

The next meeting of the Southwest chapter will be Wed. , Aug. 14, at the new location of the Railroad Museum, 216 S. Ochoa, at 1st St. Same meeting time, 6 pm. It will be a potluck.



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Pecos River
High Bridge

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Pecos River line

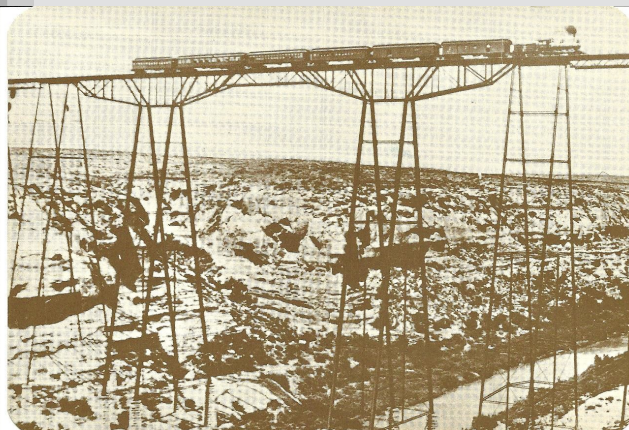
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El Paso & Southwestern Flyer

AUGUST 2013

The Pecos River High Bridge

(from A History of the El Paso Division, Galveston, Harrisburg & San Antonio Railroad, Southern Pacific Lines, as written in 1922 and retyped in 1962, from the chapter archives, presented as written without editing for spelling or grammar. Some errors for date or place may be present.)



Mr. Julius Kruttschmidt, an SP executive, is quoted discussing the original line. "From Helmet (site of the Golden Spike), to Sumle, via Flanders and the Rio Grande Canon, a distance of 24.5 miles, the curvature and grades were heavy and the excavation all in solid rock, which made the cost of construction very high. There were numerous rock cuts forty and fifty feet high, two tunnels

aggregating 300 feet, 3600 feet of trestling, and fourteen iron spans varying in length from 150 to 300 feet and weighing 2,898,000 pounds. The rock comprising the wall of the canon is soft limestone, is full of seams and fissures, rendering liable to fall after a heavy rain, so that, to insure against an accident, the track was patrolled night and day and the speed of trains reduced. The heavy curvature and grade, the slow speed, and the expense of watching the line, were considerable, that led the company's engineers to seek another route almost immediately after opening the road.:

To Major Converse, former Superintendent and Chief Engineer of the line, Mr. Kruttschmidt gave the credit for first suggesting crossing the Pecos canon on a high viaduct, and later, after several reconnaissances had been made, the original survey made by Major Converse, with several changes, was adapted by Mr. Kruttschmidt, and contract placed with the Phoenix Bridge Company for the bridge material and construction on the plans devised and authorized by Mr. Kruttschmidt.

The Pecos viaduct as originally constructed was 2,180 feet in length and 326 feet above the low water of the Pecos River. The metal contained in the bridge weighed 3,228,277 pounds. Construction on the new route of which the viaduct or bridge was the most interesting feature, was begun in March, 1891, and the line was completed about October of the same year; the masonry of the bridge piers constructed mainly of rock cut from the bottom of the canon, and floated to location, was finished in November. The bridge was turned over complete to the company in March, 1892. The

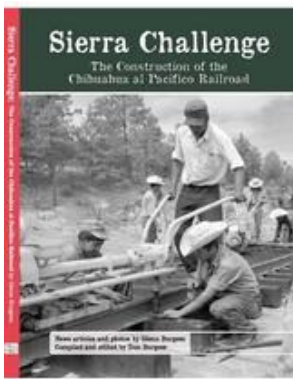
problem of erecting such a high and massive structure was of great moment. The contractors designed and used a traveler with an overhang of 124.6 feet, probably greater than any traveler ever before used; this overhang was secured with a total wheelbase of 57 feet, the traveler being counter-balanced and clamped to the completed section. The bridge was made up of two cantilever arms 85 feet each, two tower spans 35 feet each, two lever arms 52 and one-half feet each, one suspended lattice span eighty feet, eight lattice spans of 65 feet each, one plate girder span of 45 feet, and 34 plate girder spans of 35 feet each.

The average number of men employed by the bridge company in erecting was sixty-seven. The total number of working days consumed from beginning of erection to connecting the suspended spans, at center of bridge was 87, and for the entire completion of the work was 103 days. Resident engineer for the G.H.&S.A. Ry was Major B.M. Temple. The engineer for the Phoenix Company was J.T. Mahl. The floor track and metal hand railings were placed by K.K. Colburn, Superintendent, Bridge and Buildings. All ties and deck were covered with galvanized iron to protect against fire. The total cost of the bridge with piers was \$250,108.

In 1910, because of vastly increased traffic, weights of loads and equipment, the viaduct was heavily reinforced and also shortened by 665 feet by fills at each end, 2,266,766 pounds of steel being added, which makes the present (1922) weight 2,249 tons.

The routing of the line from the mouth of the Pecos canon to its present location shortened the line a trifle over eleven miles, eliminating 14 metal spans from 150 to 300 feet each, one rock tunnel of 1,425 feet and one of 1,502 feet in length; 3,400 feet of wooden trestle, and reduced curvature from 10 to 5 degrees. The Pecos viaduct, when built, was exceeded in height above water by only two other bridges in the world, one in Bolivia and one in France.

Ed. Note: The bridge was replaced by another structure in 1944. The original bridge remained in place until 1949.



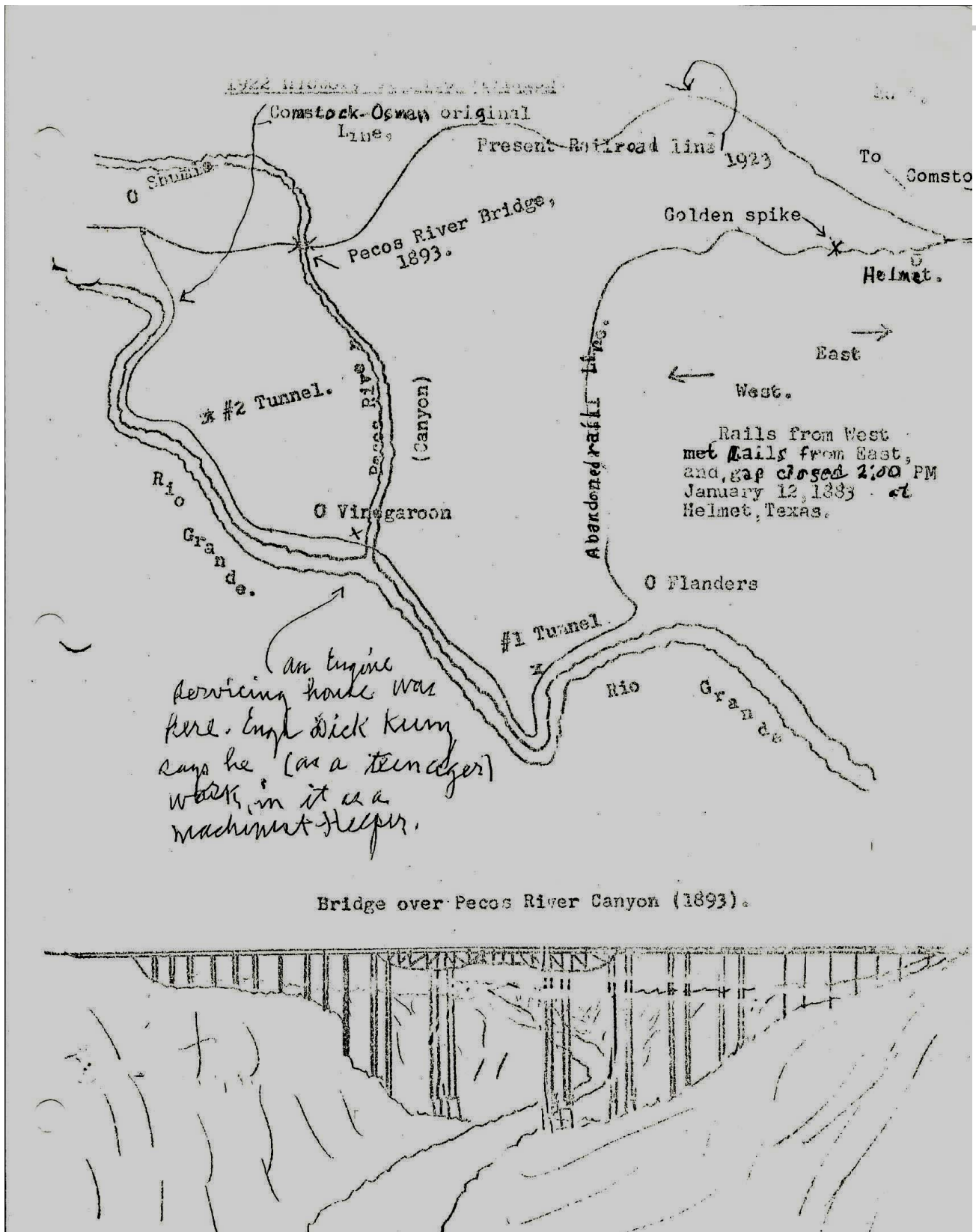
Mexico Rail News

From *Sigi Walker*, comes this news of a new book coming on the market.

Barranca Press will be launching *Sierra Challenge: The Construction of the Chihuahua al Pacifico Railroad* by Glenn Burgess on the 1st of August. The event will take place in Alpine, Texas. Author Glenn Burgess worked as a photo-journalist for the El Paso Times and the Fort Worth Star-Telegram. He also taught at Sul Ross University in Alpine, Texas. His son, Don is the Editor.

The July issue of *Progressive Railroading* has news about the international railroad bridge connecting Ojinaga, Chihuahua, with Presidio, Texas: "The bridge is slated to be rebuilt by late 2014 or mid-2015 per an agreement between TxDOT and the Mexican government."

Background: TxDOT is the Texas Department of Transportation, which owns the line to Presidio and leases it to operator Texas Pacifico Transportation Ltd, which is a wholly owned subsidiary of Grupo México (which also owns 55.5 percent of Ferromex, with which Texas Pacifico formerly connected across the bridge). The last train crossed the bridge in August 2006, and the American part of the bridge was destroyed by an arson fire in February 2008. The destroyed part of the bridge was a timber trestle, but the surviving Mexican part is concrete.





**Southwest Chapter
Railway & Locomotive Historical Society**

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MONTHLY MEETING: The July Meeting was held at Avila's on July 10. Thirteen people were present. Steve Heetland Chairman, presented a very informative report on the R & L H S National Convention he attended. His observations and lessons learned from the convention programs can be applied to the Southwest Chapter and Railroad Museum operations. Jim and Moni Ward will be in Nevada for some time. Moni's duties as Treasurer have been taken over by Rick Brightman. Steve Heetland will be added to the chapter bank account. Prince McKenzie, Tom Seward, and Terry Hammond met with the management and operations team of Freeport McMoRan Copper & Gold, to plan programs and activities involving the historic rolling stock held in trust.

Visitors at the regular monthly meeting of the Southwest Chapter were Terry Hammond, Tom & Toni Seward, Pres & Bud Dehrkoop, and Mark Steele. Terry Hammond, a dedicated historic preservation activist, has taken a leadership role in the Railroad Museum. In appreciation of his support the Museum gave him an authentic Adlake presentation lantern. Prince McKenzie Museum Director, read the inscription which designated Terry an "Honorary Train Master of the El Paso & Southwestern Railroad In Appreciation for His Work Defending the Cause of Railroad History." Terry Hammond represented the Museum in contract negotiations with the City and invested in the new museum location at the Texas & Pacific Freight Depot.

MUSEUM NEWS:

After ten years operating at the Union Plaza Transit Terminal, the museum moved from the west side of Downtown to the east side. The new museum location is the historic Texas & Pacific Freight Depot, constructed in 1912. The location is 216 S Ochoa St. at the corner of East First Ave. This station is at the west end of the historic 1880s T&P train yard now referred to as the "Overland Yard" by the Union Pacific Railroad. The classic brick and concrete station will give the Railroad Museum more operational space. The move was necessary to obtain expanded room and to preserve the mission of the organization. The museum needs more financial support than ever before to continue programs, exhibits and operations. Please consider supporting this continuing effort with your membership. Checks can be mailed to P O Box 5722, El Paso, TX 79901.

After the Railroad Museum moved into the historic 1912 Texas & Pacific freight Depot, a joint museum board meeting was held. The Board of the Paso del Norte Streetcar Preservation Society met with new and former members of the Railroad Museum Board. With the leadership of Justice David Chew and Ron Dawson, the PdNSPS decided to expand its mission to include "Museum Operations and Railroad Historic Preservation." The reorganization included the election of Terry Hammond as President of the Board. Dr. Marshall Carter-Tripp was elected Vice President for Museum Operations. Dr. Stephen Heetland was elected Vice President for Railroad Historic Preservation and Ernesto Villanueva was elected vice President for Traction Historic Preservation.