THE AMBIGUITY OF INFRASTRUCTURE: RAILROADS IN PREREVOLUTIONARY MEXICO

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This historical case study of modern technology transfer suggests that for "backward" countries within the capitalist world (at least), infrastructure has two faces. On one side, it promotes not only economic growth, but also wider social and cultural communication and even political integration within national boundaries. This is typically called "development." On the other side, infrastructure facilitates penetration by advanced societies: capital is attracted, raw materials are more easily taken out, industrial imports are more widely distributed, alien ideologies are more rapidly spread, and sometimes—as South Vietnam's ports and airfields remind us—foreign troops are more easily accommodated. This is typically called "underdevelopment." The ambiguous nature of infrastructure is such that it tends to contribute to both development and underdevelopment simultaneously.

During the Porfiriato (the 35-year period, named for President Porfirio Díaz, which ended with the revolution of 1911) Mexico witnessed the growth of an extensive railway network. There is still considerable scholarly controversy about the nature and effects of that network. Some argue that it was a conduit for imperialism, others that it was an integrative developmental force. The stance taken here is that both occurred, more of the former than those who promoted railway growth could have foreseen, more of the latter than radical critics have been willing to allow.¹

National development was conceived—conveniently for the expansive capitalists of the United States and Europe—as best fostered by following the lead of those capitalists while guarding against domination by any particular group of them, and by disregarding the needs of the masses of laboring poor, who were considered either hopelessly backward or morally undeserving. Railway development was for them both
the concrete basis of wide-ranging growth and the very symbol of progress. But as the rail lines tied the nation together geographically, they permitted more thorough exploitation, and thus the intensification of social conflict.

An authoritative and generally sympathetic account of the rail system suggests ways in which the economic growth it occasioned hastened "the downfall of the social organization," (Calderón, 1965: 634). Not only did agricultural marketing become more widespread and extensive; there was a vast increase in the mining industry and hence a great quickening of economic life in the Mexican north. The railroads had powerful effects on the cities, too, facilitating the growth of manufacturing by enlarging markets. In short, the railroads provided the infrastructure for both development and underdevelopment.

This paper explores the growth of Mexican railroads as a case study in modernization past, suggesting that certain aspects of development we tend to think of as contemporary are in fact an old story. First I review the debate that resulted in the policy of concessions to foreign capital. Then I discuss the construction and consolidation of the major lines. Finally I note the consequences of railway development for rural social organization, land speculation, internal commerce, labor, and political control.

Concessions as Policy

The nationalistic liberals who emerged triumphant from the struggles against Maximilian and his French backers looked to make their homeland prosperous and free, to take its place among the modern nations of the world. They were quick to insure the completion and opening of the Veracruz-Mexico City railroad, and generally believed that railroad development would intensify commerce, enlarge markets, and stimulate production. They were very short of capital for their projects, however, and many, Díaz himself included, were fearful of further degradations by the United States. To Sebastián Lerdo de Tejada, whom Díaz ousted in his 1876 coup, is attributed (López Gallo, 1967:278) the maxim, "Between the Colossus and México, the desert." It was Díaz who finally succumbed to great financial and political pressure by approving lines connecting the central plateau with Texas.

But Díaz had not always favored such a connection. While raising his army for the 1876 coup he decreed null all concessions to foreign firms for public works, including railroads, and published the decree again