



Friends of the Cumbres & Toltec Scenic Railroad, Inc.

William Lock, Founder-1988

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The C&TS Dispatch is published four times each year by The Friends of the Cumbres & Toltec Scenic Railroad Inc., a New Mexico nonprofit corporation. The Friends is the official museum arm for the Cumbres & Toltec Scenic Railroad, a 64 mile-long railroad and museum of railroad history and technology, operating between Antonito, Colorado, and Chama, New Mexico. The railroad is owned jointly by the States of Colorado and New Mexico. As the museum arm, the Friends is dedicated to the preservation and interpretation of the railroad. The Friends is an Affiliate Member of the Heritage Rail Alliance (HRA). Family membership in the Friends is \$35.00 per year; outside the USA membership is \$50.00. All contributions are fully tax deductible and will be gratefully accepted. For information, please write us in Albuquerque at the Friends of the Cumbres & Toltec Scenic Railroad, Inc., 4421 McLeod Rd. NE, Suite F, Albuquerque, NM, 87109, or call us at (505) 880-1311.



Denver & Rio Grande Railway: 1880–1886 Denver & Rio Grande Railroad: 1886–1921 Denver & Rio Grande Western Railroad: 1921–1970 Cumbres & Toltec Scenic Railroad: 1970–today

The Cumbres & Toltec Scenic Railroad is both a National Historic Landmark and a State Registered Historic Site.

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President's Forum



Appreciation for a Year Like No Other

Then it's time to compose my quarterly column for the Dispatch, I always ponder what sort of message would be appropriate for our members. For each issue, I try to pick a relevant topic. In past years, I have usually touched on the appreciation of the Friends' work and commitment in the Winter issue. But this year has been exceptionally challenging. With autumn upon us and a summer that was nowhere close to normal behind us, it's more important than ever to take the time, earlier than usual, to thank those who continue to support the organization.

The year saw a curtailment of activities and our work session schedule took a huge hit. The Railroad's 50th Anniversary Celebration was cancelled as well and with it the excitement of what should have been a very special summer. The Village of Chama encountered its share of problems as well. It suffered through municipal water problems in late spring as well as the Railroad not being able to run trains out of New Mexico due to the New Mexico Governor's COVID-19 mandate.

If those weren't enough, just after Labor Day Chama was hit, first with unseasonably warm temperatures, followed by a freak snowstorm. Heavy, wet snow broke trees and knocked out power. The Rio Chama Campground had to be evacuated when a large branch crashed down on a travel trailer. With the dangerous conditions, campers sought shelter in Chama motels that evening.

It would be easy to simply throw up your hands and say, "What a year!" But throughout 2020, our organization has taken these many unexpected circumstances in stride.

Members have been renewing their dues and making donations of both their money and their time. While we did not undertake a Preserving Narrow *Gauge Past for the Future* solicitation this spring as we normally do, the Friends spearheaded a Chama/Antonito Relief Fund effort. This initiative resulted in gifts of \$12,500 to the food banks and pantries in the two villages hard hit by the COVID-19 crisis. (See page 3, opposite.) To date, we have also contributed approximately \$68,000 towards the Village of Chama's water issues. I want to thank everyone who has contributed to this fund. The entities receiving these gifts are extremely grateful. Know that your contributions have indeed made a difference!

As mentioned, the whole work session schedule was thrown into complete disarray. All the Chama sessions were cancelled, leaving us with just the projects scheduled at the Ed Lowrance CRF in Antonito, plus the Car Inspector House reconstruction project at Cumbres. I praise John Engs and the Projects Committee for having to change so much on the fly and thank them for their efforts to keep our restoration work moving along under such tough circumstances. To those attendees who changed their plans and were present to help, your time and efforts are appreciated!

Down in Colorado Springs, the



On the Cover:

Bill Lock, the founder of the Friends of the Cumbres & Toltec, works on the framework of Cattle Car 5691 during Special Session 11 in Chama in late June. While social distancing is difficult when working as a team, all of his team members were well masked as well as highly productive. *Photo by Dave Jenkins*

well-masked crew working on Tourist Sleeper 470 continued with scheduled sessions through much of the mandated shut-down, and readied the car for movement to Antonito for the installation of trucks and rigging out the remainder of the hardware. (See page 5 of this issue.) This project has consumed hours and days of time since 2009 and to reach this momentous occasion has taken a very diligent group of Friends with a lot of drive, determination and passion. I want to thank the 470 team for their dedication and hard work.

For our volunteers in the library and photo collection staff as well as the Friends' office personnel here in Albuquerque it has been a discombobulated 2020. A year that started out fairly normally led to a pause when none of the library and photo collection team were here and our office hours were limited. Staff worked from home and maintained a reduced office presence this spring. Through it all, we didn't miss a beat and processed everything that was needed. I can now say that we're back to normal, or at least as much as can be expected. I thank our team here in Albuquerque for working through a difficult spring.

Life will go on. I know we all want and hope for a better 2021. Maybe life can start returning somewhat back to the original "normal" and not the "new normal" that is often predicted. We still look forward to the Cumbres & Toltec's 50th Anniversary Celebration. Yes, it will be fifty years since the first Cumbres & Toltec Scenic Railroad train actually *ran* over the newly-acquired railroad so nothing was lost by this one-year hiatus. Like all of you, I try to look on the positive side toward a more a more enjoyable, more productive and healthier 2021.

Your support is always appreciated. This year it is appreciated more than ever. Thank you!



C&TS Friends Telegraph: NEWS

We Could Have Told Them That Already, but...

For the third time in four years, the Cumbres & Toltec Scenic Railroad was selected by the readers of *USA Today* as the **No. 1**



"Best Scenic Train Ride" in the nation beating out nineteen other nominees selected by a panel of travel experts and the USA Today editors. Top honors for the C&TS were awarded in 2017 and 2019 and now in 2020. To win it three times says something special about both the Railroad and the guests who ride it. Congratulations (again), C&TS!

Chama/Antonito Relief Fund

As a result of generous giving by Friends members and \$50,000 designated from the Friends organization, we have been able to provide monetary gifts of \$12,500 to the Chama Valley Food Pantry, \$12,500 to the Antonito Food Bank and \$67,770 towards the Village of Chama's water issues. The amount that has gone towards the water prob-



Antonito Food Bank, left to right; Lyndsey Williams, Food Bank Network Director, Sherice Shiner, Food Bank Staff, and Karen and Mike LaForest, Antonito Volunteers, standing in front of what will be the new Antonito food bank location on Main Street.

lems was paid directly to Mountain Pacific Meter Tech Services, the vendor assisting the Village.

All three recipients of this funding are extremely grateful for the generosity of all those who have given to this relief effort. The goal is to raise \$200,000 overall. The distributions mentioned were made when we reached the half-way point, \$100,000 collectively.

With our help, the Antonito Food Bank was able to stock their freezers with meat and other items to meet a growing demand due to COVID-19. Before the pandemic hit, Antonito was serving approximately five people weekly. They are now providing food

to over forty individuals. They are also moving into a larger location on Main Street for the same cost as their previous location. Thanks again for all your kindness. If you would still like to donate please feel free to do so through the Friends office. — *Tim Tennant*

The Railroad has received several very nice and helpful donations which are much appreciated at this difficult time. The outlook for the future indicates that a recovery to pre-pandemic ridership numbers will take several years. While several of the donations have been anonymous, the donations are tax deductible but we can't write the supporting letter if we don't know who you are. We are glad for the help but we want to help you too. Contact the Railroad office at PO Box 1057, Chama, NM, 87520.



Doug Fredrick, known to one and all as "Popeye," passed away June 25 in Denver. For the last five years, Doug provided transportation of tools and project materials on both sides of the pass. He was a fixture in the Chama Carpentry Shop where he worked on equipment preparation at the beginning of each summer season, along with providing small engine repair. He greeted all with a smile and an infectious laugh.

A couple of errors crept into the Summer issue of the *Dispatch*. The most notable boo-boo was my statement in the Lobato fire story that the original bridge pieces for the Lobato Trestle were shipped to "Monarch Pass." I spotted that error right after it went to press; too late to fix, it should have read "Marshall Pass." Also, historian Stan Rhine pointed out that in the "Train Time" article (p. 21) the "loss or gain of one minute every thirteen miles" would *only* apply for the example given between Chicago and the west coast. As one gets closer to either pole the time change would occur over a much shorter distance due to the changes in latitude. And the first revenue train across the rebuilt Lobato Trestle was pulled by Locomotive 487, not 497. *Mea culpa*.

—Your Embarrassed Editor



C&TS Friends Telegraph: NEWS

THREE NEW (AND UPDATED) BROCHURES FROM THE FRIENDS OF THE CUMBRES & TOLTEC!

Three new or newly revised and updated brochures are now available to be distributed to prospective members, prospective volunteers and visitors to the Railroad.

The updated *Friends Recruitment* brochure, rolled out last spring, replaced the previous version created around 2012. The new brochure lists some of our most recent projects and accomplishments. A detached—and updatable—application form is included in each copy instead of permanently printed inside. It will be available in the depots, at train shows and in the docents' kangaroo pockets.

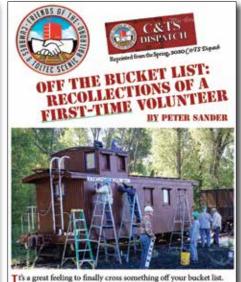
The *Cumbres Pass Walking Tour* brochure map was redesigned with a walk that is more linear than in the original 2004 brochure, along with several corrections and updated text. The brochure will be in a display rack at the Cumbres Pass Section House for visitors. Special thanks to the Friends' *Historical Interpretation Committee* for the updates and corrections.

The *First Time Volunteer* brochure is brand new. It is a reprint—with some modifications and the addition of a variety of new photographs—of the story in the Spring 2020 *C&TS Dispatch* by Friends member Peter Sander, about his expectations and experiences volunteering for the first time and what it meant to him to volunteer at a historically-important piece of railroad history. It too will be available at the depots and with the docents. The *First Time Volunteer* brochure, along with the *Friends Recruitment* brochure, could also be made available for distribution to members of railfan clubs and model railroad clubs and at train shows.

Contact the Friends office if you are interested in obtaining any of these brochures in bulk.







Most backet list entries are truly one-timers: You do the experience, check it off, and move on to the next one. Sometimes, however, a bucket list challenge can open a whole new world of interest, dedication, loyalty, and commitment.

I am a long-time train buff. When I was two, my dad, a commercial artist, brought home a popular Kenner "Girder and Panel Building Set" kit, complete with a section of HO scale track and a train, to build for box-top photo shoots of the kit. I couldn't take my eyes off the HO gauge cars. One, an orange tank car, came to bed with me repeatedly.

Over the years, I have watched and ridden a lot of trains. In 1964 at age eight, I was introduced to the <u>Durango & Silverton</u>, a long way from my Cincinnati hometown. I love steam, I love the narrow gauge, and I love Colorado.

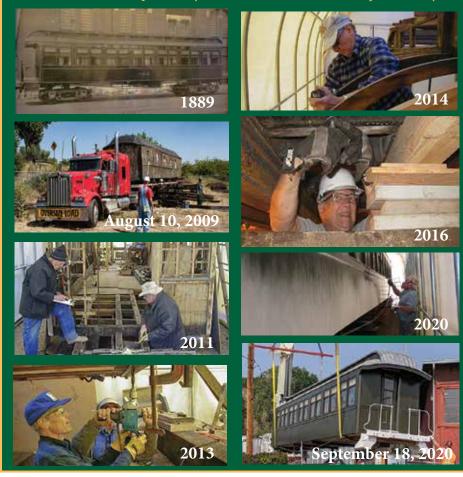
So naturally when the Cumbres & Toltec Scenic Railroad came to life, I was elated, But it took a move to California, a job, paid vacation, and time to finally ride the C&TS—which I have now done some eight or nine times since the mid-1980s.

Through the Cumbres & Toltec, I became aware of the Friends of the Cumbres & Toltec, a group that manages some of the most

SLEEPER COACH 470:

ELEVEN YEARS OF LABOR CREATES A MASTERPIECE!

It took eleven years and thousands of hours of work to bring *Tourist Sleeper 470* back to glory. And what glory she has become! After those eleven years at the Friends' Colorado Springs facility, she's returned to Antonito for the final fitting of trucks, couplers and brakes. Look for her behind 168 next summer! And look for the complete story of 470's restoration in the *Dispatch* next year.





No, this isn't a new HiRail on the C&TS, nor is it the latest, aerodynamic model of a Fairmont Speeder. It's what happened when an inebriated driver, returning from a run to Chama to buy more booze, decided to make a right turn at the Cumbres wye, thinking it was a shortcut back to their party spot. It is fortunate that the Railroad was able to inadvertently prevent a serious accident further along Highway 17 by providing the driver a rest stop on a COVID-idled portion of the Railroad with no scheduled trains.

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

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

Other membership levels with additional premiums are also available. Call us.

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 505-881-1311

www.cumbrestoltec.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

Running Like the

By Stathi Pappas with an introduction to the history of 168 by Chris James

The Spring issue of the C&TS Dispatch devoted two pages of photographs to the restoration of D&RGW locomotive 168. While "one picture is worth a thousand words," the photos only told a tiny piece of the story. Back in May, Stathi Pappas, Assistant General Manager and Special Projects Manager, made a Zoom presentation to interested Friends members about the restoration of 168. Based on Stathi's presentation, the Dispatch presents an extended story of the return of 168 to the C&TS. Some of the photos you have seen before but there are now additional photos of the work as it was documented, along with Stathi's story. Enjoy! - Editor

Photographs by Don Atkinson, Jerry Day, Stathi Pappas, Chris James, Craig McMullen, Nick Valdez and John Bush.

The History and Restoration of D&RG Locomotive 1 In 1883 and 1884, the Burnham, Parry, Williams & Company, d.b.a the Baldwin Locomotive Works, delivered twelve T-12 Class locomotives to the Denver & Rio Grande Railway. These "six-coupled" Tenwheelers replaced the 2-6-0 Moguls and Eightwheelers that were the basis for the Rio Grande's formative years in the 1870s. Each of the T-12s, numbered 166 through 177, were purchased for around \$10,800. They were, according to the Colorado Railroad Museum's founder Bob Richardson, "comely and capable machines" and they became the mainstay for passenger service on the Rio Grande. They could be found on the San Juan Extension, the Black Canyon route, along the Chili Line, and up and down the **Front Range**





She was retired to Antlers Park in downtown Colorado Springs, adjacent to the D&RGW depot, and dedicated to the vision and memory of General William Jackson Palmer, founder of Colorado Springs and builder of the Denver & Rio Grande, on August 1, 1938. According to the Colorado



ated...because park sprinklers soaked it daily." The *Gazette-Telegraph* continued, "It [had] been vandalized and tattooed with graffiti. But it [had] mostly been ignored, except by the homeless who...sometimes used the locomotive as a toilet." The overall condition of the static display got so bad that in 1955 the D&RGW threatened to repossess the locomotive unless they took better care of it. The City complied with some basic preservation tasks. With the discontinuation of passenger service on the Royal Gorge Route in 1971, the Colorado Springs depot closed. After that, only diesel freight trains passed the cold locomotive.

In the early 1980s, concerned about the condition of the locomotive and with pressure from history-mined locals, the City of Colorado Springs hired John Bush, at the time the Master Mechanic at the Geogetown Loop Railroad and today the President of the Cumbres & Toltec Scenic Railroad, who assembled a crew to do basic restoration on the now-100-year-old engine. Bush knew the locomotive was in relatively good condition and would be a good candidate for total restoration. While he moved on to other historic railroads, he never forgot 168 and when he arrived at the Cumbres & Toltec in 2012, he began to lobby the City of Colorado Springs to let the C&TS acquire and fully restore the locomotive to operating condition. "We have a rare opportunity to bring this thing to life," Bush said. "We'd like to restore the 168 and allow the people of Colorado Springs come ride it and see this engine in its natural habitat."

According to the *Gazette-Telegraph*, many Springs residents, including Matt Mayberry, Director of the Colorado Springs Historical Museum, had deep concerns about losing "their" locomotive, even if it was only leased and not gifted to the C&TS. Mayberry acknowledged that because the historic locomotive was not a museum artifact, the Pio-

neer Museum didn't have the same responsibility for it as it would for a document or a piece of furniture once used by General Palmer. "It would be returning home," said Mayberry. "We're not caring for it the way it should be cared for and there's no money to restore it." Still, he harbored concerns that the locomotive might lose its historic status or be damaged if put back in operation. Eventually, after studies and opinions and counter-opinions, the Colorado Springs City Council approved the Railroad's forty-five year lease of the locomotive and its relocation to Antonito for restoration and rehabilitation into a working steam locomotive on the Cumbres & Toltec Scenic Railroad.

In late September 2015, 168's wheels turned for the first time in 77 years as she was rolled off her pedestal and onto a massive flat-bed truck on loan from Fort Carson and transported 200 miles to C&TS shop in Antonito.



In January 2017, Efstathios "Stathi" Pappas arrived in Antonito as the Railroad's new Assistant General Manager and Manager of Special Projects tasked with, among other things, the restoration of D&RG Locomotive 168.

Stathi's story begins below.

Chris James, Editor

I was hired by the C&TS by John Bush and arrived on



the property in Antonito in January 2017. While Locomotive 168 arrived in Antonito before I became an employee of the Railroad, it was obvious that the project would become a pan-C&TS/Friends project, one that would become incredibly special and rewarding to both the Railroad and the Friends.

Before the locomotive arrived, one could look at it in the park

and say, "Well, I think it looks relatively good," the usual suspects of everything completely rusted and frozen up was not the case. Obviously, the locomotive benefited from the cosmetic rehabilitation that John Bush and company had done in 1983, which was very helpful for its ongoing survivability. And the ability to do the restoration and rehabilitation of this went well. It was a good candidate, but it certainly wasn't a creampuff by any means.

Before I arrived on the property, the Antonito crew had stripped the jacketing and spacers off the pressure vessel, performed a preliminary hydrostatic test; the vessel looked pretty good, at least from the outside. The running gear looked good as well, but we knew the frame had problems as there were a number of frame repairs that had been poorly attempted on the wrought iron frame in the early $20^{\rm th}$ century with electro-arc welding and one instance of thermite welding. The tender was also rotted out to the point of no return.

To get the project off the ground, we put our fundraising committee together, led by Scott Gibbs and Jerry Dziedzic, to get enough funding in the door so that once the project began it would never have to stop; folks would want to continue to donate money to the cause. If there is no progress, people lose interest and the excitement is lost. So, before we started to begin any real rehabilitation work other than the initial inspection, we wanted to make sure we had enough money coming in the door for the project to be sustainable. And we were lucky: the capital campaign was incredibly successful.

We started with the tender. There are two schools of thought when it comes to locomotive rehabilitation. One is to start with the most obvious candidate, the locomo-



tive, because what takes most projects out of the game is that the pressure vessel is in too bad a shape. The second school of thought is to rebuild the tender and get it completely done, so everyone can say, "Well, that

looks like real progress." For that reason, we made the decision to start with the tender.

The original tank was so paper-thin that there was no way to patch it. We built a new tender tank which is as close to an exact replica of 168's original as it was originally built with over 2,500 hot rivets. We also used as much of the original hardware as we could so that there is some still some original fabric in the reconstruction.

As we built the tender tank we also worked on the tender frame. The original frame had been wood and by 1983 the wood had rotted almost completely away; there was



not much holding it together except termites and tradition. John Bush's 1983 restoration put a new frame under the tender. The restored frame was an appropriately-sized replica built with steel C-channel stock. At the time, no one imagined that the locomotive would ever actually move

again so the frame was put together using minimal fasteners and welding. When it arrived in Antonito, I worked some calculations on the materials that had been used in 1983 and ran them against the Baldwin specs for what a steel tender should be. It turned out the material choice and the general geometry were more than suitable to be a working tender frame. So, we added gussets, additional fasteners and welding and were able to save a lot of money and time by reusing the rebuilt frame.

Now some people may feel that the steel frame is ersatz versus using a real wood tender frame and there is something to be said for that. However, this locomotive was a "rehabilitation" project according to the Secretary of Interior's standards of preservation, not a true restoration. So, by picking appropriate techniques that did not change the look and feel of the artifact and that are appropriate in rehabilitation, we made a choice that yielded a tender frame that is far stronger than an original wooden frame would have been.

We also did extensive work on the trucks with new bolsters and turning the journal surfaces. In the end, we built the tender, painted and lettered it and had something to show that looked like the finished project. With that we were able to le-



verage some additional support for the locomotive and get grants from the El Pomar Foundation, the Gates Rubber Foundation and the Denver and Colorado Springs area that were a good shot in the arm.



At that point we turned our attention to the locomotive itself. By then, we had already a bunch of UTs—ultrasonic thickness measurements—and the engineering specification for the pressure vessel. Our initial assumption that the pressure vessel was in pretty good shape was actually true. It was in remarkable condition and the dry climate of Colorado Springs was certainly very favorable for preservation. The design of the boiler, rebuilt in 1915, was also very modern. The factor of safety on some of the components

of the boilers was far above the minimum standard. At the time it was significantly overbuilt and had not deteriorated much as it had only about 18 years of real service on it since re-boilering. We were very lucky there.

But when we dropped the drivers and started getting into the running gear and frame, that was when we realized that we were in big trouble. Once we finally had it all apart and checked the alignments of all the components, it was found that the locomotive was not in the greatest shape after all. Certainly, it would have run as it was; if you just put a boiler on and fired it up, it would have moved itself, but it would have been a maintenance nightmare if you were going to use it for any sort of reliable and regular service.

We shot some radiographs—basically x-rays—using a very hot isotope to really understand what was going on in the frame. The radiographs revealed that all the frame







welds that had been done by the Rio Grande, probably in the late teens-early 20s, were not going to work. All had serious inclusions and lack of fusion. The one thermite weld that had been used over the #2 driver looked like a sponge when you looked at the radiograph on the lightbox. So, we started cutting that out and rewelding all of that using appropriate electrodes and modern welding techniques. It took about a month and a half sitting underneath the locomotive burning in one rod at a time. We put about 300 pounds of welding rod into the frame. Around mid-October of 2018 we were able to say, OK, that's finally done.

At the same time, we had removed the tires from the wheel centers and ordered new tires and had gone through the axle boxes, wheel centers and axles, and began making new shoes and wedges to tram the locomotive. One was

terribly out of tram, about ¼-inch out of square with the axles; while they were relatively parallel in the frame, they were crabbed in the frame so that going down the track it was more of a parallelogram than



actually a square. We rectified that with new shoes and wedges and everything was set up really tight so that the locomotive would have long service life.

The other thing we found was that just because it looks good, doesn't mean it is good, right? The crosshead glides we found on one side were an 1½ inches out of square with the center line of the cylinder bores; on the other side it was about ¾ inch out. And when the Rio Grande replaced the four-bar crosshead guides and went to the aggregator style of crosshead guides in the late 1920s, it appears that the Rio Grande just sort of threw them on there. It obviously worked for some time but that would not have been



advantageous for longterm service. That's why we spent the time and effort to go through the running gear and make it like new according to the Baldwin specs. We also re-bored the cylinder bores as they

were scored and had some corrosion.

So now we had a nice boiler shell, we had running gear that is looking pretty good, and a tender that's looking great. We had a new cab and the beautiful pilot built



by Craig McMullen and the Friends in the Springs and assembled by the Friends in Antonito waiting be installed on the locomotive. We re-tubed the boiler and on May 10, 2019, coincidentally the sesquicentennial of the driving of Golden Spike, we were able to fire up the locomotive for the first time since 1935 and the C&TS was able to blow the whistle on the 168 for the first time since god knows when.



So, 95% of the work was done, right? That 5% to finish the thing is really the crux of the matter. At that point, it was a dead run to get insulation on the boiler, finish the plumbing and get the running boards replaced so

we could actually start installing all the appliances. Then we embarked on doing a treated boiler jacket. The boiler jacket was probably something like American ingot iron, which is the less expensive American equivalent to Russian iron. It doesn't have the planishing but it has that beautiful deep luster because for the most part it is gun

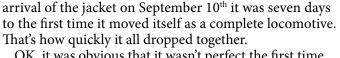


blue like a fine firearm. We were able to find enough sheets of No. 8 mirror polish 20-gauge stainless steel. in Florida of all places. I decided to go with stainless as the iacket would be very rugged. If

we had gone with carbon steel, bird droppings or anything could actually etch it and remove the color from the jacket. Then we got Cleveland Black Oxide in Cleveland, Ohio, to treat it to create that beautiful finish and luster. It was a bit of an odyssey to lay out all the pieces and get it all cut out. Since it was stainless instead of carbon steel, we had to water-jet the cutout so there would be no warpage to the stainless and then send it off to Cleveland Black Oxide for the finish. It took a number of months to get it back; we were looking at a tight time line because we wanted to run it before the end of the 2019 season. The treated jacket steel arrived in Antonito on the 10th of September so we had maybe four and one half more weeks before our deadline. Now, that deadline was self-imposed; we certainty didn't have to do that, but we made promises to our donors that we were going to run this engine by the end of the season.

Folks from our Chama shop and Antonito Special Projects Group worked hand-in-hand to finish the jacket and install the jacket, start to finish, in just three days, from just sheets showing to riveting all the little tiny brass rivets on the seams and getting all the clips riveted on. It went on beautifully. It's truly a testament to the skill and attention to detail that the team had.

At that point we were able to mount the beautiful new cab and add the rest of the appliances and the final plumbing. From the



OK, it was obvious that it wasn't perfect the first time we ran it. There were still some things we needed to do, including running some additional wiring for the electrical system, and there were a few leaks here and there we had to chase. But we were able to do the grand unveiling on the 14th of October before the season ended with the locomotive, Coach 292 and Caboose 0579 painted in its 1916 livery.



The 168 is back and we are able to show this beautiful example of 19th century locomotive technology from this earlier period of the Denver & Rio Grande and our Railroad's history.

All of us can take heart and pride in that we participated in getting this project over the finish line. That's the power of this institution; the Railroad and the Friends working together to bring this priceless piece of living history back to life and be able to showcase it in the environment that it was built for.

I'll leave you with one anecdote: When operating a locomotive in the Antonito yard you have to run at a restricted speed, eight mph or slow enough to stop in half your range of vision. Outside the yard limit sign the speed limit is twenty mph. Our first trip outside, we passed that yard limit sign and I centered the Johnson bar and basically put the locomotive in neutral, floated the throttle valve and charged the steam circuit with boiler pressure. 168 took off like a jackrabbit and I had to back off before we started exceeding the twenty mph limit; that how fast and smooth

Photo: Don Atkinson

she was. Several people in the chase car behind us said we just left them in the dust as we took off.

The T-12 crews back in the day always highly regarded these locomotives, not because they could pull a whole heck of a lot but because they were sweet, rode well and could run like the wind.

And today, our 168 can run like the wind.



BY CHRIS JAMES WITH A SUPPORTING CAST FROM THE TEXAS RANGERS!

e've all seen Butch and Sundance blow up the express car, and we know about the accidental burning of Ferguson's Trestle during the shooting of *Where the Hell is the Gold.* And we've marveled at the spectacular, pre-CGI head-on collision (with some assistance from high explosives) in *Denver & Rio Grande.* All these, and many more cinematic spectaculars were filmed in the mid-20th century, the Golden Age of Western cinema, which often included scenes shot along the narrow gauge lines of the Denver & Rio Grande including the Silverton Branch, the rails between Chama and Durango, the Chili Line and the

Cumbres & Toltec. Like John Huston's westerns shot in southern Utah, the scenery of southwestern Colorado and northern New Mexico captured the "true" west, or at least what the theater audiences in Ohio and New Jersey thought the "true West" looked like. And what better way to add to the scenic reality than to include a steam locomotive or two?

But it wasn't always that way. Despite 1903's The *Great Robbery*, most early westerns only featured horses that weren't iron.

But in 1936, there was a film that began the western narrow gauge railroad craze that featured our own (drum roll, please) Locomotive 168, built in 1883 and now newly restored and plying the rails of the C&TS.

According to Larry Jensen's book, *Hollywood's Railroads*, *Vol. 3: Narrow Gauge Country*, cinema's first use of Colorado's narrow gauge system was for segments of *The Texas Rangers*, starring Fred MacMurray, an actor that you may remember from the 1960's TV show *My Three Sons* and high drama films such as *Double Indemnity* and *The Caine Mutiny*.

The Texas Rangers was your typical horse opera that, of course, needed a train robbery or two. At the time, the D&RGW's Chili Line was still running south out of Antonito, albeit infrequently. Thus, it provided a great combination of southwestern scenery and not much rail traffic, the perfect place to shoot scenes with a steam locomotive, high mesas and blazing guns.

Enter D&RGW Locomotive 168.

The six-coupled Ten Wheeler had already been retired from service but answered the casting call for several short scenes that gave credence to the western flavor of the film: smoke, steam and a phony diamond stack along with some passenger cars, also furnished by the D&RGW. Renamed and numbered as "Montezuma #1," 168's on-screen time was limited to several cameo appearances but they still added to the otherwise fairly typical shoot-'em-up Western.

Most of the film was shot in and around Española and Buckman, a tiny village south of Española along the Rio Grande River. If Ernie Robart was still alive, he could probably identify the exact location of the shots along the right-of-way.

The film naturally ends with good vanquishing evil and, thanks to the Texas Rangers, the West will live on with

Truth, Justice and the American Way. In 1937, the film won an Academy Award for Best Sound Recording.

The success of the *Rangers*, however, did not extend to Locomotive 168. Following the filming, she was returned to Alamosa, still adorned with the wood-burning diamond stack, despite the fact that she always was a coalburner, and still lettered with #1 on her cab.

She remained there, along with her sister 169, her cab windows boarded up, in the dead line of

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The Rang exten Follo was r still a wood stack she a burn with

Townspeople and extras admire D&RGW 168, now the Montezuma #1, during the 1936 filming of The Texas Rangers.

FCTS Dorman Collection, RD088-015

locomotives at the Alamosa shop, awaiting the scrapper's torch. Alas, she never got a star embedded along Hollywood's "Walk of Fame;" Fred MacMurray has a star there, 168 does not, as her appearance on the Chili Line apparently didn't make the grade, even if she could make the 4% grade between Embudo and Barranca. But like many a faded actress, she was remembered and placed on display in Colorado Springs for the next 77 years.

Today, however, her star status shines once again. Few can remember her Hollywood experience but 168 remains the first narrow gauge locomotive to appear on the silver screen and was the progenitor of many narrow and standard gauge railroad movies to follow. And now, newly restored and even more beautiful than her 1936 screen debut when she was but a fading starlet on the D&RGW, she has emerged from the Antonito shop worthy of the Oscar she should have received after *The Texas Rangers* 1937 release: "Best Supporting Locomotive."

Welcome home, 168. Your audience awaits!

You can watch The Texas Rangers on YouTube at https://www.youtube.com/watch?v=-dPILLtJyEA Look for 168's appearance at around 0:59:15 and 1:10:00.



STATHI PAPPAS, LIVING A DREAM

started out as an industrial archaeologist. I received my undergraduate degree in Historic Archaeology, got a Masters in Industrial Archaeology and I was looking at getting my doctorate in that field as well, so I went to University of Nevada, Reno. The only way I was going to be close to a cool organization like the C&TS was through archaeology, so I put together a project to do excavation at the former Big Horn Section Camp in Sublette. That was about

2003. There were a lot of headwinds around the Railroad at that time and that fell through, so I ended up doing my dissertation research on the Virginia & Truckee at the Section Camp at Scales, Nevada. I figured I'd never have much of an opportunity to have much impact or get to be much of a part of the C&TS.



It's really funny how life works sometimes. I began to realize that it wasn't enough to study it; I didn't want to be a scholar and pay tribute to history and what was past. I found myself yearning more to have that *living* history. And that's one of the things that the C&TS is just amazing for; you are totally steeped in it.

So I started doing work on steam locomotives, first as a volunteer with California State and the Nevada State Railroad museums. Sometimes after hours, Chris DeWitt and I would look at the heap of parts that was the *Glenbrook*, drink beer and say, "Man, it would really cool if you finished the *Glenbrook* some day." See how life's symphonies come together?

I'd been a live steamer, I could machine, I could kind of weld at that time. Then a couple of my buddies bought me an Engineer-for-a-Day at Roaring Camp & Big Trees in Felton, California. I got to run a Shay up the hill a little bit, got to fire a little bit. The General Manager there, a guy by the name of John Bush, said, "Hey, do you want a summer job? You can kind of do some stuff. I hear you can machine." And I said to myself, why not? I'm halfway done with my dissertation and I can take about three months off. This is my dream of living it. I'll do that and then finish my dissertation.

Well, I never finished my dissertation. And here we are. I worked at AS&E Boilerworks for a while and that's where I learned my boiler work; I worked as CMO at Mt. Rainier Scenic and was able to rebuild a number of locomotives while I was there; I've had opportunities with my personal business, Stockton Locomotive Works, to do contract work on a number of different projects.

The path that one walks and the things you think, the things that seem impossible or improbable or unfathomable; here we all are at the C&TS doing great stuff. I'm just so thankful to be a part of it.

It's is such a blessing to participate in so many of these wonderful projects at this wonderful institution and fulfill living the dream. Every day I walk into work and get to live it. ~ *Efstathios* "Stathi" Pappas

Definitions in Preservation

Keith E. Hayes, AIA

With three major preservation projects in progress or recently completed, it's worth looking at the different terms, often used interchangeably, but in fact define specific outcomes. A single complex project may apply different definitions to different parts of the process.

This list, excerpted from a column by *Keith E. Hayes*, *AIA*, was originally published in the Fall, 1995 issue of the *C&TS Dispatch*, and reprinted in the Spring, 2017 issue. Given these important projects, it's worth yet another look.

Preservation implies the maintenance of an object in the same physical condition as when it was received by the curatorial agency. Nothing is added to nor subtracted from the aesthetic corpus of the artifact. Any intervention necessary to preserve its physical integrity (protection against fire, theft or intrusion, heating, cooling, lighting) are to be cosmetically unobtrusive.

Restoration describes the process of returning the artifact to the physical condition in which it would have been at some previous time of its morphological development.

Rehabilitation, broadly defined, means to restore to an operable or sound condition.

Conservation and consolidation involve the physical intervention to the actual fabric of the object to ensure its continued structural integrity.

While a *prototype* is an original that serves as a basis on which later stages are based or judged, a *replica* is a copy or reproduction. A *facsimile* is an exact copy or reproduction.

Reconstruction describes the re-creation of vanished buildings on their original site.

Adaptive use involves saving a structure by adapting it to the needs of the new tenants. Many boxcars were adapted into passenger cars in the early history of the Cumbres and Toltec.

Given these definitions, the three projects below could probably be classified as follows:

Locomotive 168 was largely a *restoration*, as it has been returned to a "physical condition in which it would have been at some previous time." It also included *preservation* with any "intervention…necessary to preserve its physical integrity that [was]cosmetically unobtrusive." This would include the construction of the new cab, pilot and tender.

Tourist Sleeper 470 is being *restored* to its original configuration of an 1889 passenger car after years of *adaptive use* by the Railroad as an outfit car, a temporary passenger station and a kitchen car. *Replica* passenger trucks were created for the car in Antonito by the Friends.

The **Car Inspector's House** on Cumbres Pass, currently in progress, is both *conservation* and a *replica* of the original structure. Certain portions of the original building were saved but new framing and siding plus a new foundation were put in place for "continued structural integrity" Still the structure is being built as a replica, using the original 1907 structure as a *prototype*.

HISTORIC PRESERVATION ON THE C&TS, 2020 SPECIAL SESSIONS AND SESSION E (JULY 20 -24) SESSION F¹ (AUGUST 20 -24) AND SESSION F² (AUGUST 26 -30)

Photos by Bill Lock, Dave Jenkins, John Engs, Tom Simco, Don Atkinson and the Friends' Chronicling Teams: Sharon McGee, Tim Smith, Pat Maufrais and Shirley Cantone. Team member names are taken from Team Leader Reports in FIDO when available. Volunteers not mentioned were not provided in Team Leader reports. We apologize for the omissions.

ANTONITO, COLORADO: ED LOWRANCE CRF

Proj. 0311: Safety Coordinator, Antonito CRF

This was the beginning of a Work Session season unlike any other and safety was even more important than usual. Because of COVID-19, special precautions were taken to insure the health and safety of the volunteers and railroad employees. John Engs, the CRF Safety Coordinator, enforced a strict regimen of safety standards, including asking about of members' overall health, daily temperature checks, masks and gloves and more.



None of these precautions got in the way of the work, though. An amazing amount of progress was made during Sessions E, F^1 , F^2 .

Proj. 0706: General Cleanup around the CRF Work Sites

Not only was trash and debris a safety issue, it was just plain ugly to boot. **Bill Kepner's** team collected, stacked, sorted, and disposed of left-over and excess project materials such as wood and rolling stock parts.





By the time they were done, the CRF yard had an almost surgical organization and cleanliness.





Next step, a clear pathway for visitors with Project 1250. (See page 15)

Proj. 0741: Caboose Maintenance and Roof Repair



Four C&TS cabooses were slated for maintenance "as needed." Guided by **Don Atkinson**, they included work on the two canvas-roofed cabooses,



0503 and 0579, as well as 0306 with a Murphy roof, and 05635 with a metal roof. "Black roof emulsion" was used to seal the cars from the elements. The completed roofs were inspected for any leaks.

Proj. 1118: Restore UTLX Tank Cars to Operational Condition

This has been an ongoing project, repairing, scrounging or creating parts for these two historic cars. Because of their open-frame undercarriage, historical accuracy is important. Much of the work in these sessions revolved around (no pun intended) the wheels and trucks that were assembled from existing stocks of old parts.



Chuck Duerker, assisted by Scott McCulogh, Dean Myers and Roger Davis, assembled the two truck frames, two wheel sets, a center bolster



and springs. Bearing were packed and greased.





Once assembled, the trucks were rolled under the tank car, and brake components were inspected and, if needed, manufactured.





Proj. 1197: Construction of Trucks for Passenger Coaches



Once again **Ian Kelly** arrived from California in the Dormmobile to lead the construction. When completed, these trucks will be placed under the Tourist Sleeper, nearing completion in Colorado Springs, and Cook Car 053.



The trucks are being recreated from period drawings and will have brake systems integrated with the trucks.



Proj. 1250: Create a Pedestrian Walkway from the Antonito Parking Lot to the CRF Building

One of the Friends' goals is to promote and increase the Railroad visitors' interest in our restoration and preservation activities and skills in repairing, restoring and building railroad rolling stock from scratch.



There are few places where these talents are readily accessible to the public. **John Engs** supervised the pedestrian construction of a walkway that will facilitate public access to the Ed Lowrance CRF, attracting guests by providing a more inviting, welcoming and safe atmosphere to view and learn from our work.



The work session crew graded and graveled the pathway and installed "grade crossings" at each track.



Proj. 1276: Upgrade Electrical Components and Bathroom, Remove End Windows, Caboose 05635

Caboose 05635 was converted from a stock car to a caboose by the Friends in 1976 and is mainly used in charter service. It was in need of upgrades and was a major project at the CRF.



Under **Don Atkinson**'s supervision, and assisted by Bill Stamm, Bill Brune, Kent Roberts and Craig McMullin, work included the installation of a new electrical system, and pressurized water and restroom facilities based on RV type systems.

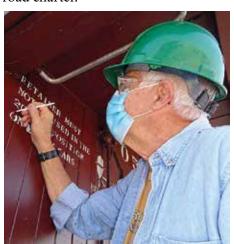


In addition to the plumbing and electrical systems, several non-historic windows on the end of the caboose were removed and new siding put in their place. The car was prepped for painting and lettering.



There will be additional interior work including new padded seats in the cupola, repaired platforms on both ends of the car, and improved safety straps and railings.

The caboose will be ready (and more comfortable) for the next Railroad charter.







Proj. 1339: Recondition and Repair Recently-Acquired Wheel Press

The Friends acquired a wheel press from the Orange Empire Railroad Museum. Currently wheel replacement has been handled at the Chama shop or by an outside contractor, which has necessitated shipping wheel sets off site for repair. This has resulted in expenditures in both time and money, better used elsewhere.



The foundation for the press, adjacent to the CRF, was completed last year. During this year's work sessions, led by **Chuck Dueker** and assisted by Sam Hauchm, Terry Mitchell, and Scott McCulough, the reconditioned



hydraulics were tested and additional maintenance was performed for full functionality.

The entire press was cleaned, painted, and made ready for use.







Proj. 1341: Recondition and Repair Steel Flat Car 6214

Work on Steel Flat Car 6214 began last year. Because the project is considered normal maintenance and the car will be used by the Railroad, a strict restoration plan was not needed.



This year, **Bill Kepner** focused on the decking of the car. Prior to the replacement of the ship-lap decking, a protective membrane was laid down on the steel frame. New ship-lap decking was installed along the entire length of the car and oiled.





Final touch-up of the paint made the car ready for its final inspection and a return to service.



Proj. 1367: Equip Oklahoma-Purchased Cars with Bearing Blocks for movement in CRF yard

Three freight cars, (one 3150 series boxcar and two 5500 series cattle cars, 5533 and 5536) were acquired from Oklahoma. While they are originally D&RGW cars, they are not considered "contributing assets" for the C&TS.







Don Atkinson and **Bill Stamm** jacked up each car to open and inspect the journal boxes.



They then placed wooden bearing blocks in the journals so the cars could be moved around the CRF yard.



Proj. 1354: Repair Inspection Car MW 02 to Operational Condition

Perhaps one of the more interesting projects this season was beginning the repair and restoration of Inspection Car MW 02. Originally built in the 1930s, the car is powered by a Ford Flathead V8 and was restored by the Friends between 1996 and 2000, but had fallen into disrepair in the intervening twenty years. It's a very rare piece of D&RGW MW equipment and returning it to service is a major goal of both the Railroad and the Friends.

In the past, it looked quite spiffy.



These days, not so much.



Jim McGee stripped the car down to bare bones, and found most of those bare bones were quite rotten.



The finish work will probably be done by a competent mechanic and body shop, which would result in a more efficient and higher quality restoration than the Friends could provide.



Either way, it will be wonderful to see MW 02 running again.





Any old-timers out there know how she acquired the name "Matilda?"

Special Sessions Throughout the Summer, 2020



Three special sessions were scheduled for **Project 1005**, the **Reconstruction of the Car Inspector's House** on Cumbres Pass. Complete

history of the Car Inspector's House and its reconstruction will be presented in the *Dispatch* sometime next year.





Special Session 9, June 22 - 26

Special Session 9 included preparation work for several of the projects in Session E, F¹ and F² in Antonito. These included beginning **Project** 1276, Upgrades to Caboose 05635



and **Project 1339**, **Installation of the Donated Wheel Press**. Both projects are documented on page 16.



Special Session 10, June 22-26

Special Project 1333, Reinstall South-Facing Stock Pen No 2 Fence in Osier was necessary for the realignment of the siding track west of the Dining Hall. The new track will be located about four feet into the existing stock pen.



The project included spreading rock fines in the walking area between the tracks and the new trail to the historic structures. The crew, led by **Fred Kuhns**, included Kevin Kuhns, Michael Brown and Michael O'Nele.



Special Session 11, June 27 - July 3

Project 1336, Maintenance and Repair of Cattle Car 5691 was the only Friends project taking place in the Chama Yard.



Friends member and founder **Bill Lock**, along with his wife Norma, Bill's

grandson Ryan Bunzel, Dave Jenkins and Dave Farro, spent most of the special session repairing and reinforcing the car's external frame, applying epoxy to weak areas and installing the foundation for the roof.







Because the repairs were not going to be continued until later work sessions, the car was buttoned up from the weather, awaiting the next steps in the rebuilding process.



Special Session 15, June 22 - 26

By the time you read this, Tourist Sleeper 470 has been carried from Colorado Springs to Antonito where 470's replica **Period Passenger Trucks, Project 1197**, are waiting for installation. **Ian Kelly** has led this project for the last who-knows-how-many-years.



Work continues on additional trucks for cars waiting restoration. The report, with additional photos, is on page 15.



FRIENDS SERVICE AND SUPPORT

SITE LEADER! ANTONITO CRF

Not only was **John Engs** the Safety Coordinator for the Antonito CRF (see page 14,) he was the overall coordinator of all the projects for Sessions E, F¹, F². John is the Friends' Project Coordinator year round and his workload was not limited to the three sessions. Much of his time this summer was spent juggling the projects

that had been cancelled in Chama due to COVID-19, and reassigning workers to different projects altogether.



Of all the volunteers who worked in Antonito this summer, no one deserves more credit than John for the heroic amount of time he has spent in planning, organizing, and supervising, not only the projects but the volunteers as well.



Without his guidance, the kind of success the Friends experience, not only in Antonito but across the entire Railroad, would be much more difficult, if not impossible.

We all owe John a great measure of thanks for his hard work.

Nuts, Bolts & Tools

The "nuts and bolts" of the restoration projects are found, oddly enough,



in the Nut and Bolt Room in the CRF.

George Davies kept the crews well threaded throughout the sessions.

Project Chronicling

The **Chronicling Team**, led by **Sharon McGee**, included Tim Smith, Pat Maufrais and Shirley Cantone. They photographed each stage of the many projects for record keeping and documentation.

And they do more than take photos; each photo must be carefully coded and dated for reference, identifying the chronicler and what was accomplished. Data is then submitted to Sharon McGee.



FOOD PREPARATION

This year, **Food Preparation** was a different kettle of fish. Not only did **Linda Dueker** and her crew not have their usual kettle of fish, they were not able to prepare any food on-site due to



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HAULING AND VEHICLE OPERATION



Bob Reib was kept busy but with nothing going on in Chama, most of his work was on the Antonito side. Even when not crisscrossing the pass, Bob's energy (and humor) is vital.



Friends of the Cumbres & Toltec Scenic Railroad, Inc. 4421 McLeod Rd. NE, Suite F Albuquerque, NM 87109

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They don't weld. They don't paint or build passenger trucks. They don't even pound nails. But the Kitchen Crew, whether they are grilling burgers or stirring the crock pots, are as important to the success of the Friends as any other volunteer in Antonito or Chama. With all the food preparation done off-site due to COVID-19, their contribution is still immeasurable as they hand out bagged lunches and snacks. And we *know* they are smiling under those masks! *Photo by Don Atkinson*