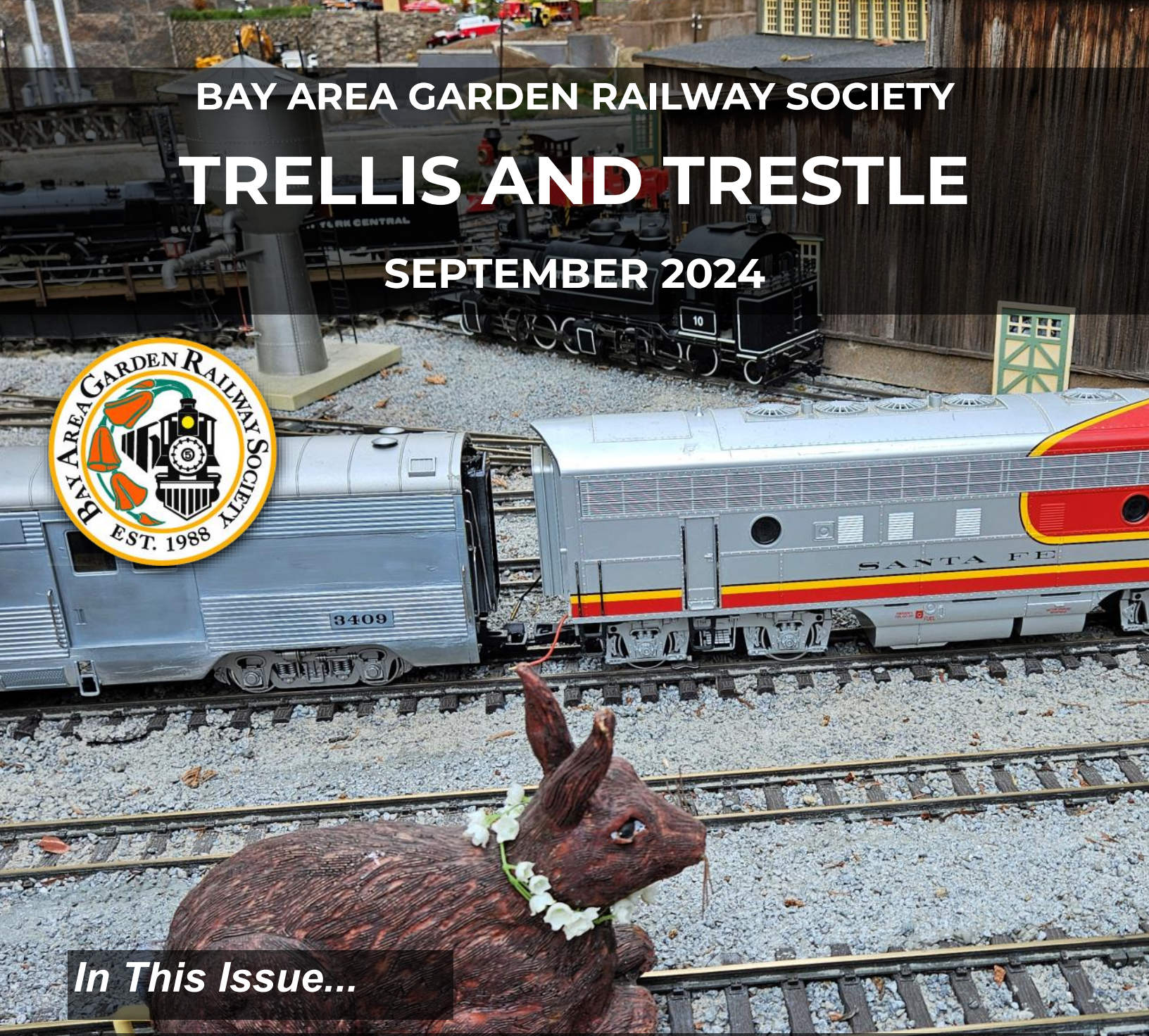
BAY AREA GARDEN RAILWAY SOCIETY

TRELLIS AND TRESTLE

SEPTEMBER 2024



In This Issue...

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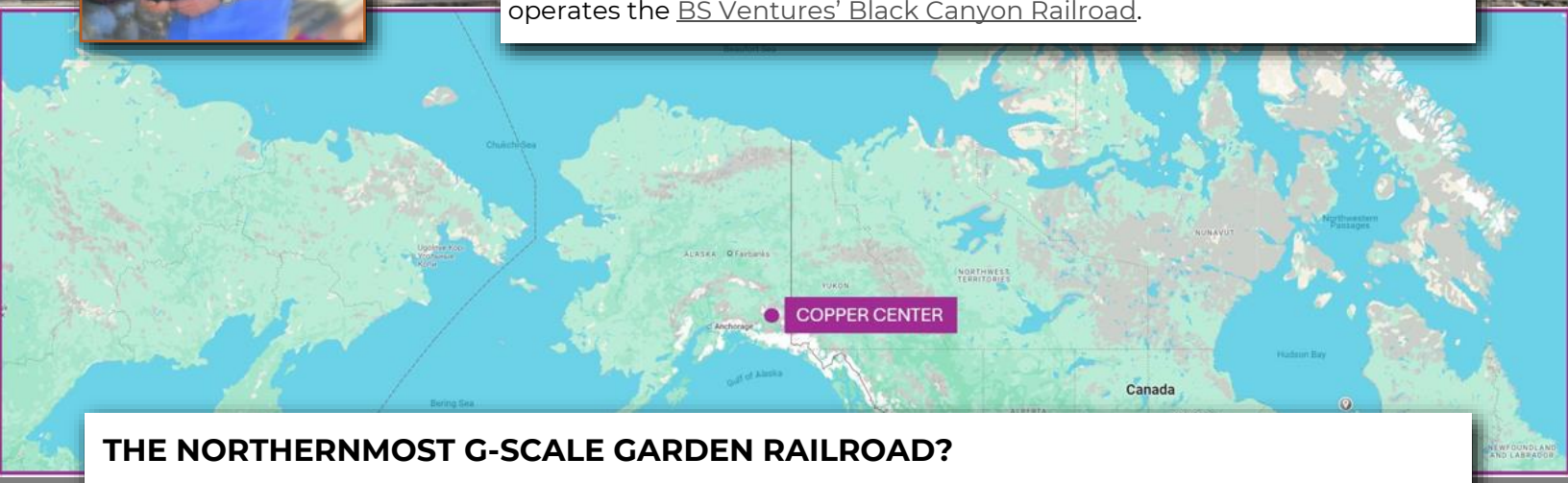
President's Perspectives

Mick Spilsbury is the BAGRS Board President and Marketing Director and operates the BS Ventures' Black Canyon Railroad.



THE NORTHERNMOST G-SCALE GARDEN RAILROAD?

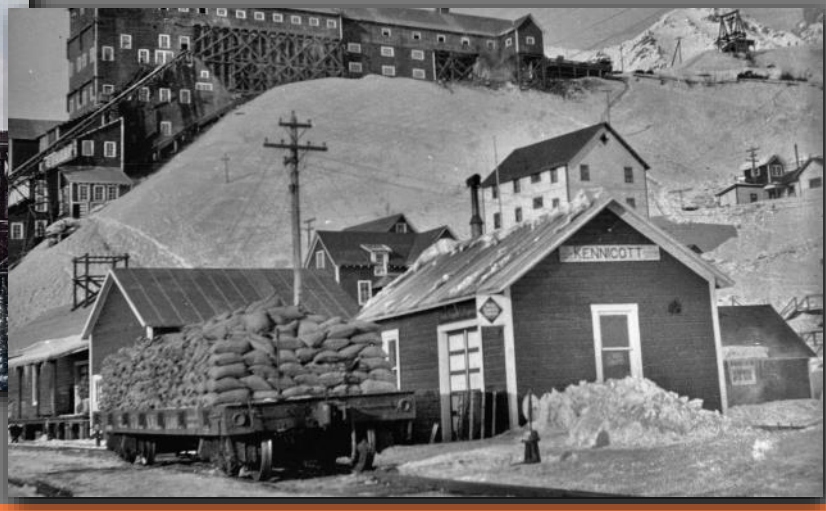
During our month in Alaska, Liz and I discovered a garden railroad in Copper Center, Alaska—Population 329—latitude 61.9603° , where the sun is visible for 19 hours, 45 minutes at the summer solstice and 5 hours, 9 minutes at the winter solstice. Other places at this latitude include far northern islands in Canada, the Faroes, and Sweden. The parallel also goes through Greenland and Yakutsk. So, unless there is a garden railroad in Fairbanks, Alaska, this could well be the northernmost garden railroad in the world.

The owner is Ron Simpson who owns and runs a cabin style lodge and bar in Copper Center, which is renowned for its salmon fishing. Ron's G-Scale railroad starts in his bar before proceeding outside.

The railroad is based on the Copper River & Northwest Railroad, which operated between Cordova on the SW Alaska Coast and the Kennecott Copper Mine from 1911 to 1938, and before proceeding, some history is appropriate.

In the early 1900s explorers in the Copper River area noticed that Native Americans in the area had arrowheads that were pure copper. A Native American Chief was persuaded to divulge the source of the pure copper in exchange for supplies that he and his people needed to survive a particularly brutal winter. Ron's lodge, "Uncle Nicolai's," is named after the Chief Nicolai. Once the explorers determined that the copper was over 90%+ pure, wealthy investors decided that they should establish a copper mine, called Kennecott, and a railroad to get the copper to the Alaskan coast.

The 196-mile railroad was built between 1908 and 1911. Michael J Heney, who had been the chief engineer on the White Pass & Yukon Railroad was hired to lead construction, arriving in 1909. Conditions were extremely difficult, and many sections of the railroad had to be rebuilt many times. Unfortunately, Mr. Heney succumbed to tuberculosis in October, 1910.

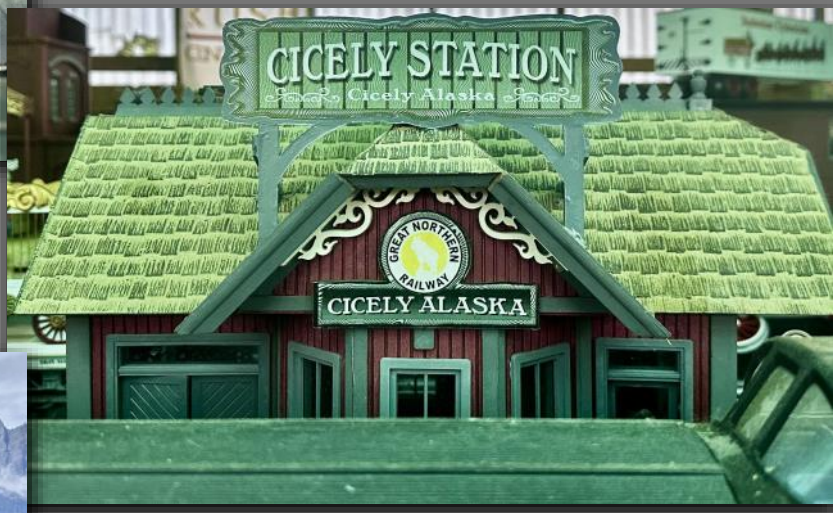


The wealthy investors who financed the mine's development and the railroad included JP Morgan and Daniel Guggenheim. They were attracted by a mountain of pure copper, which remains the largest concentration ever discovered in the world. It took them about 30 years to exhaust the reserves during a period when the price of copper was very favorable. Mining ended and the railroad closed in 1938 when the price of copper plummeted and the quality of mined copper lowered. However, the investors got a handsome return, extracting $200 million worth of copper and making profits of about $100 million. So, the staggering cost of $25 million ($778 million today) to build, repair, and operate the railroad was not a problem.

Ron Simpson is keeping this fascinating history alive. The majority of his 1,000+ feet of track is outdoors, exposed to the ravages of Alaskan winters, just like the Copper River & Northwest Railroad. He has scratch built all the structures of the Kennecott Mine and wisely they are protected from the Alaskan climate.

In a separate building, Ron has scratch built numerous structures from *Northern Exposure*, the popular, Emmy awarded, comedy drama that aired for 6 seasons from 1990 to 1995. Ron's G-Scale depiction of Cicely is so detailed and so extensive that taking it all in is a challenge. If we lived a tad closer, we would return many times to find more details.

Liz and I were able to find Ron's Railroad Empire through the Copper Center Historical Museum, a small, low-key museum managed by local enthusiasts. We had seen references to a model railroad in Copper Center and the kind gentleman at the museum gave us directions to the railroad. We expected to find an indoor HO model railroad. Instead, we found a very extensive indoor/outdoor G-scale railroad.



We would be happy to discover another garden railroad that is farther north than this one because that discovery would in no way diminish our excitement and pleasure at discovering this railroad. We loved meeting Ron and seeing his railroad empire. It was one highlight of a multi-highlight four weeks in Alaska.

We also drove a 60-mile unpaved road to view the Kennecott Mine today. It is still remote! ■

From the Editor's Desk

Roger Nicholson lives in Union City, California, and operates the *Crystal Cove & Rose Railroad*.

On the cover: "Rabbit on rails" at Larry Silverman's Tri-Valley Railroad. That rabbit could really move.

During my recent cross-country trip, I mentioned a patient of my son (an orthopedic surgeon) who is an O-Gauge railroader. He is the person that gave me my first real railroad crossing sign, which I have since mounted on my fence.

He also has been sending me items in the mail. Recently, a full size, honest-to-goodness 1:1 scale brake wheel arrived at my house. Upon its arrival, I found myself scratching my head trying to figure out what I would do with it.

Fortunately, my wife has recently become very invested in the "garden" portion of my railroad. After acquiring a stand from a garage sale and mounting the brake wheel on it, I stuck it out on the backyard patio to see if inspiration would strike. My wife, of course, immediately noticed it and came up with the idea of putting a plant on it. Now, she thinks it looks good, and I think it looks good (especially because *she* thinks it looks good!). Thus, another piece of railroad paraphernalia has found a home in our yard with my wife's full approval.

My “fleet” of 3-D printed OpenRailway SW 1500 locomotives is finally finished. Here’s a photo of the entire collection together. All four have AirWire G3 or G4 boards and Li-ion batteries installed.

From left to right:

- 1) The prototype, a Southern Pacific 1:32 #2592 (the “runt” of the litter). It has USA Trains R22-12 motor blocks.
- 2) A “Crystal Cove and Rose” 1:29 #3474 unit built out of spare parts and failed 3-D prints. All 1:29 units use USA Trains R22-115 motor blocks.
- 3) A Southern Pacific 1:29 #2683, which was the first “final design” model.
- 4) A Southern Pacific 1:29 #2682, which was the second and *real* “final design” model. Improvements on this one were then retrofitted to the other three, so all four have the same features now.

I don’t know if I will ever make another one of these myself, but, in accordance with the “Share Alike” license on the original design, I have made my *remix* of the original OpenRailway SW 1500 design files publicly available in case anyone else wants to try to build one:

Thingiverse: https://www.thingiverse.com/thing:6721897

Printables: https://www.printables.com/model/966393-129-scale-sp-configuration-motorized-openrailway-e

Open House Schedule for September/October 2024

BAGRS Open Railroad Schedule - Fall 2024															
Who	Sat 8.24	Sun 8.25	Sat 9.7	9.8	9.14	Sun 9.15	Sat 9.21	Sun 9.22	10.5	Sun 10.6	Sat 10.19	Sun 10.20	Sat 10.26	Zip	City
Ackerknecht														95060	Santa Cruz
Brody														95405	Santa Rosa
Murray														94030	Millbrae
Ronconi														94040	Mountain View
Robert Elia														95020	Gilroy
Hill (Kevin)														95023	Hollister
BAGRS Steamers														Los Altos History Museum	
Elam														94002	Belmont
Squiers														94019	Half Moon Bay
Paterson														94086	Sunnyvale
Nagata														94087	Sunnyvale
Turner														95127	San Jose
Spilsbury														94901	San Rafael
Smith (Steve)														94925	Corte Madera
Nicholson														94587	Union City

Welcome New Members

We would like to welcome BAGRS' newest members and invite you to tell us something about yourself. We are happy that you decided to join us, and we hope that you will enjoy getting to know other members.

Remember, you do *not* have to have a garden railroad to participate in the club or have to contribute to BAGRS or the *Trellis & Trestle*—approximately half our members do not have their own railroad. Also, if I get some information wrong or misspell your name, please let me know and I'll take care of it.

If you would like to submit an article, member update, fun train-related thing you saw while traveling, open house you visited, photographs, videos, or have any questions or corrections, please contact me **(Roger Nicholson) at communications@bagrs.org**.

- **Heather Dunphy-Nielsen and Kor Nielsen,** Sunnyvale, CA. Joined 7 August 2024. Garden railroad is under construction.
- **Phillip Jenschke**, Benecia, CA. Joined 7 August 2024. Garden railroad is under construction.
- **Paul Griffiths** , Santa Clara, CA. Joined 13 August 2024.

OPEN RAILROAD—Saturday, Sept. 7, 2024

10:00 a.m. to 4:00 p.m.

Greenhills Railroad

Murray—842 Helen Dr, Millbrae, CA

The **Greenhills Railroad** is one of the top rated in Northern California. It is in a lushly landscaped 45-year-old semi-Japanese garden with 350 plants, including 250 varieties. Live steam engines run on 550 feet of track. It has 3 waterfalls and 20 bridges, including an 8-foot copy of the Hell's Gate Bridge in New York, which took about 1000 hours to build. There are numerous meticulous, scratch built buildings, including a slate mine building with a precise powerhouse and a belt-powered lineshaft. A scratch built Tudor house has 2000 handmade teak shingles, 1500 bricks, and an elaborate steam museum in the back. The layout was on the cover and centerfold of "Garden Railways."

See this railroad on YouTube: Green Hills Railroad - 2023 NGRC Preview

Photo by Jeff Namba

OPEN RAILROAD—Saturday, Sept. 7, 2024

10:00 a.m. to 4:00 p.m.

JJC&J Railroad

Ronconi—310 Chatham Way, Mountain View, CA

Welcome to the Jack, Jacob, Chiara, and Joel Railroad (**JJC&J**), named after my grandchildren. The layout features 250 feet of elevated track with landscape incorporated. The theme is 1950s Americana and reflects many pleasant memories from my childhood.

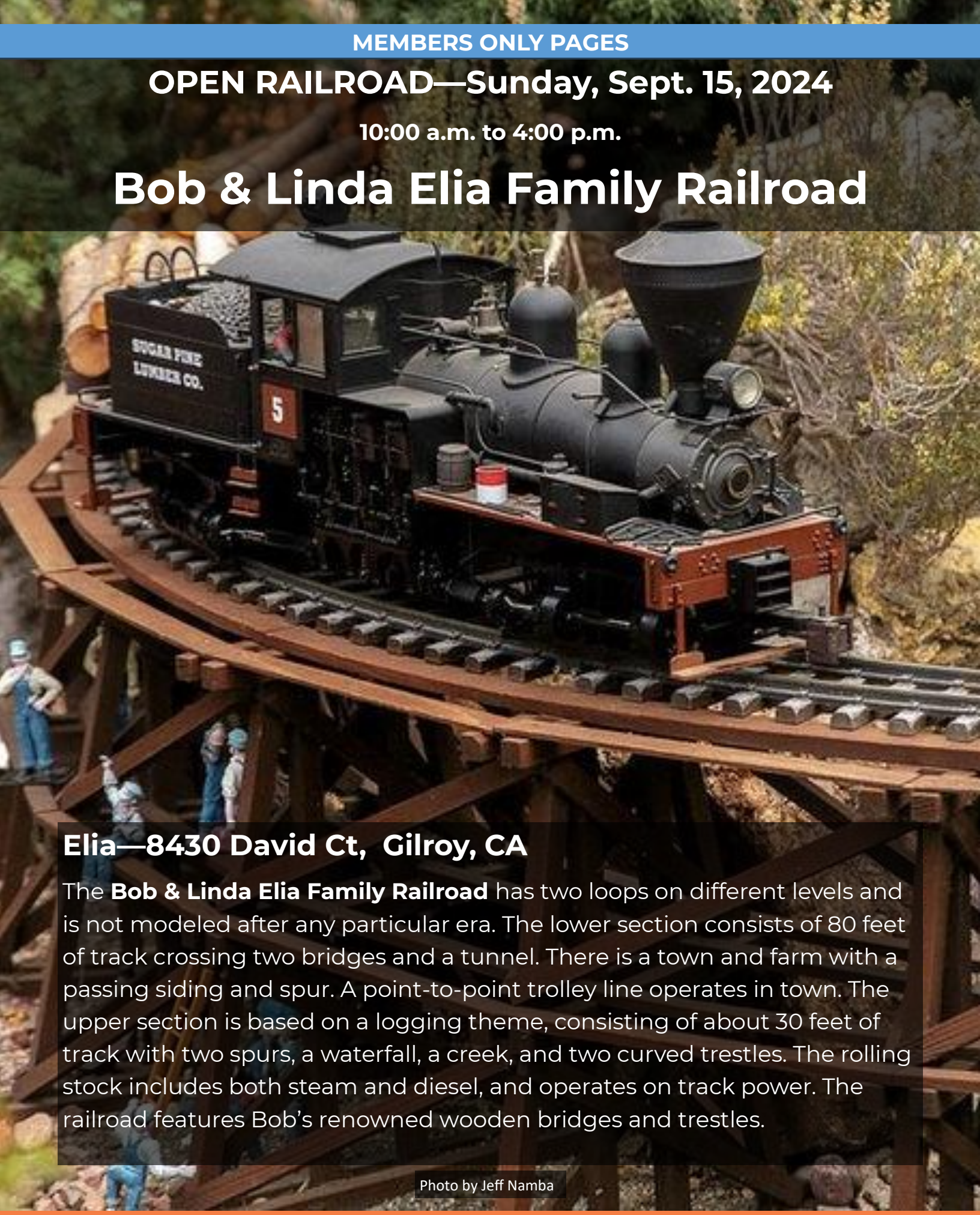
See this railroad on YouTube: JJC&J Railroad - 2023 NGRC Preview

Photo by Jeff Namba

OPEN RAILROAD—Sunday, Sept. 15, 2024

10:00 a.m. to 4:00 p.m.

Bob & Linda Elia Family Railroad



Elia—8430 David Ct, Gilroy, CA

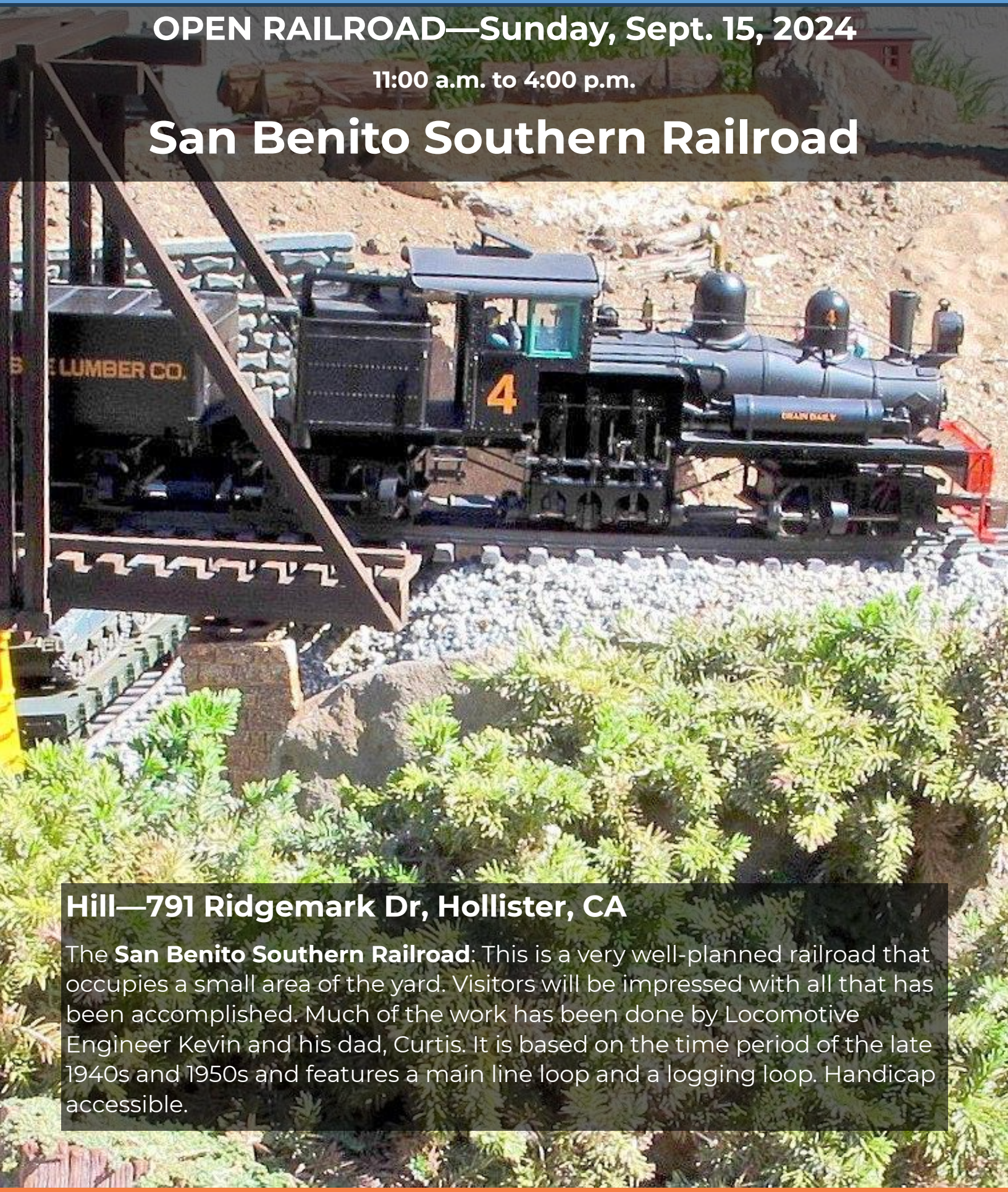
The **Bob & Linda Elia Family Railroad** has two loops on different levels and is not modeled after any particular era. The lower section consists of 80 feet of track crossing two bridges and a tunnel. There is a town and farm with a passing siding and spur. A point-to-point trolley line operates in town. The upper section is based on a logging theme, consisting of about 30 feet of track with two spurs, a waterfall, a creek, and two curved trestles. The rolling stock includes both steam and diesel, and operates on track power. The railroad features Bob's renowned wooden bridges and trestles.

Photo by Jeff Namba

OPEN RAILROAD—Sunday, Sept. 15, 2024

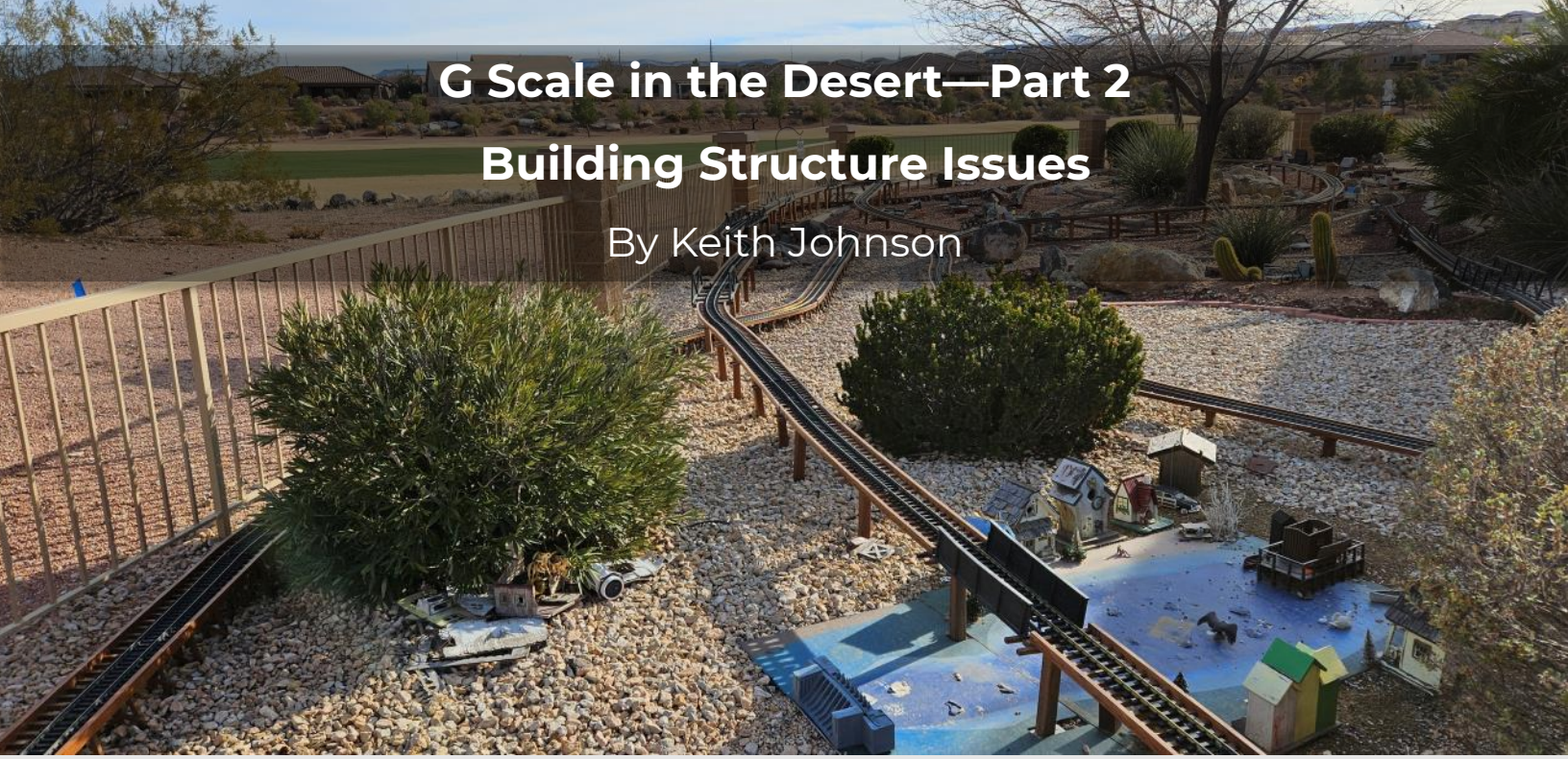
11:00 a.m. to 4:00 p.m.

San Benito Southern Railroad



Hill—791 Ridgemark Dr, Hollister, CA

The **San Benito Southern Railroad**: This is a very well-planned railroad that occupies a small area of the yard. Visitors will be impressed with all that has been accomplished. Much of the work has been done by Locomotive Engineer Kevin and his dad, Curtis. It is based on the time period of the late 1940s and 1950s and features a main line loop and a logging loop. Handicap accessible.



G Scale in the Desert—Part 2
Building Structure Issues

By Keith Johnson

Introduction

This is the second article in the G-Scale in the Desert series. In the April 2024 issue of *Trellis and Trestle*, the first article of G-Scale in the Desert discussed the issues, challenges, and potential solutions of building roadbeds in a dry, hot environment with very low humidity and strong UV rays. This is the environment in the Southwest corner of Utah. Some of the ideas, hints and suggestions may be useful to the reader in a more tepid climate that may experience these extremes for a short period of time.

This second article continues the theme of hot, dry, low humidity and strong UV rays environment and discusses the issues of maintaining various structures around a G-scale layout and the materials used to create those structures. The types of materials we will be discussing are various types of wood, UV protective coatings and plastics used in 3-D printing, including resin. Since 3-D printing is becoming more and more prevalent in the model railroad hobby, an emphasis of this article will be on that subject.

I am fully aware that many of the readers have additional experiences in using various materials for outdoor layouts, so this article is not intended to be all-encompassing. If you have explicit comments based on your experience of using various materials, please forward them to the author (kajohnson9@gmail.com) as I am always in the mode of learning new information.

Wood Materials

All builders of outdoor structures are familiar with the two most common outdoor wood materials: cedar and redwood. Some additional woods may include pressure treated woods. Some layouts may also take advantage of various bird houses, as they generally can fit the proper scale. The disadvantages of bird houses, even though they are intended to be outside, is that they are usually made of a wood material (like pine or poplar) that doesn't hold up in the extremes of heat and moisture. An example of such decay is the manor houses shown in the photos on this page.

So let's talk about redwood and cedar. These woods are fairly common in most lumber and big box stores. The advantages of these materials are:

- Easy to work with (saw, sand)
- Easy to cut.
- Easy to paint.
- Available in assorted sizes
- Depending on thickness, fairly easy to bend and shape
- Resistant to rotting
- Somewhat resistant to heat

The disadvantages to these materials are:

- Increasing cost
- Needs to be treated for weatherproofing.
- Needs to be treated for high sun exposure (UV ray exposure)

As we have witnessed in the recent past, the cost of these materials has increased rather significantly. This is especially true for redwood as it is also becoming more difficult to find.

A key factor of using redwood for outdoor structures is the grade of redwood. The more common grades found in big box stores are:

- Construction common
- Construction heart

Additional grades can be found in some lumber stores:

- Clear All Heart
- Clear
- Merchantable Heart
- Other high-quality grades

It is highly recommended to use the best quality grade you can afford as that minimizes knots in the wood and they just look better.

Cedar material has similar quality grades. Cedar has similar characteristics as redwood but may be more difficult to find. The easiest form of finding cedar is as various fence boards. Higher quality lumber stores will usually carry other forms of cedar.

Cedar has two general classes for grading: Structural grade and Appearance grade. Structural grade (known as common lumber) is used for cedar usually 2 inches thick or more. It is then identified on a scale from 1 to 5, with 1 being the highest quality.

Appearance grade is applied to material that is less than 2 inches thick and is primarily based on appearance and knots. Appearance grades are identified A through D, with A being the highest quality. Cedar classified as A grade is also termed Clear. Clear cedar is generally free of most all knots (but not 100%).

UV Protective Coatings

As with any wood material used outdoors, the material should be properly treated to help assure extended life and to maintain its natural beauty. The first level of protection should be a stain. As stains come in an assortment of colors, the color selection is up to the user. Once the stain is applied to attain the desired color and thoroughly dried, coating of a UV protectant should be applied. The two more common brands are Varathane and Helmsman. Other quality brands that may be available in your area are Man O' War and Old Masters. The main factor to look for is spar urethane and exterior application. It is interesting to note that spar urethane is used for marine applications as well. Most brands offer both water-based and oil-based and come in flat, satin, semi-gloss and gloss finishes.

My experience in using both water-based and oil-based coatings is that oil based will leave a bit thicker coating with each application. As the manufacturer recommends, three or more applications is recommended after thoroughly drying between applications. I have found the oil-based coatings adhere better with a slight sanding in between applications. I have not found sanding between applications of water-based urethane particularly advantageous. The downside of oil-based urethane is cleanup. While brushes using water-based urethane are easily cleaned by washing with warm water, oil-based urethane requires cleaning using a solvent like paint thinner. While there are multiple ways of applying urethane (sponge, brush, rag, spray, etc), I have found using a chip brush for oil-based applications works fine. I also avoid the cleanup steps as I just throw the brush away. They are cheap enough to do this.

Keep in mind that for both redwood and cedar, applying multiple coats of urethane over stained wood will go a long way in preserving the wood function and beauty.

Creating Structures Using 3-D Printing

First, let's talk about 3-D printing. The concept of 3-D printing is new and many people may not be aware of its capabilities. 3-D printing or additive manufacturing is the construction of a three-dimensional object from a CAD model or a digital 3-D model. It can be done in a variety of processes in which material is deposited, joined, or solidified under computer control, with the material (such as plastics, liquids or powder grains being fused) being added together, typically layer by layer.

In the 1980s, 3-D printing techniques were considered suitable only for the production of functional or aesthetic prototypes, and a more appropriate term for it at the time was rapid prototyping. As of 2019, the precision, repeatability, and material range of 3-D printing has increased to the point that some 3-D printing processes are considered viable as an industrial-production technology; in this context, the term additive manufacturing can be used synonymously with 3-D printing. One of the key advantages of 3-D printing is the ability to produce very complex shapes or geometries that would be otherwise infeasible to construct by hand, including hollow parts or parts with internal truss structures to reduce weight while creating less material waste. Fused deposition modeling (FDM), which uses a continuous filament of thermoplastic material, is the most common 3-D printing process in use as of 2020.

Let's Talk About 3-D Printers

There are generally two classes of 3-D printers: filament printers and resin printers. The more common printers used by hobbyists are filament printers.

The creation of a multitude of 3-D printers has added to the popularity of the process. Bigger, better and faster printers are continually becoming available at very reasonable costs. Many very good printers are available in the $200 to $500 range, making them acceptable to the hobbyist.

For G-scale modeling, many of the structures are about 1:24 scale. Considering the build size (the space for printing a part), a typical structure (a house, for example) could be printed as a full model. Many of the printers today have a typical 8.5" x 8.5" x 8" build size. Newer printers are now using a 10" x 10" x 12" build volumes. If the structure to be printed doesn't fit in the build volume, the structure can usually be printed in pieces and then glued together to form the full structure.

In my opinion, a key feature of a 3-D printer is having dual extractors. An extractor is the nozzle that extrudes the material to create the structure. With dual extractors, you can print with filaments of two different colors or two different materials. This can be very valuable creating model railroad structures that may require supporting structure for the part.

More information about 3-D printers and printer availability can be found at

https://all3dp.com/1/types-of-3d-printers-3d-printing-technology/

The following two particular websites contain many models, mostly free, that you can access that can be scaled to fit a G-scale layout.

https://www.thingiverse.com/ and

https://cults3d.com/en (requires an account to be established)

Printing Materials

The most common material used for 3-D printing by hobbyists is PLA. It prints easily, available in multiple colors and is very reasonable from a cost aspect. If the printed object (the structure) is to be used indoors, PLA is acceptable.

However, in our environment here in Southwest Utah, PLA doesn't hold up to the high UV rays and high temperatures. The material I use is PET-G. It has much higher resistance to the sun's UV rays and our higher temperatures. As an example, the following photos show a structure printed with PLA (left photo) and the same structure printed with PET-G (right photo). The PLA structure was outside in our environment for just one summer while the PET-G structure has had three years of outside exposure.

Appendix A shows a few structures printed with PLA, Appendix B shows a few structures printed with PET-G and Appendix C shows a few models printed with resin. All these structures have been in the outdoors for at least 3 years.

As the future evolves, more materials are being developed with increased UV resistance, better temperature ranges and overall improvements in the material characteristics. As the new materials become available, the 3-D printer manufacturers are updating their product lines to handle these improved materials.

Alternate Material to Plastics—Resin

Another material, other than plastic, which is available for 3-D printing is resin. Printing with resin is a different process and requires a special printer. As with plastic filament printers, there is a growing availability of resin printers. The costs of a resin printer are similar, although a bit more than filament printers. As with all modern technologies, the availability and price of resin printers is improving.

The advantage of a model (structure) printed with resin is greater detail and significant improvement for outdoor usage. These figures show two objects printed with resin. Both objects have been outside in our environment for multiple years. There is no degradation in material, color or overall looks after that extended exposure to high UV and high temperatures.

In Summary

To summarize all of this, this is what I'm trying to get across. Remember, this applies to our environment here in Southwest Utah, high temperature, and high UV rays.

Wood is a very common building material for outdoors.

Wood is acceptable but requires proper protection.

The recommended woods are redwood and cedar.

Both redwood and cedar need to be protected from temperature, moisture, and the sun's UV rays by applying paints or stains with multiple coats of an exterior urethane solution.

3-D printing is becoming more common for creating structures for outdoor model railroads.

3-D printing is categorized as filament printing and resin printing.

A preferred material for filament printing is PET-G for outdoor use.

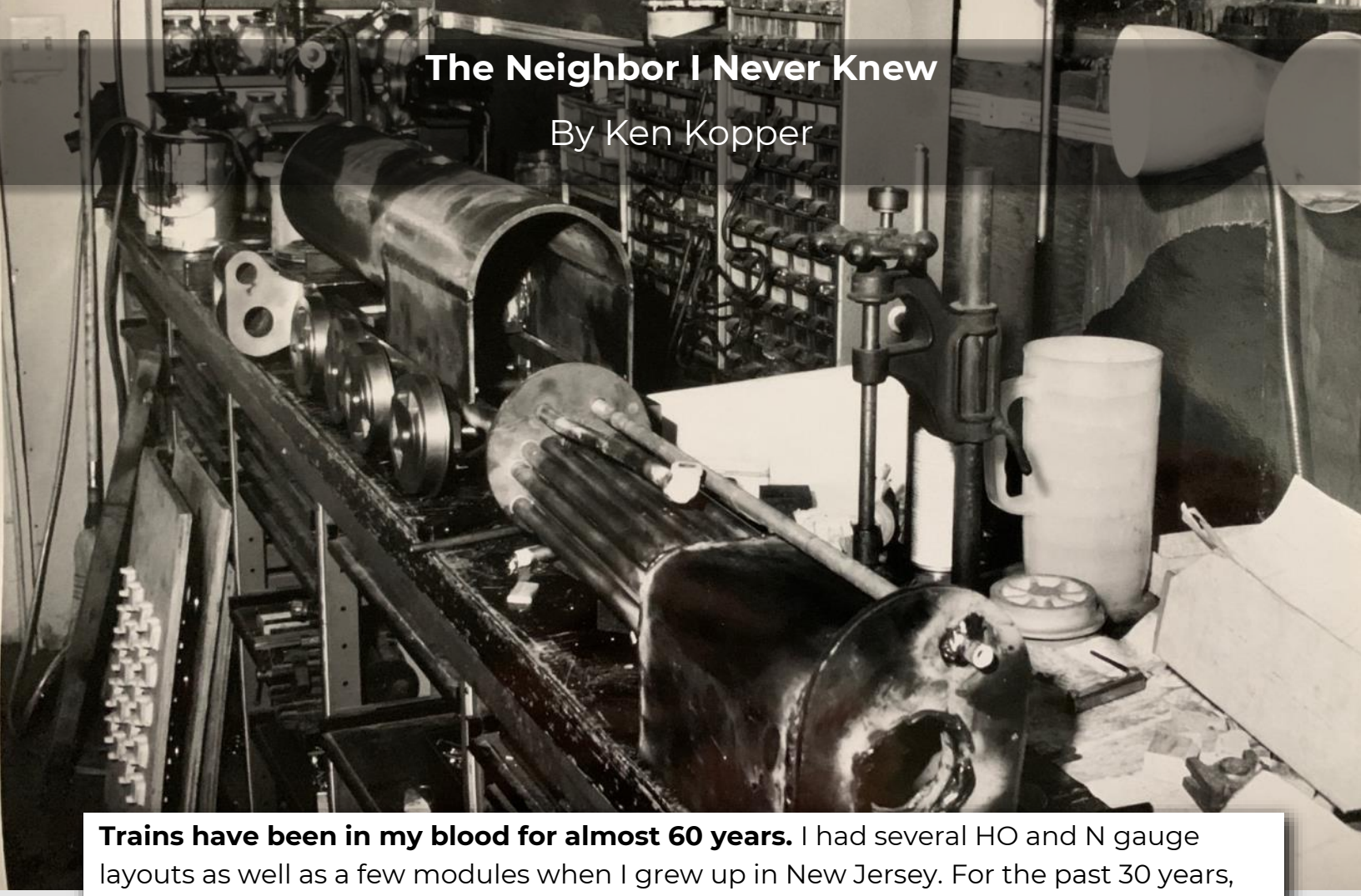
My last point is if you are considering using 3-D printing for your outdoor structures, talk with a G-scale hobbyist who has experience in this area and can help guide you. ■

Appendix A—PLA Printed Structures

Impact of high UV exposure after 1 year

Appendix B—PET-G Printed Structures

Appendix C—Resin Printed Structures



The Neighbor I Never Knew

By Ken Kopper

Trains have been in my blood for almost 60 years. I had several HO and N gauge layouts as well as a few modules when I grew up in New Jersey. For the past 30 years, living in California, I had an N gauge layout and several HO scale layouts. Currently I have a G scale layout in the backyard and an HO layout in my shed. Up until the beginning of the year I was happy and content with what I had, working on the HO layout in the winter and colder months and the garden railroad in the warmer months. That was all about to change.

I have lived in our neighborhood for almost 30 years and our block has about 30 houses on it. Most of the houses are lived in by the owner with a few rental properties. The Eichler development was built in 1952 and there are several original owners on the block. Over the years I have met so many people on the block in passing. We have a block party almost every year and reach out to the neighbors to join in on the festivities. We continually try to build a tight neighborhood and bring together as many people as we can.

My garage is my workshop and the door is often open. With a small garage, all my tools and benches are on wheels so to do any thing, I would roll them out into the driveway to work. I would always talk with passersby, whether they were neighbors or just people walking through the neighborhood. I have done several car restorations as well as many furniture and garden railroad structures out there and that would always get conversations going.

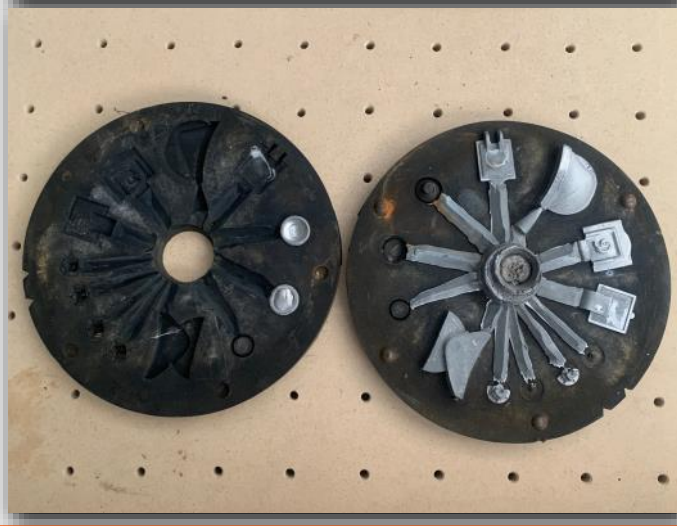
Anytime I would take a walk, I would try to engage in conversation (to the willing of course). There were several older families on the other end of the block and they would often be out front. Most of the time they had their help so I would wave to them. There was one particular house where there was a woman out front with someone helping her. I would wave to her as I went by but never stopped in. Some time last year, not sure exactly when, I did not see her out there anymore. For the longest time, there was no activity around the house. It was still maintained so I assumed that she was just not outside when I walked by.

In January of this year, I saw a cleaning service working in their garage. I stopped in and just asked what was going on. He said he was cleaning up some stuff for the family and that the husband and wife passed last year. A few weeks later, I saw someone else working there cleaning the garage so I stopped in again. It was the wife of the grandson and we talked for a bit. She said that her husband Mike was out back and to go there to see what he was up against.

As I rounded the corner, I saw the shop door open. I walked in and called out his name. Way in the back of the shop I saw Mike and he said come on in. There was a narrow path through the 600+ sq ft detached machine and print shop. The place was packed with all kinds of cool stuff and lots of furniture. I spent about an hour talking with Mike and got a complete history of his grandfather.

His grandfather, John Grandt, had a huge passion for trains, motors, machining, steam power, printing and many other subjects. Scattered amongst everything in the shop, peaking out from all the stuff, were 7 1/2" gauge train cars and electric engines, live steam engine models, partially completed trains, mills, lathes, spin casting equipment and molds, lead casting equipment for forming typeface for printing, and a printing press. I inquired as to what the plans were for the contents and Mike said that that an auction company was coming in to assess what they would auction for the estate. I asked what was to become of the rest and he said they needed to get rid of the rest. I offered to help with what was left over. Mike and I exchanged contact information.

A few weeks went by and I got a message from Mike. The auction company had come in and pulled everything that they were going to auction off. I went to see Mike and look at what was left. The 3 large scale trains were gone along with a lot of bins of tooling and they tagged the mills and lathes. Other than a few things in there that the family wanted, the rest was to go. I offered up to empty the place for the family.



Over the next 4 weeks I helped empty the place. Amongst the boxes and bins were steel, brass, and aluminum large scale train parts, parts to build live steam engines, molds and way too many other things to list. Mike was there occasionally while I was cleaning the place out and we kept talking about his grandfather and trains.

There were some good and sad conversation as we worked together. His grandfather produced his own sand casting molds and poured them there as well. This shop had everything at one point and build all kinds of train stuff. He had built a 7 1/2" gauge steam engine which Mike kept to remember his grandfather, who actually raised him and his brothers. There were other partially completed steam engines. John also built a line of small electric 7 1/2" gauge train engines. He was a member of the Portola Valley and Alpine Railroad. I came to understand that he had a falling out with the club over steel vs aluminum rail. I found photos of him and other members working in the shop which I gave to Mike. In the photos you can see all the types of things that John built. He would have been an interesting person to get to know.

Mike mentioned to me that the auction was coming up, so I signed up to bid. I was able to purchase the 7 1/2" trains at auction along with one of the small lathes. The auction company was having a tough time dispositioning the mills and other lathe, so I helped them sell those too.

Another thing that John did was help design trains for the Palo Alto based Thorley Hoople train company from the 1960s. In the piles of stuff, there were all kinds of parts and spin casting molds for those trains.

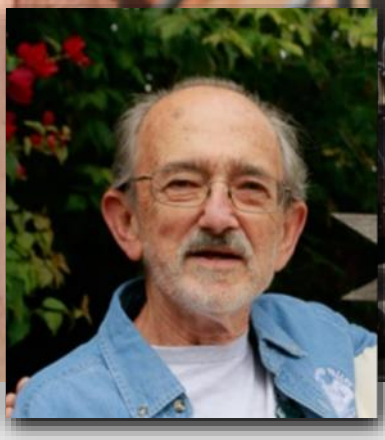
For the almost 30 years I lived down the block, I never knew this world existed. I would have loved to spend some time with John. There must have been a ton of knowledge lost to time and I am sad that I was not there to absorb some of it. I plan to work on the 7 1/2" gauge trains this fall and bring them back to working and riding condition. I also have all of the train related scrap, plans, supplies and trains from the shop and plan to go through them this fall too. I also plan to visit the Portola Valley and Alpine Railroad this fall and think about joining that group. I may also set up a little 7 1/2" gauge track around part of my house. I have about 25 feet of gravel walkway down the side of my house and another 25 in front of the garden railroad.

So much for keeping to my HO and G scale trains but in the end, it is all about having fun with my hobbies. I hope to post my progress in other stories and get back to my neglected garden railroad. ■

Carnivale on the Green: A Railcar Based Traveling Carnival

Rail Cars #60—70: Native Americans and their Culture

By Jim Ralph



Jim Ralph is a member of both *BAGRS* and the *Sacramento Valley Garden Railway Society*, and is the brother of BAGRS member Bill Ralph.

NATIVE AMERICANS AND THEIR CULTURE: As portrayed by the entertainment industry and toy companies during the 1950s.

Referred to as a time of 'innocence', it was actually a time of ignorance. Western themed movies, TV shows and children's toys were all the rage. Stereotyping abounded: white hats-good cowboys, black hats-bad cowboys. But much worse was the depiction and stereotyping of Native Americans, the toy industry included. There was no intent by me to show any disrespect by using actual stereotyped vintage toys from the 50s along with 3-D printed copies of others. And I used the term INDIAN, not the proper term NATIVE AMERICANS, only to keep the rail cars signage period correct.

There will be no ruse, no sham, no crazy dark humor backstory. This build is a perfect example of how or where I get my ideas and how they develop. The backstory will follow the rail car descriptions and photos.

CONSTRUCTION NOTES

The basic car remains the same as previous ones. MDF board with laser engraved bass wood decking make up the basic car with 3-D printed undercarriage parts. The figures are a mix of actual vintage toys and 3-D printed reproductions of others. The 1950s toys were made of inexpensive single-color celluloid, simple in detail, usually with minimal painted highlights. The smaller pieces were usually sold in themed sets while the larger pieces (like the two INDIAN CHIEF dolls) sold from 10 to 98 cents as packaged pegboard items and they also served as entry level carnival game prizes.

RAIL CARS # 60, 61, 62, 63 J. Powell's POW-WOW PROP CO.

The carnival world made good use of props to attract customers to their various attractions. And bigger was always better. The POW-WOW PROP CO. was there to fill the bill when INDIAN themed pieces were required. Using some actual vintage toys as the props seemed only logical. Because of using vintage pieces, the reproduction ones were finished similar to the real ones. I placed a worker figure on each car to show scale. The rail car carrying actual Native American miniature clay pots are from my wife Gail's collection, and brings the car count to four.

RAIL CARS # 64, 65, 66 INDIAN VILLAGE SCENES

RAIL CAR # 68 FRIENDLY INDIANS

RAIL CAR # 69 INDIAN WARRIORS

RAIL CAR # 70 SUN DANCE CEREMONY

These cars were a major side show attraction traveling with CARNIVALE, cashing in on the popularity of the INDIAN theme of the 50s. The pieces used are 3-D prints of actual vintage ones to get the scale correct, along with using their original simple paint schemes

THE STORY

The idea for the build, not knowing at the time, began with a question posed at the June meeting of the Sacramento Valley Garden Railway Society by Judy Arrigotti. She asked where I get my ideas. After rambling through the answer, the meeting moved on.

About a week later I got a box in the mail from Janene Powell containing two celluloid INDIAN figures along with a note. She was offering them to me in hopes that I might find a use for them. Her thoughtfulness gave me pause, then memories of these toys as prizes on the midway at the county fair and especially of my after-school stock boy job in a five-and-dime variety store ordering and stocking these toys. Then I pulled up the Club's roster to get Janene's email address to send a thank you . . . and there it was . . . the next idea. Her email address includes JPOWELLPOWWOW . . . Go figure.

But it didn't end there. Brother Bill Ralph and I talk on the phone a couple times a week, usually sharing our article ideas. His response to my mentioning the powwow idea was immediate. Digging into his extensive postcard collection (the source for his POSTCARDS FROM THE PAST articles) he pulled out three 1955 Disneyland cards of Native American scenes in Frontierland. One card showed an area that featured live Native Americans performing, the other two of staged scenes using animated figures. Walt Disney was a master of creating and using animatronic props throughout Disneyland. . . . Now there would be five more rail cars. Be sure to check out Bill's POSTCARDS FROM THE PAST article in the August *Trellis & Trestle* as it features these cards.

So going back to Judy's question . . . the question was also the answer. The idea for this build started with and came in the form of her question, then the 'butterfly effect' took it from there. . . . Love those butterflies.

NOTE: The two vintage INDIAN toys are twins. That's Janene's doing, not mine. ■

THE GARDEN DEPARTMENT

Dwarf Ginkgo, Maidenhair Tree

By Richard Murray

BOTANICAL NAME: Ginkgo biloba, "Chase Manhattan"

COMMON NAME: Dwarf Ginkgo, Maidenhair tree

USDA ZONE: Varied depending on reference, but Zone 5 (down to -20F) would seem to be safe

SUNSET ZONE: 1-9, 14-24

The Ginkgo biloba plant may be one of the most interesting plants in the entire plant kingdom. It has fan-shaped leaves and is deciduous but is considered a conifer. It is known as a living fossil because it is found in fossils dating back 270 million years. It has no close living relatives. It is the only living species in the division of Ginkgophyta, as all others are extinct.

Although Ginkgo biloba and its other species were once widespread throughout the world, its range shrank until the end of the Pliocene when, two million years ago, Gingko fossils disappeared from the fossil record everywhere except in China. For centuries it was thought that Ginkgo biloba was extinct in the wild, but it is now known that the species is naturalized in one tiny area of China. In the last 1000 years it has been actively planted in many areas of China. Some planted trees at temples are believed to be 1500 years old. Because of its status in Buddhism and Confucianism, the Ginkgo has also been widely planted in Korea and Japan. It has been cultivated in North America for about 200 years and in Europe about 300 years. Although some naturalization has occurred in small areas of Korea and Japan, it has not become naturalized to any significant degree in any of the other cultivated areas. It is considered endangered in the wild.

The genome of Ginkgo biloba was published in 2016. It has three times the number of nucleobase “letters” as does the human genome! It is thought that the profuse number enables the development of many antibacterial and chemical defense mechanisms for the plant.

The first Westerner to investigate the species was in 1690. He made a spelling error when trying to translate some Japanese characters which had multiple pronunciations. He used the slightly incorrect English spelling “ginkgo.” In 1771, Carl Linnaeus, the father of taxonomy, relied on the earlier scientist’s spelling and enshrined the error. Hence, the spelling error is now over 300 years old.

The Chinese have traditionally eaten parts of the Ginkgo. The nut like meat inside the seed is served in certain dishes at weddings and Chinese New Year. In Chinese culture they are believed to have health benefits. Some also believe they have aphrodisiac properties. The first use as a medicine was recorded in the late fifteenth century in China. Extracts of Ginkgo biloba are today widely sold in health food stores as an aid for memory. There are multiple other medicinal benefits that have been claimed. There is no good evidence that any of the claims have merit.

Ginkgos have separate sexes. The male plant produces small pollen cones. Female plants do not produce cones. Instead, there are two ovules on a stalk. After pollination one or both of the ovules develop into seeds. The fertilization of the seed then occurs via motile sperm. The sperm have many flagella which have a cilia-like motion. Ginkgo sperm were discovered in 1896 by a Japanese botanist.

Beware of planting the female Ginkgo biloba! Its fruit, which drops in the fall, has a strongly noxious, malodorous smell. It stinks like fresh vomit. There is a tree in San Mateo Central Park that is female. It's foul odor can be smelled from at least 100 feet. The odor can last for 6 weeks. Normally, the retail trade sells only male specimens. The male plants are commonly grafted onto plants propagated from seed because male trees do not produce the malodorous seeds.

Ginkgos adapt quite well to the urban environment. They tolerate pollution, heat, and salt. Once established they are fairly drought tolerant. They rarely suffer disease and are almost never attacked by insects. Although their native soil has a pH of 5.5, they do well in soils up to 7.5. They do best in the sun. They are survivors. In response to severe soil erosion, they are capable of sprouting buds near the base of the trunk. In response to crown damage, they can produce aerial roots from the underside of branches. These roots can lead to successful clonal reproduction upon contact with the soil. Extreme examples of the plant's tenacity may be seen in Hiroshima, where six trees growing just one mile from where the 1945 atom bomb exploded were among the very few living things to have survived. Today, all six trees are still growing.

The Ginkgo tree is the national tree of China. It is also the official tree of Tokyo. The symbol of Tokyo is the fan-shaped Ginkgo leaf.

The common name of Ginkgo biloba, "Maidenhair tree," is derived from the leaves of Gingko biloba looking much like the leaves of the Maidenhair fern. The leaves are unique among seed plants in that they are fan-shaped. If you see fan-shaped leaves on a tree, it is automatically a Ginkgo. One of the most beautiful attributes of the Ginkgo is that the leaves turn a bright yellow in late fall. It is "undoubtedly one of the most beautiful of all deciduous trees." In December the leaves fall off together within a very short period, making a neat pile and making collection easy.

The Chase Manhattan variety pictured above is said to grow to about 6' tall and 5' wide over 10 years. With a small amount of pruning it can easily be kept much smaller. Over the course of my plant's entire life, I have spent a total of about one minute pruning to keep it columnar. The above plant is about 10 years old. About 5 years ago my dog got so excited about chasing a squirrel that it ran right through the plant and shortened it from about 3' to 2'. It has taken all this time to get back to about 3'. Obviously, it is a slow grower. Like most Ginkgos, this variety is said to be rather columnar in its early years before filling out.

In summary, this Ginkgo variety is super easy to take care of and is not troubled by insects or disease. Its fan-shaped leaves are unique and the yellow fall color is an added bonus. As an additional plus for garden railroads, the leaves of this variety are smaller than most other varieties. ■

All Steamed Up

by Richard Murray

Rob Lenicheck asked **Richard Murray** to handle this month's "All Steamed Up" column since, according to Richard, "Rob is away playing with big trains."

STEAM CALENDAR

- Richard Murray September 7
- Los Altos September 21, 22
- Lodi October 9-13

HILLER AVIATION MUSEUM

On August 10 the live steamers performed at Hiller as part of "Trains, Planes, and Cool Cars." Over 1000 people attended, and the crowds filled the areas around our track. One of the highlights was a bright yellow, three level, experimental airplane. The lower level consisted of two pontoons. The second level was the fuselage, and the third level was the wing. It was definitely an oddball. I wish I had taken a photo.

When we arrived at 8:30am to set up the track, our trailer had already been positioned by Hiller with its tractor. It has been such a windfall for us to have been allowed to park our trailer at Hiller for free instead of having to pay up to $2000/yr for a space. The only payback is that we have agreed to set up our track at Hiller twice a year in addition to our Annual Meet. Even the payback favors us because we get two additional chances to show off our live steam engines and to advertise BAGRS. Hiller even positions our trailer for us before a meet and then repositions it after the meet. It saves our drivers from having to drive many miles to hook up and position the trailer.

One of the members who we don't get to see often enough is Jack Verducci, past President of BAGRS for about 20 years and builder of half of the existing layouts at the time. He is now working on another BIG project in New York. He brought his grandson, Jack. Of the two engines Jack brought, neither worked well, not even the Cricket, so I let Jack Jr use my Cricket. He had so much fun running the Cricket that he stayed later than his dad expected.

Another fellow who had trouble running his engine was John Nicoles. John has had trouble with his Roundhouse Fowler for a couple years. Every time he thinks things have been fixed at home, it doesn't work in front of others. This time Bob Trabucco went through John's engine and found numerous faults that need to be fixed.

Brand new BAGRS member and steamer, Philip Jenschke. He signed up just two days before the Hiller meet, and has a garden railroad under construction in Benicia.

Bob Trabucco adjusting the level of the track. We already had a 2' level, but since we bought a 4' level recently, the process of leveling the track has gone much faster.

Jack Verducci and grandson, Jack Jr standing next to their Accucraft C-21. Unfortunately, something wasn't right with the engine, and it needed quite a bit of pushing. Jack Jr was quite persistent in trying to get it to run. Eventually, he had more fun running the author's Cricket.

Phillip Boles operating Colton Snell's Accucraft Guinness.

Colton Snell running Phillip Boles' coal fired 7/8ths Accucraft Forney. The two of them had lots of fun operating the other guy's locomotive. Of course, Colton needed more instruction because he was trying to run a coal fired engine, a whole different beast.

This is the author's Accucraft 1/32 Adams Radial Tank 4-4-2T. The kids were really happy to pose after their mother said it was ok. Although the short 2 axle passenger cars were purchased for another engine, this engine also pairs with the cars perfectly.

Vova Tymoshchuk is our only Ukrainian and the only BAGRS member with the first name of Vova. As a new member, he helps with all the chores of setting up and taking down. When he got his engine, it was quite broken down, and he rebuilt it using parts from multiple sources. The tender was totally missing. This Hiller event was only his second steam event.

Ron Sickler's engine is one of many small brass engines that he collects, many of which he scratch builds.

This is the lunch spread that Melinda prepared.

Bill Mansell holds his scratch built "Dai Bach" engine. It was based on ones made by the De Winton Co for the Penrhyn slate quarry in north Wales in the late 1800's. Their purpose was to transport slate from the quarry to the harbor for shipping. ■

Dave's Corner

by Dave Frediani

Dave Frediani lives in Sonora, California and, among his many talents, constructs 7/8 scale rolling stock.

A TRAIN FOR ALL SEASONS

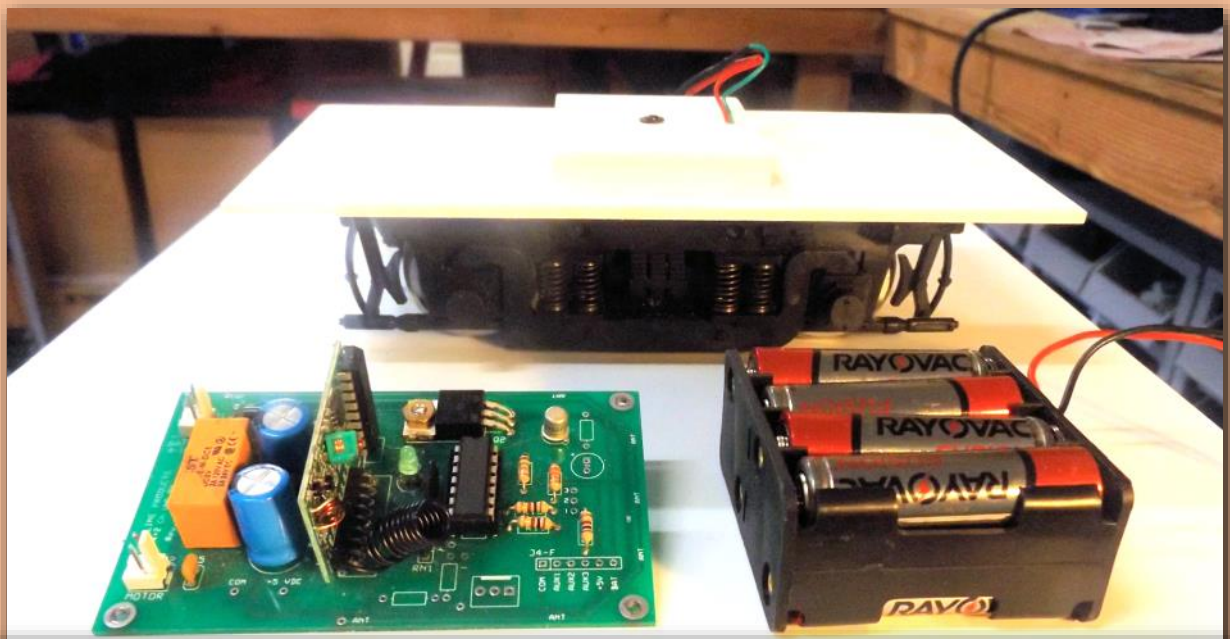
About five years ago, while attending a train show in Turlock, California, I found some metal snowplows that a gentleman had built for a company that builds accessory parts for Tonka Toy Trucks. I purchased two of the snowplows. I paid $10.00 a piece for them. I was thinking of using one of the snowplows on one of my 7/8 scale live steam engines. Using the snowplow on my steam engine didn't work out. All the mounting brackets were in the wrong places and I didn't want to go through the trouble of making new ones that would allow the smokebox door to open and close for lighting.

After being all caught up on all my other projects, I started going through my junk box of spare parts trying to clean up the shop and found the metal plows. After finding the plows, I kept on looking through the box to see what else I could find. Next I found some pieces from a 7/8 scale caboose that I built sometime ago and didn't like the location of the windows, so new ones were built.

So, I now had a snowplow and two side panels from a caboose, and a motor block out of a Aristo-Craft diesel locomotive that a friend had given me, and the wheels started turning, why not build a 7/8 scale motorized snowplow.

Here's the snowplow before trimming the ends to allow for track clearance.

Here's the motor block from an Aristo-Craft diesel locomotive.



Here's the motor block mounted to the floor section of the soon to be 7/8 scale snowplow, along with the R/C unit and battery box that I'm planning on using. The floor that holds the motor block is made of 1/8" styrene. As always the body of the snowplow will be built out of 1/8" and 1/16" styrene.

The overall size of the body for the snowplow ended up being, 8-½" long without the plow, 4-3/8" wide and 7-3/8" tall. All four sides were built of 1/8" styrene with #188 Evergreen strips for the inside corners for extra strength. For all the outside corners I used #169 strips from Evergreen. All the windows were trimmed with #295 angle strips from Evergreen. All the outside body parts were planked and etched with simulated wood grain. I added one roof rib and used #188 Evergreen strips between the roof rib for extra strength and a place for the roof to bond

Here's a view of the completed body, ready for the plow and roof.

The roof was built of 1/16" styrene, cut ½" larger then the body. With the roof glued in place, I glued #189 strips from Evergreen on each side of the body only, where the roof and body meet. After the glue dried, I used #159 Evergreen strips all the way around the bottom of the roof and then trimmed the roof to meet the #159 strips.

Next came mounting the plow. I added a ½" thick plate using four pieces of 1/8" styrene glued together and mounted them on the front of the body. The pieces ended up being 4-1/6" wide by 2-7/8" tall. I drilled two holes into the 1/2" plate to match the two holes in the rear of the plow and bolted them together, making sure that I had 3/16" clearance between the bottom of the plow and the top of my train tracks. Further, I added a piece of 1/16" styrene to cover the opening between the front of the body and the plow. I also needed to add a wedge-shaped piece of 1/8" styrene to add strength to the covering.

Here's the front view of the snowplow, showing the covering and wedge that hides the mounting brackets.

This view shows the false sliding side doors, which are the same as I used on several of my other boxcars that I've built in the past. No need for these doors to open with no interior and just the R/C unit and batteries inside. For access to the R/C unit and batteries, the body lifts off the floor section.

This view shows all the windows installed and the small angle pieces on each corner that will hold the floor section with motor and batteries in place. On the front of this view, you can see the ½" block that was used to mount the plow to the body.

This view shows the floor section screwed in place. The floor can easily be removed to charge or remove the batteries, by just removing the four screws

Front view of the almost finished snowplow.

Rear view of the completed snowplow, note the homemade rear coupler.

Here's a view of the finished freelanced 7/8 scale snowplow. Notice the front headlight, built from ¾" PVC pipe with a clear acrylic lens from Tap Plastics. After its completion, the overall length of this project ended up being just over 14".

As you can see, I really enjoy building rolling stock of my own designs. The measurements end up being as close to a 7/8 scale car as if one had actually been built. That's why I sometimes use the term freelance in most of my builds. The car may have the right length, width, and height of a 7/8 scale car, but that's usually as far as it goes, unless I'm following the plans for a certain car that was actually built. ■

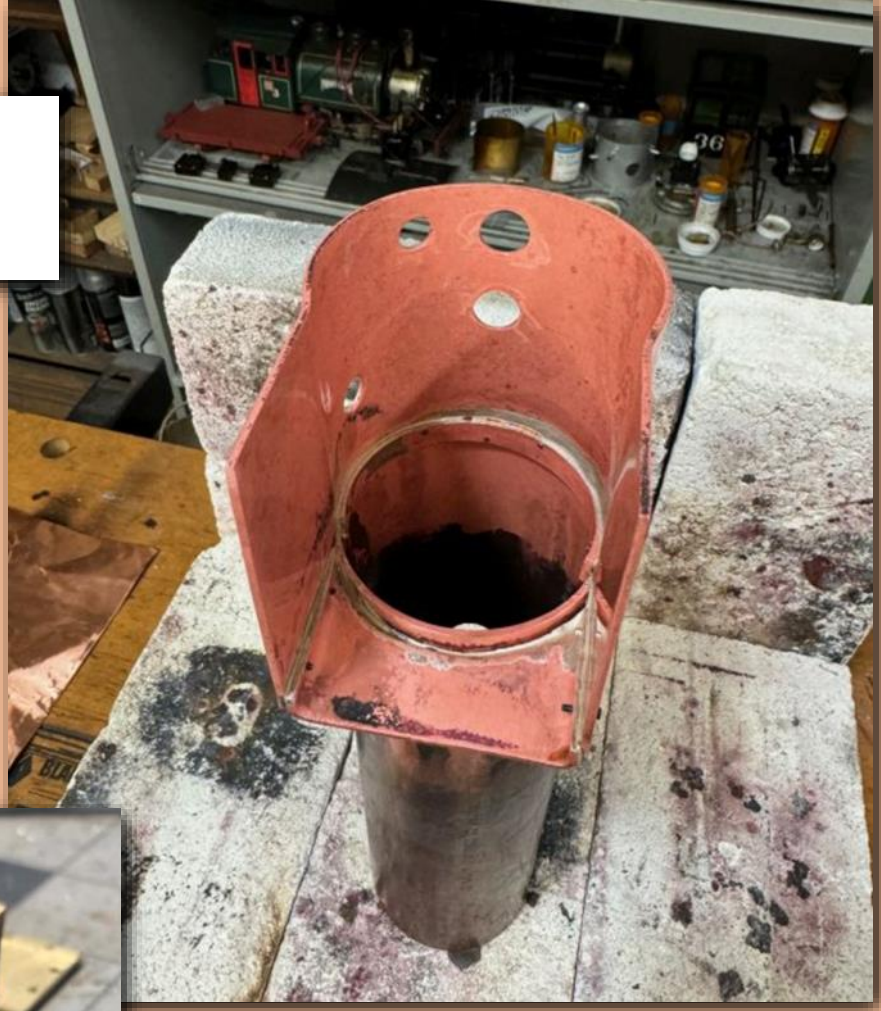
East Devil Hills Modeling Group

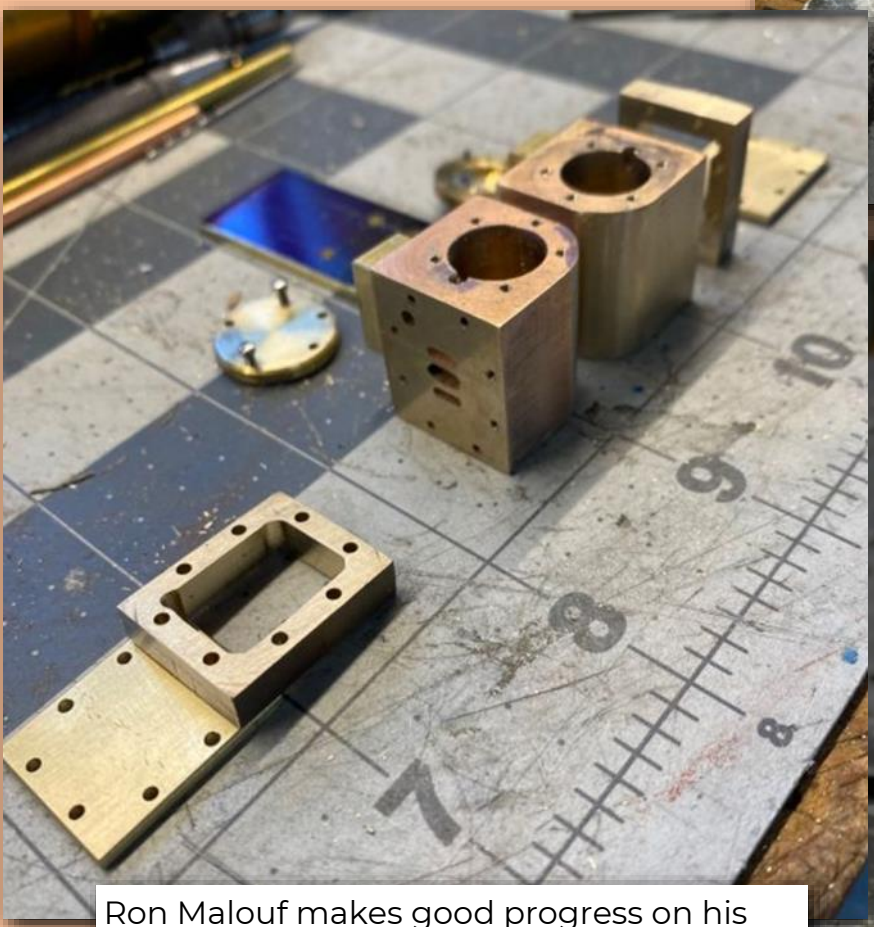
by Henner Meinhold

Henner Meinhold resides in Berlin, Germany. The *East Devil Hills Modeling Group* meets regularly to create, collaborate, and share incredibly machined models.

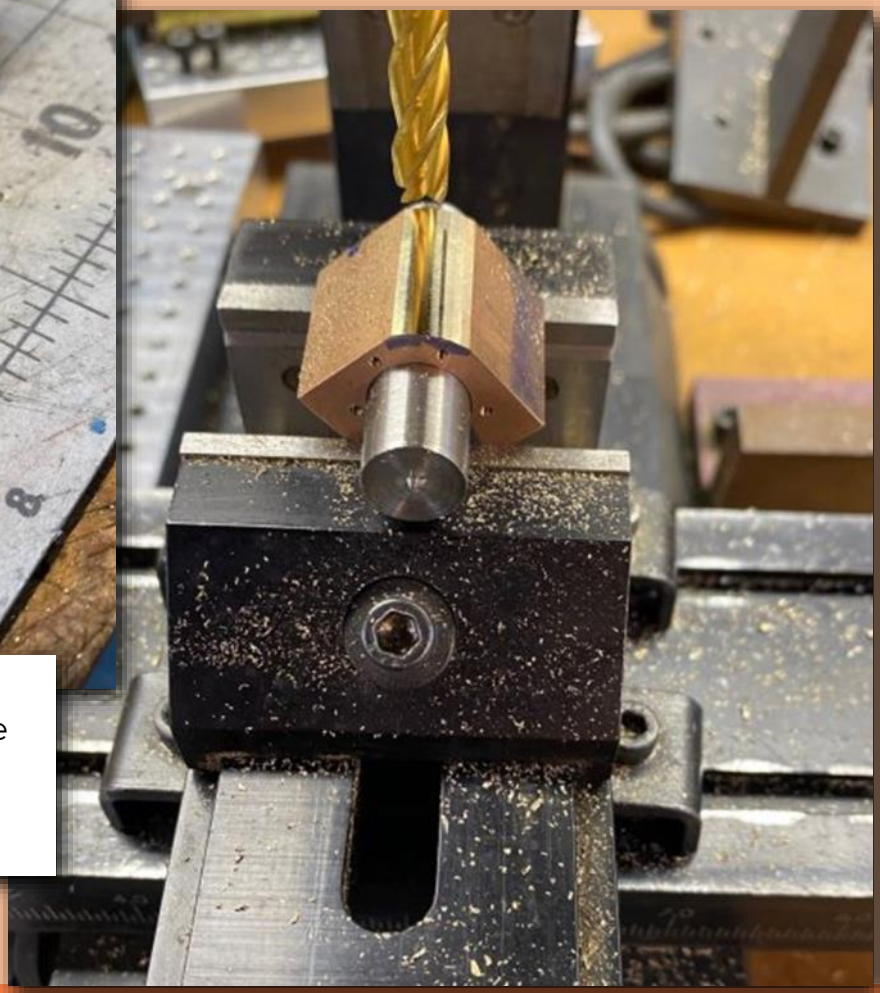
First up this month we report about the progress of Marc Horovitz's tram loco. The boiler is mounted to the chassis and the assembly starts looking like a loco. The loco has already successfully been test run.

Rob Lenicheck is now tackling the coal fired boiler of his Accucraft conversion from butane to coal.

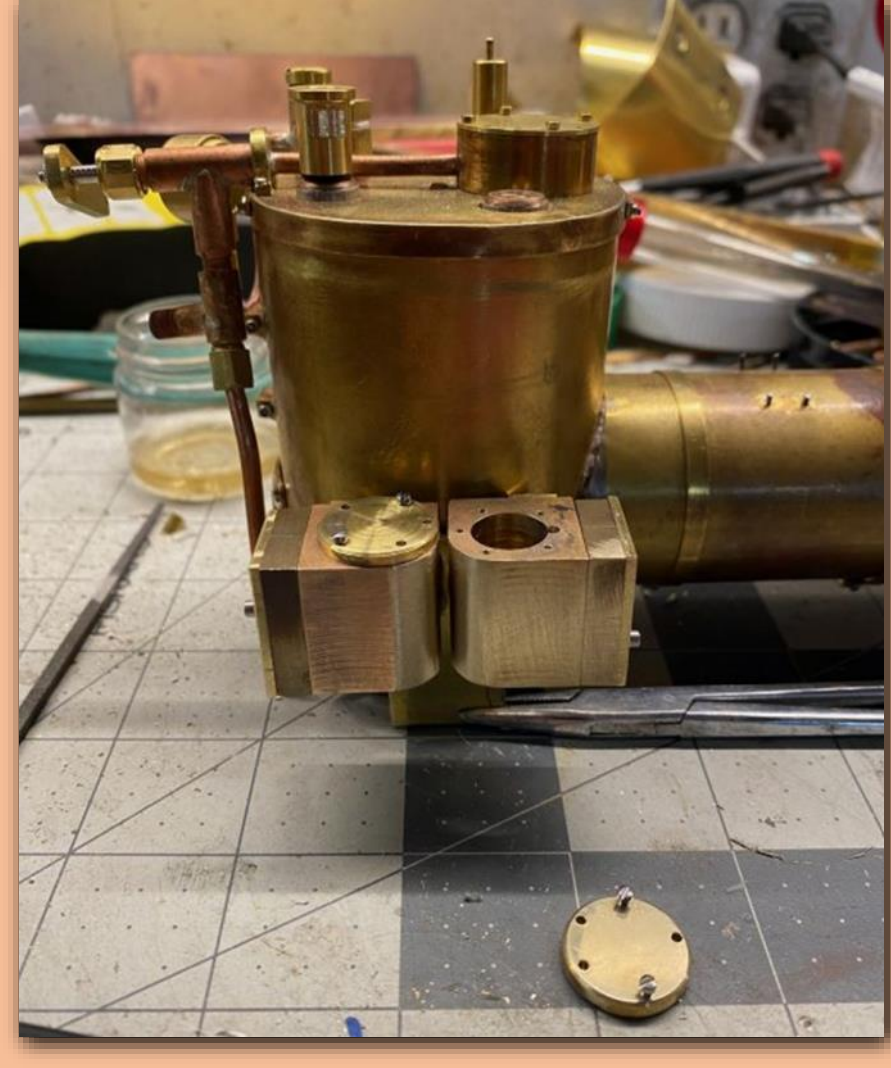


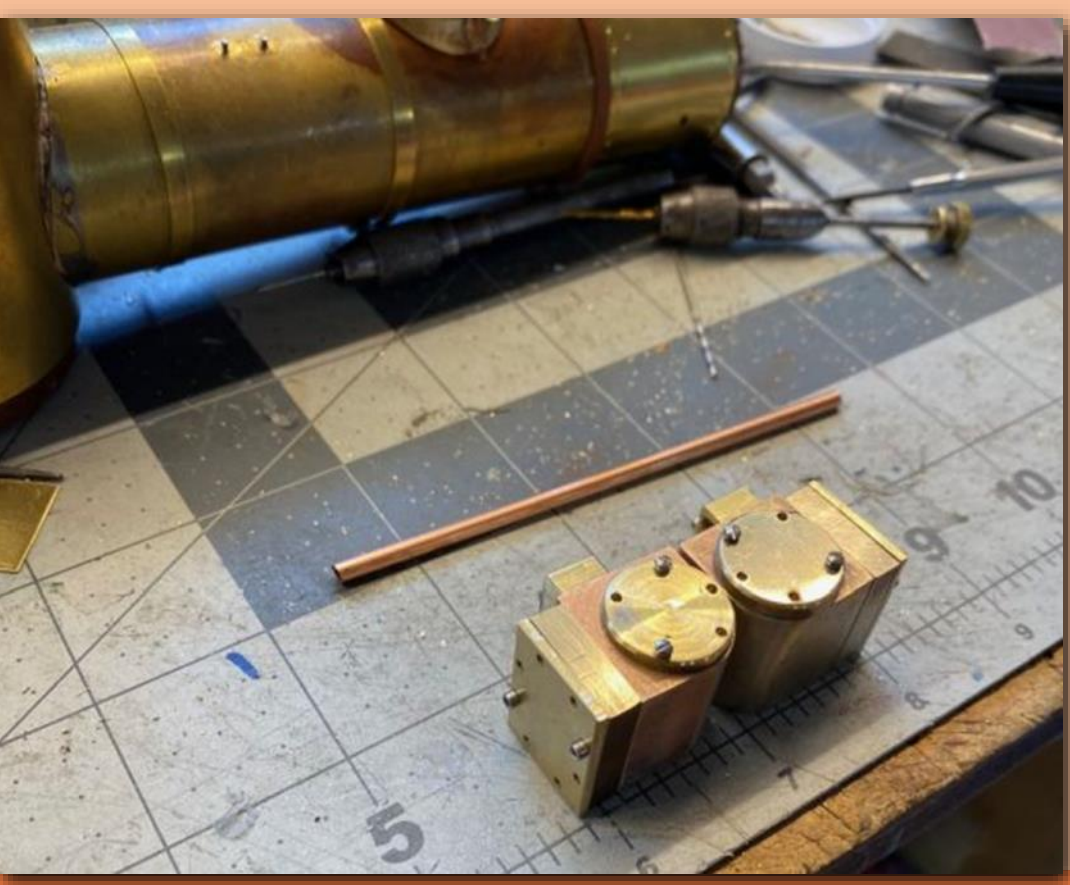


Ron Malouf makes good progress on his Shay build. He finished the cylinders. The outer shape was formed on the milling machine.



The finished set of cylinders, and a mock-up of cylinders and boiler.

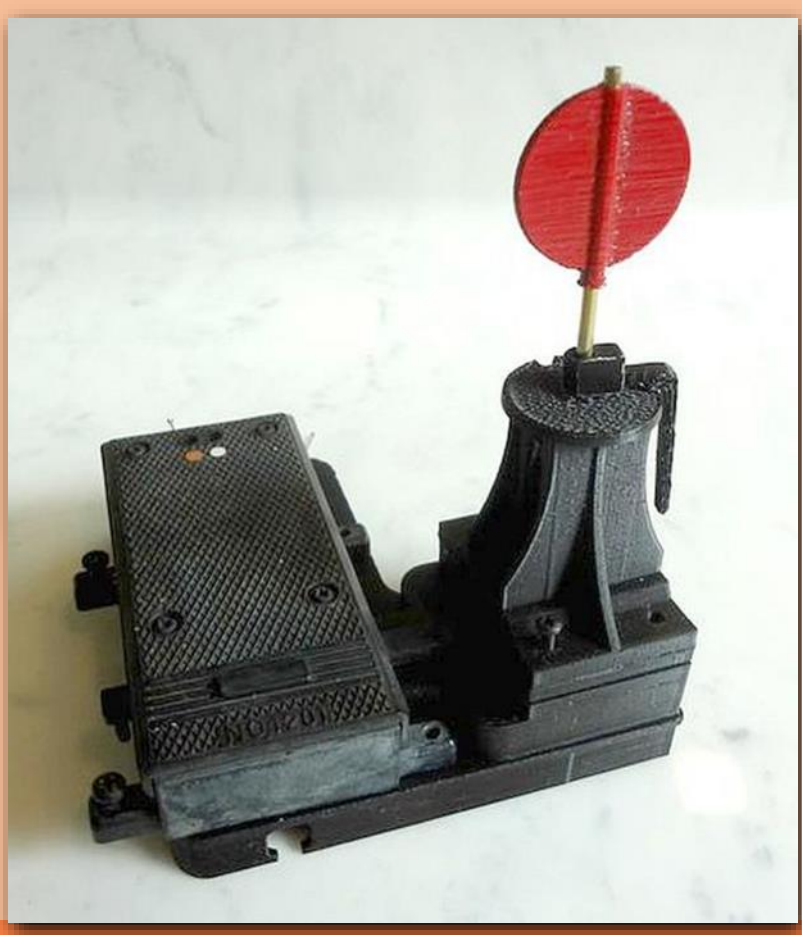




Dennis is a kind person and helps out fellow live steamers whenever he can. Here are two of his current projects:

Mabel, an Accucraft kit, was purchased by Jim Goss and he had problems assembling it. So he outsourced the “basket case” to Dennis. He had to modify the burner, enlarge the opening for secondary air in the smokebox, and tweak the rods for the valve gear. He finally got it to run quite nicely but complained some of the design features made it hard to disassemble/assemble the loco.

Another project was to 3-D print switch stands for Robert Burrill. At Robert’s next Open House you can admire these switch stands in operation. ■



Railroad Ramblings

By Bill Ralph

Bill Ralph operates the *Porcupine Gulch Railroad*, and knows a thing or two about amusement parks and postcards.

EPSOM SALTS MONORAIL

When we think of "monorails," we most likely picture Disney's comfortable air-conditioned, sleek seventh generation trains passing silently overhead on a carefully engineered concrete roadway atop sturdy permanent pylons. Unless you are familiar with the railroads of Death Valley, it's highly unlikely that the short-lived industrial Epson Salts Monorail comes to mind. The unique railroad was constructed to haul the mineral epsomite from deposits in hills near the Panamint Range in northwestern San Bernardino County, California, twenty eight blistering miles to the nearest rail connection at Trona, and ultimately to the American Magnesium Company in Wilmington, California, for processing. A relatively inexpensive wooden monorail was envisioned to be more reliable than trucking the mineral ore sixty-three miles on rugged unpaved back roads subject to landslides and washouts, and cheaper than grading and constructing a full-blown narrow gauge railroad through valleys and over mountain passes. ■

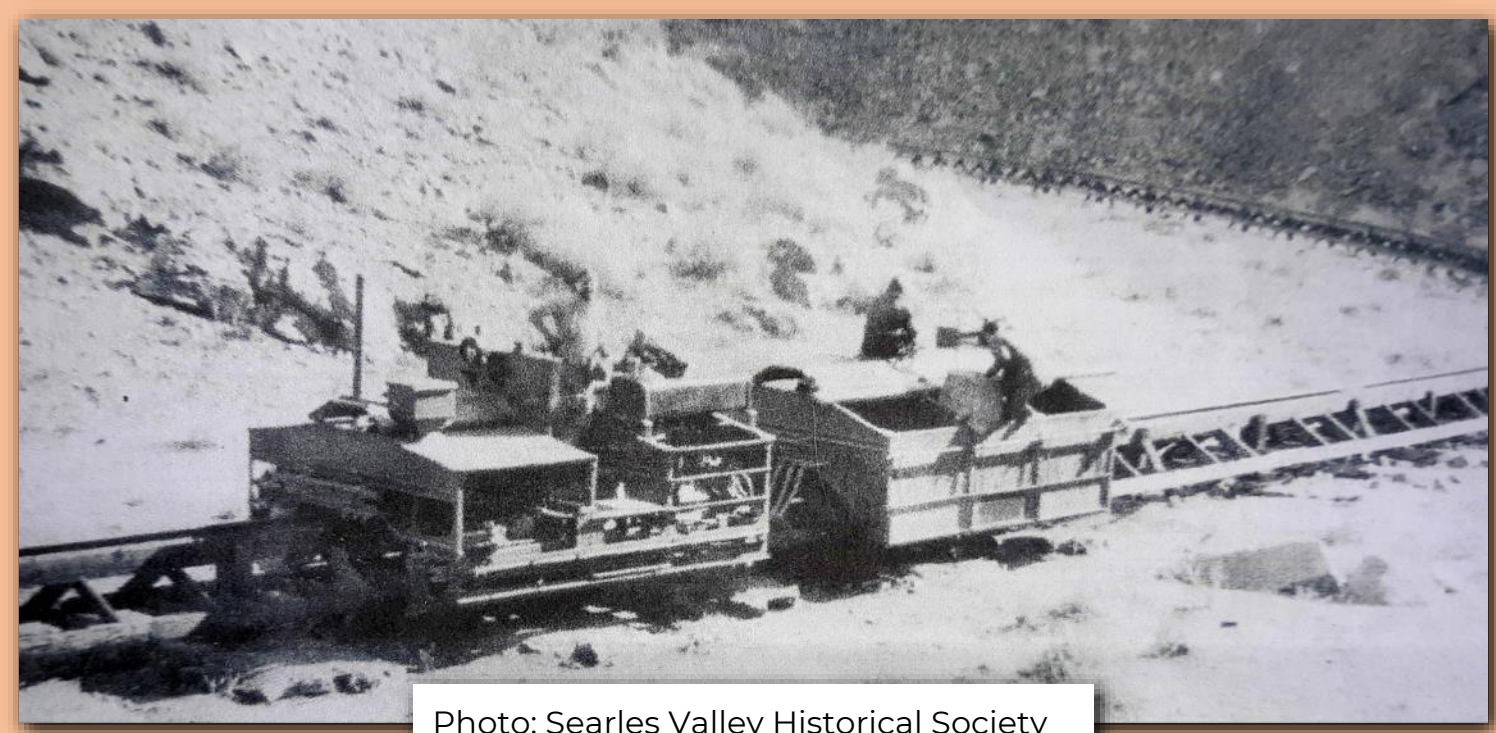


Photo: Searles Valley Historical Society

Two years of construction began in 1922 using millions of board feet of freshly logged Douglas Fir lumber to construct twenty-eight miles of two-foot-tall “A” frame trestles positioned eight feet apart and braced with 2x6” balancing boards. 4x6” beams were used to hold the single conventional steel rails secured to the top of the trestles. Modified Fordson and Buda tractors provided the horsepower to pull the carefully balanced rectangular steel-framed loaded ore carriages at anticipated speeds up to thirty mph and on grades up to ten percent.

The high quality minerals were quickly depleted and the speeds and efficiency of the monorail trains were never fully achieved. Extreme weather conditions, landslides, and the high cost of maintaining the wooden track that distorted when the uncured fir beams dried, along with the expense of retaining a crew at the mine site, signaled the end of the ambitious plan. After two years of troublesome operation, the Epsom Salts Monorail ceased and was partially dismantled and left in the desert to rot. ■

Some additional public domain images available on Wikipedia: https://en.wikipedia.org/wiki/Epsom_Salts_Monorail

BULLETIN BOARD

From Ray Turner:

Mystic Mountain Railroad will be having a night-time operating session, Wednesday, September 4, from 7 to 8:30 p.m. Here's your opportunity to see this RR at night with a view of the valley. **FYI: Sunset will be around 7:30. Bring a flashlight.**

Date: Wednesday, September 4, 2024

Time: 7:00–8:30PM

Location: 10251 Kenny Lane, San Jose, CA

GARDEN RAILWAY CLUB NEWS

BAGRS has a policy of reciprocal sharing of newsletters with the following garden railway clubs. We do not share private member information such as home addresses or tour information without the express permission of the particular member. We provide links here to the most recent editions that have been made available to us. For other clubs wishing to obtain a copy of the latest BAGRS *Trellis & Trestle*, please contact **Roger Nicholson** at communications@bagrs.org

Central California Coast Garden Railway Society—July 2024

Central Ontario Garden Railway Association—Summer 2024

Denver Garden Railway Society Newsletter—August 2024

Gold Coast Garden Railway Society—July 2024

Puget Sound Garden Railway Society—August 2024

Redwood Empire Garden Railway Society—August 2024

Rose City Garden Railway Society—August 2024

Sacramento Valley Garden Railway Society—July 2024

The Garden Whistle New Zealand Large Scale Newsletter—July 2024

Garden Railroading News—May/June 2024

The 2025 NGRC 2025 will be hosted by the Sacramento Valley Garden Railway Society.

Website coming soon at ngrc2025.org

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ROLE	NAME	EMAIL ADDRESS
President	Mick Spilsbury	president@bagrs.org
VP/Communications	Roger Nicholson	communications@bagrs.org
Secretary	Greg Hile	greghile@outlook.com
Treasurer	Larry Silverman	treasurer@bagrs.org
Membership	Ray Turner	membership@bagrs.org
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Send a $15 check, payable to BAGRS, for each badge ordered. Be sure to print the Name (s) and City(s) for the badge(s) clearly. Send to: BAGRS Member Badges, 210 Friar Way, Campbell, CA 95008

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List items you have for sale or items you want. You'll find it in the middle of the "Members Section" menu on our website, bagrs.org. Log in is required.

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Many photos & videos are hosted at: https://photos.google.com

Click on "Go to Google Photos" if offered.

Login with this email and password: BAGRSvideos@gmail.com BestClub4014

The upper-left corner has a pull-down menu to select ALBUMS. Then click on the album of interest.

THE LAST PAGE

A replica of a Mt. Tamalpais gravity car sits in a park in the town of Mill Valley, California. The car was pushed to the top of the mountain by a locomotive, then allowed to roll down the hill. If you ever want to imagine what it was like to ride in one of these, you can come sit in this one and let your imagination run wild. You can check out this YouTube video to see the real thing: Mt Tam Gravity Car Project. For more fun, check out the G-Scale version here: Vista del Bahia Railway, Corte Madera, CA - 17 September 2023

TRELLIS AND TRESTLE

Editor: Roger Nicholson, Assistant Editor: Noëlla Simmons

Regular Contributors: David Frediani, Henner Meinhold, Rob Lenicheck, Bill Ralph, Mick Spilsbury

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