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CHAPTER TWO

Modular frame with a foam base

In Chapter 1, I showed how to build foam scenery and a track base on a sheet of ½" plywood. This time we are going to eliminate the plywood. By doing so we will make things lighter in weight and therefore more portable—a valuable asset for modules and sectional layouts.

Dana Aldrich and Ed West unload a shipment of Styrofoam. This book shows you how to build this On2½ scene.



8
Press on discs, then the triangular top.



9
Coat the tree with hairspray.



10
Sprinkle on Scenic Express ground foam.



11
Save commercial trees for foreground use. Here an On30 train rolls past several tall Sterling Models white pines.

conifer or forest green fine textured ground foam, **10**.

While our homemade conifers will do for distant woods and in some cases even when viewed relatively close-up, thanks to our friends at Sterling Models, there is a better alternative for

those times when our trees come under really close scrutiny. For a number of years Carol and Craig Freeland have been making a variety of evergreen trees that replicate their full scale counterparts better than anything else I've seen on the market.

Photo **11** shows a few of these trees in foreground use on my Sandy River & Rangeley Lakes On30 layout. Although these specimens would be a bit pricy for an entire forest, I often use them to highlight key scenes while filling the background with homemade trees.



Tools:

- Scenic Express:
 - Concentrated matte medium
 - Spray Mister scenery sprayer
 - Self-closing tweezers
- Large cooking tin
- Clothespins
- String
- Quick Grab glue
- Tweezers
- Grey Paint



Materials:

- Scenic Express:
 - Super Sage material
 - Super Tree material
 - Noch olive green leaves
 - Noch light green leaves
 - Noch mid-green leaves



1 After soaking the tree in diluted matte medium, sprinkle flocking in place. Use a pan or box to capture and reuse stray flocking.



2 Use clothespins to clip trees upside-down to a string "clothesline" until dry. Hanging another clothespin or two to the top of the tree will help straighten crooked tree trunks. Lightly mist them with diluted matte medium to help secure the flocking.

Most importantly, the colors used for the foams and flocking marketed by Scenic Express were an exact match to the AMSI ground foams and Floquil paints I had been using for the grass, brush, and tree foliage on my HO scale West Hoosic Division. The varieties of Scenic Express ground foam that

are compatible with my materials are light green, grass green, spring green, summer lawn, and farm pasture blend. These could be spread on my miniature hills and dales to replicate either grass or weeds (see Chapter 3). The fine conifer green works great for foliage on handmade conifer trees (Chapter 4).



Here's a bag of full scale dead leaves. The price is right, and they can be found just about everywhere. Make sure they're dry if you're going to store them.



Start by filling the blender about half full with leaves. Remove the stems and any debris.



Tools and materials:

- Water bucket
- Dead leaves
- Tap water
- Kitchen sieve
- Spatula
- Cotton T-shirt
- Cookie sheets
- Electric blender

One day, the members of the Tree Group (three other scenery junkies and I, who get together in an interactive modeling group) were discussing what we could use to create the look of dead leaves on the ground of our miniature woodlands. We decided that nothing could replicate dead leaves better than—you guessed it—dead leaves. All we had to do was come up with an efficient way to reduce them in scale. We found the answer to our dilemma at the local K-Mart store: an inexpensive blender. (Preserving our marriages precluded using any blenders we already had on hand.) The one we picked was a six-speed Sunbeam (model 4143), and we paid less than \$20 for it. I'm sure you can find a comparable model from other manufacturers and stores.

Begin by raking and collecting a couple bags of leaves, **1**. It's best to do this after a spell of dry weather so the leaves are not wet, as damp leaves may rot during storage. If you are going to grind them right away, you don't have to worry about them being dry.

To grind the leaves, first remove the heavier stems and any dirt or other debris. Place the leaves in the blender, filling it about half way, **2**. Add water to the top of the leaves, **3**, and place the cover on the blender. Turn the blender

to frappé (medium/high) for about a minute, **4**.

Using an old cotton T-shirt as a filter, place it across the top of a bucket and pour the resulting mess into it, **5**. After letting it drain for a few minutes, wrap the shirt around the mix and squeeze out as much water as possible.

To dry the leaves quickly, spread the mix on an old cookie sheet, **6**, and place it in the oven. Set the oven temperature to 200 degrees Fahrenheit and leave the door ajar about 2 or 3 inches. This allows moisture to escape as the leaves are heated. To speed up drying time, use a spatula to turn the leaves occasionally, **7**.

You can also just let the leaves dry naturally by spreading the leaves out on some newspapers and letting them air-dry.

Once the leaves are completely dry, run them through a kitchen sieve or old window screen to filter out the finer-textured material, **8**. Separate the screened and unscreened leaves and store them separately. As you will see in projects throughout this book, both can be used in making scenery.

You'll also notice pine needles under the pine trees in the photo on page 33. I use exactly the same technique as leaves for grinding pine needles that I spread under my O scale pine trees.



15 Dip pieces of air fern in Weld Bond and use tweezers to plant them among the Woodland Scenics grass.



16 A fallen dead tree (taken from a fine branch of a real tree) is a nice finishing touch to the ground cover.

STAGE 4: SWAMP WATER

Measure equal parts of the Enviro-Tex polymer resin and hardener in hot-grade paper cups. Thoroughly mix the resin in another cup. Failing to mix the components completely will result in uncured resin and a huge mess of ruined scenery.

Carefully pour the resin onto the swamp base, **17**. Capillary action will spread it among the previously planted weeds and grass. Make sure your water area is completely sealed (especially at the edge of a layout), as Enviro-Tex will find any stray opening or hole after you pour it.

Gently exhale across the surface of the resin to draw any air bubbles to the surface. The Enviro-Tex takes about 72 hours to cure fully, **18**.

The lily pads floating on the water are actually peppergrass leaves. Once the epoxy had thoroughly dried, I pulled the leaves from a branch of peppergrass with tweezers, dipped them one at a time in a puddle of white glue, and placed them on the surface of the epoxy water.



17 Carefully pour the mixed resin onto the base of the swamp. Capillary action will pull it into the weeded areas.



Stage 4 Tools:

- Craft sticks
- Stopwatch
- Paper cups



18 Exhale on the swamp surface to get air bubbles out of the Enviro-Tex.



CHAPTER TWELVE

Pouring a mill stream

A Rutland train rolls across a stream and a highway on a multi-span deck girder bridge. Simulating flowing water, as in this HO scene, will add a nice touch of realism to almost any model railroad.

As I mentioned in Chapter 11, mill ponds were almost always created by damming an existing stream. For this reason it seemed only logical that I should have some sort of cascading stream leading away from the mill pond. You can follow these guidelines in making almost any kind of river or stream.



Tools:

- Woodland Scenics:
 - Foam Knife
 - Foam Nails
- Medium paintbrush, for applying earth-color latex paint
- Artist's spatula
- Teaspoon
- Fine-mesh kitchen sieve
- Pump sprayers
- Stiff-bristle brushes, for applying gloss medium and latex caulk
- Wood stirrers, for Enviro-Tex
- "Hot" paper cups, for Enviro-Tex
- Toothpicks, for applying epoxy
- Caulk gun



Materials:

- Woodland Scenics Plaster Cloth (gauze)
- Brown latex paint, such as Pittsburgh Tobacco Brown interior flat latex paint (no. 7607)
- Ground goop mix: 1 cup vermiculite, 1 cup Celluclay, 1 cup earth-color latex paint, ½ cup white glue, 1 capful of concentrated liquid Lysol, and water
- "Wet" water (tap water with a few drops of dishwashing liquid added)
- Scenic Express matte medium (if it's concentrated, mix 5 parts water to 1 part medium)
- Dark-color dirt
- Five-minute epoxy
- DAP Dynaflex:
 - 230 clear latex caulk
 - 230 white latex caulk
- Lexel clear Super Elastic sealant
- Liquitex medium-viscosity acrylic gloss medium
- Enviro-Tex resin
- Shallow pan

Since I was already using real dirt and small chunks of rocks in combination with "ground goop" to make rock outcroppings in my scenery (see Chapter 8), I felt that using real rocks for my streambed wouldn't be that difficult. After all, hand-carved or molded plaster rocks weigh almost as much as the real thing, and you have the additional challenge of coloring plaster to match the surrounding terrain. By using real rocks in combination with talus from the same source, it would be possible to have everything blend together naturally.

I found the rocks for my stream jutting out of a hillside along a county



12 Apply the magnet strip to the Scenic Express bottle cap.



13 Once the field is dry, mask all areas where you don't want flocking.



14 Mist the exposed ground with matte medium.

it from the field. Later, tractor-powered machines were made that could go into the field. Still later, combines took over the job. The straw from either crop was usually baled up to be used as bedding for the livestock.

Modeling

Since I had recently become the proud owner of an HO scale GHQ 1953 International Harvester tractor and "Little Gem" 3-bottom (blade) plow, I decided to create a field with the plowing in progress. Before I could do so, I had to come up with a tool that would replicate the look of plowed soil. Scrounging through my desk, I found a pair of pinking shears. I noticed that the distance between the points on the blade was a little over a scale 12". This very closely matched the distance between the blades of my Little Gem. I cut a piece of .020" sheet styrene about 1" wide and 2" long, then cut one end off with the pinking shears. This would be my plowing template, **1**.

Start by using an artist's spatula to spread an 1/8"-thick layer of ground goop (see Chapter 3) over the scenery base, **2**. Give the surface of the goop a light misting of wet water to make it more workable, **3**. Lightly pull the styrene template across the surface of the goop to create the furrows made by the plow, **4**. After making the furrows, use a teaspoon to sprinkle fine dirt over the surface of the Goop, **5**. Vacuum up any excess dirt so it does not fill in the



15 Apply Scenic Express flocking to the exposed surface of the field.

ruts in the goop, **6**. Use a pump sprayer to lightly apply a mist of diluted matte medium (1 part medium to 5 parts water) to seal the dirt in place, **7**.

Once you decide where you want to locate the tractor and plow, press-fit the tractor into the ground goop, **8**. The plow is very fragile, so use a pair of tweezers to make depressions in the goop that simulate the grooves made by plow blades, **9**. Test-fit the plow into the grooves, **10**, but remove all the equipment while the scenery dries.

While waiting for the field to dry, you can prepare to apply static-charged Scenic Express flock. This material stands upright on the surface. First use scissors to cut a strip of flexible magnet

material, **11**. I used business card magnetic backing pads I purchased from a local shipping store. These measured 2" x 3 1/2" and 1/2" thick and have a self-stick backing on one side. Peel away the paper backing from the magnet. Stick the magnet to the side of the bottle cap, **12**.

When the goop and dirt are dry, use masking tape to cover the area of the field you don't want textured with grass, **13**. Use a pump sprayer to mist the exposed ground with matte medium, **14**. While the ground is still wet, shake the container of Flock & Turf texture over the prepared area, **15**. Don't reinstall the farm equipment until everything dries thoroughly.



5 Attach a spring clip to the thread and lay the thread over the crossarm.



6 Attach a spring clip to the opposite end of the thread to keep it taut.



7 Apply a small dab of white glue to each insulator.



8 Multiple transformers serve the Peerless Tanning building.



9 Here's a typical urban power pole.

to the thread and press it in place. You can also run brass or metal wire down the side of a building. Be sure it's the same diameter as the thread and paint it black before gluing it in place.

For power lines I use Selley Finishing Touches line-pole transformers. Glue them to the pole with five-minute epoxy. For a multiple transformer assembly, **8**, I opted for one

Shelley large transformer flanked by two smaller ones. I attached the three wire secondary feed from the poles to an SS Limited industrial power head mounted on the side of the building. A single-transformer pole is shown in **9**.

Since I could not find a supplier of HO scale electrical meters for houses, I made my own from Plastruct strip styrene and transparent yellow rod,

10. Cut the strip to scale 12" lengths and the rod to scale 6" lengths. Paint the strip medium gray to represent the steel body of the meter box, then glue the rod to them to represent the glass meters.

For terminal boxes I used scale 12" sections of HO Central Valley rail fence gates I had laying in the bottom of my scrapbox. Photo **11** shows