

SIERRA CENTRAL HERALD

Publication of the Sacramento Model RR Historical Society, Inc.

Our 59th Year

September / October 2007



Our members have been taking advantage of open train running for the month of August. Considering the number of trains, I wonder if we were trying to emulate the Union Pacific. The layout has operated very well, which reflects the major construction effort we made before the July open house. The maintenance we did is paying off. During this period our members have taken advantage of the DCC programming stations. Lots of sound equipped locomotives have been programmed. Love that Decoder Pro. In September we will go back into construction. This will be a short construction period and the focus will be on getting ready for the November open house. With so much of the track completed we can support a number of projects at one time. Some construction areas are:

Scenery – The Feather River Canyon, area between Martinez and Davis

Building Mockups – 16th Street, Shops area

Uncoupling magnets – 12th Street Yard

Signals – New signals at East Bieber and West Portola

Signal indication panel – West Keddie “Y”

Intermediate signal indication panels – between switch 253 and West Oroville

Electrical – Continued installation of CMRI blocks

Track – Construction of switches for 16th street

Panels – Make laser panels naming layout locations and switch names.

Member support – We will provide DCC assistance, equipment certification and help with resistor axles.

There are a lot of different tasks to do, so see Dave Megeath for an assignment.

SMRHS Prototype Train Operation Practices-This program will be discussed at the September business meeting. When we go back into train operations in October, we will begin its implementation. Why do we need a new program? Listed below are two of the reasons:

1. Improve Member Skills-During the July open house our dispatching system failed because members did not understand the layout, how to operate a train under a train warrant, radio communication or follow signal indications. This puts everyone's trains at risk and makes for a confusing operation. It was very apparent that we have to insure that our membership is trained and can run the layout.

2. The sophistication of the standard gauge layout-In 2000 the membership voted to build a very sophisticated layout. It would include 3 color signaling, CTC operation from our dispatching panel and eventually formal operating sessions. We have made considerable financial and time investments to be able to build this layout. Having a layout of this level will make it more enjoyable to operate and be a member of the Society. The skills of our membership need to be at a level that allows its operation. Here are two of the actions that are part of the program. The program was approved at the last Board of Directors meeting.

1. A trainmaster will be responsible for the train operating session.
 - a. We are actually re-implementing the trainmaster position that is in the Society by-laws.
 - b. He will insure trains are listed on the schedule board and are certified.
 - c. He will determine the order of train operation and number of trains operating at one time. Based on layout demand, he may restrict members operating time to give all members an opportunity to run. He may also assign operating positions such as yard masters and pilots.
 - d. He will insure that trains are operated in an appropriate manner.
 - e. As we move toward full operating sessions he will be responsible for the operation session and personnel assignments.
 - f. Trainmasters will be the board member opening the Club house or a designee.
2. Operator Certification – Members will need to be qualified to operate trains.
 - a. A qualification card will be issued to each Society member indicating the areas the member is qualified for, just like the real railroads.
 - b. Certification will be required in a number of areas such as general layout, radio communications, mainline train operation, yards, industry switching, dispatching, signal maintenance, operating session development.
 - c. Without certification a member will be assigned a pilot to operate.

As a reminder, our business meeting will be Friday, September 31st at 8:00 p.m. Please be sure to attend. We will elect Society officers. An absentee ballot is enclosed in the newsletter. Shortly an agenda will be sent out.



Inside This Issue

The Streetcars of Sacramento
Mine Service Trackage Alignments
Sub Ground forming methods
Absentee Ballot

Look for these and other interesting articles inside this issue of The Herald.



Articles Under Development

The End Game
DCC Tips and Tricks

This is a current list of articles being prepared for the Sierra Central Herald. If you have an idea for an article, please feel free to pull me aside and ask for help!

Sacramento's Streetcars by Karl Griffin / Photos from the W. Burg collection

It is really difficult for us to imagine a time when there were no airplanes, trucks, buses or automobiles. In order to get to work or go shopping or visit family and friends your options for local travel were walking, bicycling or horse and carriage. For long trips you took the train or stage coach.



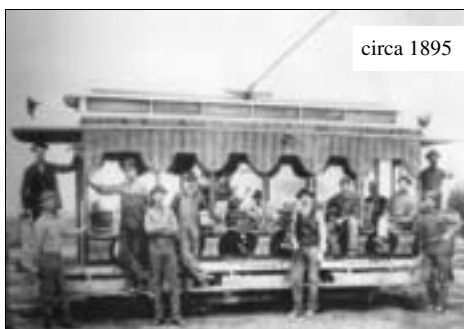
circa 1860's

Roughly during the time frame of 1890-1935, the golden age of streetcars/trolleys/interurbans existed. From about 1835 until the commercial production of electricity(!!!) streetcars were propelled by horse. One or two strong horses could pull a small streetcar on rails on a level surface fully loaded with passengers quite efficiently.



circa 1870's

A trolley is commonly defined as an electrically powered vehicle under 45' in length with speeds upto 20 mph, a streetcar as an electrically powered vehicle under 60' in length with speeds upto 40 mph and interurbans as anything larger with speeds upto about 70 mph. In practice almost all trolleys and streetcars used an overhead sprung pole with a wheel or a carbon sliding shoe to collect 600v current from an overhead



circa 1895

wire. Interurbans would usually use a pantograph sliding along a catenary hung 1200v wire. This arrangement was necessary to maintain electrical contact at higher speed. The overhead wire had an electrically conductive grease applied to help prevent corrosion, reduce wear and reduce electrical arcing.



circa 1910

The overhead wire was under strong tension to reduce drooping and was supported by insulated hangers and set at a height of about 18'-20' above the railhead and poles were spaced about 80' apart. The support poles would be of wood about 10" in diameter or of decorative iron castings and often did double duty as street lighting in the city.



circa 1920

Streetcars in Sacramento would begin their journeys from Old Sac at Front and K street where the current Amtrak depot is and would radiate out through the city and most often would terminate at a park or fairgrounds-examples would be McKinley Park, Oak Park, Hagin Park. Real estate developers would often



circa 1930

Sacramento's Streetcars *continued by Karl Griffin*

subsidize the railways out to their new divisions as a major selling point-remember there were no cars or buses then! People would spend their time at these parks much more then than they would do today for recreation.



The volume of passenger traffic would determine whether a line was single tracked down the center of the street or double tracked on either side of center which would permit much higher traffic densities. All streets back then were nothing more than crushed gravel with decomposed granite dust which acted as a binder agent similar to what you walk on in Old Sac. Asphalt paved roads weren't common until the late 1920's.



Why aren't streetcars common on model railroad layouts? At first glance it does seem odd that such an important mode of transportation would be missing from our layouts. I've included a few of the most common reasons (excuses if you prefer) that they are not seen very much in the next column to the right.

circa 2000 Historic Trolley on lightrail tracks in downtown Sac!



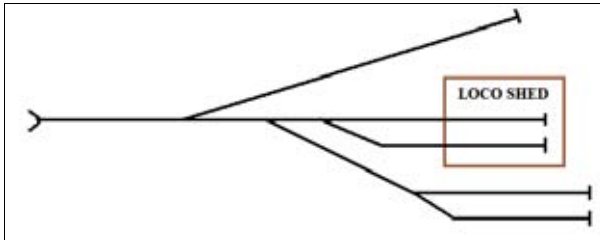
1. I model in the 1940-50 time frame when most streetcars had almost all disappeared.
2. I model in HO scale and there are very few models available.
3. I like long trains of cars not a consist of one vehicle.
4. I would have to learn a whole new skill of 'hanging wire'.
5. I would need to build a major city to justify its existence.
6. The line would be too short or it would have to be the centerpiece of my layout and I don't have space for both.
7. There aren't any switching possibilities with a single car.
8. I would have to reverse the trolley pole or construct a reversing loop at the end of the line to setup the streetcar for a return trip.
9. In order to get it to run reliably I'd have to fill the interior with lead weight and then frost the windows.
10. Where would I get the components to develop a reliable overhead wiring system especially through switches?

As you can see from the listing above these are some really formidable challenges and they go a long way in explaining why we don't see streetcars on our layouts very much. In reality this is a scatchbuilders paradise. Most of the current layouts where we see successful interpretations are modeled in 'O' or 'G' scale which automatically puts them in the minority and they are usually the oldtimers who have intimate knowledge and memories of these systems. On the other hand if you really like a technical challenge and want something different this would be it!



Mine Service Trackage Alignments by Karl Griffin

So, you have decided that your layout in planning is going to have a mine (silver, gold, coal, etc.) installed on it and now you need to decide how it is going to be serviced by your railroad in the space that you have available. There are any number of service track alignments that the prototype uses and of course using modeler's license we can also develop a few of our own unique arrangements in the interest of saving space or 'creating an easy flow' to our operations.



The first basic consideration is whether your trackwork dead ends at the mine or does it continue onto other towns or industries along the way.



The second consideration is how much real estate you have available both for the mine complex itself as well as for the entrance/exit trackage or storage trackage and do you want it to be all visible or some or most of it hidden (usually due to space limitations).

The third consideration would be can the mainline be blocked when you are switching out the mine or do other trains need to go by during this operation.

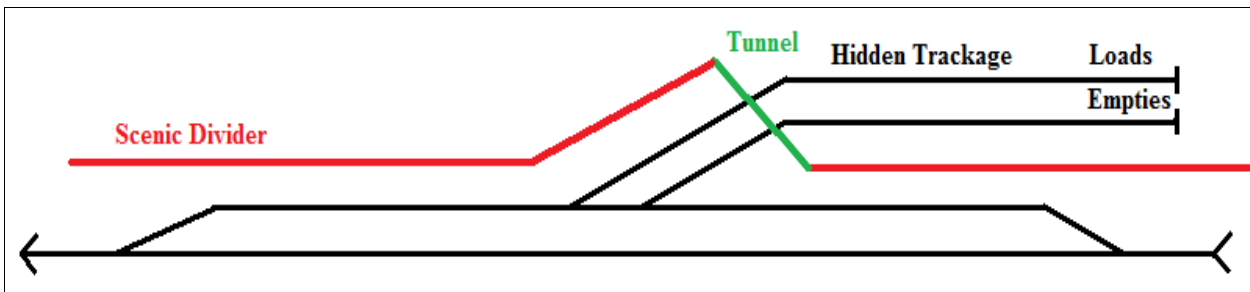


A fourth consideration-is this a unit train or just a few freight car loadings in a mixed train.

And a fifth consideration-will your freight cars be open (as in coal hopper cars) or closed (as in cement).

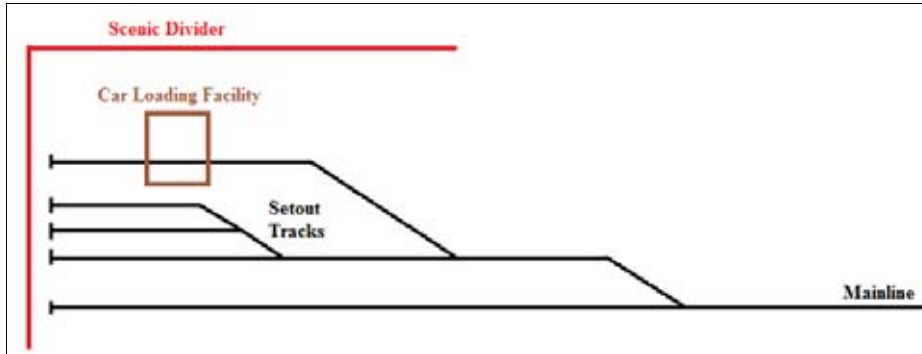
When you have the answers to these requirements then you can realistically begin developing ideas for just how you're going to incorporate the necessary trackage.

I recently did an exploration of the Virginia & Truckee railroad which ran from Carson City to Virginia City and served the infamous Comstock silver mines. This



Mine Service Trackage Alignments *continued by Karl Griffin*

operation is typical of what a modeler would think of for a limited scale branchline mine setup. A 'geared' steam engine snaking its way up a steep grade pushing several empty freight cars up the hills and canyons around hairpin turns to get up to the various mines that were all dead end spurs. These empties were dropped off on one spur and the loaded cars were picked up and brought back down the mountain.



A small industrial locomotive was also used up on the level areas to switch out cars as well as to transport supplies (new rails, ballast, ties, etc.) around the ever expanding collection of mines-see photo below.

In many respects this operation would be perfect for the space challenged model railroader-tight radius curves, steep grades, desert scenery with rock outcroppings, short tunnels and small locomotives/cars. Turntables and wye tracks weren't needed. There wasn't a roundhouse, just a small repair/storage shed. I've enclosed a few pictures so that you can get the idea. If this operation excites you, purchase a book about this railroad for more ideas.



I believe that one of the attractions of mountainous railroads is that it emphasizes the vertical dimension available to us and it gives plausibility those sharp curves, steep grades and short trains. All of these factors help us to overcome our space limitations. Our layouts require frequent turnbacks and turnarounds as the trains navigate their way around the layout room so why not use this requirement and turn it to our

advantage? Rugged scenery is actually one of the least expensive parts of a layout and when well done it commands the viewers attention even more than an expensive to buy and time consuming to build town does.

Switchbacks or horse shoe turnbacks? The answer to this question is primarily one of train lengths. The

short train is ideal for the switchback in that the trailing track won't be too long. On a horseshoe track, the tighter the radius the lower the grade is the rule of thumb because the severe curvatures acts in the same manner as increasing the grade does as far as drag for the locomotive to push or pull its load.



Are the steep grades being constructed on a shelf where a switchback(s) may be the only way to gain elevation in a very short distance or are you working on a 5' wide peninsula where you can construct a climbing loop or one or more horseshoe turns on a long continuously climbing grade criss-crossing canyons and waterfalls on spindly trestles?

The whole point of this discussion is to get you to really think about and answer all those questions that you should be asking yourself. When you have settled upon your answers then the how of conducting the operations and the construction techniques that they will require will readily follow and you'll end up with a sensible plan as to how to get from here to there with a major elevation change and how the mine(s) will be serviced.

Placing the 'suggestion' of a town and a meandering creek along the way would also add visual interest!



Subground Forming Methods by Karl Griffin

Perhaps the two areas of model railroading that literally terrify most of us are the construction of scenery and electrical/electronic installation. Both are foreign skills that need to be learned to reap the full enjoyment possibilities from this most wonderful of hobbies. I and others have discussed from time to time some of the ins and outs of electron flow in previous articles so this article will concentrate on scenery-specifically the underlying support for it to remove some of the mystery of it.

Trains and trackwork are where you spend the big bucks but scenery it what always gets the oohs and ahhs. The neat part about scenery is that it is the cheapest part by far and it is what really sets your railroad apart from everyone else's.



Over a long period of time modelers have tried a number of techniques to develop rolling hills and mountains for their layouts. As new products come out, the experiments will continue.

Regardless of whether your benchwork is a solid sheet of plywood, or open frame with joists and risers, hills can begin to be formed using pink or blue foam sheets rough cut with a serrated knife and placed into position and attached with liquid nails or a similar product that won't dissolve the foam. Each layer can be stacked to whatever height is desired. An alternate method is to cut arches from the foam and attach to the wall/backdrop and front edge-see photos.

Next, take cardboard pieces and cut them into 1" wide strips with either a pair of scissors or utility knife and then pull them across a table edge to make them more flexible. Attach these front to back on the layout using a hot glue gun, a stapler or liquid nails for foam, spacing them about 3" apart and trimming to length. Now, from side to side attach more strips of cardboard in a basket weave pattern. You now have the rough outline and contour for your hills and mountains. To

make any changes just cut and splice more of these strips to get the basic contours that you want. If you have any tunnels these should be installed first and then attach the cardboard strips around or to them.

Next comes the first covering. There are three main ways of doing this. 'Ridge Wrap' is a plaster impregnated gauze that you cut into 4" x 12" strips, dip into water and set over the cardboard mesh. Doctors use this material to set plaster casts for broken bones.

A second method is to use heavy duty paper towels or wipes, cut into strips as above and soak them in diluted Elmer's glue and apply them over the cardboard mesh or stacked foam panels.

And a third method is to dip your towels into a bath of soupy plaster and apply over the framework or if the foam is the contour then painting a layer of plaster over directly is a possibility especially when constructing stream beds or gullies.

After the first covering has hardened completely we're ready for the top coat. And here again there are several different possibilities.

Sculptamold is a plaster/clay/paper combination product that is marvelous to work with. Inexpensive, a good working time of 30 minutes and dries hard. A quarter inch layer is all you need. Use pallette knives and a basting brush to texture it. Add acrylic or latex paint and water when mixing for a light coloring.

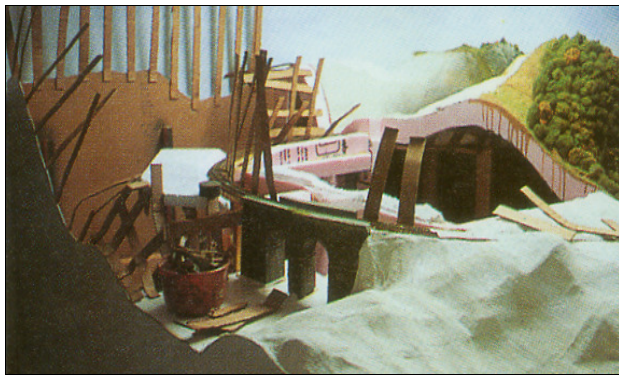
Gypsolite or structolite is like a plaster/cement mix. It has a working time of 4 hours which is really helpful. Texture it the same way as described above.

Hydrocal plaster is the original material top coat. It sets up quick, gets very hard but is brittle and chips and sometimes cracks because it shrinks a little as it hardens.

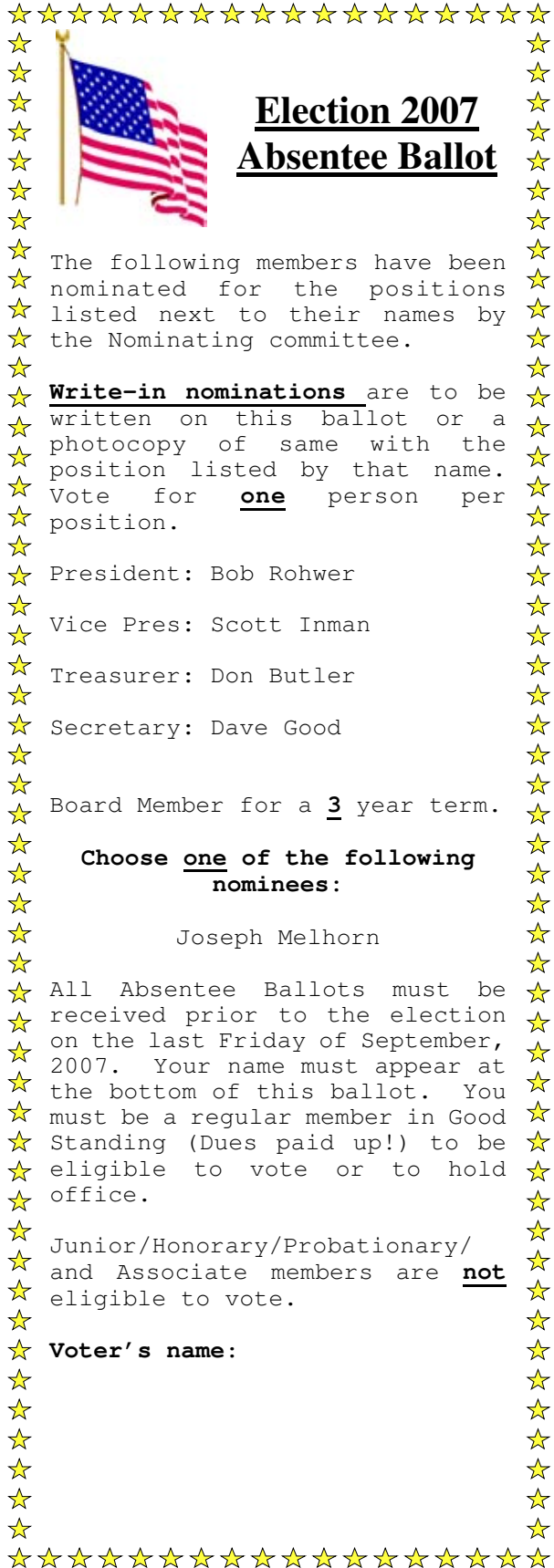

Before you apply the top coat consideration must be given to the placement of rock outcroppings, rock castings as well as tunnels and bridges. You have to visually imagine how the contour of the land would have looked before the railroad came in and made a rock cut or the entrance to a planned tunnel or bridge rather than try to construct the land and the man made

features at the same time.

A really good way to get familiar with this type of construction is to build a 1' x 3' portable work station diorama with a masonite backdrop. Practice using the above materials and experiment to find a system that works well for you, one that meets your expectations. Once you find that right combination write it down so that it is repeatable on your layout on a much larger scale. This method is also the way to go to teach yourself rock castings and installation, ground foam application and tree and shrub construction. Experimentation and taking good notes enables you build up your knowledge base of what looks good for a particular location and how to merge edges and make or conceal transitions from one type of construction to another and make it look seamless. All the materials you need are readily available at Bruce's Train Shop or Arts and Crafts stores and they are inexpensive compared to everything else on your layout. Scenery is what makes your layout stand out!




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Election 2007
Absentee Ballot

The following members have been nominated for the positions listed next to their names by the Nominating committee.

Write-in nominations are to be written on this ballot or a photocopy of same with the position listed by that name. Vote for one person per position.

President: Bob Rohwer

Vice Pres: Scott Inman

Treasurer: Don Butler

Secretary: Dave Good

Board Member for a 3 year term.

Choose one of the following nominees:

Joseph Melhorn

All Absentee Ballots must be received prior to the election on the last Friday of September, 2007. Your name must appear at the bottom of this ballot. You must be a regular member in Good Standing (Dues paid up!) to be eligible to vote or to hold office.

Junior/Honorary/Probationary/ and Associate members are not eligible to vote.

Voter's name:

Editors' Comments by Karl Griffin

If you happen to be down in the Fairfield area, go East on Highway 12 and stop in and check out the Western Railway Museum and checkout the streetcars and interurban cars. The more research I do the more I am amazed at just how much history we are surrounded by here! I wouldn't be surprised if a lot more history is next twenty years completion of the Museum of expansion, the new Facility in downtown Sac or expansion of the Capitol corridor trains. Maybe even the Bullet trains will get built and light rail will expand again. If you want some good ideas for your next model railroad you are just surrounded by opportunity. Take your camera on every trip, you just never know when something astonishing will appear. And at your work station-always keep experimenting to improve your models!



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**Articles for inclusion in the
Nov / Dec issue are due NLT
the second Friday of October!**

Sacramento Model Railroad Historical Society, Inc.
1990 Grand Ave.
Sacramento, CA 95838

The Sacramento Model Railroad Historical Society, Inc. is located at 1990 Grand Ave., Sacramento, CA 95838 and is open every Tuesday and Friday night at 7:30 p.m. It is the home of the *Sierra Central Railroad* which is modeled in both HO Standard and Narrow Gauge. Telephone (916) 927-3618 for info and directions. Visitors are always welcome!

Our Internet Club Website: www.smrhs.com

Our 2006/2007 Officers:

President	Bob Rohwer
Vice Pres	Scott Inman
Secretary	Mike Knoles
Treasurer	Don Butler

Board Members	Dave Megeath	3 yrs
	D Launderville	2 yrs
	Dave Good	1 yr

Newsletter Editor/Publisher/Author
Karl Griffin E-Mail karl.deegriffin@comcast.net

**Next General Meeting is the last Friday of
July, 2007**

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