



conducted by
Pete Moffett, MMR
photos by the author

Please address all comments pertaining to this column to:
Pete Moffett, 7 Jolie Ct., St. Catharines, Ontario L2M 6V5. If a
reply is desired, please include an SASE.

Ideas for narrow gauge modeling

The narrow gauge railroad building boom received a big boost when General William Jackson Palmer decided to build the Denver & Rio Grande railway to a gauge of 3'. The decision to build to this gauge was influenced by a visit to the Festiniog Railway in Wales on his honeymoon. Jackson talked with Robert Fairlie, who was an advocate of 3' narrow gauge, and was convinced that his Colorado railroad should be built to this gauge. He was certain that the capital savings of narrow gauge would mean profitability for a mountain railroad.

Palmer was planning to build the D&RG between Denver (pop. 4,759) and Santa Fe (pop. 4,765). Between these two towns the projected railroad would run through unpopulated territory. The only connection to the outside world would be at Denver. This railroad was destined to be one of the most successful narrow gauge lines, due in part to the fact that it served as a monopoly to the mineral companies.

The railroad was begun in 1870 and by the end of 1871 it had reached Colorado Springs. The "narrow gauge fever" had begun.

The line had been completed to Salt Lake City and Ogden and had penetrated the mining areas of the San Juan mountains by May of 1883. At its peak in 1890 the D&RG had 1,861 miles of railroad.

We model railroaders tend to think that our annual model railroad conventions were our invention. Not so. The prototype railroaders held conventions where business was conducted and seminars were

History of 3-foot narrow gauge railroads—part 3



The Georgetown Loop Railroad is built on the 3' line which ran from Georgetown, Colorado up the canyon to Silver Plume over the famous Devil's Gate High Bridge which can be seen in the background. The bridge was originally built in 1884 and forms part of a loop required to raise the railroad from Georgetown to Silver Plume with a grade easy enough that rod engines could handle it. The bridge was rebuilt in the 1980s for the Georgetown Loop Railroad. The current engine roster includes this Shay which came from the Westside Lumber Company. A trip on the railroad includes a breathtaking ride over the loop and a visit to a gold mine. This railroad was one of the featured tours of the NMRA National Convention in 1991.



The 3' gauge Durango & Silverton Narrow Gauge Railroad is a tourist railroad built on the former Denver and Rio Grande right-of-way. It takes tourists from Durango to Silverton in the heart of the Colorado mountains. Silverton was mining center during the silver boom. In Silverton there is a small museum with

these jewels of the narrow gauge railroads. The Casey Jones railbus and the original Silverton station have been lovingly preserved. The day I visited I couldn't find anyone who could give me any information about these items and if any of you can offer more detail I will share it with our readers.

given and tours of railroads were offered. In 1872 a convention was held in St. Louis. Speakers related their experience on building and operating railroads.

The general manager of the D&RG, Colonel W.H. Greenwood, spoke on the experiences of the railroad. He reported that trains were operating at speeds of 15 mph, with one railfan excursion operating at 25 mph. It would appear that there have been railfan excursions as long as there have been railroads.

The Committee of Eleven reported on cost comparisons and recommended a gauge of 3' for narrow gauge roads and a coupler height of 24" from the rail head to the middle of the coupler.

A very interesting proposal out-

lined at the convention by Major Peter B. Borst was for a transcontinental narrow gauge railroad. It would go from near Washington, D.C., to Denver, Colo., to provide an outlet for grain and other commodities to the eastern seaboard.

The railroad was called the Washington, Cincinnati & St. Louis. Unfortunately Major Borst was unable to raise the necessary capital and a attempt to secure a loan guarantee from the U.S. Senate met with failure. He died in 1882 leaving 20 miles of grade as his only asset. It sold for \$40,000 and portions of it were used by the Chesapeake Western.

An unfortunate twist of fate resulted in the building boom of the narrow gauge railroads in the mid-

1870s coinciding with a major depression in the railroad financial community. This severely halted the building boom. Many railroads suspended construction for several years and never again regained the pace of building before the depression. The depression passed and the building boom rebounded to an all-time high in 1878.

The next narrow gauge convention after the one in St. Louis in 1872 was held in Cincinnati in 1878. It was an appropriate location because there were five narrow gauge railroads being built in the area. The convention lasted three days and was attended by 200 delegates; about half were suppliers and the other half represented railroads. The convention centered around a

discussion of whether narrow gauge railroads should fulfill a function as a branchline operation or a national network. After much heated debate, the view that the narrow gauge should serve the function of a national network carried the day. There were also speeches on cost experience and standards. The convention ended in a heat wave two days later and was scheduled to be held again the next year, but the organizer left the narrow gauge movement when his railroad was acquired by a standard gauge one. Nobody came forward to organize the next convention, which deprived the movement of a forum for discussion.

While all the politics were going on, the builders were pushing the narrow gauge railroads farther by the year. The period between 1878 and 1893 was the boom of narrow gauge railroad building. Most of the building was being done in the mountains of Colorado where the D&RGW concentrated its efforts. It had made an agreement with the AT&SF not to build to a line to El Paso, and as a result turned its attention to building an east-west main line to Salt Lake City and Ogden and to penetrating the mining areas in the San Juan mountains. The rival Denver, South Park & Pacific was also building to serve the mining areas of the San Juans.

Railroad building was not concentrated in the West alone as there was some building going on in the East as well. The main area of narrow gauge railroad building in the East was in Pennsylvania and New York, principally centered around the oil fields in McKean County. The lumbering industry was booming in this area and there were numerous narrow gauge lumbering operations, too.

One of the most ambitious projects in the east was the Grand Narrow Gauge Trunk. This was a railroad that was planned to run from Toledo, Ohio, to Laredo, Texas, with a 3' connection to Mexico City.

The railroad was to be made up of three existing railroads: the Toledo, Cincinnati & St. Louis, the Cairo & St. Louis and the Texas & St. Louis. The railroad ran from the northeast in a southwesterly direction. The railroad promised cotton traffic from the South to the ports on the Great Lakes and manufactured goods

flowing south to Mexico. By 1883 very little progress had been made on the component parts of the Trunk. The TC&StL was near failure when Elijah B. Phillips from Boston raised funds to complete the railroad to East St. Louis. He also brought the railroad to Cincinnati by merger and then tried to generate traffic for the railroad by lowering freight rates.

He lowered the rates from 24 cents to 9 cents per hundredweight. The result of this policy was to generate lots of traffic for the railroad. It generated so much traffic that the railroad could not cope. There were not enough locomotives to move the freight and soon the freight was moving at a loss. That situation resulted in the railroad going into receivership in July 1883. The railroad died and with it the Grand Narrow Gauge Trunk.

The TC&StL crossed about 100 standard gauge railroads, but because of the difference in gauge it was unable to interchange with these railroads without unloading the freight from the cars and reloading into the other railroad's cars. This transshipment cost was exactly what the narrow gauge opponents had warned about. It would seem that they were right about the narrow gauge as a common carrier.

By 1885 the TC&StL was ordered to discontinue all but local operations, but the railroad had deteriorated so badly that it could hardly be operated at all. This seems to confirm another point made by the opponents. They warned that a railroad built to the lighter standards of the narrow gauge railroads would deteriorate quickly—and they were right in this case.

The Texas & St. Louis, which was also a partner in the Trunk, went bankrupt in 1884. The failure of the Trunk did not mean the downfall of the narrow gauge railroads. The railroads in Colorado were booming because they were in a monopoly position. One of the largest of the narrow gauge railroads, the Rio Grande Southern, came about after the boom in silver mining in Colorado after 1890.

The White Pass & Yukon in Alaska and the Oahu Railway in Hawaii were built after 1883, but because they were built in isolation and did not interchange with other railroads, they were successful.


It was increasingly obvious that the narrow gauge railroads could not compete with the standard gauge lines in the area of general transportation. As a result, many of the narrow gauge lines converted to standard gauge around the turn of the century. This meant that there was a glut of cheap narrow gauge equipment on the market and many companies not in the railroad business (i.e., mining and lumbering) used this opportunity to build narrow gauge railroads to serve the business. These were usually very successful because they were economic monopolies and did not have to interchange or transship with other railroads.

The last 3' narrow gauge common carrier built in the U.S. was the Montana Southern in 1919, and it was based on the cheap, second-hand equipment available.

There were many railroads built to 3' gauge that were not common carriers. These were mainly in the extractive industries like lumbering and mining, and for reasons stated above these railroads generally were more successful than the common carriers because of their isolation. They were by nature temporary lines and were ideally suited to the narrow gauge genre of equipment and right-of-way. They were not intended to last very long and thus maintenance was not a considered cost.

One could fill a book with the small lines that were not common carriers and that might be an interesting project. Unfortunately research is a challenge because these railroads were not required to document their existence the way the common carriers were. As a result, it is more difficult to track down some of the more obscure railroads.

One excellent source of material on the Eastern narrow gauge private lines is contained in the 13-volume series by Kline, Taber and Casler on the logging railroads of Pennsylvania. I am in need of volume numbers 5, 7 and 10, and if anyone could sell me these volumes, I would be most grateful. Write to me at the address at the beginning of this column.

Next time we'll take a look at narrow gauge locomotives. 

(The material for History of 3-foot Narrow Gauge Railroads was obtained from George Hilton's book American Narrow Gauge Railroads.)