Transportation infrastructure decline as lived metaphor in the American Rust Belt

In this paper, I discuss what the rise and fall of transportation infrastructure mean to people who still call deindustrialized regions of the United States home. Consistent with research on deindustrialization, following the late-20th century, industrial collapse of iron and steel across the Midwest, the sociotechnical bases for industrial transportation faced removal or degradation. While this degradation is seen as an inevitable side-effect of economic crisis, this study demonstrates how the impacts of such systematic disconnection outline its genesis. This paper expands on the transportation track themes of marginalization of certain segments of the population.

This study of the meanings of infrastructure decline is part of a larger project on the residential persistence of post-industrial communities sited at opposite ends of a now-defunct iron commodity chain. Between 2015 and 2017, I conducted archival research, ethnography, and ninety interviews in a rural mining community in Wisconsin and an urban steel manufacturing neighborhood in Chicago. In both extractive and manufacturing sites, the decline of transportation infrastructure emerged unbidden in over fifty percent of my interviews. This paper draws on this subset of interviews, as well as informal conversations and historical data from archives located in each community. I focus on the two forms of industrial transportation that emerged as central to my interviewees: rail in the rural mining county and shipping in the urban manufacturing neighborhood. Of this data, I ask two questions. First, how do people who still live in these regions of economic decline interpret the meanings of absent transportation? And second, how does this set of meanings inform how everyday people envision the future of local infrastructure maintenance, revitalization, or development?

To grasp what infrastructural decline means to people experiencing it and why that meaning matters, I suggest that we should view transportation as a lived metaphor. This concept merges two concepts from the social sciences and humanities: first, the idea of a lived experience—an experience that a group of people lives through in a bodily and multisensory way. And second, a shared metaphor—when something seen or spoken of means more than it seems to mean. In the broader paper, I synthesize scholarship on science and technology studies, classical sociological theorists’ takes on the link between infrastructure and modernity, and work on the breakdowns and buildups of flows between places over time to develop a durable frame for understanding the on-the-ground experiences of transportation as both an embodied narrative of meaningful change and evidence of intractable, logistical breakdown. I contend that by understanding the rise and decline of transportation infrastructure as a meaningful representation of something beyond the mere technologies of moving commodities in the American Rust Belt, we (academics, practitioners, policymakers, and other ‘outsiders’) can better grasp the ideal futures envisioned by locals.

First, I show how the flows of industrial transportation offered an embodied experience that represented ideas about the meaning and purpose of mining and manufacturing communities. Natural resource communities exist and function largely because of transportation. Between the late-19th and the mid-20th centuries, the remote mining villages central to my larger study relied exclusively and immediately on railways to bring supplies, machinery, and fresh workers and export the valuable rock through the forests to a dock into Lake Superior. Those ships were owned by steel mills sited along the peripheries of urban centers of manufacture in the Midwest and mid-Atlantic. Worker neighborhoods sprung up around those
steel mills, transforming (in my urban Chicago case) marshland lands by dredging ports and build pedestrian walkways and rail terminals. These forms of transportation not only mediated the exchange of commodities over long distances, they animated the embodied experiences of everyday life for several generations of working-class laborers.

In the rural mining community, Gary told me that his “earliest recollections were of the ore trains going through. The ore trains just ran and ran and ran, throughout the night.” As a child, he “lived just a block from the railroad tracks on Fourth Avenue. My brother and I used to sit on the little hillside, looking down on the trains, watching them go through and that was constant all day long. And, after a while, you know, it’s just part of growing up.” Several days later, those boats arrived in the port of the Calumet River. Steel mills rimmed that waterway, and behind them sat neighborhoods; a “millgate archipelago” hidden “under clouds of sulfurous red smoke and dust” (Sellers 2006). Jose told me, “we lived the mill. I mean, everything that we did was based around what happened to the steel mills. I remember my father, when he would hear the ore boats in the [dock], he would always say, “That’s the sound of money.”

The movement of natural resources is what created a community; transportation embodied the enchantment of modernity and, in turn, laborers and their families experienced the sights, smells, and sounds of that commodification of their rocks, soil, air, and waterways in their own bodies. (For insight into the health consequences of these industrial externalities, see works such as Bell and York 2012; Hooks and Smith 2004; Pellow 2004). These bodily experiences became ideas and expectations of reality, imbuing the stuff of infrastructures with meaning beyond their intended purposes. People experienced railroads and shipping as markers of daily life that were seen, heard, breathed in, integrated into stories, and, eventually, missed.

When the iron and steel companies central to my case communities shuttered in the late 20th century, the subsequent decline of transportation infrastructure appeared as material evidence of the intractable, logistical breakdown of the entire industrial community. This is my second point: in interviews and archival materials (newspaper editorials, personal letters, oral histories) alike, the disintegration of transportation infrastructures signified both the loss of an economically and culturally important employer and a representation of wide-scale, irreversible structural decline.

For the rural mining community, the most visible vestige of mine closure was the end of rail service. In this rural county, twenty-one interviewees brought up the end of the railroad as a meaningful symbol of the most dramatic change their community experienced. Peter shared with me, “the good old days are gone. Our house is right by the railroad tracks.” His wife interjected, “where they used to be.” Peter smiled sheepishly at his error. “I remember seeing the ore cars going through every day, you know. 80, 90 of 'em, heading towards [the ore dock] with the iron ore. Now the tracks are gone.” The loss of those tracks meant a loss of not only industry but also of community. After the last iron mine closed in 1962 and the final car of stockpiled ore left for the dock in 1967, the railroad companies pulled out their tracks and reneged on their right-of-ways. Gary told me that when his dad heard this news of the final right-of-way being relinquished back to the county, he said, “They tore up the tracks…[this town] is dead.”

In the urban case, the closure of the first of eight steel mills was signified by a boat. On a spring morning in 1980, an ore boat was refused at the Wisconsin Steel mill in southeast Chicago. Unbeknownst to most employees, the managing company of the mill had just declared bankruptcy. By the end of the next decade, nearly 15,000 steelworkers in the region were unemployed. The river and its finger ports filled gradually with sediment and closed steel mills were dismantled. Satellite images show a neighborhood marked more by green space and shrinking waterways than neighborhoods. Julie, a volunteer at the
historical museum, said: “People say to me, you live on the southeast side of Chicago? That’s the lake!”

Transportation served as a narrative trope for not only nostalgic tales of loss but also for the broad, nearly-permanent changes to the ways spaces once central to industry function post-closure. In both sites, transportation loss and its affiliated logistical changes emerged as a limit to any future development to the region. In the rural case, one interviewee explained, “we gave up those right of ways. In 50 or 100 years from now, when someone decides that good railway service is still the most efficient way to move stuff, they’re going to regret losing those right-of-ways because you’re never going to get them back.” Phil, an engineer, observed “that’s what bad about this area here—we lack transportation. Because if you’re going to ship bulk up here, you need rail. We don’t have it. That’s a real deterrent to something like that [paper mill] coming up here. What we do have is wood, and we have water. But no transportation.”

In the urban case, the material evidence of the decline of shipping represented a loss of capacity for productive use of large tracts of land for either economic growth or public enjoyment. The crumbling infrastructure of the port combined with the inconvenience of navigating a river in the first place is hampering redevelopment efforts, according to Derek, a nonprofit organizer, said, “three to four miles of river for those freighters to navigate via tugboat… it takes too long for today’s world.” At the same time, the pollutants contaminating these post-industrial waterways and their associated brownfields have rendered vast portions of the neighborhood inaccessible to residents. Most of the river and its ports are zoned as industrial and prohibit public access. Tom, an environmentalist in the region, complained that “we’ve been shut out for so long. We’ve got a whole community of kids that just can’t walk up to the river—just for observation or to… understand about commerce moving up and down the river, or [for] sports—fishing, kayaking—thing like that that could be taking place. For the longest time, the City Department of Planning and Development (ignored us). Just because it’s on a map downtown somewhere that it’s industrial, they thought that’s all we are.” Tom’s vision was to rezone the river and brownfields and open city-owned parks so “we no longer have to just look at ourselves as a polluted end of the line for everything that the city wants to get rid of. [We want] to rebrand ourselves, to be the playground of the city instead.”

In conclusion, in this study, transportation infrastructures emerged as a category of analysis applied by interviewees themselves—a representation of boom and bust, of gain and loss, and of the logistical marginalization brought about from deindustrialization. Specifically, I show the long-term consequences of the slowing of mobility of capital across space and time. The loss of rail, roads, or shipping routes once central to quotidian experiences of daily life was offered by both rural and urban residents as at once a symptom and a cause of their communities’ prolonged, socioeconomic marginalization. Inversely, for interviewees, the maintenance or re-creation of transportation infrastructures seems to be the first and most important step for moving forward from deindustrialization. I contend that transportation is a lived metaphor—a set of embodied, experienced meanings that frame the way that long-term residents understand the meanings of absent transportation and envision the future of local infrastructure maintenance, revitalization, or development. Considering transportation infrastructures as a lived metaphor emphasizes the embeddedness of often-overlooked technologies, materials, and mobilities into our experiences and expectations of daily life. This emergent theme of transportation as metaphor also calls for more analysis of how rural and urban places are—or were—connected, and what meaning lies in the absence of those material flows today.