

of manufacturing. The Schneider company at Le Creusot, for example, had no in-house laboratory to speak of. But it encouraged its employees to visit other establishments and sites: between 1882 and 1906, eighty-two company engineers submitted almost 200 reports on their observations in France and abroad.

Other valuable *aperçus* abound in this book. The chapter on associations of inventors and periodicals devoted to invention and patenting adds substance to the general picture of serious French commitment to the quest for novelty. And, as part of his general emphasis on evolution rather than abrupt change, Galvez-Behar argues interestingly against the easy perception of the First World War as a watershed in the history of France's industrial economy. Much did change between 1914 and the early 1920s, though perhaps less than we have commonly supposed. So be prepared to be surprised, as well as richly informed.

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### **Spoorwegen in Nederland van 1834 tot Nu.**

By Guus Veenendaal. 2nd rev. ed. Amsterdam: Boom, 2008.

Pp. 638. €45.

During a presentation at the Netherlands Railways (NS), Guus Veenendaal expressed astonishment at the fact that the NS had not commissioned a full-blown railway history on the occasion of the 150th anniversary of Dutch rail transport. A collection of essays and some other work had been published at the NS's behest, but a "definitive" railway history had not appeared since 1939. NS took the hint and hired Veenendaal to fill the void. Six years later, in 2004, the first edition of *Spoorwegen in Nederland van 1834 tot Nu* (Railways in the Netherlands from 1834 to Now) saw the light of day.

This magisterial, richly illustrated, hardcover book of more than 600 pages clearly bears the mark of corporate sponsorship. It is not that Veenendaal's account paints too rosy a picture. Far from it. Dark episodes, like the NS's role in the deportation of Dutch Jews in World War II, or chronic weaknesses, like the never-ending sacrifice of customer service to cost control, get equal time with the sunny side of railway history like electrification and trains to the beach. Nonetheless, corporate sponsorship in this case gave Veenendaal the resources (salary, time, and unlimited access to the huge and well-ordered NS archives) necessary to undertake a hugely optimistic project. As the title suggests, the aim is nothing less than a comprehensive history of Dutch railways from their inception in 1834 to the present.

The scale of the project is a mixed blessing. In the course of four sections titled "Growth," "Flourishing," "Decline," and "Resurrection," Veenen-

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daal explores the long and checkered history of Dutch railways, from the boardrooms to the switchyards, from Vlissingen to Roodeschool, and from Kerkrade to Den Helder. Along the way we are treated to the rich histories of locomotives and brake systems, the shifting sands of international and European railway policy, station architecture, troubled labor relations, public judgments on railway cars and timetables, the contradictory relationship of railway companies to the Dutch state, and, not least, the special problems of railways in war and in a country full of water.

The plethora of topics, however, often gets in the way of a serious investigation of historical issues and questions. The apparent need to cater to the antiquarian interests of railway buffs by providing detailed descriptions of rolling stock and stations particularly tried this reviewer's patience. For all its rich information, the book seems at times like an uneasy compromise between a serious historical study and a boy's picture-book of locomotives and railway stations.

Given the paradoxes of corporate-sponsored historiography, it is to Veenendaal's credit that he carries it off as well as he does. The book's first edition was indeed rightly received as a many-faceted, well-written, and erudite overview of Dutch railway history from 1834 to now. There was, however, some disappointment about the "now." Reviewers complained, and the author agreed, that the most recent developments had gotten short shrift. By 2004 this had become troublesome because of EU-inspired changes in Dutch transportation policy and the manifold problems that had accompanied privatization of the NS around the turn of the century. In the present second edition, these shortcomings have been addressed and we are now up to date as of 2008. But even in the new addendum, exhaustiveness battles with insight in a text that tries to do too much at once.

For foreign scholars who happen to read Dutch, the book could be disappointing because in the end it fails to come through on the thing of paramount interest: identifying the distinguishing characteristics of Dutch railways as a function of the peculiar location, geography, and institutional history of the Netherlands. In this connection there are several rich veins exposed in Veenendaal's book that simply beg for more thoroughgoing accounts. First, the peculiar history of entrepreneurialism, (state) ownership, and state regulation of Dutch railways. Second, the influence of Dutch geography (flat, water-ridden, urbanized, compact, mild climate) on the technical features and institutional structure of Dutch railways. Third, the peculiar "modal mix" of Dutch cargo transport, with a huge and persistent role for inland shipping. Fourth, the opportunities and risks of war (neutral in WW1, occupied in WW2). And fifth, the position of the Netherlands as railway corridor between Britain and the European hinterland, and between the Ruhr and North Sea harbors, i.e. the European dimension. It is odd that some of these themes were in fact explored in Veenendaal's 1989 collection of essays but cry for more development here.

These criticisms should not diminish the intellectual mastery and hard work that went into this impressive achievement, whatever shortcomings it may have. *Spoorwegen in Nederland* will be setting a standard for Dutch railway history for many years to come. And for those whose Dutch is not what it used to be, an expanded English-language version of Veenendaal's *The Iron Road in a Land Full of Water* (1998) was published by Stanford University Press in 2001, under the title *Railways in the Netherlands. A Brief History 1834–1994*.

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### **Twilight Rails: The Final Era of Railroad Building in the Midwest.**

By H. Roger Grant. Minneapolis: University of Minnesota Press, 2010.  
Pp. xiii+275. \$39.95.

The network of rail lines that spread throughout the United States by the end of the nineteenth century proved to be one of the engineering marvels in American history. Contrasted with the excitement that nineteenth-century railroads generated when the industry was still relatively young, rail lines constructed in the first few decades of the twentieth century—twilight rails—traditionally were seen by historians as business failures and lacking in the positive community impact that the older lines had during the heyday of railroad construction. One of the premier historians of railroad history, H. Roger Grant, refutes the long-held interpretation of the twentieth-century lines in *Twilight Rails: The Final Era of Railroad Building in the Midwest*. Grant believes that the twilight rails were very important to the communities where entrepreneurs intended to build new lines. News of a new rail line generated publicity and much excitement—not to mention local investors—in communities scheduled to receive the benefit of the iron horse. While a number of these lines proved to be ephemeral or were only partially completed, they nonetheless were far more successful than was previously believed.

To support his thesis, Grant presents case studies of twilight rails in eight states in the American heartland: Ohio, Iowa, Michigan, Minnesota, Wisconsin, Illinois, Missouri, and Indiana. In almost every case, these states had numerous railroads by the early twentieth century, yet there were still unmet needs in terms of the ability to move people and freight efficiently over land. As Grant notes, “Even if a community had access to what was popularly dubbed the ‘steam car civilization,’ common wisdom held that the more rails the better” (p. 1).

The twilight rails serviced burgeoning industrial communities in the region, particularly in the Great Lakes states. The new lines also included