

## Some Comments on the Historic and Geographic Importance of Railroads in Minnesota

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A LONGER VERSION of this paper was presented to the Staples Teachers Institute at Staples, Minnesota, on September 25, 1971. The subject of the institute, one of five conducted around the state in recent months by the Minnesota Historical Society, was "Transportation in Minnesota."

A NEW ERA began in Minnesota in 1862 when the state's first train made its initial run between St. Paul and St. Anthony. Symbolically, the first locomotive, the "William Crooks," arrived in Minnesota in 1861 by steamboat over the historic and well-traveled Mississippi River corridor. By the time the first railroad began operating within its boundaries, Minnesota had become a state, and its population exceeded 150,000. Fort Snelling had guarded the northwestern frontier for almost half a century. Cities like Stillwater, St. Paul, and St. Anthony were well settled and growing, and the gross framework of the state's present settlement pattern was established. Settlement was river-oriented, with population concentrations on the margins of the rich farming and lumbering hinterland that stretched to the west and northwest. By the time of the first railroad, then, some towns and settled areas were more than a generation old — albeit a rude, frontier generation. And for more than a decade after the introduction of the railroad, rivers such as the Mississippi and the Minnesota remained the major transportation corridors. Although the rural population began to spread out on the upland-till plains, market centers invariably remained on the rivers.

The railroad, however, soon challenged — successfully — the formerly undisputed reign of the riverboat in Minnesota, and the steel-rail epoch, as John R.

Borchert has called it, rapidly emerged. The new mode of transportation quickly began to shape urban and rural life, providing new opportunities and orientations for Minnesota settlers.

By the 1870s — a short decade after its introduction to Minnesota — the railroad had caught up with agricultural settlement. Railroads and settlement complemented each other during these years. Not only were railroads built to serve farm populations, but farmers, at the same time, located in accordance with projected or anticipated railroad construction.<sup>2</sup>

Soon after railroads reached the far edge of the westward-moving settlement, however, they passed it. Grading roadbeds and hammering spikes with a frenzy, railroad companies pushed out onto the uncultivated plains of western Minnesota in the 1870s. The high point of rail-building on virgin land came in the 1880s, as railroads virtually plotted the course of empire. They no longer threaded their way through previously settled territory but, instead, now essentially dictated where both farmland and towns would be located, because lands close to railroads were simply worth much more than those farther away. By the 1880s, as well, railroad companies became the major promoters of farm and town sites from western Minnesota far into the Dakotas. New towns acquired a predictable uniformity, huddled as they were behind their railroad depots and below their tall grain elevators. Even town names took on a new character. Indian and "back-home" names became less common than easy-topronounce names of railroad men and dynamic businessmen. Examples: Staples, Tracy, and Aldrich.3

One might think of Minnesota, therefore, as having three major zones of settlement: one that was pre-railroad, one that developed simultaneously with the railroad, and one that was settled after — and usually because of — the railroad. This may make Minnesota unique among the states. It is neither a western nor an eastern state; it is both.

Southeastern Minnesota was part of the river frontier and was settled in the steamboat era, much like the

<sup>1</sup> John R. Borchert, "American Metropolitan Evolution,"

<sup>a</sup> Brown, Historical Geography, 342-344.

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in Geographical Review, 57:307 (July, 1967).

"Harold A. Meeks, "Railroad Expansion and Agricultural Settlement in Minnesota, 1860–1910," in Proceedings of the Minnesota Academy of Sciences, 27:27–28 (1959); Ralph H. Brown, Historical Geography of the United States, 342–344 (New York, 1948).

land to the east. Stillwater, I would venture to say, is quite like towns on the Ohio River. Its setting, layout, and architecture have an eastern flavor. Its main street, like that of so many other river towns, parallels the river, in this case the St. Croix.

By contrast, such western Minnesota towns as Marshall and Worthington fit into a different category. Laid out in broad checkerboard squares, they grew from the prairie and took on a character distinct from that of river towns. Their main streets parallel the railroad, the most important element of their morphology, and the towns' orientations are linear. At one time Minnesota prairie settlements like Sleepy Eye and Waseca were on the western railroad frontier away from lush river valleys. They had difficulty acquiring wood and water, and blizzards swept across them as unimpeded as though the scene were farther west. Architecturally, too, these towns had a western flavor. It is appropriate that George B. Abdill's popular book, Rails West (New York, 1960), begins its narrative in Minnesota. The story of laying track and keeping lines open in western Minnesota reads like robust western history, pure and simple. And it is.

That Minnesota is both an eastern and western state can also be seen by looking at the types of railroads that serve it. Aside from the iron-range roads and a few short transfer lines, Minnesota's railroads fall into two distinct classes: the western transcontinentals and the granger, or midland, roads. The transcontinentals gave Minnesota its westward, prairie orientation and made the Twin Cities (as they still are) a nodal point for the northern Great Plains. Gen-





IN THE early twentieth century, railroads and grain elevators maintained commanding positions, economically and architecturally, in Minnesota communities.

erating an exchange of ideas, people, and goods, the westward-looking railroads united Minnesota with the Pacific Northwest. Even railroad names reflected that unity. The Great Northern (now Burlington Northern), Northern Pacific (now also Burlington Northern), and the Chicago, Milwaukee, St. Paul, and Pacific were giants that linked East and West.

The granger roads, on the other hand, had a different relationship with Minnesota. The Chicago Great Western, the Illinois Central, the Chicago, Burlington, and Quincy (now Burlington Northern), the Chicago and North Western, and the old Minneapolis and St. Louis lines all reached Minnesota by the turn of the century, but they usually were the northernmost tentacles of well-established midwest systems. They connected Minnesota with midland cities such as Omaha, Nebraska; Des Moines, Iowa; St. Louis, Missouri; and Rock Island, Illinois, rather than passing through the North Star state on their way elsewhere. At the margin of two major regions — the midwestern corn belt and the western wheat country—the Twin Cities were tied to the new wheat frontier by the westward continentals while they were linked to the already settled and tamed agricultural Midwest by the granger roads.

Numerous articles and theses written on Minnesota's evolving railroad pattern implicitly or explicitly

TRANSCONTINENTAL RAILROADS were beginning to push west into the desolate Northern Plains when this photograph was taken at the end of the Northern Pacific's track near Brainerd c. 1870.

acknowledge the primary role that railroads played in the settlement of Minnesota. Economic historians have noted the importance of railroads in the distribution of trade items and farm goods. Social historians have maintained that antirailroad sentiment was the spark that gave life to the National Grange and other farmers' unions that were formed for co-operative opposition to what they considered to be the unfair monopolistic practices of the early railroads.

As a geographer, however, I miss the story of the actual visual and morphological impact of the railroad on specific kinds of places, especially towns and cities. To state, for instance, that Staples is a railroad town on the former Northern Pacific only whets my curiosity. Just what is there about Staples that makes it a railroad town? Was it laid out differently from non-railroad towns? Did the Northern Pacific have a say in what the town would look like? Did the presence of the railroad have any ecological effects on urban growth other than those deliberately sought by the railroad company?

It must have. Towns that sprang up along railroads reveal striking geographic similarities. This is not surprising, however, when one realizes that railroads employed land survey companies which platted towns and gave them everything from their orientation on the land to their street names (like Atlantic and Pacific streets). Most small towns, too, are situated on one side of the railroad tracks, which often mark one "side" or "edge" of town. The Clay County railroad village of Sabin (population: 251) provides a classic example of the hundreds of towns in Minnesota and the Dakotas which exhibit this asymmetrical layout. In fact, perhaps 70 per cent of small towns are built upon only one side of the tracks.5 There also are indications that the larger they grow the more likely they are to spread to both sides of the tracks - except in cases where they are river-front towns or lakeside towns.

How do we account for the one-side-of-the-track small town? There are several possibilities. First, railroad surveys may literally have dictated town morphology. Since the railroads usually were given alternate sections of land, they may have built towns on the side they owned simply to increase the real estate value of their property. The territory across the tracks would then remain private farmland. Yet railroads were by no means always laid out on section lines, since slavish adherence to a rectangular grid would present topographical problems. First and foremost, surveyors took account of variables such as gradient, curvature, and marshy land. (How they adjusted rail lines to topographic features in a state with more than 10,000 lakes is another interesting story.)

In the beginning various companies sometimes

plotted townsites. Although we know that some of them were independent, some worked with railroads, and some were an essential function of a railroad's early operations, we clearly need more information about the relationship between early railroad surveys and town surveys. Legal matters, too, should be studied: just what did townspeople have to say about where the railroad went?

This and other questions bring to mind another theory, ecological in approach and at the same time imbedded in folklore. It postulates that the railroad had the effect of a cultural-ecological barrier on town life. Let us say, for example, that a particular town was laid out on one side of the tracks for convenience—to avoid numerous grade crossings. The railroad depot, one of the first structures in town, was built on the town side for the safety of passengers. They did not have to cross any tracks to board trains. A depot's front door faced the tracks, and its rear was toward town.

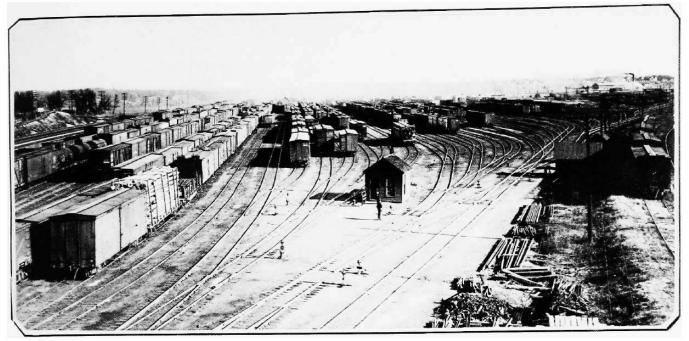
Businesses naturally sprang up on Main Street, which ran either parallel or away from the tracks, but not across them. Industries and warehouse structures such as grain elevators naturally located along the tracks. (Even today one can determine the location of the railroad in a town with about 100 per cent accuracy by looking for the grain elevator.)

As the town grew, it expanded out in directions away from or along the tracks — but not at first across them. Crossing the railroad was, of course, dangerous. But even more significantly, trains were frequently stopped for switching or to take on water and coal in towns, and thus they would delay anyone wishing to cross the rails in the days long before the no-morethan-five-minute limit on blocking crossings. Only after the town reached a certain size would people find inconvenient the distance between the central business district and the residential zone, which had developed on just one side of the tracks. Then townspeople would deliberately expand building construction across the tracks. Since retail locations are very slow to change in many towns, an inertia would develop, and new buildings across the tracks would probably not be the existing higher-class retail services but, rather, bulk dealers and establishments such as taverns. Houses built across the tracks, too, would probably not be those of the wealthy but, instead, of lower-class work-

This figure is based on a survey of 100 small towns in

Minnesota and the Dakotas taken by the author.

<sup>\*</sup>See, for example, Richard Prosser, Rails to the North Star (Minneapolis, 1966), and Harold A. Meeks, "The Growth of Minnesota Railroads," unpublished master's thesis, 1957. A copy is on file in the Geography Department at the University of Minnesota.

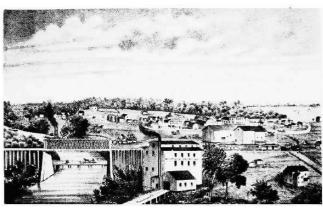


RAILROAD YARDS such as the Minnesota Transfer Yard (above) in the Midway district of St. Paul (photograph c. 1916) still occupy large portions of high-potential urban areas.

MANY TOWNS like Moorhead (right) tended to develop on one side of the railroad tracks. Gradually, buildings such as manufacturing plants and working-class establishments were built on "the other side of the tracks" (in Moorhead's case, the south side), as is evident in this 1874 lithograph. By the 1890s, Moorhead was extensively developed on both sides.

ers. The folk concept, then, of "the other side of the tracks" might have a factual base. Some sociological studies of small towns tend to substantiate this theory, but its validity as a generalization still lacks proof and needs more research.

PEOPLE COMMONLY TALK about railroads as a problem. Railroad tracks are, for one thing, difficult to cross in many places. For example, the Minnesota State Planning Agency recently noted that in Braham, Minnesota, "the Great Northern railroad tracks . . . present a traffic and pedestrian cross-movement problem." Even though, mechanically speaking, today's automobiles are easily maneuvered and controlled, hundreds of people are still killed every year in gradecrossing mishaps. Railroads, then, are psychological



barriers, and town planners as well as local folk recognize this.

Railroads may be social barriers, too. In Sleepy Eye, for example, the Chicago and North Western tracks divide the town between the Catholic "north side" and the primarily Protestant "south side." Tension exists between these two sectors which have separate school systems. Occasional inter-high school brawls have reportedly occurred. Of course, religious differences express themselves in local politics, too. South side residents have stated that a proposed city swimming pool was voted down by the Catholic north side because the pool would have been located across the tracks on the south side of town. That the railroad is a localized socio-economic barrier in Sleepy Eye or any other place is not, however, proven. Perhaps the relationship is not constant but dependent on the individual railroad company traversing the town, on county and local laws, and other variables.

<sup>&</sup>lt;sup>6</sup> Nason, Wehrman, Knight, and Chapman, Village of Braham, Minnesota: Comprehensive Plan, 11 (Minneapolis, 1970).

One cannot deny, however, that railroads have been important factors in Minnesota's settlement pattern. In terms of sheer mass, in fact, Minnesota's railroads are significant elements in the contemporary landscape and land-use patterns. Minnesota has about 12,000 miles of railroad track. About 65 per cent (7,800 miles) is what we might call main-line track — "high iron" (heavier, higher, and stronger), with heavy traffic and modern signal systems. Only about 5 per cent (610 miles) remains in branch lines — those spur-type operations which link main-line points to smaller towns in the agricultural or mining hinterland. The branchline figure, once much larger, reflects the waning future of the marginal line which once was a county's or town's vital link with the outside world. In another two decades the branch line probably will be gone.

Of Minnesota's 12,000 miles of track, 30 per cent, or about 3,400 miles, is in railroad yards — areas of numerous parallel tracks where freight cars are stored, classified, and shuffled to make trains. This type of railroad property comprises a surprisingly large portion of urban areas. Fully 8 per cent of the built-up St. Paul area, about 5 per cent of Minneapolis, and some 8 per cent of Duluth consist of railroad yards. Even in smaller cities like Owatonna and Mankato about 4 or 5 per cent of the built-up land is in railroad yards and tracks. The percentages are disproportionately larger in towns like Staples, where important railroad yards and shops account for 16 per cent of the built-up area within the town limits. Land-use maps alone, not to mention payrolls, reveal the importance of the railroad in what are traditionally called "railroad towns." In Staples, to use that town again as an example, the former Northern Pacific yard is fully one-third the size of the built-up area of the town and its environs.

But railroading, like other industries, is consolidating itself. And when a railroad greatly reduces its operations at a particular place, not only are large numbers of workers laid off but also vast land areas, temporarily at least, are abandoned. Conservative estimates would indicate that several hundred miles of tracks will be abandoned in Minnesota by 1990. Railroad mergers such as the formation of the Burlington Northern from several companies are expected further to accelerate abandonment of tracks and facilities,

since there is duplication on several lines. Other railroads, too, will doubtless part with redundant or simply unprofitable lines in the future.

The concept of abandonment is a basic part of the impact of the railroad on Minnesota; since large portions of urban areas and even small towns are taken up by railroad tracks, abandonment often makes available high-potential land. In the Twin Cities, for example, a Burlington Northern plan for yard development may free hundreds of acres of industrial land. Even in smaller towns, abandoned rail corridors may be used for industrial development, parks, or parking lots. At one time, for instance, much of Staples' economy depended on the Northern Pacific. The several hundred employees needed in the 1920s, however, have been replaced by only several dozen in Staples, and much of the land in and around the railroad yard is no longer used. Remaining railroad structures, such as roundhouses and shops, might conceivably be converted to community uses. Similarly, community use has been recommended for the old Great Northern roundhouse at Breckenridge, Minnesota.7

Railroads had, and still continue to have, a tremendous impact on Minnesota. At one time merely peripheral to the state's river and oxcart transportation system, railroads soon came to dominate Minnesota's settlement pattern. By 1885 there was no important area in the state which developed without a very close relationship to the railroad.

Conditions have changed drastically in the half century since 1920, and in a sense the study of railroads in Minnesota is one of relict features. Yet, since so much of our settlement pattern was part and parcel of railroad planning, we may benefit by a better understanding of the ways in which decisions made almost a century ago still affect the lives of both rural and urban "settlers" today.

<sup>&</sup>lt;sup>7</sup>Community Planning and Design Associates, *Breckenridge*, *Minnesota*, *Downtown Development Plan*, community discussion map (Minneapolis, 1968).

THE ILLUSTRATION on page 61 is from Alfred Andreas, An Illustrated Historical Atlas of the State of Minnesota, 80 (Chicago, 1874); all photographs are from the society's collection.



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