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Summer 1983

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# NINETEENTH-CENTURY PATTERNS OF RAILROAD DEVELOPMENT ON THE GREAT PLAINS

RUSSELL S. KIRBY

The North American Great Plains experienced rapid settlement and economic growth from 1870 to 1914. The advance of settlement and the development of local economy, while generally contiguous, were by no means uniform. Soil conditions, underground water supplies, the network of rivers and streams, rainfall, and growing season are all attributes of the physical environment that vary across the plains both longitudinally and latitudinally. In addition, the extent of effective settlement in the Mississippi River valley, the natural starting point for westward expansion onto the plains, varied considerably in 1865. Given these economic and environmental preconditions, it is not surprising that settlement on the Great Plains after 1870 varied in timing and degree.

Although the physical geography of the area must be taken into account, the differences in the timing and amount of economic development of the region were largely due to the uneven expansion of the railroad network after 1870. Some areas were heavily overendowed with railroad facilities, while others received barely adequate, or even niggardly, treatment at the hands of railroad businessmen and entrepreneurs. The construction and operation of railroads on the plains were governed in part by strategic, managerial, financial, and institutional forces that produced a transport system with no necessary relationship to the contemporary or potential economic landscape of the Canadian and American Great Plains.

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This article examines the process of corporate railroad decision making in the larger context of investments, developmental strategies, and operational considerations, and explores the spatial evolution of four major railroad systems from their origins to 1915. These railroads, two American and two Canadian, demonstrate various strategies of system development. Generalizations drawn from a brief historical overview, combined with insights from other analyses of entrepreneurial and business practices of nineteenth-century railroads and their leaders, suggest a hypothetical sequence of railroad system development

at the level of the corporation in nineteenth-century North America.

## TERMINOLOGY

Within the context of railroad systems, from both an investment and an operational point of view, several concepts and terms have been developed by business and economic historians to facilitate the understanding of investor and corporate decision making. As these ideas will be applied to the development of the four Great Plains railroads considered here, some brief definitions are warranted.

First, in order to understand the investment strategies pursued by individual capitalists and entrepreneurs, it is useful to differentiate, as Arthur M. Johnson and Barry E. Supple have done, between *developmental* and *opportunistic* investments and investment strategies in the nineteenth-century railroad business. A *developmental investment strategy* is one in which an investor looks to long-term growth in a booming region for the economic rewards from capital investment. *Opportunistic investments,* on the other hand, have "relatively shorter time horizons, the context of which was not so much future income growth as the securing of profits from available markets—whether for goods, for railroad services, or for stocks and bonds."[1]

There is a continuum from developmental to opportunistic investment, and while any individual's current motives can be placed somewhere along this continuum, those motives, or the criteria for subsequent investment decisions, could easily change with time or with changes in other financial and economic factors not necessarily bearing directly on railroading. Local merchants and farmers committed their capital to early local railroad companies as a means of increasing their business profits. Distant investors often purchased railroad bonds and debentures with a view to stable, long-term developmental profits. By the late nineteenth century, many railroads had come under the control of strictly financial, large-scale capitalist interests. Often located at some distance from their railroads, financiers used their properties for much broader strategic purposes, manipulating the securities, freight rates, connections, and through routes almost at will. As often as opportunistic profits were made—through financial wizardry, shady construction contracts, or dealings in railroad lands—great fortunes disappeared overnight in the aftermath of bank failures, overextension, or bankruptcy and receivership.

Except in virgin railroad territories, it is difficult to characterize most late nineteenth-century railroad investments as anything but opportunistic. If one makes a conceptual leap from the level of the investor to that of the company, however, this is not so. While Johnson and Supple are careful to apply their analysis only to investors, however wealthy or influential they may have been, it seems appropriate to discuss the investment, operating, and new construction decisions of nineteenth-century railroad corporations in the same terms. Thus, an opportunistic managerial strategy might involve the sale of railroad assets, competitive pricing policies on freight or passengers, or the rapid construction or acquisition of railroad lines in direct competition with one or more rival companies. Developmental corporate strategies would include controlled systems growth and the husbanding of nonrail assets such as agricultural lands and mineral or forest resources for the long-term prosperity of the railroad. Viewed from a broad, system-wide perspective, it would be conceivable for a given railroad to engage in a purely or largely opportunistic strategy in one part of its system while simultaneously developing the future potential of its business in another portion of its network. Indeed, the larger the system, the more likely that this combination of strategies would exist.

Railroad historians have also identified two types of system development. The major development strategy of many nineteenth-century railroads was the *territorial development* of a near monopoly on freight and passenger traffic in a particular district. Indeed, the concept of a "natural" territory appears again and again in

the documents left by important figures in the railroad industry of the late nineteenth and early twentieth centuries.[2] In contrast to territorial development, the term *interterritorial competition* describes the sequence of events that often ensued when the lines of one road invaded the natural, or integral, territory of another railroad. Interterritorial competition could take many forms, including physical construction of mileage in direct competition with another firm, preferential agreements with complementary systems in competition with one another, mergers, consolidations, and cutthroat price wars. Just as developmental and opportunistic investment or management strategies are pure forms that seldom exist in practice, territorial development or interterritorial competition rarely characterizes the strategy of a single railroad over its entire network at any given time.[3]

To these two ideal types of territorial strategy, I would add a third. The concept of *city-hinterland symbiosis* is useful in describing the nexus of mutually reinforcing economic ties between a railroad line and its initial terminus. This type of development strategy was pursued by early or small railroad companies that identified their economic interests closely with those of the business community they served.

Finally, the concepts of *local* and *through* traffic and routes are very important in understanding corporate railroad system development in the nineteenth century on the Great Plains. Local traffic refers to business that originates or terminates at a local station on a railroad's line. Through traffic requires some transfer or connection, with the same carrier or with another carrier. Through routes are direct lines between pairs of major cities, with no change of cars required. On any given journey, a passenger might be deemed local traffic from, say, a village station to Kansas City, but a through passenger from Kansas City to Chicago on another line. A traveler might have purchased a through fare for the entire journey, but the type of traffic classified by each road could differ. The distinction is important, because through passengers and freight traversing a line between major cities often paid a lower fare per mile or unit weight than local traffic, which paid a premium fare for transportation purchased in what was often a nearly monopolized marketplace.

Bearing in mind these three sets of concepts—opportunistic and developmental investments and managerial strategies; territorial development, interterritorial competition, and city-hinterland symbiosis; and local versus through traffic and routes—let us now examine the evolution of four major Great Plains railroad systems from their origins to 1915.

## GREAT PLAINS CASE STUDIES

The lines chosen for study include two American railroads, the Chicago, Burlington, and Quincy and the Atchison, Topeka, and Santa Fe, and two Canadian railways, the Canadian Pacific and the Canadian Northern. All four grew by 1914 into major common carriers on the Great Plains. Although the railroads originated in slightly different circumstances, a review of their corporate histories and systems evolution suggests a number of parallels and some differences in their sequential development. The maps in Figures 1 and 2 show the general extent of each network in 1915. Major trunks and branches have been classified according to the probable development strategy under which each line was built or acquired by each company. These system maps should be examined in conjunction with the following overviews of the growth of each railroad.

## THE BURLINGTON SYSTEM

The Chicago, Burlington, and Quincy Railroad (hereafter referred to as the Burlington) had its origins in several short railroads in central Illinois that were largely financed locally. The system as it was first integrated in the mid-1850s consisted of a main line from Chicago to Galesburg with two branches to the Mississippi River at Burlington, Iowa, and Quincy, Illinois.

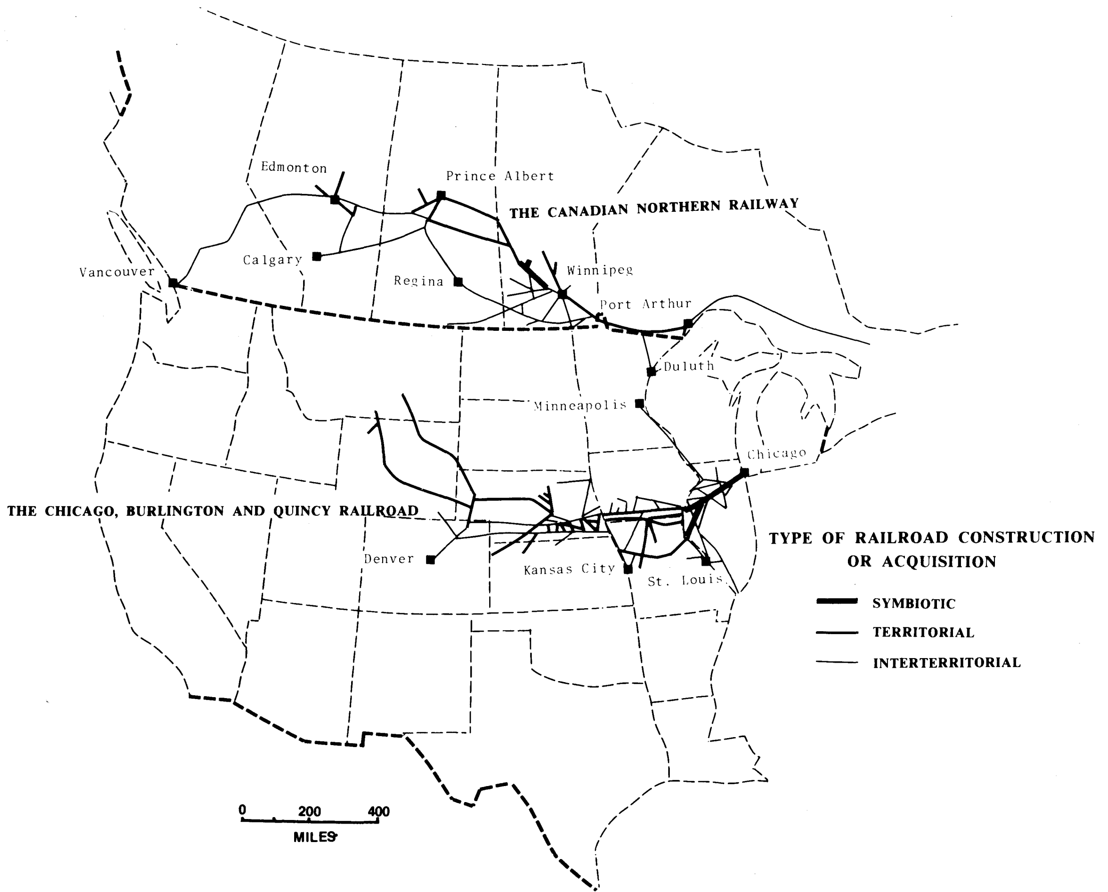


FIG. 1. *The evolution of the Burlington and the Canadian Northern to 1915.*

Prior to the Civil War, the Burlington served as a symbiotic link between the rising commercial metropolis of Chicago and the rich agricultural lands of north and central Illinois (Fig. 1).

The Boston capitalists who gained control of the Burlington before the Civil War, and maintained control of the firm's capital stock for a considerable period of time, pursued a generally developmental growth strategy. Despite numerous opportunities for profit taking, through manipulation of construction contracts or speculation in the land grants awarded to the company or to its subsidiaries, there is little evidence of opportunism in the development of the Burlington system during its formative years.[4]

Following the Civil War, the Burlington rapidly expanded westward into a burgeoning but highly competitive market for the transcontinental trade brought to the Missouri River valley over the Union Pacific, and for the agricultural produce and supply trade of Iowa and the eastern Great Plains. In entering this market, the company began to engage in interterritorial competition.

An early strategy of controlling the Burlington and Missouri River Railroad enabled the Burlington to participate in the famous Iowa Pool of the 1870s as a strong partner. The Council Bluffs–Chicago route became a western trunk line, providing extensive and profitable through traffic for the system. The

Burlington also attempted to garner a larger share of local traffic in north-central Illinois by acquiring strategically located but weaker lines. By 1875 the railroad had also built a line, nominally under its control, to Kearney, Nebraska, on the Platte River, in an attempt to command an even larger share of the transcontinental traffic to Chicago. This strategic construction set off a round of securities manipulation, intrigue, and interterritorial competition for the Burlington line.[5]

By 1900 the Burlington system could boast of several through routes not present in 1875. These provided direct connections between Chicago and Minneapolis–Saint Paul, Saint Louis, Kansas City, and Denver, as well as between important city pairs including Denver–Kansas City, Kansas City–Saint Louis, and Saint Louis–Minneapolis. In each case, these through routes were acquired or constructed in order to gain a stronger position in the through traffic markets of the Great Plains and the Middle West. Once each line was built or consolidated into the system, its primary function was the long-distance movement of commodities and passengers. The railroad did what it could to develop local traffic along these routes, but the important role of each in interterritorial competition placed the development of local traffic in a secondary position in the strategy of the system's managers.

Western branches to Billings and Cheyenne provided connections with transcontinental roads much farther west than did the Burlington's competitors. These lines also served to develop the ranching industry and the natural resources of the eastern Rockies and the northern Great Plains. Local traffic did play a role in the strategic location of these western routes, as did the prospect of a long haul of commodities to Chicago or to other distant cities on the Burlington line.

The essential outlines of the Burlington rail network were in place by 1900. Although additional mileage was added, the system gained access to no major new markets in the period from 1900 to 1915. Most new lines were branches and feeders that reinforced the already existing system in Nebraska, Iowa, and northern Illinois. Work was proceeding on a new line into north-central Wyoming, but no other interterritorial construction took place.[6]

Thus the Burlington had its origins as a western road in symbiosis with the city of Chicago and its growing hinterland in north-central Illinois. After the Civil War, the railroad developed local territories in Illinois, Iowa, and Nebraska. Partly as a response to interterritorial competition, but also to gain longer haul traffic with its increased revenues, the Burlington developed a number of through routes after 1875 and built up natural territories of monopolized local traffic on the prairies and eastern Great Plains.

## THE CANADIAN NORTHERN SYSTEM

The Canadian Northern Railway had its origins in several local lines north and northwest of Winnipeg. These lines were symbiotic links designed to develop the agricultural resources of Manitoba and to stimulate the local economy of the city of Winnipeg. Under the aggressive leadership of William MacKenzie and Donald Mann, the Canadian Northern established a network of railroad lines in Manitoba from its original nucleus (Fig. 1).[7]

At first, the Canadian Northern lines were built largely with provincial aid in the form of bond guarantees. Some of the railway lines preceding the Canadian Northern had federal subsidies or land grants associated with their charters. The strategy of the Canadian Northern principals was to finance the construction of new territorial development with provincial bond guarantees and to carry the operating expenses of these lines initially on the profits generated on existing lines in more prosperous, longer-settled agricultural districts. New construction was built to minimum specifications and tracks were upgraded as traffic warranted. The Canadian Northern became the line of choice for many prairie farmers, in part because the railway agreed to rates set by the provincial government at levels below those prevailing on the Canadian Pacific Railway, the only

major competitor. The Canadian Pacific had its long transcontinental spine to subsidize and maintain, while the Canadian Northern had only its prairie network and could afford to move traffic profitably at lower rates.

The Canadian Northern proprietors financed most of their original system through government subsidies and debt securities, retaining the entire capital stock of the company for most of its history. Only during the troubled years after 1912 did any equity securities leave their grasp, and these went to the dominion government in exchange for additional subsidies.

The quest for through traffic initially led the railway to consider interterritorial competition. With no lines to the East, the Canadian Northern got only a short haul on its local traffic to Winnipeg or to connections at the international border. The only alternative was to turn over traffic to the Canadian Pacific even closer to the point of origination. The Canadian Northern proprietors therefore determined to build to Port Arthur on Lake Superior. The ability of the company to control the grain traffic of the Prairie Provinces with this extension eastward was hampered only by the inadequacy of its rolling stock at peak seasons. Eventually it became clear that the road would have to develop its own tracks both to eastern urban centers and to the Pacific. Unfortunately for the people of Canada in the future, negotiations either to merge the Canadian Northern and the Grand Trunk, or to operate the Canadian Pacific's line north of Lake Superior jointly for all three transcontinental systems, fell through. The Canadian Northern received dominion land-grant and cash subsidies, but the railway became overextended in the course of completing its transcontinental route.

After 1900 the Canadian Northern and the Canadian Pacific were the major rivals engaged in interterritorial competition on the prairies. While the two railroads extensively overbuilt the railroad network of the region, each was able to claim substantial districts as territorial preserves. For through traffic from the Rocky Mountain front to the lakehead, competition was fierce indeed. Maximum rates were set by the dominion agency controlling railway rates, leaving a ceiling on transportation costs. At peak harvest season, however, the two companies must have moved traffic at cost or very little above. As in the case of the Burlington, local traffic supported the growth of the system as a whole and offset the cost of unprofitable or recently constructed segments.

The economic climate in the years preceding the outbreak of World War I, and the changed financial situation and immigration patterns that ensued during the war, spelled the end for the Canadian Northern. Seriously overextended, the line might have survived had the economic growth of the prairies continued unabated. In 1918, control of the Canadian Northern came into the hands of the dominion government. Today it forms the bulk of the western system of Canadian National Railway. The firm was not killed by its competitors, despite the strenuous nature of interterritorial competition on the prairies after 1900.

## THE SANTA FE SYSTEM

The Atchison, Topeka, and Santa Fe Railroad (hereafter referred to as the Santa Fe) grew out of the interurban rivalry among the Missouri River towns of Atchison, Saint Joseph, Leavenworth, and Kansas City for the commerce of Kansas and the West.[8] The Santa Fe had its origins as a locally controlled, symbiotic link extending westward from Topeka toward the Kansas-Colorado state line, with connections via the Kansas Pacific to Atchison. Early recognizing its need for direct connections with midwestern trunk lines to the East, the Santa Fe built its own line to the Missouri River at Atchison. By 1872, this young, rapidly growing road had completed the skeleton of its network across the southern half of Kansas and had earned its congressionally mandated land grant (Fig. 2).[9]

Santa Fe managers dreamed of building a transcontinental railroad along the old 35th parallel route.[10] This long-term objective

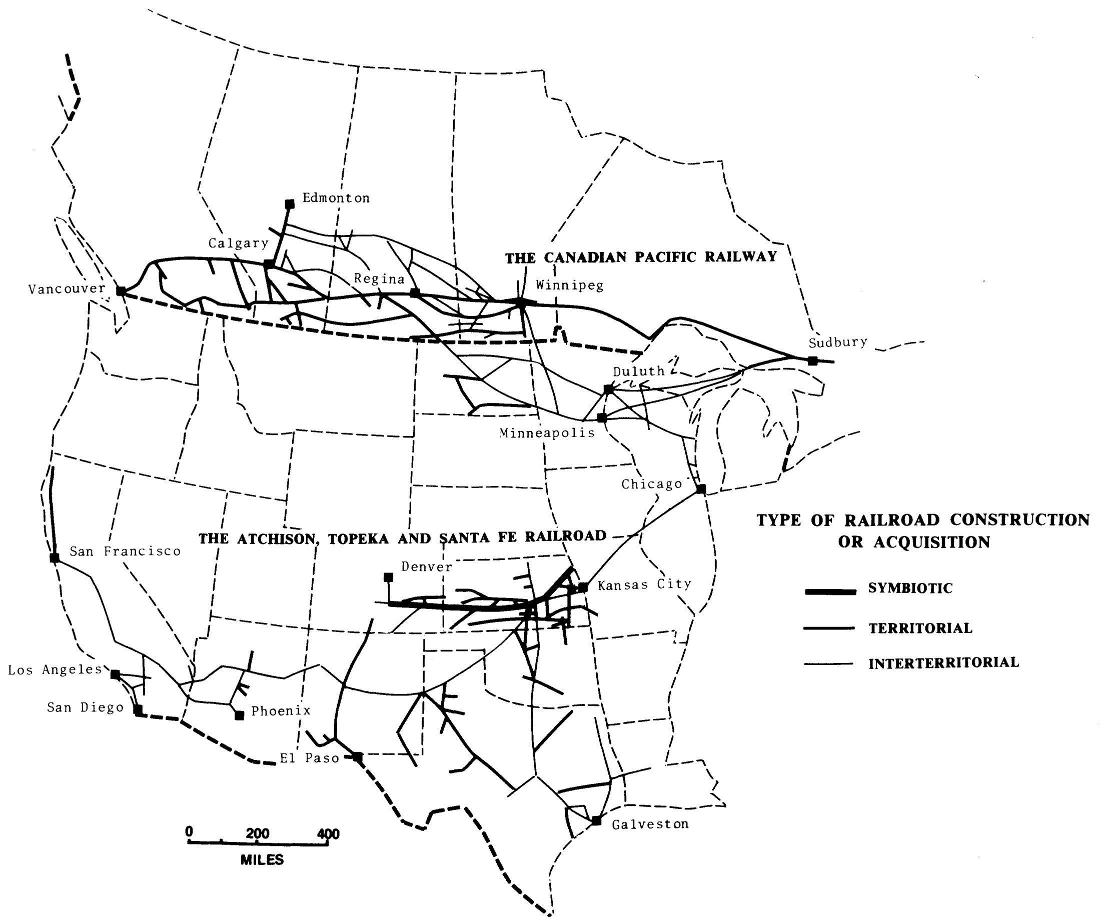


FIG. 2. *The evolution of the Santa Fe and the Canadian Pacific to 1915.*

required large investments in the securities of the railroad and the development of extensive, profitable local traffic along the existing rail network. Considerable through traffic could be anticipated only upon the completion of the transcontinental road. After 1872, therefore, the Santa Fe followed an aggressive policy of territorial development in Kansas, building some new branches and feeders while acquiring others. Although not a true monopoly in southern Kansas, the Santa Fe had become the dominant railroad in the area by 1875.

During this period, the Santa Fe pursued a rapid territorial growth policy in extending its line first to Pueblo, Colorado, and later south from La Junta through New Mexico and into El Paso. By 1885 the Santa Fe was embroiled in an interterritorial struggle with both the Southern Pacific and the Denver and Rio Grande. The extensive route development that took place after 1872 would have been impossible without the profits generated from local traffic in the natural, or integral, territory of the road.

The system continued to expand through the early 1890s. Like many other roads, the Santa Fe had difficulty weathering the depressed economy of the period and succumbed to receivership in 1893.[11] One historian of the Santa Fe suggests that the financial condition of the company deteriorated in part because of the aggressive acquisition in 1890 of both the

St. Louis and San Francisco (the Frisco) and the Colorado and Midland railroads. When the road emerged from receivership in 1895, it no longer controlled these lines. Financial control of the firm had passed by this time into the hands of eastern financial interests.[12]

The Santa Fe had developed the Atlantic and Pacific Railroad (the A and P) in cooperation with the Frisco after signing the Tripartite Agreement of 1879.[13] This jointly controlled and operated line ran from Albuquerque, New Mexico, to Needles, California. The A and P played an important role in the transcontinental plans of both proprietary roads and may have represented a reasonable solution to the high construction and operating costs and the low traffic potential of the territory traversed. The Santa Fe's acquisition of the Frisco also brought the A and P under the sole control of the Santa Fe. Although the Frisco system proved too large to digest, the A and P fit nicely into the interterritorial growth schemes of the Santa Fe's management and was retained in the newly reconstituted system of 1895.

The struggle between the Southern Pacific and the Santa Fe for the traffic of the Southwest has been recounted elsewhere.[14] The subsequent development of Santa Fe lines into Los Angeles, San Diego, and the San Francisco Bay area resulted from the unwillingness of the Southern Pacific to cooperate with the Santa Fe in the matter of through routes and a division of traffic accommodating to the latter firm. The actions of the Southern Pacific are perhaps understandable, as the railroad stood to lose considerable revenue by interchanging with the Santa Fe at Barstow, California, rather than at a junction in New Mexico or even at El Paso. To generate long-haul traffic and the desperately needed through routes, the Santa Fe was forced to develop its own lines to the major urban centers of California.

Like the Burlington with its line from Chicago to Minneapolis, several Santa Fe lines in California crossed the most physically direct routes between their terminals. The Santa Fe also constructed a line that minimized the distance from Kansas City to Chicago. It was built in the late 1880s to improve the railway's interterritorial competitiveness to Chicago and beyond. The Santa Fe connected at Kansas City with several roads, among them the Burlington, the Milwaukee Road, the Missouri Pacific, and the Rock Island. None of these lines provided connections with points beyond Chicago; thus, further transfers and divisions of rates were required on eastbound shipments and passenger traffic. The Santa Fe determined to increase the length of its haul by building its own line to Chicago. The new track was built to the highest specifications, and when completed, the Santa Fe provided the fastest service available from Kansas City to Chicago.[15] Because this line was intended to serve through traffic only, no diversions of the tracks to nearby local traffic markets were made.

In the years prior to 1900, the Santa Fe also expanded in two additional markets for interterritorial reasons. The Denver extension enabled the system to compete for traffic on a major through route, while the acquisition of the Gulf, Colorado, and Santa Fe brought traffic from major Texas cities over the tracks of the Santa Fe and into the Middle West.

By 1915 the Santa Fe had further consolidated its position in Kansas, Oklahoma, and Colorado. These areas remained natural territories of the road, while the system came to depend on long-haul and through traffic for profits. Major construction projects after 1900 included improvements on the main line to the Pacific and connections between the Gulf of Mexico and the main line near the Texas-New Mexico border. The system continued to expand into new markets in California, the Phoenix region, and eastern Texas.

## THE CANADIAN PACIFIC SYSTEM

Unlike the Burlington, the Canadian Northern or the Santa Fe, the Canadian Pacific Railway was conceived as a political plaything of Conservative national policy under Canada's prime minister, John A. McDonald, during the 1870s and 1880s. The road had its origins in

the compact from which the Dominion of Canada emerged. That political agreement required the consolidation of the new federation through a continental spine of steel rails. The mission of the Canadian Pacific was transcontinental in nature from the outset, and this railroad is an example of a system that never enjoyed a period of city-hinterland symbiosis as so many nineteenth-century North American railroads did (Fig. 2).[16]

The Canadian Pacific syndicate intended to build its road without recourse to the sale of equity securities. Together with personal investments by syndicate members, the subsidies of land and cash from the dominion government were deemed sufficient to construct the line. Unfortunately, because of a number of economic, political, and environmental circumstances, the original developmental strategy ran into difficulty. With further federal aid, and the sale of some equity securities and additional debt issues, construction of the skeletal network was completed in 1885.

Through acquisition the Canadian Pacific gained control of a number of short lines in Manitoba as well as considerable mileage in eastern Canada. Following completion of the transcontinental line, the railway adopted a territorial development policy aimed at producing local traffic to support the high fixed costs of the lengthy system. Of particular concern after 1885 were the physical geography of the Upper Great Lakes region and the sovereignty of the Dominion over the trade and economic relations of its territory.

As the only railway operating a trunk system in the Canadian West, the Canadian Pacific had both a political and a strategic obligation to build additional lines to speed the colonization and agricultural growth of the prairies. This it did by constructing a network of east-west lines in Manitoba and the territories, with a few north-south connections and taproot lines northward into the Canadian wilderness. Construction in the rapidly growing province of Manitoba often provided quick returns in local traffic, and the system as a whole was generally profitable in this period. Many of these feeders served an additional strategic function by siphoning off the traffic of the international boundary area and by rendering potential invasions by American railroads less remunerative. A competitor, the Northern Pacific, arranged for construction of a line to Winnipeg with the cooperation of the provincial government of Manitoba, but interterritorial competition of the type so common south of the border did not occur in western Canada, for the most part, until after 1900.

Another matter of great concern to Canadian Pacific management was the main line north of Lake Superior. Constructed as required by the original contract, the track had strategic uses in the event of a disruption in American-Canadian relations. In the normal course of business, however, the greater length of this route and the economic sterility of the territory traversed lessened the prospects of profitable operation over this stretch of track. The Canadian Pacific therefore determined to gain control of its own line south of Lake Superior. Such a road would yield not only a shorter route to eastern Canada, but also potentially greater local traffic, while enabling the company to serve additional Great Lakes ports.

By 1890 the Canadian Pacific had come into control of four roads in this area: the Minneapolis and Pacific; the Minnesota, Sault Ste. Marie, and Atlantic; the Minneapolis and St. Croix; and the trackless Aberdeen, Bismarck, and Northwestern. These roads were reorganized as the Minneapolis, St. Paul, and Sault Ste. Marie (the Soo Line). The Canadian Pacific also gained control of the Duluth, South Shore, and Atlantic during this period. These lines, together with a connection built under extremely competitive conditions from Sudbury, Ontario, to Sault Ste. Marie, gave the Canadian Pacific its own line through the United States south of Lake Superior.[17]

In the fifteen years following 1900, the Canadian Pacific became engaged in a territorial battle with two new Canadian transcontinental lines. The railway had to combat incursions from south of the border as well. For political reasons that made little economic sense, the

dominion government commissioned the construction of the Grand Trunk Pacific and the Canadian Northern.[18] What followed was a major interterritorial confrontation in which the Canadian Pacific was successful in retaining a significant share of its former near monopoly of the local traffic of the Canadian West. Numerous east-west lines were built on the Canadian prairies in an almost senseless competitive atmosphere in which operational factors were considered only too late if at all.

The Canadian Pacific also extended its territorial dominance over southern British Columbia. Although unable to keep its rivals out of some of the more easily traveled passes through the Rockies, the railway forced its competitors to build more expensive lines to the Pacific. By 1915 the Canadian Pacific was in a strong position on the Canadian prairies. Not only did the firm hold impressive through routes to the East and to the West, but it controlled a significant share of the local traffic in some of the richest ranching and agricultural districts of the Prairie Provinces.

## SEQUENTIAL DEVELOPMENT

The four North American railroad systems examined here showed certain similarities in their development. In their early years, three of the systems underwent a phase of city-hinterland symbiosis in which their interests were closely identified with those of the major terminus. The Burlington was linked to Chicago, the Canadian Northern with Winnipeg, and the Santa Fe with Topeka and later with Atchison. Only the Canadian Pacific, with its truly continental mandate, never experienced this form of territorial development. All four roads sought the development of exclusive local traffic domains, and each was successful in meeting this long-range objective in the years prior to 1915. Each system engaged in one or more forms of interterritorial competition; indeed, in some years much of the construction activity on the Santa Fe and the Canadian Northern falls into this category of territorial development.

The four railroads generally pursued developmental managerial strategies at the corporate level, especially the Canadian Pacific and the Canadian Northern. Indeed, the Canadian Northern fell victim to the extreme zeal of its rapid development. The Santa Fe followed a more opportunistic course in some merger and acquisition activities, while engaging in long-term developmental investment policy in systematically improving its strategic position on the central Great Plains and financing its transcontinental expansion from this profitable local base. The Burlington also engaged in a generally developmental management strategy, although the construction and acquisition of major interurban lines linking Kansas City, Saint Louis and Minneapolis–Saint Paul with Chicago, and its acquisition of the Colorado and Southern, had opportunistic undertones. On other parts of its system, especially prior to 1880, a developmental management policy was the order of the day. Likewise, these four systems all pursued similar objectives in developing local traffic bases from which to subsidize aggressive marketing tactics for through traffic over wholly or partly owned routes.

Differences among the four systems can be seen in the role of institutional factors, in the geography of capital flows, and in the location of management. In the institutional settings in which each road developed, decisions were made on the basis of both state or provincial and national policies. While the American political landscape was more favorable to railroads prior to 1875, the Canadian situation seems to have improved after that date. Canadian political positions were subject to more short-term fluctuation, however, than was the case south of the border. Both American railroads received substantial land grants in areas that later developed into their natural (integral) territories. The Canadian roads also received land grants, and in addition, the Canadian Northern was granted important concessions in the form of provincial bond guarantees by Manitoba and later other provincial governments. In both the United States and Canada, agrarian protest at the local and regional levels stimulated

lawmakers to establish federal and state or provincial agencies to oversee rates, tariffs, and general levels of profits from railroad business, although Canada lagged some twenty years behind the United States in these developments.

Significant differences among the four railroads are also apparent in the location of the original capital for each line and in the history of corporate control. In the case of the Burlington, control of the original short lines in

TABLE 1

THE HYPOTHESIZED SEQUENTIAL EVOLUTION OF THE STRATEGY OF NORTH AMERICAN CORPORATE RAILROAD DEVELOPMENT IN THE NINETEENTH CENTURY

| Stage | Diagram | Finance and Organization | Territorial Policy | Traffic Development Strategy |
|---|---|---|---|---|
| 1. City-Hinterland Symbiosis | | Local control, developmental investment | Symbiotic development of local area | Local traffic |
| 2. Territorial Development | | Shift to nonlocal control, generally developmental investment | Integral territory, identification with a region | Local traffic, organization of through routes |
| 3. Interterritorial Competition | | Nonlocal ownership, occasional opportunistic investment, separation of financial from operational control | Maintenance and expansion of integral territory, development of through routes | Through traffic, maintenance of local traffic preserves |

Illinois remained in the hands of local investors for only a short time, falling into the firm grasp of a group of astute Boston capitalists even before 1860. The Santa Fe remained under the control of regional investors somewhat longer, but by the 1880s, large New York based interests were in command of the financial and operational fortunes of the road. Both Canadian systems fared somewhat differently. The Canadian Northern gained control of several locally based Manitoba lines at the outset but remained under its eastern Canada based leaders, MacKenzie and Mann, until its demise. The debt securities of the firm were largely in the hands of British investors, as these provincially guaranteed bonds appeared extremely safe to the investing public. The Canadian Pacific was originally controlled by capitalists based in Montreal, but control gradually gravitated across the Atlantic, helped in part by the return to London of several original principals in the company.

Generalizations from the developmental history of these four Great Plains railroads prior to 1915 can be combined in a hypothetical sequence of development that incorporates general trends but allows for dissimilarities in the evolution of corporate railway systems. Table 1 shows a proposed sequence of three stages: from city-hinterland symbiosis, through territorial development, to interterritorial competition.[19] This sequence of development corresponds in general terms to changes in financial and organizational structure, territorial policy, and traffic development strategy on the part of a railroad corporation. The proposed sequence is highly generalized: any company might skip a stage; show manifestations of more than one stage on portions of its system at any particular time; or show minor deviations in the timing of transitions from local to nonlocal control, developmental and opportunistic management or investment strategies, territorial development policies, or local and through traffic objectives. This hypothetical sequence of nineteenth-century North American corporate railroad development strategies, however, appears to have applications in understanding the growth of corporate railroad systems throughout the nineteenth century in the United States and Canada. Closer examination of primary documents will undoubtedly lead to further refinements, but viewed from a broad, continent-wide perspective, this hypothetical development sequence should help scholars and railroad enthusiasts alike to understand better the process through which the contemporary railroad map of North America was created.

NOTES

1. Arthur M. Johnson and Barry E. Supple, *Boston Capitalists and Western Railroads: A Study in the Nineteenth-Century Railroad Investment Process* (Cambridge: Harvard University Press, 1967), p. 10.

2. For an extended discussion of regional differences in investment strategy, see Maury Klein, *The Great Richmond Terminal: A Study in Businessmen and Business Strategy* (Charlottesville: University Press of Virginia, 1970), pp. 26–29.

3. See the corporate histories by Maury Klein, *History of the Louisville and Nashville Railroad* (New York: Macmillan, 1972) and John F. Stover, *History of the Illinois Central Railroad* (New York: Macmillan, 1975).

4. This discussion of the Burlington system is based, in part, on Richard C. Overton, *Burlington West: A Colonization History of the Burlington Railroad* (Cambridge: Harvard University Press, 1941); Johnson and Supple, *Boston Capitalists and Western Railroads*; Julius Grodinsky, *Transcontinental Railway Strategy: A Study of Businessmen* (Philadelphia: University of Pennsylvania Press, 1962); *Poor's Manual of the Railroads of the United States* (New York: H. V. and H. W. Poor, 1868–1924); and the *Commercial and Financial Chronicle and Hunt's Merchants Magazine* (New York: National News Service, 1871–1896), succeeded by the *Commercial and Financial Chronicle* (1896–1941).

5. See Julius Grodinsky, *The Iowa Pool: A Study in Railroad Competition, 1870–1884* (Chicago: University of Chicago Press, 1950).

6. In part, the Burlington's failure to expand onto the northern Great Plains resulted from its acquisition by the Hill syndicate. The

railroad was involved in the famous Northern Securities Case; see Balthasar H. Meyer, "A History of the Northern Securities Case," *Bulletin of the University of Wisconsin,* Economics and Political Science Series, vol. 1, no. 3 (July 1906), and Albro Martin, *James J. Hill and the Opening of the Northwest* (New York: Oxford University Press, 1976), pp. 506–20. Although the Burlington acquired the Colorado and Southern early in 1909, this road was managed separately and not merged operationally with the Burlington system prior to 1915. The Colorado and Southern lines are not shown in Figure 1. Were these routes included, all of this mileage would be classed as interterritorial, because the map shows each stretch of track in relation to the Burlington's strategy at the time of construction or addition to the corporate parent's network. The standard history of the Colorado and Southern is Richard C. Overton, *Gulf to Rockies: The Heritage of the Fort Worth and Denver-Colorado and Southern Railways, 1861–1898* (Austin: University of Texas Press, 1953). See also *Moody's Analyses of Railroad Investments* (New York: Analyses Publishing Co., 1909), pp. 284–91.

7. The following discussion is based largely on T. D. Regehr, *The Canadian Northern Railway: Pioneer Road of the Northern Prairies, 1895–1918* (Toronto: Macmillan of Canada, 1976), *Poor's Manual of the Railroads of the United States,* and the *Commercial and Financial Chronicle.*

8. On this rivalry, see Charles N. Glaab, *Kansas City and the Railroads: Community Policy in the Growth of a Regional Metropolis* (Madison: State Historical Society of Wisconsin, 1962).

9. This discussion of the Santa Fe is based primarily on Keith L. Bryant, Jr., *History of the Atchison, Topeka and Santa Fe Railway* (New York: Macmillan, 1974); L. L. Waters, *Steel Rails to Santa Fe* (Lawrence: University of Kansas Press, 1950); Grodinsky, *Transcontinental Railway Strategy*; and Johnson and Supple, *Boston Capitalists and Western Railroads*; as well as *Poor's Manual of the Railroads of the United States* and the *Commercial and Financial Chronicle.*

10. The most comprehensive history of the 35th parallel route is H. Craig Miner, *The St. Louis–San Francisco Transcontinental Railroad* (Lawrence: University Press of Kansas, 1972).

11. The reorganization of the Santa Fe and other roads during the 1890s is examined in E. G. Campbell, *The Reorganization of the American Railroad System, 1893–1900* (New York: Columbia University Press, 1938).

12. Bryant, *History of the Santa Fe,* pp. 153–72.

13. Ibid., p. 85.

14. Grodinsky, *Transcontinental Railway Strategy,* pp. 162–77; Johnson and Supple, *Boston Capitalists and Western Railroads,* pp. 287–317.

15. Bryant, *History of the Santa Fe,* pp. 134–40.

16. This discussion of the Canadian Pacific is based on W. Kaye Lamb, *History of the Canadian Pacific Railway* (New York: Macmillan, 1977); Heather Gilbert, *The Life of Lord Mount Stephen,* vol. 1, *Awakening Continent* (Aberdeen: University of Aberdeen, 1965) and vol. 2, *End of the Road* (Aberdeen: University of Aberdeen, 1977); *Poor's Manual of the Railroads of the United States,* and the *Commercial and Financial Chronicle.*

17. The Minneapolis, Sault Ste. Marie, and Atlantic was itself developed initially as a symbiotic link between the Twin Cities and eastern markets for flour, grain, and lumber. See Patrick Donn, *The Soo Line* (Seattle: Superior Publishing Co., 1979), pp. 7–15, and Mildred L. Hartsough, "The Twin Cities as a Metropolitan Market: A Regional Study of the Economic Development of Minneapolis and St. Paul," *Studies in the Social Sciences,* Research Publications of the University of Minnesota, no. 18 (December 1925).

18. On these new transcontinentals, see G. R. Stevens, *History of the Canadian National Railways* (New York: Macmillan, 1973), pp. 189–265.

19. This hypothetical sequence of development represents a synthesis of work on the four Great Plains railroads and on nineteenth-century North American railroads in general. Among the most important studies consulted were Klein, *The Great Richmond Terminal*; Grodinsky, *Transcontinental Railway Strategy*; Thomas C. Cochran, *Railroad Leaders, 1845–1890: The Business Mind in Action* (Cambridge: Harvard University Press, 1953); and Johnson and Supple, *Boston Capitalists and Western Railroads.*

Also consulted were numerous regional railroad histories and studies of individual lines throughout nineteenth-century North America. The study of transport development and regional urban integration by Michael P. Conzen, "A Transport Interpretation of the Growth of Urban Regions: An American Example," *Journal of Historical Geography* 1, no. 4 (October 1975): 361–82, suggested some of the ramifications of through traffic development for corporate railroad systems engaged in inter-territorial competition.