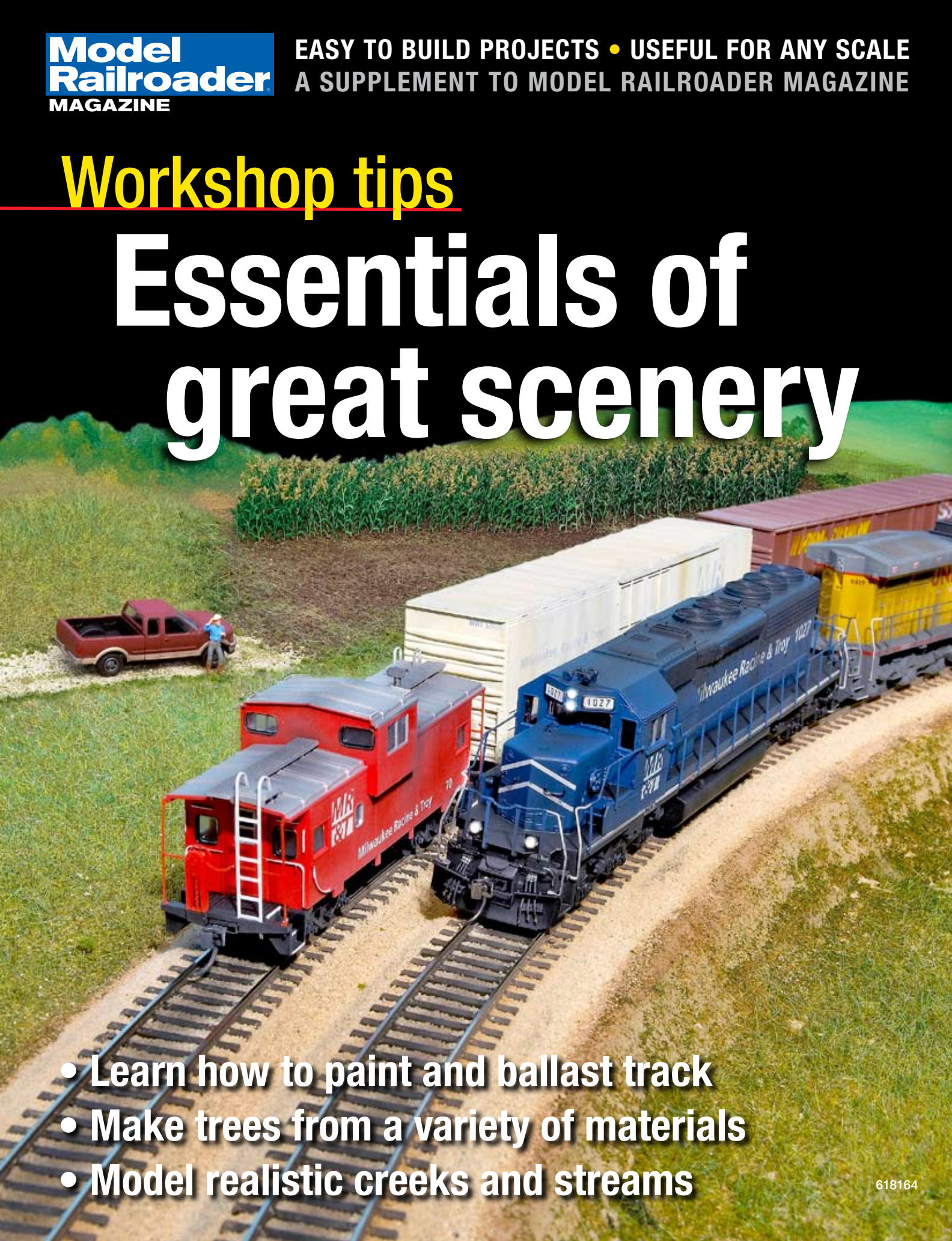


Workshop tips

Essentials of great scenery

- 
- Learn how to paint and ballast track
 - Make trees from a variety of materials
 - Model realistic creeks and streams

Getting started building land forms

By Jim Kelly
Illustrations by Kellie Jaeger

Been procrastinating? Sooner or later all the track is laid and wired, the trains are running, the equipment has been detailed and weathered, and you can no longer put off building scenery. Fortunately, it's easier today than it was, say, 30 years ago, thanks to all the quality scenery products now available. You can get everything you need at a well-stocked hobby shop.

Remember that no stretch of scenery has to last forever. If you don't like it, you can just knock it out and try again. (Lots of fine modelers have done just that more than once.) You're out only a few bucks' worth of materials, and you've gained valuable experience. Like most everything else in this hobby, the more you do it, the better you get.

The three elements. There are three elements of scenery-making: form, color, and texture. Get all three right and your scenery will be right.

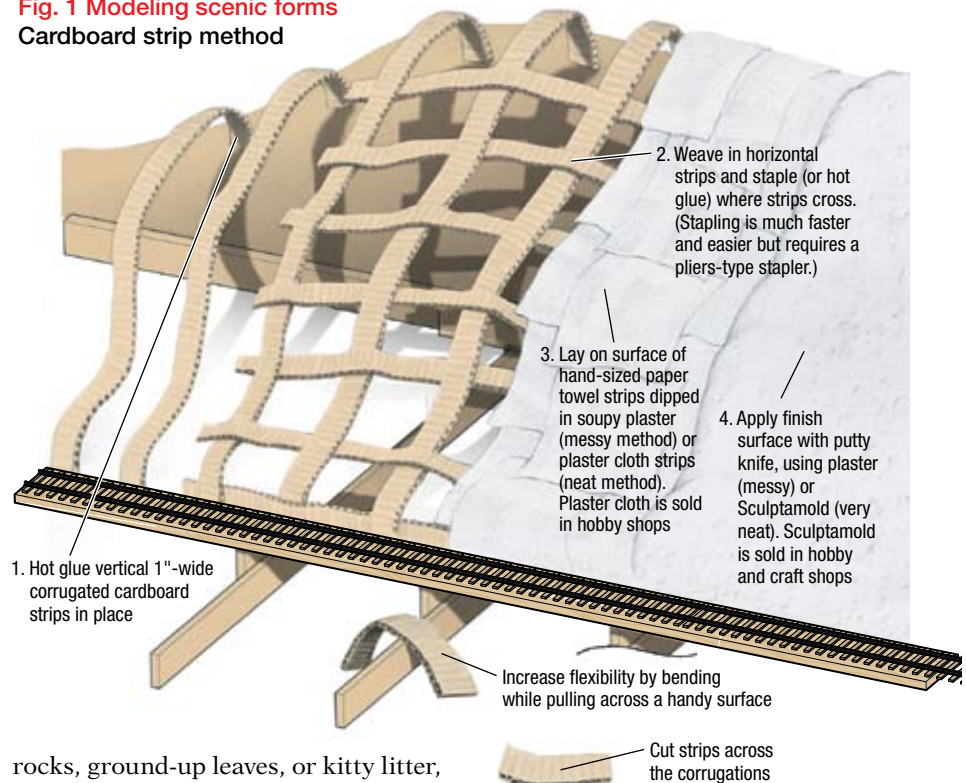
Let's start with form, the shapes of things. Your best friend here is observation. Our memories don't serve us well; looking at the real thing and studying photos is much more reliable.

After considerable squinting and hand waving over imaginary contours, you're ready to start. **Figures 1 and 2** show two popular techniques; I've listed some advantages and disadvantages of each. Modeling with extruded foam board is extremely popular with today's modelers, so if you have difficulty choosing, choose that.

Color and texture. Once we've modeled the ground, it's time to paint it. Lots of modelers choose browns that are too dark. Soils are lighter than we think, and our layout lighting doesn't approach the intensity of sunlight. Medium tan in a flat latex wall paint works well for model railroad scenery.

Usually we thin the latex paint about 50-50 with water, brush it on, and then begin sprinkling on scenery materials immediately to take advantage of the paint's adhesive quality. We can sprinkle on sifted real dirt, tiny

Fig. 1 Modeling scenic forms
Cardboard strip method



rocks, ground-up leaves, or kitty litter, but the favorite material today is ground foam.

This is plastic foam (the material inside seat cushions) ground up and dyed. Woodland Scenics and Scenic Express are major manufacturers. A variety of grinds (from fine to coarse) and colors is available.

Bonding scenery materials. As you build up scenery materials you can bond them in place by spraying them with a dilute mixture of adhesive from a household plant sprayer, as shown in **fig. 3**. (Clean the sprayer afterward if you expect to be able to use it again.) I like to use matte medium, an acrylic varnish available from art supply stores. A good ratio for spraying is 5 parts water to 1 part matte medium.

Adding about a half-teaspoon of liquid dishwashing detergent will help the adhesive penetrate the scenery materials. Otherwise, you can end up with a crust that breaks away, revealing loose materials underneath.

Advantages

1. Inexpensive (particularly with messy methods)
2. Fast (particularly on broad expanses)
3. Easily modified
4. Lightweight (particularly if Sculptamold is used)

Disadvantages

1. Need carefully applied finish layer to hide outline of strips
2. May need modifications to obtain final shape desired
3. Messy (unless plaster cloth and Sculptamold are used)

For small areas spray on "wet" water (water with a drop of liquid detergent added), then apply the adhesive (mixed the same as for spraying) with an eyedropper.

Rocks. Some modelers carve rocks in plaster as it's setting up, and some get good results. For the rest of us a better, faster method is to cast plaster rocks in rubber molds.

Plaster of paris, patching plaster, and Hydrocal plaster all work well for casting rocks. Just mix the plaster to a thick cream consistency and pour it in the molds. Either let the castings set

up in the molds and then glue them to the layout, or as the plaster is about to set, cast the rock in place by holding the mold to the layout.

To unify a rock surface apply plaster between castings and use a knife to carve the wet plaster so it blends with the castings.

Painting rocks. Most modelers use artist's acrylics, usually out of tubes. They dry quickly and clean up with soap and water. (You'll note that the materials we've discussed here are all water-soluble. Generally this means that you can keep working without waiting for things to dry completely, and that clean-up is fairly easy.)

When painting rocks I begin with a thinned coat of white, but many modelers go straight to work with colors. For the most part we stick with earth tones: burnt umber, raw umber, burnt sienna, and raw sienna. Of these, burnt umber (a rich brown) is the most useful. You'll also need some Titanium White and Mars Black to lighten or darken colors.

Squeeze out short ribbons of paint on a palette, a white dish, or whatever's handy (as long as it's white so you can see the colors). Keep a cup of clean water handy (change it frequently), and start mixing with your brush and painting. This may sound difficult, but you'll get the hang of it quickly.

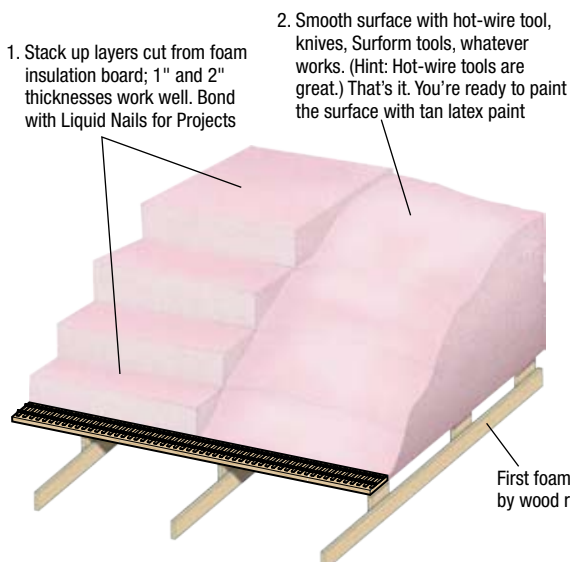
Washes and drybrushing. Several special painting techniques will prove helpful. The first is washes, wherein you flood an area with a thin solution of paint, applying it with a large brush. See **fig. 4**. Besides being good for establishing a color base, this technique is useful later in the painting process. You can apply a thin wash of dark color that will settle into nooks and crannies, bringing out the detail.

Another technique is drybrushing, wherein you dip the brush into paint, wipe it dry on a paper towel, then brush vertically over raised surfaces. (Yes, an all-but-imperceptible amount of paint has remained on the brush.) A 1/2" flat brush works well for this.

All I've attempted here is to touch on some primary concepts, techniques, and materials. For a wealth of additional information, see Dave Frary's book, *How to Build Realistic Model Railroad Scenery* (Kalmbach Books).

Give scenery modeling a try. It'll make a tremendous difference on your layout, and if you don't believe me, just sprinkle some green ground foam on a stretch of plywood next to the track and run a train by. What a difference!

Fig. 2 Modeling scenic forms
Foam board method



Advantages

1. Controllable, easy to achieve the shape you want
2. Lightweight and quite durable (especially good for modules and portable layouts)
3. No wood formers ever needed

Disadvantages

1. Slow, particularly if building a large layout
2. Expensive if foam insulation board is purchased. (Scraps can often be picked up at construction sites)
3. Can be messy, although a hot-wire tool eliminates much of this problem

Fig. 3 Adding ground cover

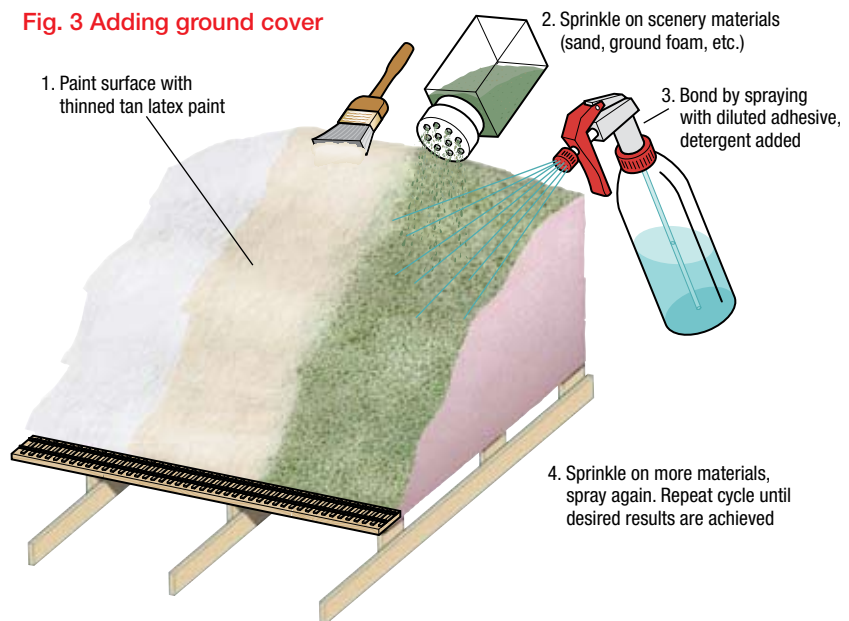
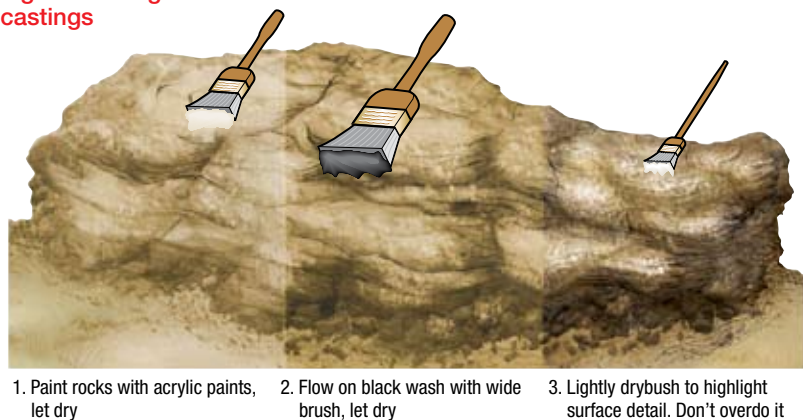


Fig. 4 Coloring rock castings





The scenery techniques Sam Swanson uses on his HO scale layout and award-winning dioramas are fun, convincing, and most important, simple to duplicate.

Creating realistic rocks, turf, and trees

By Sam Swanson • Photos by the author

Highly detailed, prize-winning foreground scenery doesn't have to be time-consuming or overly complex. In fact, with a little effort and research, building show-quality scenery can be fun, easy, and rewarding.

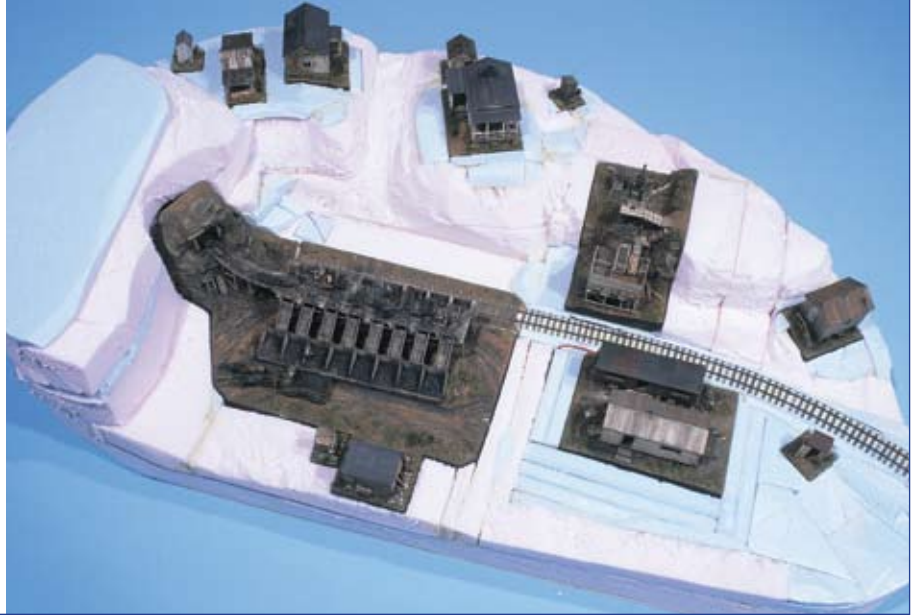
My scenery techniques were inspired by a convention clinic given by late *Model Railroader* staff member Art Curren in the 1990s called "Scenery as I See It." The main point of Art's clinic was that density, shape, size, and color vary greatly in nature. As a result, the more texture you can add to your scenic details such as trees, brush, and undergrowth, the more realistic they'll appear to the viewer.

Follow along as I take you step-by-step through the process I used to build the scenery for my HO scale model contest diorama, Hall Hollow. It's an Appalachian valley coal mine surrounded by muddy roads, dense brush, rock outcroppings, and wooded hills, adding realistic texture to the scene.

1. A solid yet flexible base

For a solid foundation I use extruded foam insulation board. I build the rough topography by stacking layers of foam, holding them together with Liquid Nails for Projects adhesive and bamboo skewers. After the glue dries, the land features are easy to define using a serrated-edge paring knife. Other tools that work well for shaping the foam include a Surform tool, a rasp, various wire brushes, and even sandpaper. (A Shop-Vac is also a handy item to help control the mess.)

Next, I pencil in roads and trackwork with a permanent marker, and I cut spaces for structure bases that will be incorporated into the scene.



2. Roads and tracks with purpose

I use track spurs and roads as leading lines to guide viewers into a scene. Typically the lines provide a color contrast – dark-ballasted rights-of-way versus light clay roads – and each helps catch the viewer's eye.

For rail spurs, I glue flextrack into place with a thin layer of Liquid Nails spread on top of the foam roadbed. I then spread soil and ballast around the track and secure it with diluted white glue (2 parts water, 1 part glue).

For dirt roads, I mix fine clay soil with diluted white glue to a consistency of peanut butter, as seen in the photo on the right. Then I spread it on the roadway about 1/8" thick and work in ruts with the end of a paintbrush. Next I sprinkle dry clay on the non-rutted areas and let the road dry thoroughly. For the final touch, I rub the road with a stiff brush or my finger to give it that dusty, hard-packed clay road appearance. The finished road is shown in the lower photo.



3. Easy rock outcroppings



The bulk of the outcroppings on the diorama are carved from the same foam insulation board I used for the base. I score and snap 2"-thick foam pieces and glue them in place to start the rock formations. I then carve and sand the outcroppings until I'm satisfied with the lines and shapes of the rocks.

Next, I use a four-step finishing system, as shown in the photo. First, I paint the outcropping with a suitable tan color. In the second step, I stain crevices and shadowed areas

with a thinned complementary dark color of paint.

For the third step, I add texture to the rocks by what I call the "soiling" process: affixing fine clay to the rocks with diluted white glue. I brush diluted glue over the painted/stained (and thoroughly dried) surface. Then I sprinkle or brush the clay liberally on the rock face and let it dry completely before proceeding.

As a final step, I drybrush the rocks with lighter colors of paint to highlight and accentuate the texture.

5. Fuzzy underbrush



I consider everything from grass tufts, bushes, briar thickets, and weed accumulations to be underbrush. The two materials best suited to modeling underbrush are jute twine for grass and commercial poly fiber for bushes and thickets. They have the "fuzzy quality" that Art Curren stressed as important to simulate the dense undergrowth found throughout my region.

To create large areas of thicket and weed underbrush quickly, I use thinly stretched mats of poly fiber covered with several different colors of fine ground foam fixed in place with either maximum-hold hair spray or Testor's Dullcote. To make wildflowers, I add dashes of Woodland Scenics no. 48 flower mix to a few of the poly-fiber mats.

I cement the mats to the scenery with white glue and vary the colors, shapes, and densities for realism.

4. Blended ground cover



To give the ground the proper look, I use an assortment of soils, rock debris, and ground foam to create my basic ground cover. For your layout, consulting photographs of the area you're modeling is a must when making these color selections.

I start by painting the open foam areas between the track, roads, and rock outcroppings with a flat interior latex tan paint. I then add soil and fine ground foam, along with talus (rocks sloughed from outcroppings) around the rocks. To vary the soil color, I use two strengths of diluted white glue: The stronger the glue mixture, the darker the color of the soil when it dries.

For the area I model, foam colors include a variety of greens, browns, and yellows. I commonly use eight different colors, starting with Woodland Scenics Green and Earth blends. I let the ground cover dry thoroughly before adding any other scenic details.

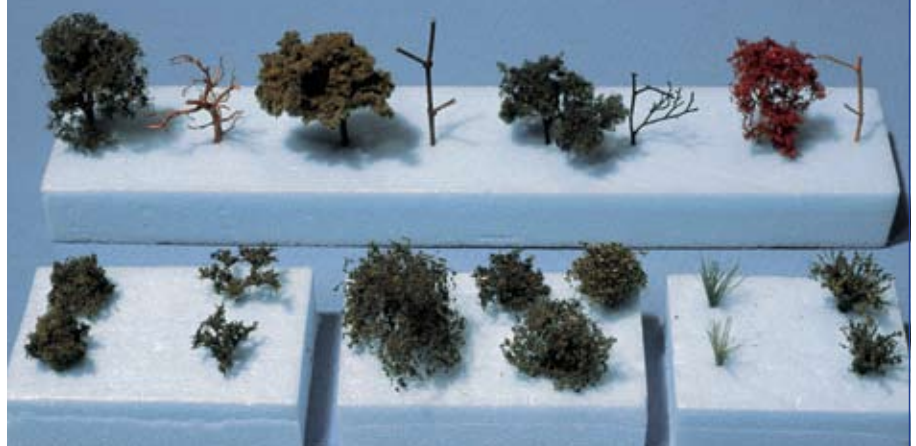
6. Tufts, bushes, and saplings

With the **poly-fiber** underbrush in place, I add more detailed individual underbrush items, including grass tufts, bushes, and saplings.

For grass tufts, I stain and tease jute twine. When dry, I plant the tufts in holes in the foam base and secure them with white glue. You can also use grass tufts to make small bushes by gluing fine foam to the jute fibers for leaves.

I make simple bushes from poly fiber or tree foliage balls sprinkled with fine foam. I typically use bushes in heavy undergrowth areas to provide some vertical shapes and vary the texture of the underbrush.

For saplings I use the small twigs that break off when making trees (see step 7); I top them with a ball of



commercial fiber or clump foliage. Both work well and provide variety through color and density. I use saplings to bridge the transition from

underbrush to the wooded areas, much as they do in nature. This easy detail also means that you need fewer trees to make a convincing forest.

7. Tree trunks that look right



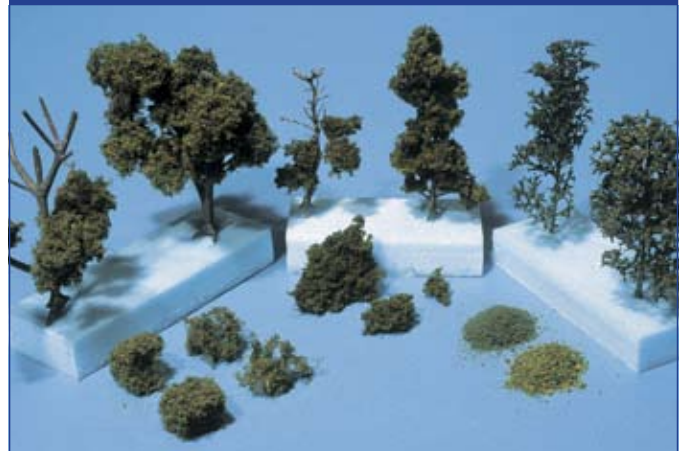
To make the dense stands of deciduous trees that characterize Appalachia, I use three different types of trunks covered with fiber and clump foliage, as well as fine ground foam. My goal is not to model specific species, but to vary trunk and foliage sizes, shapes, and colors enough to produce realistically wooded hills.

For my homemade tree trunks, I use sunflower roots and various twigs. They're realistic and free! I preserve the natural trunks by allowing them to dry thoroughly over a couple of months and then submerging them in a pool of diluted white glue (you can also use diluted matte medium). Later, I add a $\frac{3}{8}$ " length of .020" brass wire to the base as a mounting pin.

To make larger trees, I combine sunflower roots and twigs. Sometimes I thicken the trunks by sculpting root bases from Duro Master-Mend green epoxy and then paint the roots to match the rest of the tree trunk.

I also use Scenic Express SuperTree commercial kits for their light and airy appearance. This method is shown on page 11.

8. Leaves for your trees



To add leaves to the trees, I use Woodland Scenics fiber and clump (or cluster) foliage. The key to making realistic trees is to cover the sunflower and twig branches with many small puffballs of teased foliage material individually glued to the branches. I start near the bottom of the tree and work out and up along the trunk and branches, gluing the foliage balls on with white glue. After those have had time to set, I fill in any unwanted open spaces by gluing puffballs directly to each other. I highlight the treetops by dusting them with light-colored fine ground foam, holding it in place with Dullcote.

I install the trees on the diorama last, only after all the other scenery has been completed. First, I test the placement of the trees in the scene, either individually or in groups of three or five. Once I'm happy with how they look, I plant each tree by pressing it firmly into the foam base, securing it with white glue.

With that, your lush, textured Appalachian scenery is finished, and you can to amaze your friends with your realistic re-creation.

Painting and ballasting your right-of-way



By Paul J. Dolkos • Photos by the author

Like the paint job on a locomotive, ballast is the finish coat on your track. It covers the many blemishes of roadbed construction, such as joints, shims, screws, and wire holes. More important, if done properly, ballast adds a lot of polish to a layout.

Ballasting is usually the last finish work I do on any given section of the railroad. I like to at least add the basic scenery adjacent to the track to be ballasted, as there's nothing worse than dropping a glob of white scenery plaster or paint on track once it's ballasted. My layout happens to be HO scale, but these ideas apply regardless of scale.

Preparation

The first step is to establish a ballast profile foundation. This will vary with the type of track: main line,

branch line, or spur. Main lines have the tallest and best groomed ballast profiles, as shown in the photo on the bottom of page 10. Spurs and sidings typically have lower profiles, which can be modeled by using thinner roadbed material under the track than the main line.

Ballast profiles do vary. Today's railroads use a lot more rock ballast than did the railroads of the 1940s. Also keep in mind that prototype track may have a perfect profile when built, but the nice, even grading erodes with time and lack of maintenance. It's probably best to check prototype photos to capture the right look.

Methods of creating an appropriate profile would require an article in itself; however, you can shape ballast slopes using plaster, foam, or a filler material like sand to augment the

Painting the rails and ties and then ballasting the track makes a layout look more realistic.

slope of your wood, cork, or Homasote roadbed base. Glue filler materials in place as necessary. See **fig. 1**.

In general you want to avoid the trap of 45-degree jigsaw cuts and sharp edges and create a natural angle of repose for the ballast material. The steepest slope should be no greater than 1.5" of horizontal run for each 1" drop – in other words a 1.5:1 slope. Slopes of 3:1 and 4:1 are not uncommon on the prototype.

Before ballasting, get rid of any sharp edges on the roadbed – such as the jagged corner on cork – and remove any bumps of plaster along the right-of-way. These tend to stick up through the ballast. While you're shaping the ballast profile you can also make drainage ditches, although those should be allowed for when you design your overall scenic plan.

When you're happy with the right-of-way profile, airbrush the track and roadbed a flat base color as in **fig. 2**. I like to mask areas such as switch points and paint those by hand. I use a dark brown such as Floquil Roof Brown, but other colors may be more appropriate to your locale. This paint takes the gloss off of plastic ties, colors the rails, and blends in any filler materials. Clean off the tops of the rails as soon as you finish painting.

Ballast

I use mixes of various colors of Highball Products ballast as well as real cinders, but these methods work with products from any manufacturer.

If you have a combination of a cinder subroadbed and stone ballast, it's a two-step process. First apply the cinders along the shoulders. If the slope is steep and the cinders tend to slide down, apply a coat of adhesive first and sprinkle on a light coat of cinders. Once these set, you can add more since the roughness of the original layer will hold the new layer. See **fig. 3**.

Be sure that your ballast isn't too large, especially cinders. It's better for it to be undersize. Pieces of prototype rock ballast typically measure about $\frac{3}{4}$ " to $2\frac{1}{2}$ ". I find that many materials labeled for N scale work great for HO. Although we usually think in terms of ballast as being rock or cinders, many different materials have been used, including slag, sand, earth, and even oyster shells along some early coastal branch lines.

Always use less material, rather than more. Ballast is difficult to remove once glued in place, but it's easy to add. Ballast generally should lie below the top surfaces of the ties. Use a brush to position the granules, and be sure to remove stray ballast from the tie tops and the rail base. This might sound tedious, but it doesn't take long if you don't heap on a big pile and then try to distribute it.

With some ballast material the ties will take on a dusty look, but that will disappear when you glue down the ballast. Again too little ballast is far better than too much.

Securing ballast

Once the loose ballast is positioned, it's time to cement it in place. Begin by wetting the ballast. I use water with a couple of drops of dishwashing detergent in a hair-spray bottle, which I find provides a very fine mist compared to most other pump spray bottles. See **fig. 4**.



Fig. 1 Preparation. Add filler material to the roadbed as necessary, such as the foam pieces along the commercial turnout.



Fig. 2 Painting. Airbrush the rails, ties, and roadbed a flat dark brown.



Fig. 3 Subroadbed. Glue cinders or other subroadbed in place before adding ballast. The spur above also has cinder ballast, while the main line will have gray crushed rock.



Fig. 4 Gluing. An old glue bottle works well for dribbling the glue mix onto the track, and a hair-spray bottle provides a fine mist for wetting the ballast. Once you've wet the cinders, saturate the area with the white glue and water mixture.



Fig. 5 Ballast. Add the ballast carefully, keeping it off the ties and rails. Weathering will blend the newly ballasted area with the existing trackwork.



A Central Vermont local freight rolls along some well-manicured roadbed near Middlesex, Vt., in 1957. David K. Johnson photo

Initially point the sprayer up and let the water cloud gently fall on the ballast. This initial light mist tends to keep the ballast from being blown around. Once the surface is slightly moist you can be more direct with the spray. Use enough water so that it soaks deep into the ballast. If only the surface is wet, then the adhesive won't soak in and the result will be a loose, crumbly crust. If a detergent bubble forms in the ballast while spraying, creating a mound, burst the bubble and soak the spot. If a little ballast gets out of place, you can generally nudge it back, but be careful.

Once the ballast is soaked, dribble on a 50/50 mixture of white glue and water as in **fig. 4**. I use an old glue bottle to apply the mix, as using an eyedropper seems a bit tedious. As long as the ballast is well soaked, the glue mix will spread throughout. If the underlying ballast isn't thoroughly wet, the adhesive mixture may float some of the ballast. Spray some water on the spot to correct this.

Some modelers use diluted matte medium instead of white glue, saying that it has a noise damping effect. I'm not convinced – you'd have to conduct some tests to be sure. Also, I've found the dulling agents in some brands of matte medium leave a white scum on the track. Another plus to white glue is that if I want to make a change to the track, I can soak the ballast with water to soften the glue and remove the ballast and track.

Precautions and final touches

The glue can lock switch points into place, so to prevent this I apply light plastic-compatible oil to the ties under the points. As the glue sets, move the points back and forth to free them. Keep the ballast in the point area at a minimum, well below the tie tops.

Once the adhesive sets, but before it's completely dry, knock off any stray pieces of ballast that have adhered to the rail sides or tie tops. In high humidity it may take a couple of days for the glue to completely set. The ballast will look darker once it's dry.

As a final touch, I lightly overspray the trackwork with thinned Roof Brown or another appropriate color to slightly weather the right-of-way. See **fig. 5**. Not only does this represent dirt and wear and tear from passing trains, but it also cuts some of the stark contrasts present on newly ballasted track.

With a bit of care, ballasting can transform toy-like track into a realistic scale model.

Making model trees



Out of the package (left), the Super Trees hardly look realistic. After spraying them dark gray they look a little more promising.



Soak the tree armatures for several minutes in dilute matte medium (1 part matte medium to 5 parts water) to preserve them. Dipping won't do.



After soaking the armature, sprinkle fine ground foam onto the still wet matte medium. For best results hold the tree upright using a set of tweezers, and sprinkle the foam on top.

To straighten bent trunks clip a weight, such as these tweezers, to the top of the tree. Hang the tree upside down and allow it to dry overnight.



By Marty McGuirk • Photos by Bill Zuback

The pursuit of perfect model trees is something of a hobby within the hobby for several model railroaders I know. I've even seen a few prepare scale drawings of trees to ensure an accurate result, much like some of us approach building structures or locomotive models.

But for many modelers, especially those of us who don't model the desert, trees are a necessary evil. We need them for our railroads to look plausible. The problem is we need lots and lots of them!

Puff balls, sprigs, and twigs

Many methods of making trees have been developed over the years. Puff ball trees, made by sprinkling ground foam onto stretched poly-fiber fill, is one way to quickly create tree-covered hillsides.

You can also make trees from natural materials readily available in the floral department of craft stores or picked in the wild. Peppergrass, spirea, and baby's breath all work well. Bunch several stalks together, paint the leaf structure, and plant the tree in the scenery.

Ready-to-use trees and kit trees are also available from several manufacturers. These feature plastic or metal trunks that are bent to shape and covered with foliage material.

Super Trees

Some of the best-looking trees I've come across are Super Trees, marketed by Scenic Express. I like the realistic look, the way it's easy to

With all the tree kits available from manufacturers like Scenic Express and Woodland Scenics, adding a wooded scene like this one to your layout is easy. Marty McGuirk photo

model trees that have lost some or all of their leaves, and the speed with which I can forest a large area.

The photos and captions demonstrate how I make Super Trees using the HO scale tree kit. A couple of thoughts: You might be tempted to use hair spray instead of matte medium as an adhesive. Don't. The matte medium seals the tree armature, essentially preserving it and rendering it inedible to any of the many-legged creatures that may visit your layout looking for a quick snack. If you use hair spray to secure the foliage in place, the tree will eventually crumble to dust.

I prefer to model fall scenery but find that most fall color ground foams are too garish. I used Scenic Express' line of fine fall ground foam colors. These are available in a wide range of shades and textures that are subdued enough to create a realistic fall-colored landscape.

The main disadvantage of Super Trees is the fairly slender trunks, but you could build these up with plaster or putty or even glue the Super Tree material to the larger plastic armatures available from Scenic Express and other manufacturers, including Woodland Scenics and Accurail. I've done that with some success and have been able to create some nicely detailed foreground trees.



Engine no. 28 crosses Fahrens Creek on Jack Burgess' Yosemite Valley RR. It's one of the three different creeks he modeled for his layout. While Jack's railroad is HO scale, you can use his techniques for projects in most any scale.

Modeling three creeks

These waterways illustrate both variety and consistency

By Jack Burgess • Photos by the author

We've all heard that variety is the spice of life. However, with scenery, it's easy to end up with too much variety. If we add a little of this and a little of that, we soon have a mishmash of scenes that don't relate to each other in a realistic way. On the other hand, distinct scenes are essential to helping portray distance on a model railroad.

The solution is to take clues from nature, so you can develop slightly different scenes that are both realistic and faithful to the prototype. As my prototype, the Yosemite Valley RR, left Merced in California's San Joaquin Valley and headed for Yosemite National Park, it quickly crossed three creeks: Bear Creek at milepost 1.35, Black Rascal at 1.90, and Fahrens about a mile later at 2.70.

Regardless of proximity, these crossings are all unique. Bear Creek has relatively uniform banks covered

with wild bamboo. Both Black Rascal and Fahrens flow along non-native eucalyptus groves with sycamores or cottonwoods along their banks.

Initial modeling

All three creek crossings have standard YVRR concrete abutments, so I made a mold and cast the six abutments from Hydrocal plaster. I scratchbuilt the bridges from pre-stained stripwood and n.b.w. (nut-bolt-washer) castings.

Next, I installed the bridges and roughed in the scenery with plaster. I used real dirt to form the banks.

The water for Bear and Black Rascal Creeks is casting resin that I poured in layers 1/8" to 1/4" deep. Since Bear Creek is relatively deep (a scale 10 to 12 feet), I added color directly to the casting resin, using brown and green tints for the first layers and

green and blue for the middle layers. The final layers I poured clear. These darker colors emphasize the deep, slow water.

In contrast, just the first layers of casting resin for Black Rascal Creek were lightly colored with green and blue to result in a clear, cool creek.

Once the casting resin had cured, I dappled the surface of the creeks with a coat of acrylic gloss medium.

Bear Creek

I modeled the dense wild bamboo covering the banks of the real Bear Creek using Woodland Scenics field grass (fig. 1). I applied it by cutting small clumps and gluing it in place with white glue. This was tedious but produced the look I was after. While there is a tendency for the material to lean over, just keep pushing it up. As the glue dries, it will finally hold

position. Using sticky white craft glue rather than regular white glue helps.

Once the bamboo was in place and the glue had dried, I used a moustache scissors to trim the material to a relatively even length. Since the banks of Bear Creek were covered with bamboo, it needed little extra detailing.

Black Rascal Creek

In contrast to Bear Creek, Black Rascal (fig. 2) is more typical of the meandering creeks draining the foothills in the Merced area. Moisture in the adjacent ground allows the grass to remain green during the hot summer months.

To duplicate these conditions, I applied Noch static grass and air-brushed it a light green. For the willows which grow in the creek, I used a combination of Woodland Scenics field grass and flower pieces from dried artichoke heads dyed light green. (Dried artichoke flowers can be found in craft stores.)

Since the area next to the bridge seemed an appropriate watering hole, I mixed diluted white glue with fine-grained clay soil and spread it on the banks. I gave the muddy area a light coat of acrylic gloss medium to make it look wet.

Fahrens Creek

Unlike Bear and Black Rascal Creeks, Fahrens (fig. 3) is modeled as a dry creek bed, typical of the Merced area in mid-summer. I used Woodland Scenics field grass to model the bull-rushes along the creek banks, hot-gluing it in place.

I made the cattails using short pieces of fishing monofilament which I'd dipped in white glue and allowed to dry to form the heads. I then painted the heads brown.

I used fine beach sand to form the creek bottom and bonded it in place with diluted white glue. I added the sand after the field grass was in place, which covered the hot glue.

Portions of the real Fahrens Creek banks are covered with wild blackberry vines. To model this, I made small poly fiber balls, sprayed them with hair spray, and covered them with ground foam. I used a light sprinkling of red foam to suggest ripening blackberries. I cemented the vines in place with white glue.

Modeling scenery accurately requires no more than observing nature and, sometimes, developing techniques to reproduce what you observe, which can be a relaxing diversion from other layout projects.



Fig. 1 Bear Creek. The deep, slow water is perfect for fishing, so Jack added a raft and a youngster whiling away an August afternoon.



Fig. 2 Black Rascal Creek. To complete the meandering creek scene, Jack added a steer and muddy hoofprints to indicate its use as a watering hole.



Fig. 3 Fahrens Creek. To detail this dry creek bed, Jack included common features such as cattails and bullrushes, as well as the cattle fence at left.