C&TS Dispatch Annual Spring History Issue!

Railroads and Livestock:
Cattle and Sheep along the Narrow Gauge
Volunteers Keep the Stock Cars Rolling!

Plus:
How to Build a Doghouse (no, not that kind!)
No. 315 Gets a 1,472-day Inspection
Work Session Schedule for 2022
Upcoming Summer Work Session Projects to Consider
A Real Treasure…Our Historic Photo Collection

When looking at the Friends organization, it’s easy to focus on our annual Work Sessions and the magnificent Docent Program. With a good number of Friends members involved in these activities, they offer a great deal of exposure to our membership and the Cumbres & Toltec’s riding public.

But there are other activities by the Friends that don’t receive as much attention but yet serve as valuable resources to our members, constituents and the narrow gauge community. One example is the Friends’ Historic Photo Collection.

Our collection began in 2006 with the acquisition of 24,797 images from Richard Dorman’s photo collection, consisting of images from the 1880s through the 1990s. Dorman (1922-2010) was a dedicated railfan, model railroader and author. The Friends acquired the collection through a transaction which encompassed 50% donation and 50% monetary acquisition. The Friends were fortunate to have Vernon Glover, Fred Springer and Spencer Wilson help support this acquisition.

It was a daunting venture to catalogue and digitize Dorman’s photographs. Wes Pfanner and a small group of volunteers began the task; a year later Dave Ryerson joined the team. Since then, another ten collections have been acquired, including 50,000 photos from the estate of Friends member Ernie Robart. The team is still at work, having now digitized and catalogued over 36,000 images, with more to come!

The Friends can take pride that we are the stewards of such an amazing resource of historic D&RGW and related narrow gauge images. In our collection, “A picture is worth a thousand words!” You will be amazed at both the breadth and depth of the photos. The images will take you back in time to so many different periods and locations across the spectrum of narrow gauge railroading.

One can really immerse one’s self in these collections. I have found that once I start diving into what’s there, it is difficult to stop. There is always “another” photo that I may be looking for, or a fascinating image that I happen to stumble across or one I simply need to find.

The collection is particularly useful for historical restoration projects or when we assemble equipment for era photo freight charters. Having evidence to back up our projects and charters is the best way for us to remain historically accurate to our mission of preservation, restoration and interpretation.

On the Cover: Everyone came to help when the sheep came in from their summer pastures, ready for shipment to their winter grazing lands (or perhaps a dining room table). In this ca. 1910 photo by Erskine (Rex) Mollette, a nine-year-old shepherd pushes sheep through the sheep dip tank at Chama. Next stop is probably a sheep pen, followed by a ride in a double-deck D&RG stock car. FCTS RD011-020. Livestock Report: FCTS RDS 067-068.
Authors have purchased images for publication, paying a fee for the usage. There are also individuals who want to frame photographs for personal use; the collection provides a vast assortment that are perfect for your office, den or study.

Do you recall eating lunch at the Osier Dining Hall and enjoying the images on the walls in the dining area? Or stopping at the information kiosk atop Cumbres Pass? Those images are just a small sampling from the photo collection. Do you have an interest in specific locomotives? Are you researching a line segment of the overall narrow gauge system? Do your interests lie in freight or rolling stock? Maybe you have a fondness for cabooses. Our photo collection is comprehensive in its range of topics and interests. Best of all, these resources are available to anyone and can serve as reference tools, for education or just plain enjoyment.

A tremendous amount of volunteer hours by Friends members have gone into this collection. To have that volume of images cataloged and digitized is a remarkable feat accomplished by a very small group of volunteers. It has been 17 years since the initial Dorman Collection arrived and the effort is still going strong. Team members arrive at the Friends’ office weekly to continue digitizing images into the database. This is a real testament to the dedication of the photo collection team.

If you have not explored our photo collection, then I strongly suggest you do. Go to the Friends’ website and click on Photo Collection & Store so you can begin perusing the images. I can ensure you that once this journey begins it will be difficult to stop.

Thank you all for your continued support.

Tim Tennant

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**Locomotive 425 Fall Photo Charter**

**September 24, 2022**

Join us for a spectacular fall color photo freight featuring Locomotive 315 renumbered as 425, pulling a 1918-1922 period freight consist plus D&RG Caboose 0579. This charter will depart Antonito heading west to Cumbres Pass with a motorcoach return back to Antonito. The day will be filled with numerous run-by locations. The scenic highlights of this charter include Lava Tank, Whiplash Curve, Sublette, Rock Tunnel, Toltec Gorge, Phantom Curve, Cascade Trestle, Los Pinos Tank and Tanglefoot Curve. There will be a fifty passenger limit.

- **Depart Antonito:** 10:15 AM MDT
- **Arrive Cumbres:** 6:10 PM MDT
- **Bus Departs Cumbres:** 6:40 PM MDT
- **Return Antonito:** 7:40 PM MDT

A go/no-go decision will be made by August 24, 2022. If we don’t have enough riders to break even the charter will be cancelled. If the charter is a “GO” on August 24th there will no ticket refunds after that date.

**Fare:** $320 (Includes 7% Historic Preservation Fee, lunch and water onboard train.) Call 505-880-1311 for reservations or questions or email: timtennant@cumbrestoltec.org

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**DON’T WAIT! JOIN US THIS YEAR ON THE C&TS**

2022 is going to be a great year for the Railroad and the Friends!

If you love trains, history and volunteer activities, JOIN US as we help preserve the “Living History” of the Cumbres & Toltec Scenic Railroad.

For $35 a year, you and your family can become Friends and receive the quarterly C&TS Dispatch, train ride discounts, invitations to special events and the opportunity to participate in restoration projects each summer, along with the satisfaction of supporting and investing in the historic cultural heritage that is the Cumbres & Toltec!

Only $35 per year for a basic Family Membership! Foreign: $50

To join, send us this application (or a facsimile):

- **Name** __________________________
- **Address** _______________________
- ________________________________
- **City, State, Zip** _________________
- **My check** for $________ is enclosed, or
- **Charge my Visa / MC / Discover** [circle one] for $__________
- **Card #**________________________
- **Exp. Date**______________
- **Signature** ____________________

Mail to:

Friends of the C&TSRR, Inc.
4421 McLeod Road NE, Suite F
Albuquerque, NM 87109
505-880-1311
www.friendsofcumbrestoltec.org

Already a Member?
Give this to a friend!

Friends of the Cumbres & Toltec Scenic Railroad, Inc. is a non-profit, tax exempt corporation under section 501(c)(3) of the IRS Code. All contributions are deductible to the fullest extent of the law. IRS# 85-036487
The 2022 Summer Work Session Schedule is here! Come join us!

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To view the entire schedule and projects, click on the volunteer link below.

NOTE: Projects and their assigned sessions are subject to change throughout the summer. Always check the FIDO link below for the latest information.

There are two Special Sessions, SS-1 (4/22–4/24) and SS-2 (9/23–9/25) scheduled with additional Special Sessions often opening throughout the year. There are two full-year volunteer opportunities: H (1/01-12/31), “Volunteering Outside Scheduled or Special Work Sessions” as well as COS (1/01-12/31), “Volunteering at the Colorado Springs Restoration Facility.” Additional information on the Special Sessions will be available at the website shown below.

Please visit the Friends website at https://friendsofcumbrestoltec.org/work-session-volunteer-registration/ to view the schedule and project opportunities and download the 2022 Registration Forms along with the required R-8 Friends Safety Manual. Additional information about lodging and optional 2022 T-shirt, name badge and safety equipment orders can be found there as well. Forms must be printed, completed, and then faxed, mailed or e-mailed by the required registration date for each session as shown above to:

Friends of the Cumbres & Toltec, Inc., 4421 McLeod Rd., Albuquerque, NM 87109
Phone: 505-880-1311 • Fax: 505-856-7543 • Email: info@cumbrestoltec.org

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Is your significant other a train nut and a Friends volunteer? Why not join him (or her) for a work session or two? You don’t have to use a wrench or swing a hammer to join in Friends work sessions; you can come work in the Kitchen Car and Food Service in either Chama or Antonito! You’ll go home a lot cleaner than your significant other, have fun doing it and meet others who live with the railfan bug. The camaraderie is great! Friends become friends while doing the work. And we are telling you this because...

We need volunteers for Chama and Antonito. We hope you will consider joining Project 0230, Food Preparation, Chama or Project 0231, Food Preparation, Antonito.

In Chama, the daily food preparation ritual begins at 7 AM when the refreshment table is set up with coffee and tea, pastries and snacks. Lunches for off-site volunteers are prepared and distributed. Mid-morning, food prep areas are cleaned and lunches are bagged for the on-site volunteers and filled from the menu of the day. At noon in Chama, a locomotive bell is rung; in Antonito a whistle sounds announcing lunchtime and lunch is handed out by the kitchen staff. After lunch, food prep needed for the next day is completed. Throughout the day, volunteers replenish snacks. Providing liquid hydration at all times at this altitude is extremely important to everyone. At the end of the day, all items are stored, and coffee and tea pots are cleaned and readied for the next day. Counters are wiped down and garbage is collected. The day is generally done between 4–4:30 PM and the Team Leader stays to close up.

Food service in Antonito is slightly different but the job and duties are the same. We’d love to have your participation at either location! Thanks!
The Federal Railroad Administration (FRA) requires that steam locomotives undergo a complete boiler inspection and re-tubing of the boiler every 1,472 service days or every fifteen years, whichever comes first. A service day is any day with a fire in the boiler and steam pressure above atmospheric pressure.

Fortunately for a Railroad like the C&TS, a locomotive is not operated twelve months of the year and generally not in daily service during the operating season. Thus, those 1,472 days can spread out across the years. Still the clock is ticking and every locomotive in the C&TS stable has to abide by the FRA rules.

No. 315, a C-18 class built by Baldwin in 1895, is owned by the Durango Railroad Historical Society and has been on long-term loan to the Cumbres & Toltec Scenic Railroad. It last operated in August during the Iron Horse Roundup as its 1,472th service day arrived.

In a joint agreement between the two organizations, the tear-down and inspection is being performed in the C&TS Antonito shop by Railroad employees, assisted by DRHS volunteers and supervised by Tom Artzberger, the Chief Mechanical Officer for the DRHS, and Marvin Casias of the C&TS. The inspection includes a complete strip-down of No. 315, including removal of the cab, boiler jacket, and lagging. The internal boiler tubes will be removed, the four flanged driving-wheel tires will be turned and a number of wheel bearings will be machined or replaced.

The initial work was expected to take seven months and cost in the range of $70,000 but there have been a few surprises along the way.

Boiler thickness measurements were completed in November, and the boiler barrel, firebox wrapper sheet, backhead, internal firebox, and dry pipe all exceeded the minimum thicknesses calculated for safe operation at 160 psi.

The flues, 152 of them, were removed in November and December and it was decided to remove and replace the worn flue sheets. The front flue sheet appears to have been an original part, installed by Baldwin in 1895.

The boiler interior was sandblasted and coated with Apexior to prevent additional corrosion. The exterior was wire-brushed and painted with high-temperature black paint. Overall, the boiler was in very good condition. After the hydrostatic testing the boiler jacket insulation and jacket will be reinstalled.

Removing the cab exposed some wood rot and a large portion of the cab has been replaced with new wood.

Mechanically, the side rods were removed and the Number Four Driver and the driver boxes and bushings will be renewed. It was determined that the ash pan was in very poor condition and a new pan was fabricated and installed by the C&TS shop crew.

During the last full run of the locomotive the dynamo stopped generating electricity. It was shipped to Wheatridge, Colorado, for new or rebuilt mechanical parts.

Since the first of the year, the focus has been on the replacement of the flue sheets and the flues. It was decided to remove and replace the entire rear flue sheet, with the new piece manufactured in Durango and installed at the Antonito shop. This work added about $22,000 to the overall inspection cost.

The new two-inch seamless steel boiler tubes, fabricated in Germany, were delivered and will be installed as soon as the flue sheet repairs are complete.

By this writing at the end of March 2022, a number of smaller projects and repairs have been initiated or completed, including cleaning up the driver boxes for the Number Four Driver and machining the spring hangers so they are equal depth. The repaired cab has been painted and is ready for reinstallation once the boiler work is completed. Unfortunately, with the added work of the new flue sheet, the crew does not anticipate having 315 fully operational for the C&TS by Opening Day, 2022.

Scott Gibbs, President, C&TS
A common question for the docents on the Cumbres & Toltec Scenic Railroad’s daily trains concerns the tiny shed that sits on the top of the tender behind the locomotive. “What is that? What’s it do? Why is it there?”

Being “in the doghouse” generally means that someone has gotten into trouble. On a narrow gauge D&RGW locomotive, being “in the doghouse” meant someone could spot trouble before it became a major problem.

Doghouses were installed beginning in early 1936 to give shelter to the head-end brakeman on freight trains. Ordinarily, trains carried a five-man crew: engineer, fireman, conductor and two brakemen, one of whom was based in the locomotive, the other in the caboose. The head-end brakeman’s job was to watch out for problems such as hot axle boxes and brake issues. In the doghouse, he had a direct line of sight to the conductor and brakeman in the caboose and was able to pass messages to the locomotive crew in the case of an emergency.

Accommodation for the head-end brakeman was meager at best, as can be seen in the photo on the left. It came about due to a labor agreement with the Railroad to avoid having the brakeman stand in the tight confines of the locomotive cab. The agreement specified a small structure that kept the brakeman out of the cab but still allowed him to view the train. It included a bench seat which was to be formed from a redundant coach seat.

Between the smoke and the winter’s cold, riding in the doghouse was probably a miserable experience. Originally, there was no heat in the doghouse but that changed when steam-heat pipes were added around March 1944, providing some warmth from the locomotive. It was a major upgrade as far as the head-end brakemen were concerned.

**Project 1380**, the Friends’ latest Colorado Springs project, has rebuilt three doghouses to sit on the tenders of the Railroad’s K36-class Locomotives 484, 494 and 498.

**Photos by Craig McMullen unless otherwise noted**
487 and 489. K36 Locomotive 488 will not receive a doghouse as it will represent the era before the brakeman’s doghouse was specified.

There are plans to build an additional doghouse for whichever K37-class engine might be restored sometime in the future.

The doghouse construction took place in the home shop of member and Master Carpenter Craig McMullen in Colorado Springs. Craig’s shop is a place of woodworking wonder (as are Craig’s woodworking skills!). Much of the woodwork for Pullman Sleeper 470 was also patterned or created in Craig’s shop and transferred to the nearby Colorado Springs restoration facility for final assembly.

The Friends’ construction of the doghouses is based on these original D&RGW plans dated February 24, 1936. ...which were then assembled into the finished doghouses.

At first, they were just parts and pieces...

The view from outside the doghouse into the shop—and the cab.

**The Doghouse Team**

Craig McMullen  
**Team Leader**

John Engs  
Assistant TL

Don Atkinson  
Mike Brabec  
Glenn Butcher  
Bob Gee  
Jim King  
Bill Lowes  
Dean Myers

Craig must have been bad because Maggie sent him to doghouse again!
Throughout the San Juan Mountains, the Denver & Rio Grande Western and its stepsister, the Rio Grande Southern, had five linchpin industries: precious metals—the main reason the San Juan extension was built—coal and coke to power the Railroad and local industries and feed the smelters, lumber from the region's abundant forests, and livestock. In later years, the Rio Grande carried supplies and the equipment to and from the oil fields near Farmington and the GRAMPS field west of Chama. The minerals, lumber and oil were important to the success—and survival—of the railroads. However, some of the biggest, occasionally most frequent shipments, and longest lasting in their day, were the livestock trains.

Prior to the railroads entering the West, livestock was shipped in droves of hundreds if not thousands of animals. Sheep flocks were herded to and from Mexico in the 1600s and to California to feed the gold rush miners between 1848-1855. The heyday of cattle drives lasted into the late 1860s, bringing cattle into New Mexico, Colorado, and further north. In many places the ranchers and cattle were treated as an invasion by both New Mexicans and Anglos. New Mexico's Lincoln County War pit two competing cattle barons against each other with killings and revenge killings going on for months, including the participation of William H. ("Billy the Kid") Bonney. Even today you can see cattle grazing on the grassy plains in winter, then moved to the adjacent peaks for the summer. The cornerstone of many a Western movie, the Goodnight-Loving Trail of cowboy lore was a critical element in the 1867 movement of cattle from central Texas to New Mexico and Colorado.

With the coming of the railroads, the livestock industry changed greatly. Nationwide, in 1870, two million animals were shipped by rail to the Union Stock Yards in Chicago. The Goodnight-Loving Trail was extended from southern Colorado to the newly-arrived Kansas Pacific railhead in Denver. In Colorado and New Mexico, ranchers began shipping their cattle herds and flocks of sheep by rail into the high country from their winter ranges on the prairie. Where ranchers once had to make do with seasonally driving animals overland for short distances, railroads made it possible to ship animals to the best grass and water. Ready for market, the animals were shipped by rail to the stockyards. In 1890, Chicago's stockyards received nine million animals. But even that would soon change.

In 1878, Gustavus Franklin Swift, founder of Swift & Company, invented the refrigerated rail car. With ice packed in on-board bunkers, generally at either
end of the car, Swift’s invention allowed processed meat, rather than livestock, to be shipped anywhere in the country. The refrigerated rail car did not take hold immediately; early refrigerated cars had to be restocked with ice about every 250 miles at ice houses along the line. Still, refrigerated shipping marked the beginning of the end of centralized stockyards like Chicago. As more railroads adopted Gus Swift’s refrigerated rail car, livestock could be butchered and packed locally and shipped fresh to cities across the country.

Smaller, rural regions that couldn’t support localized packing facilities relied on the railroads to get their livestock to packing plants in larger regional hubs like Denver and Salt Lake City. Then iced reefers would bring the processed meats back to their communities.

Livestock Transport in the Rockies

Between 1880 and 1969, shipping livestock on the Denver & Rio Grande and the Rio Grande Southern was a two-way street. In the spring, thousands of cattle and sheep were transported to the high country to pasture lands, lush with new grasses, to feed the livestock. For the cattle, it could give the new calves, born during the winter months, a good start. Conversely, it would fatten the mature cattle prior to a ride to the slaughterhouse. For sheep, the verdant fields allows them to grow bushy coats to be sheared for wool or, like the cattle, get them ready to be turned into lamb for America’s tables.

Come fall, the trip was in the opposite direction. Livestock was rounded up in the high country, usually by wranglers on horseback, and driven overland di-

Our modern livestock industry began when Don Juan de Oñate arrived in Rio Arriba County around 1598 with roughly 5,000 sheep, cattle, pigs, and goats. These animals were followed by millions of others traveling from Europe, Mexico, and Texas. By the mid-1600s, sheep were shipped by Hispanic mercantile families from northern New Mexico south into Chihuahua, Mexico, in annual drives along the Camino Real. These sheep fed both slaves and managers of the silver mines 700 miles south of Santa Fe. The Pueblo revolt of 1680-1692 interrupted Spanish dominance in the region and the Encomienda system (slavery of the Pueblo people) as well as livestock handling. The composition of these historic flocks and herds remained relatively unchanged until Anglos began to introduce modern sheep and longhorn cattle after the Mexican American War. Culturally, the history of the livestock industry in New Mexico and Southern Colorado reflects a similar change from Spanish colonialism to Anglo mercantilism to today’s federalism:

Colonialism – The missions and early Spanish and Mexican settlers owned the livestock, and in practical terms enslaved the local tribal peoples to handle the labor of raising livestock.

In 1827, each sheep was worth four reales. A reale was nominally 1/8 ounce of silver; eight reales make a peso. You may have heard treasure hunters and pirate movies speak of “Reals de a ocho” or “pieces of eight,” that is, one peso.

Ricos – Roughly sixteen rich families ruled the region and dominated the trade of livestock with one family holding perhaps half the sheep

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Sheep are herded into pens west of Antonito, August, 1968.
Photo by Ernie Robart  FCTS ERNG19680423-1236

Sheep are loaded into D&RGW double-deck stock cars in Chama on September 10, 1946.
Photo by Robert W. Richardson FCTS RD 010-027

As food tastes changed, more sheep were shipped for wool production than for food.
These D&RGW and RGS spring and fall stock trains, known as “rush trains,” shipped millions of cattle and sheep to and from places as diverse as the San Luis Valley and the Los Pinos and Chama Rivers, served by the Rio Grande, or on the Western Slope around Ouray, Ridgway and Montrose, served by the Rio Grande Southern. Thousands of those animals traveled through Chama every year.

Regulations stated that cattle in transit by train must have a layover to rest every 36 hours. (Updated for truck-transport, that requirement is now 28 hours.) As they headed for a distant standard gauge railroad connection, that layover was often at the midpoint of their journey from the western slope, the Chama livestock pens or the larger pens in Alamosa.

As reported by Mallory Hope Ferrell in his 1973 book Silver San Juan, the narrow gauge RGS fall stock rush of 1931 moved more than 14,000 carloads of sheep and cattle. With the RGS termini in Durango and Ridgway, the D&RGW continued the transport on to the standard gauge Rio Grande at Alamosa or Montrose. Ferrell reports that the 1949 fall rush moved a half-million sheep over the Rio Grande Southern aboard 448 D&RGW stock cars and the few remaining RGS stock cars. Do a bit of arithmetic and that works out to more than nine trips per stock car over the few weeks of the 1949 fall rush trains on the RGS alone.

Rolling Stock

In 1904, the D&RG ordered 350 new narrow gauge stock cars at a cost of $686 each from American Car & Foundry to replace their older, worn-out stock car fleet. (An additional 1,700 pieces of narrow gauge rolling stock were part of the same order.)

The 5500-series were numbered 5500 to 5850, each thirty-feet long. They arrived as single-deck cars for cattle; many were eventually modified to double-deck for sheep and the letter “D” was added to their number to indicate their increased capacity.

Cattle are tough passengers and the cars in service deteriorated rapidly. A 1917 survey indicated that only 30% of the cars were still in good condition. In

At the end of their “useful” life of wool production, sheep could still be butchered as mutton, though it had a much stronger, less desirable flavor than lamb.

Directly to holding and loading pens along the railroad lines, awaiting transportation to a milder climate for the winter. For some, there would be another trip to the mountains the following year. For others, it might have been their last journey.

One advantage of sheep over cattle is that they were considered a “renewable resource.” Sheep could be returned to higher pastures over and over, producing an (almost) endless supply of wool, sheared annually.

The Santa Fe New Mexican covered the supply and demand of wool and meat and their effect on Chama in its October 20, 1900 issue:

Hon. T. D. Burns is rushing to complete his big warehouse in Chama in which he will store $200,000 worth of wool.

Wirt, Gomez & Co. of Lumberton shipped 5,000 sheep to Chama in thirty-five cars to the Armour packing house at Kansas City.

Frank G. Townsend of Broomfield brought 1,200 lambs to Chama (to) ship them to Kirkman, Ia.

30-foot 5500-Series D&RGW Stock Car 5520, built in 1904 and rebuilt in 1926. Look closely and you will see the small “D” following the number.  FCTS BRK03-193
1926, most of the 5500-series cars were overhauled with much of the wood being replaced and slightly redesigned to reflect updated standards at a cost of around $477 per car. An additional one hundred cars, the 5900-series stock cars, now thirty-four feet long and numbered 5900 to 5999, were delivered in 1926. These 1926 expenditures would be one of the last times that the D&RGW spent this amount of money and resources for one project on its narrow gauge rolling stock fleet.

Generally, each trip included a “Live Stock Report” similar to the one shown on page 12. The November 1st, 1923 report, posted during the fall livestock rush, noted that the Railroad loaded 68 cattle in three cars and almost 600 sheep in Ridgway, Colorado.

In the spring, a 30-foot D&RG 5500-class stock car could carry 21-26 cows in a single deck car, or about 120 sheep in a double deck car. The 34-foot 5900-series cars could fit an additional two or three cows and five to six sheep. Double-deck sheep cars were a simple affair with a platform half-way up the interior and a split door. You can see the support mortised into the door frame and a threshold on top of the floor boards to prevent damage to both the car and the cattle. A simple post supported the center, placed upon a piece of burlap, tin, wool or wood to keep the wet floor from rotting under the post.

Photo by Tom Stewart

Stock Car 5995, a 34-foot 5900-Series D&RGW Stock Car, built in 1916, was restored by the Friends of the C&TS. 5995 is the only surviving 5900-Series Stock Car. Photo by Tom Stewart

in New Mexico and Southern Colorado. Social change came slowly in the region and some of these families are still prominent in regional politics and business.

Partido – Over time, the rich families began to follow a practice similar to sharecropping in the southern United States. Flock owners rented a quantity of sheep to a pobre individual; the renter handled the sheep and made annual rent payments (up to 20%) to the owner. At the end of the contract (verbal and enforced by the owner) the renter returned the flock and had to make up any losses but retained any excess sheep to try and build his own flock.

Anglo Mercantilism – As Anglos entered the region and married into the rico families, they brought with them Anglo business arrangements. Over time, pobres realized they could work for Anglo merchants on a purely cash basis. This period was an improvement on partido but kept the pobres in a subordinate role.

Modern Federalism – The current conditions in New Mexico reflect a dependence on Federal lands that still require “rent” relationships. The Federal influence both promotes and limits the opportunity to individuals. Tribal culture and politics provide similar opportunity and restraint on reservation lands.

All these eras reflect similar practices in that most grazing lands are held in common. Summer grazing was more open with the movement of flocks and herds toward higher ground. Winter grazing forced flocks and herds to graze on ejidos nearer the villages where winter was survivable. In communal systems, the social pressures of the local group discourage individuals from moving upward in social class or influence. To some degree, the current stresses of low wages, seasonal jobs, and poor working conditions are consistent with federal and tribal land usage.

Cattle

Over time, eating habits have changed and modern fabrics have lessened demand for wool. As a result, ranchers have shifted their operations toward beef. Common cattle breeds today include Angus, Hereford, Brangus—a Brama/Angus hybrid—and other mixed breeds. Longhorn and Longhorn crosses are also becoming more popular as ranchers track eating habits.

Historically, Criollo (spotted) cattle were one of the two breeds that arrived with the earli-

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perhaps as many as thirty more sheep. But the numbers could be deceptive: springtime livestock, who had spent the winter on the plains foraging for whatever was available, could be fairly thin. The number of animals in each car would probably depend on the size and mix of cows and calves or ewes and lambs. The goal was to load enough animals to keep them from falling during transit, but not so many that they overheat.

In the fall, sheep, well-fed and sporting a full complement of a summer’s growth of both wool and body mass, take up substantially more space in a stock car. It’s the difference between a Q-Tip and a cotton ball. Given the shipping date on the Live Stock Report above—November 1st, the end of the mountain pasture season—the stock cars carried around 118 fat, woolly sheep. Come spring, after the shearing, a sheep might have 149 more companions on their return to the high country. Often, the shearing took place locally before shipping, not only to provide wool for local processors but also perhaps to fit more sheep in a stock car. Plus a dense bale of wool takes up even less space than a sheep.

The bedding in the stock cars was “dry cinders,” as opposed to straw or other more modern materials. We normally think of cinders as ballast on the C&TS, but they have numerous other uses.

It’s worth noting that the “Bedding” mentioned close to the bottom of the Live Stock Report was “Dry Cinders” and not straw or other materials. Cinders were much more absorbent than either the bare floors or straw, giving the floor a little less tendency to rot, extending the life of the car. Since cinders were widely available to the D&RG and the RGS, they certainly used them wherever possible.
Another feature of D&RGW stock cars was the door at both ends of the car. This let train crew or the attending drovers enter the car without opening the side door, allowing for animals to escape. On double-deck cars a “dutch door” allowed access to both levels. Often livestock suffered from injuries related to rough shipping, poor health prior to loading, and “shipping fever,” and needed to be tended by the drovers. About 1% to 2.5% of beef cattle are injured during highway shipping today; losses are believed to have been higher during rail shipments of the past.

Cattle and sheep weren’t the only commodities carried in the stock cars. Off-season, the cars were used to carry coal, coke, stacked ore, bales of wool, lumber or other products. The end doors served lumber shipment well when a gondola or flat car wasn’t available. On the 5900-series cars, two lengths of 16-foot lumber could be loaded through the end door at the mill and placed end-to-end inside the car.

**Stock Pens and Stock Handling Equipment**

Loading livestock required stockyard hands, pens to hold the animals, and loading ramps and scales. Pens varied in size, ranging from small pens like those at Osier where mountain herds would be isolated for loading and unloading, to huge pens that covered many acres like those at Alamosa, where animals could water, feed, and recover from shipping. Most pens had alleys to shift animals from one pen to another. Prior to the 1960s, the Alamosa pens, east of the Rio Grande River, served both the standard gauge valley lines and the remaining narrow gauge lines.

The pens at the C&TS wye in Chama were built in 1888, seven years after the arrival of the Railroad. Along with the pens, the Railroad had scales to weigh animals. The Chama pens have a ten-ton scale inside a tin-roofed building alongside the back alley. The pens have three ramps spaced such that a string of

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Criollo cattle on the Jornada Experimental Range.

Photo: USDA-ARS, Jornada Experimental Range

Sheep

By 1757, during the early period of *partido*, New Mexico counted 5,000 Mexican people and nearly 50,000 sheep and goats. Navajo weavers began to produce fine wool products and by 1830 they had overtaken Mexican weaving quality. Weavers used *Churro* wool prior to the 1864 Long Walk to Bosque Redondo.

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Churro ram in the Chama River Valley.

Photo by Tom Stewart

After 1869, the returning Navajo raised modern breeds. Eventually, societal change in the east—Pennsylvania in particular—and Europe influenced dye and wool mixes, leading to colorful weaving and less traditional work.

Rambouillet, Merino, Sheffield, and other modern breeds gradually took over in the
30-foot 5500-series cars could be loaded simultaneously with cattle on one or more ramps, plus double-deck ramps for loading sheep. On the other hand, the 34-foot cars were disliked by the railroaders because, due to their different length, the cars had to be moved for each loading, as only one car could be aligned with a ramp at a time.

The Chama pens were modified several times, with the most recent being the addition of the motor freight ramp at the south end in the 1950s, an indication of the changes in transport.

You can view the current C&TS livestock pens in Chama and Osier. Both have new interpretive displays explaining the importance of the transportation of livestock to the Railroad and to the citizens of the region. You will also see the remains of pens from the train as you pass through Lobato.

Livestock in the field is easily handled by one or two cowhands or shepherds, along with horses and a good dog or two. Handling livestock in a pen or while loading into a rail car (or truck) is a completely different scenario. Historic photos show two or three hands working each ramp, two hands moving animals into the loading pens, a hand or two on horseback, the rancher, a railroad supervisor counting animals, and several dogs. When added up, there were around a dozen people required for loading at locations like Chama. Owners often sent stockhands along with the trains to keep animals on their feet and ensure they all made it to their destination.

Sheep also suffer from fungal outbreaks that damage their wool, and insect outbreaks that can cause die-offs. By the early 1900s the USDA required sheep to be “dipped” to avoid disease. Generally, sheep were
region. Most of them were bred in the 1920s by the USDA. A small resurgence of the historic Churro sheep in Northern New Mexico has saved that breed from extinction. Visit Tierra Wools in Chama for insight into modern day sheep ranching. Only a handful of sheep ranchers remain in Rio Arriba county.

Shearing occurs in April, and is handled by a few contractors that move throughout the region and in some cases, across the country. After shearing, flocks head into the mountains to graze, and are back in the lower valleys by October. For visitors to the area, modern flocks work the meadows at Canjilon, El Rito, and along Wolf Creek and the C&TS. If you want to see large flocks and their shepherds, wander the valleys in May and June.

While some sheep ranchers have worked to recreate the Churro stocks of the past, others have continued to adopt modern breeds that produce more wool or better meat. Locally sourced organic mutton and lamb products are available at several locations across the region.

**Head Counts**

In the 1827 census, New Mexico held 5,000 cattle (and 244,000 sheep). Over the 1860–1890 era, cattle were moved from Texas to New Mexico as land was overgrazed and drought caused die-offs across the region. By 1880, there were 120,000 people and five million sheep in New Mexico, mostly Churro.

Better-bred stock gradually took over through the 1920s with Churro almost disappearing. By 1936 New Mexico counted 2,337,000 sheep and lambs alongside of 991,000 cattle; these numbers remained relatively unchanged through World War II. Today, the population of New Mexico is 2.2 million people with 1.3 million cattle and 100,000 sheep. The average rancher today handles only fifty cattle.

Riding the C&TS today out of Chama, you may still see flocks of sheep grazing in their summer fields between Lobato Trestle and Cumbres, just as they have for hundreds of years.

**Tom Stewart** is a Docent on the C&TS and board member of the Friends. He and his wife Sandy live in Chama, New Mexico. Tom’s interests are varied and this article reflects his belief that we need to know more about the industries and people that provided the traffic carried over the Railroad during its heyday.
Whether it was Burns’ operation or not, a wool warehouse stood in the Chama yard between the depot and the freight house, now the C&TS parking lot, until at least 1970 when Ernie Robart captured a photograph of the yard looking south, including the wool warehouse, from atop the coal tipple.

The End of the Line
As time passed, regulation and financial considerations caused a series of modifications, upgrades, and scrapping to the Rio Grande’s stock car fleet:

Safety Appliance Program: Between 1911 and 1919, the Safety Appliance Act had been mandated throughout the railroad industry. Between 1911 and 1919 the D&RG cars made safety modifications such as uniform running boards, grab irons and hand holds, ladders, and steps, all required to make the trains—and the employees—safer.

Standardization Program: In 1926 the Railroad began a series of modifications and upgrades throughout their rolling stock that could extend the life of the stock car fleet another thirty or so years. This also included the roll-out of the one hundred 34-foot 5900-series cars.

Retirement Program: By 1953, the livestock shipping business was shifting to motor freight and the D&RGW began retiring its aging stock car fleet. In 1955, twenty-five 5500-series stock cars were converted to idler flats for use on the newest freight demand, shipping drill pipe for the Farmington oil boom. As the demand for beef began to outstrip the demand for lamb, it’s likely that a number of the double-deck sheep cars were converted back to single-deck cattle cars.

Dismantling and Abandonment: Throughout the 1960s and into the 1970s, most of the stock cars were scrapped, generally by burning them and then collecting the remaining salvageable metals parts. Their Andrews trucks were salvaged for use on flat cars in need of heavier-duty underpinnings for steel drill pipe rather than cattle. Cars that escaped the funeral pyres were sold to local ranchers for storage sheds, to the Durango & Silverton Railroad or various locations for static display. Today fewer than one hundred of the original 350 5500-series cars exist, ranging from fully-restored cars on the C&TS to cars that are little more than piles of rotting wood. Only one 5900-series car, No. 5995, still exists. It has been restored over the last several years by the Friends of the C&TS.

Lost Cars: Twenty or more cars were declared as “Located in Narrow Gauge Territory” and written off in the 1970s. Remains of some cars can still be found along the abandoned right-of-way.

Rio Grande Motorway: As roads in the region improved in the mid-1930s, the D&RGW formed Rio Grande Motorway, a trucking firm and by the mid-50s, RGM had taken over much of the Railroad’s livestock traffic. It’s perhaps ironic that the D&RGW established a direct competitor to its railroad empire, though in retrospect it was similar to many of the same reasons that motor freight has replaced much of today’s rail traffic. Today, Rio Grande Motorway is gone but one still sees many semi-truck livestock carriers hauling cattle and sheep in and out of the high country along the former D&RGW Railroad.

Stock Cars on Today’s C&TS
Today, the C&TS has sixteen stock cars of the 5500-series and a single 5900-series car. Most are painted black, though occasionally a early red D&RG or RGS paint job will show up, usually for a photo-freight charter train.

Several other stock cars are or were in the vicinity: Rio Chama RV Park has five on display and used as storage space. Del Norte, Colorado, has two on display. The Shank collection in Winslow, Arizona, has two and there are two in Dulce, New Mexico, abandoned on a few lengths of track. The Durango & Silverton, the Colorado Railroad Museum and the Denver South Park & Pacific exhibit in Como also have several D&RGW narrow gauge stock cars. Other cars have wandered further afield with a few in

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<tr>
<th>Stock Cars on Today’s C&amp;TS</th>
<th>Chama</th>
<th>Antonito</th>
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<tr>
<td>Double Deck Cars (30-foot)</td>
<td>5549</td>
<td>5841</td>
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<td>5553 (brown)</td>
<td>5543</td>
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<td>5633</td>
<td>5560</td>
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<td>5674</td>
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<td>5706</td>
<td>5784</td>
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<tr>
<td>Single Deck Cars (30-foot)</td>
<td>5600</td>
<td>5747</td>
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<tr>
<td>5691</td>
<td>5774</td>
<td></td>
</tr>
<tr>
<td>5995 (34-foot)</td>
<td>5802</td>
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Scraping D&RG livestock cars in Alamosa, November 28, 1967. With the metal parts salvaged, most of the wooden cars were burned. Photo by Ernie Robart FCTS ERNG19671118-0220
California and Oklahoma. Two of the Oklahoma stock cars have returned to the C&TS, brightly-painted and awaiting restoration. Currently there are eight cars available for C&TS charter trains, seven 30-foot cars with a few more in mid-restoration or awaiting their turn.

There is only one surviving 34-foot car, No. 5995. All but six of the 34-foot cars were scrapped and burned between 1955 and 1957. The remaining 34-foot cars were sold to local ranchers. The Friends have located four of the six survivors. 5995 is most likely the only 34-foot car that will ever be restored.

**How Can You Help?**

What's it like to restore a 100-year-old stock car? Let's let some of the Friends volunteers speak for themselves:

**Dan Pyzel:** I was drawn to Stock Car 5995 because of its history and unique status and I volunteered to coordinate moving it to the Railroad. That led to bonding of sorts and me becoming Team Leader for the project. My crew and I developed skills we didn't know we had. Some decent carpentry ability helped, and we also learned to scrounge. When the D&RGW scrapped the 34-foot cars, they torched off the metal parts that were easy to get to and burned the rest. For an accurate restoration, we had to find or make virtually all of the necessary hardware. A lot of that was common to other cars in the fleet, but some pieces had to be made, adapted, traded or stolen. We ended up with a restoration that was authentic and correct in almost every respect. We're proud of the car, and it can be used in charter freight trains as well as static display.

**Mavy Chavarria:** I love to learn new things, and doing this is always a great opportunity to learn something new every time. Besides that, it takes me out of my routine, out of the fast life of the city and brings me to enjoy the beautiful landscapes and all the beauty of wildlife.

But the most important thing is the feeling that I get when I work with all these wonderful people that take the time to help with all these different projects at C&T. People that share their stories. They don't care how tired they are; they are always here with the best attitude, doing the best they can and that is a great motivation for me. The team that I work with is a great team. They all are very smart, patient, wise, and funny and that is something that I appreciate a lot.

**Dan Pyzel:** New Friends volunteers need nothing more than a willingness to learn and be a part of a worthwhile and rewarding project. Any needed skills can be learned along the way, and the work is usually simple. What needs to be done is nearly always obvious, and help and tools are always at hand. We are currently nearing completion of Car Number 5774,
a 30-foot stock car, and will probably move on to another stock car.

**Dave Jenkins:** As you can see from some of our team photos, both guys and gals are welcomed on these projects. In fact, the gals are often harder workers than the guys! Minors are welcome as well if they are accompanied by an adult. We are privileged to be able to be preserving a part of America’s past, and we enjoy the camaraderie of working together on projects that will keep these historic cars running on the Railroad for another generation to enjoy.

When it came to restoring Stock Car 5991, many hands made light work placing a roof beam. Here, a dozen or more Friends volunteers join Bill’s team in the Chama yard, Session C, 2019. Photo by Dave Jenkins

Norma Lock recruited her best friend, Mavy Chavarria, as a volunteer. Mavy has never looked back! Photo by Dave Jenkins

**Norma Lock:** The summer before we were married, Bill asked me if I would like to volunteer to work on the Railroad up in Chama. I said sure, I am up for a new experience. Bill then asked me what I wanted to do and I said I would like to work with the stock car team rebuilding these historic cars. This summer will be my fifth consecutive year as a volunteer.

I have enjoyed learning about woodworking from people with good skills. My team members have been patient with me. I have learned so much and enjoy working with power tools.

My experience working to preserve these old railroad cars is amazing. Everyone should consider how we can help to preserve the beautiful C&TS. Even without skills, there is always something to do to advance the preservation for future generations. I love to work in Chama with the Friends. I recommend to anybody this experience.

Norma Lock’s Stock Car crew takes a well-earned break. (L-R) Dave Jenkins, Dave Farro, Bill and Norma Lock and Mavy Chavarria. Photo by Pat Maufries

Restoration doesn’t stop with reconstruction. The stock cars also have to be repainted and lettered accurately. Patty Lounsberry adds reporting marks on a restored stock car, lettered for the Rio Grande Southern. Photo by Friends Chronicling Team

Why we do this: A train of restored stock cars rolls through Cresco on its climb to Cumbres Pass. Photo by Don Atkinson
Generations of herders, ranchers, processors, consumers and railroaders, along with nearly thirty-five years of Friends’ volunteers, have made scenes like this possible. While the photo was taken in 2017, it may as well been ninety years earlier in the fall of 1927. This is why historical preservation matters.

Photo by Don Atkinson

References, Sources and Stories

References:


*Narrow Gauge Pictorial, Vol. 4*, ©2005: Robert L. Grandt

“Stock Cars,” [https://davesriogrande.net/Rosters/DRGW/stock/stock.htm](https://davesriogrande.net/Rosters/DRGW/stock/stock.htm)

Email and personal conversations with Jerry Day, Bill Kepner, Bill Lock

“Friends of the C&TS Photo Collections,” [https://ngtrainpics.photoshelter.com](https://ngtrainpics.photoshelter.com)

Stories


“Livestock Handling in the 1950’s,” 1:50 Reefer Loading, 12:34 Livestock Shipping, [https://www.youtube.com/watch?v=hMJwCMJ0K2c](https://www.youtube.com/watch?v=hMJwCMJ0K2c)

*The Rare Breed*, 1966, starring James Stewart, Maureen O’Hara, and Brian Keith, [https://www.youtube.com/watch?v=ppShmLWrN4](https://www.youtube.com/watch?v=ppShmLWrN4)
**News Flash!** The Friends’ Project Committee has posted the 2022 Project Restoration Plan and Work Session Schedule.

[https://friendsofcumbrestoltec.org/work-session-volunteer-registration/](https://friendsofcumbrestoltec.org/work-session-volunteer-registration/)

There is a wide assortment of projects within the seven scheduled Work Sessions plus additional Special Sessions throughout the year, starting in the middle of May, 2022.

Start making your plans now to attend one or all of the work sessions. Projects are located in Antonito, Sublette, Cumbres, Chama, and along the 64-mile C&TS right-of-way. The Colorado Springs work site at the Pikes Peak Trolley Museum offers year-round opportunities for members on the Front Range to work on a variety of projects. This year will see the start of the restoration of Baggage Car 163 in Colorado Springs!

Access the volunteer pages on the C&TS website at the link above for the “2022 Restoration Plan and Schedule” to review and download the necessary volunteer registration forms and documents. This link will also direct you to the “FIDO–Friends Integrated Data Online” website where you can view the entire schedule and note schedule changes and updates.

For detailed schedule and descriptions of each project, click on the four-digit project number found in each of the projects shown below in the “2022 Restoration Plan and Schedule” to display the project details.

**NOTE:** All projects and schedules are subject to change. Watch the FIDO information closely for changes and updates.

**NEW!** Brake Testing Rolling Stock. Project 0779
*Session A and B (Antonito) and Project 0780 (Sessions C and D Chama)*
To meet new FRA requirements, all freight rolling stock must have their brakes tested annually. This team will test for correct brake operation and check for any air leaks on all active freight rolling stock used for photo charters. Training will be provided.

**NEW!** Repair & Refurbish Bunk Car 04407. Project 1352
*Session A, B, E and F (Antonito)*
Originally converted from a 30-foot, 20-ton boxcar and lettered “Section Men,” it was used by Maintenance-of-Way crews out on the line. The plan is to refurbish the car inside and out for use as sleeping quarters for volunteers working in Antonito.

**NEW!** Prepare and Install a Retaining Wall Behind Chama Sand House, Project 1372
*Sessions C through F (Chama)*
Prepare for and install a retaining wall behind the Chama Sand House.
ONGOING! Construct Machinery Storage Building. Project 1286 Sessions A and B (Chama)
The building, located on land owned by the Friends, will become the location for storage of machinery and maintenance equipment during off-season and between-session periods. The basic foundation is currently in place.

ONGOING! Restore MW02 to Operating Condition
Project 1354 Sessions A and B, F and G (Antonito)
The Fairmont Motor Car was used for right-of-way inspections. Currently the focus of the team is restoring it to its former glory with new bodywork, wiring and lights.

ONGOING! Right-of Way Maintenance.
Project 0710 Session D (Railroad right-of-way)
Removal of plant material along the Right of Way (ROW) that may impair safe and efficient Railroad operations. The ROW extends from the Yard Limit in Chama to the Yard Limit in Antonito. This is a No. 1 high priority Project.

ONGOING! Repair Telegraphone Booths.
Project 1369 Sessions E and F (Antonito)
Once a vital part of communications on the Denver and Rio Grande, these telegraphone booths enabled train crews to communicate with the dispatcher. This project aims to repair and repaint these line-side booths. This year’s session will be in Antonito to renovate the final five booths before they are returned to their line-side location.
**ONGOING! Rebuild Idler Flat Car 9569.**  
*Project 1363 Sessions A through C (Antonito).*  
Much work has been done with new sills and center beams fitted but there’s more to do for this rebuild of an original Denver and Rio Grande Western idler flat car used in pipe trains.

**ONGOING! Cosmetic Restoration of Locomotive 483 and Tender.**  
*Project 1186 Session C (Chama)*  
This crew will be working on the continuing cosmetic restoration of Locomotive 483 which has long suffered from being stored outside. Lots of paint and elbow grease required!

**ONGOING! Re-convert P-Box 207 to Rider Boxcar.**  
*Project 1351 Sessions C through F (Chama)*  
What are known as P-boxes were converted boxcars used to carry passengers in the first years of the Cumbres and Toltec Railroad. This car is being converted to a Rider Boxcar that will carry passengers traveling on photo-freight charter trains.

**ONGOING! Reconstruction High Side Gondola 1000.**  
*Project 1312 Sessions C and D (Chama)*  
This high side is the first in the 1000 series High Sides that the D&RGW contracted for. Thus it has a historic significance. High Side Gondola 1000 is a contributing asset to the Railroad and shall be returned to serviceable condition. It represents the first of a specific series of high side gondolas.  
Then…

…and now. But there is still lots of work to be done.
ONGOING! Repair and Maintain Sublette Section House.
Project 1345 Sessions C through F (Sublette)
Last restored in 1993, the buildings at Sublette are in desperate need of some TLC. This is the Section House which last year had roof repairs carried out as well as new porches built. Further work is planned for this year on this building as well as the adjacent Bunk House.

ONGOING! Restoration of Baggage Car 163.
Project 1373 Session COS (Colorado Springs), year-round
Building on the success of the restoration of Pullman Sleeper 470 which returned to service in 2021, the next Colorado Springs project is ex-D&RGW Baggage Car 163 (below). Yep, it needs a lot of work!

ONGOING! Car Painting.
Project 0720 (Chama), 0722 (Antonito) Sessions C and D (Chama and Antonito)
ONGOING! Car Lettering.
Project 0730 (Chama), 0732 (Antonito) Sessions A and G (Antonito), Sessions C through F (Chama)
Always in demand, the painting and lettering crews take care of the finishing touches that not only make the cars look good but help protect newly restored cars against the ravages of the weather.

PLUS...
Food Preparation, Antonito & Chama (See page 4)
Landscaping, Antonito and Chama
Restoration of Tank Cars 11036, 11037, 11056, Antonito
Restoration of Stock Car 9774, Antonito
Restoration of Flat Car 6314, Antonito
Restoration of Car Inspector’s House, Cumbres
Restoration of Cattle Car 5600, Chama
Reconstruction of Drop Bottom Gondola 731, Antonito
Repair Concession Car 3244, Antonito
Repair Box Car 3073, Chama
Maintain Railroad Signage, ROW
Wood Preservative Treatment, ROW
…plus Special Sessions
(see FIDO for dates, details and project numbers)
The transport of cattle and sheep was a mainstay for the Denver & Rio Grande Western, especially around the Central Rockies and the Western Slope of Colorado and New Mexico. The infrastructure to support that cargo ranged from stock pens, such as these at Osier, Colorado, Chama’s sheep dipping facilities, wool storage warehouses and hundreds of 30- and 34-foot stock cars. Keeping that legacy alive is part of the mission of the Cumbres & Toltec Scenic Railroad.

Photo by Don Atkinson