

Rebuilding the Snow Creek

1. A passenger train passes the Logan company at Gage on Bob Treat's Snow Creek Railroad. Most of the original vegetation remains on this part of the rebuilt line. Neighboring trees and bushes extend the feeling of space as borrowed landscape.



Railroad

Rethinking a 20-year-old line

by Bob Treat | San Diego, California | PHOTOS BY THE AUTHOR

A few years ago I realized that I was starting to get older, like a lot of garden-railroad baby boomers, and I found it was not a pleasant realization. My Snow Creek Railroad was becoming more of a cumbersome annoyance than a form of enjoyment. After almost 20 years, the maintenance was getting out of hand. There were too many weeds to pull and trees to trim, and too much track to repair. With my bad knees, crawling between bridges and balancing over track to pick up leaves was becoming an impossibility. I realized that, not only was I wearing out, so were parts of the original railroad. The creek was leaking badly and some of the rock facades were beginning to collapse.

Procrastination and apathy began to set in. I realized I was losing interest in my railroad—it just wasn't fun anymore. If I was going to remain in the hobby that I loved, some changes would have to be made. In early 2011, I made the decision to rebuild the Snow Creek Railroad.

The new beginning

Surprisingly, the idea of redesigning and rebuilding gave me a second wind for the railroad and for the hobby. This was a chance to try out new ideas I had learned over the years and correct mistakes made in the original railroad. It gave me the opportunity to start with a (nearly) clean slate.

Trackplan

I immediately decided to simplify the trackplan. Even though I wanted to keep the basic footprint of the railroad in the yard, less track would mean less maintenance. Reballasting, re-leveling, and repairing damaged track in almost inaccessible places over the years had become a real headache. The one major limitation I gave myself was to keep the quarry area, deep canyon, and the town of Snow Creek pretty much the same. As a result, I ended up leveling the other half of the railroad down to dirt. The new trackplan resulted in shortening the mainline by almost a third.

By reducing the amount of track and opening up the plan, I was able to eliminate areas where the track had been cramped, as well as being able to considerably broaden curves and reduce grades. This has almost completely eliminated derailments and has provided a more realistic look to even the longest trains.



2. A local freight from Snow Creek negotiates its way with a string of empties through a high desert pass. Small granite shards take the place of plant material on this portion of the railroad.



3. The Logan company at Gage manufactures high-quality gizmos. The railroad carries raw materials in and finished products out, thus requiring a variety of cars. The tracks in the foreground thread their way down to the quarry. Only Shays and Climaxes can negotiate grades like this.

The main yard at Nemo had been off to the side on the original plan, which had always bothered me. I felt it should be a strong focal point for people entering the railroad or sitting on the patio. So the station and small yard would be moved to the front of the railroad.

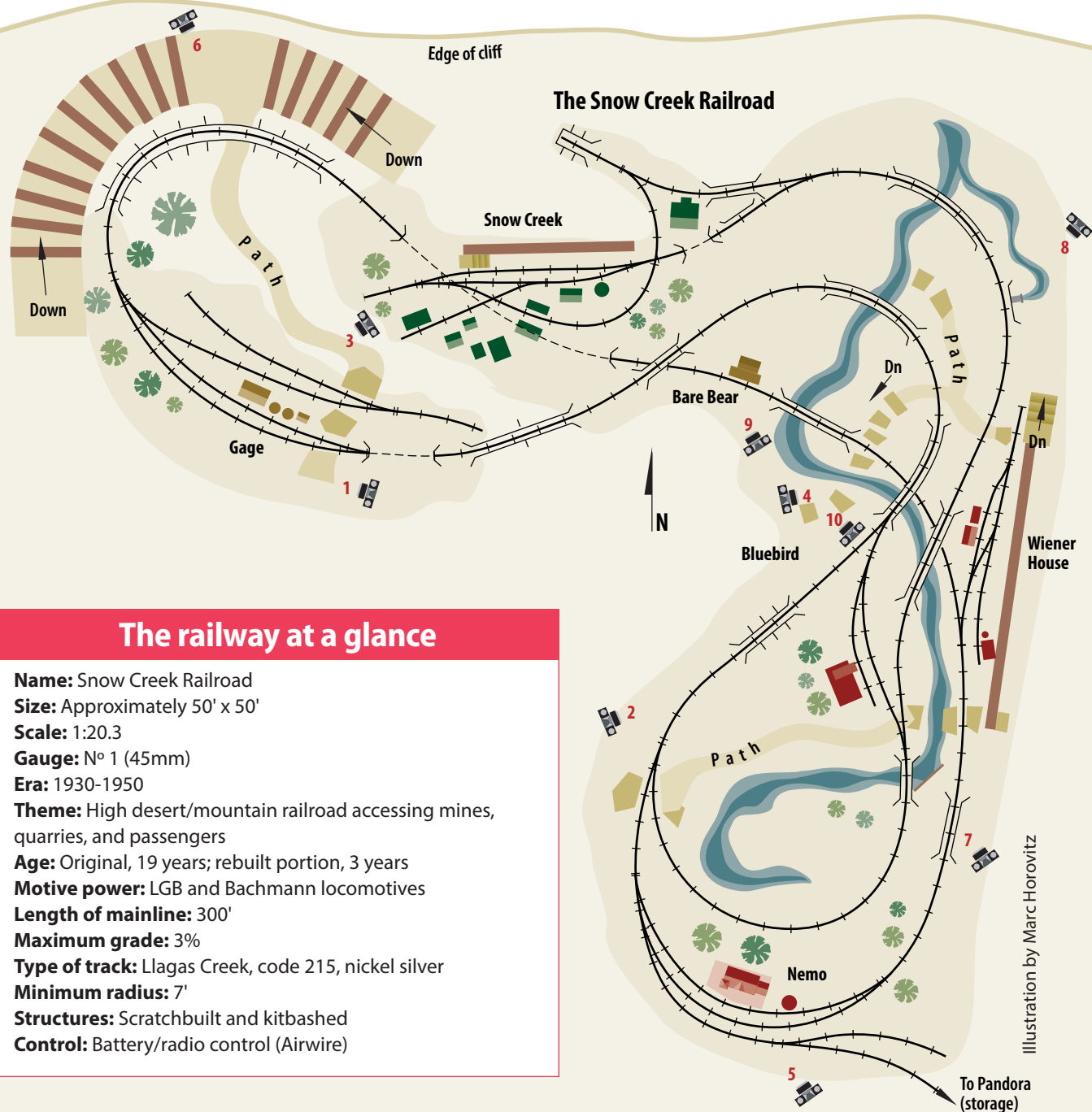
Recycling

It was important that I reuse as many bridges, switches, and as much track as possible. One large trestle got chopped up and the bents became supports for three other bridges. Two short girder bridges were joined to form a larger one. During the re-terraforming, I kept in mind where I might make a canyon or gully to find locations for the “leftovers.” As it turned out, only one steel arch bridge didn’t find a new home on the railroad.

I had plenty of nickel-silver rail to reuse for new trackage but I had to bite the bullet and buy new tie strips. Even with UV protection, after almost 20 years the old ties had become brittle and the spike heads broke off when trying to bend the tie strips or slide them off the rails.

I really lucked out, though, with the switches. I was able to use my #6 switches on the mainline and #4 switches on sidings without having to buy new ones.

I even kept in place many of the original bridge abutments, foundations, and tunnel portals when I tore out the old right of way. This helped to give a more credible back story and fictitious history to the railroad, and a real history and memories for its builder.



The railway at a glance

Name: Snow Creek Railroad

Size: Approximately 50' x 50'

Scale: 1:20.3

Gauge: N° 1 (45mm)

Era: 1930-1950

Theme: High desert/mountain railroad accessing mines, quarries, and passengers

Age: Original, 19 years; rebuilt portion, 3 years

Motive power: LGB and Bachmann locomotives

Length of mainline: 300'

Maximum grade: 3%

Type of track: Llagas Creek, code 215, nickel silver

Minimum radius: 7'

Structures: Scratchbuilt and kitbashed

Control: Battery/radio control (Airwire)

Trying new ideas

The new trackage was designed with a more stable roadbed in mind. I still wanted it to be as natural as possible but this time I used a more stabilized decomposed granite, which keeps the track solidly positioned.

One of the original mountains had collapsed, along with the track, a couple of years ago. On the new railway, I completely separated the track support and the concrete-rock scenery. An aluminum-and-PVC spline was built to support the track and the scenery was formed separately around it. Now, if and when the mountain shifts (the railroad is on fill at the edge of a canyon), the track should stay in its proper position.

4. An early morning pass as Mogul N° 8 pushes a couple of tank cars above Climax N° 16 on its way to Gage. The realistic smoke effects were applied to the photograph using Photoshop techniques.





5. An overview of the railroad and the new placement of Nemo station. The foreground was redesigned and completely rebuilt while the bridges and town of Snow Creek in the background remained pretty much intact.

Because of the collapse of the concrete-slab mountain (from hydrostatic pressure), I found my chance to try some new rock-making techniques. I decided to use more readily available concrete materials. After a little bit of experimenting, block cement and #90-grit sand became my materials of choice. They seem to be stronger than previously used Marble White and still held detail well. Silicone-rubber molds were used almost exclusively in forming the concrete-rock slabs. The slabs were eventually positioned on a rebar-and-chicken-wire armature,

covered with cement-dipped burlap, rather than supporting them against bare dirt that might become waterlogged over time.

The original creek needed to be repositioned for the new trackplan. Over the years it had become hidden in places from repositioned track and overgrown foliage. The new creek design was to be visible from four vantage points. I wanted each area to have its own distinct feeling to create a sense of distance.

Starting from a mild stream, the creek runs through a high desert environment, down a rapids, and through a gorge. By

creating these rapids, I was able to incorporate water sounds, which was something I had always missed on the original railroad. Another water-sound-making scene was added on the back of the railroad with the building of a new drainage culvert and stream, which provides a nice visual discovery while walking around the area.

When I originally built the creek, I had used a rolled-asphalt roofing material for its foundation. As strong as this material was, Mother Nature had taken her toll, making it brittle. Critters realized it was fun to gnaw holes from the underside, thus creating underground rivers. Heavy-duty pond liner became the new solution. Its flexibility made it easy to form the creek and, so far, it's holding up well. I chose to set it in a bed of soft dirt and sand, rather than to use old carpeting or newspapers, as is sometimes recommended. It seemed that carpeting would be a breeding ground for mold and creepy crawlers. Those kinds of olfactory sensations were something I did not want to add to the new line.

Plants on the Snow Creek Railroad

San Diego, California, Zone 9-10

CONIFERS

Eric's white cedar
Chamaecyparis
thyoides 'Ericoides'

Japanese garden juniper
Juniperus procumbens
'Nana'

SHRUBS

Dwarf pomegranate
Punica granatum
'Nana'

Chinese dwarf elm
Ulmus parvifolia

GROUNDCOVER

Various sedums
Sedum sp.

More rocks and fewer plants

I wanted part of the new section to use as much natural rock as possible, arranged to create an almost Zen-like feeling in places. The original railroad had wonderful granite shards that I really loved. I carefully (and obsessively) removed every one of them from the old railroad and categorized them by size to reuse later. From these piles I was able to create an extremely rocky area for the new track to negotiate. I gradually transitioned the natural stone into the artificial, concrete rocks (which were used to rebuild the major mountains) primarily by painting the concrete and real rocks unifying colors. This is an ongoing process, using oil paint and turpentine washes. Like Mother Nature, over time I intend to build up various colored patinas on the “rocks.”

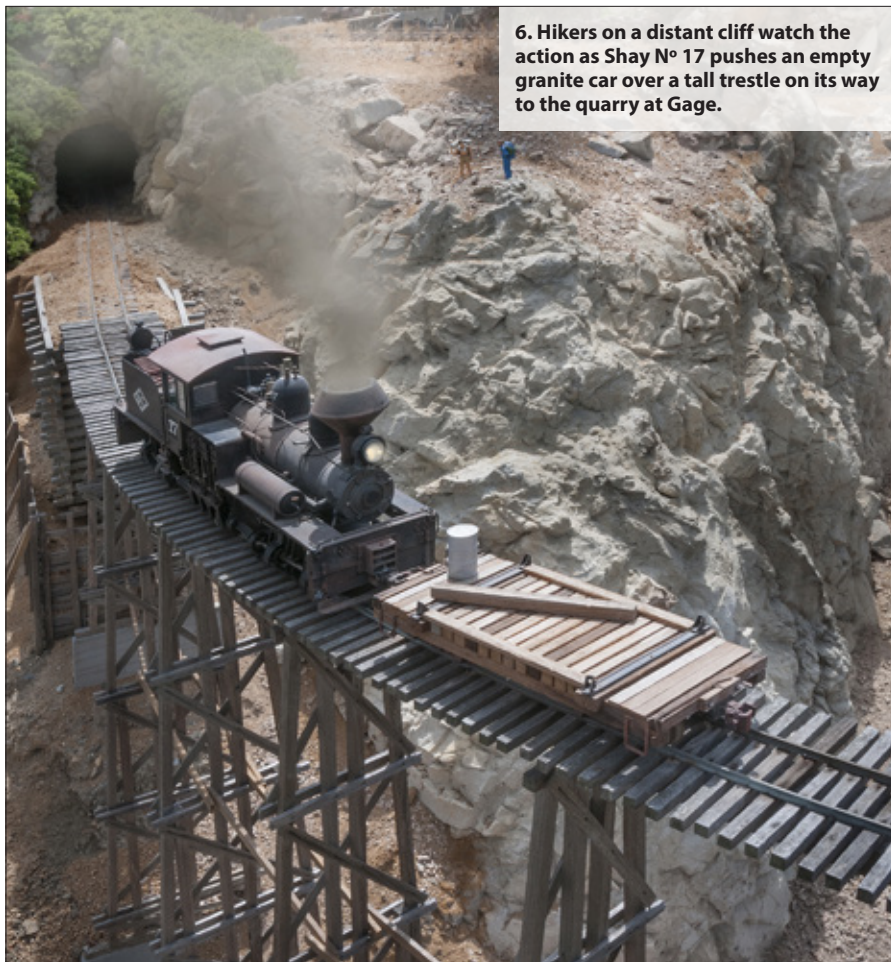
Along with the new trackplan came a design for pathways throughout the railroad. Not only did this make access to landscape and track easier but it also provided a way to see the railroad from new vantage points. I wanted to make defined pathways without them being obvious; it was important they blend into the surrounding landscape. The solution was to use natural stone for the paths and large, seemingly randomly placed boulders for steps. This has made a big difference in the enjoyment of the railroad.

It seems that I have always had a “brown thumb” when it comes to plant maintenance. Even though the old line had become quite lush, it was a major challenge. I have always said that it was easier to grow rocks than it was to grow plants. So, with a high-desert concept in mind, I decided to minimize the plants primarily to drought-tolerant junipers and sedum. The Japanese concept of borrowed landscape, called “shakkei,” makes the now more-arid railroad relate strongly to its adjacent real arid canyon beyond, thus making the railroad appear larger than it really is.

The good and the not-so-bad

Even with the best laid out plans, even the second time around, nothing is perfect. I will say that I do like the new track layout better than the previous one and I was able to meet most of my major objectives, but there are always compromises.

Areas of activity, like railroad yards or industry switching, are always more enjoyable if raised for easier access.



6. Hikers on a distant cliff watch the action as Shay No. 17 pushes an empty granite car over a tall trestle on its way to the quarry at Gage.

About the author

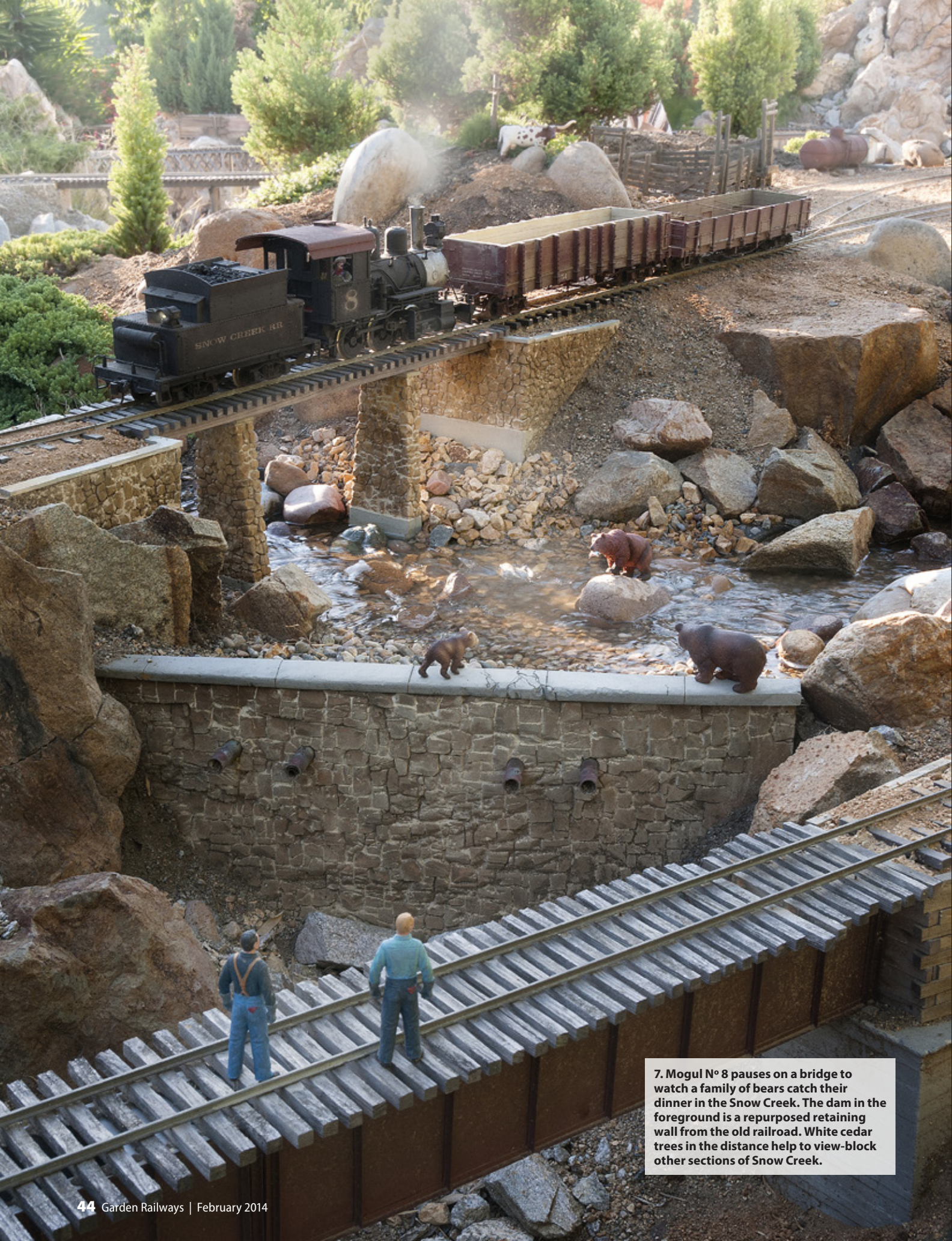


Bob Treat is a retired Disney TV animation director turned fine-art painter. He has been involved in some form of model railroading most of his life. In addition to rebuilding his outdoor railroad, he is actively involved in an On30 modular group and enjoys operating sessions on various lines throughout the area. Other interests include photography, touring art museums, mid-century architecture, and camping. He lives happily in San Diego with his husband Steve Dasher, a golden retriever, a cat, and 27 sheep.

Unfortunately, no matter how hard I tried, the new placement of Nemo station and yard near the patio area had to be close to ground level. The addition of patio-chair cushions on the ground near the track have made life at Nemo a little easier.

I would be lying if I said that I did not miss the old railroad at least a little. I sometimes feel the original plan was more dramatic, with its elevation changes, multiple tunnels, and foliage into which trains could disappear. Perhaps that observation is more subjective than true. After all, I was able to re-create even

more massive cliffs and gorges that I loved so much, the new creek is more active, and the real rock is more dynamic. As great as the old railroad was for train watching by the casual visitor, it turned out to be a real headache for the operators running those trains. Engineers were constantly losing them on one side of the railroad or the other. Trains would be hidden by view blocks for long periods of time before they re-entered a scene—great for visitors, frustrating for operators. The new, open concept makes following trains easier and is still interesting for visitors.



7. Mogul N° 8 pauses on a bridge to watch a family of bears catch their dinner in the Snow Creek. The dam in the foreground is a repurposed retaining wall from the old railroad. White cedar trees in the distance help to view-block other sections of Snow Creek.



8. Mountain construction techniques changed in the rebuilding of the line. Cement-soaked burlap was placed over chicken wire and rebar to support molded-cement rock slabs. An aluminum-and-PVC spline supports the track separately from the scenery.



9. The crew in the railroad inspection car stops at Bare Bear to chat in the early morning sun. There is no siding here, so cars are spotted briefly on the mainline while supplies are quickly unloaded for nearby Bare Bear Resort. Sedum lines the track and dwarf juniper leans against the covered platform.

In designing the original railroad, I tried to incorporate as much trackage as possible for a long mainline run—possibly too much. Now, even though the mainline is considerably shorter, I get a stronger feeling of space and distance. This is because trains no longer run redundantly through the same areas of scenery, albeit on different tracks.

Conclusion

If a moral is to be had, I would say it's important that we spend time planning our railroads for the present, but also give serious thought to what it will be a like for our future enjoyment as we age. If I knew 20 years ago that I was going to get older, I would have designed a more simple track-plan then. Then again, hindsight. . . .

I do find it ironic that, when I got to the place where I physically could not move about on the railroad as I wanted, I decided to spend two years shoveling tons of dirt and slinging hundred-pound bags of cement to build a simpler and easier one. Maybe model railroaders *are* a little crazy. 🐻



10. As the morning sun peaks over the mountain, Climax N° 16 creeps across a stone viaduct at Bare Bear. The background mountains are part of the original railroad while the viaduct has found a new home here spanning the creek. Once again, rocks take the place of lush vegetation.



Online extra

Registered users of our website can watch a video of the Snow Creek. Visit www.GardenRailways.com and click on "Construction & landscaping" under "How to."