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Cover: Lauther’s Perfect Pickles gets a load of vinegar delivered. Photo by Martin Brechbiel.

Centerspread: Nearing retirement and no longer allowed on the mainline, two aged Canandaigua Southern hacks sit in the Northumberland Yard on Pete Trunk’s Philadelphia & Erie Railroad. Photo by Pete Trunk.
At the end of Part One, I had stopped with the first floor basically completed, except for the installation of the doors and windows, which remain as one of the last steps. All of the interior details for the first floor were also installed, and the boiler house was nearly completed with only the actual roofing and the closing in of the gable end remaining. The pair of large exterior barrels were also completed. At this point, I want to revisit defining the compass as it pertains to this building. You can refer back to Part One or just remember that, for the main building, the wall with the porch is “South”. The opposite trackside wall is “North”. The boiler house is on the “East” wall, leaving the sheltered tanks at the “West” wall. With that said, here’s how I built the second floor, the various roof components, and finished building Lauthers’ Perfect Pickles.

Building the Second Floor of the Main Building

Unlike the modular prefabrication approach that I used for building the first floor (pre-assembling the walls, then installing them as completed units), I only partially applied this strategy to building the second floor walls. I stopped at the framing stage, and installed these walls into the building prior to adding the clapboarding. I confess to not being entirely sure why I deviated from how I started, but in part this was due to some uncertainty as to how the porch roof and the roof over those large barrels outside the West wall were both going to be tied in.

So, I started building the second story of the main building by installing perimeter sills of 1/16” x 3/16” dimensional lumber. These rest directly on the tops of the 2 x 4 caps of the first floor (Photo 1). I had to add a shim from the scrap box to the interior of the East wall sill to bring it out flush with the interior wall. Then, the East stairway stringer was set in place with the top of the stringer being set flush against that same interior wall, with its top flush with the joist sill. The stair stringers were cut from 1/32” scrap with a rather large rise-over-run ratio, as this was intended to be a workspace as opposed to a residential stairway. The floor joists for the second floor were made from the same 1/16” x 3/16” dimensional lumber as the sills. They were installed starting from the West end of the building by first boxing in the shaft and supports for the “elevator”. The lighting units were also added during this phase, since they were mounted into these joists prior to their being glued in place. After all the floor joists were installed, going from West to East, and the stairwell was boxed in, the West stairway stringer was set in place. I used a chemical structure drawing program to create templates for making scale-able stairway stringers. The treads were cut from HO 3” x 22” and glued into place.

Lighting the First Floor

I decided that, if I was going to have a finished and accessible interior, lighting was required. The first step was to assemble actual lamp assemblies. I took nine Grandt Line #3510 lampshades, modified (widened the aperture with my handy scalpel) to accept Model Power #255 amber bulbs. The bulbs were secured in place with a dab of Goo. I pre-painted these units with Floquil Brass on the inside and Polly S Steam Black on the outside. Evergreen 1/8” styrene tubing was cut to length to span two floor joists with the wiring passed through a hole drilled in the middle of each piece of tubing. The wires for each of the lamp assemblies were then threaded through the tub-
ing. Each piece of tubing was notched/mortised at both ends to create a neat and solid mounting to two floor joists (Figure 1). Three lamp assemblies were mounted equidistant, between two floor joists. After the glue had set, the wiring for the lighting was soldered together. I drilled holes in the joists, to allow the wiring to be neatly run throughout the range of joists from West to East. The first two-joist/lamp assembly was set into place and the ends secured against the sills with Walthers Goo. I frequently use Goo for butt-joints, as CA tends not to have very much shear strength. The remaining individual joists were then installed working from West to East. As needed, two additional two-joist lighting units were inserted. The electrical leads were eventually passed into the boiler house. Here, they were soldered to a two-wire lead with an external disconnect through the floor to facilitate installation into my layout. The ultimate plan is for the entire structure to be on a lift-out section, so that I can change scenes periodically.

Building the Elevator Shaft

I wanted a very simple rudimentary “lift” for taking barrels of cucumbers up from the first floor to the second floor for storage and subsequent transfer to my pickle cars. To achieve this, I made a simple heavy platform, boxed in with angle iron, that could be manually cranked up and down. I made the “iron” framework from four pieces of Evergreen styrene 1/8” angle, pre-painted with Polly S Steam Black, running from the first floor to five feet above the joist for the second floor. These were end-glued into place on the first floor, and edge-glued to the boxed-in joists for the second floor. A length of pre-painted 1/8” Evergreen styrene angle was also glued to the floor of the first floor. This represents the base of the frame that would be bolted through to the first floor joists, providing an anchor point for the uprights.

The Second Floor Decking

The flooring was again made from 1/32” thick Northeastern 3/32” scribed siding. The perimeter portion of the floor, approxi- mately six to eight inches in from each wall, was glued (CA) into place by sections. Installing this scribed siding included “wrapping” it around the lift and the stairwell. Also, the stove-pipe from the first floor must be provided for; a small washer painted black was added to anchor it to the floor (Photo 2). The remaining center section was installed by edge-gluing two large pieces of the same scribed siding with added reinforcement from below (dodging the floor joists), designed to very tightly fit the opening. This entire section was intended to be a “lift-out”, populated with barrels, castings, figures, and other details. The larger details provide a “handle” for lifting out the second story flooring, permitting access to the first floor as needed.

Building the Second Floor Walls

All four of the stud walls were pre-assembled with 2 x 4 studs, 7-3/4’ long, set on two-foot centers with a 4 x 4 on each end (Figure 2, Photo 3). The 2 x 4 studs below the windows were doubled for support, and headers over the windows were installed in all walls as needed.

The North wall was a 40’ long unit, and set up to accept one Grandt Line #5031 window (Figure 2). An opening for a large center drawbridge-hinged door was framed up with a 4 x 4 on each side. I framed the louvored venting at the east end with a cripple wall of 2 x 4 studs on two-foot centers, leaving a 4’ x 14’ opening. A 4 x 4 was added to each end. The louvers were made from HO 3” x12” wood set at a 45 degree angle, and secured with Goo. The drawbridge door was built up from HO 8” x 22” planking with HO 4 x 8 cross-bracing at the top and middle. HO 4” x 22” was used at the bottom for mounting the hinges. A set of the Houseworks Ltd. #1131 hinges were mounted at the base of the door with an HO 2 x 12 across the framing base to bring the mounts out flush. This doorway and the louver opening were trimmed out with HO 4 x 4 and HO 4 x 8 lumber. I’ll come back to how the door mechanism was built.

The South wall was 40’ long, just like the North wall. Since there was no door, the wall is a little simpler. I framed for two Grandt Line #5031 windows at the east end, to be installed over the opening for the stairwell (Figure 2). The louvered venting at the east end was framed out identically to the North wall, with another 4’ x 14’ opening made from HO 3” x12” lumber. The West wall was 29-1/2’ long and assembled to accept a pair of Grandt Line #5031 windows, spaced at each end overlooking the roof of the boiler house (Figure 2). The East wall was also 29-1/2’ long and was the only wall without any openings for windows. The second floor walls were then glued to the perimeter edge of the second floor with CA. I used the same overlap of the end framing as was used for the first floor walls, matching
up the HO 4 x 4 on the ends and securing with CA. The exterior of all of these walls was then finished in individual clapboards, just like the first floor walls (Photos 4a-d). An HO 2 x 8 kick out board was glued at the base of the West and South walls due to the installation of the support beams for the shed roof and porch roof. Clapboards of HO 1” x 16” lumber, no more than 12’ in length, were used to finish all these walls, installed with no overlapping joints. Openings for windows were cut out and the window castings were tested for fit.

The Drawbridge Door Mechanism

Counterweights were made up from capped off brass tubing, soldered with a Kemtron “eye” loop casting to accept the chain that opens the door. Pulley assemblies were made of 0.015” brass stock, wrapped around a 6mm Model Shipways brass sheave mounted on a 0.040” brass wire axle. A center hole above the sheave was drilled to accept an 0-90 screw, so that the assembly would pivot on the screw head after it was all soldered together (Figure 3). The end of the screw was then soldered to an “L” bracket, cut from brass stock. The “L” bracket was then soldered to a mounting strap made from the same brass stock. This required making a left- and a right-hand version (as I found out right after the solder cooled the first time). The mounting strap was drilled for four Grandt Line #23 nut-bolt-washer castings (nbw’s). After installation of the nbw’s, these units were painted Polly S Steam Black, and mounted on each side of the door. I soldered 21-link-per-inch, Model Shipways copper chain to each end of a 0.015” brass strap, slightly longer than the width of the door. After drilling this for more nbw’s, I painted this Polly S Steam Black, and mounted it on the upper lateral brace of the door. The chain was then fed through the sheaves, cut to length, and 0.010” brass wire was used to connect the chain to the counterweights.

The Porch Roof

The exterior of the South wall second floor sill was doubled with a second 1/16” x 3/16” length of dimensional lumber (DL) to provide a support for the porch roof rafters (Photos 2, 4a). The seven porch roof rafters and the perimeter sill were made of 1/16” x 5/32” DL and rests on 1/16” x 1/8” DL support beams/posts. The rafters were beveled to match the slope of the roof where they tied into the building wall. They were also slightly mortised to lock onto the perimeter sill and were secured with minimal Goo. I added a fascia board fashioned from HO 1” x 14” and gap sheathed the roof with HO 1” x 24” for support of the metal roof. Fill boards, made from individual 1/16” x 1/4” DL boards between the rafters, were added where they tied into the wall. Immediately above the rafters and these same fill boards was where the clapboard kick out board made from HO 2 x 8 was set, initiating the second story clapboards on this wall.

Clapboarding the West Wall & Building the Shed Roof

The clapboard for the second floor West wall was continued up from the first floor wall for three feet (Photo 5). Then, a 1/16” x 5/32” DL board was glued (CA) across the stud wall spanning the entire distance. Another 1/16” x 5/32” DL board, 1/8” shorter was set centered above this, leaving a 1/16” gap at each end. Then, clapboard was continued up the wall starting with an HO 2 x 8 kick-out board above this shorter 1/16” x 5/32” DL board leaving 10/32” from the top of the stud wall. At this point, another 1/16 “x 5/32” DL board was added spanning the distance, leaving a 5/32” gap at the top. This 5/32” opening was for the rafters to set on. After the shed roof rafters were in place the remaining gaps were filled with sections of 1/16” x 5/32” DL which completed this wall.

Shed and Shed Roof

The shed was erected with four 16’ support posts made of HO 12” x 20” lumber set ten feet apart (Figure 4, Photo 5).
These support two 18’ long horizontal beams made from 1/16” x 5/32” dimensional lumber. One end of each fits into those two 1/8” gaps that we left in the West wall during clapboarding, while the other ends rest on the outside edge halfway out on top of two of the support posts. The roof sill for the shed was made from a piece of 1/16” x 5/32” dimensional lumber that spans the distance of the entire shed roof and rests flush on the outside edge on top of all four posts and butts up against the two horizontal side beams. There were seven rafters made of 1/16” x 5/32” dimensional lumber that rest on, and originate from, the beam below the 5/32” gap in the West wall. Those ends of the rafters were sanded to match the angle formed where they tie into the wall. A small mortise was added at the other end to lock the rafters onto the outside roof sill of the shed, leaving a two foot overhang. The shed roof was then gap-sheathed with HO 1” x 24” stock for a metal roof.

**Corner Trim Boards**

The corners of the building’s clapboard sheathing were trimmed out with HO 1” x 10” stock. These were added after the walls were assembled, the shed and porch roof framing completed, and all of the clapboard had been installed.

**The Main Roof**

All of the rafters were made of 1/16” x 3/16” dimensional lumber. There were three types of rafters required to allow for the framing for the skylight. There were six of Type “A”, two of Type “B”, and seven of Type “C” (Figure 5, Photo 6). The Type “A” rafters span the 30’ cross-distance of the building. They were derived from a Old English barn design, with a center support beam up to the peak and with two angled supports off from the center up to the rafter beams, which were mortised to rest on the spanning beam. The two “B” rafters were transitional to the “C” rafters that provided the base for the framing for the skylight portion of the roof. These two “B” rafters mirrored the Type A, but also have two 90 degree uprights mortised into the spanning beam that the rafters rest on, which also served as the ends of the skylight structure. These transitional rafters also had a slightly offset interior angle framing that sets slightly above the “A” rafters. This offset design was to provide a surface for attaching the exterior sheathing. These two 90 degree uprights were also capped off with a spanning beam, on top of which sit the rafters for the skylight roof. The skylight rafters were set at the same angle as the main rafters, and were mortised onto their respective spanning beam. The first two “A” rafters were set flush on top of the 2 x 4 end wall caps at each end of the building and were added on a two-foot center spacing, working in from both the West and East ends of the building. I pre-assembled all of the rafters, test fitting them to make sure they were identical and fit properly. I assembled the entire roof in place on the building, to insure that it would fit tightly onto the second floor wall framing and would also be removable with minimal gaps or warpage. The third “A” rafter in from each end was directly doubled with one of the “B” rafters with the “B” facing the center of the building. The “C” rafters are just like the type “B”, except they lack the offset interior angle bracing. Both the “B” and “C” rafters also were mortised on each upright for the lateral beams that tied all of the rafters involved in the skylight structure together. They also provided the base for the skylight structure. The spanning beam that capped the two uprights of the “B” and “C” rafters was also short, leaving another mortise for an upper lateral beam on each side. The Type “C” rafters were placed evenly in the remaining space. Soffit boards of 1/16” x 3/16” dimensional lumber were glued between and to the rafters, filling the gaps and to locking
the rafters into place, creating a single unit. Scrap 1/32” stock was glued into the interior corners of the roof above the spanning beams to stabilize the corners. Lead weights were Goo’d there, as well, to hold the entire assembly down and to maintain its shape. The entire roof and skylight roof was gap-sheathed with HO 2” x 20” lumber, leaving a gap for that stove pipe that originates all the way from the first floor (Photo 7a,b). The East and West ends of the main roof and the skylight roof were closed in with board-and-batten made from individual HO 1” x 24” and 2 x 4 boards (Photo 8).

The skylight windows, made from the same castings of unknown origin that were modified for the boiler house, were assembled into a long unit. I pre-assembled these as framed units for installation of one window unit between each of the rafter assembles. I first made the 2 x 4 side-support framing for each window. These were glued to each window casting, after each window had previously had a 2 x 4 glued to the top and bottom of the casting and a support 2 x 4 added to each side. These units were then painted with two coats of Polly S Aged White, and glazed with microscope cover-slip glass (Photo 9). After drying, these assemblies were individually fitted and glued in place, centered into the openings created by the rafters and lateral beams. The North and South skylight walls were then closed up with HO 1” x 16” clapboarding, with the same kick-out board as before (Photo 10). Corner trim of HO 1” x 10” stock was added and the windows were then trimmed out with O Scale 1 x 3 lumber.

Finally, the East gable end of the Boiler House was also closed with individual clapboards, just like the sides were finished. Having clapboard above the board-and-batten siding seemed to provide additional contrast and interest to that end of the building.

**Roofing**

All of the roofing was done with Builders in Scale metal ribbed-seam roofing material. All of this material was pre-cut to four-foot widths prior to gluing it down. The Boiler House roof was done in two courses on each side, using eight-foot long sheets and fitted around the chimney (Photo 11). I used Goo to secure this, which worked very well to hold this material down. With the seams cleanly overlapping, I worked left-to-right starting from the bottom corner of the roof, leaving a small overhang. The seal to the exterior East wall of the main building was done using this same roofing material. The seams lined up the next course, as I had tested fitted the arrangement of two courses covering this roof, with reasonable overlap top-to-bottom, and with the top of the second course ending at the peak. The peak was sealed over using sections of just the standing rib, cut from scrap roofing sections, with a small portion of the roofing left as flashing attached at each side. These pieces were very carefully formed by hand to conform to the standing seams of the roofing, secured with Goo with small areas of overlap as well.

The skylight roof was three courses on each side, using four-foot wide material, but here six-foot long sheets were used...
(Photo 12). The peak, again, sealed over using sections of standing rib with a small amount of flashing attached at each side. The main roof was three courses on each side, with the eight-foot long material fitted around the skylight exterior and notched to seal up against the board-and-batten siding on the ends of the skylight. The peak was sealed over as before.

The shed over the barrels was done the same way, with three courses of eight-foot long pieces, while the porch roof was one lower course of six-foot material followed by a course of four-foot metal roofing.

All of the metal roofing was painted with two coats of a 1:1 mixture of Polly S Mineral Red and Special Tan, to simulate an older red oxide painted roof that has been oxidized and faded by the sun. Brown staining of old rust breaking through was added using a Minwax stain mixture that was “dropped” into the seams with a small brush, then allowed to wander about on the roof. After drying, these areas were drybrushed with Polly S Roof Brown and Rust. All of the joints, for example where the shed roof butts up against the building, around the chimney, or where the boiler house roof meets the exterior wall, were also sealed with “tar” using Polly S Steam Black. The entire roofing array was then Dull Coated to seal this effect. And, the entire interior framing of the roof was also stained with Pecan Minwax.

A hole was left in the main roof for the stovepipe that comes from a pot-belly stove on the first floor. I wish I could claim that I managed to align that tubing with my smokejack casting on the roof, but this time my best efforts came to naught. The smokejack was an old casting (Scalecraft, perhaps) painted Steam Black, that ended up getting mounted as part of the roof with some Goo and some CA from the interior with a small Squadron White Putty to fill the gap from the slope of the roof.

One of the last details on the roof was the sign for Lauther’s Perfect Pickles. I made this using a green script font, printed on an Inkjet printer. The paper was trimmed, glued to some 1/32” scrap, and framed with 1/32” wooden angle. The framing was first stained with Minwax, then painted in the same scheme as the rest of the exterior. The sign was mounted with some braces made from scrap and minimal Goo.

**Finishing the Interior of the Second Floor**

I chose to leave three of the four interior walls unfinished, while I did close up the East interior wall with HO 1” x 20” stock. To finish off the rest of the interior of the second floor, the floor and interior walls were first stained with Minwax Pecan. After installation of the collection of detail parts and figures, mixed stains and paints were used on the floor to establish walkways and dirt paths (Photo 13). The winch for the elevator was installed. The lift-out perimeter was covered with various barrels from Berkshire Valley and various other sources, leaving some clear walkways. Ramps for the drop door for the carts were made from scrap wood and scrap brass. Additional castings (crates, shelving, a workbench, and more barrels) fill the space, along with those carts for the barrels. And lastly, it’s just an empty room without people in it, so the room was “populated” with figures from Arttista. With the exception of the people, all of the detail parts were extensively painted with a variety of Floquil, Polly S, Model Master, and Testors paints.

**Painting and Finishing**

All of the exposed wood, the baseboard, and stone foundation were stained with my Minwax mystery mix (I don’t know what’s in it.) and/or Pecan. After this dried, all of the weather exposed siding of the building was handpainted with an undercoat of Floquil Wisconsin Central Gold. This was done very quickly and unevenly using a fairly large, stiff brush to work it into the clapboards. While this sounds sloppily done, it was in fact done carefully so as not to get this color anywhere else. Then, all of the exterior sheathing was given a top-coating of Polly S Mineral Red. Those portions given the Floquil undercoat were top-coated after no more than an hour after application of the undercoat. This resulted in all of the Polly S painted surfaces, with the still-tacky Floquil paint undercoat, to actually glaze and crack. This gave the appearance of peeling paint of one color revealing the prior color underneath, while the surfaces more sheltered from weather have a more evenly painted surface. While Wisconsin Central Gold may seem very bright, after this technique was completed it took on a more creamy color. This paint was also completely unlike any other Floquil paints that I have used. It was very thick and appeared to have gloss added, as well.

**Windows and Doors**

All of the doors and windows were pre-painted with two coats of Polly S Aged White, glazed with cover-slip glass, and inserted after the building was painted. The three freight doors on the first floor were also installed, held in place with a combination of 1/16” Northeastern “Z” stock and angle stock that was pre-painted black. Some light dry-brushing with Aged White, to simulate streaks from water running off of the windows, was added after the exterior building painting was completed.

To finish this building off, I lightly airbrushed an overspray of Floquil Grimy Black with a heavier pattern on and around the chimney. The East wall adjacent to the chimney was heavily blackened to complete the exterior. The final touch was to cap the chimney with a crown from Arttista.

That just about wraps up how I built Lauther’s Perfect Pickles. While you might not want to take on a project like this, I do hope that it inspires your creativity and gets you building! ✧

---

**Figure 1: Lamp Assembly Between Rafters**

![Image of lamp assembly between rafters]

- Rafter
- Grandt Line lamp shade with bulb
- Styrene tubing mortised to rafter

---
Figure 2: Framing Patterns for the East, West, North and South Walls of the Main Building - 2nd Floor

East

West

North

Opening for drawbridge door

Louvers

4 x 4's for attaching East & West walls

South

4 x 4's for attaching East & West walls

Figure 3: Drawbridge Door Counterweight Mechanism Bracket & Pulley

0-80 screw to be soldered through hole in bracket

pulley on 0.040 wire soldered in place
Figure 4: Framing for the Shed Posts and Roof Support over the Large Barrels

Figure 5: Patterns for the Three Main Building Rafters
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Since last we met, much has happened down in the subterranean catacombs of the Wonderful World of Scace. The shop is up and running, and several rolling stock projects have been resurrected from the myriad boxes of bits that have resided under dust for far too long. Out in the not-so-wide open spaces, bench-work is rising from the pile of sawdust mixed with now-dried blood, and things are really taking shape. Other than having to swipe another one of the O Scale Poster Child’s Elmo Band-aids (“How many fingers do you have, Son? Okay, how many fingers does Daddy have?”), it’s a good feeling. Here’s something that came up while I’ve been considering backdrops on the new railroad. It’s somewhat amazing to me that a very basic concept really hasn’t had the re-mention that it so richly deserves. Hence, I’ll do it here because I can.

How does one establish a convincing backdrop that doesn’t look disjointed or just plain weird? The key, my friends, is in the horizon. Back in the Prose of the Ancients, oft was mentioned that one’s horizon should never be below the viewer’s eye-level. How simply elegant, how true, and how forgotten. You don’t look down at the sky, now do you! Let’s carry this one a little further, and have a look at the Perfect Tool from this day and age.

First, my horizon’s lowest visual point is at my eye level. Scenery and backdrop hills, trees, and all that other obligatory stuff rise from that point. It’s already starting to look pretty good. The next thought is to remember that “eye-level” is best defined while standing. Even if you do your operating sitting on a stool, sooner or later you’ll probably stand up. If your horizon was established for the seated position, because that’s the way you view the railroad most of the time, it still visually stumbles when you finally get your butt off the stool. If, on the other hand, you have to look up a little when you’re firmly planted in the supervisory position, it doesn’t visually hurt anything a bit. At least your eyes are getting a little exercise!

If your backdrop still looks kind of disjointed, or if you’re in the construction mode and you want to avoid the next pitfall, you might look at the consistency of the horizon. That’s a sneaky, insidious problem that many folks have, yet can’t really put their finger on. Enter the previously mentioned Perfect Tool, the laser-level. Go get one, set it up on a tripod, and shoot a horizontal line around the space at that eye-level-standing-up line we previously mentioned. If you’re starting out, draw that line on the wall, and don’t paint any blue below it. If you’re troubleshooting an existing scene, don’t think you have to redo the whole bloody thing, just cover over any “sky” that shows below the line and have a critical look at the baselines of those distant mountain ranges. Use a flat, build a hill, plant some trees, or just paint over any issues that you find. You’ll be amazed.

While we’re on the backdrop subject, here’s a stunt that gets you closer to visual Nirvana quickly. If you know what flavor of scenery you want, paint it on the backdrop first. Do the same with man-made features; use a scanner to scale up a photo of a building, glue it on some crafter’s foam board, and slap ‘er up there, as an example. You get two bonuseses, er bonus’s, uh boni, (Oh, Nubbins!) out of the deal. First, this helps you visualize how features will work in context with each other. Don’t like it? Paint over that hill, or move the building photo. Second, this step makes a very satisfactory scenic placeholder until you get to that stage of construction. You can then tell someone to drop ATSF 237745 at Lugubrium Plant Number Ten, even though you haven’t built it yet, rather than at the siding over there just after the third rib of benchwork (“I told you last month that the Lugubrium Plant was there! Can’t you remember anything?”) Paint it on, or stick it on, then cover it later with the three-dimensional stuff. What remains uncovered is your backdrop, already test-driven for perspective and context. Ain’t we slick!

By the way, you’d be amazed at what you can mock up using the afore-mentioned foamcore poster board, some map pins or a hot glue gun, and a sharp drywall knife. Just cut out the basic dimensions of a building, plop it in place, and either adjust to fit the existing track plan or adjust the track to fit the mockup. You can avoid using up your weekly allocation of seaworthy linguistic expression by testing perspective, fit, and operational flow with a few foamcore mockups of buildings, bridges, tunnels, and other potentially troublesome features. Just be careful with the knife. Hey, Son! Can Daddy have another Elmo Band-aid? All that’s left are the Barney ones? No, thanks, Son. I’ll just bleed.

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No Satisfaction…

The lyrics to the Rolling Stone’s famous song, “I Can’t Get No Satisfaction”, seem to sum up my current experience as a HiRailer in transition. You see, I can’t get no satisfaction. I tried, I’ve tried and I have tried. Making the transition from being a life-long 3-Rail guy over to 2-Rail realism is tough. No one said it was going to be easy, so I have no one else to blame but myself.

Not content to enjoy a fairly large multi-tiered layout that had 72” radius (yes, radius) curves and long straight runs with passing sidings, I became restless. You might call it a middle-age crisis. I lost the one I had, to go after the one I thought would give me the modeling satisfaction I desired. I made the choice to chuck it all to experience and sally forth into scale operation. I chased after my dreams.

It is a serious decision for a life-long model railroader. It is a drastic decision for someone with a passion for operating model trains. After all, I am a HiRailer who is living with the transition into scale operation. I chased after my dreams.

Man, have I tried. I have pulled up over 100’ of 3-Rail flexible track and a fair amount of cork roadbed so far, and I have a lot more to go. I have disassembled benchwork, widened radii, and basically destroyed the layout I used to enjoy. I can’t operate the trains until I get everything put back together, and that is tough.

To make matters worse, the 2-Rail flex-track that I choose looks great on the workshop counter. You would think that I would know how to lay track with over 50 years of experience. Wrong! This track is tough to work with. It doesn’t have the “helper-stabilizing rail” running down the center that I have grown used to for all of these years, so it is much more flexible and floppy. It is basically very unforgiving. I chose to alternate the track connections for realism. That involves sliding half the rail out on one side and shoving it in the next piece of track. Then, try to line everything up (including the connectors) so that it transitions smoothly without any kinks. “Ya, sure, Shurelock.”

This track out sure isn’t. Don’t even talk to me about handlaying my own track and turnouts at this point. I haven’t even mastered the basics yet. When does it really start to be fun?

You could analyze my situation and say that I am going through some withdrawal, for I am a train junkie. I miss being able to come home from working in the office all day long and go down to the railroad and operate the trains for even a few minutes. After all, all day long I listen to people’s problems and offer solutions and suggestions to get them on the right track. All I ask for myself is some satisfaction of seeing the trains run.

I suggest that most of my 2-Rail friends were either born into scale modeling or made the transition years ago. They are not only ahead of the curve, they are already around the curve, through the tunnel, and over the bridge! (Note: I did not say they were over the hill.) But, they are way ahead of me. Too, they have probably all forgotten the joy and excitement of laying scale track for the first time. My HiRail friends have yet to experience this phenomenon. It may just be one of the excuses they use to continue staying with that track with the center rail. We will discover an easier way. I am confident of that.

Transitioning into 2-Rail is a commitment. In my pursuit of my own satisfaction I made the decision. I simply had to do it. I would not have been content to just sit back and wonder about changing to scale. I had to experience it for myself in my modeling pursuits. There will always be obstacles and challenges. Nobody said it was going to be easy. Such is life. Somebody else has also said, “No pain, no gain.”

I have considered that I could make shelf-queens out of my locos and rolling stock, get display cases and put them on my mantel, and resign myself to operating from the comfort of my armchair as some have done…quite successfully, I might add. But I am an operator and driven to push beyond the norm. So here we are in Transition, a momentary station stop somewhere between HiRail and our destination, Scale 2-Rail.

Mick Jagger used the words “I try” over a dozen times in his famous song about satisfaction. I guess I will have to keep on trying to get this track laid and find ways to make the process work. Hobo will let you know how it all goes in future columns. After all, tomorrow is another day and someday I will get satisfaction.

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Overhead bridge cranes were located at various places including the team track, engine house, large industries and the freight house. It was used to move heavy loads from flats and gons. The model is a brass import. The hoist trolley is positionable on the bridge. The model is painted and ready for you to simply hang the hook and chain on the hoist. Approx. Size - scale 20' wide with 16' clearance from ground to the bottom of the bridge. This is a limited run project that is sold direct only from B.T.S.

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**Junior’s Shiner**
Down by the tracks is the location for this early mobile home fit for any time from the 1930’s to the present. The nickname “shiner” came from the unpainted aluminum siding used on many of the early models.

It is a laser-cut kit featuring styrene sides and a wood core. Included are venetian blinds, color awning, and oil tank. Footprint, without awning, is a scale 29' x 10'.

#17405 $49.95

**McCabe Drying Kiln and Tramway & Storage Yard**
The McCabe Lumber Co. Series Tramway (above right) connects the Slatyfork Sawmill to the storage yard, drying kiln, and planing shed. It is a key feature of the complex. In this kit are the eight drying platforms, cart turntable, single and double track tramways, and the loading docks. Also now available is the Drying Kiln, shown at the left above.

This kit consists of laser-cut basswood, plywood, detail castings, and a very complex appearance. However, the well-engineered construction provides fast and easy assembly. Weathered code 70 rail and spikes are part of this kit, as are the laser-cut spike holes! And in the box are hundreds of pieces of pre-cut lumber for stacking in the yard. If the Drying Kiln (#18230) is to be included in your complex, it will be easier to build the kiln and the tramway at the same time.

The footprint of the Tramway and Storage Yard is about 100' x 110'. The footprint of the Drying Kiln is about 33' x 30' including 13' of deck on the front. And because of our engineering, it can be assembled in one of several different positions to better fit your layout. HO model shown; some details may vary between scales. It is a limited edition kit.

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I suppose that, next to a coal mine, a grain elevator has to be one of the most common industries on our layouts. My Indiana and Whitewater is no exception.

As I’ve written before, the I&W is a Proto48 switching layout representing a single town. My base prototype is a branchline of the real Indiana and Ohio that runs 26 miles from Valley Junction, Ohio, to Brookville, Indiana. At Cedar Grove, Indiana, there was a double-ended team track that served the Cedar Grove Feed Mill (Photo 1).

This structure has all the character one could want in a model railroad industry. There are two buildings connected by a covered drive, and who can resist those stone foundation piers? Unfortunately, I don’t have enough depth on my layout to include both buildings. Therefore I chose to model the smaller building with the stone piers. This article describes my modeling techniques. Of course you can always substitute your favorite materials and methods.

I measured and photographed the mill in early 2000, and made some modeling notes (Figures 1-4). The smaller building measures 20’ wide by 32’ long. I guessed it was about 24 feet tall to the ridgeline, with the side walls measuring about 16’ high. The foundation piers are five courses high and are three feet square, three feet high, and spaced roughly 6-1/2 to 7’ apart. There are twelve of them in all, so I’m guessing that this was a storage building for the loaded sacks of grain and feed with a substantial floor structure to carry the weight. The east and west ends are covered with corrugated tin siding with the west end painted white. Both ends have several access doors.

Walls

I began the project by laying out the walls on a sheet of 0.040” styrene (Photos 2-3). All dimensions will be in scale feet and inches, except where otherwise noted. Accuracy now will make life easier later on, so take your time and make certain things are square.

I like to detail the walls before gluing the building together. Therefore, on the side wall that faces the viewer, I drew some guidelines for the 0.020” x 0.188” strips that make up the scale 1 x 10 siding (Evergreen #128). These lines help keep the siding from wandering off vertically (Photo 4). Con-
continue all the way across the wall, spacing the strips slightly apart and leaving two gaps. One gap is for a small 18” square access hatch located a scale 7’-3” from the bottom edge and 5’-6” from the left-hand corner. The other gap is for the sliding door, which measures 3’-3” x 7’ and is 12’-6” from the left edge and one foot from the bottom (See the elevation drawing and Photo 5.)

One mistake I made at this point was not running the siding all the way across the wall. You’ll notice in the photos that I left a gap at each end, to be covered by the corrugated siding. Without something underneath this gap, though, a bump would show after the corrugated tin was applied. I wound up gluing in some strips of 0.020” x 0.188” styrene to level things out. If you are following along, just lay the siding material all the way across the sub-wall.

Once all the siding was on, I sanded it with some 80-grit sandpaper to impart a wood grain texture to the smooth styrene. This doesn’t take a lot of effort since the 80-grit paper is pretty aggressive. Be certain to sand in an up-and-down direction only. You don’t want the grain running sideways! This effect doesn’t really show up well in the photos until the walls are painted and weathered.

To begin turning this plastic into something resembling wood, I started with a wash coat of Floquil Grimy Black paint. As you can see in Photo 6, this is a very thin mix (really more of a stain than paint). I just gave the bottle a couple of shakes to mix the paint, testing things on a scrap piece until I got what I wanted. I also dusted on some brown pastel dust and brushed it in along the bottom where the weathering would be heavier. Next, I dry-brushed a layer of red, using Model Master #4632 Guards Red acrylic paint. Once again, this is more of a staining coat, although a little heavier. I really gave the brush a workout here, as you want to have the Grimy Black undercoat showing through (Photo 7). If it seems that I’m a bit vague with the instructions at this point, it’s because these types of effects are very subjective. The same effect will look great to one person and lousy to another. Furthermore, most of the time I’m just flying blind doing this, experimenting as I go. Dumb luck is a huge factor in my modeling. If something doesn’t look right to you, try it again. Practice on scrap material until things satisfy you before risking the actual model.

Photo 8 shows the partially finished wall section. I painted the opening for the loading door Grimy Black (full strength for once), and added the track for the loading door. The track is made from some brass scraps I had in my material drawer. I don’t have any sizes to give here. The hanging rail was soldered to the two brackets and the whole thing attached to the wall with Walthers Goo. I crudded things up with the usual mixture of Grimy Black and burnt sienna chalk dust for a nice rusty effect. The door was made with a core of 0.040” styrene covered with more of the 0.020” x 0.188” strips, sanded for wood grain, painted, and weathered like the rest of the wall. The hangers are made of wire (I think it was 1/32” piano wire, but I’m really not sure.) They were just eyeballed into the shape needed with a pair of needlenose pliers and attached to the door with Walthers Goo. The brackets hook over the door track, although the door itself was glued to the wall with styrene cement. The walls can finally be glued together now. Much has been written about building basic boxes, so I won’t go into a lot of detail. Just make sure things are square and well-braced against warpage (Photos 9-10).

Being new to O Scale, I’m still learning what’s available and what isn’t. At the time I didn’t know of a source for corrugated metal siding in a scale thickness, so I made my own using heavy-duty aluminum foil. Using a sheet of Evergreen metal siding as a guide, I taped a piece of the foil to it and scribed in the corrugations...
with a blunt stick (in this case, the end of a paintbrush). A wooden skewer works well too. I’ll admit this was tedious (Photo 11) but not bad for such a small amount. I’ve since learned that K & S Metals is now producing scale corrugated siding for O Scale, so give that a try if you like.

Once I had enough siding material scribed, I cut it into roughly 3’ x 10-12’ panels with a pair of scissors. The scribed foil is surprisingly strong and won’t crush under normal handling. To attach it to the building shell, I tried another experiment and used doubled-sided Scotch brand tape. There are two kinds, permanent and removable. I used the permanent type. I’ve had trouble with styrene warp-age using rubber or contact cement. Walthers Goo or CA might work, but I didn’t want to chance it. I simply ran tape along the top and bottom edges of each row of siding. I was very generous with the tape, putting it wherever I needed to hold the siding down (Photo 12). I can’t say whether the double-sided tape will be permanent, at this point, since it is an experiment. If you have a favorite method for attaching metal siding to wood or plastic, then use what works for you.

Photo 13 shows the partially completed building with the corrugated siding all finished and painted. For the end painted white, I just used some flat spray paint from an aerosol can. The rest of the tin was brushed with full strength Grimy Black and weathered with burnt sienna for some rust effects. There are several doors on the west (white) end that were indicated with simple panels of tin and simulated door tracks made of some styrene scraps.

Roofing

The roofing is a standing-seam type made from Evergreen roofing material, 0.040” thick with 3/16” spacing (#4521). I simply cut it to size, making an allowance for the overhang on all four sides, then scoring the material along the ridgeline. The Evergreen sheets weren’t wide enough to cover the entire building. I had to splice two sheets together. For the moment, I left the roof off of the building so that I could glue some more of the 0.020” x 0.188” strip material on the underside to represent the individual board sheathing often seen on buildings like this (Photo 14). I gave these boards a coat of Floquil Rail Brown and, since they wouldn’t be seen that much, I didn’t weather them. Adding these was much easier with the roof off the building, although the excessive handling and flexing broke the score line at the ridge and gluing the two separate panels to the building became a pain. As you are gluing in the strips that represent the standing seams on the Evergreen roofing, be certain to leave a space for the elevator housing on the one side.

The Elevator Housing

The elevator housing (Photo 15) on the top was made with a core of 0.040” styrene and covered with more aluminum foil. See the drawings for dimensions. I left the foil smooth, since the prototype is just covered with sheet metal. A coat of flat white spray paint and more Evergreen roofing material finished it off. Once it is glued to the roof with styrene cement, fill in any standing-seam strips around it. A ridge cap of 0.060” square styrene completes the roof construction. I used more of the Model Master Guards Red to paint the roof, followed by a weathering coat of rust colored chalk dust for a nice flat, dry look.

The Foundation

With the basic building shell finished, we can focus on the foundation. I cast the stone piers out of ordinary plaster in a styrene mold. I just made one long strip that I cut into twelve pieces, rather than trying to cast individual piers. The mold (Photo 16) was made from 0.040” styrene and scaled out at 3’ wide, 3’ tall, and 36’ long. As you can see in Photo 17, neatness wasn’t a major concern during the casting process. I didn’t bother to coat the inside of the form with anything as, the plaster wouldn’t stick to the plastic. Once
the plaster set up enough to be handled, I stripped off the form, cut the casting into twelve pieces, then carved in the stonework (Photo 18). I put the greatest effort into the piers and sides that would be the most visible. Those on the interior were just carved along the edges to roughen them up a bit. The prototype building had a lot of junk and scrap wood tossed underneath, so I replicated this on the base of the model (Photo 19). Now is the time to completely detail the base. I used Woodland Scenics cinder material and ground foam along with whatever scraps of wood and anything else I could find in my supply drawer. Since the piers in the middle row really don’t have any detail, I painted them with some Grimy Black to de-emphasize them. Once the building is in place, the lack of detail doesn’t really show.

Other Details
The driveway is a piece of 3/16” thick foam-core board with the paper stripped off of the top. I sanded a taper into it for the driveway apron, then painted and weathered it with acrylic craft paints in concrete colors.

The final detail is some guttering. I couldn’t really tell from my photos whether the prototype even had any gutters. I think they really add something to a building, so I put them on anyway. Figuring that this detail would be the first thing to break, I made them out of 0.005” thick sheet brass from K & S Metals.

As shown in Photo 20, I bent the brass over a piece of 0.030” piano wire using a pair of pliers. It wasn’t the neatest job I’ve ever done, but the end result was a nice, battered, beat-up gutter suitable for a building like this (Photo 21). I made some hangers out of soft brass strip material (from Special Shapes) by bending them over the same piece of wire, then soldered them to the bottom side of the gutters (Photos 22-24). All of these pieces were made oversized, then trimmed to final dimensions after forming and assembly. I thought that making these would be very hard, but was pleasantly surprised at how fast and easily it went. I attached the gutters to the undersides of the roof overhang with some Walthers Goo, then painted them with Grimy Black and Rust for a really great effect (Photo 24). The completed building awaits final detailing, once I install it on the layout. This was a fun project that will add a lot of character to the I & W.

Materials List
Evergreen Styrene
(1) 12” x 24” Sheet of 0.040” Plain Styrene
(2) Packages of 0.020” x 0.188” Strips (PN #128)
(2) Packages of 0.040” Thick Metal Roofing with 3/16” Spacing (PN #4521)
(1) Package of 0.060” Square Strips
(1) Package of Corrugated Siding, 0.040” Spacing, 0.040” Thick (if making your own siding along with heavy-duty aluminum foil) or Commercial Siding from K & S or Plastruct

Wood:
(4) Lengths of 1/4” x 1/2” Balsa or Basswood for Internal Wall Bracing

Metal:
0.005” Brass Sheet from K & S Engineering
0.030” Spring Wire

Other:
Plaster or Durham’s Rock Hard Water Putty (for casting the stone support piers)

Paint:
Floquil Grimy Black, Rail Brown (or equivalent colors of your favorite brand)
Model Master Insignia Red and/or Guards Red (or equivalent color)
Various Shades of Browns and Other Stone Colors.
Various Shades of Earth-Colored Artist’s Pastels (burnt sienna, raw umber, burnt umber, etc.)
Figure 2

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4-4-2 Atlantic Steam PRR 2 Versions, B&O, Long Island 635

4-8-4 T-1 Steam 1015 Reading, Blue Mountain & Reading, Chessie, Allegheny

2-10-0 Decapod Steam PRR 2 Versions 1015

4-6-2 P47 Baldwin Pacific Jersey Central Blue, B&M, GT 809

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#4002 EMD F7-Ph1 (late), F7-Ph2, F9, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

F Unit “A” Body KITS: reg. $99.95, on sale $82.99
#7000 EMD F3-Ph4, F7-Ph1 early, 36” low fans, 36” dynamic brake, 2 portholes, horiz grilles
#8000 EMD F7-Ph1 late, F7-Ph2, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles
#9000 EMD F9, 36” fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

F Unit “B” Body KITS: reg. $94.99, on sale $79.99
#3000 EMD F3-Ph3, F7-Ph1, 36” low fans, 36” dynamic brake, 3 portholes, horiz grilles
#4000 EMD F7-Ph1 (late), F7-Ph2, F9, 36” low fans, 48” dynamic brake, 2 portholes, Farr (vert) grilles

All kits include brass etched grills, appropriate detailed parts, and preformed grab irons for indicated model. These kits include only the parts above the frame.
Modeling the Washington, DC, Terminal of the Washington, Baltimore, & Annapolis Railroad

In the last issue, we covered the Baltimore terminal of the Washington, Baltimore, & Annapolis Railroad. The Baltimore terminal was a large multi-track installation, capable of storing several trains at one time. It contained a return loop, covered platforms, passing sidings, several storage tracks, and a large freight house.

This time we consider the Washington, DC, terminal at the other end of the line, in higher-rent territory. In contrast to the Baltimore Terminal, the trackplan of the line’s Washington Terminal is considerably simpler. Here, reversing the cars for the return journey takes place on a loop located on adjacent city streets. All trains enter from the same direction, stop to disembark and load passengers, and depart relatively quickly.

The Washington infrastructure consists of just three passing sidings, open platforms, and a relatively large waiting room located on a roughly triangular plot of land.

Advantages for Modelers

The Washington terminal of the WB&A, as based on photographs and drawings in John E. Merriken’s excellent Every Hour on the Hour (1993), offers modelers and module builders numerous modeling advantages.

1. Simple Trackplan: The trackplan is relatively simple, thus reducing costs and speeding construction. There are relatively few turnouts to be built, and several can be spring switches. The single-slip switch on New York Avenue does not have to operate, but can simply exist as a crossing. Likewise, the switches and trackwork on Eleventh Avenue do not have to initially operate.

2. Easier Overhead Construction: Since the trackwork is relatively simple, the overhead construction can be relatively straightforward. Perfect overhead operation is only needed for the most commonly used routings.

3. Freedom from Platform Canopies or Trainsheds: The lack of platform canopies will make it easier to manually raise and lower trolley poles and to make any overhead adjustments necessary.

4. Station Detailing: The terminal, itself, can be as simple or as complex as desired. The terminal interiors can be completely detailed, or the emphasis can be on making the trainshed and track areas as detailed as desired. The station courtyard, too, could be detailed with models of period cars and taxis.

5. Operation: Although the trackplan is relatively simple, there is space for continuous operation while showcasing two or more trains (depending on length) at the platforms. Operation could be automated so that the arrival of one train will be accompanied by the departure of another.

6. Variety: Depending on available space, the Washington, Baltimore, & Annapolis’ heavy interurban traffic could be mixed with local streetcar service on the adjacent streets. The contrast in size between the city and interurban cars could be very pleasing.

7. Scenery: The adjacent Hotel Annapolis, which would be located along the bottom edge of the terminal plan, could provide a large view-block, or background. This, in conjunction with the buildings along New York Avenue, creates a pleasing impression of an “urban canyon” on New York Avenue.

8. Comic Relief: Notice that, once again, the station area contains an unfenced inspection pit that could cause an unwanted surprise for unwary passengers or pedestrians. I wonder what OSHA would say!

What’s Your Favorite?

Do you have any suggestions or favorite prototype trackplans you’d like me to include in future columns? Send references, or drawings, to me at roger@oscalemag.com and I’ll try to cover them in future issues!
Reader Feedback

More on Generations

Brian: I liked your “Observations” in OST #26 very much. It mirrors what I’ve been saying for many years (which is why I liked it of course). The cry coming from the old-timers (I’m 57) has been that we are watching the demise of O Scale “as we know it”.

My reply has been that the decline in popularity of O Scale is attributable, in part, to the fact that anything really new is looked on with great cynicism. I don’t mean new kits and brass locomotives. I mean new ways of reaching the desired goals, or even the goals themselves. There are those that still think that a super-detailed scratchbuilt caboose sitting on a piece of 3/4” plywood is a thing of beauty, while denigrating a ready-to-run box car on a realistically detailed scene.

Times have changed. It’s no longer good enough for a yard to hold made-up trains waiting their turn to circuit the layout. It’s no longer good enough for an engineer to be more concerned with which toggle switch to throw to keep control of his train, rather than thinking ahead to his next task. I don’t find anything wrong with a scratchbuilt caboose on a piece of plywood, but I do take exception to the idea that it is what modern O Scale is all about.

Now, I model in On2, so you know how much ready-to-run equipment I own. But, I’ve been modeling most of my life. This is where I’ve ended up, not where I began. If it wasn’t for Lionel, I don’t know that I’d be writing this message. If it wasn’t for Athearn, MDC, Atlas, and HO ready-to-run, I don’t know that I would be still interested today. If it wasn’t for Central Valley, Northeast Scale Models, Ambroid, etc., I don’t know if I’d be in On2. Lionel got me hooked on trains, RTR got me hooked on scale model railroading, and craftsman kits got me hooked on scratchbuilding. Times have indeed changed, but the process hasn’t. Train sets have replaced Lionel, Atlas has replaced Athearn, and resin kits have replaced Central Valley. What has changed is that the overall railroad has replaced the collection.

I don’t have a massive collection of antique brass. I can’t afford to buy every new brass locomotive that comes out. If I end up with four or five nice locomotives, I’ll be happy. That will be enough to run my “railroad”. Why the guys with massive collections dominate the DCC discussions with comments like, “I can’t afford to convert all my locomotives”, I’ll never understand. Why would these guys even comment on something that is of no relevance to what they are doing? It would be like me commenting on traction.

I think you have done a great service to O Scale. You’ve made it acceptable to rethink the way you look at the hobby, and that from an “old-timer”. Who knows, in time, you may even get away from using wire with braided insulation!

Ed Kozlowsky, Sanford, ME

Making Do

I operate 3-Rail locos and cars. This is tolerable, but necessary, since I have a 4’ x 16’ space to run trains. I find that much of today’s 3-Rail equipment is “dead-on” except for the horrible third-rail and huge flanges and couplers. Otherwise I enjoy O Scale which would [normally] require a 16’ x 64’ space. I am sure you have many [readers] like me, right? We might be the silent majority... but without a political agenda. My layout features a four-track hump yard which works, but was an operational challenge.

Herb Cearley, Long Beach, CA

Joe says: Well, I think a lot of readers would like to see your hump yard. Send us a photo and we’ll find space in “Modeler’s Shelf” for it. I estimate about 40% of OST readers are HiRailers, so you are not alone Herb. Thanks for your comments.

More Slope Sheets, Less Gee-Whiz

Hi Joe: Just got your latest issue today [#27]. Regarding the NMRA/O Scale National possible combination would be the issue of membership in the NMRA and that is not cheap. We in this area think that it is basically an HO organization, hence none of our guys take any interest in joining. Years ago there were many very good articles done in the NMRA Bulletins by O Scalers, but that has gone away since. It regards to the conventions, they are very expensive to attend these days. We have discussed them and believe O Scale will ultimately end up at Chicago, Indianapolis, the California show, one of the Eastern shows, and our Cleveland show. Why these areas? Because these areas will support them.

In regards to DCC, TMCC, &c, Most of us don’t like it because of the complicated and expensive extra electronics involved and it takes up space. Ever wonder why Sunset does not do slope sheets in the tenders of their steam locos? You got it. 3-Rail TMCC. The heck with the sound. We prefer the slope sheet. I have asked Sunset many times to put a removable top in the tenders and that always fell on deaf ears. I always enjoy your editorials, by the way, mainly because they help to provide much insight into what is going on in the O Scale hobby. I hope they will serve to promote 2-Rail scale as well.

Best Regards, Sam Shumaker

Layout Alert

The other day I was invited to visit a great O Scale layout. The layout is in the basement of Vic’s Hobby Supply, 606 Northeast Broadway Street, Portland, OR 97232 (503) 281-1032. If you are looking to profile great layouts for your magazine, this would be a worthy candidate. It is very nicely done.

Scott Long, Beaverton, OR

Joe Says: Anybody in the Portland area interested in doing an article on this layout? Contact me by email or at the magazine’s postal address.

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Building a Small O Scale Layout
Part Eleven
Michael Culham

In Parts 8 through 10 of my series, I covered the building and finishing of a structure from a basic plastic kit. We’ll continue on with our look at structure modeling over the next four parts of this series; I will show you how to build a structure using Design Preservation Models (DPM) modular wall sections. In Photo 1, you can see the finished building. Now some of you may shy away from using these, as you may think that it’s too much work having to figure out what wall sections to use, how many you need, putting them together and painting them. Don’t be shy. They are easy to use and I am going to show you how. DPM makes a variety of different wall sections to choose from. There are walls with three different window styles, blank walls and door walls. With all these you can design all sorts of buildings. They have also produced kits, with all the wall sections you need to build the structure that they have planned. I have found these kits a great way to get a lot of wall sections all at once. When I first got back into O Scale, I purchased three kits, which gave me lots of wall sections to work with in designing some buildings for my layout.

Deciding What to Build

On the layout, I have an area between the backdrop and siding for which I wanted a factory building that could be served by two 40’ boxcars (Photo 2). Since I had lots of different DPM modular wall sections in my future project drawer, I decided to make my new factory out of these.

I’ve demonstrated, on the last building I showed you, how I like to add a little humor to my layout. I quite often name companies after my train friends with a humorous twist as well. A good friend of mine from England, Ivan Maxted, is a very good modeler of British railway stock in O Scale and has been a great help with some of the ideas used in building my layout. As well as his love of trains, he also likes to make reproductions of old musical instruments, his latest being a clavichord (I’ll let you figure out what it is.) I had not named an industry on my layout after Ivan as of yet, so I decided to name my new industry after him, hence the name “Maxted’s Clavichord Factory”. With all this in mind, it is time to design and build our new building.

Designing a Building

The first thing you need to do when designing and building your structure is to work out the area that it will cover. This is the building’s footprint. Once you know this, draw it out full-size on a piece of paper. From this, you can work out how many wall sections you will require by placing them on the footprint. You can see from Photo 1 that the area that I have for my building is a triangular shape. The overall size of the area is 8” x 25”.

You will find, in O Scale, that most of your buildings will be just flats, because of the amount of real estate required. On my layout, about fifty percent of the buildings are flats, as is this one. Figure 1 shows the shape I would like the finished building to have, to fit in the intended space. I wanted four walls on my building, with Walls #1 and #2 to be at right angles to each other, Wall #3 to taper back from them, and Wall #4 to be at a right angle coming off the end of Wall #3. After a little playing around and fitting wall sections around the area, I decided that Wall #1 needed to be 5-3/4” wide, Wall #2 would be 4-1/2” wide, Wall #3 would be 20-3/4” wide and Wall #4 needed to be 4-1/4” wide.

I also wanted the building to be two stories in height. Knowing this, I could now figure out how many modular sections I needed for each wall. In Figure 2, you can see the design concept for each of the four walls.

I decided to use the Curved Window Section #901-2 for the second story on all the walls, and blank wall sections on the ground level. I wanted a door at street level on Wall #1, so I chose Wall Section #901-01. To give the building some height, I also used Riser Wall/Dock Section #901-08. I finished the tops of the walls with Cornice Section #901-09. I planned to have two dock doors along Wall #3, so I fitted in two #901-07 Freight Door Wall Sections. In Figures 3 through 6, you can see how I placed all these sections together to make each wall for my building. I have also made the following list of modular wall sections that will be used and the quantity needed for each one.

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<th>Wall Module #</th>
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<tr>
<td>901-02</td>
<td>Window Wall</td>
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<td>Blank Wall</td>
<td>5</td>
</tr>
<tr>
<td>901-07</td>
<td>Freight Door Wall</td>
<td>2</td>
</tr>
<tr>
<td>901-08</td>
<td>Riser/Dock Wall</td>
<td>8</td>
</tr>
<tr>
<td>901-09</td>
<td>Cornices</td>
<td>9</td>
</tr>
</tbody>
</table>

You will also need a large sheet of 0.040” styrene for the roof, some 0.125” x 0.125” strip styrene for braces and supports, and a bottle of liquid plastic cement.

As already mentioned, Wall #1 is intended to be 5-3/4” wide. Since the wall modules are only 4-1/2” wide, I have a couple choices. I would either have to cut some wall sections to a 1-1/4” width to make this wall, or I could make a section out of styrene...
FIG. #1
SHAPE OF BUILDING AND WALL PLACEMENT

FIG #2
WALLS SECTIONS
DRAWING NOT TO SCALE

WALL # 1

WALL # 2

WALL # 4

WALL # 3

M CULHAM 2005
Thus section of wall is made from a piece of .100 styrene sheet cut 1¼ wide, with a brick overlay to match the rest of the wall.
and some brick sheet material to make the wall wide enough. I chose the latter, as it was a lot easier to make. I used some 0.060” sheet styrene and some sheet brick material that I picked up at a hobby show, one that was good for finding O Scale. I’m sorry, I don’t know the maker of the sheet. (Precision Products makes plastic veneer brick sheets in various sizes and scales. Try [www.appliedimaginationinc.com] if you can’t find that sheet of Holgate and Reynolds you’ve had squirreled away for years. –ed) I will discuss this in more detail later in the next part of this series.

Once I decided what wall modules to use and what the building would look like, I started to assemble it. In Part 12, I will show you how to assemble the wall modules to make Maxted’s Clavichord Factory.

So until next time

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**Diesel Locomotives**

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Standards—Part 1

I’ve been reading a collection of Norm Buckhart’s old Proto Journal recently, and learning about the early days of Proto48 has been interesting. What surprised me was how often these pioneers met with adversity and, in some cases, even outright animosity from the established model railroad community.

Thanks to their persistence, we now enjoy a healthy network of P48 products and suppliers. One can get started in no time at all, where once considerable effort was required just to have a locomotive, a few cars, and some track to run on. But P48 still has a way to go. One thing that would go a long way to popularizing P48, for new converts, would be a track system.

P48 is about modeling to higher standards of accuracy and fidelity to the prototype. Most guys handlay their track. Handlaying model track really isn’t hard, and the information is readily available. Many still find it intimidating, tedious or not to their liking for whatever reason. True, it takes time and effort to produce track that looks prototypical and runs well. For those like myself who enjoy it, it’s a relaxing part of the hobby. For others it’s just plain work, which brings me back to the idea of a track system.

One has only to look at the success of On30 and the smaller gauges, particularly HO, to trace the contribution that readily available track systems have made to their popularity. Further, the smaller gauges never had to deal with the gauge discrepancy that O Scale still wrestles with. HO track is correctly gauged at 4’ 8-1/2” whether it is made for toy trains or scale models.

I don’t think that P48 needs a finescale version of snap-track. I fear that the temptation to a major manufacturer would be to compromise accuracy and detailing for the sake of appealing to a broader market in order to recoup their investment quickly. What would be nice would be a set of matching components that are fully detailed, to scale, that would speed up or simplify the tracklaying process. Such as system may be in our future very soon.

Many of you know Jim Canter of Indianapolis. A long time advocate for P48 and 1/4” modeling; Jim runs Canter Rail Services, a sideline business featuring a line of track templates, gages and other accessories for P48. He also organizes a show in the Indianapolis area each September for 1/4" and P48 that has become a major event in the O Scale community.

Jim is planning a large layout. This means lots of track and a lot of work on that track. He wanted to speed things up on the layout, and started thinking about a tie-strip product geared to P48. Always thinking “big picture”, he reasoned if he could use it, others could too.

I spoke with Jim recently, and learned that the tooling for the dies is underway and that making #8 turnout strips will also be produced. These products will have all the detailing, tieplates, rail braces and so on, built in. All the modeler has to add is rail. The strips will accept both Code 138 and 125 rail, since the width of the rail base is nearly the same. Joint bars will also be included on the sprue, and can be clipped off and attached to the rails every scale 39’ if one wishes.

What is really exciting with the turnouts strips is that Jim has collaborated with John Pautz of American Switch and Signal, to ensure that his tiestrips and John’s frog and point castings will be perfectly compatible with each other. Cooperation of this sort advances the hobby for everyone.

Remember, both of these guys have day jobs. The income derived from their model railroad projects likely just covers the expense of production (hopefully). It doesn’t pay the bills or put food on the table. Bringing top quality products to a fickle market is a major risk. A substantial chunk of their own money is tied up in development and marketing, with little guarantee of success.

The P48 community should welcome their efforts, and those of many others, who bring us the products we enjoy. As we continue to press for more prototypically accurate products (not only track, but rolling stock, buildings and scenery), the future for all O Scalers looks bright indeed.

For further information about any of Jim’s products contact: Canter Rail Services 1203 Rotherham Lane Beech Grove, IN 46107-3323 E-mail: jcanternkp@sbcglobal.net

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I hope there were a good number of entries in the Narrow Gauge/Industrial Digital Photo Contest, because there is a brand-new Bachmann On30 Console waiting to be delivered to our first place winner. By the time you read this, the contest will be over, so you might have to wait for one more issue to find out who won in the four categories, which also included Steam, Diesel and Traction.

Once again, I suggest that the quality of digital cameras has gone way up while prices have come down, and that a digital camera will help make you a better modeler. I recently upgraded to a Sony DSC-H5 Cyber-shot with 7.2 mega-pixels, 12x optical zoom, and a huge three-inch screen. The big screen is such a useful feature that I strongly advise you not to settle for anything less than a three-inch screen. In my opinion, it is unlikely that screens will get much bigger.

The 26th National Narrow Gauge Convention was held in Durango, Colorado, on August 21-26. I hope to have photos for our next column. It’s not too early to start planning for NNGC #27 to be held in Portland, Maine, on August 29 through September 2, 2007. I have offered to conduct an On30 clinic, and I hope to meet and talk privately with every person who attends and joins in on our group howl. Watch [http://www.27thnarrowgaugeconvention.com/] for details.

At this time, the best value in O Scale narrow-gauge model railroading is the combination of the Bachmann DCC-equipped On30 Davenport Diesel and the Bachmann E-Z Command DCC system. For under $100 for both, plus a few Grandt Koppel ore cars, some track and turnouts, you can join the Digital Age and create a small O Scale narrow-gauge quarry or mining layout. Be advised that you might not be able to resist adding a second Davenport or a rail truck, to really enjoy the benefits of DCC.

Speaking of Davenports, I recently purchased an old, unpainted On3 Fujiyama 30-ton Davenport switcher on eBay, mainly because I suspected from the seller’s description that it might have a better drive than the model I already owned. This is the D&RGW #50 model that was imported by Pacific Fast Mail in 1971 and sold for $85. The one I had runs nicely, but the newer acquisition has had the Faulhaber conversion kit installed. The husky can motor is mounted vertically under the engine cover, and contains a reduction drive that makes this switcher just crawl. I intend to change it to a generic industrial switcher.

Fans of D&RGW #50 will appreciate that Davenport 2245 (built in 1937) is currently being rebuilt at the Colorado Railroad Museum. When I inquired in July about any recent progress, the CRM advised me that they were waiting for the transmission to arrive, and also a bull gear, before repairs could be completed. When 2245 returns to service, I predict that there will be a surge of interest in this critter.

Davenport 2245 was built in 1937 as Number 101 for the Sumpter Valley Railway in Oregon. It operated as a switcher at Baker City for 24 years until 1963, when it was sold to the D&RGW. It was run through the Denver shops, where the strap ladders on all four corners were replaced with old steam tender steps. It was painted black, yellow, and orange, given number 50, then assigned to Durango as the shop switcher.

In 1970, it was sold to the Roaring Camp & Big Trees tourist line in California, retaining its D&RGW colors. At some point, it sustained major damage to the transmission and, in 1981, it was acquired by the Durango Railroad Museum. The Colorado Railroad Museum purchased it in 1984. Have a look at [http://groups.yahoo.com/group/Davenport2245/]. By the way, I was recently advised by Accu-craft Trains that their new On3/On30 model of Davenport 2245 should be available before Christmas of this year.

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Modern Order

The biggest part of model railroading is the train. I started the last column that way, but it is true to such a high degree it deserves saying again. It shouldn’t be surprising that if we, as modelers, follow modern railroad operating practices, then we should also follow modern DOT (U.S. Department of Transportation) safety rules when building a model train consist. When a crossing arm stops the average morning commuter, I doubt if they wonder why there are four locomotives, then a boxcar, then a tank car, then six more boxcars followed by eight more flats and so on. Don’t they know they are watching efficiency roll past? Don’t they care that their safety is in the balance with every click-clack, click-clack? My thought is, probably not. Thankfully the railroad and the government do care and they know how to keep things in order.

The DOT has written guidelines for train consists to ensure the safest transport of everything from t-shirts to TNT. The DOT guidelines require special placement of critical freight car loads in the train consist. Those critical loads are usually classified as hazardous materials. The DOT rules dictate how a train can be built in the yard. No hazardous material car can be placed within six cars from a locomotive. Highly flammable material should never be placed close to a chlorine tank car. Chlorine, while not flammable itself, is an oxidizer. It will fuel the fire and could make it impossible to extinguish. On the other hand, it is safe to place hazardous material cars like sulfur dioxide tank cars with the chlorine tank cars, because sulfur dioxide will neutralize the chlorine and visa-versa, should they ever come in contact. That would be the hope anyway.

Obviously, you can’t separate a hazardous material car from an engine by six lengths when the train is made up of only four cars. Yard switching, local switching deliveries, and deliveries on the mainline can take exception to some of these rules, if a slow maximum speed limit is observed and there are personnel with radios available to observe the movement. When you, as the yardmaster, are contemplating the order of assembly for trains in the next operating session, give some thought as to hazardous material car placement. We cannot always build a train long enough on our layouts to follow all of the guidelines mentioned here. However, slowing down and taking extra time to switch a hazardous material car will achieve the same point and purpose. In the end just getting there safely is half the battle.

Railroads make money by delivering freight cars to customers. The more cars delivered, the more money the railroad makes. Keeping the train consists in an order that benefits switching will minimize the time-consuming process of setting out and picking up cars. I can tell you that train crews like the switch list to be ordered, too. Unfortunately, that doesn’t always happen. When a road crew is operating in a territory that isn’t familiar to them, the engineer would like a train built with consideration to horsepower, as opposed to the weight of the train. It can be jerky night on the rails if the yardmaster has put too many heavy cars at the end of a train and there is slack in the couplers. Heavier cars like 60’ boxcars, large tank cars over 50’ in length, and loaded hoppers should be placed forward in the consist (giving due consideration to DOT safety rules). Lighter cars, like double-stack well cars, large autorack cars, and empty freight cars, should be placed to the rear.

Heavy-to-light is a good rule of thumb. The exception would be a unit train, such as a coal train, where every car is either loaded (heavy) or unloaded (light).

Now a personal note about this column. It has been my extreme pleasure to be able to do this column for O Scale Trains Magazine. However, this will be the last installment of “The Modern Image” that I will be writing.

Happy railroading!

(Publisher’s note: No, we didn’t fire Carey. He is going back to school and will not have the time to devote writing a regular column. However, Carey will still do drawings for us and occasionally submit an article. Carey’s good friend and modern-era O Scaler Gene Clements will be taking over the helm of this column. In addition to being a model railroader, Gene works as an engineer for the BNSF. You can’t get more modern-era than that! We hope to have Gene’s first contribution next issue. —Joe G.)

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This is a true O Scale 1:48 model. The die was made from the drawings of a real Birney!

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The photos illustrate the process. I used a drill-press, an inexpensive drill-press vise and a small keyless chuck held in place in the vise. You could certainly use a lathe if you have one. On the other hand, this could even be done with a regular vise and a hand-held power drill, but that would require someone with some real skill!

Start by cutting the head off a screw that will become a crankpin (I used 1-1/4” long #6-32 machine screws). Either ease around the cut so that the screw can be threaded into a nut head-end first, or run it through a matching die.

Chuck the screw, head-end first, about 3/8” into the keyless chuck. Grasp (snugly, but not tightly) the protruding end of the screw in the drill chuck. Lower the drill chuck about 1-1/2” and secure it at this level.

Set the vise on the drill-press table and raise the table to where the vise will securely grip the keyless chuck stem. Carefully align the vise with the stem. Tighten the keyless chuck stem in the vise. Avoid stressing the screw. Securely fasten the vise in place on the drill-press table carefully, checking to make sure you still avoid stressing the screw. Now the tools are aligned and the work is in place to form the first crankpin.

Release the press’s chuck and let it rise away from the work. Put a drop of cutting oil on the upper threads. Put on your leather-palmed gloves and lower the drill-press so that the press’s chuck, when loosely holding the screw, covers about 3/8” of the top threads. Lock the press’s chuck vertically at this level.

Turn on the press at a slow speed. CAREFULLY and GENTLY close your gloved hand around the drill-press chuck so that the chuck closes gently to rub – not grip - the threads. We want to burnish these threads almost out of existence; that is, we will rub them down to a smooth surface without removing any material. We’re using the smooth inside surface of the jaws of the drill-press to re-form part of the surface of the screw’s threaded shank.

Be patient. Do not allow the chuck to grab the screw. Keep the work cool with your cutting oil. Actually, the oil will feed to the work from the bottom of the thread. This phenomenon will work to our advantage again on the engine. Back off (up) occasionally to observe the progress. There will be a shrinking channel at the bottom of the thread corresponding to the growing flat surface where the thread tops used to be.

How small this channel becomes is up to you. It will hold lubricant on the engine so it’s probably useful to keep something of a channel, however small. Also, you might settle on a favored diameter for the crankpin, in which case the channel size will take care of itself. Just keep an adequate bearing surface to minimize wear on your rods later.

With the screw still in the keyless chuck, put your nice shiny new 2-56 tap drill in the press chuck. Still running slowly, drill a tapping hole down into the screw about 3/8” deep. Easy does it here; forcing the drill could deform the outer surface.

We now have what could be called a crankpin blank, ready for fitting and final tapping to receive the screw and washer that holds the rod on the crank.

Drill and tap a #6-32 hole through a spare driver or other piece of flat stock that is as close as possible to the thickness of the drivers you will use on your engine.

Thread your blank crankpin into the spare driver as far as it will go. The smoothed-thread part of the pin will stop the threading. Don’t torque it down now; you will use a tap for that next. Using the skills learned through countless construction articles, tap the hole in the pin as shown, in this case #2-56. Again, easy does it. Forcing the tap could deform the outer (bearing) surface. The tapping twist will drive the pin into the wheel to an “optimal” depth without over-tightening.

Grind or file the pin to the desired length. Clean
the tapped hole. Ease the edges around the end of the pin.

Turn the wheel over and remove the excess threaded length down flush with the back of the wheel. Cut or grind a flat screwdriver slot across the pin in back of the spare wheel. I use my Dremel tool with a thin cut-off wheel. You can see from the photo why we’re using a spare wheel! Using a screwdriver, drive the new crankpin out of the spare driver.

This is the finished crankpin. It is ready to be attached to your “good” driver. With some practice these pins will be cranked (!) out and mounted at a rate of less than ten minutes each. The trick is to do all the burnishing, then all the drilling, tapping, and finishing, for the day’s batch of pins.

To prepare the “good” driver, carefully drill a #6-32 tapping hole where you want the new crankpin. Tap carefully so as to inflict the least possible stress on what might be some pretty soft zinc or brittle cast iron.

Start your new crankpin gently into the new threaded hole. Turn the driver over and, using your screwdriver, “back” the screw down into the hole, seating it firmly without over-tightening.

Check that the exposed end of the pin is completely smooth, with no threads beyond the outer surface of the wheel. If they are out there, remove the pin and slightly countersink the hole from the outer surface, reinsert, and snug the pin again. When you are satisfied with the setting of the pin, put a small drop of Locktite or thin CA on the threads at the back of the wheel. The “glue” will wick up the threads into the wheel and hold it with almost no stress on the wheel. A nice hex-head and washer in the crankpin and you’re ready to go.

This is a Varney wheel from the 1950s, cast in what appears to be a good quality zinc alloy. It’s a beautiful wheel, but seems a little fragile. Its fragility is what led to this crankpin technique. There’s very little distorting stress on the thin casting, and the large mating surface of the threads disperses what stresses there will be during operation.

These pins are also working well in cast iron wheels, cast iron tending to brittleness rather than softness. Either way, less stress is better. Happy modeling. It’s a fun hobby!
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Singer Watch Repair (Cabin Creek Series) #17234, MSRP $46.95

Mr. Singer was always busy keeping the railroad watches cleaned and keeping perfect time. Watch repair is always needed in any town. This kit consists of laser-cut basswood, plywood, and cardstock, self-adhesive shingles, signs, brass doorknobs, and smokejacks. The siding is clapboard. The tabbed, well-engineered construction provides for easy assembly. The footprint is about 14’ x 27’.

Junior’s Shiner (Goin’ Home Series) #17405, MSRP $49.95

Down by the tracks is the location for this early mobile home, fit for any time period from the 1930s to the present. The nickname “shiner” referred to the unpainted aluminum siding used on many of the early models. This is a laser-cut kit, featuring styrene sides and a wood core. It has been totally re-engineered for easy assembly. Included are venetian blinds, color awning, and oil tank. The footprint, without awning, is scale 29’ x 10’.

Covered Wood Rick #17800, MSRP $54.95
Open Wood Rick #17801, MSRP $34.95

A “Rick” is an old agricultural term for a large quantity of hay or straw, stacked into a rectangular shape for storage and covered at the top to protect it from weather. It seems likely that early railroaders, fresh off the farm, looked at the piles of wood for the locomotives and called them the same thing. These ricks represent the style used during the mid-1800s, and are part of our War Between the States Series. Each kit will build two scale 40’ long ricks, or they can be combined into one of 80’ length. The model features laser-cut wood components, including laser-engraved nail holes, and material is included to create the cut firewood.

PRODUCT ANNOUNCEMENT: Structure Kit, P Bragg & Son Produce
Mt. Albert Scale Models, 18647 Centre Road, Mt. Albert, ON, L0G 1M0, CANADA
905-473-3161 • www.mtalbert.com

Mt. Albert Scale Models, a subsidiary of Mt. Albert Scale Lumber, has announced the first in a series of limited edition craftsman kits in O Scale, 1:48. The kit, P. Bragg & Son Produce, represents a fruit and vegetable distributor (a similar model was produced in HO Scale many years ago by Campbell Scale Models.) The new kit was designed by Roger Malinowski, well known and respected for his line of craftsman kits under the name Stoney Creek Designs. Roger also provided the laser cutting services for the new kit.

P. Bragg & Son Produce features laser-cut sheetwood and plywood, board-by-board construction, full interior, cast resin detail parts (from Schomberg Scale Models), exterior ‘clutter’ on the loading dock (provided by Hamm River Model Products), unique brass industrial light fixtures with 1.5V lamps, full-color signs, and four pages of full-size architectural drawings.

The kit also features operating double-hung windows, which we believe to be a first for O Scale craftsman kits. All the basswood is from Mt. Albert Scale Models. This kit is a limited run of 200 numbered models. The retail price is $200.00 US. It is available only direct from the manufacturer.
Now shipping: Tie Plates in Code 100 and 125. Either size fits Micro Engineering’s rail. The Code 125 plates also fit Right O’ Way Code 125 rail. Both sizes are available in packages of 500 for $11 each and 1000 for $15 each (plus $5 shipping per order for USPS Priority). The parts are cast in a semi-rigid urethane that grips the spike shank as you insert it through the tie. There are 100 tie plates per sheet, tinted a light brown to simulate moderate rusting.

Arcadia Publishing
www.arcadiapublishing.com • 881-313-2665
reviewed by: Roger C. Parker

Although publishers of railroad books often feature the mass transportation networks of larger cities like Chicago and New York, there are often equally-fascinating stories in the transportation histories of smaller cities, like Cincinnati, Ohio. Luckily, there are authors like Allen J. Singer, and publishers like Arcadia Publishing, to serve the needs of readers interested in the transportation history of America’s “other” cities. Arcadia has published two highly entertaining and informative books by Allen Singer about public transportation in Cincinnati: Cincinnati on the Go: A History of Mass Transit, and The Cincinnati Subway: History of Rapid Transit.

Cincinnati on the Go describes, in pictures and text, the surprising variety of ways individuals moved throughout the city in the days before the proliferation of the automobile. Readers are treated to a visual tour of everyday citizens using riverboats, cable cars, horsecars, streetcars, railroads, interurbans, and busses between home, work, and entertainment.

For example, when level areas of the city became built up, residential growth took place vertically on Cincinnati’s numerous hills. This required a new technology, inclines. Inclines were used more in Cincinnati than in most other cities. Inclines transported pedestrians, horsecars, and trolleys up the city’s steep hills. Restaurants, dance pavilions, opera facilities, and bowling alleys were constructed at the top of the inclines, serving citizens looking for higher altitudes, cleaner air, and lower temperatures during the summer evenings.

Indeed, Chapter 3, Carriages, Horses, and Inclines, is one of the highlights of the book, because it contains line drawings and photographs of several of Cincinnati’s signature inclines, one of Cincinnati’s most visible and unique mass transportation “systems.”

Chapter 1, On the Shores of the Ohio, is my second favorite chapter, not only because of the riverboat pictures, but because of the discussions over what to do with the Miami-Erie Canal, whose importance was supplanted by railroads late in the nineteenth century. One of the most elaborate was to use the canal bed as the entry to a proposed two-level union station that would have rivaled St. Louis’ if it had been built.

What Might Have Been
Singer’s earlier volume, The Cincinnati Subway describes the birth and death of an urban subway system that was virtually ready to run, but never operated when it was abandoned seven years after construction began. (This book was reviewed in detail in this publication’s Modelers Bookshelf blog/forum.)

The story of Cincinnati’s subway is a story of civic endeavor that was doomed to failure by an inability to put the public good above that of private gain. Like many other civic transportation stories, the Cincinnati subway was underfunded and undermined by short-sighted apathy, glowing promises about bus transportation, and partisan politics.

As a result, the two mile right-of-way was never operated as a subway, notwithstanding the fact that signage and benches had already been installed in the stations. Stalled by the war, the subway was deemed obsolete when the postwar automobile age ushered in a new, but disastrous, optimism.

Intended Market
Both Cincinnati on the Go and The Cincinnati Subway illustrate Arcadia Publishing’s primary strength, to hire knowledgeable local and regional historians to treat topics too specific for many of today’s colorful “art books,” yet too important to go unreported. Both books are available for less than $20 each, and both contain hundreds of quality photographs showing what things were like from contemporary points of view.

In doing so, Arcadia Publishing provides modelers with documentary evidence of what life was like in a different century. Today’s modelers can see not only the examples of the railroads, streetcars, or subway structure featured in each book, but also the surrounding streets, buildings, and signage that form the environment within which the transportation systems operated.

Availability
Both volumes are available at area bookstores, independent retailers, on-line bookstores.
Even though it isn’t a New England train, the New York Central’s 1938 Century is probably my favorite passenger train of all time. I’ve assembled and painted four of them, over my O Scale lifetime. After a while, I sold each one with the justification that it doesn’t fit into my scheme of things. Later, I’d get the urge, and do another one. My latest Century will stay, just because I’ve finally admitted to myself that this cycle is a little foolish.

Anyway, this classic Henry Dreyfuss streamline design was applied to ten J3 Hudsons. Before you start writing the “I caught Scace” letters, I’ll add that similar shrouding was retrofit to the original Commodore Vanderbilt J1e Hudson (#5344), and an appropriate version was designed for the Empire State Express design of 1941. Although others will argue passionately about beauty, I’ll still say that the Dreyfuss design was probably the most recognizable steam locomotive treatment of the pre-war Streamline Era of industrial design.

For those who care, the original order of Dreyfuss Hudsons, #5445-5454, was broken down into two discrete groups, by virtue of their running gear. Boxpok drivers and standard solid-bearing rods were applied to #5445-5449, while Scullin disc-type drivers and lightweight roller-bearing rods were originally featured on #5450-5454. Sometime after the 1944 explosion of #5450 (crown-sheet failure), the running gear from the remains of 5450 appeared under 5447, and the Boxpok/solid-bearing rod arrangement from 5447 appeared on the re-built 5450. Otherwise, the rod/wheel sets remained constant through the lifetime of these locomotives.

MTH sent us a couple different versions that have recently come to market, one with the solid-bearing rod/Boxpok running gear, and one with the roller-bearing rod/Scullin running gear. Both have PT tenders. A word about PT tanks is probably called for, as they’ll figure in Scace’s Notes for the Neurotic. These huge pedestal tenders (“centipedes”), with their 43-46 ton capacity, were designed to reduce the number of coaling stops required of NYC passenger trains. The original PT type applied to the Dreyfuss Hudsons, the PT-1, started appearing during WWII. They were replaced with a second type, the PT-3/4, relatively quickly. The second version had a water scooping system that could be used at some 80 MPH, featuring a large air-compression chamber visible behind the slope sheet on the rear cistern deck and a series of large overflow pipes through the tender frame that discharged onto the roadbed. It is this second version of the PT tank that MTH has chosen to model.

Joe did some running tests, and here are his observations. “Running on unfiltered DC, the engine started at eight volts and 1.0 amp. Under maximum load on the 3+% test grade, it drew 12 volts and 1.8 amps. After turning off the smoke unit, the minimum startup voltage was four volts and the current dropped to 0.6 amps. Slow speed running was not smooth. Performance under DC control was average. Running on DCS, the engine drew 0.4 amps (smoke unit set at “minimum”) at idle. Under light load it drew an average of 0.6 amps and at maximum load 0.8 amps. With a setting of 1 smph on the controller, the loco ran at an actual 1.09 smph. Slow speed running was very smooth. Performance under DCS control was excellent. One note: the instruction book says the loco with PT tender has a minimum radius of 54”. I ran it on 44 with no problems.”

And Now, Scace’s Notes for the Neurotic.

I broke out some dividers, a dial caliper, and a scale rule. Armed with an NYC Classification book, I went to town on this model for two reasons. I’ve a real soft spot for these engines, and something, somewhere, just wasn’t hanging together right for me. So, a hunting we did go.

The drivers measured out at 77” rather than 79”. I can live with that, given the mechanical accommodation needed for O Scale flanges. The overall driver wheelbase is spot on. The lead truck is about two scale feet too long, no doubt to accommodate Hi-rail flanges. Since this is a cross-cultural engine (convertible from 2-rail to 3-rail operation), one has to wonder why this is a perceived requirement anymore, since you’re not swapping wheels to switch it back and forth.

Overall length of the locomotive, from rear cab-wall to the tip of the pilot, was very close to the correct 54’, so I started searching for that extra two feet that the pilot truck introduced. After some searching, I found it in extra boiler length, though the slope of the pilot shrouding was brought down at a sharper angle to make the overall length correct. Very clever.

Still, I couldn’t lay my finger on that something that was upsetting my Neurotic-O-Meter. Then, there it was. Actually, there they were. First off, the cylinders. On a black engine, this isn’t so obvious. On these, since the caps are shiny silver, it’s obvious. Again probably to clear those historic 3-rail flanges, the cylinders are undersized and the steamchest sits very high. It looks positively tiny. The other issue has to do with the cab and firebox sheeting. There isn’t enough angle at the bottom of the sheetmetal over the firebox, not enough “up-swoop” (It’s an industry term.) to the rear. Although this treatment reduces the “air” resulting from moving the trailing truck a little

![New York Central J3a 20th Century Limited Hudson](https://via.placeholder.com/150)
(more flange-clearance history, perchance?), this gives a tail-heavy appearance to the engine, hence my “It doesn’t quite hang together” impression. Also, the cab walls are adjusted to accommodate, deepening the windows (which, by the way, should be three-panel, not two). Such is the risk of modeling a landmark piece of design history. “Feel” can be lost very quickly, since visual balance was a hallmark of Streamline-Era design.

**Paint and Lettering**

The original striping and lettering on the ’38 Century was done in Dupont Duco Flat Aluminum and Onyx Blue. Two things happened with this paint with the daily washing of both locomotives and cars. The Flat Aluminum faded to a chalky almost-white, giving rise to the long history of models of NYC passenger equipment lettered and striped in white (which really isn’t a bad approximation, by the way). The other issue was that the Onyx Blue peeled off in great big chunks. While the Flat Aluminum remained as the standard lettering and striping color throughout the various developments of NYC gray passenger equipment until the merger, the Onyx Blue had to go. A new center striping arrangement was made standard in 1939 with thinner stripes, all in Flat Aluminum.

The MTH PT tank is striped in white. While I could probably let that one go with just a little comment, the striping arrangement is certainly atypical, if not incorrect. The center stripes were very thin on the prototype, about half the thickness of the two outside stripes. Otherwise, the paint is very nicely and evenly applied throughout.

**The PT Tank**

If you’re neurotic about details and reading this section, then you’ll probably want to deal a blow to the details on the tank. The grabs, ladders, and railings are a bit heavy for my tastes. There are these lovely air lines and pipes for the ATS system that delicately flow along the lower edge of the tank, supported by these huge pipe supports that I also found a bit disconcerting. Take off the piping, thin down the teeth or make some new brass piping supports, and (while opportunity presents itself) redo the piping following a photo or two to arrange it correctly. Toss an ATS shoe on the truck, and a box on the tender deck.

While the piping supports are huge, the little tiny bumps that represent the overflow pipes are fodder for the grinder as well. Knock ‘em off and replace them with some overflows made from brass tubing or styrene. A styrene or sheet brass splash shield in the rear and a steam line coupling will help bring the tender up, as well.

**Shrouding on the Locomotive, vs. Chronology**

Very soon after entering service in 1938, it was discovered that there wasn’t enough airflow around the pilot-mounted air compressors, which were almost totally encapsulated by the pilot shrouding. The shrouding was trimmed back from the sides of the pilot to prevent the compressors from overheating. That change isn’t reflected in the model, making the locomotive inappropriate for any later configurations beyond “as-built”.

Also, by the time that the PT4 tanks were applied, the sheet metal over the power-reverse and air tanks had been bobbed back, and the shrouding sheets over the ashpans had been removed. These sheets were hinged to be swung up and clear when the ashpans were being cleaned. Being an impediment to quick servicing, they were removed during the course of WWII and were gone by the time the PT-4 appeared. I could have gone with the original firebox shrouds on a PT-1 equipped Hudson, however.

I suspect that MTH chose not to change the basic casting of the locomotive to keep costs down, however they would have been better served, fidelity-wise, to have stuck with the original tank or a PT-1. Also, they would have been better served to configure the dies originally to the second pilot-shroud arrangement, making the locomotive appropriate to everything from the original tank/blue stripe configuration through the PT-1/silver stripe configuration.
**Review:** X29 Boxcar, MSRP $64.95 (2-Rail) or $59.95 (3-Rail).
Middle Division, PO Box 332, New Cumberland, PA 17070
717-975-2698 • www.middledivision.com

Atlas-O, 378 Florence Avenue, Hillside, NJ 07205
www.atlosocom

**Reviewed by:** Brian Scace

Atlas O and Middle Division have brought their second collaboration to market, this time the ubiquitous PRR X29 boxcar. I won’t get into the history of the Pennsylvania Railroad’s attempts to come up with an acceptable ARA (later the AAR) standard boxcar, but certainly the X29 was an icon of the steam-era PRR. Not only should this car be represented on Pennsy turf, but on every steam-era model railroad built with even just a smattering of neurosis. There was just too many of the things to ignore.

There have been several models of the X29 made over the years, and I’ll just mention two of them for our purposes. Both are brass renditions, the more common Precision Scale model from the 1980s, and the much scarcer model made by Steve Grabowski. The Grabowski car was, hands down, the better model, but uncommon enough so that the only fair comparison here is probably with the PSC X29.

The Atlas/Middle Division car is very impressive. One of the great visual jars of the PSC model has been dealt with, here. The roofwalk needed lowering on every PSC X29 that passed through my hands, and it was a painful process (though worth doing). The roofwalk on this new X29 is so much better.

Everything else on the Atlas/Middle Division car is as nicely done. There is one thing that raises a question, for this neurotic (albeit non-PRR) modeler. Now, before I go on, this feature may be correct at some time period or with some group of these cars. However, one characteristic that shows in PRR drawings I have on hand, and bear up in any photo I have of the brake-end of the car, is the routing of the retainer line. The Atlas/Middle Division car I have has the line running straight down to the left side of the draftgear box. The drawings, photos (and my hard-sought Grabowski X29) have the line cutting diagonally across the car end to the right side of the draftgear box. It’s one of those spotting features that I (knowing only enough about PRR stuff to be dangerous) pick out right away. Again, knowing enough to be dangerous, I also know that there were many many varieties of this car, so I could be lamenting something that, although perhaps atypical, may well be correct. Myself, I’ll just take a little brass wire and re-route the retainer line where I like it, and touch it up with a little freight car color.

Arise Rejoicing, Ye Oppressed! Atlas has redesigned the two-rail truck! The new truck is a full six scale inches narrower at the journal boxes. It looks sooooo much better, and the side-frame detail is much nicer, by quick comparison to an Atlas O New England Alcohol (Now, why did my hand just naturally gravitate to that particular car?) tank car. It’s nice to see comments taken seriously and acted upon. Thank you.

Also new on the O Scale plastic car front, the various roadnames have different details reflecting the individual prototypes. The PRR car, in the photo, for example, has a stem-winder brake staff and push-type cut levers, while the SAL car has a power-winder geared brakewheel and lifting-style cut levers.

This is a nice rendition of a ubiquitous car. I hope the new-style trucks will be available for separate sale, and I hope Atlas (and Middle Division, on the Pennsy stuff) will continue with the detailed-for-specific-road concept in future offerings.

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**Review:** Display Cases, 48” long $250, 60” long $425
Greenway Products, 139 Ramsey Road, Ligonier, PA 15658
724-238-6268 • www.greenwayproducts.com

**Reviewed by:** Brian Scace

One of the things I like to do is to show things that folks may find useful, outside of the normal rolling stock/locomotive/kit regime. Here are some nice cases that might interest folks who have too much stuff for the railroad (No!), nifty pieces they want to show off that may not really fit in the scheme of things, or are (horrors!) just plain collectors.

So many of the wall cases out there are just plain too flimsy for our industrial strength (and weight) loot. Some come with a fit and finish that could only come straight out of a bad day at High School woodshop.

Now, these cases have solid oak frames with plywood backs rabbeted into the frame, rather than stapled in behind. The shelves are screwed into the backs, for added strength. The backs are white on the inside so you can see your stuff. All the frame joints are dovetailed and pinned. When you screw these puppies up on the wall, there’s no worries that the backs will stay up, while the frames, shelves, doors, and contents come crashing to the floor. Look at the photo. Figure ten pounds apiece for what I have in there. Do the math. These will hold up.

The stock sizes are 48” long and 60” long. Each has five shelves and 4-1/2” clear shelf width. I asked for a pair of 42” long versions, to fit the space in the photo, and Greenway was happy to oblige. The fit and finish is nice, doors are tempered glass with ground edges, wood tracks, and the shelves are grooved for O Scale wheels. No plastic, no cardboard, and no staples here. I’m pleased with mine; they look nice and they are stout enough so I can sleep at night without wondering when the crashing sound will come.
Above: The John Deere dealership was scratchbuilt by Bernard Steinbach.

Below: Shaker Heights Rapid Transit #8 was built by Jan K. Lorenzen.
Above: Another scratchbuilt structure by Bernard Steinbacher.

Below: The C&L barge by Richard Baron was voted Best of Show by the convention attendees and it also took First Place in the Structures category.
Above: This freelance line car was built by Martin Brechbiel and took Third Place in the Traction category.

Below: Ed Bommer won many awards in several categories. His B&O transfer caboose C721 won First Place in the Caboose category.
Above: This Delaware, Lackawanna & Western 4-8-2 was scratchbuilt by Frank Miller and is owned by Tom Shore. It won Third Place in the Steam category.

Middle: Joe Foehrkolb built this B&O E27 from an old set of sand castings. It won Second Place in the Steam category.

Below: This CNJ Baldwin “Babyface” was scratchbuilt by Paul Yanosik. Paul uses what most people would consider “junk” plastic parts to build his models. This one started as 4-inch PVC pipe. Paul won First Place with this model and Second Place with an EL C424 in the Diesel category.
Above: Another Ed Bommer model. This Staten Island Rapid Transit #29 won Ed First Place in the Steam category. The loco started life as a Locomotive Workshop “Economy” 0-6-0 kit.

Middle: This flat car with machine loads was built by Richard Baron.

Below: Each car in this seven-car work train was scratchbuilt board-by-board by Martin Brechbiel. It won First Place in the MoW category.
Above: Atlas O set up a nice display showing off their new Gunderson stack cars.

Below: A scene from the Central Jersey "O" Scalers’ modular layout.
Above: Another scene on the Central Jersey "O" Scalers' modular layout

Below: One end of the East Penn Traction Group’s modular layout.
Above: This is the middle section of the East Penn Traction Group’s modular layout.

Below: The other end of the East Penn Traction Group’s modular layout.
Above & Below: O Scaler John Dunn of New Jersey built this small layout (about 2’ x 6’). Who says you can’t do O Scale in a small space?
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September 2006

9: Merchantville, New Jersey
Cherry Valley Model RR Club is hosting their Fall Train Meet at Grace Episcopal Church, Maple Ave & Center St, Merchantville, NJ, on Saturday, Sept. 9 from 9:30 am to 1:00 pm. The Cherry Valley model railroad will be open during the meet for visitors. Admission is $5.00, children under 12 are free. Tables; $16 for first table (incl. 1 admission), 2 or more tables $12 ea. Helpers; $4 ea. For more info contact: CVMRRC, PO Box 192 Maple Shade, NJ 08052 or send email to Chris Crane [p2c.crane@verizon.net] or Harry Helke [harrys-trains@comcast.net].

16-17: Dothan, Alabama
Wiregrass Annual Model RR Show and Sale at the National Peanut Festival Fairgrounds, US 231 S, Dothan, AL. Admission: $5 adults, children under 12 are free. Open from 9:00 am to 5:00 pm on Saturday and from 10:00 am to 4:00 pm on Sunday. Contact Danny Lewis, 491 Ashley Circle, Dothan, AL 36305, PH: 334-792-0728. Sponsored by the Wiregrass Heritage Chapter of the National Railway Historical Society. Contact [dannylw5@yahoo.com].

22-23: Indianapolis, Indiana
Indianapolis O Scale Fall Meet: two-day O Scale swap meet with over 250 tables in one large hall. New and collectible 2-Rail trains and products available. Also includes model contest and display layouts. Registration by August 15 gets custom name tag. Dealers table $40 by 8/15/05, $45 after that date. Admission $15 per person, good for both days. Contact: Jim Canter for more information: 1203 Rotherham Ln, Beech Grove, IN 46107, 317-782-3322 or [jcanterm9@sbglobal.net].

October 2006

7: Stamford, Connecticut
Stamford Model RR O Scale Swap Meet and Open House: 9:00 am to 2:00 pm Saturday Oct 7, 2006. General Admission $5.00; under 12 free with adult. 150’ x 50’ O Scale 2-Rail layout with trolley line opens for viewing at 10:30 am. Located at St. John’s Episcopal Church, Main and Grove Sts, Stamford CT. Exit 8 on the CT Tpke (I-495). General info, contact Jim Mandiguan 718 347 3159, [jdhw2466@hotmail.com]. Dealer inquiries: Mike C randall 718 829 8959, [mulinerix@yahoo.com] Tables $16.00. 

7-8: Oklahoma City, Oklahoma
Southwest O Scale & Oklahoma Narrow Gauge Combined Meet at the Oklahoma Christian University, 2501 E Memorial Rd, OKC, OK 73103. Room reservations at the Sleep Inn, 3608 S Broadway Extension, Edmond OK, 405-844-3000. Admission $15 (includes spouse and children). Tables are $10 each for the first two and $5 each after that. Contact: George Wallace, 405-818-2277 or [thudcier1@sbglobal.net]. Visit the website [www.okng.org].

14: Garden, Massachusetts
Southern New England Model RR Club’s O Scale Train Show on Saturday at the United Methodist Church, 161 Chestnut St., Gardner, MA from 9:30 am to 4:00 pm. White Elephant table, sales & exhibits, operating layout, model display area, door prizes, food on site. 6 ft. vendor tables $15 before Labor Day, $20 after, 8 ft. vendor tables $20 before Labor Day, $25 after, setup 6:30 to 9:30 am. Admission: $5.00, $8.00 family max. Contact: Larry Grant, (508) 337-6661 Contact [BigBrotherLar@netzero.net].

28: Orlando, Florida
Florida O Scale Club's Fall 2-Rail Meet. O ScaleUnite! We have arranged to have the 7th annual 2-Rail, O-Scale meet Saturday October 28th in Orlando, FL, at the Airport Holiday Inn. Hotel registration is $99 per night, but you must inform the hotel that you are with the Florida O Scale Club. Please ask for the “FOS” Code when making your reservation. Registration can be made by calling 800-206-2747. The hotel is located at 5750 T.G. Lee Blvd which is just off SR-436 (Seminor Blvd) and the Beach Line Expressway (SR-528). Contact [RScaler@bellsouth.net].

November 2006

4: Kirtland, Ohio
2-Rail Train Meet of the Western Reserve. Dedicated to the memory of Gil Stovicek. Two-Rail only meet (no tinplate, Hi-Rail or other scales allowed). Admission $5, under 12 free. Show hours from 9:30 AM to 2:30 PM. Six foot vendor tables are $35. Vendor entry Friday 1:00 PM and Saturday 7:00 AM. Not affiliated with the former Western Reserve O Scale Committee. Contact Bob Frieden, 440-256-8141. NO PASSES ACCEPTED AT THIS MEET. Note: Out of towners call for special room rates!

March 2007

18: Pullman, Washington
11th Annual Palouse Empire Railroad Show & Swap Meet. Adult admission: $3.00, under 12 free with paid adult. 8 foot dealer tables $10.00 each (no limit). Free parking, on-site, food service available. Held at the Beasley Performing Arts Coliseum, Washington State University Campus, Pullman, WA. Buy sell or swap anything railroad related. Operating model railroads, historical displays and much more. Contact: Ken Vogel, NW 237 Sunrise Dr, Pullman, WA 99163 PHONE: (509) 332-4916. Or contact: Noel Randall, 805 Panorama, Moscow, ID 83843 PHONE: (208) 882-3773, [busdriver399163@yahoo.com].
Lost & Found

We returned from the O Scale National to find a surprise on our doorstep—boxes of old O Scale Trains Magazine. It seems our original printer moved into new digs and in the process found some “overs” of early issues of OST, back to Vol. 1, No. 1.

So, here’s the scoop. You can ONLY order these by mail. We will not sell these over the net, nor by phone. You can ONLY pay by cash, check or money order; no credit cards accepted. Shipping is by Priority Mail and the prices listed below include the postage. All issues are in mint condition.

- Volume 1 includes Issues 1 through 5 and sells for $50.
- Volume 2 includes Issues 6 through 11 and sells for $55.
- Volume 3 includes Issues 12 through 17 and sells for $55.

We have maybe 15 sets of Volume 1 and maybe 20 sets of Volumes 2 and 3, so don’t wait to order. It’s first come; first served. If we can’t fill your order, your money will be returned. I’d say these will be sold out by the end of September. If you are reading this after September 30th, don’t bother.

Report on the 2006 O Scale National

We had a great time at the National and I’d like to thank everyone who stopped by to say hello. I’d also like to offer kudos to the gentlemen and ladies of the New York Society of Model Engineers for putting on a great convention. There was almost too much to do. If you weren’t interested in the trading hall, there were 32 clinics and myriad tours, not to mention the home layout visits.

Convention Chairman Bob Lavezzi said there were over 700 attendees, plus more than 100 dealers and manufacturers manning over 300 tables.

There were modular layouts from the Central Jersey “O” Scalers and the East Penn Traction Group. Both were running continuously during the convention.

Even the Saturday night banquet was great. No “rubber chicken” here. After dinner the newest inductees to the O Scale Hall of Fame were announced. Entering this year are: Mort Mann of Sunset/3rd Rail; Bob Wagner, a former NYSME member; and John Smith of Pecos River Brass. Also attending the convention was Vince and Edith Waterman’s daughter, who stopped by to thank us for the coverage of Vince’s obituary.

Mort Mann was also inducted into the NYSME as an honorary member. Mort had been a junior member but moved out of the area early on.

Over 65 models were entered in the contest categories. You can see a selection of the models starting on page 58 in this issue.

The 2007 convention will be hosted by Jim Canter and O Scale Trains Magazine in Indianapolis. The dates are September 20th to September 22, 2007. The main hotel is the Indianapolis Marriott East, 7202 East 21st St, 317-322-3716. Register early with Jim by calling 317-782-3322 or email him at jcanternkp@sbcglobal.net. I’m setting up a website at [www.2k7OScaleNat.com] where you will be able to download a registration form and find other info as we get closer to the convention.
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