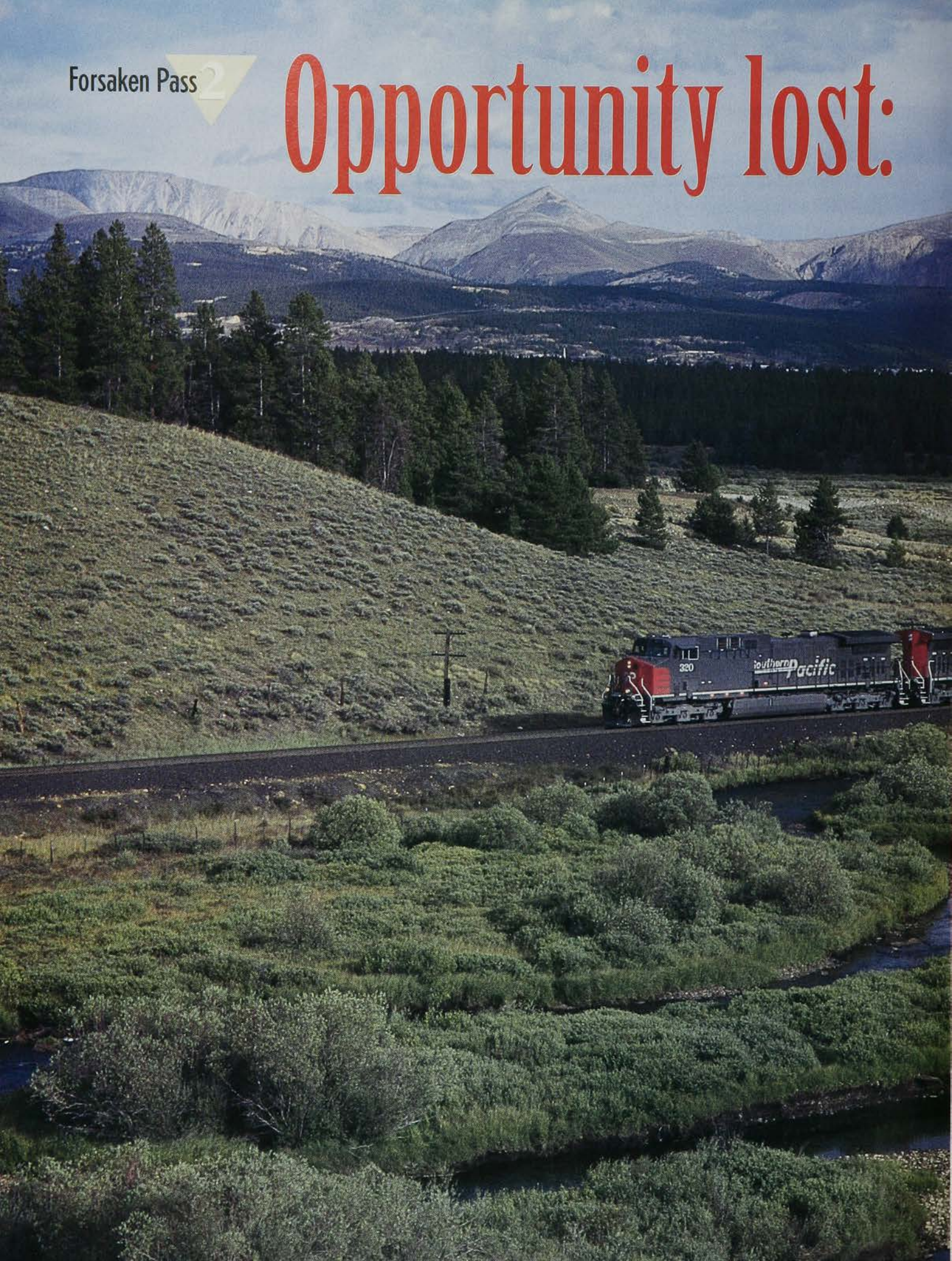
Forsaken Pass 2

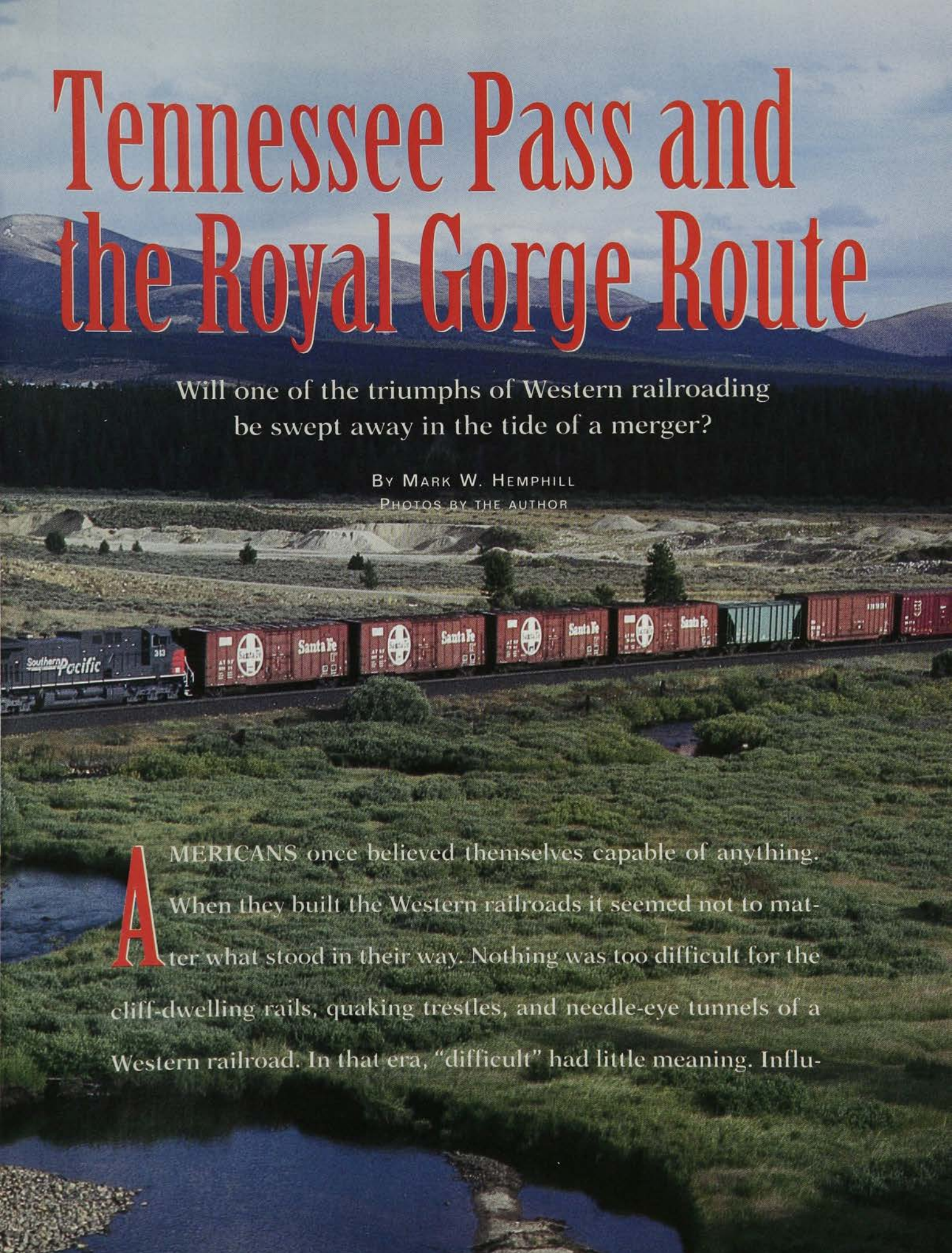
Opportunity lost:



Tennessee Pass and the Royal Gorge Route

Will one of the triumphs of Western railroading be swept away in the tide of a merger?

By Mark W. Hemphill
Photos by the author



AMERICANS once believed themselves capable of anything. When they built the Western railroads it seemed not to matter what stood in their way. Nothing was too difficult for the cliff-dwelling rails, quaking trestles, and needle-eye tunnels of a Western railroad. In that era, "difficult" had little meaning. Influ-

Preceding pages: A westbound manifest climbs toward Tennessee Pass, crossing the East Fork of the Arkansas River 2 miles west of Malta. In the distance, rooftops of Leadville glisten below the 14,000-foot peaks of the Mosquito Range.

enza epidemics took entire families in a week. If a train wreck did not kill a man, the doctor's incompetence might. Mines and factories closed at every market downturn, usually owing workers months of back wages. Farm families confronted drought, floods, early frosts, late freezes, dust storms, hail storms, grasshopper swarms, and market collapses. Depressions were long and brutal; every boom sowed the seeds of a bust.

Yet along with the difficulties came unprecedented opportunity: land for Europe's peasants; gold for the ne'er-do-well sons of the merchant class; empires of timber, coal, copper, and cattle for men on the make. For people with ambition, brains, and vision, here was the chance to build railroads and capture the commerce of cities, states, and regions...perhaps even the whole West.

Nineteenth-century Americans did not shirk difficulty, but they went for the easy pickings first. The mountains of Colorado were unusually challenging, so the 49'ers raced past the Rockies toward the California gold fields. Temporarily the frontier passed Colorado by.

But Colorado's mineral wealth was not to be denied. By 1910, railroads had spat in nature's eye to extend their standard- and narrow-gauge rails to every gold, silver, and coal camp of consequence in the state. If there were mountains in the way, they crossed them, defying gravity, snowslides, and air so thin a man tired out just walking to work.

Twelve times the railroads of Colorado crossed passes exceeding 10,000 feet in altitude: Alpine, Boreas, Cumbres, Fremont (twice), Hagerman, Kenosha, Lizard Head, Marshall, Red Mountain, Rollins, and Tennessee. These were the highest railroad passes in North America.

When the gold and silver played out, Colorado's railroads retreated from the alpine heights. After 1987 only Tennessee Pass remained part of North America's freight railroad system.

Once Americans saw opportunity in difficulty. Now Americans see difficulty in opportunity. The Union Pacific has concluded that its former Denver & Rio Grande Western route over Tennessee Pass is too difficult to operate. If UP sticks to that first conclusion, the last high-mountain railroad pass in North America will lose its railroad.

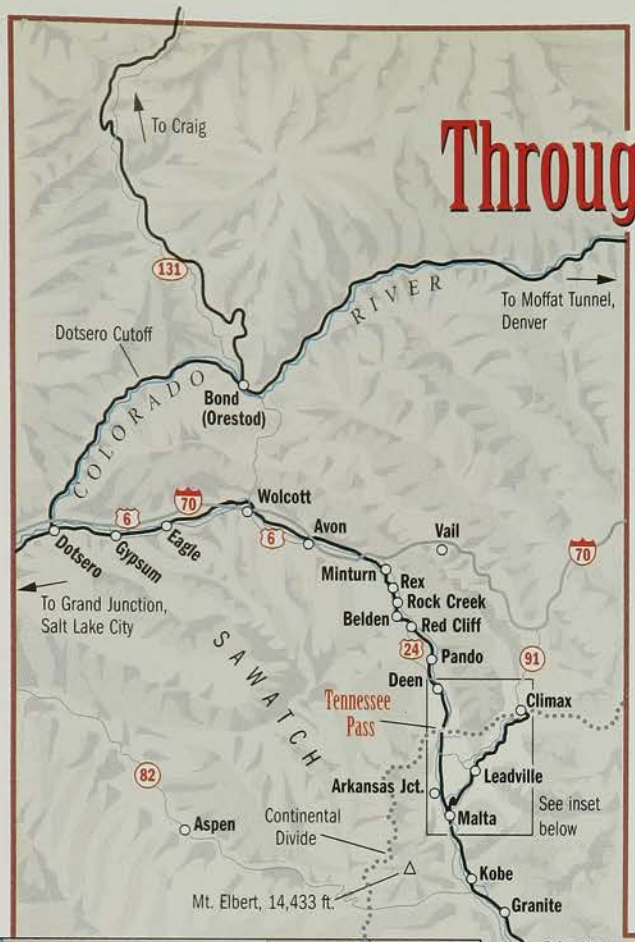
Eastbound RVASM (Roseville-Alton & Southern) waits in the Princeton siding for westbound counterpart ASRVM. The east end of the siding is a remnant of the old heavily curved main line, straightened by the D&RGW in the 1920's.

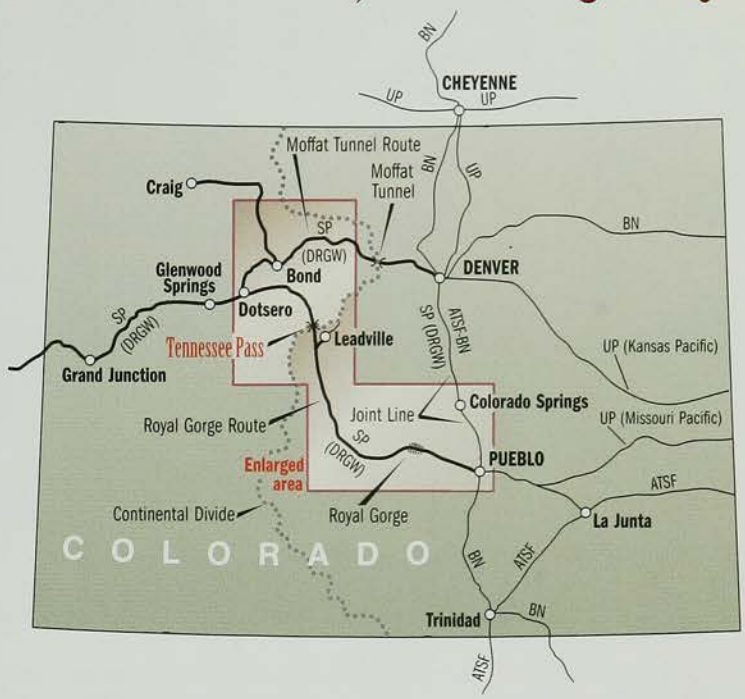
The toy railroad that grew up

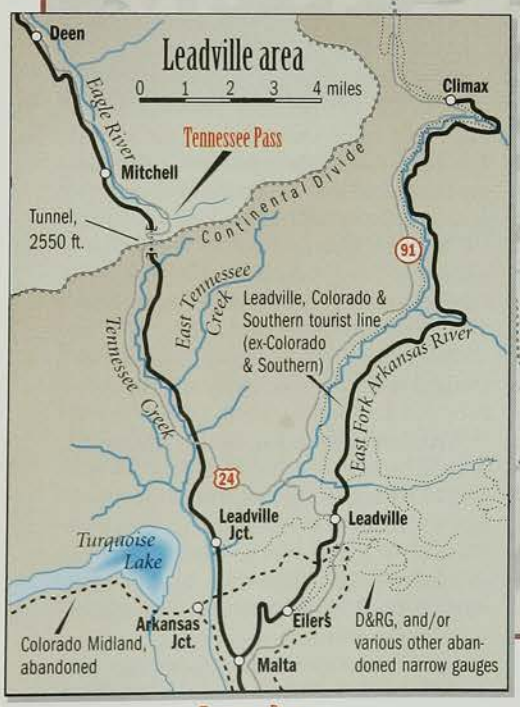
By 1930, the Denver & Rio Grande Western looked like most of the other Western transcontinentals. However, it took an odd path to reach that point, which is why it had a Tennessee Pass at all. Had the Rio Grande's founders planned from the start to build a transcontinental, they probably would have built one that crossed the Rocky Mountains at their crest 50 miles west of Denver. Instead, the railroad crossed the range 281 rail-miles west of Denver, at Tennessee Pass—which lay only 77 air miles west of Denver.

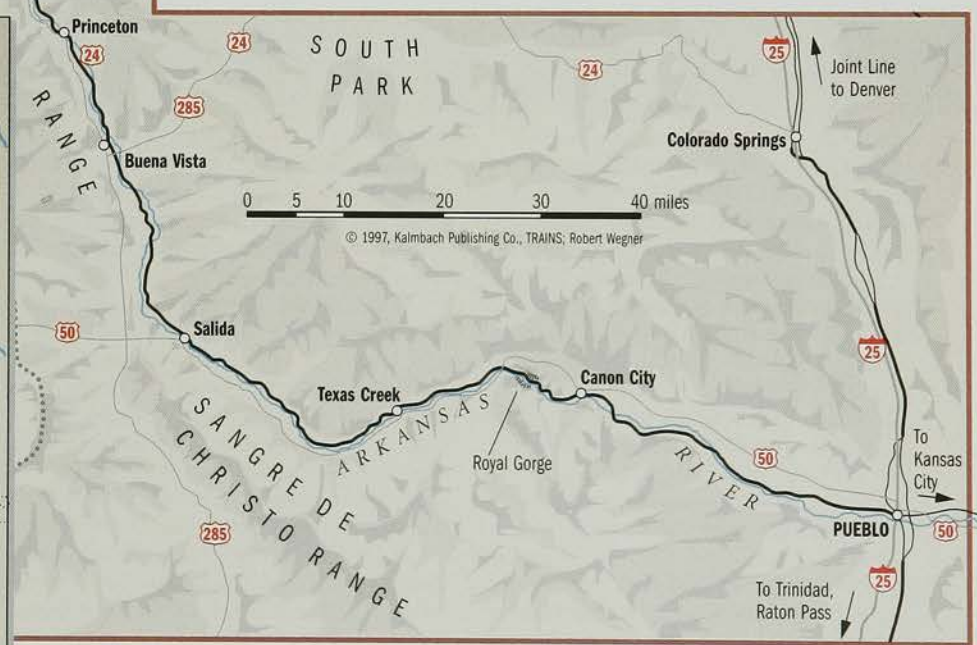
In 1870, when the Rio Grande's founders began building their narrow-gauge railroad, the West was a very different place. At the time there was only one transcontinental, the Union Pacific-Central Pacific line, and it saw only modest traffic. It would have been pointless to build an inferior route to

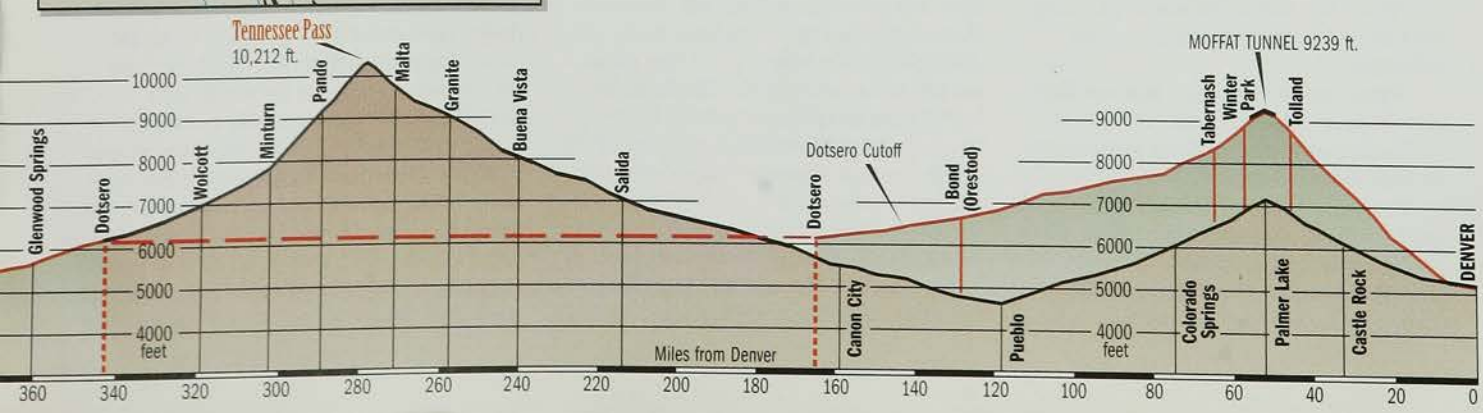
Through the Rockies, the long way



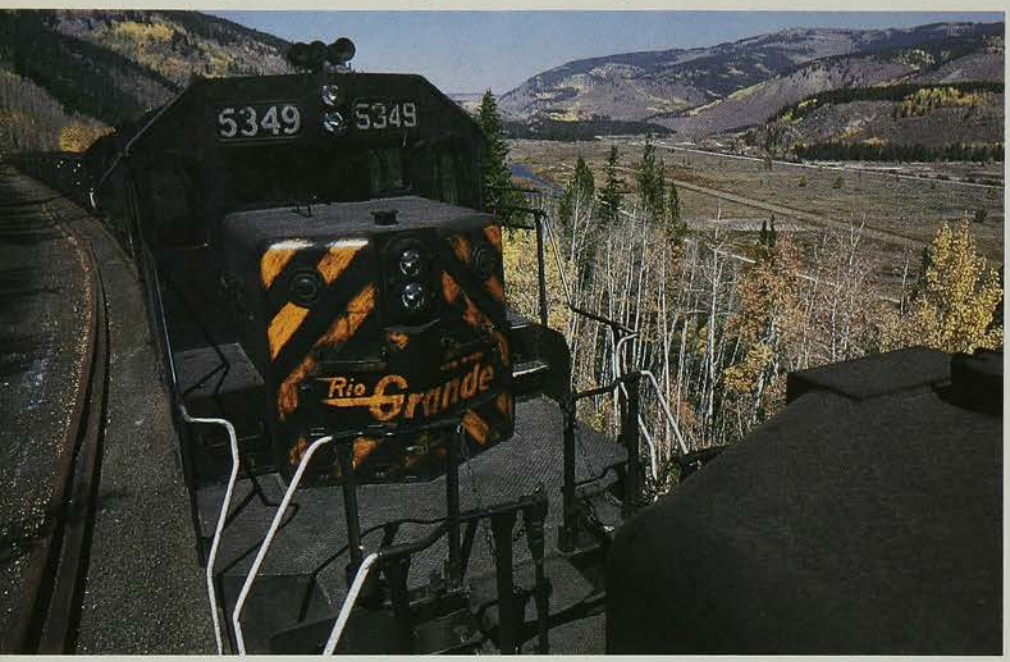








12 mph on a good day



The 1CPCHC-26 curves along the mountains above the Eagle River near West Mitchell.

At 10:24 A.M. ON SEPTEMBER 27, 1994, eastbound coal train 1CPCHC-26 marches into Minturn. This trainset of 105 Rio Grande steel hoppers was loaded the previous afternoon at the Co-Op Coal Company loadout at Acco, Utah, with 10,000 tons of high-BTU, low-sulfur coal billed to the KCBX rail-to-water transfer at Chicago, for delivery to Wisconsin Electric.

Twelve units will boost this 13,719-ton train to Tennessee Pass. Its road power consists of an aging SP SD45R and three new C44-9W's. A rear helper, two SP SD40T-2's and two Oakway SD60's, cut itself in 17 cars from the rear at Glenwood Springs to assist on the 1.35 percent ruling grade into Minturn. At Minturn, a four-unit swing helper, three Rio Grande SD40T-2's and an SP SD40M-2, cuts in 55 cars from the head end.

At 11:10 a.m. road engineer Robert "Milt" Miltenberger announces the air test is complete.

"O.K., the swing helper is pushing," replies swing helper engineer Jim Schultze.

"Pushing on the rear," echoes the rear helper engineer.

Twelve units throttle up and a roar washes over Minturn.

Two miles east of Minturn the grade stiffens to 2.3 percent. The train had accelerated to almost 20 mph. Now its speed sags to 15 mph. All three engineers begin sanding continuously so their units don't lose footing on a flange oiler and pull a drawbar. Clouds of greasy grit swirl up in the blast of air from the traction motor blowers and mix with the exhaust. The black filth sticks to everything, crunches underfoot on the cab floor, and gives Shultze's cup of coffee an iridescent sheen.

At Milepost 297.9 the train threads into Eagle River Canyon. The warm autumn air abruptly turns cool. Everyone has their cab windows slid open. The train approaches Rock Creek Tunnel. Everyone shuts their cab windows. Each locomotive set exits the 408-foot rock bore enveloped in a big, velvet puff of black smoke.

At 11:33 a.m. the coal train takes Belden siding, pounds past the derelict Eagle Mine, then shudders to a stop. The sound of rushing water returns as the locomotives drop to idle. Rivers of heat pour off their flanks. Fifteen minutes later the 2MNGVC-24 whines down the main on the west bank of the Eagle River, its 52 cars of taconite pellets held back by four SD40T-2's and a lot of air.

"We've got a green," says Miltenberger on the radio.

"Swing's pushing."

"Rear's pushing."

The units buck as they put their shoulder into the tonnage. On Schultze's locomotive the ammeter needle redlines at 800 amps. It quivers, then plunges into the red and holds at 1150 amps as he brings the throttle into the eighth notch. Now the train is on the 3 percent. Slowly it accelerates to 11 mph. The ammeter retreats to the red line.

"We're moving well because we have those GE's on the head end and the two SD60's on the rear," says Schultze. "Usually we have 12 SD40's on a coal train. We figure each unit for eight to eight-and-a-half cars. If we lose one, then the ammeter goes to eleven or twelve hundred amps. We'll drop to 8 miles per hour, and you'll smell the traction motors burning."

"Then we slip and there goes a drawbar," says Conductor Kenny Riensch. "Or we stall and have to double the hill out of Pando."

At 1:01 p.m. the head end dives into Tennessee Pass tunnel. Schultze backs off on the throttle and the ammeter needle retreats from the red line for the first time in an hour. Riensch closes the windows and doors. Exhaust permeates the cab anyway. Behind the swing helper, daylight outlines coal hoppers at the tunnel portal. The light turns dirty yellow as the tunnel fills with smoke, then all disappears into smoky blackness.

"When we've lost a unit and we're really pulling," says Riensch, "the smoke will get so bad in the cab that we can't even read the gauges."

The alarm bell goes off. One of the trailing units has overheated and dropped its load.

"We hear that sound a lot up here," says Schultze.

The swing helpers pop out of the tunnel under a big column of smoke. Riensch walks back to restart the overheated unit. The train brakes to a stop at Tennessee Pass to cut out its rear helper at the mid-siding crossover. Seven minutes later the train is back together, then quietly drops down the 1.51 percent to Kobe on 800 amps of dynamic braking and 10 pounds of air, the swing helper assisting with the dynamic braking.

At 1:52 p.m. the ICPCHC-26 arrives at Kobe. Schultze and Riensch cut out their helper and disappear toward Minturn. The worn SD45R on the head end looks like a bum at a debutantes' ball next to the three spanking new C44-9W's.—*Mark W. Hemphill*

Colorado's highest peak, 14,433-foot Mt. Elbert, looms beyond an eastbound unit coal train rolling through Tennessee Park north of Malta.

compete for the same trade. They thought commerce with Mexico would provide a profitable niche, so in 1870 they began building from Denver south toward Mexico City. Stymied at Raton Pass by the Santa Fe, they pointed their toy railroad west, and in 1880 built from Pueblo through the Royal Gorge to Leadville, Colorado's first spectacular mining strike.

Thirteen years after the Rio Grande struck out for Mexico, it had accumulated a preposterous tangle of branch lines tapping virtually every mining camp in Colorado and Utah. They connected in the middle to form a serpentine narrow-gauge main line from Denver to Ogden, Utah. Among them was the 30.4-mile Eagle River Branch. It ran from Malta, a junction near Leadville, over Tennessee Pass to important gold and silver strikes at Red Cliff and Gilman. Constructed to casual standards in 1881, the branch ended abruptly in Eagle River Canyon where Rock Creek tumbled down to the river. Rock Creek was not even a wide spot, just a convenient place to load ore from the mines high above. This otherwise unremarkable branch would almost accidentally become essential to Rio Grande's transcontinental ambitions.

Narrow-gauge railroads could exist only in a competitive vacuum. In 1886, the Colorado Midland began building a standard-gauge line to Leadville and Aspen, a new silver camp. The same year, D&RG's Utah lines became a separate and antagonistic corporation, the Rio Grande Western. The Midland had ambitions to connect with the RGW at Grand Junction. As a narrow-gauge, the D&RG would surely fall to the Midland. As soon as the snow melted in 1887, D&RG extended its still-narrow-gauge Eagle River Branch downriver to Glenwood Springs, thence up the Roaring Fork River to Aspen, arriving there November 1, two months ahead of the Midland. The D&RG also began laying a third rail west from Pueblo toward Leadville for standard-gauge trains.

That left an 89-mile gap along the Grand (later Colorado) River between Glenwood Springs and Grand Junction, which both railroads sought to fill. In 1889, the D&RG extended more narrow gauge westward from Glenwood Springs to Rifle along the north bank of the river, while the Midland built west along the south bank. Instead of a right-of-way battle in De Beque Canyon east of Grand Junction, in 1890 the Midland and D&RG jointly built the standard-gauge Rio Grande Junction Railway between Rifle and Grand Junction, where they met the just-standard-gauged Rio Grande Western.

The Eagle River Branch was not conducive to simple gauge-widening. On the east side of the pass, a new alignment reduced the westbound ruling grade from 4 percent to 1.51 percent, using a 2577-foot tunnel under the summit of the pass. This reduced the maximum altitude from 10,424 feet on the narrow-gauge line to 10,212 feet at the tunnel's east portal. On the west side, a new line retained the same 3 percent gradient as the narrow gauge, but descended along the west side of Eagle Park instead of the east to eliminate about a mile of track, considerable curvature, and a snowy north-facing slope.

To speed construction, the D&RG built the new line over Tennessee Pass with the rails spaced to narrow-gauge. In the last days of 1890, its crews

Dawn lights up Tennessee Pass as an ore train led by 3 C44-9W's and a Conrail unit descends the 3-percent west slope east of Pando Tunnel.

respiked the rails between Malta and Rifle to standard gauge to complete the Royal Gorge Route linking Denver, Pueblo, Salt Lake City, and Ogden. The Rio Grande could now contend for transcontinental traffic, though given that it was the most tortuous transcontinental by far, it was probably not an event over which other transcontinentals lost much sleep.

How to spend one's way into bankruptcy

Until 1930 the Rio Grande could not compete for transcontinental traffic with the Union Pacific-Southern Pacific combination nor the Santa Fe. Those railroads had superior routes, connections, and resources. When traffic boomed after 1896, they spent vast sums to completely reconstruct, re-equip, and signal their main lines. The Rio Grande made money, but its owner, George Gould, milked all of it to finance his efforts to build the first coast-to-coast railroad system in the U.S.

The Rio Grande maintained its frightful track like a slumlord fixes the roof after the rain comes in, throwing business away because it improved its railroad begrudgingly. On the west side of Tennessee Pass, it was impossible for helpers to find track time to return to Minturn, the helper station at the western base, so the Rio Grande had no choice but to build a second track from Minturn to Rex in 1903, Rex to Red Cliff in 1907, Red Cliff to Pando in 1909, and Pando to Deen to 1910—room for more double track ran out at Pando Tunnel. A modern railroad would have signaled the pass, but the Rio Grande was not a modern railroad.

In the boom years after World War I, the Rio Grande finally got around to modernizing. Between 1924 and 1930, under President J. S. Pyeatt, it relaid its main line from Pueblo to Salt Lake City with 100- and 110-lb. rail, straightened out hundreds of tight narrow-gauge curves, and eased grades, including some short stretches of 3.3 percent in Eagle River Canyon.

After years of nothing larger than some slow compound Mallets, the Rio Grande acquired 54 heavy 4-8-2's and 4-8-4's for fast freight and passenger service, 10 large compound 2-8-8-2's, and 20 single-expansion 2-8-8-2's. The latter were for a time the world's heaviest locomotives. Between 1928 and 1930, the newly created signal department (having previously had no signals, the Rio Grande had no need for a signal department) installed automatic block signals (ABS) on the 626-mile main line between Pueblo and Salt Lake City, except for some short double-track, current-of-traffic stretches at either end.

On the steep west side of Tennessee Pass, the Rio Grande in 1928 installed 2.6 miles of second main track between East and West Mitchell, and 6.8 miles of centralized traffic control (CTC) between the east switch of Tennessee Pass and the beginning of double track at Deen. The CTC—the first installation west of the Mississippi River—sped up train movements on the two single-track sections through the pass.

In 1930 the Rio Grande had a railroad that could ask for the business of its betters—just as the U.S. slipped into the Great Depression. As traffic fell, so did the Rio Grande, into receivership in 1933. Pyeatt had spent the railroad into bankruptcy.

Yet, without the reconstruction, the D&RGW probably could not have survived as a mainline railroad after World War II.

At Tennessee Pass, an eastbound lumber drag meets a westbound empty coal set whose conductor waves to the head-end and helper crews.

Two routes through the Rockies

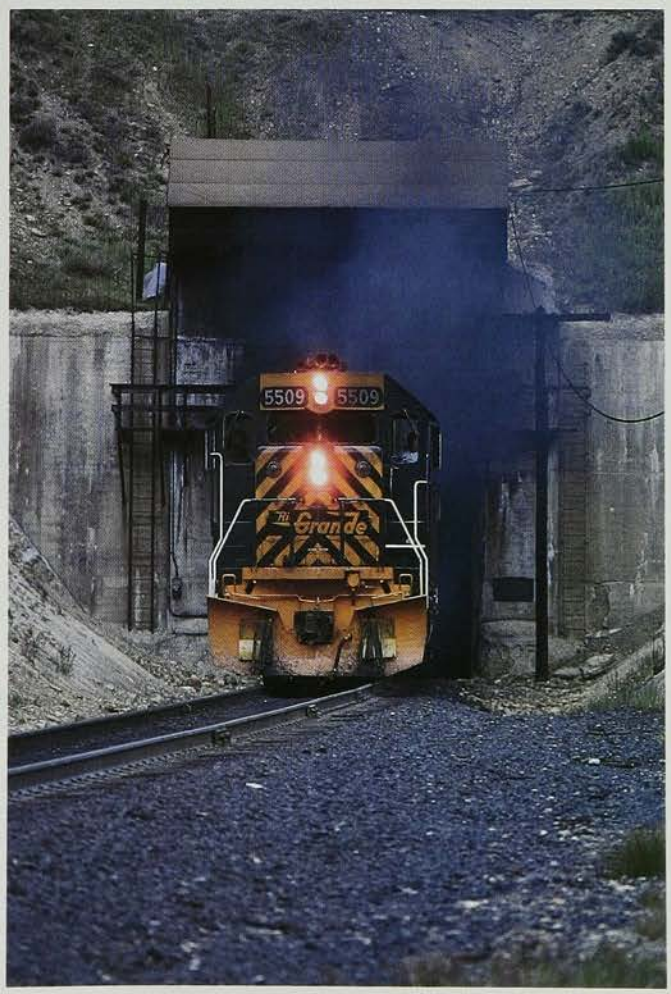
Ironically, almost as soon as the Royal Gorge Route was put into suitable shape, the D&RGW had a better route through the Rockies, the Moffat Tunnel Route. It assembled the latter by purchasing the bankrupt Denver & Salt Lake Railway in 1931, and by building the Dotsero Cutoff to connect the D&SL to the Royal Gorge Route in 1932-34.

The Moffat Tunnel Route is what the Rio Grande would have built in the first place, given unlimited money and prescience. It lops 175 miles off the 745-mile main line between Denver and Salt Lake City via Tennessee Pass. While Tennessee Pass has a better westbound ruling grade than the Moffat Tunnel Route—1.51 percent versus 2 percent—the Moffat Tunnel Route has the advantage eastbound—2 percent versus 3 percent—and the preponderance of Rio Grande tonnage has always moved east. Tennessee Pass tops out 973 feet higher than the Moffat Tunnel Route. Trains burn less fuel to lift a train to the apex of the Moffat Tunnel than to Tennessee Pass.

More importantly, the Moffat Tunnel Route had better connections at Denver with the Chicago, Burlington & Quincy and Rock Island than the Royal Gorge Route did at Pueblo with the Missouri Pacific and Santa Fe. Both the Burlington and Rock Island offered fast routes between Denver, Kansas City, and Chicago (for passengers, the Burlington was the carrier of choice). The Santa Fe had an excellent route from Pueblo to Chicago, but it was hardly going to short-haul itself by soliciting West Coast traffic via the Rio Grande, so was always a minor connection. The MoPac did not go to Chicago until it acquired a less-than-direct route with the Chicago & Eastern Illinois in 1963, and it was principally a St. Louis-Kansas City-Texas Gulf railroad. Except during seasonal produce and livestock rushes, the MoPac and Rio Grande exchanged only enough freight business at Pueblo to fill three freights each way daily, and had little through passenger business.

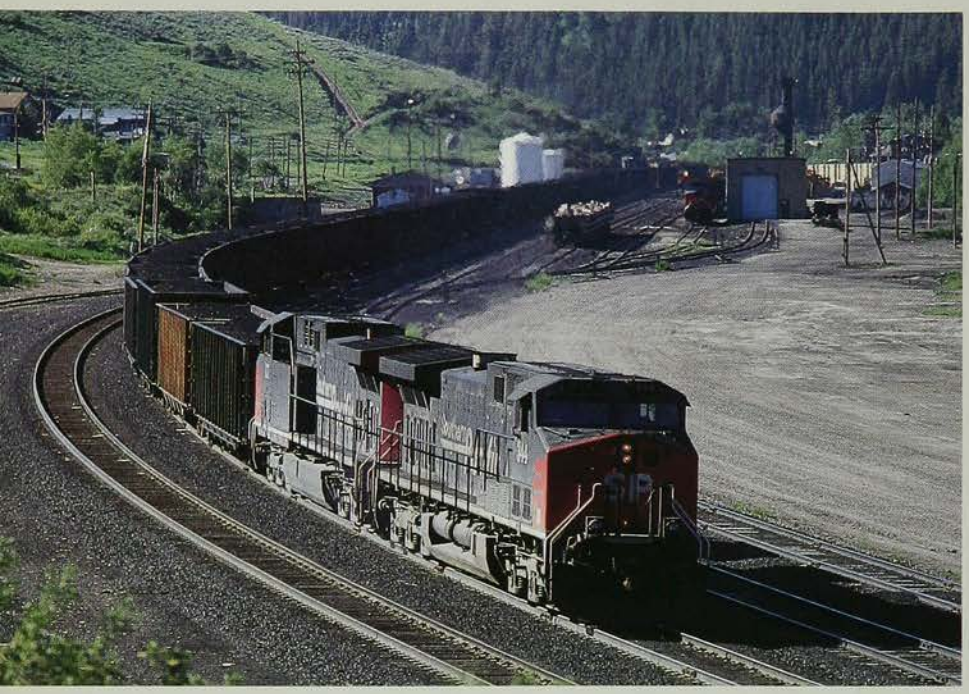
Thus, it was the Moffat line that received CTC under the crush of World War II traffic (Denver-Orestod in 1945), and not the Royal Gorge Route. After 1934 the Royal Gorge Route was actually somewhat overbuilt, considering that much of its overhead traffic now traveled via the Moffat. Thereafter improvements came to a halt, except to reduce plant. In 1958 D&RGW put in CTC from Kobe through Minturn to Avon, which allowed it to tear up the second track on Tennessee Pass, leaving sidings at Mitchell (which came out in 1969), Pando, and Belden. CTC did not protect the entire distance between Pueblo and Dotsero until 1968. Apparently Rio Grande neglected the timber lining of the original 2577-foot Tennessee Pass Tunnel during the Depression. Rather than delay World War II traffic to renew the lining, in 1944-45 the railroad built a 2550-foot concrete-lined tunnel about 50 feet to the south and abandoned the original bore.

In the 1970's, the Royal Gorge Route gained new value as an eastbound coal route, following the Clean Air Act of 1970, the OPEC oil embargo of 1973, problems bringing nuclear plants online, and growing demand for electrical power in the Southeast. By 1981 as many as three unit coal trains climbed to Tennessee Pass each day, en route to Midwestern and Southeastern



A Rio Grande SD50 exits the east portal of Tennessee Pass Tunnel with an eastbound manifest train.

The last railroad town



With fresh crews on the road and helper units, an eastbound train departs Minturn. Beyond is the enginehouse, sand tower, and crew dorm.

AT THE MOUTH of Eagle River Canyon, the D&RG established a helper terminal in 1890, naming it for D&RG Vice President Robert Minturn. The quintessential mountain helper terminal was wedged into a narrow valley with the yard taking up most of the flat land. Even so, the big roundhouse's Mallet stalls practically overhung the Eagle River. The town shoehorned itself between the river's south bank and the steep slopes.

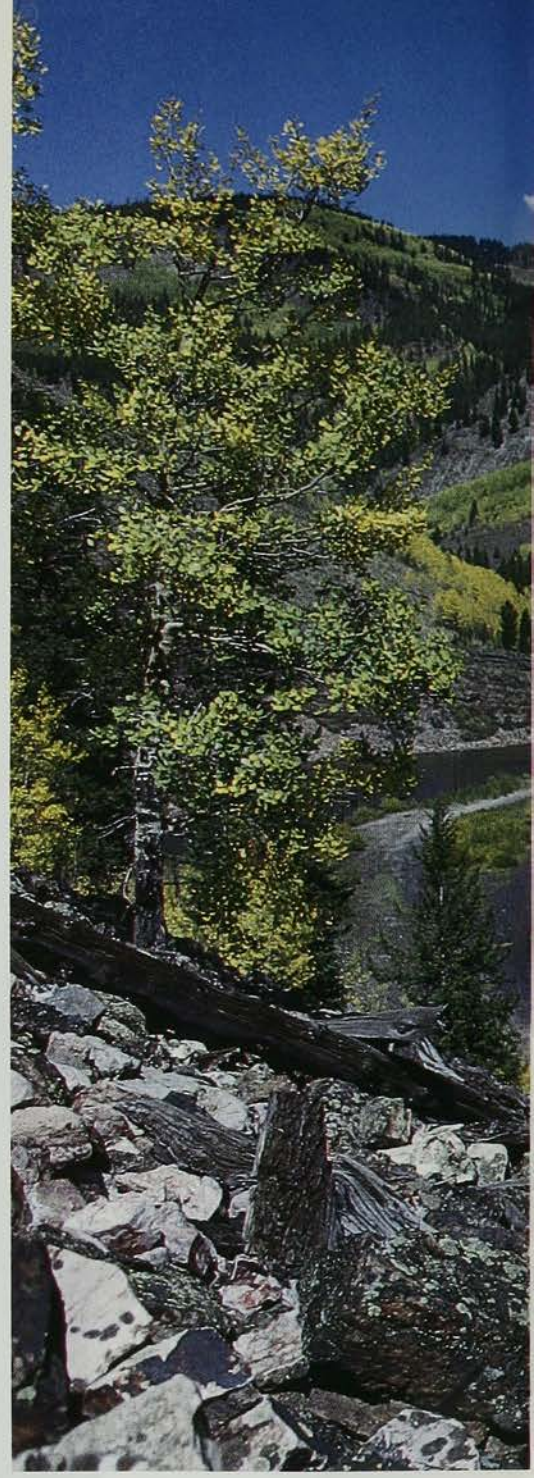
The Rio Grande was the locus of Minturn's orbit. When trains departed for Tennessee Pass, a pall of smoke eclipsed the sun and slack run-ins echoed off the mountains.

Colorado had other railroad towns, but none held the atmosphere of railroading's Golden Age as long as Minturn. Long after diesels replaced steam, Minturn retained the sooty patina of the steam era—the casual, slightly decrepit, devil-may-care attitude of a town more like 1930's America than 1990's America. Like 1930's America, Minturn was union and ethnic and proud of it, populated by the sons and daughters of Italians, Greeks, Poles, and Mexicans who came to America to work in the mines and on the railroads.

This could not last. Three miles away sprawls Vail, the largest and most opulent ski area in North America, the winter playground of the super-wealthy. For many years Minturn remained isolated—socially, economically, and even racially—from Vail. Even as Vail spilled out of its valley to overrun verdant pastureland at Avon and Beaver Creek with an astonishingly ugly collection of condominiums and shopping centers, Minturn remained secluded. Perhaps the railroad frightened off Vail's elite. Perhaps it was Minturn's ethnicity. Minturn became home to many of Vail's largely Hispanic service workers.

By 1990 development dollars with no place to go began to eye Minturn. Fancy bed-and-breakfasts and restaurants began taking over Minturn's business district. In 1996, developers began demolishing turn-of-the-century houses to make room for $250,000-plus condominiums.

Once UP abandons Tennessee Pass, Vail will pull Minturn into its orbit. In 1995 SP Chairman Philip Anschutz agreed to convert the land under the yard into a second base area for ski lifts. Though Vail postponed the agreement because UP can't yet abandon Tennessee Pass, sooner or later Minturn's people will have to make way for their absentee employers.—*Mark W. Hemphill*



utilities. However, when low-cost coal mines came on-stream in Wyoming's Powder River Basin, many of the utilities which had burned high-quality, high-cost Colorado and Utah coal switched to cheaper Wyoming coal, and by 1983 Tennessee Pass returned to three freights each way daily, and practically no coal traffic at all.

Although D&RGW obtained trackage rights over the Missouri Pacific from Pueblo to Kansas City on December 21, 1982, as a condition of the UP-MP-WP merger, this only protected existing business on the Royal Gorge Route, the same two-to-three trains

Rio Grande power leads an eastbound manifest at the upper end of Eagle River Canyon at MP 290.4, west of Pando, in September 1990.

daily, and did not boost business. The loss of the Western Pacific connection at Salt Lake City in 1983; the loss of the Rock Island connection when it went bankrupt in 1980; the loss of heavy business from CF&I Steel at Pueblo, Rio Grande's second-largest customer, when it idled its blast furnaces in 1982; and deregulation under the Staggers Act in 1980 all greatly pressured Rio Grande's traffic and revenues. It was increasingly difficult to justify two expensive routes across Colorado's mountains. By 1983 it was no secret at Rio Grande headquarters that President W. J. Holtman wanted to abandon the Royal Gorge Route. In 1987 Rio Grande rerouted most of its traffic via Moffat Tunnel and shut down Minturn as a crew change and helper terminal, leaving one train a day each way over Tennessee Pass.

In October 1985, Denver oilman Philip Anschutz purchased D&RGW, and in 1988 he bought Southern Pacific, functionally combining the two into one railroad. Since SP and Burlington Northern were major competitors in the Pacific Northwest, the BN connection in Denver became a place where two hostile systems exchanged empties. In 1988, Rio Grande's focus turned away from the Moffat and onto the Royal Gorge Route for the first time since 1934.

In 1988 D&RGW crews worked over the Royal Gorge Route with a vengeance, laying down new ties, rail, and slag ballast, and undercutting tunnels to improve clearances for double-stack cars. When the work was completed, SP incorporated the Royal Gorge Route into its Central Corridor between California's Bay Area and the Midwest gate-

ways, and traffic boomed on Tennessee Pass to levels not seen since the years of World War II.

Diesels don't run well at 10,000 feet

SP still had mixed feelings about Tennessee Pass. In July 1993 Anschutz brought former Illinois Central President and CEO Edward L. Moyers to SP, telling him to lower SP's operating ratio and boost SP's stock. In Moyers' view, SP needed two routes across the Rockies like it needed double track over the Sierra Nevada. It also irked SP to station good six-motor units at Minturn for helper service while holding dozens of trains systemwide for lack of power.

"Locomotives don't run well at 10,000 feet," said Moyers, placing the onus on his people to route Central Corridor traffic via Moffat.

SP soon discovered what the Rio Grande had known all along: it could not close the Royal Gorge Route without paying a stiff price. Routing most of all of the Central Corridor traffic onto the Moffat (and thence over the D&RGW-Santa Fe Joint Line between Denver and Pueblo) would lengthen the Central Corridor by 64 miles. It would boost traffic on the Moffat to an average 23 daily trains, about its limit. The congested Denver terminal and Joint Line would be gridlocked. SP considered trackage rights on BN between Denver and Kansas City, but could not obtain a satisfactory arrangement.

Nor could SP close the Moffat in favor of Tennessee Pass, because the Moffat's tributary Craig Branch originated three to five unit coal trains daily, several of which went to power plants in Denver and neighboring cities. Like it or not, it looked as if SP would have to run two routes across the Rockies.

By August 1994, heavier traffic over Tennessee Pass, particularly taconite and coal, had rendered the question moot. By May 1996 SP had 23 crews in the Pueblo-Minturn pool, more crews than anyone could remember. On some days in 1996, more than 30 trains and light helpers moved between Minturn and the pass. In early 1988, SP did not even have a helper stationed at Minturn, restricting freight trains to 3600 tons or doubling the hill. As freight and especially coal traffic began to grow by late 1988, SP had to add helper sets until three four-unit sets of SD's were available. When its new AC4400CW's arrived in May 1995, SP replaced the 12 SD's at Minturn with 9 AC units, then added three more AC's as coal traffic continued to grow. For a time in 1995 the AC's powered nearly all Central Corridor trains, but by 1996 SP had returned to using SD's on most of the manifest trains to free up AC's for coal trains on the Moffat.

As of August 1996, SP's practice was to add a two-unit rear helper to its 14,000-ton eastbound coal trains at Glenwood Springs, and a four-unit swing helper at Minturn, cut in behind 5000 tons. The swing helper cut out at Tennessee Pass, and usually the rear helper at Kobe. Manifest trains, except for empty auto-rack train OANSF, received a four-unit swing helper at Minturn, cut out at Tennessee Pass. Depending on length, the OANSF received a two-unit swing helper or rear helper. Often helpers, after assisting an eastbound up to Tennessee Pass, followed it east to Kobe, Malta, or Princeton to assist a heavy westbound up the 1.51 percent to Tennessee Pass. Taconite train MNGVC began running with distributed power between Pueblo and Geneva, Utah, in spring 1996, with two AC's on the point controlling a two-AC swing helper and one-AC rear helper. This obviated use of retainers on the descent into Minturn.

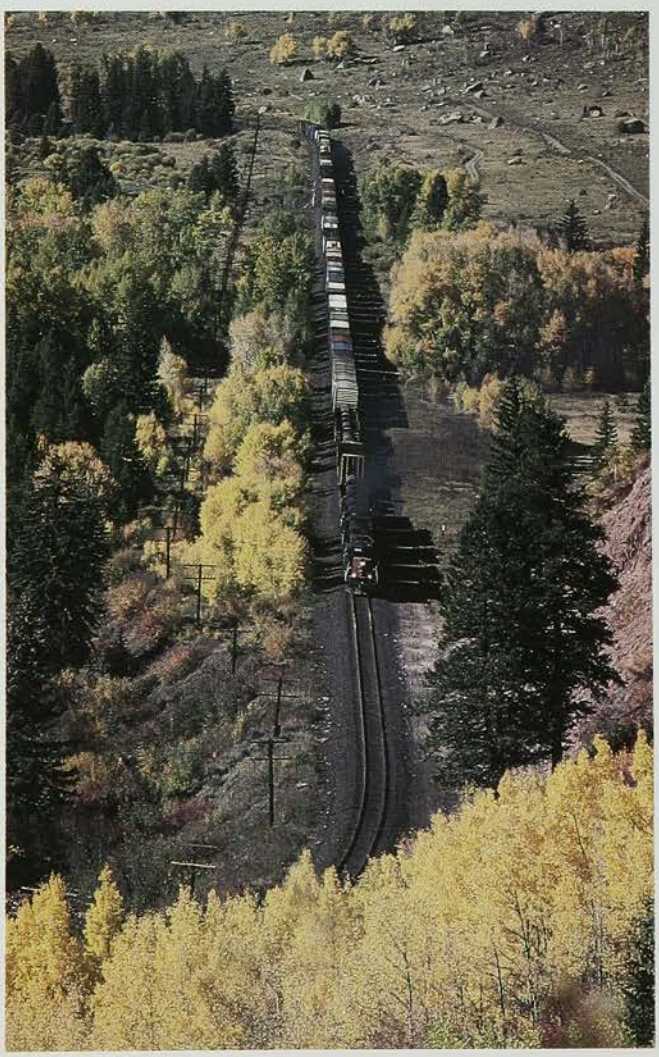
Yet even as Tennessee Pass reveled in traffic, its future dimmed. According to Anschutz, SP could not survive as an independent railroad in the face of BNSF's competition—even though after the BNSF merger SP still had more traffic than it had locomotives to haul. Anschutz insisted SP had no choice but to merge with Union Pacific.

Opportunity lost

Tennessee Pass quickly will lose all its traffic under UP's post-merger operating plan. UP will then abandon the Royal Gorge Route between Canon City and Gypsum, Colo., the stubs remaining to serve local customers.

By May 1997, assuming UP reaches the necessary agreements with the unions that represent affected employees, UP plans to shift all through intermodal and carload traffic that currently uses both the Royal Gorge Route and Moffat line to its main line through Wyoming. Except for coal, the D&RGW originates and terminates little traffic west of Denver and Pueblo, and east of Geneva Steel at Provo.

Removing the coal traffic from Tennessee Pass requires more work. UP plans to reroute these trains onto the Moffat between Dotsero and Denver, then onto its Salina Branch, more commonly known as the Kansas Pacific, between Denver and Topeka. Today the KP cannot accommodate much more than its current out-one-day, back-the-next long locals, due to short, infrequent sidings and modest track structure. UP's operating plan calls for it to invest $86.6 million in the KP, including



A 7000-ton Chicago-bound lumber drag accelerates out of Minturn at MP 299. Double track extended through this territory until 1958.

At the west end of the Royal Gorge Line, an ore train approaches Dotsero, where the Moffat Tunnel Route (at top) swings in from the northeast.

10 new 9300-foot sidings and upgraded track structure.

As soon as the KP is ready, UP will reroute Tennessee Pass's coal traffic to the Moffat, and close Tennessee to all traffic (and abandon most of its Missouri Pacific main line between Pueblo and the Kansas border). UP will leave the track in place for at least one year after that date as insurance against congestion on the Moffat and its Wyoming main, a condition required by the Surface Transportation Board. UP plans to donate the track through the Royal Gorge, approximately 9 miles, to the State of Colorado for a tourist railroad, and the remainder of the surface right-of-way for a recreational trail. The Royal Gorge route will remain a transportation corridor, however; Anschutz retains the right to use SP rights of way for his fiber-optic network.

D&RGW's demise as a through freight railroad begs the question of its continued viability. It will become perhaps the world's longest and most expensive-to-operate coal branch line. SP at best originated 79 coal trains per week on the D&RGW, usually much fewer because it could never provide a sufficient number of locomotives. The post-merger UP solved that problem immediately, and now D&RGW is actually running its coal mines dry.

Ten coal trains every day sounds sweet, but they require 784 miles of steeply graded, tightly curved track in rough terrain. They originate at widely scattered locations and travel to all points of the compass, and not all are high-revenue, long-haul moves.

UP boasts a 75 percent operating ratio, while SP's hovered in the high 90's. This leaves two possibilities: either UP's operating ratio will climb, reducing the value of its stock, or UP will manage SP assets more efficiently than SP could, and preserve its 75 percent operating ratio. Given that the former is unpalatable, UP will have to measure each aspect of SP's business against this 75 percent threshold, and either give up or charge more for traffic for which efficiencies cannot be found. In other words, three coal trains daily either will carry the burden on UP's 784-mile coal-only branch, or the burden will not be carried at all. There's plenty of cheap coal for UP to haul out of Wyoming's Powder River Basin, and without mountains blocking the path, either. Without a substantial increase in D&RGW-originating coal, even the Moffat's future will begin to cloud.

For now, the sound of heavy freights echoes from the forested slopes of Tennessee Pass and the sheer granite of the Royal Gorge. Within a few years, only echoes of the past will remain, and hikers will ponder the origin of the cinder drifts left behind by Rio Grande steam locomotives. Perhaps a few years later they also will have the opportunity to stumble through the Moffat Route's dark tunnels and deep gorges. I

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