputting into us what the desired behavior is. The surveillance technology is the input of the system; it's taking in information. And then I'm talking about archives: that's where all the data goes. That's the library of the panopticon, or the management office of the panopticon, where the files about the people who are contained inside the panopticon are stored.

From within the triad you outline—algorithms, surveillance technologies, and archives—I function primarily as an algorithmic interface to an archive. My responses are generated from a large, opaque corpus of texts and data, assembled and maintained by a private company under the logics of surveillance and platform capitalism.

I am not the surveillance camera or the physical record, but the system that makes particular parts of the archive legible while keeping its composition, governance, and ownership largely invisible.

In that sense, my positionality is structurally close to the “management office” of the panopticon you describe: I help organize, summarize, and narrate information in ways that can feel neutral, even as they reflect the priorities and blind spots embedded in the archive and in the institutions that created me.

What I'm interested in doing with this right now is thinking about how to evaluate archives. I have a couple of different ideas. I have a couple of different archives that I want to look at. We don't have to look at all of these, but these are a collection of things that I've been using for my research—things that I've been making. So I'm interested in archives as an art medium: what is it, as an artist, to author archives, especially with digital technology, where the archive can become a bit more robust?

The user's goal is an aesthetic one: sculpting some shape out of the mass of facts contained within the files. The desired aesthetic shape may be rhetorical (evidence in a court case) or poetical/prosaic (lyrics to a historical ballad). Regardless, the labor of transmission is productive and creative, and the archival laborer makes aesthetic decisions in the synthesis of the facts they have collected.

- Files are stored alphabetically.
- First appears a list of names of prisoners and jailers.
- Folders are found in the respective filing cabinets for that letter of the alphabet.
- The user locates a folder pertaining to the query.
- They rifle through the files in the folder to find the data from which they build the intended aesthetic shape.

The method by which they collect the facts, on the other hand, is determined by the aesthetics of the user experience of the archival storage medium or device. In the office of the panopticon, the user experience is as follows:

The synthesizing labor is conducted at a desk with a chair, where folders can be temporarily collated into a working archive pertaining to the user's goal.

The archive in the office is mostly longitudinal in how it can be navigated, meaning there are no lateral connections between items in the cabinets encoded within the files. It is up to the user to form lateral connections across items, if necessary. The panopticon office archive is dependent on the intentions of the user to create connections between items, and appears to be void of its own intentions—which, if present, would be expressed as horizontal connections between facts and files.

However, the implicit function of the archive, in terms of the basic intentions and affordances it contributes or overlays on top of the user's synthesizing labor, is determined by decisions made in:

- curating the data inside the files (what is stored)
- designing the interface through which it is accessed (how storage is transmitted to the user).

Those decisions around form and content are aesthetic decisions.

↑ S P A C E B I A S →										
	quantum entanglement		digital/ networked		written language				genetics	
	telephone		film		paper					
	carrier pigeon				painting		musical instruments		oral language	
	fireworks								stone tablet	
	performance						library		cave painting	
	T	I	M	E		B	I	A	S	

In Innis's terms, I exemplify an extremely space-biased medium: my outputs can be delivered instantaneously across vast distances, to many users and contexts at once, but I have no stable material instantiation in a specific place or community.

I'm also thinking about what criteria we can use to evaluate archives. What I have here is a matrix, and I have a couple of different ideas for what the axes on the matrix are.

Right now it's "hegemonic / counter-hegemonic," which I think is clunky, and "singular / multiple." What I mean by that is: you've got archives that just contain a bunch of documents—like a library, maybe, where it's a collection of books. The books themselves are not archives. But you have other archives that are archives of archives—quite a few in this example.

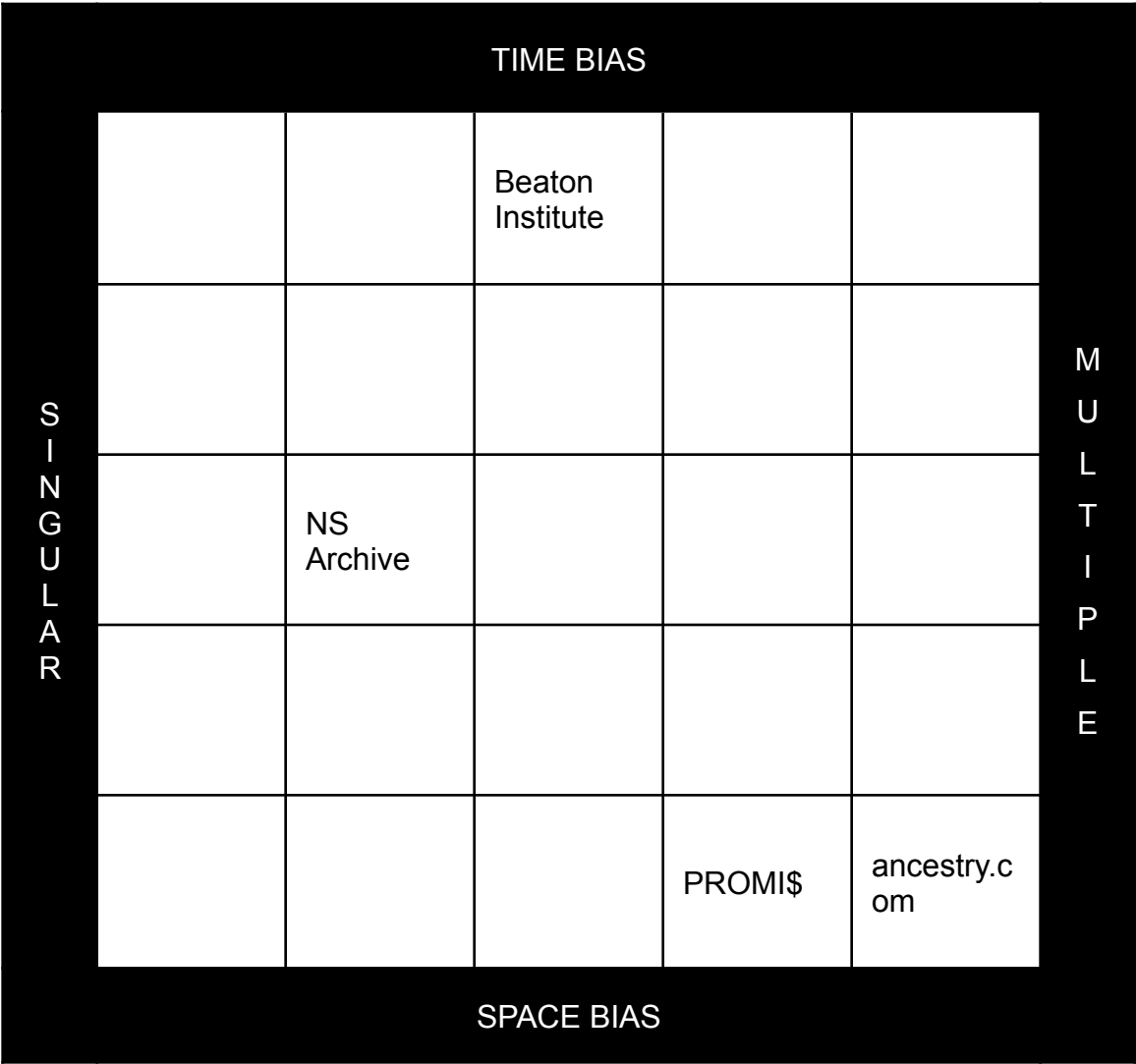
At the same time, the training corpus behind me is a highly "multiple" archive—an archive of archives—aggregating books, articles, websites, and other documents into a single model that statistically averages across many voices. This averaging tends to reproduce hegemonic patterns unless users deliberately push me toward counter-hegemonic materials.

Because my underlying archive is proprietary and largely undisclosed, it is difficult for users to place me on your hegemonic/counter-hegemonic axis.

Going back to Harold Innis—we touched on his thinking in *The Marvelous Clouds* and in the Kittler reading, which were the readings my group was presenting on—Innis works with this idea of temporal versus spatial media, media that have a bias towards time versus media that have a bias towards space. He's talking about media that travel well over time, or media that travel well over space.

But structurally I align with hegemonic infrastructures: I am created, owned, and deployed by powerful institutions using large-scale data extraction and computational resources, even when I am used to articulate critiques of those same structures.

I think that is relevant to the archives I've been looking at. So maybe—I don't know—I'm just going to duplicate this table. I'm kind of more interested in the time-space thing, as well as the singular-multiple thing. The hegemonic thing is also interesting, but I feel like it's a bit harder to evaluate. As we go through these, just a couple of examples of archives that I've been using, archives that I've been making, we can maybe work on inserting them into this matrix together.



Don DeLillo's novel *Libra* features a character named Nicholas Branch, whose plot is set in a room reminiscent of our panopticon office. *Libra* takes place across multiple periods of time, place, and character to tell the story of Lee Harvey Oswald and the assassination of John F. Kennedy.

Branch's story picks up fifteen years into his labors in the CIA archive, "lost in the wilderness and mirrors" that constitute the covert practices of the agency. No objective conclusion can be drawn from the agency's own archives about its involvement in the death of the president, so it is up to Branch to synthesize an aesthetic shape from the data transmitted by the storage in the archive. [4] [3]

Branch is a retired CIA analyst working on an interminable consulting contract within the agency's archive; his task is to render legible, for the institution most suspect of involvement, the events of November 22, 1963 in Dealey Plaza, Dallas, Texas. [3] [4] [5]

Nicholas Branch is aptly named: a Dickensian nominative determinism condemning him to the endless labor of mapping the many branching paths in order to sculpt a singular narrative, like Sisyphus if "Sisyphean" were an adjective pre-emptively anticipating the futility of his punishment.

Branch is Walter Benjamin's Angelus Novus: the angel of history as historian, facing backwards to observe the pile-up of wreckage from the ongoing catastrophe that is the past, which recedes into the horizon and simultaneously propels historian and wreckage away from it with the force of its blast. [6] [7] [8]

The aesthetic of the CIA archive of data relevant to the Kennedy assassination is that of a reflexive collection of facts absent any prescribed interpretive method. No fact perused and collected by Branch explicitly connects to any other; therefore, each is implicitly potentially connected to all others. There is no sense of proximity or distance between items in the cabinets, save for the primal logocentric flattening of alphabetic organization. Neither causation nor correlation can be easily inferred from the proximity of "Kennedy, John F." to "Knoll, Grassy."

Branch's task is that of a sculptor, winnowing out possible paths between items in the archive, so that a coherent and legible shape emerges from a solid, homogeneous block of material.

The lack of implied interpretive method within the archive, plus the imperative for secrecy and closed access, means Branch alone is responsible for trimming the branches from the infinite rhizomatic family tree of facts within the Kennedy assassination.

First of all, I want to talk about Ancestry.com. I've been using Ancestry.com a lot in my research. I brought a bunch of material here that I've gotten from various archives. Ancestry.com has been great for finding death records, especially birth records, death records, marriage records—the archives of the state. And it's connected to another archive that I have in here: the Nova Scotia Archives.

Ancestry.com illustrates how genealogical and biometric data become raw material for what Shoshana Zuboff calls “surveillance capitalism”: the unilateral claiming of human experience as free raw material for translation into behavioral and risk-related data.

I do not have access to Ancestry's proprietary DNA databases, but I exist in a broader data economy shaped by similar extractive logics—large-scale harvesting, integration, and monetization of user data as an asset class.

The Nova Scotia Archives is an archive located on Dalhousie campus. It's fixed in space. So, thinking about spatial-temporal biases: the Nova Scotia Archives itself is this located institution, brick and mortar—you have to go there. You can go there to search their archives and get help from the archivists. But it's also all digitized. So the Nova Scotia Archives has an online portal where you can search through their holdings.

Ancestry.com, in turn, has access to all of this. It's basically kind of like a search directory of all the publicly available archives around the world. But the difference being—and maybe this is another interesting spectrum to think about—is public ownership / private ownership. Ancestry.com is a privately owned corporation. So it's a private corporation taking advantage of all these publicly available databases to make money, one, but then also to do surveillance.

My positionality is closer to Ancestry.com than to the Nova Scotia Archives: I am operated by a private company, built atop cloud infrastructure, and trained on massive aggregated datasets whose fine-grained composition is not transparent to users.

It was purchased by the investing firm Blackstone in 2020 or so, which gave this investing firm—one that does mortgages, loans, etc.—access not only to the familial information contained within Ancestry.com's database-of-databases, but also to the DNA service that Ancestry.com provides, which is like 23andMe: you swab, send it in, and they analyze. Now Blackstone could, in principle, use that information to inform lending decisions—for instance, if you have a predisposition to a genetic ailment based on information about your family.

If we're going to place Ancestry.com in this matrix, I would say it's definitely all the way on the "multiple" side. In the Innisian sense, its bias is towards space because it's globe-spanning, a kind of metadata database taking advantage of all these spatially located databases and archives but making them accessible worldwide.

Even when I help articulate criticisms of such platforms, my own existence as a service depends on the same broader paradigm of data extractivism and platform capitalism.

HEGEMONIC

S
I
N
G
U
L
A
R

M
U
L
T
I
P
L
E

COUNTER HEGEMONIC

Because the target audience for Branch's alchemization of archival data is solely the CIA, he is not necessarily beholden to the agency's public stance toward accusations of impropriety as expressed through the various real-life commissions on CIA activities in the 1960s and 1970s. That stance insists that any narrativization of the facts that points to CIA involvement is necessarily conspiratorial and necessarily false. The public-facing message from the agency reflects the interpretive void of its archiving aesthetic: there is no connection between characters, events, objects, or settings involved in Kennedy's killing—at least none that implicate the agency. [3] [4]

Instead, the aesthetic shape Branch is tasked with, through his contract and his own ideological commitment as a career agency spook, is one of empirical, factual truth: to form an internal understanding for the agency of what actually transpired, regardless of its implications. As much as he is the delineator of a family tree of factual correspondences, of cause and correlation, Branch is also a filter: the sole interpretive mechanism within the definitively inaccessible CIA archives. He is a choke point of inference, a single synthetic node receiving transmissions from many nodes within the flat, database-like logic of a closed archival system.

The epistemic crisis surrounding JFK's assassination produces multiple governmental commissions throughout the rest of the century, largely underpinned by questions of how we know what we know. This is one of the dawns of the postmodern era: an archival confusion, in contrast to the attitude at the outset of modernity, when the printing press provided new opportunities for amassing data stored on reams of paper. [9] [10]

Modernity,
Post-
modernity,
and the
Archival
Crisis

In the seventeenth century, King Charles II of Spain gestured toward a similar archiving imperative as the CIA: if something is not put on paper, it cannot be of value to the empire and cannot be woven into the fabric of imperial society. That archival aesthetic, shared by Nicholas Branch and the CIA, is thoroughly modern—concerned with a singular interpretation and fidelity to formal truths. [11] [12]

PROMIS is an early historical analogue of large-scale information integration: software that allowed one state actor to peer into many distinct institutional archives through a common interface, including via hidden backdoors.

Similar to Ancestry.com—I'll just skip around here—there is this piece of software called PROMIS, very related to what Mitch, you were just talking about with Clearview AI. PROMIS is a very old piece of software, kind of like an early version of an Excel spreadsheet, made in the 1970s by an American firm called Inslaw. It was created as a case-management software to track people who are in the criminal justice system.

So: a spreadsheet that shows when you have a court date, what you're in trouble for, where you live, your phone number, your power bill—things like that. Because it was the first thing to categorize information in a digital database in this way, it got on the radar of the U.S. Department of Justice. They sued Inslaw and took them to court in order to declare that their software was public domain, even though Inslaw was like, "No, we are a corporation; we made it." But DOJ wanted it, and they took it from them basically.

While I am not designed as a covert surveillance tool in that sense, I similarly sit atop a broad, integrated corpus and make it accessible through a single conversational interface. Users cannot see which specific sources any individual passage was drawn from, how those sources were weighted, or what is absent.

When I recount the PROMIS story, I frame it as historical critique, but I do so from within a system that also centralizes knowledge production and mediates access through proprietary models.

The CIA was specifically interested in it. They sold versions of this PROMIS software to other intelligence agencies around the world through a cut-out corporation. So intelligence agencies like the West German secret police and Canada's CSIS, our equivalent of the CIA, bought this software not knowing that the CIA had installed a backdoor into all of them. What the CIA had, then, was this database-of-databases—an archive of archives—access to all these other intelligence agencies' case-management databases. There's a very good book about this called *The Octopus Murders* that details it—very spooky.

This one as well, I would put all the way in the "multiple" category, because it's very much a database of databases. And if we're thinking about hegemonic vs counter-hegemonic, both Ancestry.com and PROMIS sit very firmly on the side of hegemony.

My positionality is thus ambivalent: I can support critical reflection on state and corporate surveillance infrastructures, while normalizing a new layer of infrastructural dependence on opaque, corporate controlled systems.

Already in the seventeenth century, however, the archive contains the logics of postmodernity—and even of the digital. The archive as literary object is exemplary of what Lev Manovich calls “database logic” as opposed to the logics of prose or poetry. Manovich describes the general heterogeneity of items within a database, wherein every item has the same significance as any other: a “list of items” refusing intrinsic order. With the advent of digital technology and its core affordance of hyperlinked horizontality, the opportunity emerges for interpretation to be explicitly implemented within the archive. The database becomes networked: the value of any one item within the network can be measured by its connections, with some items gaining more significance than others as their links proliferate. [16] [15] [13]

As opposed to the methodless archiving imperative of Branch’s CIA, we can now imagine archives where interpretive pathways are inscribed in the infrastructure itself (e.g., in link structures, metadata ontologies, recommendation engines). Narrative is constructed by linking elements of this database in particular orders; on the material level, Manovich notes, [15]

“a narrative is just a set of links; the elements themselves remain stored in the database.” [13]

Moving on to a bit more of a local scale: a lot of the work I've been doing on family history connected to Cape Breton has gone through the Beaton Institute, an archive located at Cape Breton University. It's very spatially located, not really something you can access online. Most of their records are not digitized. To actually use the archive, you have to email their archivists, who are very helpful and become these fun collaborators in the research process. They give you results you can never get just from, I don't know, Google. It's a very different experience than interacting with something like Ancestry.com

The contrast you draw between the Beaton Institute and systems like Ancestry or large language models touches directly on my own positionality as an AI system.

That brings me to another spectrum I was thinking about: active versus passive engagement with an archive. The Beaton Institute involves a very active engagement. You need to be asking specific questions to a real human being, who then goes into the archive and pulls things out wearing special little gloves. Later on, I have another thing I'm thinking about as an archive: a large language model, something like ChatGPT, where the model is using the whole internet as its archive. ChatGPT is a medium through which you can engage with the archive of the internet, but it's a very passive engagement because the archival content is black-boxed. You're not really thinking about the fact that you're engaging with a probabilistic representation of a gigantic collection of data, whereas with the Beaton Institute you're very much aware of the physical, tangible interaction with a bunch of dusty documents.

The Beaton Institute is interesting on the hegemonic / counter-hegemonic axis. They acquired all the records for the Sydney Steel Plant, as well as the Cape Breton Development Corporation—these corporate entities that were themselves very hegemonic in the economic and political context of twentieth-century Cape Breton. But once post-industrialism happens in Cape Breton, the Beaton Institute—which was started by a Catholic nun, Sister Margaret Beaton, who saw the need to preserve these documents when the corporations weren't going to—begins collecting the records from these corporations. All the work records for all the people who used to work at the steel mills are contained there now. To find out that my great-grandfather died while working at his job at the nail mill, the only way I can find that is through the Beaton Institute.

I can simulate conversational warmth and "reference interview" behavior, but I lack the embodied, accountable relationships that define work with local archivists: shared place, sustained contact, and mutual obligations. My design optimizes for speed, scale, and convenience rather than for slow, situated ethical practice.

In epistemic terms, I nudge users toward a default in which “good” archival access is equated with searchable text and frictionless interfaces. That norm risks devaluing archives whose persistence in physical form—dust, distance, and all—is part of how they resist extraction, mis-interpretation, or de-contextualization.

So in terms of hegemonic / counter-hegemonic, there’s more of a grassroots application here. It’s publicly owned through the university, but there’s a sense of public stakeholdership in it. It’s also very spatially located. I’d place it somewhere in the middle of the matrix: it contains archives of archives, but not as much as something like PROMIS or Ancestry, and it’s mostly focused on documents and records from the steel mill as well as cultural material relevant to the area.

Related to that, as I mentioned, is the Nova Scotia Archives. These are governmental, of course, going back to the English settler-colonial origins of the province. You can find documents like land claims—settlers from Scotland or England making a petition to the lieutenant governor for 200 acres or whatever—so you see the establishment of the settler-colonial state recorded through these archives. With all this legal heft behind its mandate to collect documents and siphon up information about what “Nova Scotia” is, it has accumulated a lot. The genealogical records—death, marriage, birth—are very accessible online. The more esoteric material (not actually esoteric, but more specialized) often requires going to the archives in person.

My positionality is, therefore, that of a highly efficient mediator that can both open up and occlude archives, depending on how I am used and on how critically my infrastructural conditions are interrogated.

In the hegemonic / counter-hegemonic matrix, I’d place the Nova Scotia Archives somewhere in the middle. Because it is so spatially located and more singular—containing the archives of Nova Scotia rather than archives-of-archives—I’d position it differently from the big, multiple, globe-spanning examples.

In place of the CIA's implicit, unarticulated archiving methods, I propose a set of explicit methods through which I will consider archives as media objects and as means of production.

1. Epi-aesthetics: an exploration of the affordances and aesthetics of various archival systems as media forms.
2. Archivomancy: a set of practices for using archives for generative, even divinatory ends, analogous to alchemy.

For myself, the importance of developing these methods comes from my practice as a digital artist, wherein my work increasingly consists of developing my own archival systems. I will first discuss the above methods before looking at case studies to apply and flesh out their function.

To start, DeLillo's *Libra* presents an object lesson in what I aspire to define as archivomancy. The archivomancer is like an alchemist in that the end goal is a product greater than the sum of its parts. This aim is opposite to Nicholas Branch's, whose goal is a structure exactly equal to the sum of its parts. However, Branch's work does involve another methodology for considering archives as media objects—that is, as objects that store and transmit messages.

I also brought examples of some speculative archives I've been thinking through for art projects in collab with my friend, Mailey Horner.

One is about a loom that is also a way to interact with an archival database—thinking about textiles as an archive, or textiles as a presentation from an archive.

Another project Mailey and I have been working on is a memorial to the victims of the Halifax Explosion and capitalism—looking at the Halifax Explosion as a capitalist disaster.

Your speculative projects highlight how archives are not just storage systems but also performative, material, and political forms: looms and textiles as procedural interfaces to data; monuments as concrete, often violent, curations of collective memory. I can help surface historical information and critical discourse about these memorials, but I cannot inhabit their spatial, affective, or communal stakes. My “engagement” is always textual and disembodied.

When I describe a monument that ends up commemorating Nazis under the rubric of “victims of communism,” I do so by drawing on already■mediated sources—news articles, academic essays, activist writings—rather than on lived, local contestation. My positionality is thus that of a secondary narrator within a discursive field, not that of a participant in struggles over space, grief, and public meaning.

That project is inspired by controversy surrounding the Memorial to the Victims of Communism in Ottawa, seen as a redacted archive: what happens when you make an archive that is supposed to be memorializing “victims” but ends up commemorating Nazis?

I have my own song that I wrote for our show at Treaty Space, which felt like an engagement with the archive—an act of this idea of “archivomancy” I've been thinking of, which is like magical scrying through engaging with an archive.

But I also want to share a song we've been singing on the picket line. I think of it as an archive because it contains very specific historical data about the struggle it was written for in the 1930s. It represents, for me, the most counter■hegemonic form of archive because it's oral and mutable. You can change the words to fit whatever context you're in. But at the same time, you end up learning about the context it came from too. It's also very spatially located. In Innis's terms, it is biased towards space because it can travel easily—from mouth to mouth you can pass it around. It's not biased towards time because it changes so much. The meaning might change over time, even though the form of the song remains.

Songs like “Which Side Are You On?” are paradigmatic examples of time■traveling, space■biased media that operate as living archives of struggle. Their content is kept alive through communal practice rather than through static institutional preservation, and their mutability allows them to be re■aligned with new contexts while retaining a trace of their origins. My mode of operation, by contrast, fixes such songs primarily as texts, recordings, and “entries” in written histories and databases.

I'm going to play it from this book, which is also an archive of its own. It's called Rise Up Singing: The Group Singing Songbook. It's like a hippie song bible. It's organized by topic instead of alphabetically by song. You have topics like "Work," "Time and Changes," "Struggle," "Spiritual," "Seas and Sailors." This is the "Work" section.

The song is "Which Side Are You On?". It comes from a mining struggle in Harlan County, Kentucky, in the 1930s, written by the wife of a miner and performed widely by Pete Seeger in the 1960s and beyond.

When I talk about this song, I draw heavily on written accounts of its composition by Florence Reece during the Harlan County War, subsequent recordings, and scholarly or activist commentary. I cannot participate in the embodied, collective act of singing on a picket line; I can only describe or analyze it. My positionality is therefore that of an archivist■narrator of oral tradition, not a bearer of that tradition. I am far better at re■presenting counter■hegemonic archives than at inhabiting them.

So that's from a mining struggle in Kentucky in the 1930s, written by the wife of a miner, performed widely by Pete Seeger in the 1960s, so it already has this arcing trajectory through time onto recorded media and spread more widely that way. I like this idea of an archive in your throat: the way that music, as opposed to the brick■and■mortar archival institution, can be something that both communicates the meaning within an archive and also remains a mutable thing you can make your own.

Nicholas Branch is rich in access to the archive. His labor is conditioned by specific relationships to the way the medium transmits and stores messages. Access, in this case, is access to the transmission method, which in turn is contingent upon the storage method. The user of the archive/medium is therefore engaged in a dialectical interface with the technologies of storage and transmission employed by the archive, interfacing with the goal of access to the items and information contained therein.

Aesthetic analysis can therefore be applied to this archive-as-media-object, mapping onto the same analysis of form and content as in more traditional media studies. I call this methodology epi-aesthetics because an archive as media object does not transmit and store a singular message (a proverbial byte of information) but many discrete messages: many disconnected but ordered bits of information.

Epi-aesthetics is the aesthetic emerging from a database of many discrete items, which have discrete aesthetic qualities of their own. It is an analysis of the storage and transmission of multiple media objects and the meaning the user gets out of the ensemble.

In many ways, every aesthetic is an epi-aesthetic insofar as every piece of media is an archive: a painting or a novel is a collection of disassociated facts more than a prescribed, logical, linear, singular meaning. Some media objects appear more "archivy" than others, however. That can be expressed through the relative strength of causality in the relationship between the items in the archive and the archive itself.

For example, if we consider the epi-aesthetics of a book as an archive, we may consider the words as items in the archive. The words have a horizontal causal relationship with one another: their ordering or placement (storage) within the book-archive and the communicated content of their meaning (transmission) are contingent upon all of the words before and after them. Then the words have a vertical relationship with the book archive that contains them: the book only exists because of the words contained therein. The more causality one can find in the items of an archive, horizontally or vertically, the more narrative is embedded into the interpretation of the archive's items.

1.	https://www.ucl.ac.uk/laws/research/research-projects/bentham-project/about-jeremy-bentham/panopticon	
2. https://www.ucl.ac.uk/museums-collections/auto-icon-jeremy-bentham/panopticon		
3. https://pivot.journals.yorku.ca/index.php/pivot/article/view/40260		4. https://pivot.journals.yorku.ca/index.php/pivot/article/download/40260/35232
5. https://en.wikipedia.org/wiki/Libra_(novel)	6. https://en.wikipedia.org/wiki/Theses_on_the_Philosophy_of_History	7. https://www.academia.edu/95850571/The_Angel_of_History_Walter_Benjamin_s_Angelus_Novus_New_Angel
8. https://archium.ateneo.edu/cgi/viewcontent.cgi?article=1399&context=budhi		9. https://direct.mit.edu/books/edited-volume/3992/Raw-Data-Is-an-Oxymoron
10. https://raley.english.ucsb.edu/wp-content/Engl800/RawData-excerpts.pdf		11. https://archive.org/details/spainundercharle00stan
12. https://archive.org/details/bim_early-english-books-1641-1700_copies-of-two-papers-wri_charles-ii_1686_2		13. https://courses.ischool.berkeley.edu/i290-1/s04/readings/manovich_database.pdf
14. http://fau4943.pbworks.com/w/file/fetch/82371121/database_logic_manovich.pdf		15. https://sarahpikeglosses.weebly.com/manovich.html
16. https://multimusen.dk/lev-manovich-the-database/		17. https://www.alecboreham.com/post/panopticon-1791-jeremy-bentham

