
Preservation and Interpretation of Railroad Communications Facilities at the Cumbres & Toltec Scenic Railroad

Friends of the Cumbres and Toltec Scenic Railroad

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The Chama Depot Communications Bay

1 Introduction: Railroads and the Original Information Superhighway

A unique aspect of the D&RGW narrow gauge railroad at its abandonment in 1969 was an intact telegraphic and telephonic communications system. This system was used to dispatch trains, transmit company business, and provide messaging service to the general public (Western Union). This system was little changed from the beginning of operations in the 19th century. Along with the steam locomotive, the railroad's communications system was a uniquely preserved industrial artifact which had been replaced by modern technology in the rest of the country.

The most visible aspect of the railroad's communications facilities were the "pole lines" along which the telegraph and telephone wires were strung. In most photographs of the railroad from the Denver and Rio Grande (D&RG) and Denver and Rio Grande Western (D&RWG) period, the poles or wires are visible.

The railroad of the 19th and 20th centuries was an industrial facility which had certain features familiar to the public:

Those poles along the railroad tracks signified something more, the fact that the telegraph had become an essential part of making the nation's trains run. Whenever a long distance railroad was built, the telegraph line accompanied it. In fact, most intercity telegraph wires followed the railroads and came to be thought of almost as part of the railroad by the general public.[1]

The introduction of the railroad into the United States parallels so closely the advent of the telegraph that the story of one cannot be told properly without touching upon that of the other. The telegraph as well as the railroad is entitled to a share of the credit for the prodigious development of the West.[2]

Any sort of museum claiming to document the history of railroads must include the communications aspect of the endeavor. The railroad and telegraph wires were literally inseparable from the 1850s through the end of the Age of Steam (and well into the diesel era). The railroad right-of-way was that era's superhighway of telecommunications in the same manner that the internet functions today.

In the majority of photographs of the railroad up through abandonment, wires or poles are clearly visible. Even going back to the very early days of the railroad, the telegraph lines are there. They were likely constructed prior to the laying of rails, as the transcontinental telegraph had done, with the iron wire blazing the trail along which the iron rail would follow later.

If the C&TSRR is to be considered as a "living museum", which is supposed to represent the 19th and 20th century technology and practices of the D&RGW railroad, appropriate representation of the communications facilities is required. The wires and poles themselves

are a part of the "viewscape", which could be described as the significant visual features that a person would have witnessed during the original D&RG/W railroad era. This would be relevant for any time period from the 1880s to close of operations in the 1960s.

2 The Chama Depot Agent's Office Interpretive Display

The Friends of the C&TSRR completed a restoration of the agent's office in the bay window area of the Chama depot during an August 2007 Worksession. The goal was to reproduce the office configuration to the period prior to abandonment in the early 1960s. Fortunately a photograph of the bay window from this operational period was available.[3]

Telegraph instruments appropriate for the period were obtained and mounted in the precise positions shown in the photograph. Other accoutrements of the depot agent's craft were obtained and added to the display. A "dummy" agent was even added for a final touch of realism.



Figure 1: The restored Agent's office in the Chama Depot.

A bit of interactivity was added to the display in the form of a live telegraph circuit. A telegraph key is mounted outside of the glass barrier overlooking the bay window area.

Visitors can manipulate the key and attempt to transmit Morse code characters. A chart of the Morse code characters is posted within the display. The telegraph sounder in the agent's office is active, and its action can be seen and heard as the telegraph key is manipulated.



Figure 2: The interactive display as seen from the Chama Depot waiting room. The telegraph key located on the shelf is active and operates a live telegraph circuit within the Agent's office.

3 Telegraph Pole Lines

Much of the telegraph pole line was intact and functional to the end of D&RGW operations. The majority of the telegraph lines were damaged or destroyed by telegraph insulator collectors after abandonment. Even so, some portions of the pole line survived:

"Significant parts of the line still remain in the high country and add a great deal to the visual effect for the railroad patrons today".[4]

If the goal of the interpretive aspect of the railroad is to present the C&TSRR as a living

museum, the communications facilities as supported by the D&RGW must be represented. Of course it is impractical to replicate and maintain a complete working system, however, the careful placement of a moderate quantity of poles and wires, along with restored telegraph phone booths and agents offices will complete the setting for the inquisitive visitor. It will make complete the railroad as seen by the public in the 19th and 20th centuries.

During work sessions in 2007 and 2008, several of the telegraph poles in Chama were restored by the Friends of the C&TSRR.[8][9] Using photographs of the Chama yards, the poles were replaced in the precise positions of the originals. The poles were properly grounded, and were installed using standard D&RGW practices as far as practical. Authentic hardware has been obtained by the Friends, and this hardware was used to recreate the telegraph pole line in Chama. An authentic "birdhouse" was constructed and added to the pole located at the north end of the Chama depot.

In 2009 the telegraph pole line reconstruction project was expanded to Osier.[10] Several new poles with their accompanying hardware and insulators were installed in the Osier depot area. This token tribute to these vital communications facilities also recreates the visual that would have been seen during the historical operations of the D&RGW railroad.



Figure 3: A recreation of a telegraph pole line as seen looking east from the Osier depot. These poles were installed during a summer work session in 2009.

4 Telephone Booths

“Telephone Booths” are small structures in strategic locations along the railroad. There are eight of these structures extant along the C&TSRR. The booths originally contained “telephones”, and later what would today be considered a modern telephone. These devices served as a second communications system used section gangs and train crews for the reporting of problems and as a supplement to the train order system by the railroad’s train crews. The telegraphophone booths shared the same system of pole lines as the telegraph. The booths were functional and still in use right up to the abandonment by the D&GW railroad. These booths provided communications facilities which were important tools needed to achieve the safe and efficient operation of the railroad.[11]

The Friends have devoted several work sessions and significant resources to document, restore, and preserve the telegraphophone booths. The fully restored booths were removed, rebuilt, and then redeployed to their original locations on the line. These booths provide an interesting and historically accurate visual effect to railroad, as well as preserving an aspect of an early industrial communications facility which was a common feature of railroads in the early twentieth century.



Figure 4: A telegraphophone booth restoration in Chama.

5 Conclusion

This quote from “Wiring A Continent” puts the relationship of the railroad and the telegraph in proper perspective. Could the pole line, agent’s office, and telegraphphone booths not be included and the C&TSRR be claimed as an accurate portrayal of D&RGW railroad practice?

By the close of the nineteenth century, “every railroad in every country and clime” made manifold use of the telegraph. Its weather reports aided officials in guarding against danger from approaching storms. By giving prompt warning of damage by wind or flood, it prevented disaster in many ways. It moved trains promptly and safely and practically doubled the capacity of every single-track road. It brought the most distant stations and diverse patrons of the company into close relationship with the management, and united the officers and employees of a great railroad system into one compact and well organized army. It transmitted observatory standard time automatically to every station at the same instant. It gave steady employment to thousands of persons. All this, and much more, was done by the railway telegraph at a cost of less than 3 percent of the total expense of the operation and maintenance of the railway. The railway telegraph had, indeed, come into its own; it had become an absolute necessity for the safe and efficient operation of the railroad.[2]

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