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**[1990s]**

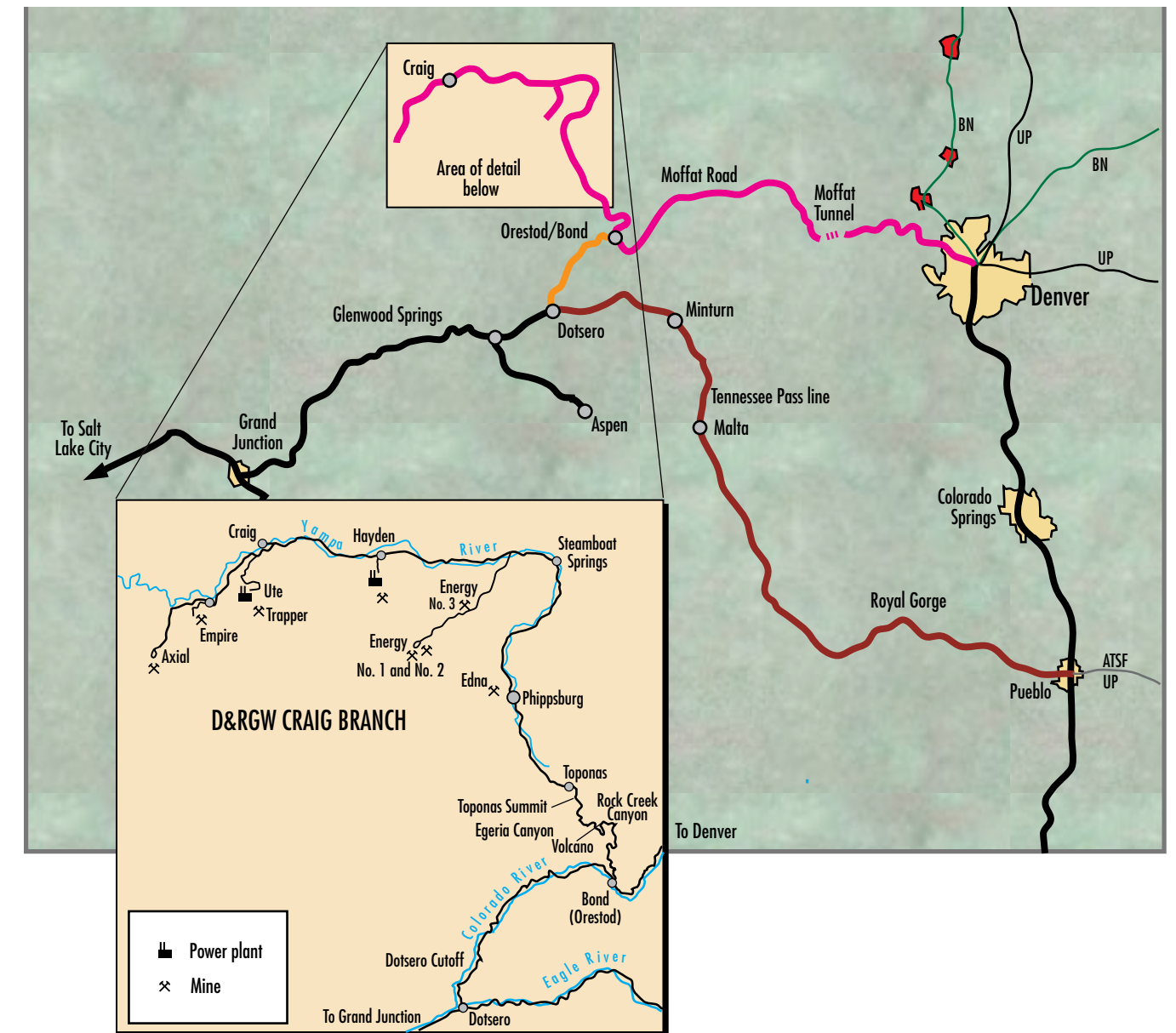
CHAPTER 5

# Denver & Rio Grande Western's Craig Branch

Coal is what the Craig Branch is all about. Three Rio Grande EMD Tunnel Motors drag a coal train by Finger Rock, a distinctive scenic element east of Phippsburg. *Paul Dalkos*

Tucked into the northwest corner of Colorado, the Denver & Rio Grande Western's Craig Branch is no sleepy, weed-covered streak of rust through the countryside. In operation since 1914, the branch features a well-engineered right-of-way, heavy rail, Centralized Traffic Control, and 105-car coal trains. It's a branch line with a mainline look and feel that is perfect for a medium-sized pike.

## The Denver & Rio Grande Western in Colorado



### Two summits to cross

This scenic line did not begin its life as a branch. In 1902 the ambitious David H. Moffat, seeking a direct route west from Denver to Salt Lake City, began building a railroad into the Front Range of the Colorado Rockies under the name of the Denver, Northwestern & Pacific Railway.

Backed by Moffat's financing, a 4,000-man crew hacked and blasted a right-of-way with 29 tunnels up South Boulder Canyon. Workers crossed the snow-prone continental divide at Rollins Pass with a series of steep grades, loops, and switchbacks. On the other side of the watershed, the line followed the Fraser River until it reached Yarmony. There construction on

Moffat's road came to a halt as his money ran out.

In 1908, Moffat's friends and local businessmen scraped together \$1.5 million to extend the line. But it wasn't easy going. To reach the Yampa River coal-fields required an ascent of another mountain, Toponas Summit, with approaches through steep canyons on both slopes. Rock Creek Canyon on the eastern slope was particularly tough. Even the less-confined foothills approaching the canyons required extraordinary construction measures. Engineers had to survey a double horseshoe curve at Crater to gain altitude in order to cross the summit at Toponas. In spite of this, they reached

Steamboat Springs and the Yampa coal-fields that same year. With steady coal traffic, the railroad finally started generating some real revenue.

Unfortunately, David Moffat died in 1911 and his railroad went bankrupt soon thereafter. After reorganizing as the Denver & Salt Lake in 1913, the line reached Craig. There construction ceased and the line languished in spite of plentiful coal traffic, partly because the expense of keeping the line open over Rollins Pass in the winter consumed profits. In 1917, the D&SL descended into bankruptcy and remained there until the 1930s.

But the railroad's fortunes would change. In 1927 citizens in Denver and





**1950s  
THROUGH  
2000s**

CHAPTER 8

# New York City's Bush Terminal

A New York Cross Harbor Railroad Alco switcher pulls a Santa Fe boxcar under the corner of a Bush Terminal building on Second Avenue. The crossing in the foreground is from an old streetcar line.  
*Tom Flagg*

In a city known for some of the most famous skyscrapers in the world, the New York City buildings that most fascinated me as a young boy were the warehouses and docks known as the Bush Terminal. Modeling the terminal and its accompanying railroad, which features tight curves, street running, and numerous spurs winding among tall structures, would be a challenging but fascinating project.

## Fascinating structures

Growing up in southern Brooklyn during the 1950s and '60s, I had ample opportunity to observe the Bush Terminal, usually from the back seat of my father's car as we drove past on the elevated Gowanus Expressway. From this lofty position looking over the plains of brownstone apartment roofs, my gaze was fixed not on the distant glittering Manhattan skyscrapers, but on the stark white eight-story concrete warehouses boldly emblazoned with the Bush Terminal logo. The seemingly endless maze of block structures, connected by bridges and catwalks, with shadowy alleys, crisscrossed by railroad tracks and adjacent to long-fingered piers captured my attention. I often wondered what went on in there.

That question went largely unanswered until nearly 40 years later. I learned that the Historical American Engineering Record (HAER) had documented the Bush Terminal. It seems the piers' decaying timbers created a drift hazard to marine navigation, so the wooden pilings had to be removed. Because of the complex's historical significance, the HAER documented the terminal and archived the results.

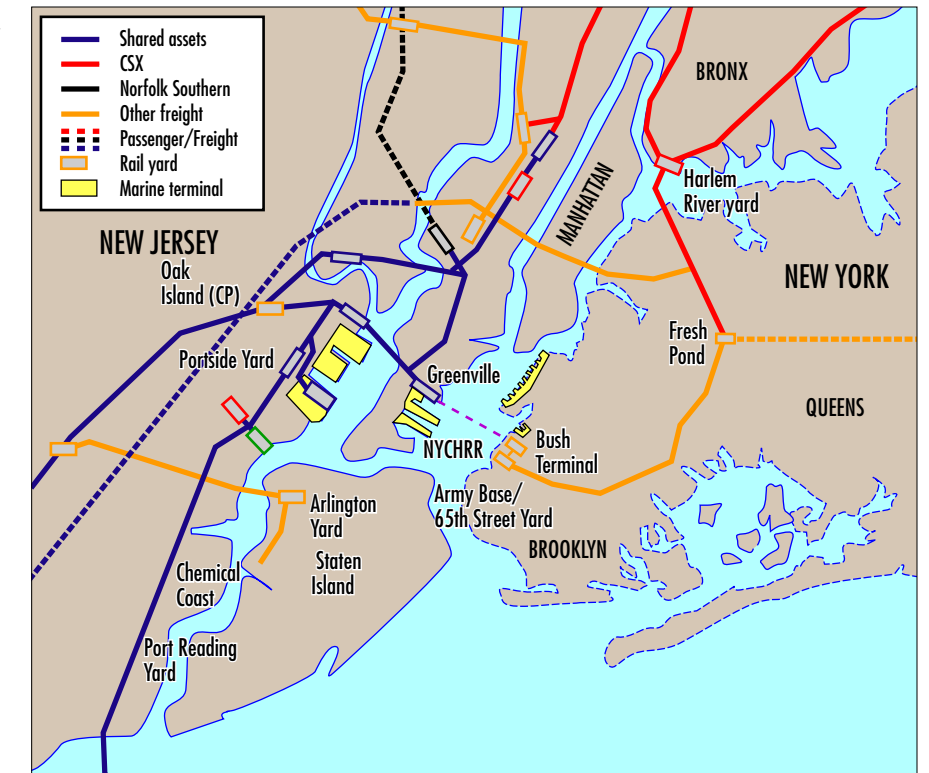
Using this information, I designed a layout for the 2003 issue of *Model Railroad Planning* that would fit on two small shelves. This highly condensed design omitted many of the prototype's most interesting features. This chapter features expanded designs that better capture the atmosphere and operation of the Bush Terminal Railroad.

## Car float operations

The railroad and warehouse complex dates to the 1890s, when private developer Irving Bush decided to build a terminal on waterfront land in an undeveloped part of Brooklyn. He started construction in 1902. By World War I, the Bush Terminal was the largest multi-tenant industrial property in the United States.

According to the HAER records, "Bush Terminal was the first American example of a completely integrated manufacturing and warehousing facility, served by both water and rail, under unified management. Largely intact today, it remains the largest unified non-railroad terminal ever built in the Port of New

## NYCHRR and freight railroad connections, circa 2001 (post-Conrail breakup)



A New York Dock GE switcher drags a cut of cars from the car float lead. The subway cars are returning from shop work in New Jersey. *Gerry Landau; Bernard Kempinski collection*

York, and retains a rare survival of an isolated freight railroad served only by float bridge."

There were three distinct aspects to the 200-acre terminal, all operated as a

single entity: manufacturing, warehousing, and transportation.

First were the seven quarter-mile long piers and more than 100 warehouses where break-bulk cargo was loaded to and from