

## Clinics

### Realistic Water Made Easy

Jon Addison

Scenery

Learn how to use basic materials to create realistic water, color the bottom, and add details such as sunken boats, rusty drums, etc.... Learn how to use resins, create waves and add other details to the surface. Slides and demonstrations with finished dioramas.

*Jon Addison is a nationally known and published model builder who built the famous Sn3 "Silverton Central" modular layout exhibited at narrow gauge conventions throughout the U.S. He also is a key member of the 1:20.3 "Sundance Central" team. Both railroads are at the Suncoast Center for Fine Scale Modeling near Clearwater FL.*

### Building With Cardstock

Larry Alfred

Modeling

Larry will discuss the many uses of all types of cardboard and paper in building many parts of your railroad. He will point out the various types of cardboard, their use for structures, for add-ons, and for detail parts. The full range of cutting, forming, gluing, and finishing will be shown. Creative ideas on where to start.

*Larry is a life-long model railroader and has won many awards for his contest models. His home layout is a bit different than most, including On3 modeling of the RGS in the late 40s and O scale portions of the SPSF in the mid-80s. This is done with vignettes, so the viewer never sees both railroads at the same time.*

### Fine-tuning Classic Brass Locomotives

Fuzzy Anstine

Modeling

The clinic will show you how to identify mechanical problems and suggest fixes, and how they may relate to wheel gauges, valve gear movement and guides. Discussion of side rods and quartering, the internal interplay of gears with motors, and installation of DCC and Sound will be demonstrated.

*Fuzzy is a 2x Soundtraxx Decoder school graduate. His launching of the "Scale Brass Mechanic" business grew out of maintaining and re-working his own fleet of brass locomotives. He has been a member of the "Narrow Sighted HOn3 Modular Model RR Club" since 2007.*

## Clinics

### DCC General Discussion

Dennis Bartholow

Wiring

This will be a presentation and an open discussion regarding all aspects of Digital Command Control (DCC). The topics will be discussed with audience participation as to questions (and answers). Dennis will cover basic "What is DCC?" to the most advanced features, such as "Understanding BEMF."

*Dennis is the Owner of ELS Train Service. Specializing in DCC/sound installations and Brass locomotive upgrades and modifications.*

### SoundTraxx Tsunami2 Steam Operation

George Bogatiuk III

Operations

George of SoundTraxx describes the amazing advances in realism of the SoundTraxx Tsunami2. Professional railroaders on staff at SoundTraxx understand steam locos and related sounds. See how the improved Tsunami2 steam decoders and back-emf replicate the sounds and performance of the real thing.

### Aspens, Pines, and Weather

Jeff Boock

Scenery

Jeff will show how he builds foreground aspens, various types of pines, as well as deciduous trees. He uses materials readily available at hardware and craft stores, as well as well stocked hobby shops. Jeff will also describe the weathering techniques he uses on his contest winning structures.

*Jeff is a retired architect who is known for his cabinet quality bench work on his Sn3 and S scale "Chili Line" Railroad. Jeff has won numerous awards at both National Narrow Gauge Conventions and Sn3 Symposiums for his scratch built structures and prototype railroad photos.*

# Clinics

## Geodesic Foam Scenery, Part 1

Joel Bragdon

Scenery

This is an in-depth and comprehensive look at all aspects of building mountain scenery from resin materials. A mountain railroad diorama will be built during the clinic from the bench-work up. Foam bench-work and roadbed, foam hard-shell and resin/foam rock casting will be demonstrated. Also, realistic coloring of rocks and scenery plus final detailing will be covered.

*Joel Bragdon, with his wife Jenny, operate Bragdon Enterprises - a model scenery supplies and custom model layout construction company which they began in 1980. For more than three decades they have exhibited their products at hundreds of model train shows and conventions where Joel has also presented clinics. Together, they have designed and built over sixty model railroad layouts in all scales, both indoors and outdoors. Joel has educational and professional backgrounds in geology, chemistry and visual arts which have all influenced the development of many unique Bragdon Enterprises products.*

## Modeling Realistic Water with Resins

Joel Bragdon

Scenery

Demonstrations in this session will include using a variety of methods and water clear resin materials for modeling, detailing and coloring very realistic calm water, rapids and waterfalls. Also, how to create the illusion of great water depth in a shallow space.

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## Painless Weathering

Joel Bragdon

Scenery

This clinic will cover a broad range of weathering methods and materials including traditional favorites and some new or little known. Weathering wood, metal, plastic, paper, plaster and more will be demonstrated. Each attendee will be invited to try some of the materials and techniques seen and leave the clinic with some samples.

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## HOn3 RGS Layout in 18 Months

Gregg Condon

Modeling

Gregg's layout portrays the prototype Rio Grande Southern as featured in an eight-part series in the NG&SL Gazette. Gregg shares his decision-making as to when he faithfully portrays reality and at other times improves upon reality. He describes the construction efficiencies that made it possible to progress from a bare concrete basement to a completed room-size layout in 18 months.

*Dr. Gregg Condon was the author of the Gregg Shorthand textbook series and is retired from a long career as vocational textbook author and University of Wisconsin professor of business. He lives in Menomonie, Wisconsin, and his layout is on the convention tour.*

## Layout Room Lighting

Gerry Cornwell

Modeling

Professional lighting designer Gerry Cornwell presents a detailed overview of layout room lighting. He will review the basic metrics of lighting, including color and efficacy, show the results of dimming both fluorescent and LED lamps, and describe comparison tests with fluorescent and LED products. PowerPoint and demo plus a handout.

## Clinics

### Florence & Cripple Creek

Steve Dee

Prototype

Gold was discovered in Cripple Creek in 1890 - well after most mines in the "Gold Belt" were discovered and many closed. Steve retraces the right-of-way from Florence to Cripple Creek with a side trip to Goldfield and Victor Pass, climbing almost a mile in just 38.7 miles. Historical photos are compared to 2017 photos for this nostalgic look at the railroad.

*Steve Dee's studied Civil Engineering which required him to take surveying classes and learn about rights-of-way from an engineering perspective. He is a licensed engineer in Colorado and three other states.*

### Digital Model RR Photography

Kenneth Ehlers

Photography

Digital photography makes the task of taking model photos much easier. Learn what you need to know to take quality photos coveted by magazine editors. Both beginning and advanced techniques will be discussed covering camera equipment, lighting, photo techniques, photo composition, and software techniques. Comprehensive handout provided.

*Kenneth Ehlers has been modeling Colorado narrow gauge since 1977, first in HOn3 and then in Sn3, and is well known for his contest modeling having twice won Best-of-Show awards at the Narrow Gauge Conventions in 1990 and 2000. Ken's layouts have been featured in the Gazette, Sn3 Modeler, RMC, and MR, and he is MMR #119.*

### Everything About Layout Construction

Kenneth Ehlers

Design & Const

Perhaps a preposterous title, but after over forty years of building layouts and constructing models, I have collected a few techniques that are easy, cheap, and give good results that I would like to share. Perhaps you will find a couple that make your modeling a bit easier.

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### Static Grass for Static Novices

Jim Elster

Scenery: Class

Discover the Static Grass Phenomenon! Use your simple static device (or purchase one from Scenic Express at a discounted price and be sure to bring a fresh 9v battery) and see how easy it is to make amazing state-of-the-hobby static details. Jim will show how you can make tufts, bushes, trees and novelties using currently available materials. All materials and diorama base will be supplied by us.

*Jim Elster, president of Scenic Express, has formed cooperative alliances with many of the world's best innovative scenery companies, most notably: Silflor, MiniNatur, Martin Welberg, Noch, Heki and many new suppliers soon to be released. Scenic Express offers their unique line of high quality scenery materials through their mail-order catalog and on-line store: [www.sceneryexpress.com](http://www.sceneryexpress.com)*

### Tips on Newest Scenic Materials

Jim Elster

Scenery: Class

"It Ain't Just Foam No More". With the revolutionary advent of static grass, leafy materials and ground scenic textures, Jim of Scenic Express will demonstrate these new materials. Learn how to effectively use various materials with basic methods plus advanced ideas and techniques. (If you have one, bring your static machine too.) All materials and diorama base provided by Scenic Express.

*Sign-up with Jim at [jimbo@scenicexpress.com](mailto:jimbo@scenicexpress.com) or call 724-468-3106. Jim Elster, president of Scenic Express, has formed cooperative alliances with many of the world's best innovative scenery companies, most notably: Silflor, MiniNatur, Martin Welberg, Noch, Heki and many new suppliers soon to be released. Scenic Express offers their unique line of high quality scenery materials through their mail-order catalog and on-line store: [www.sceneryexpress.com](http://www.sceneryexpress.com)*

## Clinics

### The Rock Stars of Diorama Building

Mike Engler

Modeling

Mike will share how great dioramas are conceptualized, designed, mocked up, and constructed. He not only is inspired by the world's best modelers, he will show you how to find examples of their work and how you can learn from what they have shared. The planning will not only help the dioramas tell interesting stories, but will allow combining several dioramas into a layout.

*Mike Engler is a seasoned modeler who specializes in structures and dioramas. His models have won many national, regional, and local contests including Best of Show at the 2009 and 2014 NNG Conventions. Mike has presented live clinics at many national and regional conventions and has authored numerous construction articles for various publications and internet modeling forums.*

### "Wharf Street"- Thinks It's a Layout

Art Fahie

Modeling

Art will talk about building highly detailed yet operational scenes in limited spaces that may have you thinking like an operator. He will show you that the thought, design process, and concepts go far deeper than just the track plan. You will learn the "unreal" aspects of a realistic layout/diorama.

*Art has long been considered one of the leading manufacturers of craftsman structure kits in the world. His company, Bar Mills Scale Models, has been producing high quality kits in N-HO-S-O scales for twenty years. He and his team have constructed several layouts in different scales, and they may be seen by visiting his Maine production facility.*

### Wagons Ho! Wagon Modeling Techniques

Steve Frediani

Modeling

Steve illustrates prototype diagrams and photos and construction of model wagons. Modifying wheels, scratch-building frames, bodies and seats, and adding brake, undercarriage, and accessory details will be described. Examples of detailing GME kits will be shown plus how to scratch-build a Chuck Wagon and Water Tender.

*Steve is a long-time modeler and detailed structure builder. He has started a new double deck layout in Sn3 featuring the RGS from Durango to Rico and the D&RGW from Durango to Silverton.*

## Clinics

### My Life as a Narrow Gauger

Charlie Getz

Prototype

After modeling in HO and N scales, Charlie changed to HO<sub>n</sub>3 in 1968 after seeing an SS Ltd display layout featuring narrow gauge equipment. Narrow gauge railroading has provided a meaningful path for his interesting life. Learn how both NG modeling and prototype have changed over the years and how they have changed all of us.

*Not really needed! If you do not know, you won't come anyway! (Charlie writes for the Gazette, is Executive Director for the Narrow Gauge Preservation Foundation, and is past-president of the NMRA.)*

### The West Side Lumber Company

Tim Godfrey

Prototype

Tim has drawn from many sources showing why the West Side is such a good prototype to model, and why it attracts modelers and rail fans from all over the world. His original inspiration was Alan Krieg's "Last of the Three Foot Loggers". He made the trek many times from Florida to attend the annual West Side Reunions. Inspired by the late Tim McCartney, Tim G. now carries the mantle of a leading authority on West Side Lumber.

### Scratchbuilding a Howe-Pony Truss Bridge

Ron Guttman

Modeling

Follow along as Ron guides you through the process from conceptualization through execution and watch how this super-detailed bridge comes to life. At the end of the clinic you'll catch a glimpse of how this, along with a matching through-truss plus a deck truss will become a focal point of Ron's layout now under construction.

### Photo Editing for Backgrounds

Miles Hale

Scenery

Adobe's Photoshop Elements software will be used to edit buildings and scenery photos for use as backgrounds on your railroad. Come and make the backgrounds of your railroad come to life!

# Clinics

## Grade Crossings I Have Known

Fred Headon

Modeling

Direct more attention to detailing the interesting prototype infrastructure that exists in and around grade crossings. Fred will identify features such as trackside signage requiring compliance by crews, approach roads, materials used between the rails, road and railway signage, pedestrian considerations, abandoned trackage and other examples.

*After a 35-year career as an educator, Fred has enjoyed 21 years as a retailer of model railway equipment in a local model railway shop. He models the Canadian Pacific Railway (1958, transition era) in a freelance scenery setting.*

## Applications of Weathering Mix

Rick Hunter & Maureen Hunter

Modeling: Class

Maureen and Rick will demonstrate many applications of Hunterline's Weathering Mix. They will show applications for wood, plastics, hydrocal, foams, and other mediums and how to achieve multiple color surfaces.

## Build a 30' King Post Truss Bridge, Part 1

Rick Hunter & Maureen Hunter

Make-N-Take

Join Maureen and Rick step by step to build your own Hunterline 30' King Post Truss Bridge in your scale (N, HO, S, O, including narrow gauge). Learn: distressing basswood, assembly techniques, drilling for truss rods, NBW installation, weathering techniques for beginners to old pros. If you haven't pre-registered for this clinic, do so at the Hunterline booth and buy your kit and stains. Your tools required.

## 3D Printing and Design

Kent Hurley

Modeling

Kent describes 3D printing including 3D design, and will relate his designing and buying experiences from Shapeways. Emphasis on 3D printed structures using a filament printer, plus tips on using a filament 3-D printer. Examples can be seen at <http://nvrr49.blogspot.com/>.

# Clinics

## Pneumatic Locos and Mining

Marty Johnston

Prototype

Learn the history of pneumatic locomotives and how to model a compressed air tramway. By 1905 compressed air locomotives were ubiquitous in large-scale mining operations. From tiny engines to monsters weighing 30 tons, they came in a variety of designs and sizes. Numerous builder photos from H. K. Porter, Baldwin, Vulcan, and Dickson Locomotive Works, as well as engineering diagrams and figures illustrate this clinic.

*A longtime modeler of small prototypes primarily working in 7/8ths scale, Marty is fascinated by rusty objects and forgotten industries. He recently published the history of the Iron Mountain Mine Co. in the Journal of the Society for Industrial Archeology and is currently working on a book about pneumatic locomotives.*

## Building Scenery on the Colorado & RGS

Dick Jorgensen

Scenery

If you like realistic scenery, this is a clinic you don't want to miss. Dick's layout (on tour) features dramatic vertical scenery with rushing rivers, tall bridges and deep canyons. Learn from his construction process, featuring two-level benchwork, mountain supports, rock molds, access hatches, blending foreground scenery into painted backdrops, applying realistic ground cover, making trees, and tips for detailing.

## Building North Whitefield, Maine

Pete Maguon

Modeling

Modeling prototypical scenery is not hard to do. Pete will walk through the processes involved in creating a prototypical scene, with an unexpected benefit. This is NOT a scenery demo; it's a voyage through the planning and execution process.

*Pete has been modeling railroads for over sixty years, and is an avid fan of the Maine Two-footers, particularly the Wiscasset, Waterville & Farmington Railway. He is a founding member of the Great Lakes HOn30 Module Group and also proto-freelances New England railroads north of Boston in HO scale, circa 1954.*

# Clinics

## Minnesota Logging Railroads

Neil Maldeis

Prototype

Neil describes the history of the white pine logging industry in Minnesota during its heyday, from the 1880's to the 1930's. See logging camps, workers, sawmills, and the railroads that served this industry. Learn interesting information about the companies and railroads of this era. A unique prototype that operated into the 1960's will be presented as a modeling candidate.

## Structures Along N. Clear Creek

Ryan Moats

Proto Modeling

Tour along the Clear Creek from Golden up to Forks Creek and then to Black Hawk and Central City. Using information gathered from many sources as well as the author's own builds, we'll make stops along the way to cover various structures and their history.

*Ryan has been an avid modeler of the Clear Creek area of Colorado since the mid 2000s. His HO<sub>n3</sub> Blackhawk and Central City is a highly researched, totally scratch built freelance-prototype layout set in 1870.*

## Scale Illumination

John Niemeyer

Modeling

See the use of Nano LED's in structures, cars, figures, and background lighting, flickering LED's for burn barrels, blacksmith forges, campfires, fireplaces, ash pits. Use UV LEDs for working neon signs. Model cupola, marker, interior lights, and hand lanterns. Use dimmable color-changing lights for day to night lighting.

## Creating Realistic Scenery

Bill Obenauf

Scenery

A relative new-comer to the hobby, Bill Obenauf is an award winning modeler and clinician. He'll share some ideas and techniques for creating scenery with an emphasis on eye-fooling realism. You'll learn the 4 essential components that can elevate your scenery from 'wow' to 'WOW!' Plus, some tips for how to "see" scenery details in the real world.

*Bill is a morning radio personality from Davenport, Iowa. He and two of his daughters are competitive water skiers with the Backwater Gamblers Waterski team. Bill also bears an uncanny resemblance to George Clooney, Tom Cruise and Denzel Washington. Bring the wives!!*

# Clinics

## Designing for Fun Operations

Jeff Otto

Operations

Bring a new dimension of enjoyment to your modeling efforts by putting your railroad to work in a fun and realistic manner. The team sport of operation extends the life of your layout, providing more opportunities to share your craftsmanship with friends. Design your space and layout so that operators will want to return again and again. His Missabe Northern is on the layout tour.

*Jeff's life-long interest in railroads and modeling led to a diverse 31-year career with the C&O/B&O, C&NW, and UP railroads. Planning and management roles included the rehabilitation of C&NW's Chicago to Omaha main line and their 106-mile Powder River Basin Coal Line construction. His professional background has had a major influence on the design, construction, and operation of his large, hand laid HO Missabe Northern Railway.*

## Turnout Design & Construction

Jeff Otto

Design & Const

Learn the basics of prototype turnout design and how Jeff captures the visual performance of the turnouts we should be using rather than the harsher turnouts we use to fit our space. Simple scratch building methods produce reliable, prototypically flowing trackwork. His HO Missabe Northern Railway has over 500 maintenance-free examples.

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### Modeling the Gilpin Tram

Keith Pashina

Prototype Modeling

Keith explores prototype scenes along the Gilpin Tram in the 1890's and early 1900's, and shows how they can be re-created in miniature. This narrow gauge tramway served numerous mines and mills in a historic gold mining area of Colorado. Keith models in HO<sub>n</sub>30. Companion clinic to "Building Detailed Structures" by Lind Wickersham.

*Keith Pashina is a foremost authority on the Gilpin Tram, and he has been researching and modeling it for over 30 years.*

### Narrow Gauge Slide Shows

Jim Platt

Prototype

A relaxing alternative to layout tours, Jim shares a very extensive selection of slides of Colorado narrow gauge railroading from the collection of Al Chione.

Thursday 1 pm - Denver & Rio Grande- Alamosa to Durango. Farmington and Silverton branches.

2 pm - D&RG Gunnison division, Salida to Montrose, Montrose branch. Valley line to Alamosa, Crested Butte, Baldwin, and Ouray branches.

Friday 1 pm - RGS - 152 miles with all key features.

2 pm - Various narrow gauge railroads: Colorado & Southern, West Side Lumber Co., etc.

### JMRI Part 1 - DecoderPro, et al

Brian Post

Operations: Class

Hands-on installation of DecoderPro and other JMRI software on your laptop, limit 20 attendees. Sign up at Registration/Information Desk. This introductory clinic covers basic setup of the software. Electrical hook up and Internet access will be available.

*Brian Post has been installing decoders for over 20 years and giving local clinics on JMRI for 10 years.*

### Building from Scratch

Don Railton

Modeling

Don describes scratch building structures using simple materials, tools and techniques. Included will be concept, construction, weathering and detailing. See some of his past builds and magazine articles and discuss inspiration sources that includes prototypes and the work of other modelers.

*Don's awards, from both regional and national contests, include the Caboose Hobbies Award, Mt. Albert Award, Gazette Award and a National Narrow Gauge Convention Best in Show. Don's models have also appeared in many national publications.*

## Clinics

### Casting Stone Structures

Paul Richardson

Modeling

This will be a combination PowerPoint and live demonstration on how to design and scratch build cast stone structures.

*Paul served 10 years as the NMRA Achievement Program General Chairman. He and son Duane were the first father and son team of MMRs in NMRA history. They model different divisions of the freelance Purgatory & Devil River Railroad in HO<sub>n</sub>3. Paul was a Brakeman/Switchman with the Frisco Railroad for 14 years. He is the owner of Mudhen Models, a model railroad shop specializing in Narrow gauge products and T shirts.*

### The Details Make the Difference

Duane Richardson

Modeling

Duane will have you look at the world around you with different eyes. You will see examples of little details and how they can be used to better model a scene. He'll show you why things are where they are, and how to use that knowledge to not only include what belongs, but also make sure you include the things that many modelers omit.

*Duane has taught clinics at every level. He has published articles in every issue of the HO<sub>n</sub>3 Annual and is a contest winning modeler.*

### Painting the Hood

George Riley

Modeling

George demonstrates easy to use techniques that incorporate common and readily available finishing products. These inexpensive items can be found at hardware, home improvement, and craft retail outlets. Spray cans, artist paints, varnishes and many more items can be used to create top quality railroad models. *George Riley is the Marketing Director for White River Productions.*

## Clinics

### The Narrow Gauge Railways of Wales

David Steer

Prototype

David will illustrate the history of the Welsh mining region and its notable railways. The 2' gauge Flestiniog Railway (chartered in 1836 and still operating today as a tourist attraction) features the unique double Fairlie locomotives dating from the 1840's. The Welsh Highland Railway features the beautiful NG/G16 Garratt locomotives with luxurious parlour cars.

*David Steer has been a model railroader ever since he can remember. Although the fascination with trains includes main line and contemporary trains, the genetic bias is to Colorado narrow gauge, particularly the early DSP&P and the D&RG. Over the years he has authored many magazine articles and has presented clinics at national and local NMRA meets, Sn3 symposiums and at previous NNGC's. David is a recently retired electrical engineer who has spent his career in the communications industry.*

### Marshall Pass III

Patrick Student

Prototype

Patrick will discuss detailed operation over Marshall Pass on the D&RGW in October of 1924. Material is from over ten years analysis of D&RG documents including newly acquired Marshall Pass Train Registers.

### Painting & Weathering Structures & Rolling Stock

Sam Swanson

Prototype Modeling

Learn painting and weathering techniques with water-based paints. Sam shows examples of structures, rolling stock, and locomotives in both HO and O scale. Most are brush-painted with inexpensive acrylics, and some combine spray-can priming and airbrush base-coating. A wide variety of materials and finishing techniques plus special effects will be described.

*Sam has been active in model railroading for over 40 years, and has built many beautiful and award winning models in HOn3, HOn30, and On30.*

## Clinics

### Vanadium Mining and Milling Along the RGS

Craig Symington

Prototype

Craig will present the history of Vanadium mining and milling along the Rio Grande Southern Railroad near Placerville, Colorado. From the search for radium and early experimental milling of Vanadium, Craig then progresses through the production years and eventual decline of the industry. Focus will be on the major player "Primos Mill" at Vanadium, Colorado, its evolution, and its feeder mines.

*Craig Symington is a long time HOn3 modeler of the RGS and has published many of his modeling projects in a regular series of articles in the Narrow Gauge and Shortline Gazette.*

### Building Detailed Structures

Lind Wickersham

Prototype Modeling

See examples for building a detailed structure not available in kit-form, and modeling techniques to modify or enhance kit building. Lind discusses modeling a prototype structure when there are photographs, but few or no actual dimensions to go by. Modeling in wood, styrene and other materials will be described with finish and weathering given special attention.

*Lind models Colorado Narrow Gauge (Gilpin Tram) and mining, and has been successful in competition at several NNGC and NMRA conventions and has won the Gazette Award.*