

James P. Shuman: Mallory Hope Ferrell collection

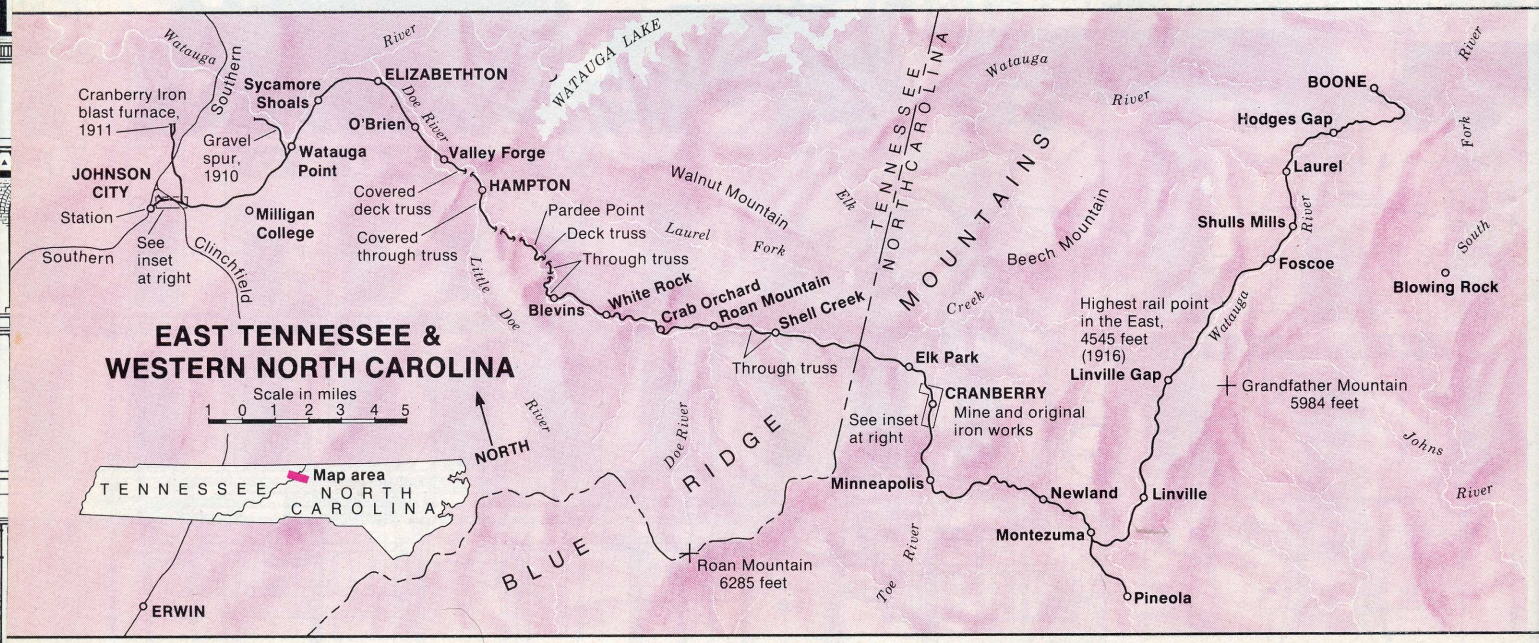
A RAILROAD YOU CAN MODEL

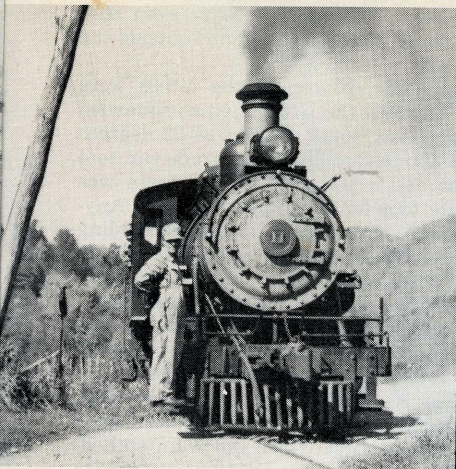
Tweetsie:

BY JIM KELLY

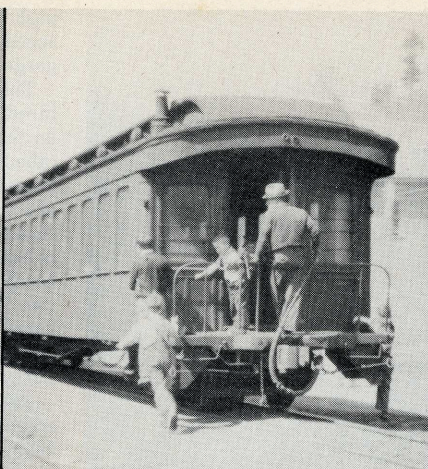
THE STORY goes that she was first called Tweetsie in the 1930s by the flatland kids at the summer camps up around Grandfather Mountain. They called her that because the whistles on her bright little Baldwin Ten-Wheelers had a high, tweeting pitch that carried far across the deep valleys in the Blue Ridge. Tweetsie may not have been a very dignified new nickname for a tough little railroad with 50 years of hard work already behind her, but Tweetsie she became to thousands of friends and admirers. Her official name

Oct. 16, 1950: No. 11 climbs State Line Hill for the last time. John Krause photo: Mallory Hope Ferrell collection

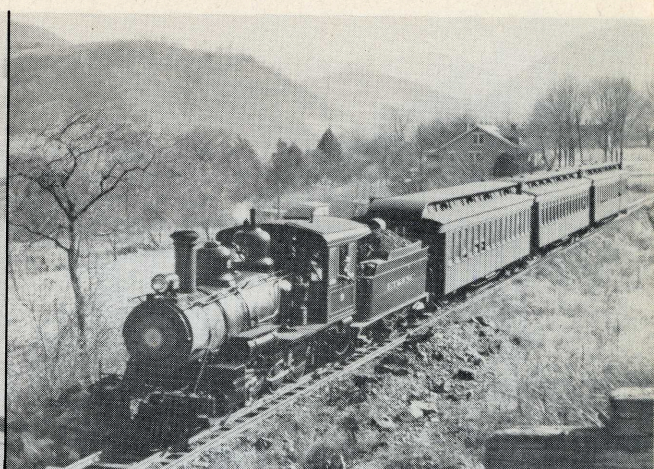




Jack Alexander



A. C. Hudson



A. C. Hudson

Far left: On a sunny July 3, 1938, no. 12's crew couples an excursion car to the rear of the train. Left: Narrow gauge railroading was railroading on a human scale — the machines didn't dwarf the men. Right: On March 14, 1943, as on most any other day, the biggest happening in Roan Mountain

was the arrival and departure of the Tweetsie, in the minds of small boys at least. Far right: Commuters to Elizabethton's rayon plant rode this train on Nov. 21, 1943. The third rail ended near here, but the 3-foot gauge tracks continued into the Blue Ridge Mountains in the hazy distance.

Narrow gauge on the Blue Ridge

The East Tennessee & Western North Carolina RR.
was as tough and agile as a mountain mule

was the East Tennessee & Western North Carolina (ET&WNC).

She measured 3 feet between the rails and she ran 34 miles, all the way from Johnson City, Tenn., to Cranberry, N. C. From there, in her prime, she kept right on rolling another 32 miles to Boone, N. C., on the tracks of her sister line, the Linville River Ry. The ET&WNC owned Linville River and both were owned by the Cranberry Iron & Coal Co., so for all practical purposes they were one railroad, and it was all called Tweetsie.

RIDING THE LINE

A ride on the Tweetsie from Johnson City to Cranberry was an adventure highlighted by a twisting trip through the 1000-foot-deep Doe River Gorge. The trip began innocently enough at the dual gauge yard (3-foot and standard) where ET&WNC interchanged with the Clinchfield. The first 10 miles to Elizabethton was easy going and was dual gauge after 1906. (Between 1911 and 1941 Tweetsie was dual gauge all the way from Johnson City to Hampton.)

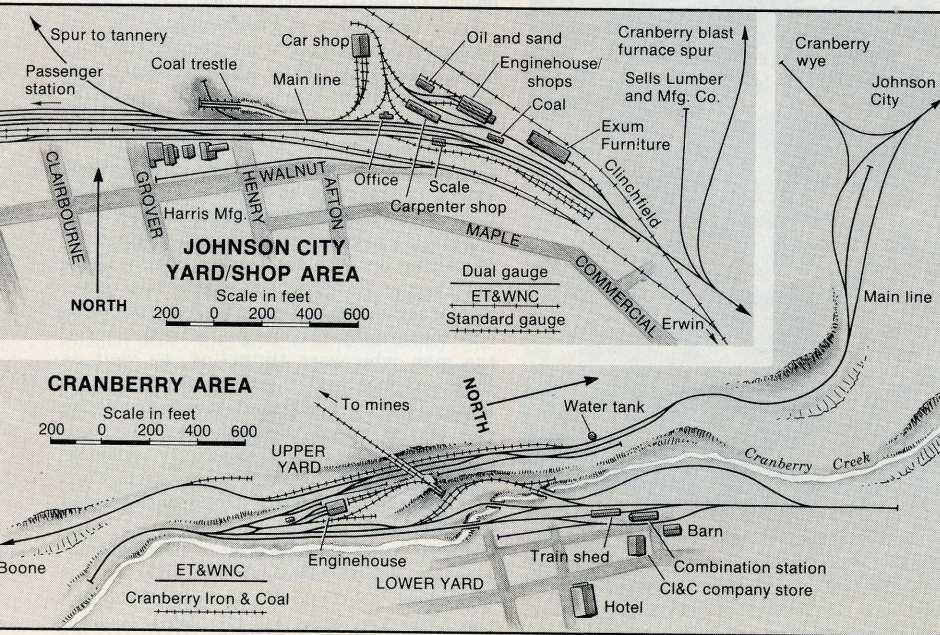
After leaving Elizabethton the railroad ran alongside the Doe River, which would guide it up into the Blue Ridge. At the first range the river turned abruptly aside and the railroad crossed it on a deck bridge. The bridge was an impressive 289-foot-long, three-span Howe deck truss built of timber. It was covered on the sides with wood planks and painted barn red so that it looked rather like a long barn wedged in between the river banks.

In his book *Tweetsie Country* Mallory Hope Ferrell tells about a day in 1903 when a train stopped on the bridge. Passenger Bob Simerly, not realizing where the train was, decided to step off. He fell 70 feet into 2 feet of water and was laughing about it when he came climbing back up, only a bit worse for wear.

Once across the covered deck bridge the rails entered immediately into a tunnel, then emerged in a spectacular gorge that quickly gave way to the quiet valley that contained Hampton. Hampton, like most mountain towns served by ET&WNC, had a house track, an interchange spur with a logging railroad, a few houses, a store, and not much else.

After pulling out of Hampton the railroad crossed another covered bridge, this one of the New England postcard through-type. The Blue Ridge rose up like a wall, and the assault on the mountains got downright serious.

Doe River was now smaller, faster, and twisted even more. The rails clung to a ledge carved into cliffs that rose several hundred feet in many places. In spots masons had to build retaining walls to prop the right-of-way up in space. There was plenty of time to drink in the gorge's beauty since the trains were limited to 6

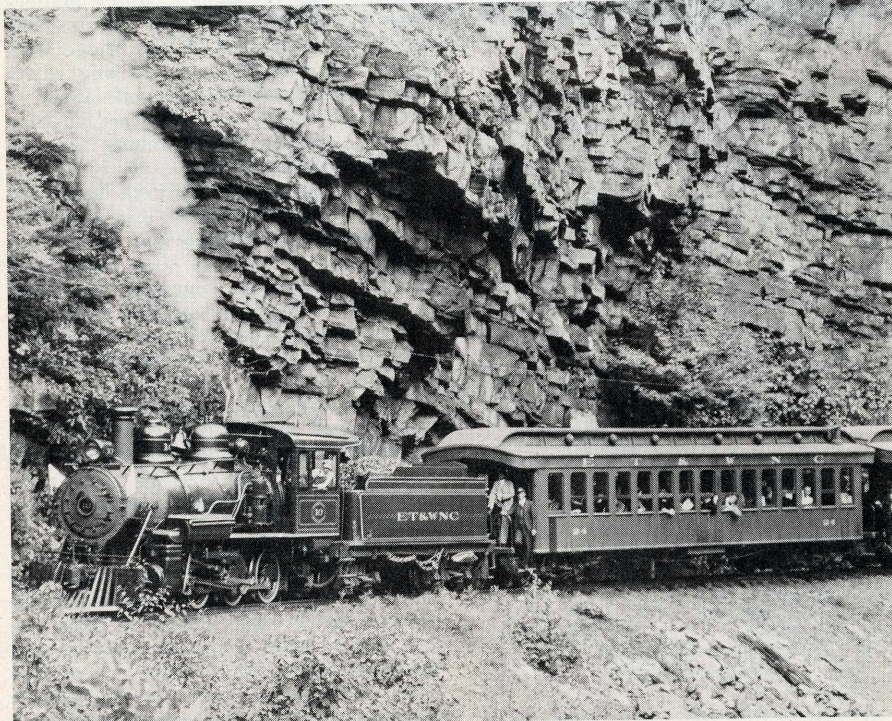




Hugh Morton: Mallory Hope Ferrell collection

Above: Few human eyes saw the raw beauty of the Doe River Gorge before the ET&WNC penetrated there in 1882. Tweetsie's passenger cars were the finest narrow gauge varnish in the land. Below: Flying the white flags of a Sunday excursion extra, no. 10, one of the ET&WNC's sporty 4-6-0s, makes a brief photo stop in the Doe River Gorge. Modeling this area would be a rock caster's delight.

Frank Clodfelter



mph and could hardly sustain even that speed going up (the speed limit outside the gorge was 15 mph).

The middle drivers on the 4-6-0s were blind, but still the little engines squawled on the curves, some as tight as 32 degrees (about 180-foot radius). The grade ran to 4 percent and a six- or seven-car train was absolute tops for a run up the gorge. Anything more was double-headed. According to Lucius Beebe, in his classic *Mixed Train Daily*, trains often went up the gorge in two sections coupled together, then separated into two trains at Roan Mountain because the wye and storage tracks at Cranberry could handle only a short train.

James A. Goforth, in an unpublished manuscript, tells about riding just such a train up the gorge. Once the train stalled, the locomotive in the middle cut off its cars, served as a pusher to advance the forward train to a less-steep area, and then dropped back to pick up its own train.

At four places in the gorge the train could not wind as tightly as the creek did and had to catch up again by shortcutting through tunnels that penetrated the mountain spurs.

After the gorge there wasn't so much twisting, but the grade remained a fairly steady 3 percent all the way to the headwaters of the Doe and the state line. The railroad ran along the flanks of the mountains now, sometimes in the woods and, sometimes through meadows and farms. In places the hillsides fell away to open up panoramas of range after range of distant ridges.

All that remains at Cranberry today is a post office and a house or two, but up until the Depression she was a rough-and-tumble company town with a mining complex sprawled out over seven acres and rows of green-painted and identical company houses for the miners.

IRON IN THE MOUNTAINS

The East Tennessee & Western North Carolina was built to haul out the high-grade iron ore that lay all through the mountains around Cranberry. Chartered in Tennessee in 1866, the ET&WNC actually started out to be a 5-foot gauge railroad, and 5 miles of broad gauge track were laid before the early efforts fizzled out.

In 1879 a group of Philadelphia, Pa., investors led by Ario Pardee bought the dormant ET&WNC. They already owned the Cranberry Iron Works, bought in 1873. These were the years when narrow gauge fever was sweeping the country, and Ario Pardee knew a thing or two about 3-foot gauge railroads—he'd already built the East Broad Top in Pennsylvania.

Pardee's organization wasted little time in getting on with the project, hiring Colonel Thomas E. Matson to survey the route. Construction was no easy task in this difficult topography. At one point in the gorge the men who were tunneling, as well as their supplies and their mules, had to be lowered in by block and tackle from the rim of the gorge. Nevertheless, the construction went quickly, especially considering these were the days when such work was accomplished with strong backs aided only by black powder.

Early in 1881 ET&WNC's first locomotive was delivered to Johnson City. It was a Baldwin 2-6-0 and it was called *Watauga*, the Cherokee word for beautiful. Soon it

When Lucius Beebe and Charles Clegg visited in June, 1946, Cranberry, N. C., was no longer the rough-and-tumble mining town it had been 20 years earlier. No. 12's crew was transporting an opossum in the toolbox, and the fellows lounging around the station seemed to be in no hurry.



Lucius Beebe: Mallory Hope Ferrell collection

was hauling ties and 40-pound rail out to the tracklayers. Later that year came a second Baldwin 2-6-0, the *Cranberry*, and the next year came a Baldwin 2-8-0, the *Unaka*, usually run only on freight trains. These three locomotives were enough to keep the railroad going for the next 20 years. Originally they were wood burners with balloon stacks, but in the 1890s all three were converted to coal burners with straight stacks and lengthened smokeboxes.

On July 4, 1882, regularly scheduled passenger and freight service began between Johnson City and Cranberry. Cranberry Iron & Coal Co. now had an efficient means for shipping its ore and shifted its operations into high gear. By 1884 the company had erected a blast furnace at Cranberry and was making high-quality iron for shipment to Ohio and Pennsylvania mills who used it to make fine tool steel. The railroad hauled limestone for its iron-making from a quarry at Watauga Point.

The ET&WNC opened up Cranberry and the once-isolated hamlets along her route to each other and to the outside world and changed life in those mountains forever. Flatlanders came into the Blue Ridge and built resort hotels, golf courses, and summer camps. Wealthy northern industrialists built posh homes on sweeping mountain slopes. Most important, the way was open to transport out another of the region's resources — timber.

THE LINVILLE RIVER RY.

The Linville River Ry., purchased by the ET&WNC in 1913, was originally one

of the dozen or so 3-foot gauge logging railroads that penetrated the forests and brought out timber to be hauled off the mountain by the ET&WNC.

The Linville River was begun in 1896 and soon came under the control of timber tycoon W. M. Ritter. From its connection with the ET&WNC at Cranberry, its 33-pound-rail main line extended 12 miles to Pineola. From there five long spurs snaked out into the woods in every which direction, and the logs were hauled out with a couple of Climaxes and a Shay.

By 1913 Ritter's forces had pretty well logged out the region and the ET&WNC bought the Linville River Ry., by now thoroughly worn out. The LR's light and limber geared engines could barely make it over the line, and ET&WNC's heavier rod engines would have had a host of trouble staying on the track. ET&WNC used the Linville River's old Shay as their work engine and rebuilt the entire main line with new ties and 55-pound rail.

In 1916 the Linville River extended their line another 14 miles so they could connect with the Boone Fork Lumber Co. logging line at Shulls Mills. This brought them to within 8 miles of Boone, N. C., and infected Boone's citizens with railroad fever. Boone raised bond money, and in 1918 the first train entered town. At the welcoming ceremonies, J. H. Shull observed that before the railroad came "the only way a person could get to Boone was to be born there."

The entry into Boone might be called the ET&WNC's high water mark. The line had reached its farthest extension and was dual gauge as far as Hampton, although the

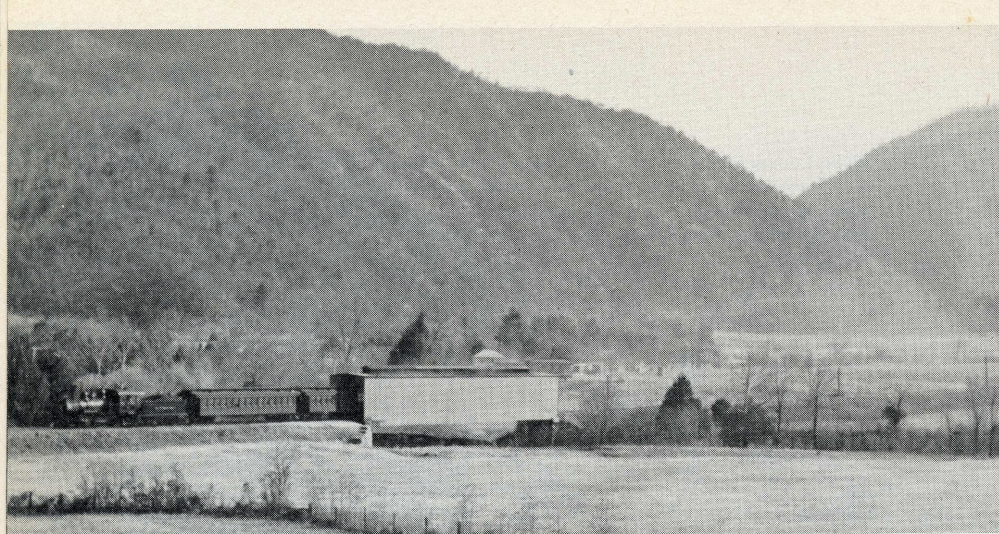
standard gauge cars that went there were pulled by narrow gauge engines. (Tweetsie bought its first standard gauge locomotive used from the N&W in 1927.) Tweetsie was running the finest narrow gauge passenger trains in the country, and the mines at Cranberry were working at top capacity to produce the raw materials of war.

IN DECLINE

The Tweetsie was in serious trouble long before the Great Depression. The mines at Cranberry had played out in the '20s, the mountainsides were stripped of timber, and more and more of the Tweetsie's former passengers were traveling in automobiles.

In the '30s Tweetsie was characterized by mixed trains, a typical consist being an RPO-baggage-coach combine and a handful of freight cars. Operation became more casual and the train would stop anywhere for a passenger or two that might step out of the woods. If he couldn't pay, or couldn't pay quite enough, the conductor would look the other way.

There wasn't enough money to spray the weeds along the right-of-way, but the locomotives and rolling stock were always kept in fine condition, and in the mid-30s they broke out in flashy new paint jobs. The basic color of the locomotive was Southern Ry. Green, but the smokebox was done in graphite, the boiler was left unpainted Russia iron blue, and the cab woodwork was painted red with gilt lettering. The running boards and tires were accented with silver; and the bell, whistle, and cap stack were polished brass. Tweetsie was dirt poor but proud as ever!



A. C. Hudson

Nov. 21, 1943. This covered bridge near Hampton served the railroad from the beginning until the end. The gap in the mountains marks the Doe River Gorge, Tweetsie's gateway to the high country.

In the '30s Tweetsie also rediscovered tourism (there had been lots of excursion trains before the war.) Flyers for the every-other-weekend sightseeing excursions promoted "Mountain Hiking, Sight Seeing, Kodaking. Get away from the sweltering heat of your lowland home by going to — Boone, N. C."

Archie Robertson, in his book *Slow Train to Yesterday* (Houghton Mifflin, 1945), described one of these weekend rides: "For the excursion Tweetsie produced an open-air observation car, built along the lines of an old-fashioned cattle-car before humane treatment was required by law. Two narrow wooden benches, back-to-back, sloped outward and catapulted passengers onto the floor whenever we turned a curve, which was most of the time. Chicken-wire, thoughtfully provided on the sides, kept us from sliding onto the track."

FINAL YEARS

In 1940 heavy rains destroyed the Linville River Ry. Fills and bridges were washed out and many parts of the line

were buried under mud slides. One witness at ICC hearings hinted that the railroad had allowed the culverts under the fills to become clogged with weeds and debris, and then prayed for rain. Young Annette Vance of Minneapolis, N. C., wrote a long poem, two lines of which summed up sentiments in the mountains: "The waters rose and took her track, / We want our little Tweetsie back." The Linville River was through.

World War II created a demand for what remained of Cranberry's ore and prolonged Tweetsie's narrow gauge life. When the flamboyant Lucius Beebe and photographer companion Charles Clegg visited the Tweetsie in the late '40s, the line was down to one freight train a day. The crew of no. 12 had captured a possum that morning and were transporting it in the toolbox. They obliged Charles Clegg by dangling it out the cab window by its tail so he could photograph it for immortalization in *Mixed Train Daily*.

The narrow gauge Tweetsie made its last run on October 16, 1950, a journey Jack

Alexander described in the December 1951 issue of *TRAINS Magazine*:

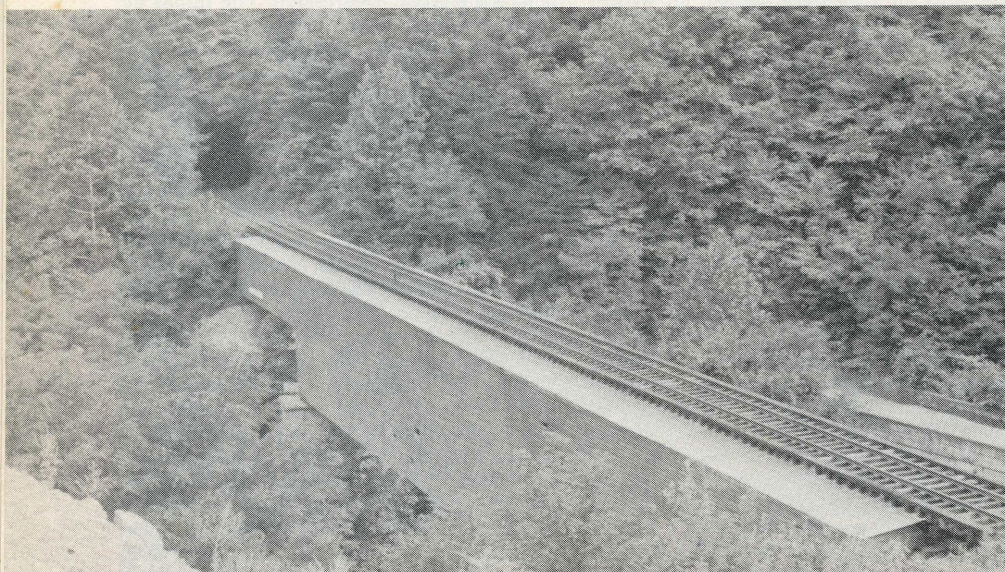
"With no work to do in Hampton, we were soon in the magnificent Doe River Gorge section of the line. Although I had seen them countless times before, the lofty mountain walls somehow seemed taller, more forbidding, than in the past. It was as if nature, after trying valiantly to regain the ground lost to the railroad when it was opened in 1882, realized she had finally won and was lording it over the little train. . . . The rocky cliffs threw back echoes of No. 11's exhaust, and they sounded like a ghostly laugh."

The ET&WNC exists yet today as an 11-mile standard gauge railroad linking Johnson City with Elizabethton. Narrow gauge locomotive no. 12 was preserved and now serves at a latter-day Tweetsie tourist railroad near Blowing Rock, N. C. You can still hike the old right-of-way through Doe River Gorge, although Mal Farrell advises that this is rattlesnake country.

A TWEETSIE TRACK PLAN

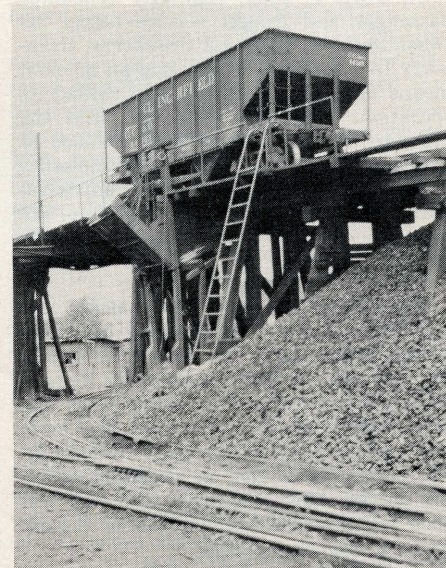
Mallory Hope Ferrell's *Tweetsie Country* will be indispensable to anyone choosing to model the Tweetsie, and I am indebted to that book for much of the information in this article. [*Tweetsie Country* is available from American West Books, 9143 Hyland Creek Rd., Bloomington, MN 55438, or Pruett Publishing Co., 3235 Prairie Ave., Boulder, CO 80301.] Mal Ferrell also answered my questions and very kindly provided photographs and official ET&WNC maps that proved indispensable in producing the prototype maps and developing the model railroad track plan.

In the course of reading Mal Ferrell's book and looking at other materials, I had drawn up a mental checklist of features I wanted to include on the railroad: dual gauge track and the terminal at Johnson City, the covered deck bridge and the covered through bridge, the mine and railroad facilities at Cranberry, and most important, the Doe River Gorge. This is, then, a simple plan emphasizing rugged mountain scenery. Editor Russ Larson wanted it small and assigned a 9 x 10-foot maximum.



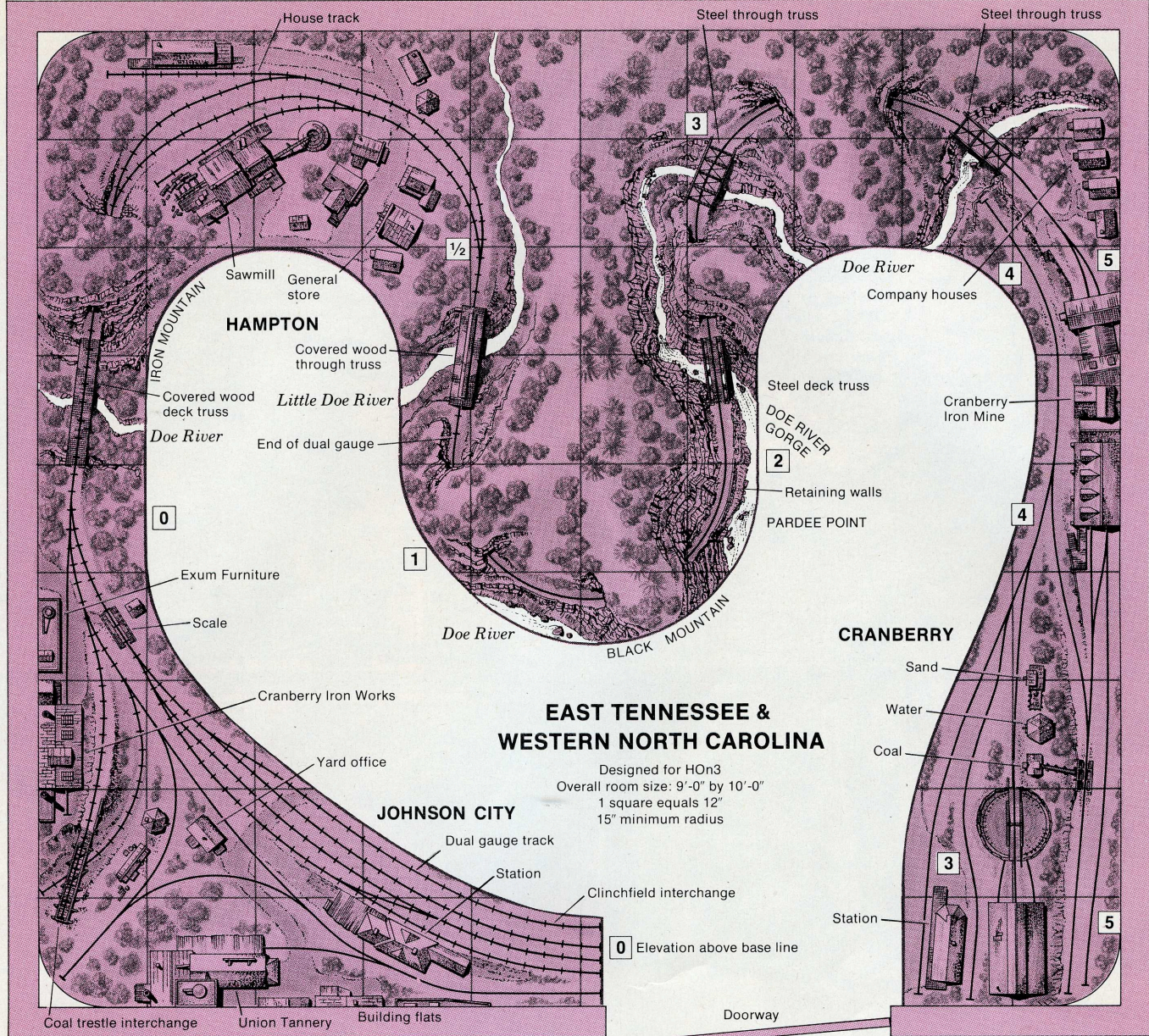
Robert Holly

Not all covered bridges are of the familiar New England drive-through variety. The timber deck bridge between Elizabethton and Hampton was planned over to protect it from the elements and lasted for the life of the railroad. Note the highway underpass and tunnel portal at the far end.



W. L. Kuethle

Here's the coal transfer tippie at Johnson City. Coal from the standard gauge cars slid down the chute into Tweetsie's 3-foot gauge cars.



After a bit of doodling I could see that these features were all that *could* be included on the railroad. Except for Hampton, all the other towns had to go, but I kept Hampton mainly because of its interesting location between the two covered bridges.

At Johnson City ET&WNC interchanged with both the Clinchfield and the Southern. The model coal transfer dock at Johnson City is loosely based on the prototype facility where coal was dumped from standard gauge cars into Tweetsie's narrow gauge hoppers and gondolas.

The covered deck bridge is on a narrow shelf with no other elements nearby and so should be a scenic highlight. I made it 15" long, which should be pretty impressive, even if the prototype was more than twice as large.

The tunnel portal at Iron Mountain, as well as the other portals, were simply blasted out of solid rock. Iron Mountain should be a ridge high enough to isolate the Johnson City area from Hampton.

Right after Hampton comes the covered bridge and then the Doe River Gorge. I

would build Black Mountain so that it came within inches of the ceiling and divided the room. Modelers who like rock castings could have a field day here. The view from the doorway, looking past Pardee Point and up the river, should be the focal point of the railroad.

The mines at Cranberry are built on the side of a ridge, and to reach the railroad facilities in the valley below our trains must do as the prototype did and maneuver down through a switchback.

LOCOMOTIVES AND ROLLING STOCK

ET&WNC's biggest year was 1918 so that seems a good year in which to model it. At that time ten narrow gauge locomotives were on the roster: Baldwin 2-8-0s nos. 4, 5, and 6; a Brooks 0-8-0 no. 7; Baldwin 4-6-0s nos. 8, 9, 10, 11, and 12; and a Baldwin 2-6-0 no. 28. Engines 5 and 28 were Linville River engines, so would seldom be seen on this layout.

All this motive power would really be too much for this model railroad, but it would be nice to have several representative models. As far as I know, no manufacturer has

ever offered an ET&WNC engine, but you could have the line running in fairly short order using Model Die Casting's HO3 in-side-frame 2-8-0 kit. This kit makes up into an engine quite close to no. 5, drawings of which appeared in the December 1968 issue of MR [out of print]. You could also make a close-to-Tweetsie 4-6-0 from one of these kits, and I've described how it might be done in the article that appears on page 85.

Using the drawings accompanying this article you can build a fleet of ET&WNC freight equipment. Rosters are furnished in Ferrell's book, as are drawings and photos of Tweetsie's beautiful passenger equipment.

Tweetsie had it all: spectacular scenery, interesting equipment, and a colorful and long history. Of those narrow gauge railroads east of the Mississippi, only the East Broad Top lasted longer. Modelers who like the challenge of doing something different — and modelers of narrow gauge lines almost automatically fall into that category — could find a lot of pleasure in recreating those days when the high-pitched whistles echoed across the Blue Ridge. ♠