

## Memories on Steel and Vinyl: The Northern Pacific Railway and the Sound of Memory

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This project examines a peculiar rhetorical artifact: A vinyl record issued in 1964 to commemorate the centenary of the chartering of the Northern Pacific Railway. Following work by Bartmanski and Woodward, as well as memory and sound studies scholars, I argue that the materiality of this vinyl record actively involves the listener in its narrative of westward expansion. But even as this material involvement recruits the listener into participation with its teleological national narrative, its sonic characteristics simultaneously expose discontinuities that undermine its memorial goals. *A Thousand Miles of Mountains* uses sound to manipulate space and time, yet these same dimensions work to expose memory's artifice.

*Keywords: memory, sound, sonic rhetoric, records, U.S. westward expansion*

*But a mountain was made to conquer,  
as a river was made to cross!*

*And the ribbons of steel for the great flange wheels  
showed the mountains who was boss!*

—*A Thousand Miles of Mountains*, the main theme<sup>2</sup> (Morison, 1964, Side A, 00:01:05)

This epigraph presents a clear expression of settler-industrial attitudes toward the vast western regions of North America in the second half of the 19th century: Dominating the forbidding landscape with transportation technology was not just something that *could* be done but something that *must* be done. The arid plains, the wide rivers, the looming mountains—all had been put in place to be defeated as if they would give up ownership of the land only to those who proved powerful enough to subjugate them. This sort of mythic conception, along with the promise of corporate profits, the forced removal of Indigenous peoples,

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<sup>2</sup> Link to audio clip "But a mountain": <https://on.soundcloud.com/wERTV>

Sound clips have been recorded from the author's physical copy of *A Thousand Miles of Mountains*.

and astounding grants of land from the federal government, drove railroads from Midwestern population centers to the West Coast. Along the way, the railroads helped shape these regions' present, their future, and, even as time passed and their role in society changed, their past.

In the northern reaches of the United States, the chief vehicle of this version of Western teleology was the Northern Pacific Railway. Completing its transcontinental line in 1883, the Northern Pacific once proudly described itself as "the first of the northern transcontinentals" (Morison, 1964, liner notes). Now, like so many other railroads, it has been subsumed by the mega-railroad BNSF Railway, but in its early days, it played a formative role in the European conquest and settlement of what had been called "The Great Northwest." Its main line ran through Minnesota, North Dakota, Montana, Idaho, and Washington and has left indelible marks in the locations and names of population centers as well as permanent transportation corridors (White, 2011). The Northern Pacific also advanced the narrative of westward expansion and progress that defined the United States' relationship with its west for decades and continues to influence our image of that relationship today.

Chartered on July 2, 1864, the railroad celebrated its centenary in 1964 by issuing a commemorative record album entitled *A Thousand Miles of Mountains: The Musical Story of a Great Adventure in Railroading* (Morison, 1964). The album is filled not only with music but also with recordings of locomotives, fictional dialogues, and reenactments of historical speeches, all bound together by a narrative of the railroad's history. This might seem like an unusual form of memorialization, but it forms just one entry of a peculiar and rather short-lived sonic subgenre of corporate-sponsored "industrial musical" albums in the 1950s, 1960s, and 1970s (Grimes, 2014).

My copy of *A Thousand Miles of Mountains* (Morison, 1964) came to me quite by accident: It was given to my grandparents by the Northern Pacific as part of an anniversary rail trip they took in the 1960s, and I eventually found it in a motley stack of beat-up records. This provenance serves as a reminder that the materiality of sounds plays an important role in determining when, if, and how those sounds are heard. If this album had been a file on an old hard drive, I likely never would have happened on it. If it had been in another format, say an eight-track tape, I almost certainly would not have listened to it. Such happenstance also invites further reflections on how I find myself in the position of making critical claims about this album. Attending to Drozdowski and Birdsall's (2019) enjoinder to consider a researcher's position in relation to their claims about memory, I remind myself I am a settler descendant of Homestead Act settlers who lived in the Northern Pacific corridor. My method in this study has primarily been to listen to the album repeatedly, listening for sonic and textual features of the album that animate critical interest, and attending to how I am prompted to interact with the record as an object and as a narrative. That is to say, my own habits of perceptions and attention are central to what I have written here. Even as I make claims about the rhetorical work of this album, much about where I find myself today traces itself back to the colonizing efforts of the Northern Pacific and those who profited from it.

In what follows, I analyze *A Thousand Miles of Mountains* (Morison, 1964) as a sonic, material, and textual memorial artifact. When appropriate, I have incorporated additional historical materials referenced, directly or indirectly, by the record. In his keyword entry on "listening," Rice (2015) points out that the term invokes a seemingly ever-broadening set of orientations and sensory practices. Indeed, the vast number of

approaches “can feel like infinite regress” into a limitless number of listening modes (Rice, 2015, p. 104). Listening can represent physical, mental, cultural, technological, sociological, multisensory, and other modes of engagement that go beyond mere “earing” (Ceraso, 2014). My work has oscillated between a number of modes over the course of repeated listenings: I have listened for textual meaning in the words spoken and considered their historical and cultural context, listened to the composition of the music itself and made critical judgments about its rhetorical effects, listened to the soundscapes suggested by historical-audio recreations, and listened to how this particular medium requires bodily action on my part to listen and to continue to listen at various points. Through these different modes of listening, I make intertwined claims about both the content and process of engaging with this particular memorial.

The album, unsurprisingly, presents the railroad in an exclusively positive light. But the ways in which this record manages and encourages certain types of memory provide insight into memorial practices more broadly, especially with regard to memory’s material and sonic dimensions. I make two arguments, distinct in their claims but intertwined in their implications: First, I argue that memories requiring ritualized performance and material entanglements to access, like the sounds on a vinyl record, make the listener-rememberer an active participant in the memorial. But this involvement is not absolute. Much has been written about audio recording’s capacity to rearrange, compress, expand, and loop perception (McMurray, 2017). These capacities simultaneously preserve and disclose discontinuities in difficult-to-anticipate ways. Thus, I argue, second, that sound’s capacity to recruit a listener into its version of memory can be complicated and undermined by the same sonic-material entanglements. To make these arguments, this article proceeds in three sections: First, I discuss the potent relationship of records and railroads to nostalgia. The parallels identified in this section explain why this album is of particular interest. Second, I examine the material supports of memory to explore the relationship between vinyl records as a medium and as a container for memory. Finally, I place the album under textual and sonic analysis, showing how it attempts to make the Northern Pacific an analog to U.S. history, yet how sound complicates this attempt. My conclusion meditates on the continuities and discontinuities of railroading, recording, and the future study of the sounds of North America’s railroads.

### **Railroads, Records, and Nostalgia**

Both records and trains tend to be objects of *technostalgia*, or the longing for earlier media and media landscapes, and the attempt to reconcile that past with the present. Van Dijck and Bijsterveld (2009) observe that audio artifacts, and the technologies required to play them, “invoke a cultural nostalgia typical for a specific time and age” (p. 113). Similarly, Douglas (1971) suggests that rail travel is nostalgically preserved in the popular American mind in a way that automobile and air travel have failed to achieve. While the two, records and railroads, may seem to exist in different realms, we would do well to recall that they are both communication media, “extensions of man” in the McLuhanian (McLuhan, 1964, p. 19) sense. Wieghorst (2021), writing about “techlash” against social media, observes that critiques of the digital often measure the present “against an idealized past. This idealized past is seen to be closer to human nature” (p. 221). For both passenger rail and turntables, this idealized past enshrines notions of direct, physical connection.

Kammen (1993) writes that, from the 1830s onward, railroads have gone from being symbolic of industrial and societal progress, to symbolic of corporate greed and corruption, to “the object of wistful nostalgia on the part of tradition-oriented train buffs” (p. 48). Long after their prominence as a method of individual transportation has passed (in the United States, at least), tourists and enthusiasts still marvel at the size of old locomotives and thrill at the shriek of steam whistles. Interest clubs, historical societies, and magazine subscriptions span the continent. With this interest in an industry’s past come curiously fierce loyalties. Participants often have favorite railroads in a similar manner to sports fandom. And much like when a beloved team moves to a new city, railroad fans bristle at history’s mergers and corporate cannibalisms that have made nearly every small railroad disappear. An instance of this can be seen in contemporary viewers’ responses to *Burlington Northern: Portrait of a Railroad*, a 1973 promotional mini documentary now available on YouTube (mwmnp25, 2007). Many of the comments lament that Burlington Northern is now a part of BNSF. One commenter goes so far as to say, “BUT THIS WOULD BE BETTER WITH GREAT NORTHERN IF THEY DID NOT MERGE!” (Tharpe, 2016). Great Northern, along with the Burlington Northern, the Northern Pacific, and a number of other railways, have been the subjects of repeated mergers, and, since 1995, have all been subsumed by BNSF Railway, one of only seven class-1 railways remaining in North America (BNSF, 2022).

Morrissey (1993) notes how railroad memories, even in the oral histories of railroad workers, are frequently presented with an attractive nostalgic patina. Such a patina obfuscates the social and racial violence participated in and perpetuated by railroad companies. Transcontinental railroads in particular were known for employing racial minorities to conduct the most dangerous and difficult work, including tunnel blasting (Merritt, Weisz, & Dixon, 2012). In addition to highlighting certain aspects of their history over others, railroads commonly focus on a particular time period as the frame of remembrance. Conard (1992) writes that while there are multiple phases of railroad architecture in the United States, it is the relatively brief phase of grand temples of transportation (think Union Station or Grand Central Station) that have come to be symbolic of the rail industry’s past. These structures “illustrate the power of material culture to inform history and the reciprocal strength history lends to the interpretation of material culture” (Conard, 1992, p. 33). Similarly, the “age of steam” seems to have a much greater cultural cache than the diesel, and later diesel-electric, locomotives that began to dominate railways in the 1950s. Halbwachs’ (1980) observation that external forces pressure us, with regard to our memories, “to touch them up, to shorten them, or to complete them so that, however convinced we are that our memories are exact, we give them a prestige that reality did not possess” (p. 51) is as much about the sounds of the past as its events.

The pasts of our audio media are also a site of constructed prestige. By now, readers are familiar with arguments against the dominance of digital forms in movies, television, music, and elsewhere. These arguments are usually premised on the idea that non-digital representation is somehow closer to “real life” (Sterne, 2006). Schrey (2014) writes that the “forced displacement” of vinyl records and cassette tapes by compact discs in the 1980s was one of the first times when such a technological transition was so apparent to a broad consumer public, setting up the conditions for a reactionary nostalgic attachment to vinyl records in particular. Some enthusiasts will make claims about the superior audio quality of vinyl on the basis that its audio data are recorded continuously rather than digitally, but Sterne (2006) and others have demonstrated that this claim withers under technical scrutiny. As Schrey (2014) notes, it is not the

perfection of the vinyl sound that attracts nostalgia but rather its imperfections. Pops and scratches become evidence of authenticity, rather than shortcomings of mediation. As with railroads, the past of this medium, seen from the present, has been touched up with altered purpose.

The railroad presents a particularly promising avenue for sonic exploration, because, more so than in most industries, it has made its very sound a nostalgia-laden object of consumption. One can hardly imagine listening to recordings of highway traffic or airport runways, but many enthusiasts delight in listening to the sounds of both steam and diesel locomotives. Within the pile of records in which I found *A Thousand Miles of Mountains* are also several albums with titles like *A Decade of Steam* (Krueger, 1982), which are simply recordings of trains going by—not as white noise, but specific engines in specific locations. The description of the record's first track conveys the admiration with which these sounds are regarded:

Norfolk & Western's (or Norfolk Southern if you prefer) big, streamlined J class 4-8-4 No. 611 marches up the 1.3% portion of the eastbound ascent of Blue Ridge Summit Grade. There are 15 cars behind 611 during this Labor Day weekend run out of Roanoke, but it is obvious that the big engine is not working hard. (Krueger, 1982, liner notes)

The railway soundscape is one of the quintessential sounds of modernity. Yet, despite its prominence in nostalgic renderings and folk music, its mnemonic dimensions have largely escaped critical scrutiny. Morris (2001), a scholar of German and Jewish studies, argues that the study of iconic sounds should be as robust as that of iconic images. Sounds, he writes, "are not themselves remembered, but rather mediated and filtered through a variety of acoustic 'screens'" (Morris, 2001, p. 374). Just as famous images of war come to be representative of the war as a whole in a way that makes them more real than the war itself, iconic sounds can "create a site of remembrance within sound," in a way that surpasses the mere reality of the sound's creation (Morris, 2001, p. 376). The track description excerpted above provides an example of this remembrance as technical details that may conceivably affect the sound being played (such as the type of locomotive and steepness of the grade) are mixed with details that cannot be represented, such as the recording's coincidence with a leisure holiday and the alternate railroad name. More than a recording of a single discrete event, the sounds enshrined in these acoustic artifacts contain an image of an entire (constructed) bygone era. The description also exemplifies why my analysis of *A Thousand Miles of Mountains* (Morison, 1964) attends to its semantic as well as acoustic dimensions: As someone trained as a textual critic, I see the two as inextricably intertwined. Just as the track description above changes how we hear the sound of the track itself, the sounds of the music on this record are tangled up with the lyrics, narration, and recreations.

The noise of railroads was not always regarded so innocently. Goodale (2011) observes how the sound of railroads, along with that of factories and clocks, came to represent modernity's interruption of established patterns of life. Both the railroad and the factory necessitated the precision of time that only the omnipresent clock could provide. Where before local church bells had provided an approximate local time based on solar noon, the new time was marked by the ticking clock and the steam whistle. While factory whistles and ticking clocks are not regarded as terribly romantic by most, trains managed to break, or at least ameliorate, their reputation as sonic disruptors. Goodale (2011) quotes Schafer (1993), who wrote that "Of all the sounds of the Industrial Revolution, those of trains seem across time to have taken

on the most attractive sentimental associations" (p. 70). Goodale (2011) speculates that the reason for this sentimental association may be because, unlike the clock and the factory whistle, one can inhabit the train. In the safe, comfortable space of the railcar, one can feel protected by the train's noise even as it assaults those on the outside. He also suggests that train noises were more rapidly and successfully adapted into common musical forms, such as the blues and country. Thus, the comforting forms of traditional music helped transform a soundscape associated with interruption and fragmentation into one of nostalgia and comfort.

Meditating on an 1897 audio recreation of a minor train accident in Australia, Reese (2020) remarks on the tension between seemingly parochial silliness and the grave seriousness of attempts to nationalize sound:

What is being constructed here is a knowing contribution to an integrative national tale in sound, one of the emplacement of technological and industrial modernity in the bush. [The producer's] recording practice thus represents the construction or ordering of an ideal colonial soundscape, as opposed to other, alternative soundscapes, with clear settler colonial implications. (p. 128)

A similar seriousness pervades *A Thousand Miles of Mountains* (Morison, 1964). Rather than simple audio reproductions, what we hear is the building of a particular framework of memory.

### **The Material Supports of Memory**

Humans are creatures of memory. We are subsumed by it, and we cannot extricate ourselves from it. As Halbwachs (1980) wrote, in trying to step out of one memory frame, we can only ever step into another. But this inescapability does not mean that memory is self-supporting. Despite the metaphysical air that seems to cling to its study, memory still depends on material supports for its shape and perpetuation. Blair, Dickinson, and Ott (2010) suggest that public memory's reliance on material and symbolic supports is one of relatively few common agreements within collective memory. Various technologies, both material (like monuments) and symbolic (like languages), allow the past to be articulated into memory. More than just expressions of the past, these articulations also implicate the memory participant into particular groups and particular forms of remembrance, with their own implications for the shape of that memory. Material/symbolic supports also allow for the sharing of memory beyond the individual rememberer, giving public memory its definitional publicity.

Blair and colleagues (2010) provide a short list of examples of the material supports of memory: "language, ritual performances, communication technologies, objects, and places" (p. 10). However, these examples are not necessarily discrete categories. The material support of a particular public memory may, for example, be equally dependent on ritual performance and a particular place. The difficulty (or impossibility) of separating these aspects can make the identification of where a memorial artifact begins and ends especially challenging. The authors (Blair et al., 2010) suggest that signification moves in both directions between an artifact and its surroundings; space and place, time, and memory, are mutually constitutive. Memories, then, always exist in a relationship with their material and ideological contexts. In

the case of a vinyl record, which this article approaches as a memorial artifact, the memorialization process neither begins nor ends at the record's edge. Rather, it is entangled with the materials and processes of accessing the sonic memory that the record contains.

On its own, a record can do very little memory work and certainly no sonic work. Various technologies, in the form of turntables, amplifiers, cables, and speakers, must be grafted into the memorial before its sonic offerings can be accessed. Media scholars Bartmanski and Woodward (2016) call these complications "entanglements with related material ecologies" (p. 171). The always-apparent materiality of records, they argue, is part of the reason that vinyl has seen a resurgence in popularity even as cheaper and easier options with superior fidelity have become more and more readily available. The requirement to physically handle a record, Bartmanski and Woodward (2015b) claim, creates the conditions for totemic significance:

Playing vinyl engages several senses at once. As you spin a record, you see the label and vinyl's glimmering surface. You can immerse yourself in the mesmerizing rotation, and you need to attend to the process of playing, which is not really suitable to be just a background to other activities. In fact, vinyl's visuality and haptics make it prone to be a centre [*sic*] of meditation or ritual or both. (p. 91)

It is a desire for materiality, rather than simply a sense of nostalgia, that has ensured vinyl records' survival as a medium, suggest these authors (Bartmanski & Woodward, 2015b). While this article focuses on a certain affective materiality of vinyl records, it does not seek to do so in contradistinction to modern digital media. As Sterne (2016) cautions, treating analog and digital as an opposed binary is ahistorical, and the idea that analog technology is somehow closer to human experience than digital is without warrant. Bartmanski and Woodward (2015a) write at length about the "material entanglements" (p. 20) of listening to a record, but this is not to say that, for example, streaming music through a service like Spotify is somehow *less* material. Indeed, given the data infrastructure necessary to listen to music over the Internet, a stronger argument could be made that this type of listening is *more* material than so-called "analog" media.

But rejecting such a binary does not prevent us from acknowledging the active physical involvement required on the part of the listener when listening to a record album. All media require some sort of embodied practice, and the particularities of those practices are important to attend to. Operating a turntable implicates the user in a particular relationship according to encouraged forms of interaction. Playing a record, as anyone who has done so will recognize, involves a series of repeated actions: The record is removed from its sleeve, placed on a turntable, cleansed of dust, and set into motion before the stylus is placed on it. Both the record and stylus are fragile, so these actions are conducted with care bordering on reverence. In 20 minutes or so, the sequence must be repeated, an active choice to continue listening. This repetitive action brings the user into a ritual of memory, in which one becomes an active participant in what we might call a liturgy of vinyl. This ritual engagement, write Bartmanski and Woodward (2015a), transforms records into "aura-laden *objects* connected to constellations of other non-human entities that facilitate a series of emotionally charged rituals and experiences on which various communities thrive" (p. 7). As admitted vinyl partisans, Bartmanski and Woodward (2015a) may have overstated how peculiar this involvement is to the

vinyl record format. Levy-Landesberg (2021), for example, suggests that “contemporary digital sound interfaces” actually generate a *greater* hold on the user because the beginning and end of engagement are blurred, which “situates the user in a constant state of attentiveness” (p. 3). But I maintain that the physical, repetitive nature of this involvement is significant, meriting study. The performance on the part of the listener blurs the distinction between what memory scholar Taylor (2003) terms “the archive” and “the repertoire” (pp. 19–20). The archive is traditionally understood as containing inert, reproducible texts, whereas the repertoire refers to a body’s possible range of performances, the enactment of embodied memory. In the case of a vinyl record, a type of embodied memory, this liturgy of vinyl is required before one can access the archived, reproduced, materially set memory contained within this archive. Taylor urges us to understand meaning as contained in performance, not just within language. To do so in the present case compels us to recognize how the ritual process of listening to this record co-constitutes the meaning it sonically presents.

The rituality of these processes positions the listener in a relationship with the sounds of memory. As a result, the distinction between the material means of sound reproduction (whether a vinyl record, magnetic tape, or networked computer infrastructure) and the sounds themselves is blurred. The material significance of the vinyl record, along with the apparent potency of railroad sonority, creates an intersection in which we can explore more thoroughly the memorial work done by sonic representations of the past. In the following section, I listen to *A Thousand Miles of Mountains* (Morison, 1964) as sound, music, and text. My analysis explains not only how the album uses its material and sonic affordances to construct Northern Pacific history as an analog of U.S. history but also how these affordances create a rhetorical opportunity to undermine this analogy.

### **The Analog Sound (of History)**

*A Thousand Miles of Mountains* (Morison, 1964) presents a curated mix of narration, reenactments of historical speeches, traditional folk music, and original songs attributed to the album’s writer and producer, Bradley Morison, and its composer and conductor, Norman Richards. Showtune-like, the original compositions of the album advance the narrative as characters burst into song, exulting in the excitement of the railroad. Listening to the album can feel like the soundtrack of a Disneyesque musical, with upbeat, major keys throughout. Minor keys are limited to brief interludes that accentuate the return to breathless positivity. Industrial sounds punctuate each of the original tracks and several of the traditional ones. Trains, whistles, bells, hammers, explosions, axes, and falling trees are all enmeshed in the music and narration. The record begins with the driving sound of a chugging steam engine, slowly (and rather awkwardly, as the tempos match only for a few seconds) morphing into the beat of the first song. The motif introduced in this first track emerges again and again throughout the record as if to keep the listener “on track,” ensuring that they have no opportunity to forget what the album is about.

Taylor (2004) describes “social imaginaries” as the popularly held images, stories, and legends that constitute the ways in which people “imagine their social existence” (p. 23). For current purposes, let us add “sounds” to images, stories, and legends. As Sterne (2012b) remarks, “social space *is* sonic space” (p. 91). Social imaginaries are not the same as detached theoretical frameworks. Rather than the seemingly explicit depiction of a map, social imaginaries are more akin to the sense of familiarity



that one has with their own neighborhood. But while such social imaginaries may be vernacularly held, they are still often the result of, and susceptible to manipulation by, the intentionally promulgated theories of a few influential voices (Taylor, 2004). The memory work done by *A Thousand Miles of Mountains* (Morison, 1964) can be understood as an attempt to do just this with the history of the Northern Pacific Railway, and of the United States more broadly. The social history it creates is not just that of a railroad but one that enmeshes the history of a corporation with that of colonialist domination, both in its heroic retellings and sinister elisions. Similar-sounding and relevant, though distinct, is Sterne's (2012a) conception of "sonic imagination," a methodology and research sensibility that embraces the possibility of attending to sound. As Sterne (2012a) describes it, "sonic imaginations rework culture through the development of new narratives, new histories, new technologies, and new alternatives" (p. 6). But we would do well to recall that the cultural reworkings of the sonic imagination can be practiced by corporate, nationalist, and hegemonic rhetors as easily as by others. Critical attention should be paid to these sonic narratives, histories, technologies, and alternatives as well.

These sorts of narratives in U.S. history are common, of course, and resurgent in recent attempts to mandate "patriotic" curricula in many states' public schools. What makes it notable in this case is the way in which the narrative positions the listener through material and sonic memorialization practices. As Goodale (2011) points out, one cannot close their ears, like one can their eyes. Perhaps in part because of this unmodifiable susceptibility, sonic media are particularly suited for the production of social imaginaries. Overall (2017) argues that "sound may do the rhetorical work of unification" in a process he refers to as "sonic identification" (p. 233). He draws on the Burkean notions of identification and division, wherein rhetoric is chiefly concerned with the symbolic uniting of people and ideologies as well as demarcating the division between those unified and others (Burke, 1984). Social imaginaries gain power through their widespread acceptance. Sonic symbols, musical and otherwise, can unite disparate ideologies in their ability to "draw attention away from the subject matter of a symbol and sneak in informational identifications regardless of an audience's conscious assent to them" (Overall, 2017, p. 240). Overall (2017) describes these effects as inducing "dreaming and waking states" (p. 240) in an audience, concealing former divisions and creating unifications through often uninterrogated sonic rhetorical force. I suggest that this sort of sonic signification has been a part of the process by which railroads have gone from symbols of division—in the form of corporate corruption and dangers to the working class—to symbols of unification between the development of the railroads and conceptions of the frontier as the advancement of civilization and egalitarian society.

### ***Ya Got Progress***

*A Thousand Miles of Mountains* ties the history of the Northern Pacific Railway directly to that of the United States itself. After the opening theme, the first dramatized vignette is a conversation between Meriwether Lewis and President Thomas Jefferson making plans for the Corps of Discovery exploration of the Louisiana Purchase.<sup>3</sup> While the album sleeve proclaims that "authenticity has been the watchword in the creation of this record album," (Morison, 1964, liner notes) and suggests that quotations from prominent figures have been taken verbatim, the scripted conversations still strike one as contrived, often beginning

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<sup>3</sup> Link to audio clip "Jefferson": <https://on.soundcloud.com/t5CJf>

with an unidentified character setting up a prominent historical figure to reproduce a quotation from a written document as if it happened in conversation. Narration by Raymond Massey, a popular actor at the time, takes over after the vignette and explains: "For the journals written by Lewis and Clarke as they moved up the Missouri and pushed on to the Pacific were read and read again by later men of foresight and wisdom, by dreamers and doers, by men who envisioned the coming of the railroads" (Morison, 1964, Side A, 00:03:50). The expansion of the United States is described as part of the same process as the later expansion of the railroads. Both processes, according to the narrative of the record, could only be anticipated and accomplished by those in possession of foresight, wisdom, and the ability to dream and do. This perspective of the railroad, as both singularly capable of amazing feats of domination and of simply enacting that which history has preordained, suffuses the entire recording.

The inexorable progression of this narrative is supported by the musical composition itself. Musical numbers cross-fade in and out of narration, ensuring that there is never even a moment of silence, quite unlike the familiar breaks between the tracks of other albums. There is no uncertainty about what comes next, and never is there precarity—everything unfolds exactly as it is destined. Mirroring its claims about the preordained success of the Northern Pacific, the audio experience never stops advancing toward its conclusion—except, of course, when the listener needs to participate by flipping the record to the B side.

I have so far argued that the material nature of this record, which is what necessitates flipping, among other actions, is an important part of its rhetorical work—the physical involvement required of the listener blurs the distinction between accessing the archive and performing the repertoire. At the same time, however, this has not been an argument about the *analog* nature of the technology. Many claims have been made and unmade about the comparison of analog and digital technologies even as the popular definition of "analog" has slowly come to include all non-digital interaction, especially face-to-face interaction (Chia, Jorge, & Karppi, 2021; Sterne, 2016). But in Sterne's (2016) keyword entry on the word "analog," he points out that the initial meaning of the term in engineering and computation was much less capacious. In its earlier sense, analog meant just that: One variable value functions as an *analog* to another. As one value increases or decreases, so does the other. It carried no connotation of *non-technological* but rather referred to a particular form of technology.

The rhetorical work of *A Thousand Miles of Mountains* (Morison, 1964) is, in fact, predicated on its analog nature. But this is not the analog of vibrations being translated into electrical impulses and back into vibrations. Rather, the key analog action of this album makes the history of the Northern Pacific a direct *analog* to the history of the United States itself. As the railroad advances, so does the nation. Setbacks and challenges to the railroad are setbacks and challenges to the fabric of the nation. This analogization supports a narrative in which the actions of the United States to ensure the success of the railroad, and of the railroad to support colonialism by the United States, are not only desirable but also preordained.

While the conquering of the mountains, rivers, and plains is presented as inevitable, the sonic narrative still emphasizes the difficulty of the task, intoning that "the progress of the Northern Pacific was destined to be slow" (Morison, 1964, Side A, 00:06:19). Cronon (1992) points to this difficulty as a common, even necessary, part of frontier narratives that aspire to heroism: "The more formidable [the landscape] is as a rival, the more heroic become its human antagonists" (p. 1356). *Because* of the inevitability of their

defeat, a state in which the nation is constrained by the presence of these obstacles is cast as oppressive and unacceptable. Their removal is depicted as liberating not just for the railroad's interest, but for the U.S. citizens who are now free to visit their countrymen along the line and for eager immigrants to the country. In the last track of the record's A side, "Shake Hands with the Eastern Crowd," West Coast citizens let out an audible gasp when they learn that, with the completion of the transcontinental line, they can now visit Glendive, Montana, as well as a litany of other towns on the new line (Morison, 1964, Side A, 00:16:12).<sup>4</sup> Glendive was established by the Northern Pacific during railroad construction and had a population of 500 in the 1880 census (increasing to 720 by 1890), so we might conclude that the excitement that causes the people to break out into song is not so much about the specific destination as it is about the *possibility* of easy travel across formerly impassable barriers.

This track, however, is also one in which the sonic characteristics of the record threaten to undermine its rhetorical goals. The music, especially the introductory segment, is a direct reference to the song "Ya Got Trouble" from the musical *The Music Man* (Wilson, 1958), in which the titular character tries to convince the townspeople that their community is facing grave moral threats stemming from a new pool table. In both songs, a male character addresses a crowd in a quickening sing-talk. The crowd is initially shocked but eventually takes up the strain itself. The association between these two songs was likely noticed by contemporary listeners as *The Music Man* became a Broadway hit less than a decade before the album's release and was adapted into a popular film in 1962. The inside of the gatefold record sleeve identifies several of the cast members as Broadway performers, including in the debut of *The Music Man*. For a listener who gets the association, this introduces some tension: In *The Music Man*, it is a con artist convincing the townspeople of a problem that is not really there. It may be, of course, that the writers and producers of this album are simply having a bit of fun, acknowledging, if only for a moment, the silliness of the whole project. But as the lead voice of "Shake Hands with the Eastern Crowd" (Morison, 1964, Side A, Band 6) recites a long list of towns along the newly completed Northern Pacific line, listeners might be moved to ask how many of these towns are truly worth visiting, why so many of them are named after railroad executives, and indeed why the towns are there at all. Such questions tug at many of these communities still today and work against linear notions of "progress."

### ***Listening for the Construction of Memory***

The vinyl record here is a material representation of the sonic memory of a material history. The history of railroads is largely a physical phenomenon as they changed forever how goods and people moved across the continent. The reorganization of space wrought by the railroads created a material reality in which Seattle became closer to Chicago, and Spokane farther away, by virtue of where the rails ran. As White (2011) puts it, "The railroads made their customers more acutely aware of space, but they also rendered that space radically unstable and subject to the whims of distant corporations" (p. xxix). Where space could no longer provide stable order, sound filled in. As sonic symbols of the new order, the sounds of the railroad assured that history was progressing exactly as it ought to. Their uniformity (dedicated enthusiasts can tell a train horn's model number by its sound) assures that such a march of history is universal, in all times and in all places. To access this sonic reassurance, we need only interact with the

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<sup>4</sup> Link to audio clip "Glendive": <https://on.soundcloud.com/uqEot>

material of its expression, in this case, the mnemonic assemblage that is listening to *A Thousand Miles of Mountains* (Morison, 1964).

Transcontinental railroads and audio-recording technologies both changed relationships with time and space. Much as the railroads changed the nature of time and space to allow passengers to easily pass over hundreds of miles of inhospitable, rough, or simply boring terrain without having to accommodate themselves to the land, the social imaginaries constructed by this narrative allow the listener to quickly pass over the complex and perverse parts of U.S. history without having to deal with the associated discomforts (White, 2011). In the album's recreation of the ceremony celebrating the completion of the railroad, Crow Chief Iron Bull is presented as giving a simple, halting, four-sentence speech, "This is the last of it. This is last thing for me to do. We have reached end of our time. New one has come," followed immediately by the sound of a hammer hitting a railroad spike, suggesting that Iron Bull swung the hammer himself (Morison, 1964, Side A, 00:12:00). Newspaper accounts of the time, however, record a much longer speech, given through an interpreter. While the speech did include the lines performed in the record, it also included a foreboding prophecy, much at odds with the otherwise celebratory tone of the event:

Who knows but what some race, at present unknown, will make its appearance and overpower [the whites] and take away the land from them too, then, as the last chief of the pale face nation stands before the conqueror [*sic*], will he bid him welcome to his all, to his home, to be his life to his very soul, with more earnestness and with as much sincerity as his red brother welcomes him now. ("This is the Last of it," 1883, p. 8)

At the end of his speech, the newspaper accounts suggest that Iron Bull handed the spike to Henry Villard, president of the railroad, rather than driving it himself. As with the words of other prominent figures, the gatefold sleeve of the album claims that Iron Bull's words have been reproduced verbatim. This is partially true, as seen above, but the capacity of audio editing to so easily rearrange time (how long Iron Bull spoke, and preceding which actions) and space (Iron Bull's physical relationship to the spike being driven) leaves a great deal of room for rhetorical maneuver.

Immediately after the Iron Bull recreation is the second, and final, mention of Indigenous people in the album—a Library of Congress recording of a Sioux celebration song. The narrator's voice introduces the track, "And the red man [*sic*], who had given way to the iron horse at last, joined in the celebration" (Morison, 1964, Side A, 00:12:35). Why Indigenous nations might celebrate the coming of the railroad is not elaborated on. Here too, the sound of the record threatens to undermine its own claims. In an otherwise high-fidelity album, the track "Indian Celebration Music" (Morison, 1964, Side A, Band 4) is notably scratchy and difficult to hear. This is because it has been grafted in from a much older recording. Even as recording technology allows the producers to remix history and claim that Sioux people celebrated the railroad's completion, the plain difference in audio quality discloses its own artifice. The track is also noticeably shorter than any of the others, playing for only 19 seconds before the narration fades back in. Unlike the rest of the record, this section seems to be intended only for brief hearing rather than listening.

*A Thousand Miles of Mountains* (Morison, 1964) also rearranges sound in ways that situate the railroad in relationship with other landscapes and soundscapes. The second song on the B side of the record, the

traditional "Go Slow, Little Doggies," (Morison, 1964, Side B, Band 2) features a cowboy singing to his cattle as a train passes in the distance. The distance is key here as it presents the railroad as a gentle, natural sound, accompanying rather than interrupting the cowboy's reverie on the open plains. Through strategic representation of the sonic landscape, the album creates an image of a harmonious relationship where there could just as easily have been an aural calamity. In terms of Schafer's (2012) "soundscapes," the album's representation is an attempt to make the railroad just one of the "sounds that matter" in this landscape, rather than the object of "rage against those which don't" (p. 103). Here too, though, the affordances of recording artifice expose themselves. The cowboy's voice, provided by vocalist Ken Carson, has an audible reverb to it. This is uncharacteristic of sound in an open landscape like the prairie, where the character is supposed to be singing. In such a setting, we would expect no echoing response to the character's voice as the open landscape lacks features for sound waves to be reflected. Whether it was an intentional decision or an accident in the recording process, the reverb makes it sound as though the cowboy is indoors, not outdoors. At the same time as the recording arranges space to its rhetorical pleasure, missteps in this rearranging come to the fore.

As discussed earlier, listening practices overlap (Rice, 2015). Like the truncated syllogism of the enthymeme, this overlap can result in increased participation on the part of the audience. The multiple senses and sensibilities of listening create the opportunity to act on listeners through more than just their ears. But such multisensory arguments bring with them multiple opportunities for contestation, questioning, and pushback. Even the sound of a carefully produced "musical story of a great adventure in railroading" may testify against itself.

### Conclusion

In her chapter on "analogue nostalgia," Wieghorst (2021) suggests that the discontinuity/continuity binary may be less important as a descriptor of the workings of analog and digital technologies than as a descriptor of time. Seen as continuous, media technologies change but not in ways that suggest a fundamental separation between humans and technology. Seen as discontinuous, technologies of the past can be seen as being closer to some basic sense of humanity, and the loss of them can threaten the loss of that humanity. The analysis above suggests a similar management of continuity and discontinuity in this album-as-memorial artifact. The history of the Northern Pacific Railway, an analog of U.S. history, is presented as a continuous journey toward achieving its difficult but assured success. The listener, through their participation, is recruited into the elision of discontinuities, such as the railroad's repeated bankruptcies, decidedly unheroic corporate maneuverings, and complicity in settler colonialism. Yet close attention to the sonic rhetoric of this album can disclose, rather than conceal, such discontinuities.

Like the Northern Pacific Railway, vinyl records were once the seeming pinnacle of technological advancement, the best way of accomplishing the task to which they were set. Like passenger traffic on the Northern Pacific, records experienced a sharp decline as new technologies, competition, and corporate decisions overtook them. Like railroads, records retained an aura of nostalgia and became icons of a different age. But unlike the Northern Pacific, records are experiencing a resurgence in popularity (Ellis-Petersen, 2017). While railroads move more freight than they ever have, few believe that they will ever again play the role they once did in moving people across the country. In a final discontinuity, the Northern Pacific certainly will not: A mere two years after it produced *A Thousand Miles of Mountains* (Morison, 1964), it was

merged into what is now BNSF Railway. The Berkshire Hathaway-owned conglomerate, meanwhile, has continued to leverage railroad nostalgia. For instance, the BNSF Heritage Award recognizes communities that “embrace their past, present and future ties to freight rail” (BNSF, 2018). Clearly, at least in the eyes of one of the nation’s largest freight carriers, railroad nostalgia still has mnemonic potency.

Marx (1964) describes 19th-century reactions to mass industrialization as near-religious: “The awe and reverence once reserved for the Deity and later bestowed upon the visible landscape is directed toward technology or, rather, the technological conquest of matter” (p. 197). Limerick (1987), in turn, observes that these attitudes have had mixed results and that such a difficult mix is definitional of Western history:

A belief in progress has been a driving force in the modern world; as a depository of enormous hopes for progress, the American West may well be the best place in which to observe the complex and contradictory outcome of that faith. (pp. 29–30)

So inevitable are the notions of progress in the *Thousand Miles of Mountains* (Morison, 1964) narrative that those things that stood in the way could be described as being created solely to be overcome. The depths of geological time that no one can remember are made knowable through this description. The mountains, all thousand miles of them, were made to be blasted through by the Northern Pacific. Rather than inviting contemplation, this album asks the listener, in its final track, to “move on, move on, let the wheels of progress roll through” (Morison, 1964, Side B, 00:19:00). Progress in this case is not just forward motion but an exclusively forward-facing orientation that prevents hindsight.<sup>5</sup>

In this article, I have suggested that audio media technologies can recruit a listener into participation in constructed historical narratives and that studying the audio artifacts produced and accessed through these technologies can reveal this construction. The artifact examined here is a potent example. Still, it is only one example. By joining other scholars who have called attention to the ways in which sound enables or prevents participation in popular and political narratives (e.g., Andrisani, 2015; Punathambekar & Mohan, 2017; Reese, 2020), my hope is to enable further exploration into how these soundscapes, both experienced and constructed, influence us in the present. The sounds of the past are as varied, and as malleable, as written history. There is important rhetorical work at play, here, if we listen.

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<sup>5</sup> Link to audio clip “Move on”: <https://on.soundcloud.com/BHKYk>

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