

IT'S ALL IN THE DETAILS

Bringing Your Model Rail
Masterpiece to Life

By Nick Muff MD MMR



Model Railroading as an Art Form

OK, so I also paint watercolors.



Model Railroading as an Art Form

Art; the expression or application of human creative skill and imagination, typically in a visual form such as painting or sculpture, producing works to be appreciated primarily for their beauty or emotional power. Painters create in 2D, Modelers Create in 3D



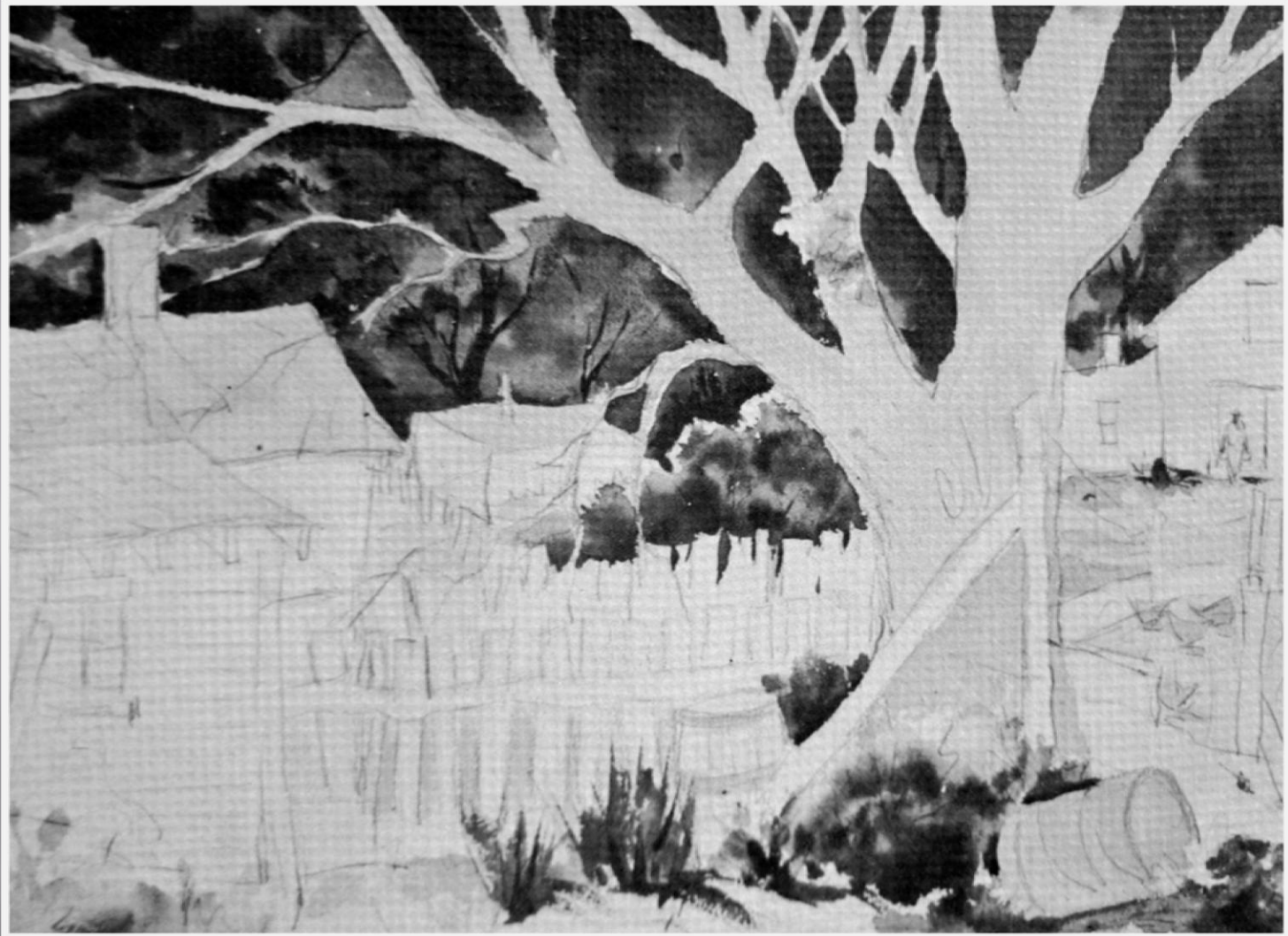
Model Railroading as an Art Form

Taking a Cue from Painting. The First Step is to Create a Drawing (Layout Plan), Establishing Shape, Areas, and Contours.



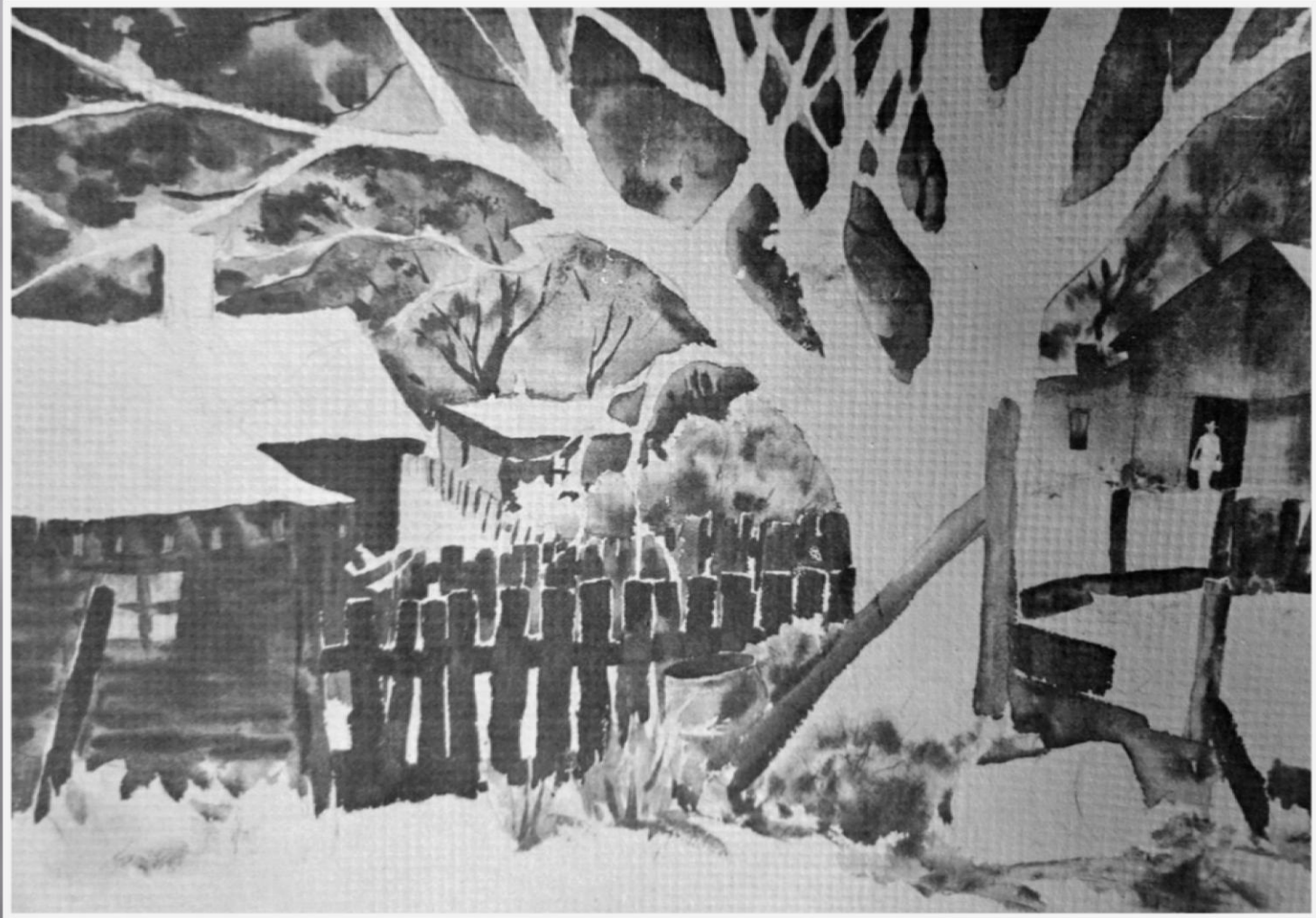
Model Railroading as an Art Form

Next add background in larger shapes to establish the initial relationships. This would correspond to bench work track work in the initial land forms..



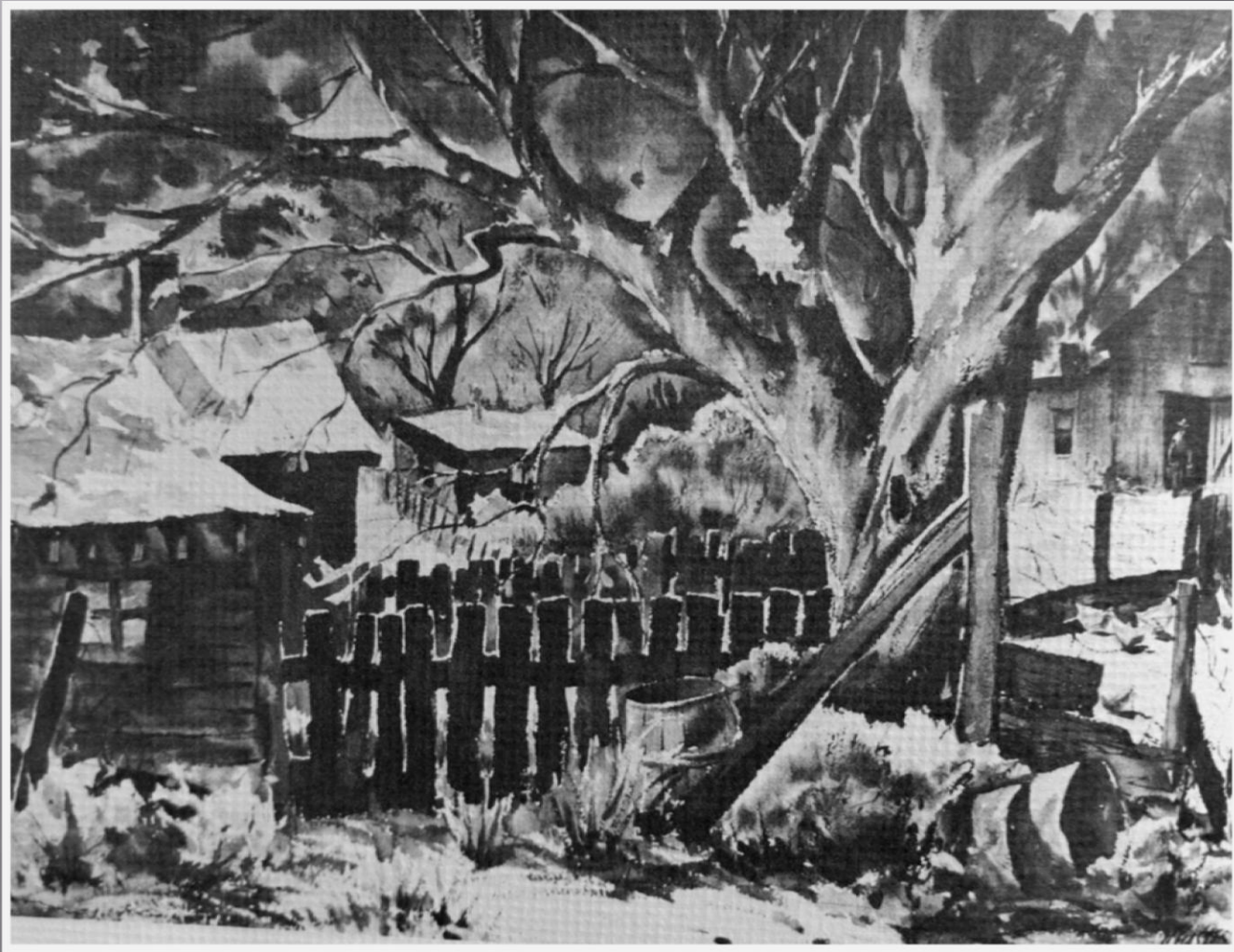
Model Railroading as an Art Form

Next Comes medium details, Structures, Vehicles etc.



Model Railroading as an Art Form

And finally the small details that really add realism both in painting and to your layout. Just as in watercolor you don't paint everything but lines here and there suggest things that don't actually exist. So that finding telling on the front edge of the layout tricks viewers into thinking the layout is detailed to that level.



Model Railroading as an Art Form

As it is in art, so it is in model railroading, the sum tends to be greater than the total of the individual parts. As my dad used to say, "there must be a dozen ways to do this, we just have to think of one". These are methods that I have used and found to be effective.



Model Railroading as an Art Form

In this clinic I will be discussing various techniques and details for bringing your layout to life. Many of these techniques are borrowed/adapted from the master George Selios to give credit where credit is due. There are many ways to do most in 3D watercolor painting or 3D model railroading. These are techniques I have used and find produce good results. I will cover the following topics;

- 1. Brickwork**
- 2. Glazing**
- 3. Blinds**
- 4. Awnings**
- 5. Fences**
- 6. Signs on Buildings**
- 7. Tar Paper Roofs**
- 8. Weathered Wood Walls**
- 9. Corrugated Metal**
- 10. Yard and Trackside Details**
- 11. Track Painting and Weathering**

Model Railroading as an Art Form – Finishing Brick Structures

Following George's recommendation I use Rattle cans for painting my brick structures some of which are quite large.



Model Railroading as an Art Form – Finishing Brick Structures

Is important to note that brick comes in a wide variety of shades of red, brown, and many other colors..



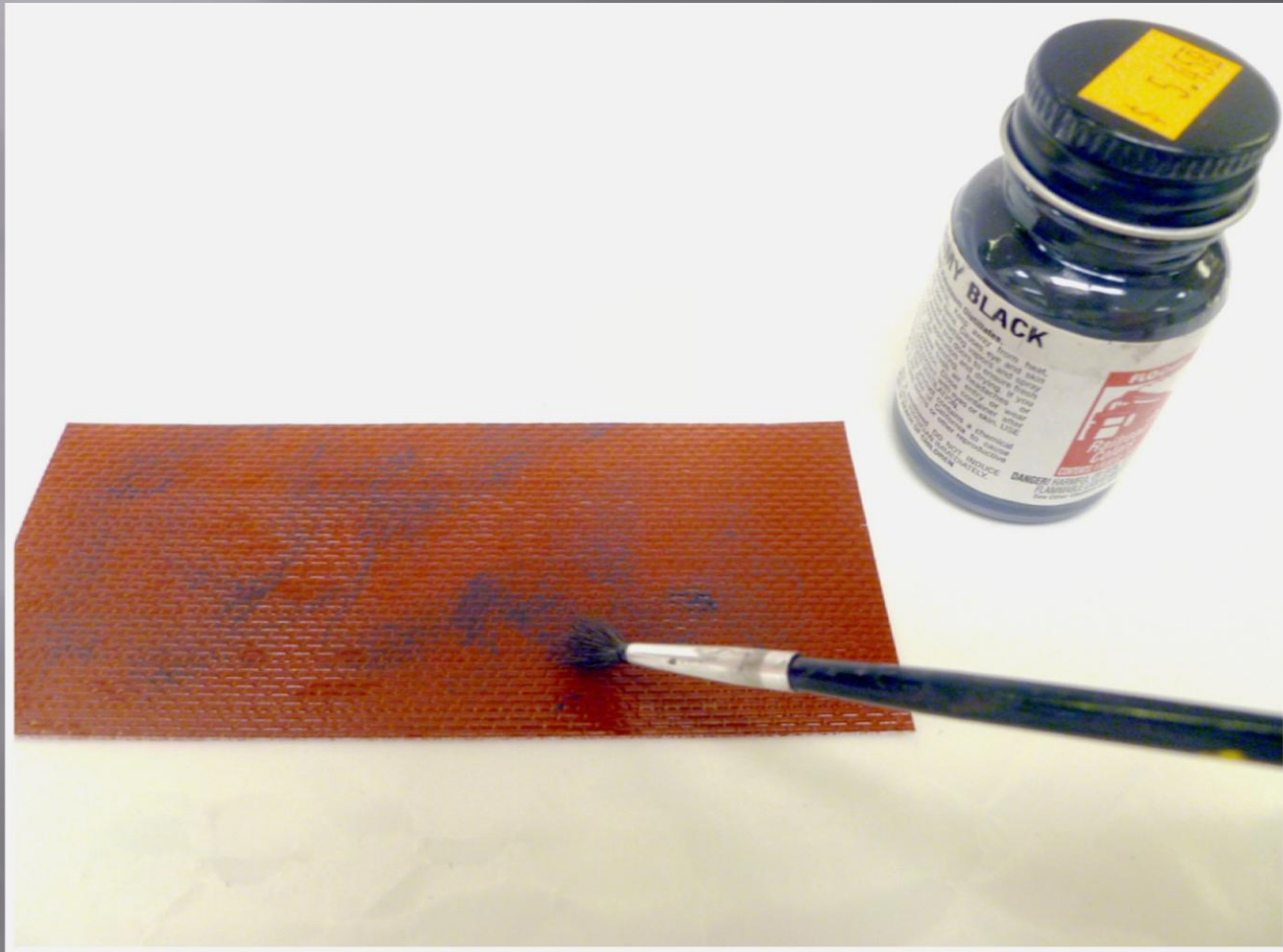
Model Railroading as an Art Form – Finishing Brick Structures

Here I am spraying a piece of brick sheet in a heavily used spray booth with Rustoleum Colonial Red. The pebbly buildup on the turntable is pigment residue from this heavily used spray booth. It makes a good surface to set items on to be painted



Model Railroading as an Art Form – Finishing Brick Structures

Next Use “Floquil” Grimy Black (Or some of the other inferior substitutes that are available) to Cerate Some Darkish Patches on the Brick.



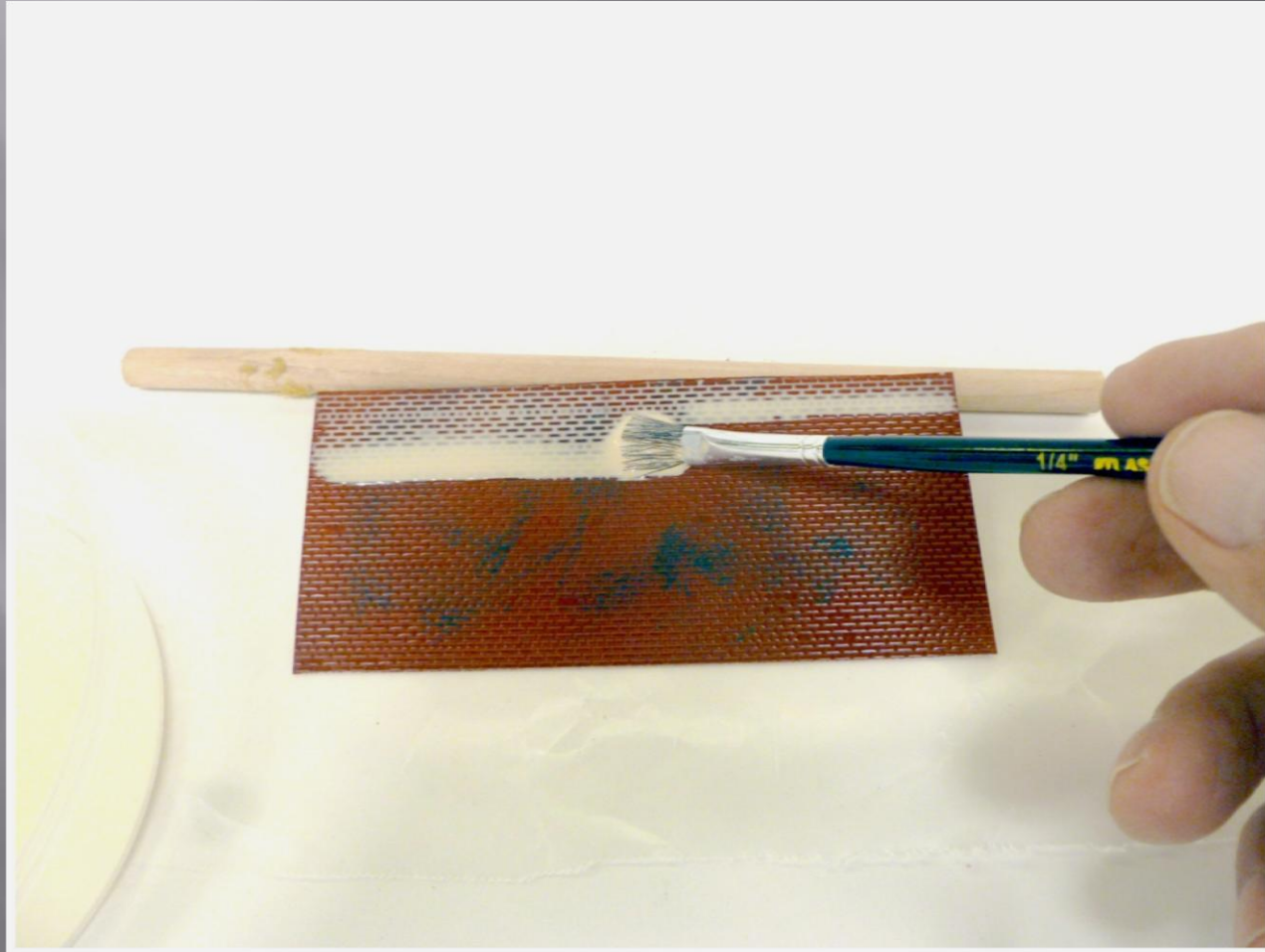
Model Railroading as an Art Form – Finishing Brick Structures

The next step is to fill the mortar lines with tan or off-white color (for red or brown brick). I am using acrylic paint, Unbleached Titanium. It's a nice buff color. Thin with water as needed but remember the final result when dry tends to be less noticeable.



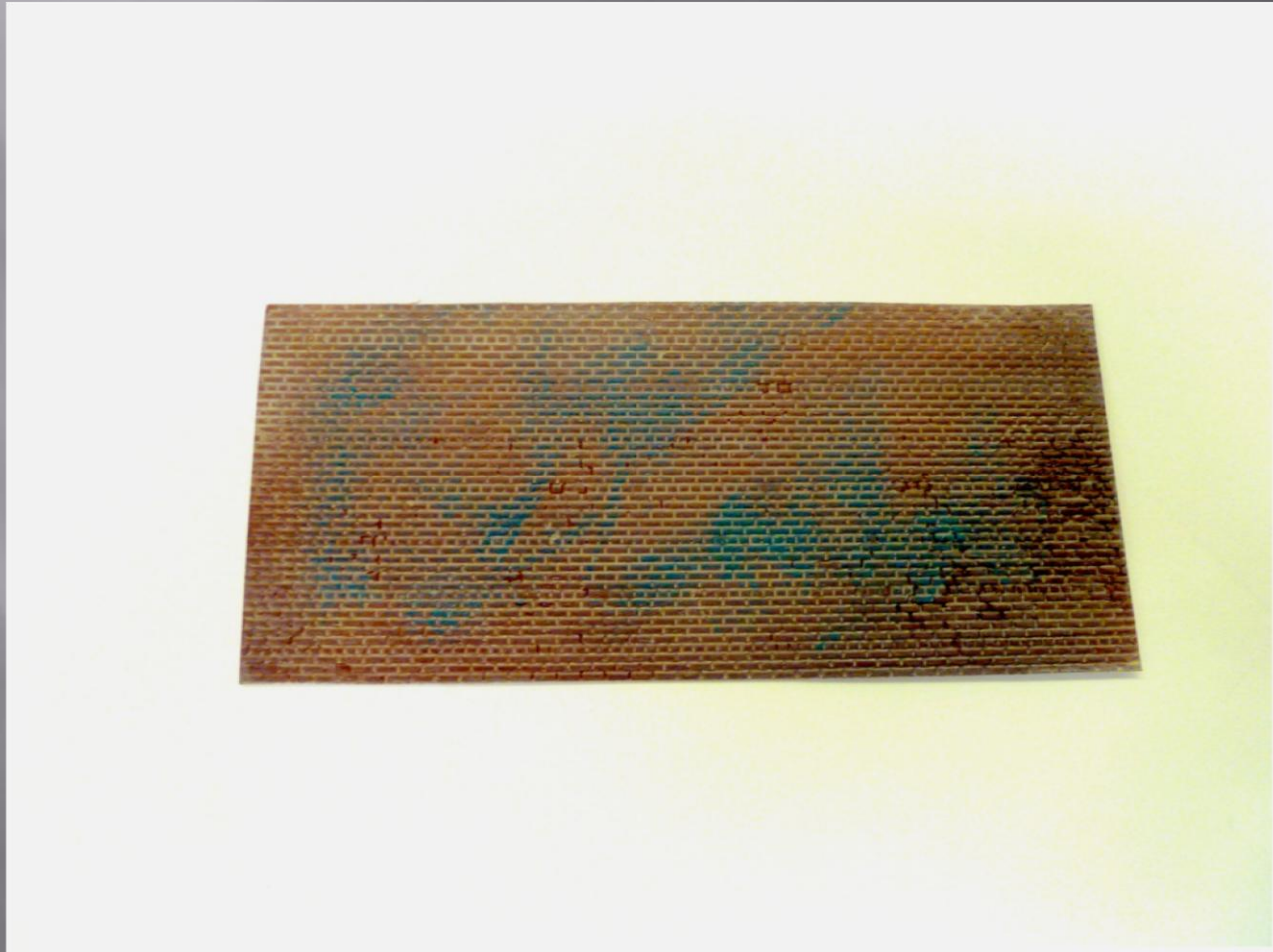
Model Railroading as an Art Form – Finishing Brick Structures

I use a small flat brush to apply the mortar wash..



Model Railroading as an Art Form – Finishing Brick Structures

Here is the appearance when dry. Notice on just three steps we've gone from white styrene to realistic looking brick.



Model Railroading as an Art Form – Finishing Brick Structures

Then it's time to apply India ink diluted in rubbing alcohol. For this I use a ratio of 4 teaspoons of ink to 1 pint of alcohol. The higher the percentage of alcohol the better. In this case 99%. It will drive faster..



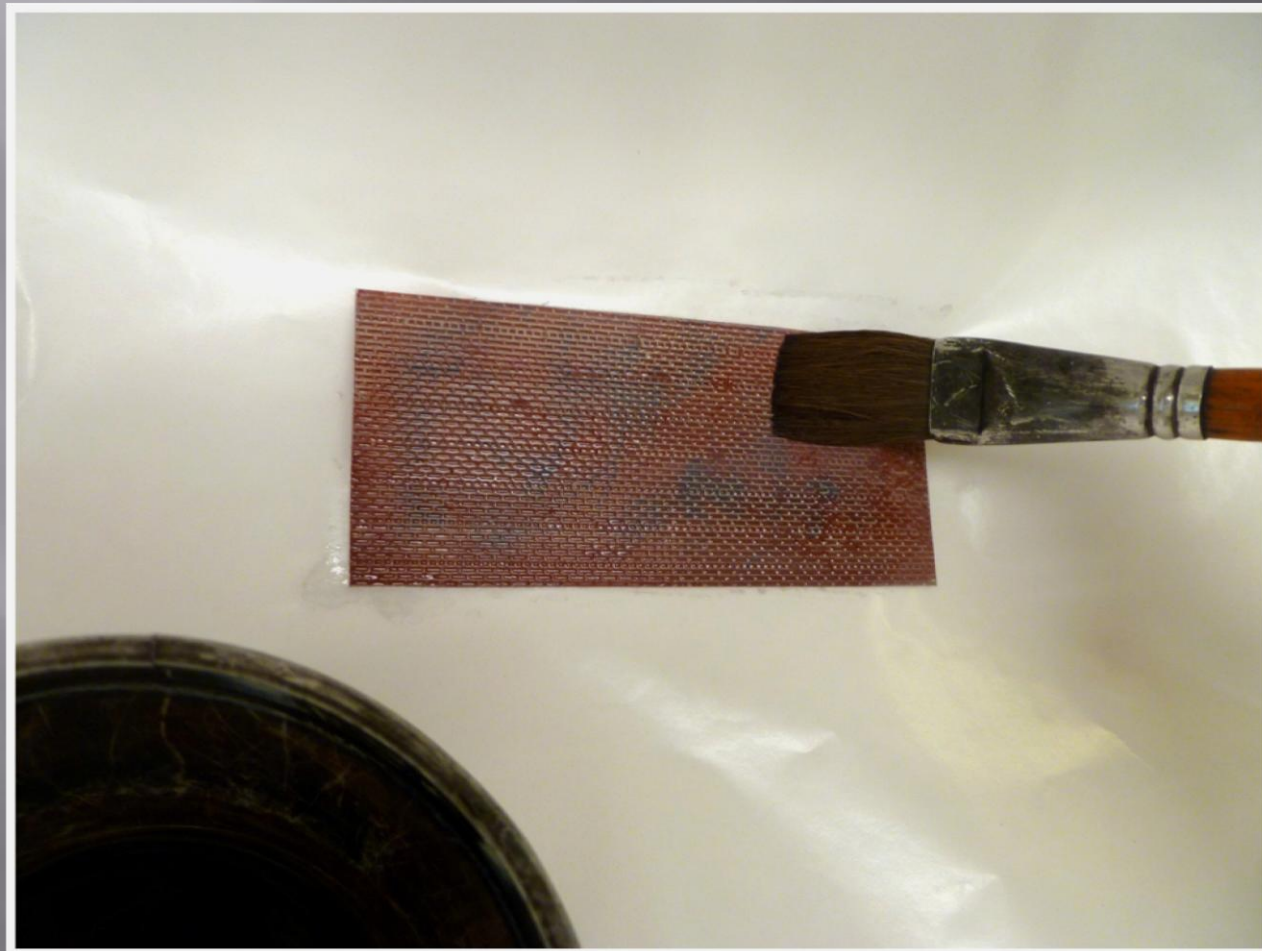
Model Railroading as an Art Form – Finishing Brick Structures

I simply must digress to show you my supply of India ink. It came from a gentleman and his wife who were orders. When it came time to clean up the house here was this unused 1 quart bottle of India ink. There's no ZIP Code on the label which makes it prior to 1963 and the cost was \$2.26. At this rate if I live long enough to use up the bottle I'll be around for quite a while. Anyone need India ink?



Model Railroading as an Art Form – Finishing Brick Structures

I apply the India ink with a wide flat brush.



Model Railroading as an Art Form – Finishing Brick Structures

When fully dry I overspray it with Testers Model Master Lusterless (Flat) clear spray. This has the flattest finish of any dull coat spray that I have used.



Model Railroading as an Art Form – Finishing Brick Structures

Brick Diesel Shops Finished with These Techniques.



Model Railroading as an Art Form – Weathered Signs

Applying paper signs to structures including brick. Catalogs are a Great Source



Model Railroading as an Art Form – Weathered Signs

Sand the back of the paper to make it thin.



Model Railroading as an Art Form – Weathered Signs

Use fine steel wool on the front side to "age" the image



Model Railroading as an Art Form – Weathered Signs

Here is what the sign looks like after the steel wool



Model Railroading as an Art Form – Weathered Signs

Apply white glue full-strength to the back of the sign



Model Railroading as an Art Form – Weathered Signs

Turn the sign over and gently press into place.



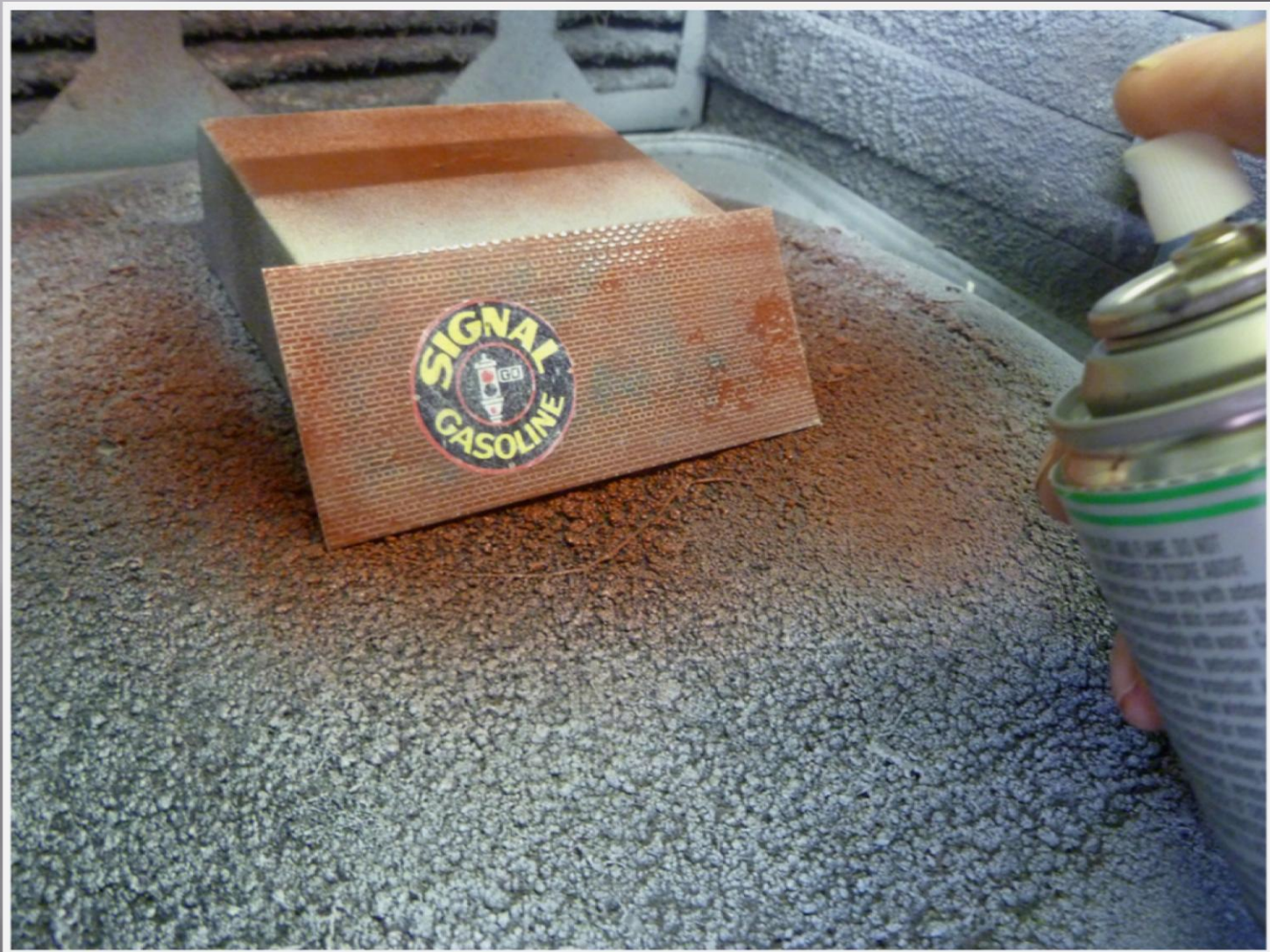
Model Railroading as an Art Form – Weathered Signs

When the sign has had some time to dry, run a fingernail along the mortar lines to press the sign into the brick..



Model Railroading as an Art Form – Weathered Signs

When the sign is completely dry spray with flat finish to seal the sign in place.



Model Railroading as an Art Form – Weathered Signs

After the Dullcoat Dries



Model Railroading as an Art Form

Drybrush across the tope of some bricks to highlight them as if the painted sign has worn off. Any brick red color will do (Oxide Red in this case).



Model Railroading as an Art Form

Here is the appearance after dry brushing across the brick.



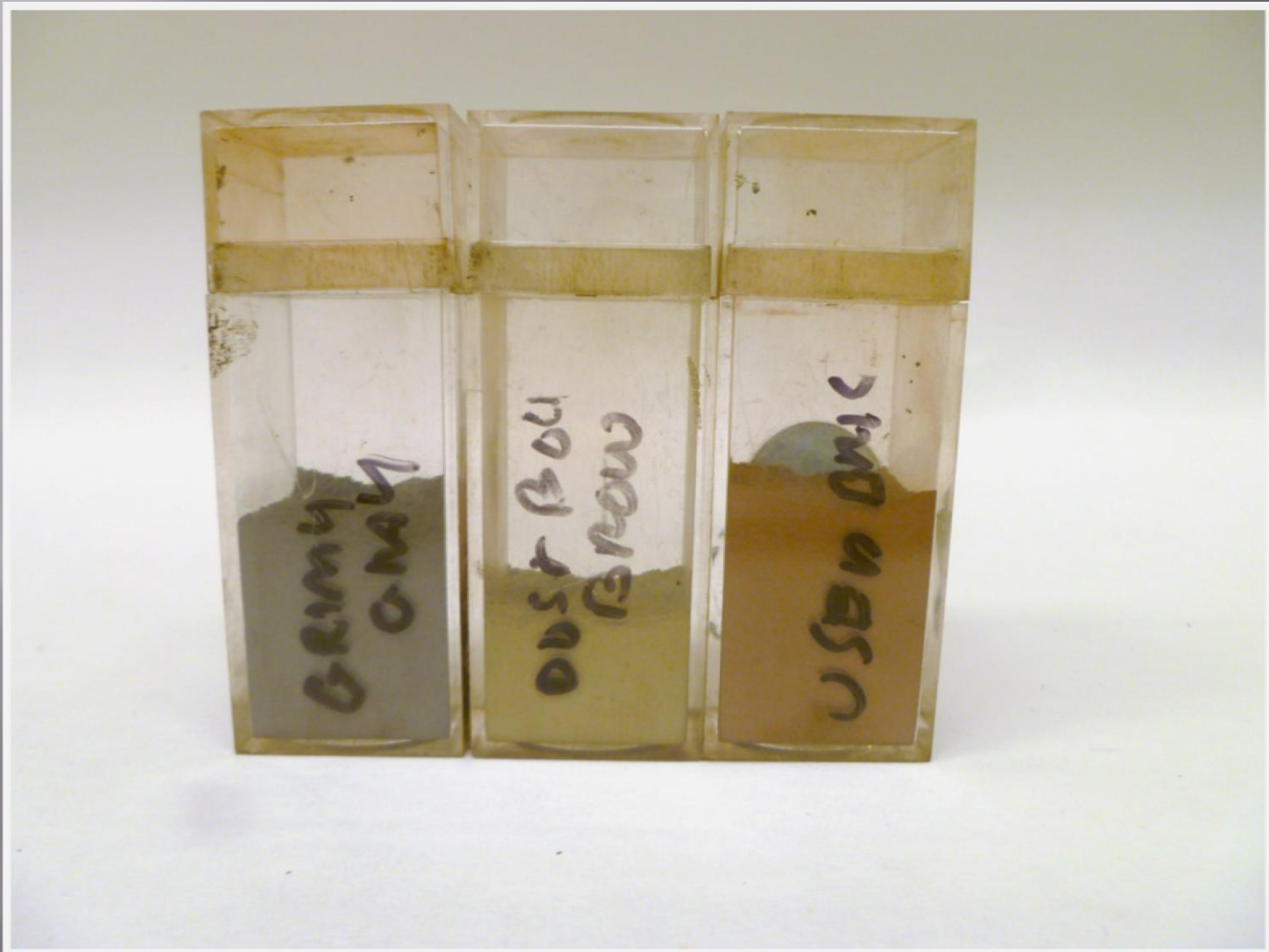
Model Railroading as an Art Form – Weathered Signs

The next step as to whether the wall by dry brushing with chalk. I prefer Joel Bragdon's weathering system.



Model Railroading as an Art Form

I use grimy black the weather the wall. Brick to the brick sections and dust bowl brown to simulate dirt splashed up at the lower edge of the wall..



Model Railroading as an Art Form – Weathered Signs

I apply the chalk dust with a wide brush



Model Railroading as an Art Form – Weathered Signs

Here is the final appearance. Quite a change from white styrene. Note the seventh row. lock pattern in the brick



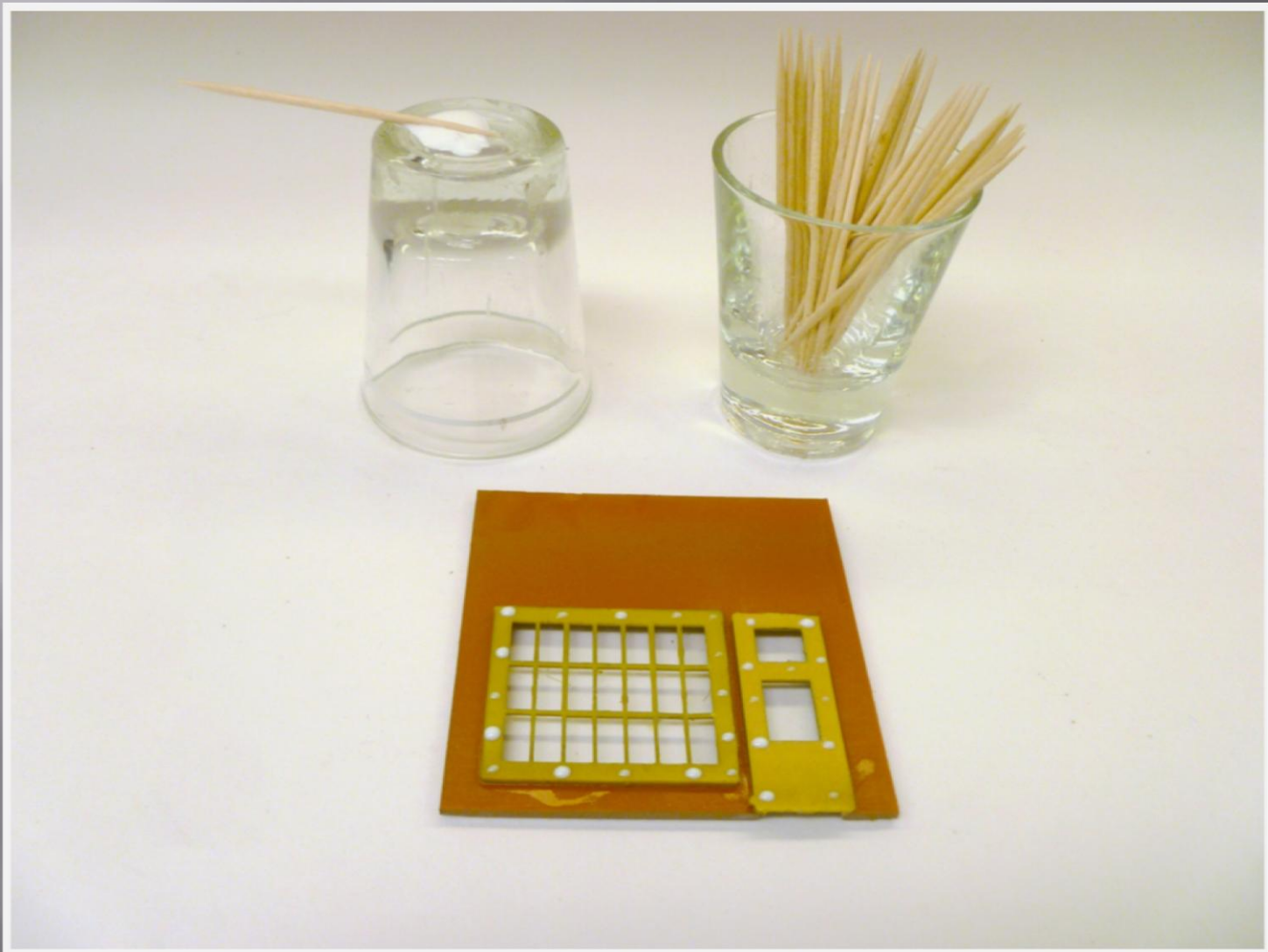
Model Railroading as an Art Form – Adding Glazing

Gathering the supplies



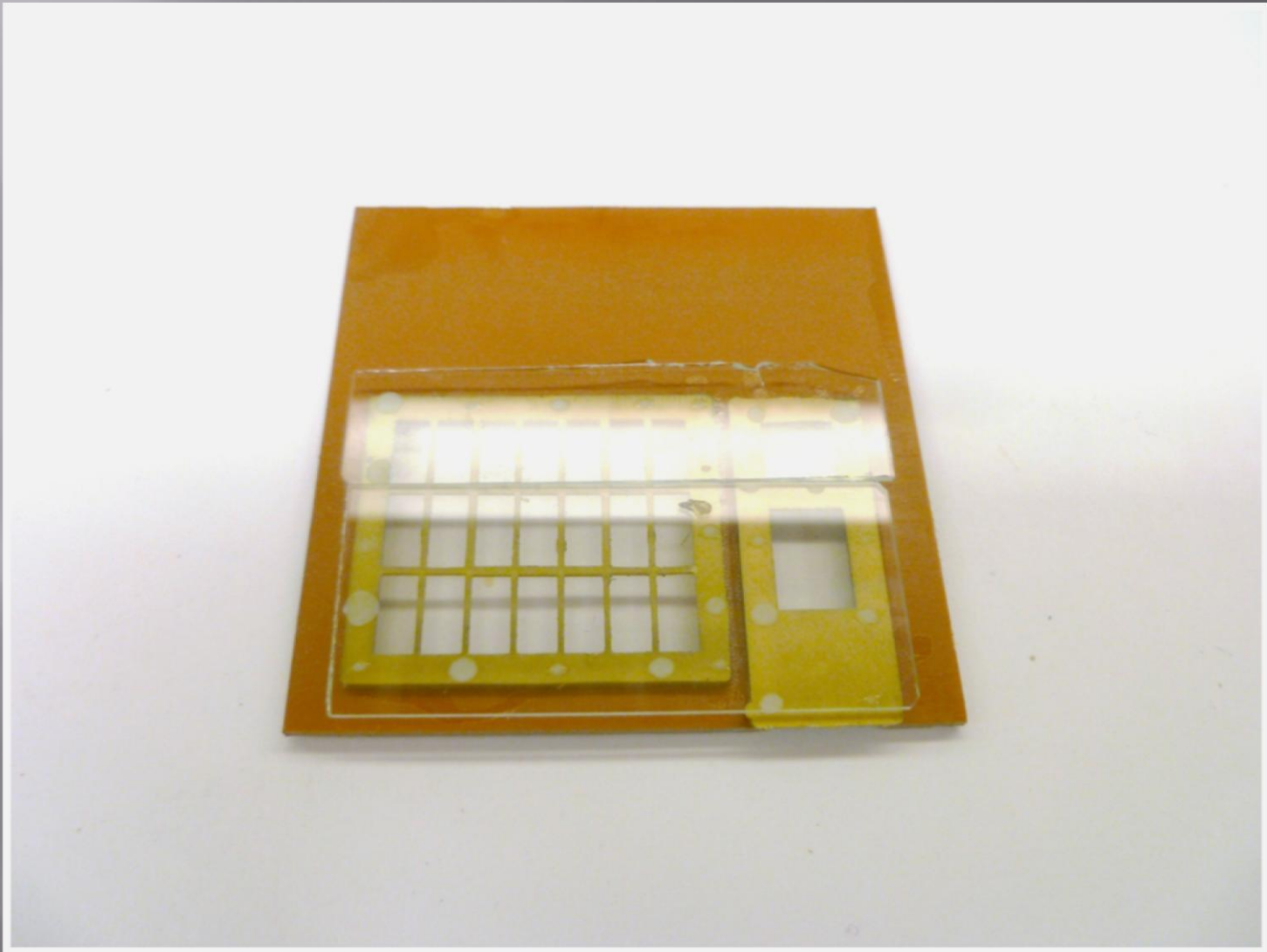
Model Railroading as an Art Form – Adding Glazing

Applying small dabs of PSA to the back of the frames. Thanks Tom for the shot glass idea.



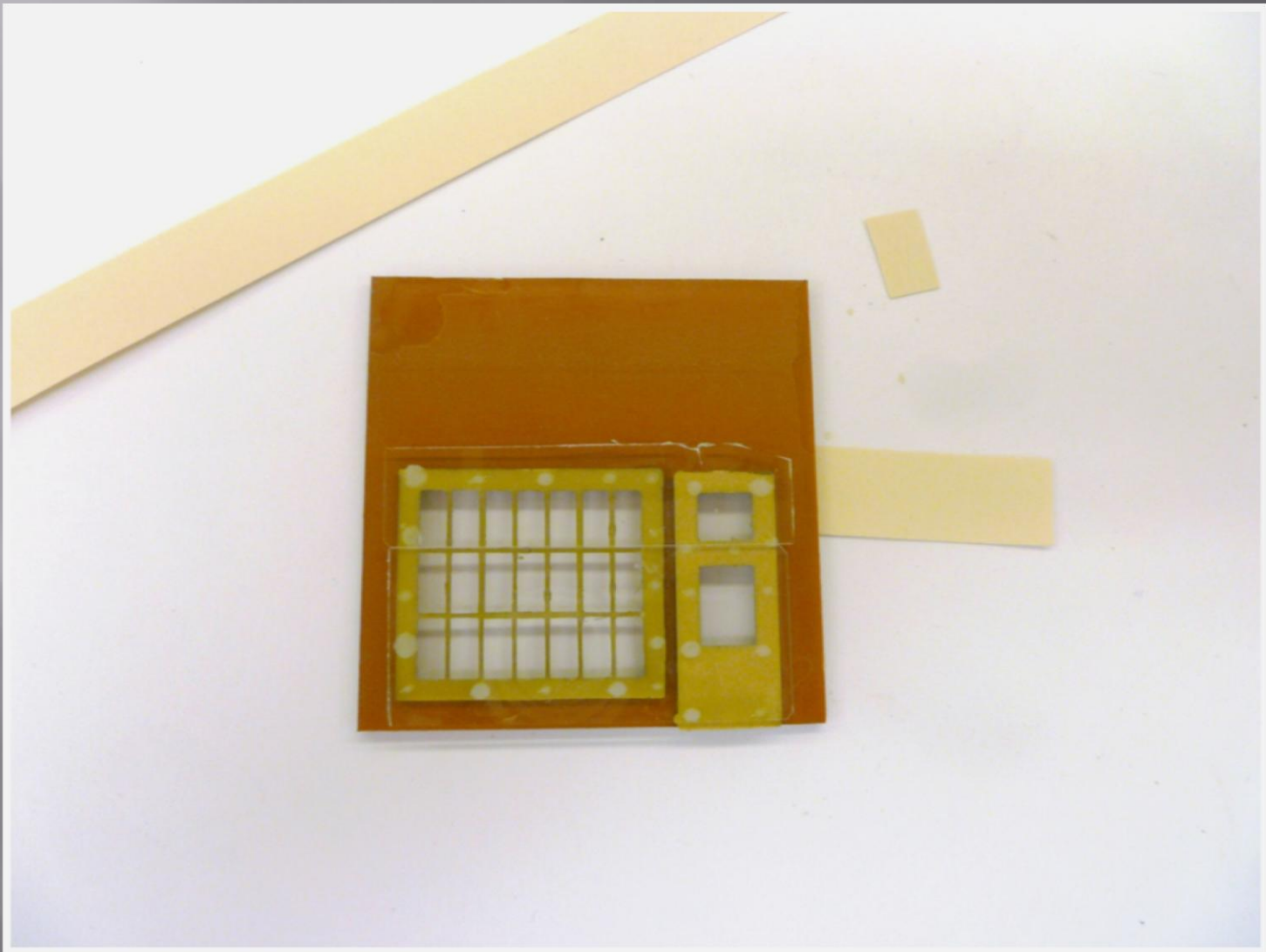
Model Railroading as an Art Form – Adding Glazing

Waiting for the glue to dry. It tries clear, gummy and still sticky. The glazing can be just pressed on from the back. It illuminates bleeding of the glue on to the class.



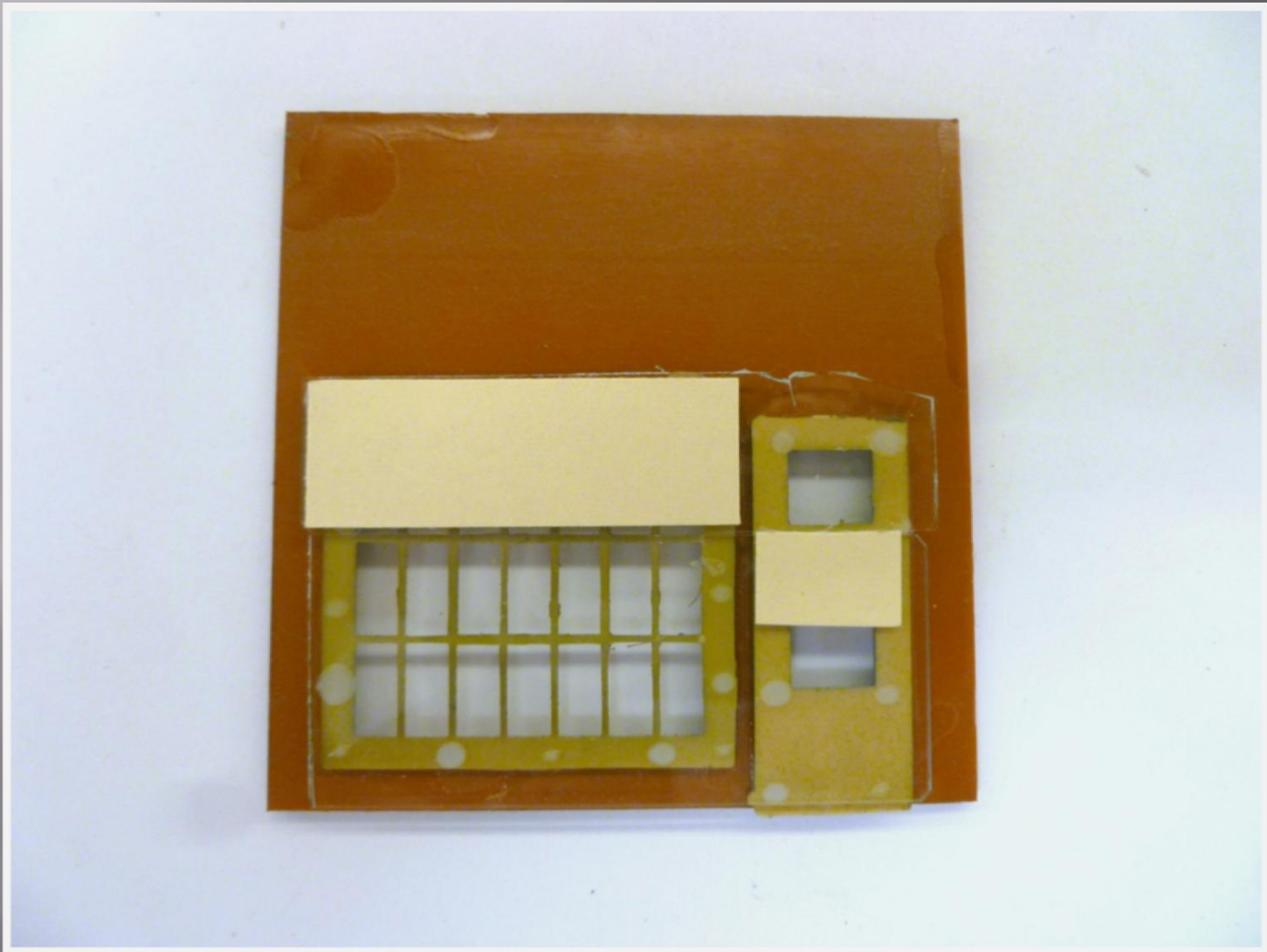
Model Railroading as an Art Form – Blinds

A simple way to add blinds Mr. cut pieces of manila folder. The bluff or gray color or gray color worked fine. I attach the blinds using the same PSA adhesive used to attach the Glazing.



Model Railroading as an Art Form – Blinds

Here are the blinds pressed in place.



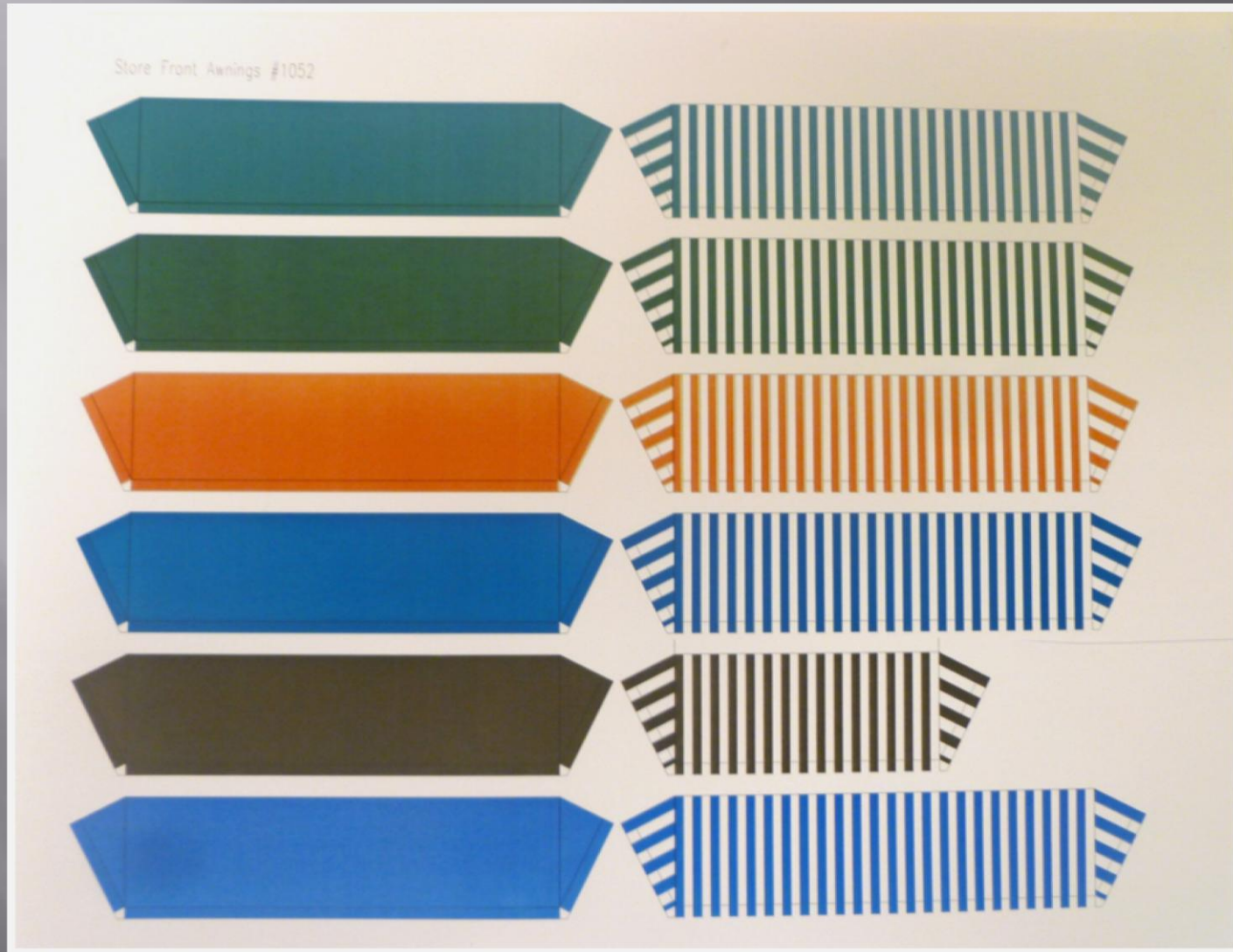
Model Railroading as an Art Form – Blinds

The brick here has been painted buff color with gray mortar. The sign is a tongue-in-cheek establishment from George Hook of Central Valley Model Works. The only real world material they can actually deliver his sand and gravel!



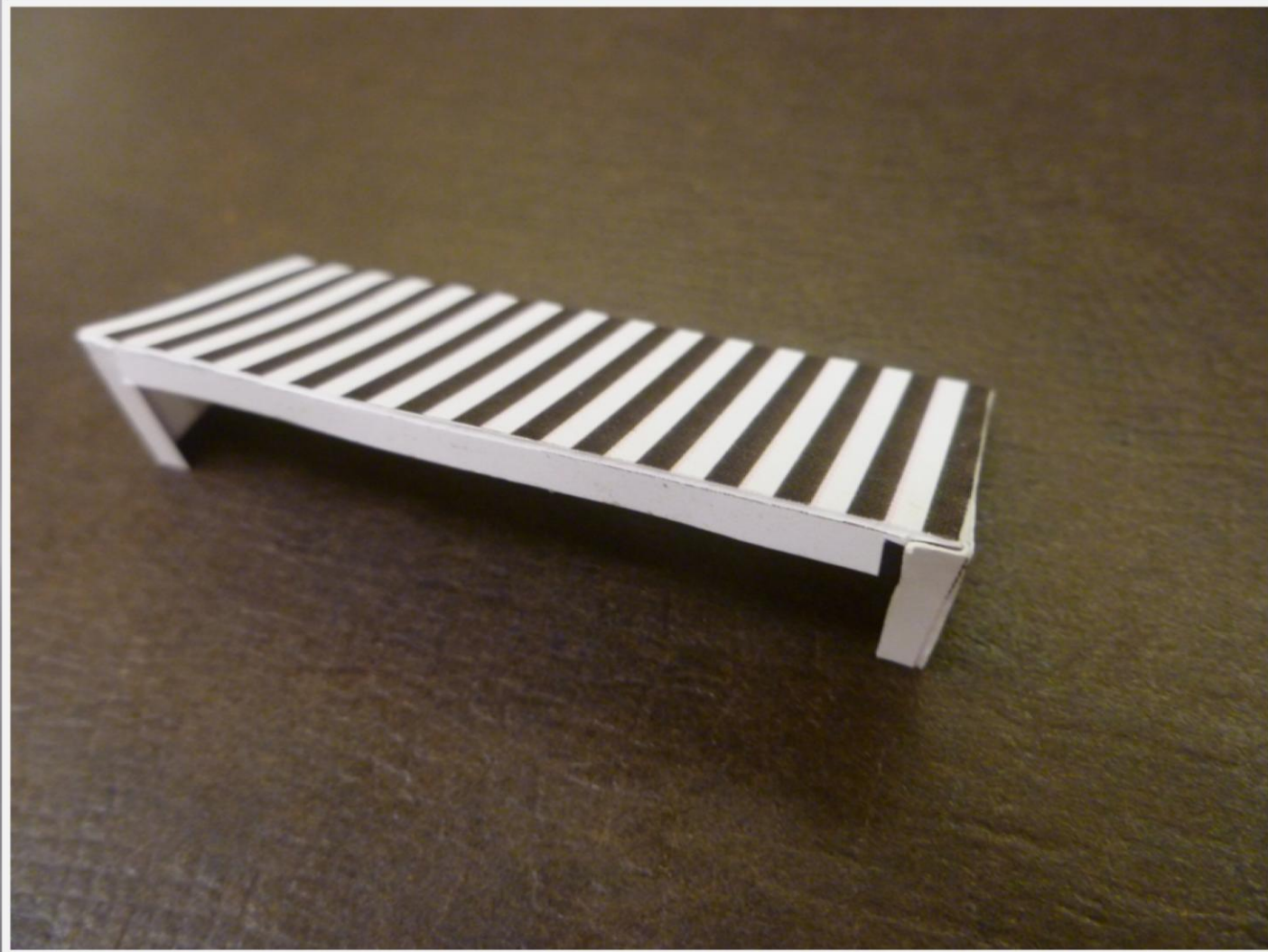
Model Railroading as an Art Form – Adding Awnings

I drew these awnings in my CAD software. Any other graphic software can be used. They are cheap to produce and can be created in any size or color to fit your application.



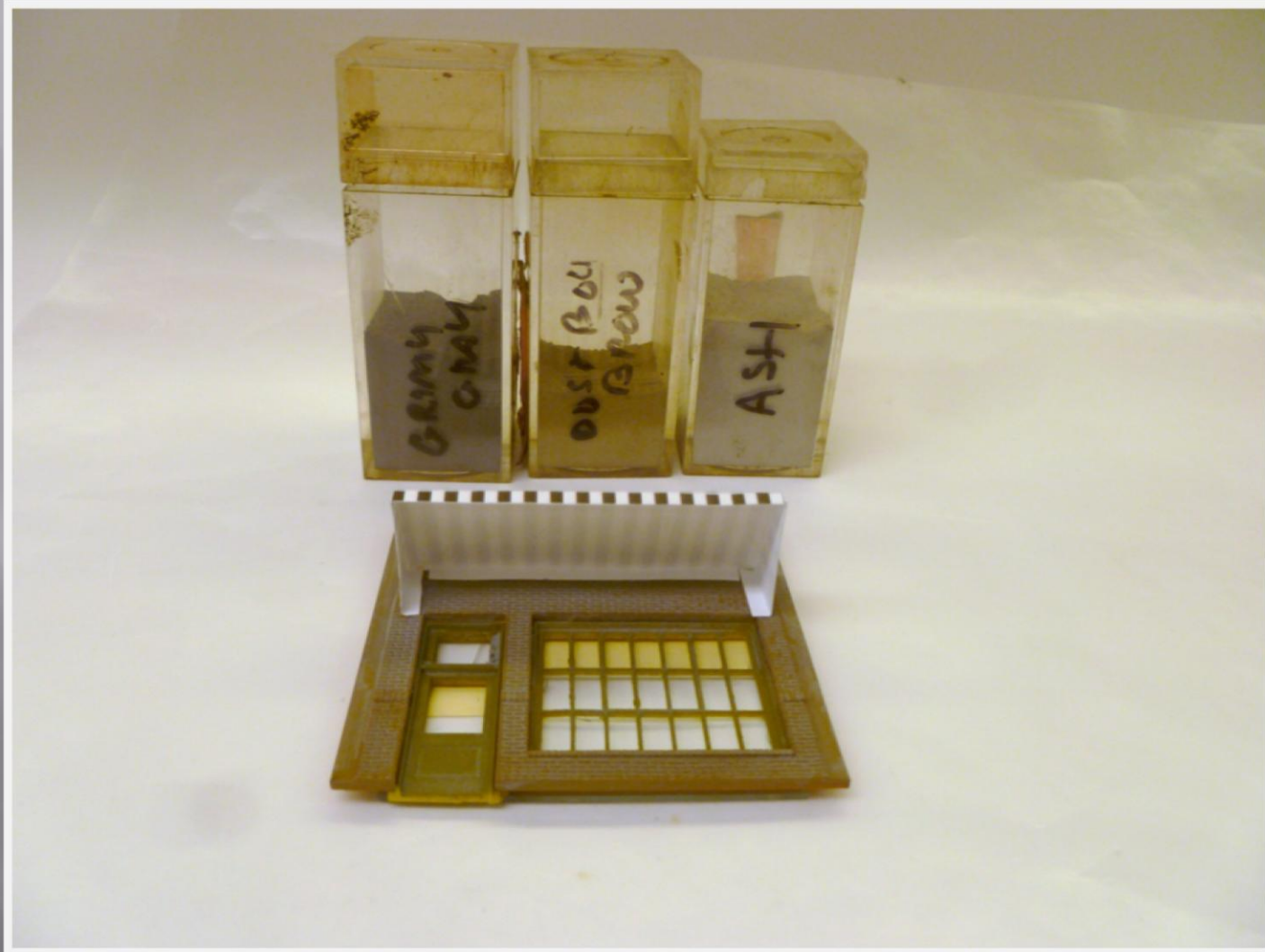
Model Railroading as an Art Form – Adding Awnings

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Model Railroading as an Art Form – Adding Awnings

Once the awning was attached I weather the wall. On a steam era layout plenty of soot and dust will collect on the top of the awning..



Model Railroading as an Art Form – Adding Awnings

Here is the wall after weathering.



Model Railroading as an Art Form – Adding Awnings

Adding a Detailed Low Tech Interior is Easy with Cardstock and Google Image Search.
Note How the Interior is Folded to Glue to the Backside of the Front Wall



Model Railroading as an Art Form – Adding Awnings

Superior Detritus with the Interior In Place. A single LED Could be Used to Light the Interior.

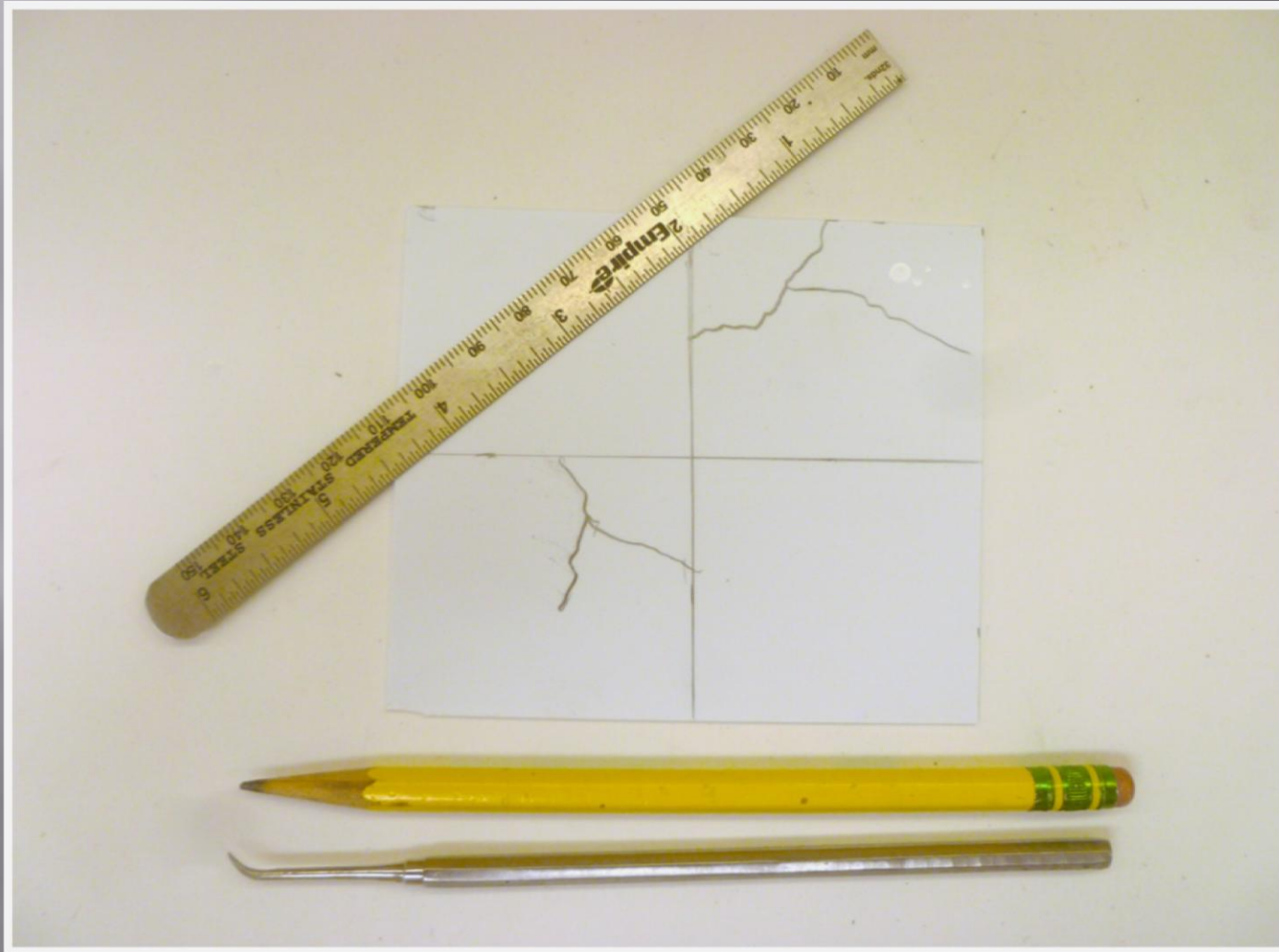


Model Railroading as an Art Form – Superior Detritus Co.



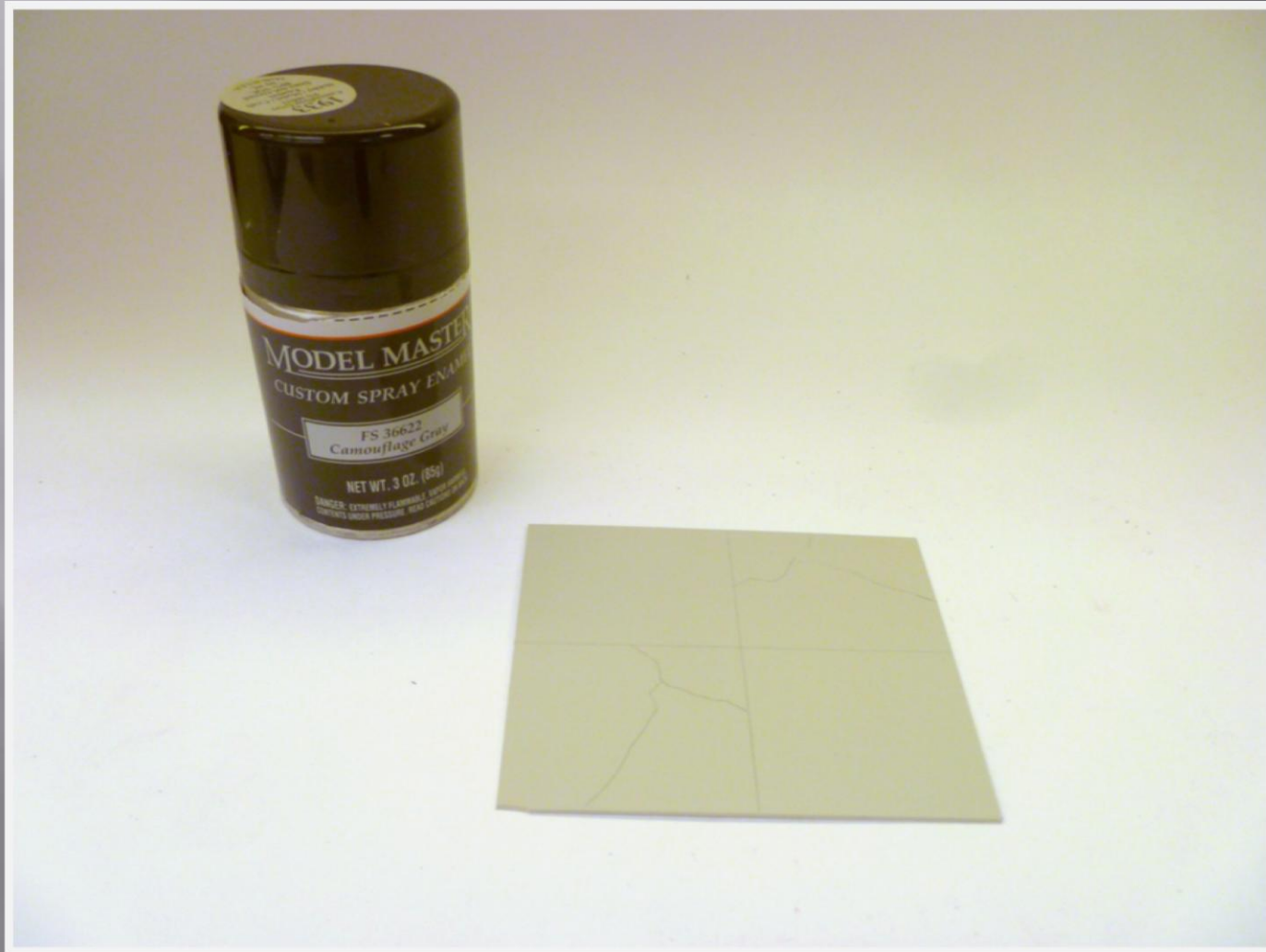
Model Railroading as an Art Form – Concrete Roads

I Use .040" Sheet Styrene as a Base for my Roads. Usual 4" Wide the Concrete 'Sections' are 2" x 2". Use a Micro-Mark Styrene Scribe on the Joints and Cracks.



Model Railroading as an Art Form – Concrete Roads

Next Spray the Road Section with Testors Model Master Camouflage Gray.



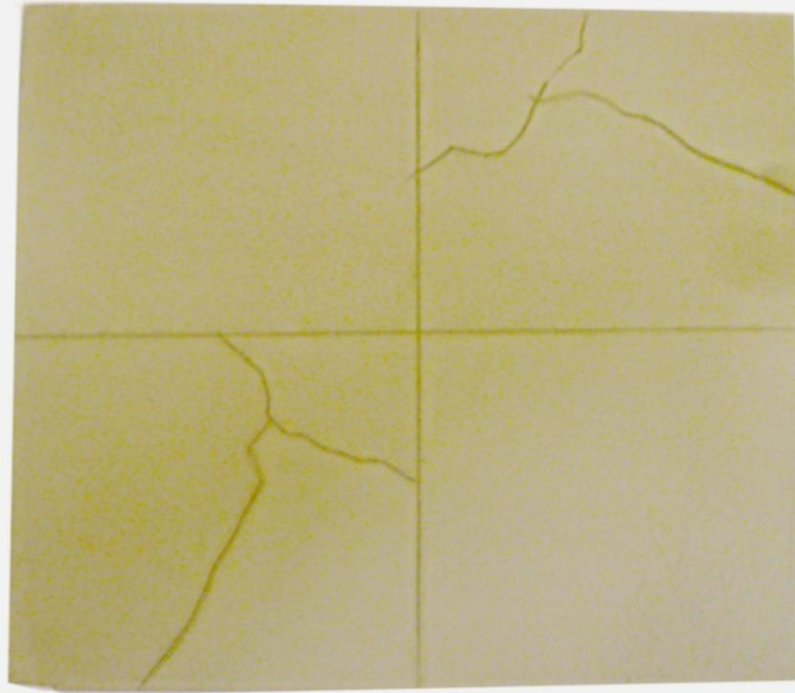
Model Railroading as an Art Form – Concrete Roads

Wash with India Ink/ Alcohol Mixture and Let Dry.



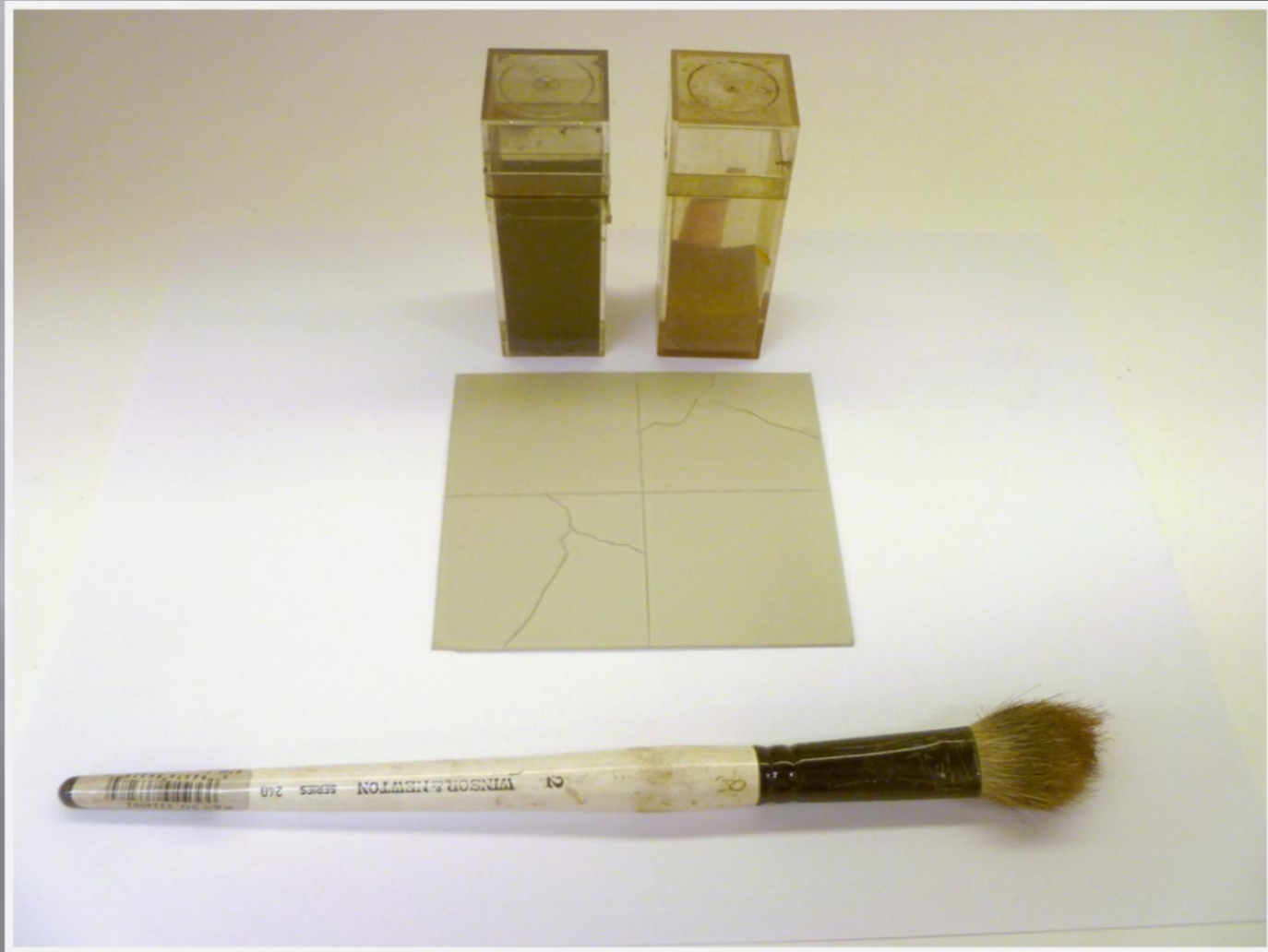
Model Railroading as an Art Form – Concrete Roads

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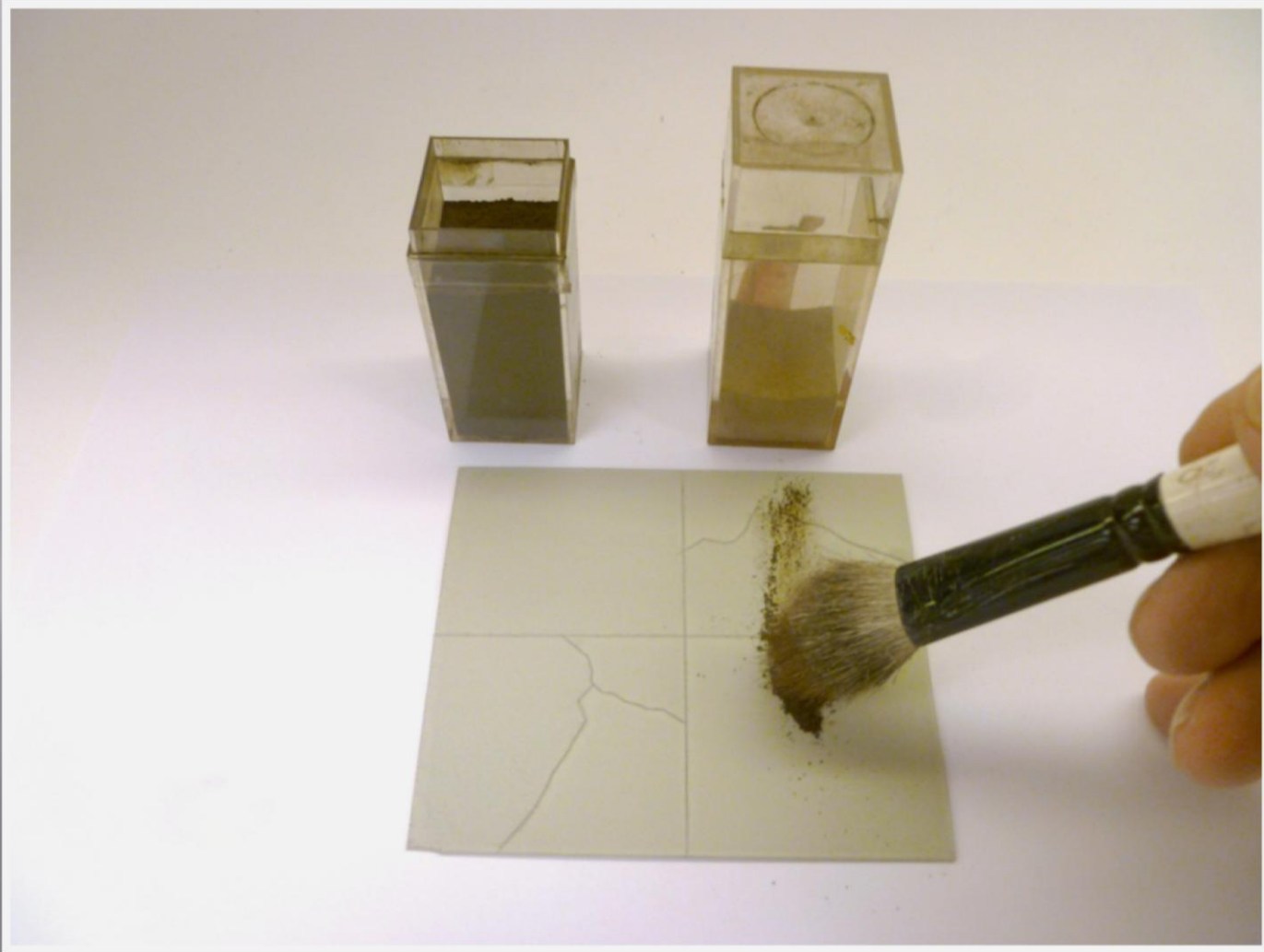
Model Railroading as an Art Form – Concrete Roads

Weather with Grimy Black and Dust Bowl Brown Chalk.



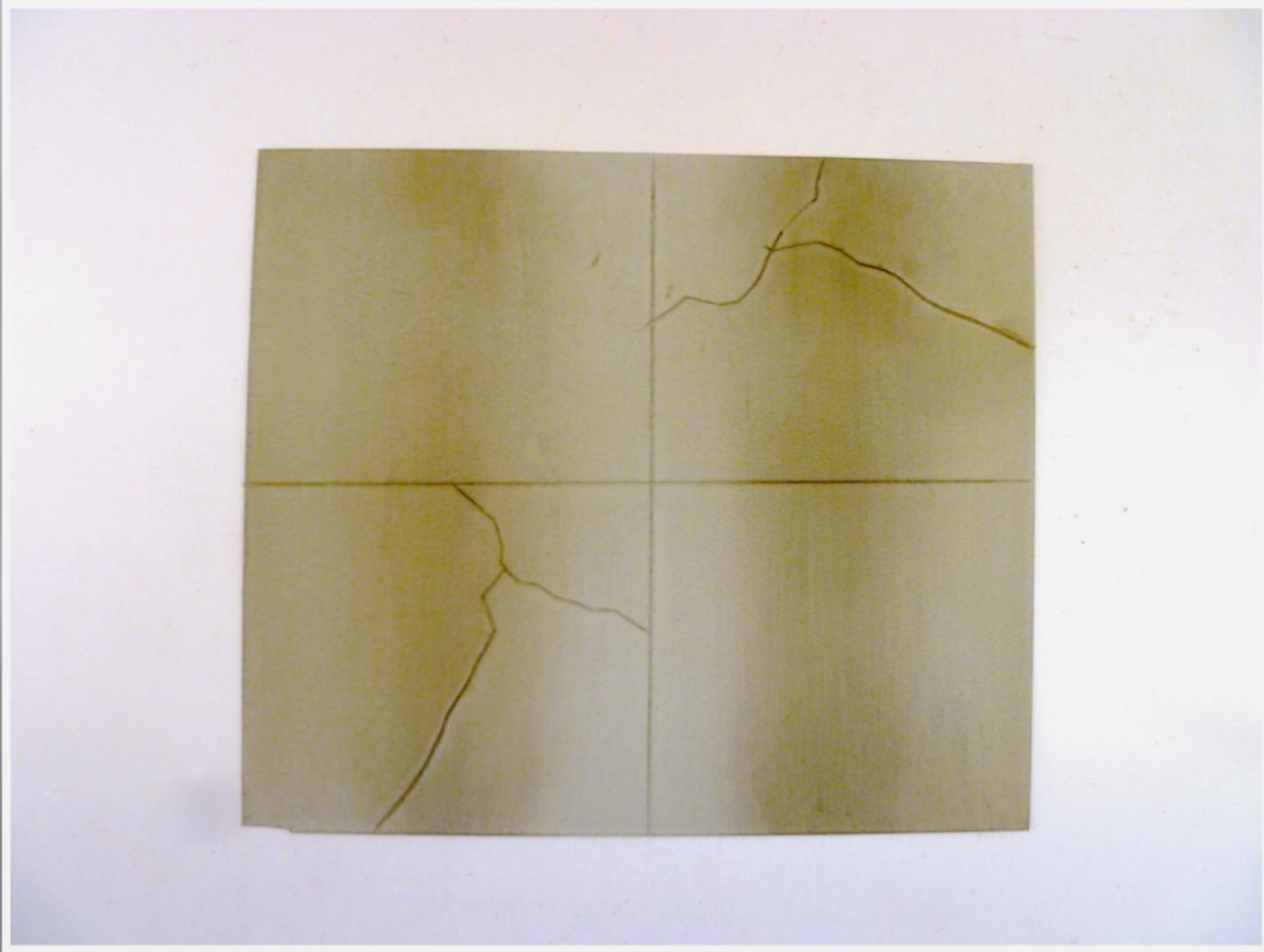
Model Railroading as an Art Form – Concrete Roads

Grimey Black Up the Center of the Roadways and Dust Bowl Brown On Both Sides.



Model Railroading as an Art Form – Concrete Roads

Final Appearance After Chalk Weathering.



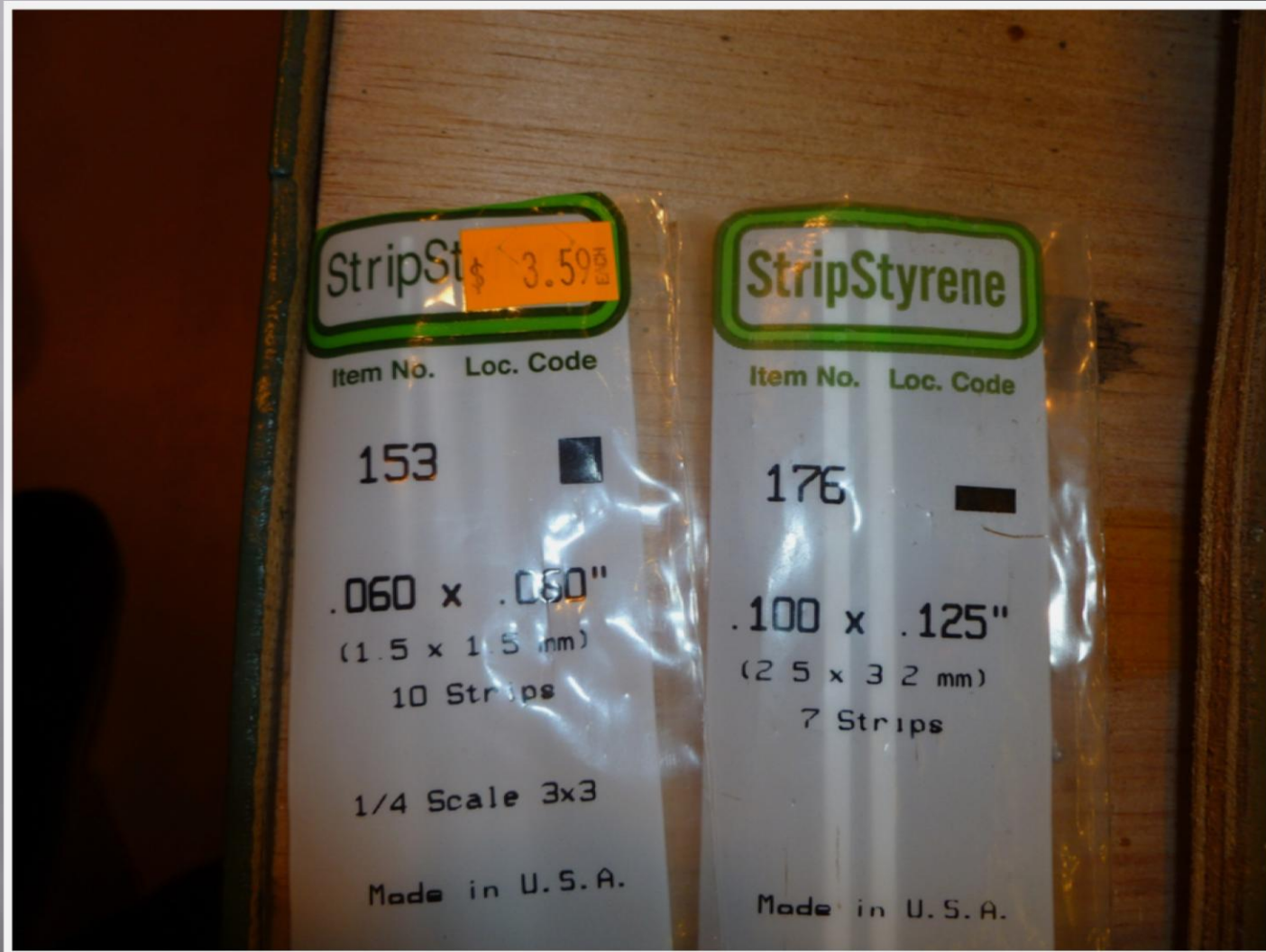
Model Railroading as an Art Form – Asphalt Roads

Using paper patterns I cut .040" styrene sheet as a base for the asphalt roads included in place with liquid nails. I then used MEK glue to add styrene strip to the center of the road and a thinner strip to the middle of each roadway to provide a "crowned" contour.



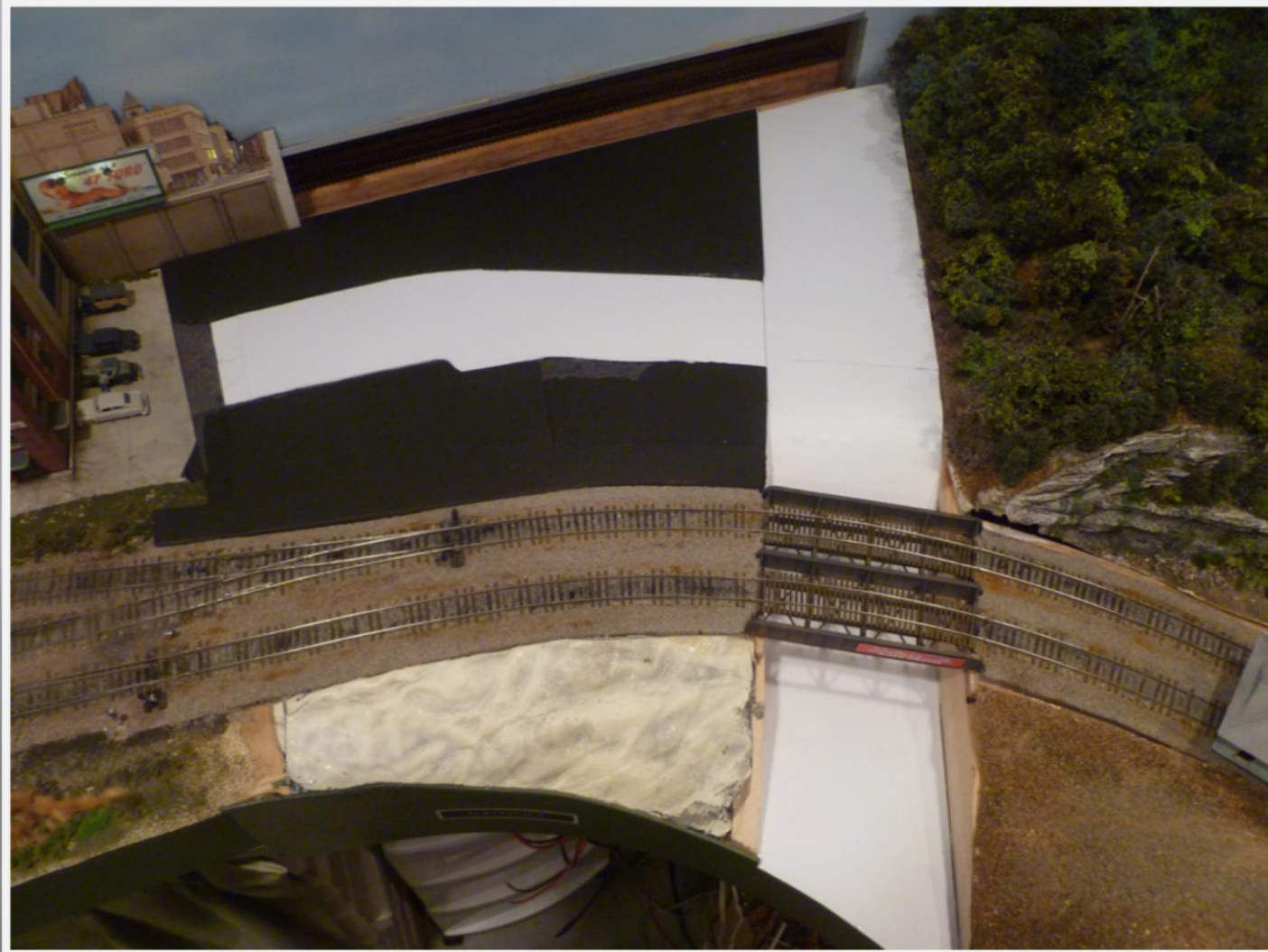
Model Railroading as an Art Form – Asphalt Roads

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Model Railroading as an Art Form – Asphalt Roads

Finally I glued .040 styrene sheet over the strips to create a base for the asphalt surface..



Model Railroading as an Art Form – Asphalt Roads

Here the sidewalks have been created using she styrene. The asphalt has been added using 3 mm self-adhesive black craft foam.



Model Railroading as an Art Form – Asphalt Roads

Here the sidewalks have been created using she styrene. The asphalt has been added using 3 mm self-adhesive black craft foam.



Model Railroading as an Art Form – Asphalt Roads

Three colors of acrylic paint are used to finish the asphalt. A light gray (Steel Gray), medium gray (Medium Gray) and dark gray (Wrought Iron) Folkart brand.



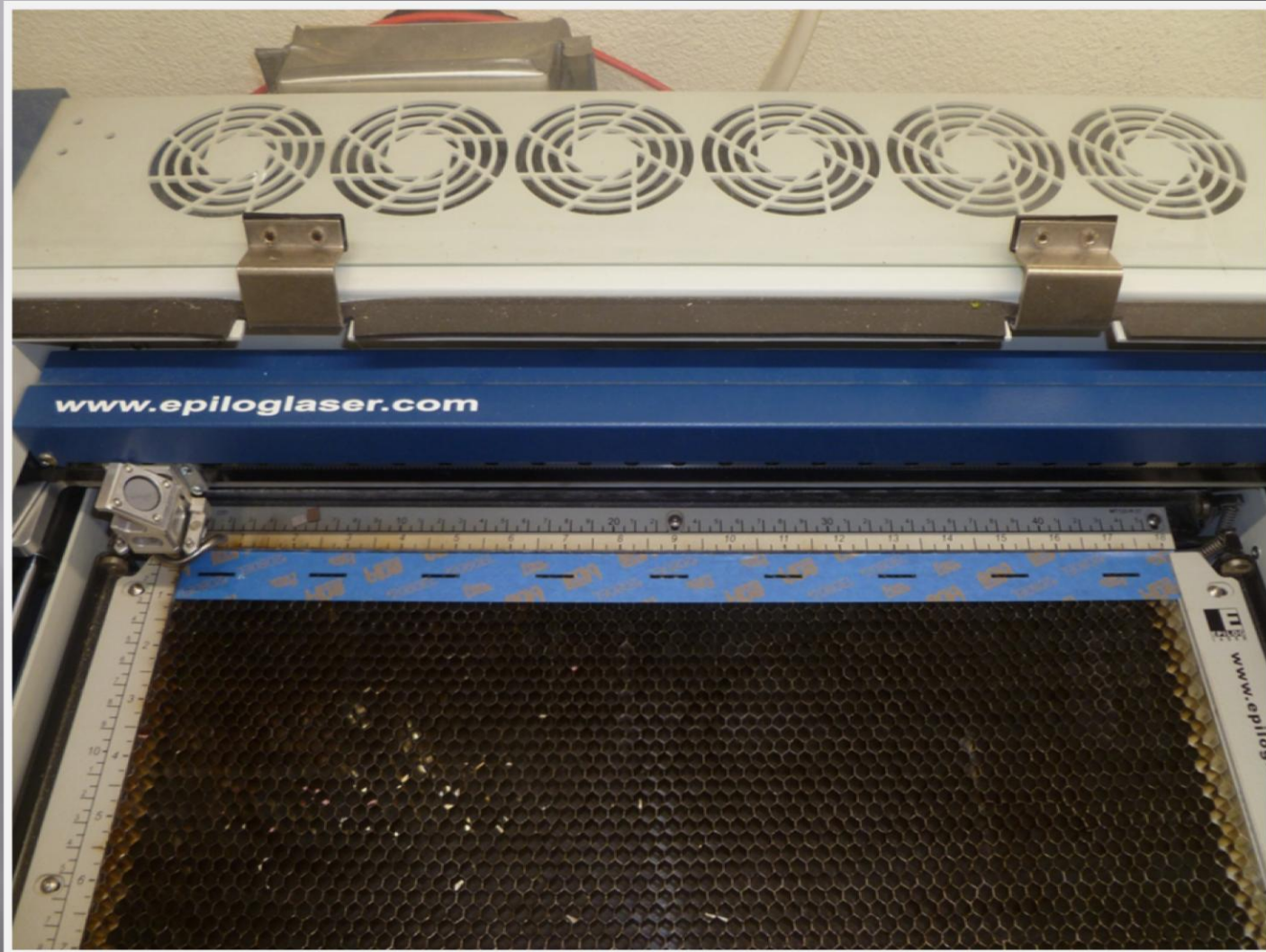
Model Railroading as an Art Form – Asphalt Roads

Here the asphalt areas have been painted with medium gray.



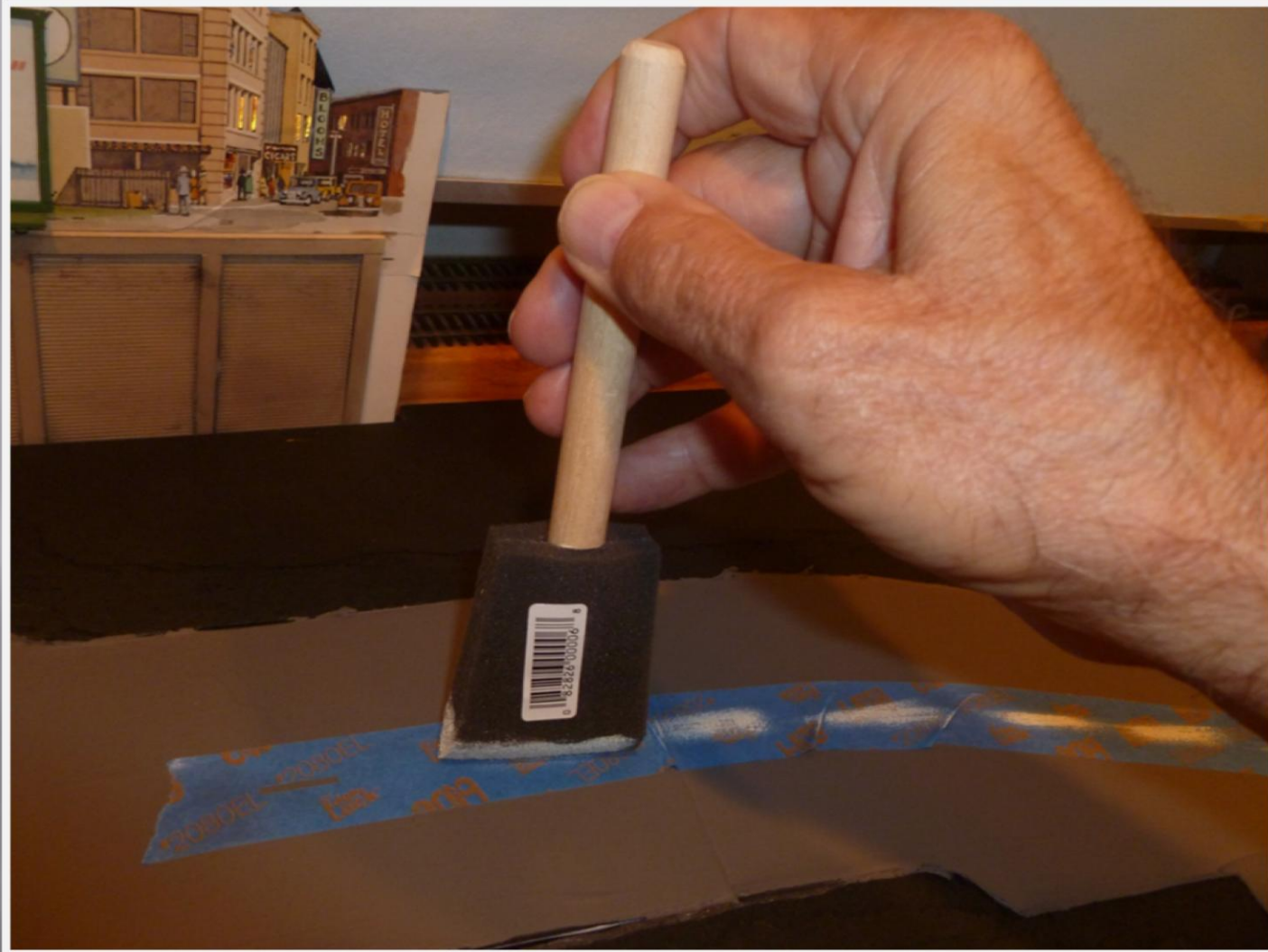
Model Railroading as an Art Form – Asphalt Roads

Next it's time for striping. Okay, I cheated and use the laser cutter to cut masking for the striping using blue tape. The same could be done with a hobby knife..



Model Railroading as an Art Form – Asphalt Roads

Apply the masking to the roadway and then use a foam brush to apply off-white paint. Use a dry brush technique to simulate the mottled appearance of stripes that have been weathered.



Model Railroading as an Art Form – Asphalt Roads

Once the paint is dry remove the masking tape. Note the "stop" stencil..



Model Railroading as an Art Form – Asphalt Roads

Next cut or tear up pieces of the foam roadway to simulate patches.



Model Railroading as an Art Form – Asphalt Roads

Then attach the the patch pieces to a piece of paper and paint them alternately dark gray or light gray which will distinguish them from the overall color of the asphalt. Then glue them back into their original locations with Walters Goo.



Model Railroading as an Art Form – Asphalt Roads

In the part of the world I am modeling the old roads have lots of cracks in the asphalt. Check out this prototype photo.



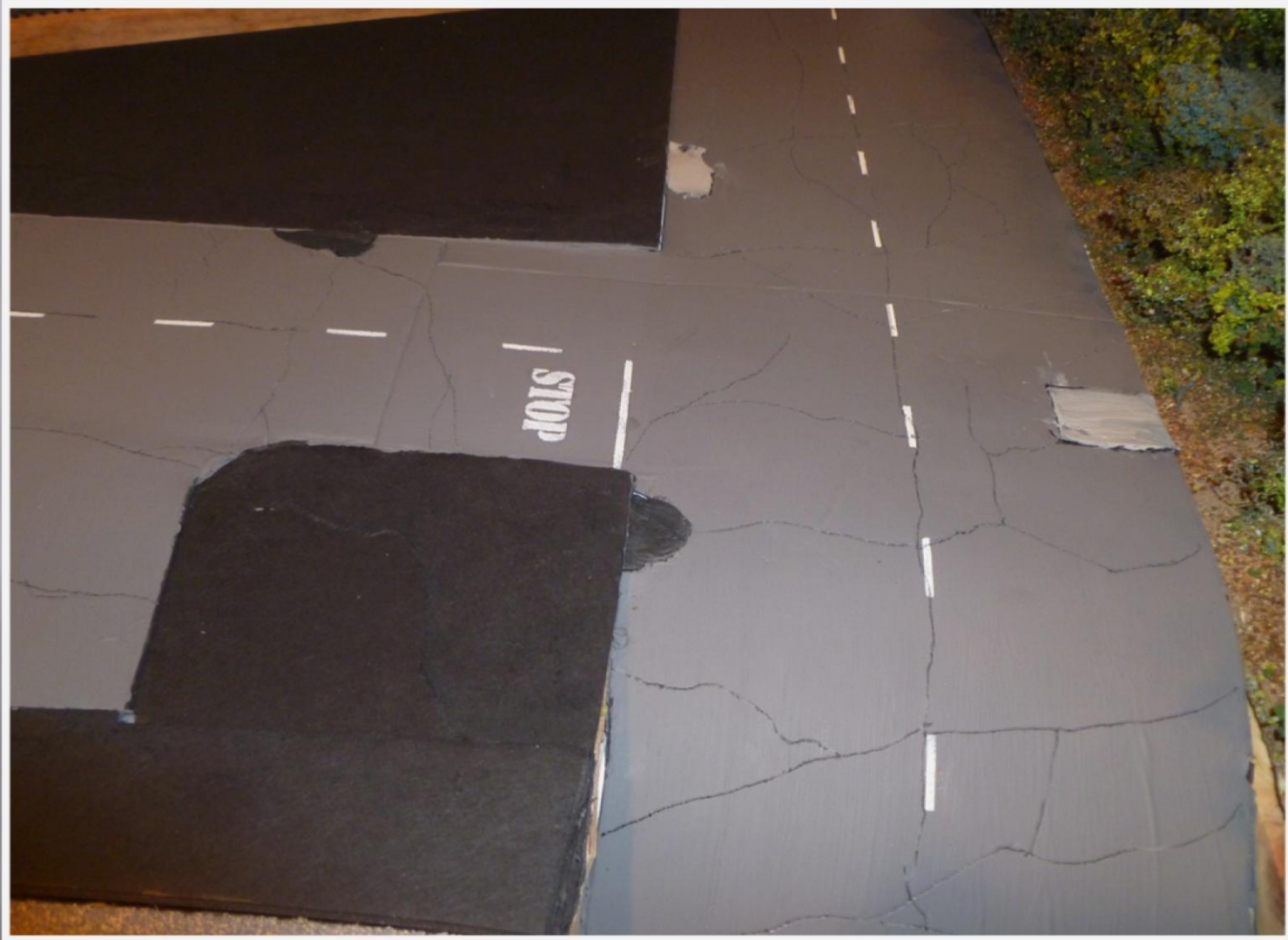
Model Railroading as an Art Form – Asphalt Roads

Herein lies the magic of this technique. Take a straight pin, check it in the drama and clip off the head with cutters and a diagonal. This provides a low-budget many drill. Wherever you run this on the surface of the asphalt it creates realistic black cracks.



Model Railroading as an Art Form – Asphalt Roads

Note the cracks and patches you can add cracks to your hearts content is so easy to do.



Model Railroading as an Art Form – Asphalt Roads

Finally weather the road with chalk. Grimy black up the center of each roadway and dustbowl brown along the sides..



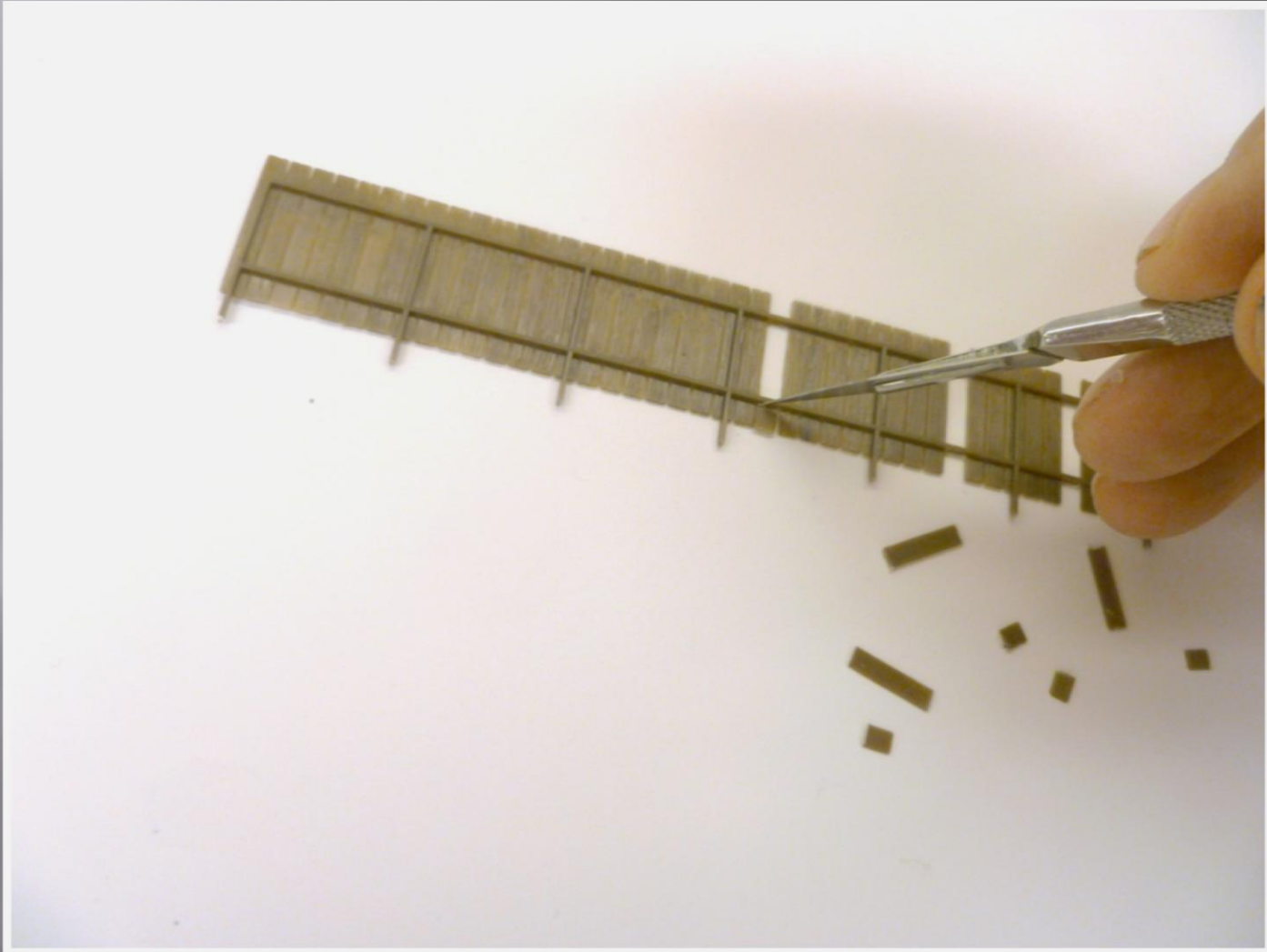
Model Railroading as an Art Form – Wooden Fences

Central Valley #1601 Fence & Railings. They look like new (albeit very nice) plastic, neat even and just installed.



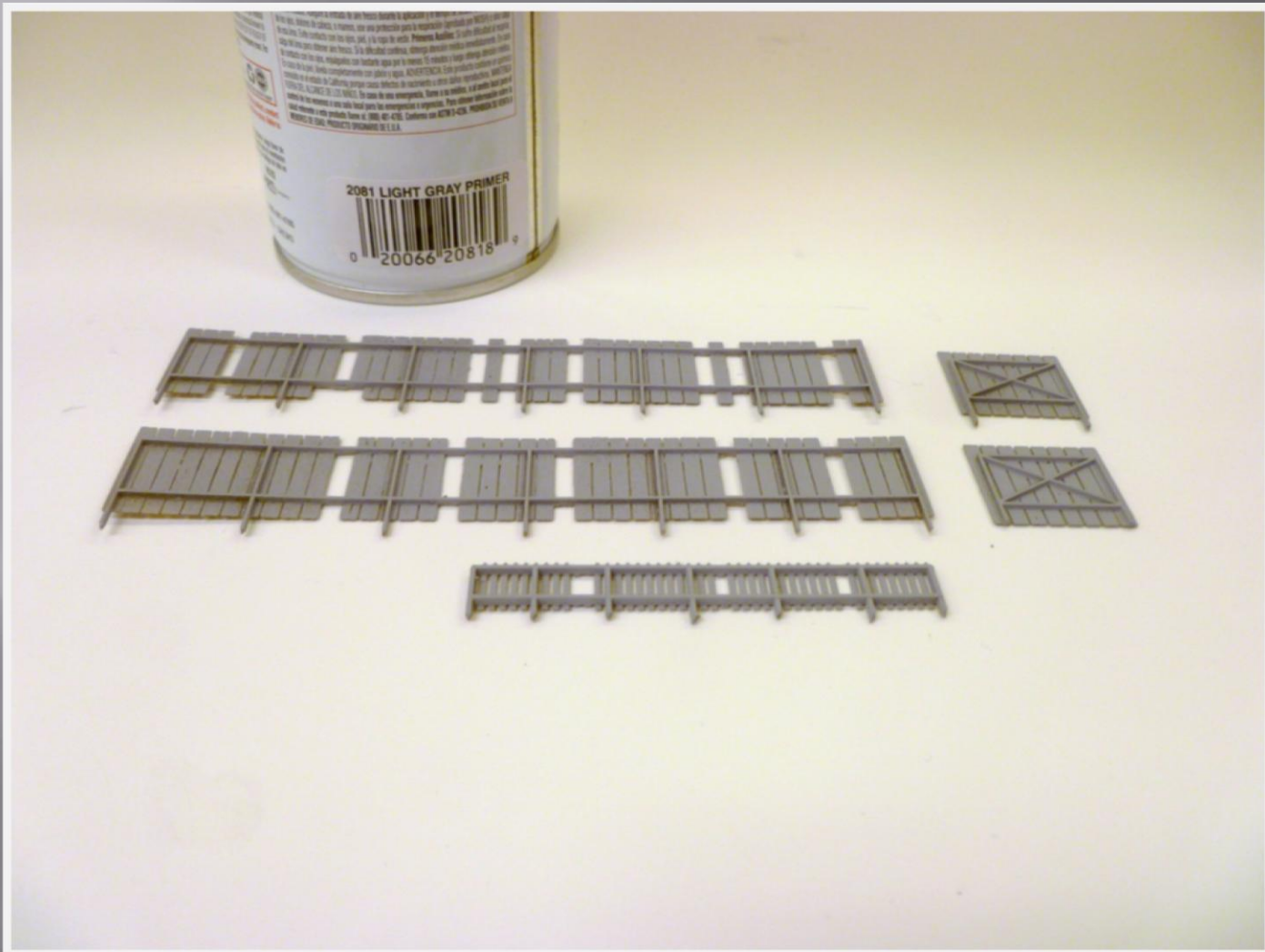
Model Railroading as an Art Form – Wooden Fences

Use a sharp hobby knife to cut out random boards and cut a little off some of the tops of the boards to make them look uneven.



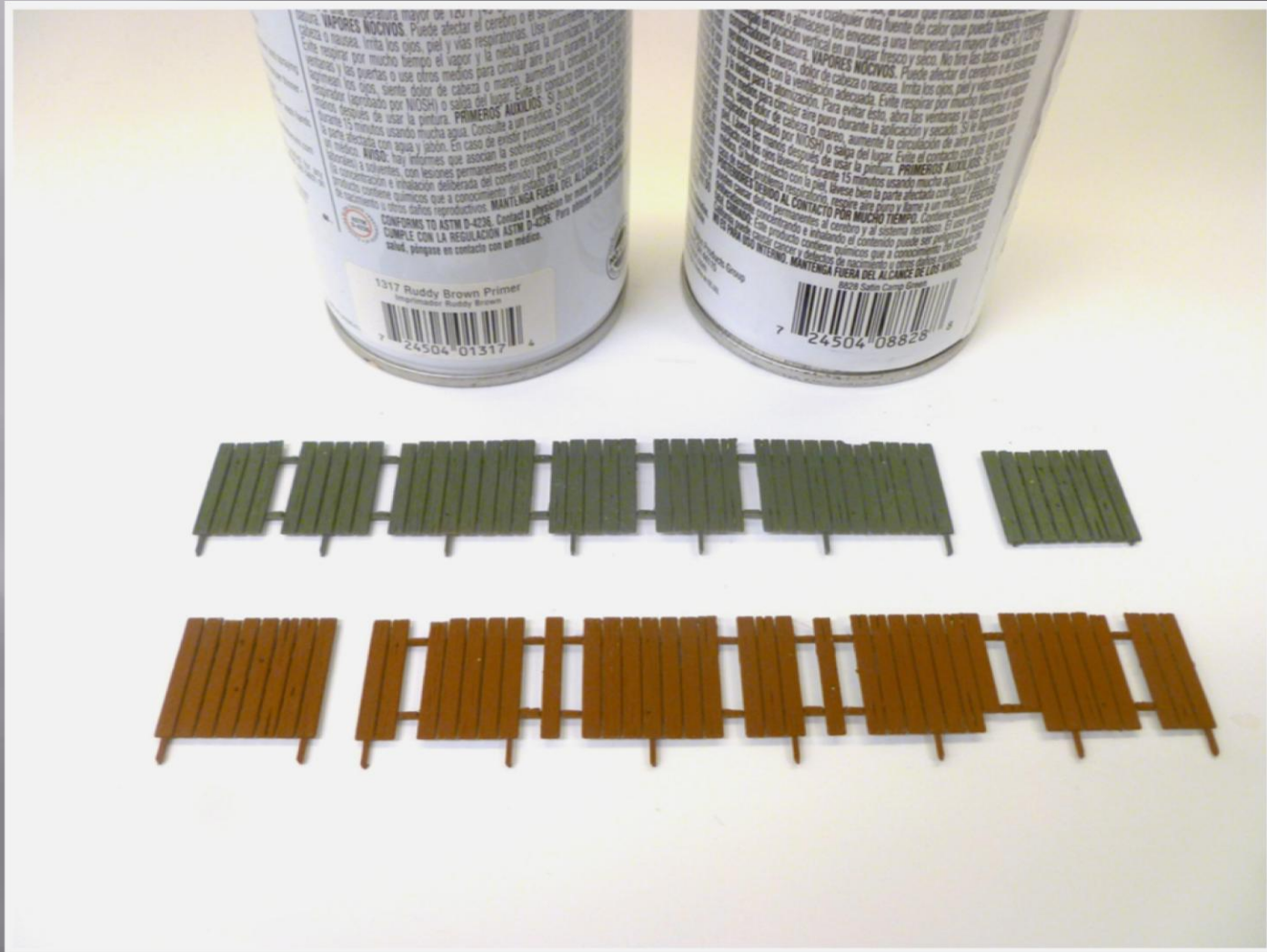
Model Railroading as an Art Form – Wooden Fences

Spray the back sides with light gray primer.



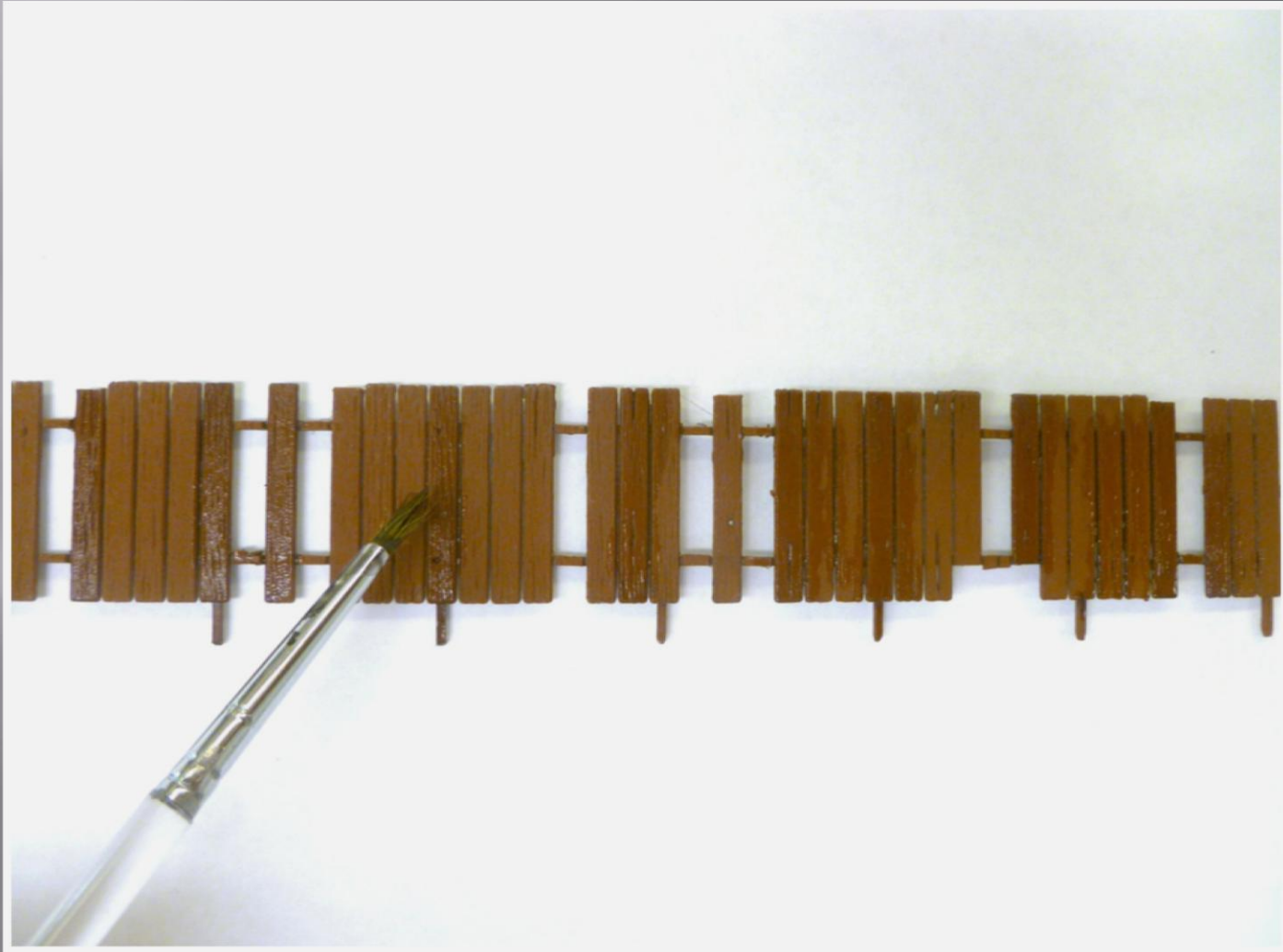
Model Railroading as an Art Form – Wooden Fences

Spray the front sides with the color of your choice, ruddy primer, green, tan etc.



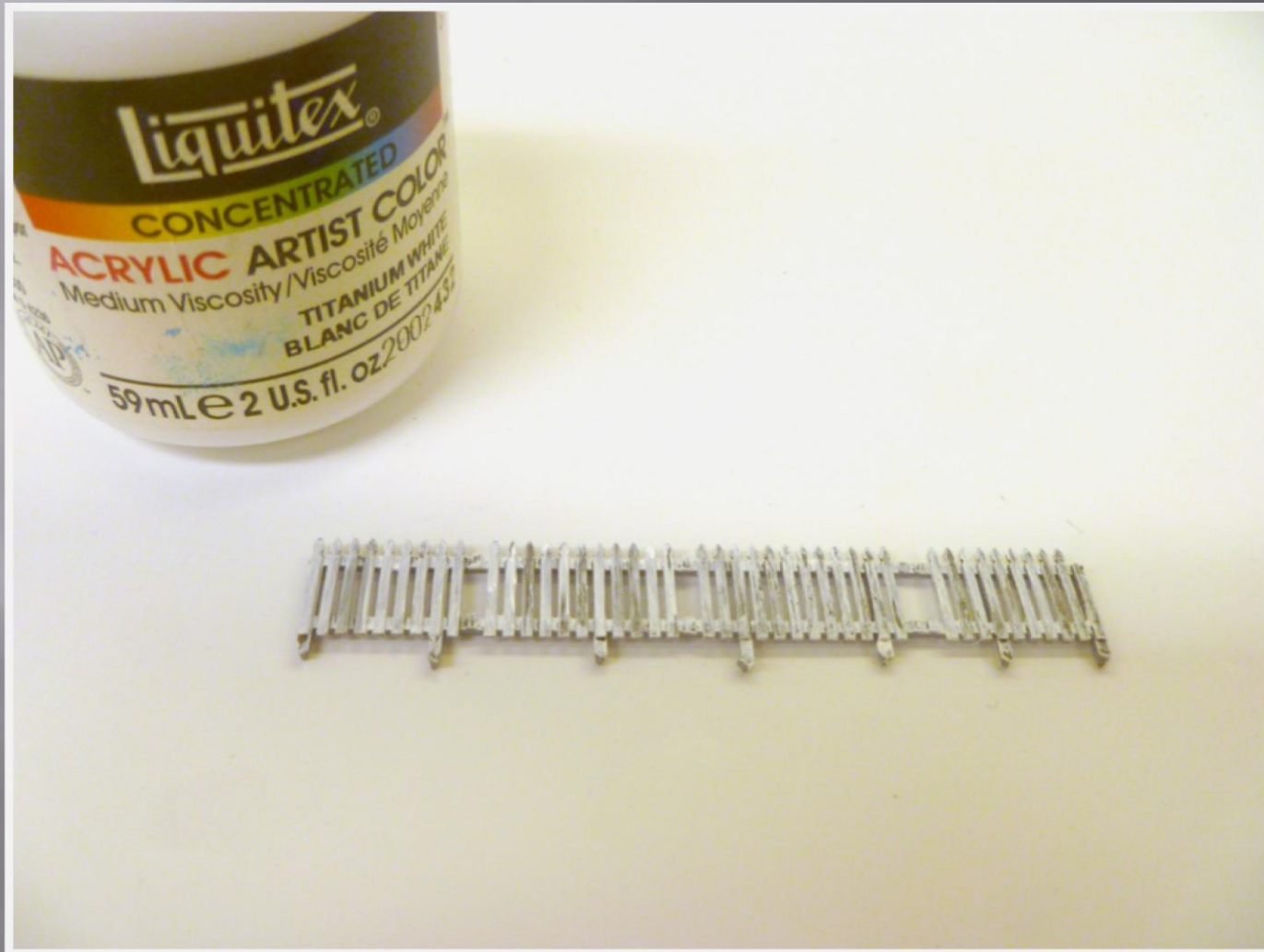
Model Railroading as an Art Form – Wooden Fences

Weather with the India Ink alcohol mixture. When dry come back and paint random boards with additional “Blackahol”.



Model Railroading as an Art Form – Wooden Fences

I cut some of the pickets out of the picket fence, spray it Light Primer Gray, dry brushed it with white acrylic and then washed with “Blackahol”.



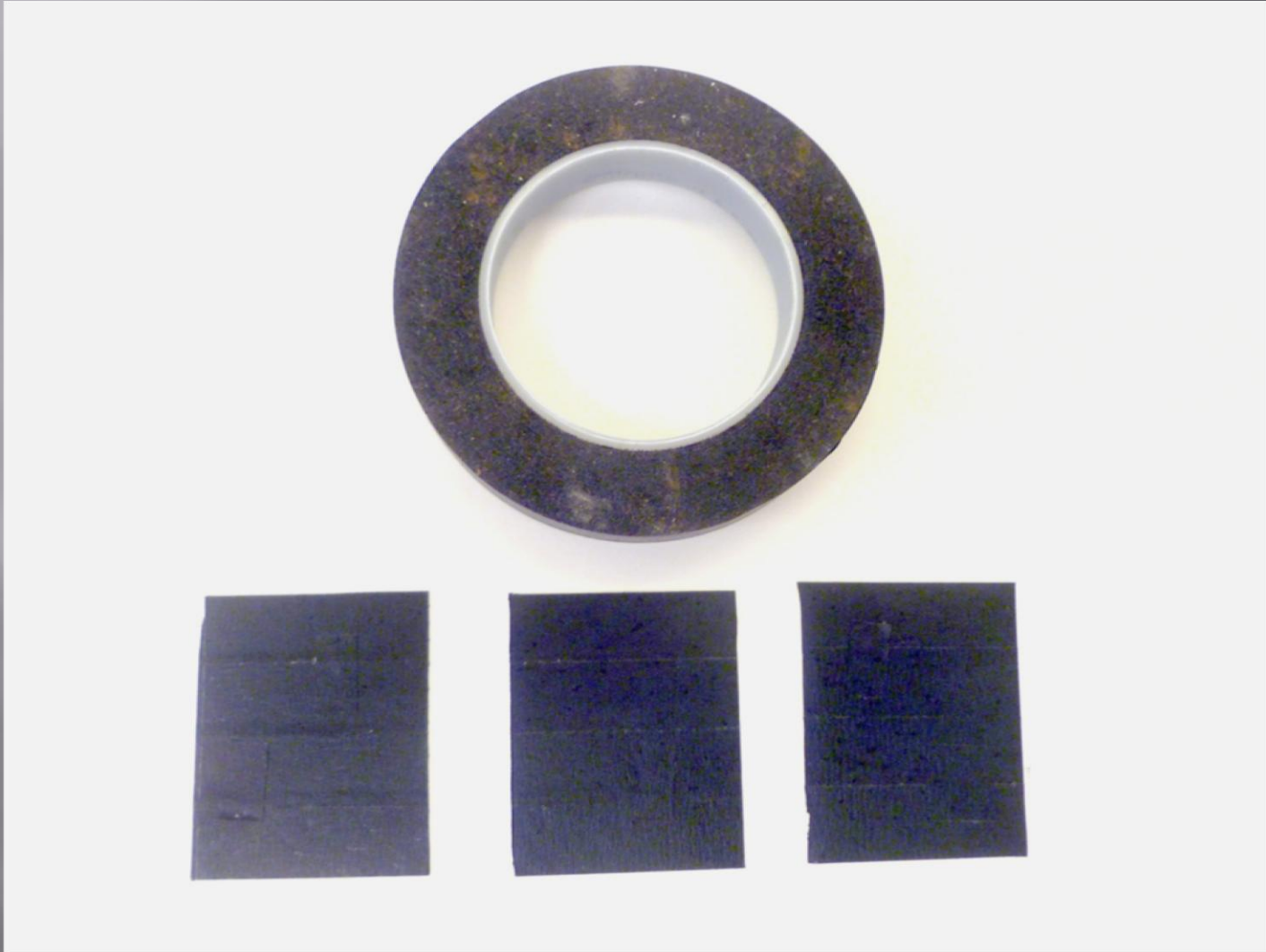
Model Railroading as an Art Form – Wooden Fences

Here is the final appearance of the fences. They don't look new or plastic anymore!



Model Railroading as an Art Form – Tar Paper Roofing

A simple way to create a tarpaper roof is to apply black masking tape onto your roof. Smaller pieces of black tape can be used to simulate patches. Black on black does make it difficult to show here in this photograph!



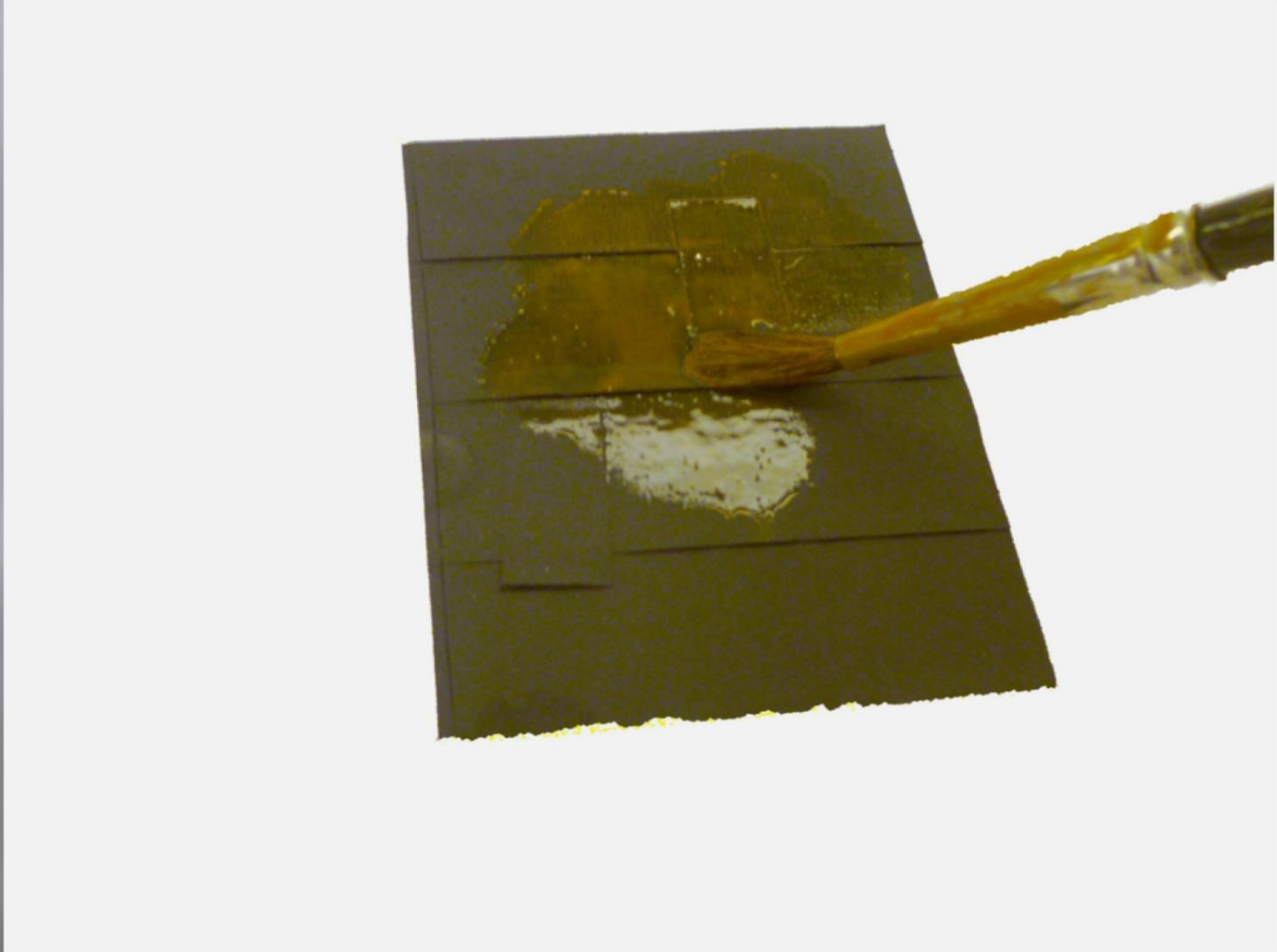
Model Railroading as an Art Form – Tar Paper Roofing

Next Paint the Roofs with Yellow Ochre, Oxide Red or Green Colors (Your Choice) Thinned with the India Ink/ Alcohol Mixture.



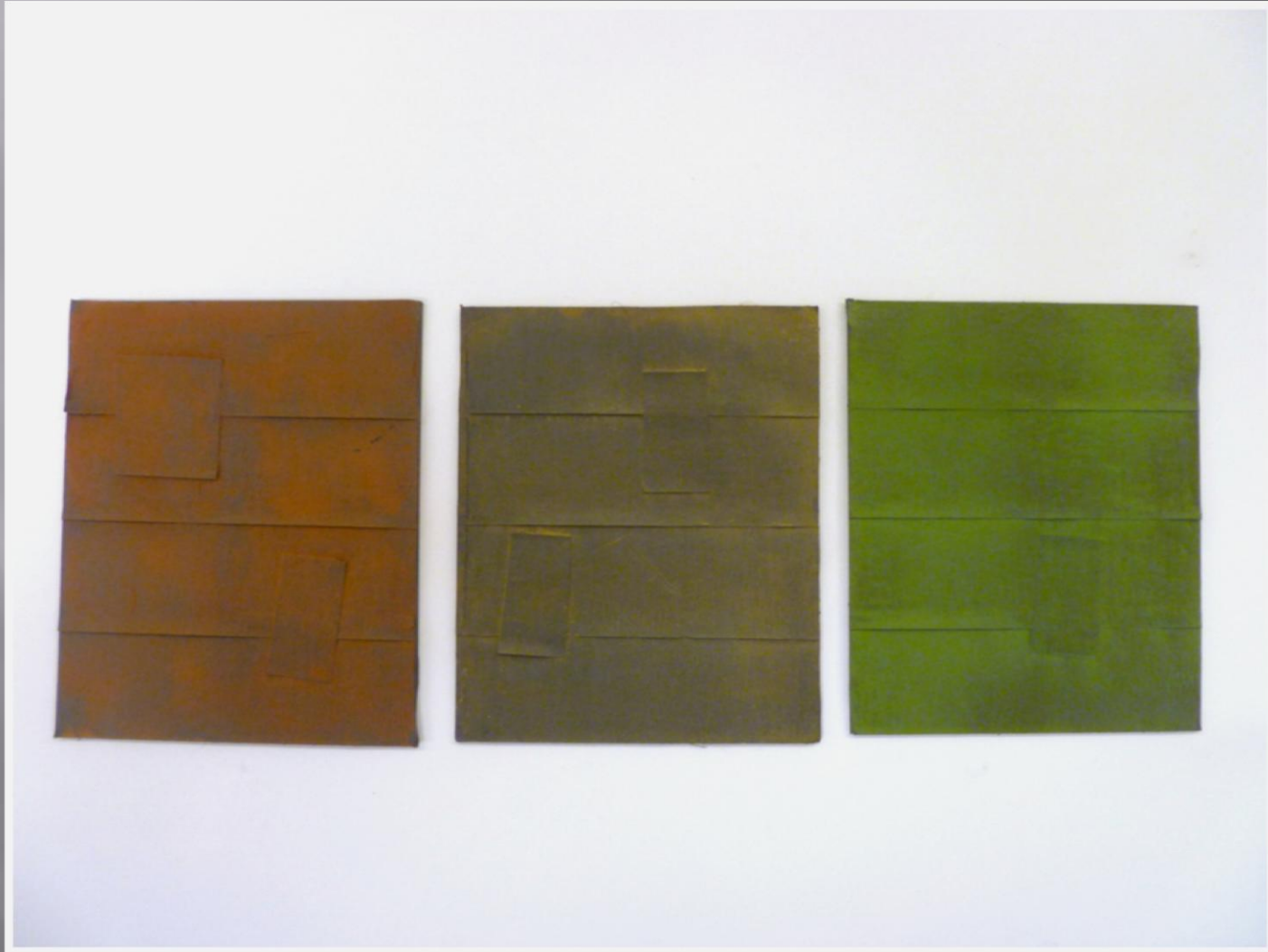
Model Railroading as an Art Form – Tar Paper Roofing

Next Paint the Roofs with Yellow Ochre, Oxide Red or Green Colors (Your Choice) Thinned with the India Ink/ Alcohol Mixture.



Model Railroading as an Art Form – Tar Paper Roofing

Finally I Dusted the Roofs with Chalk to Blend the Colors and Tone Down the Finish. Used Brick Red for the Red Roof, Dust Bowl Brown for the Tan Roof and Green Chalk for the Green Roof.



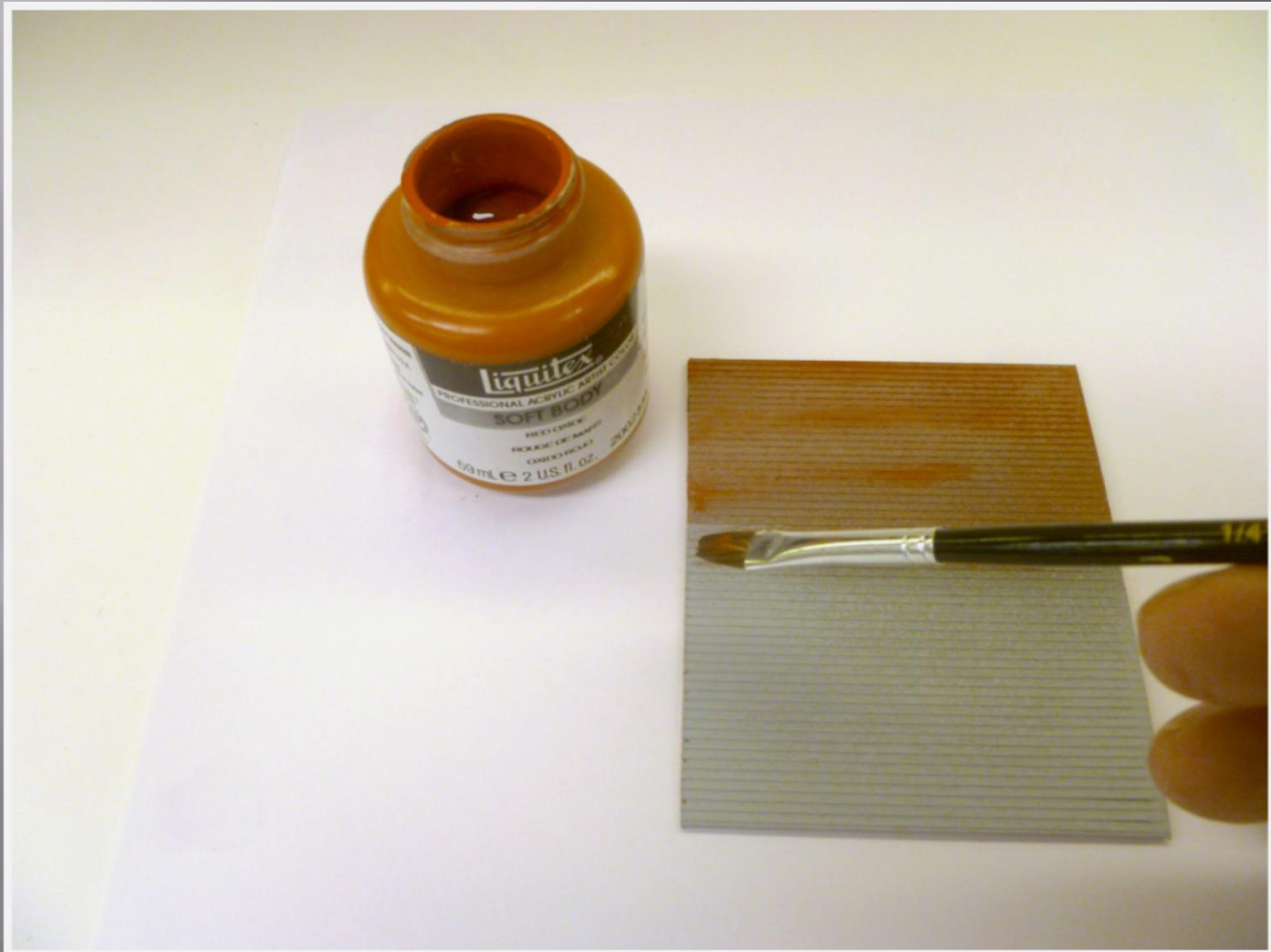
Model Railroading as an Art Form – Weathered Wood Walls

First Spray Paint the Wood Wall with Light Gray Primer.



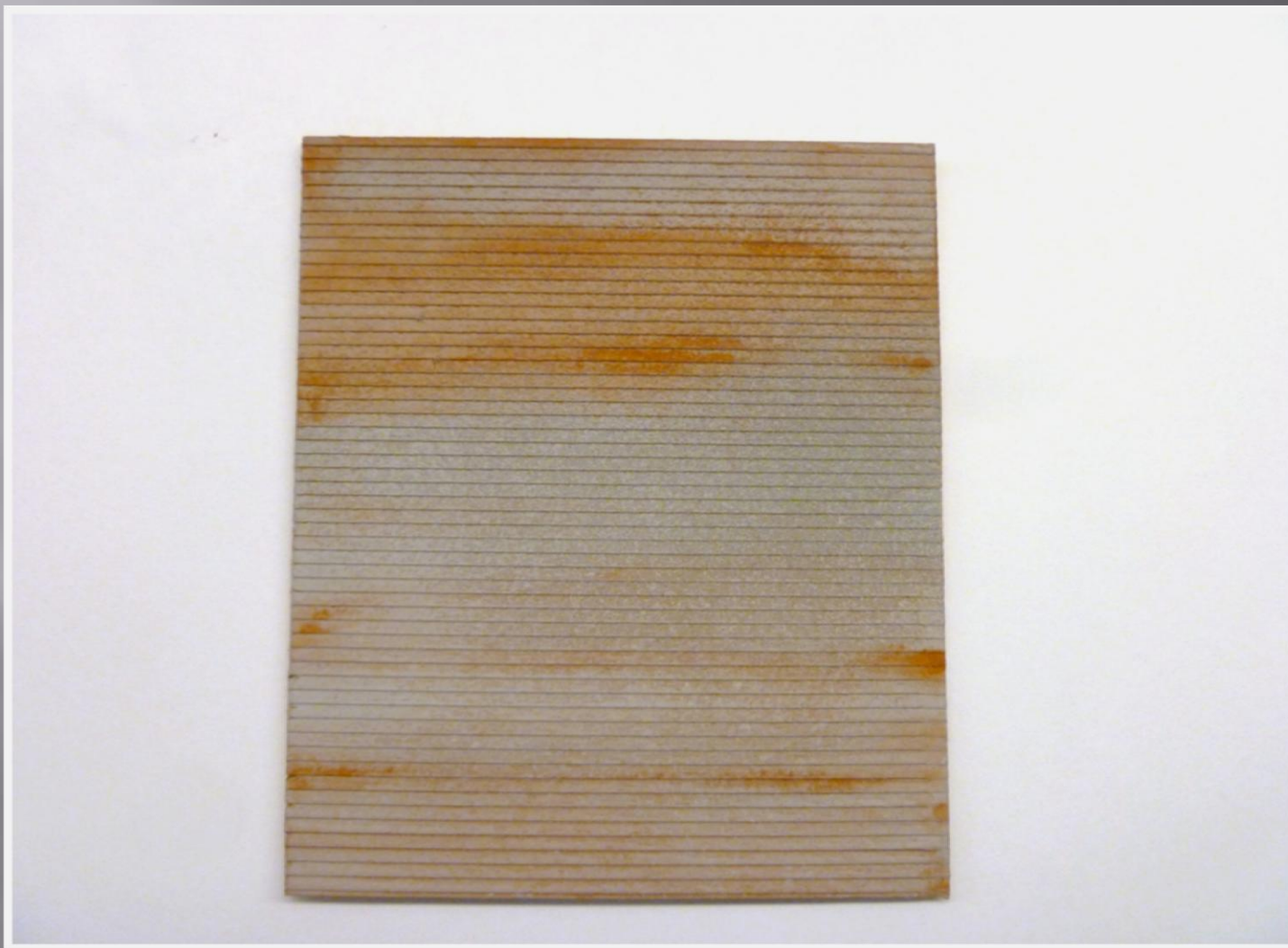
Model Railroading as an Art Form – Weathered Wood Walls

Next Brush Oxide Red (or Other Color) on Using a 3/8" Wide Soft Brush and India Ink/ Alcohol Mixture to Thin as Needed.



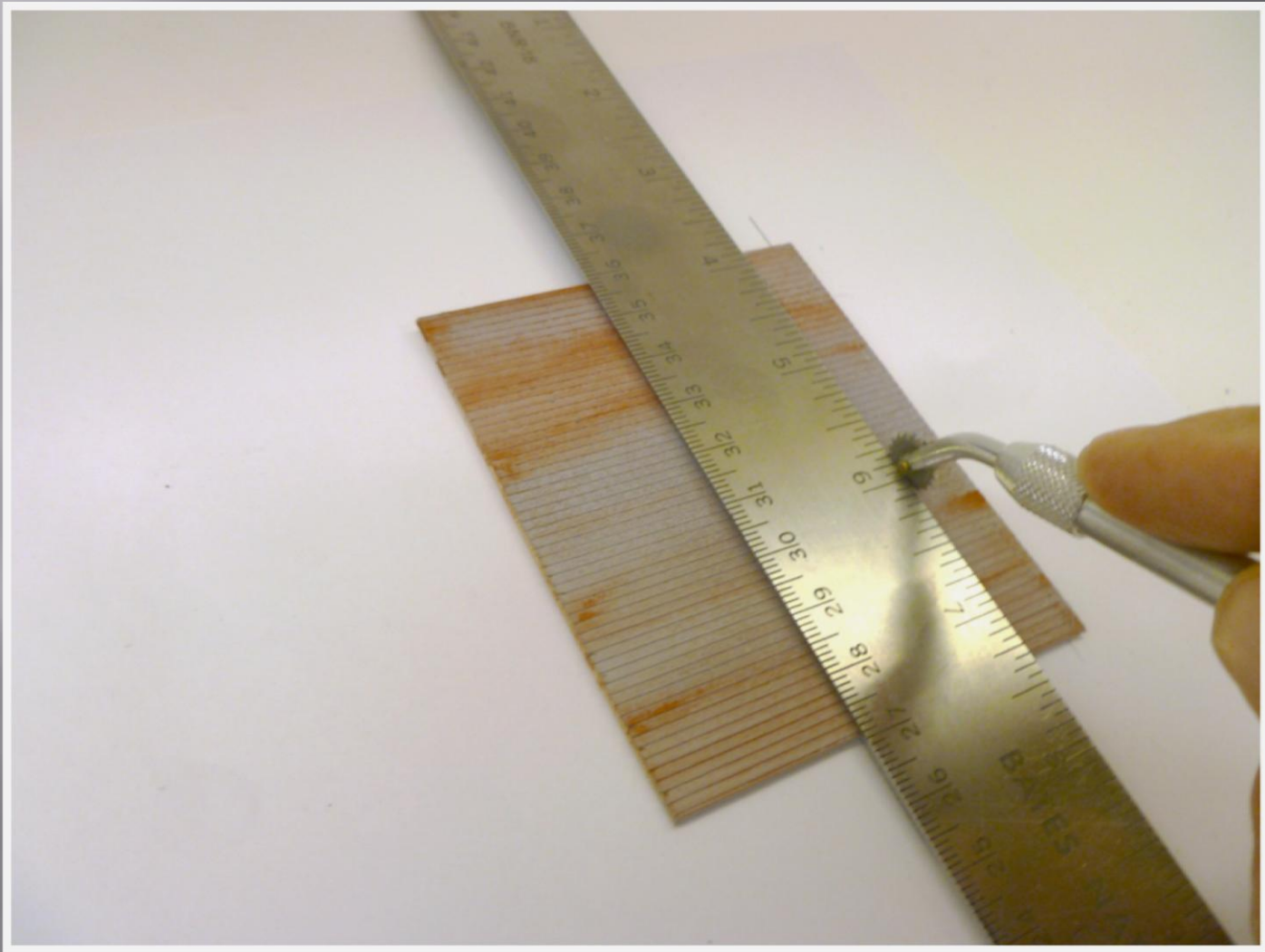
Model Railroading as an Art Form – Weathered Wood Walls

Here is the Appearance When Dry.



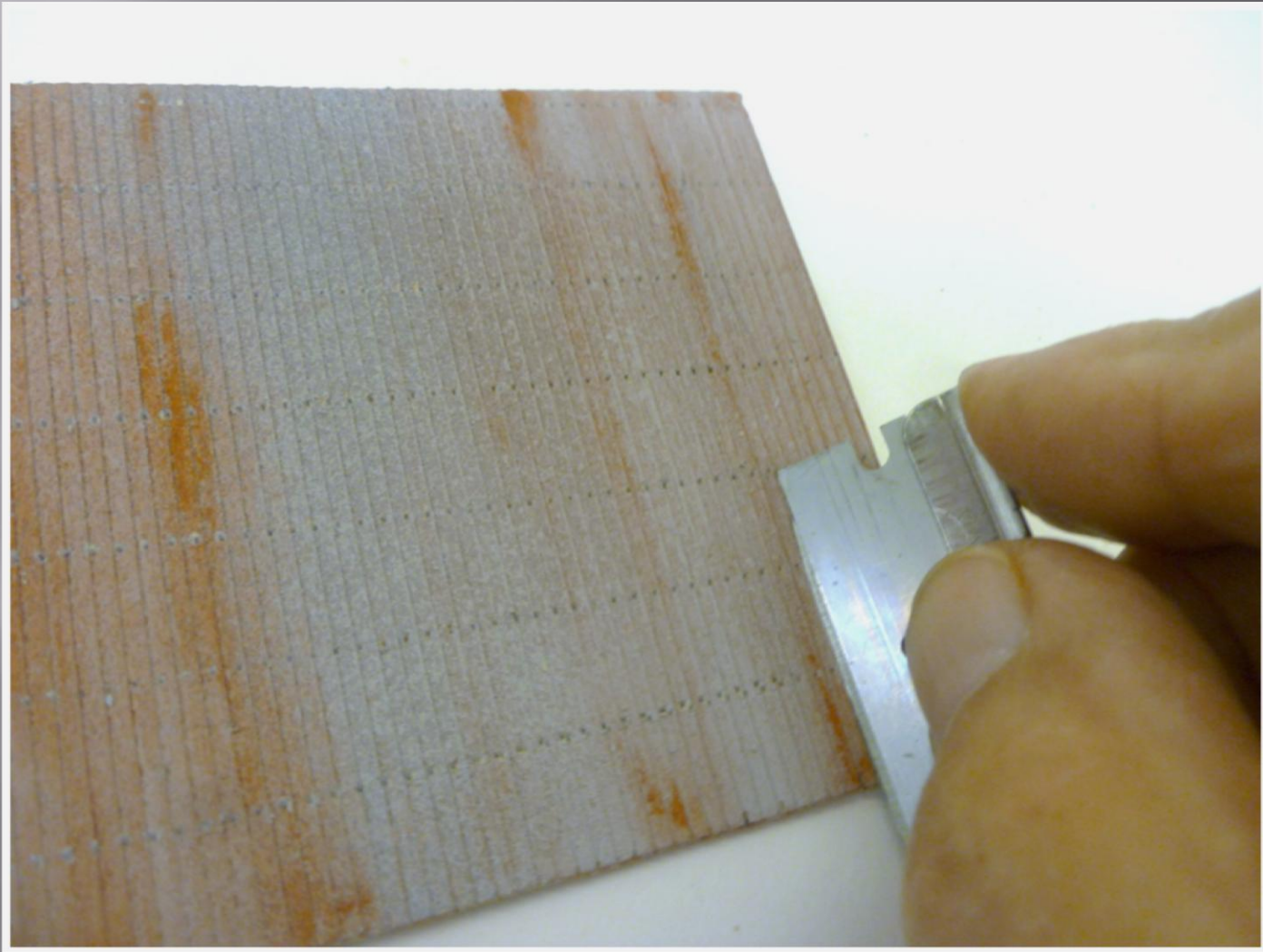
Model Railroading as an Art Form – Weathered Wood Walls

Add Nail Holes Spaced over the Studs Using a Pounce Wheel.



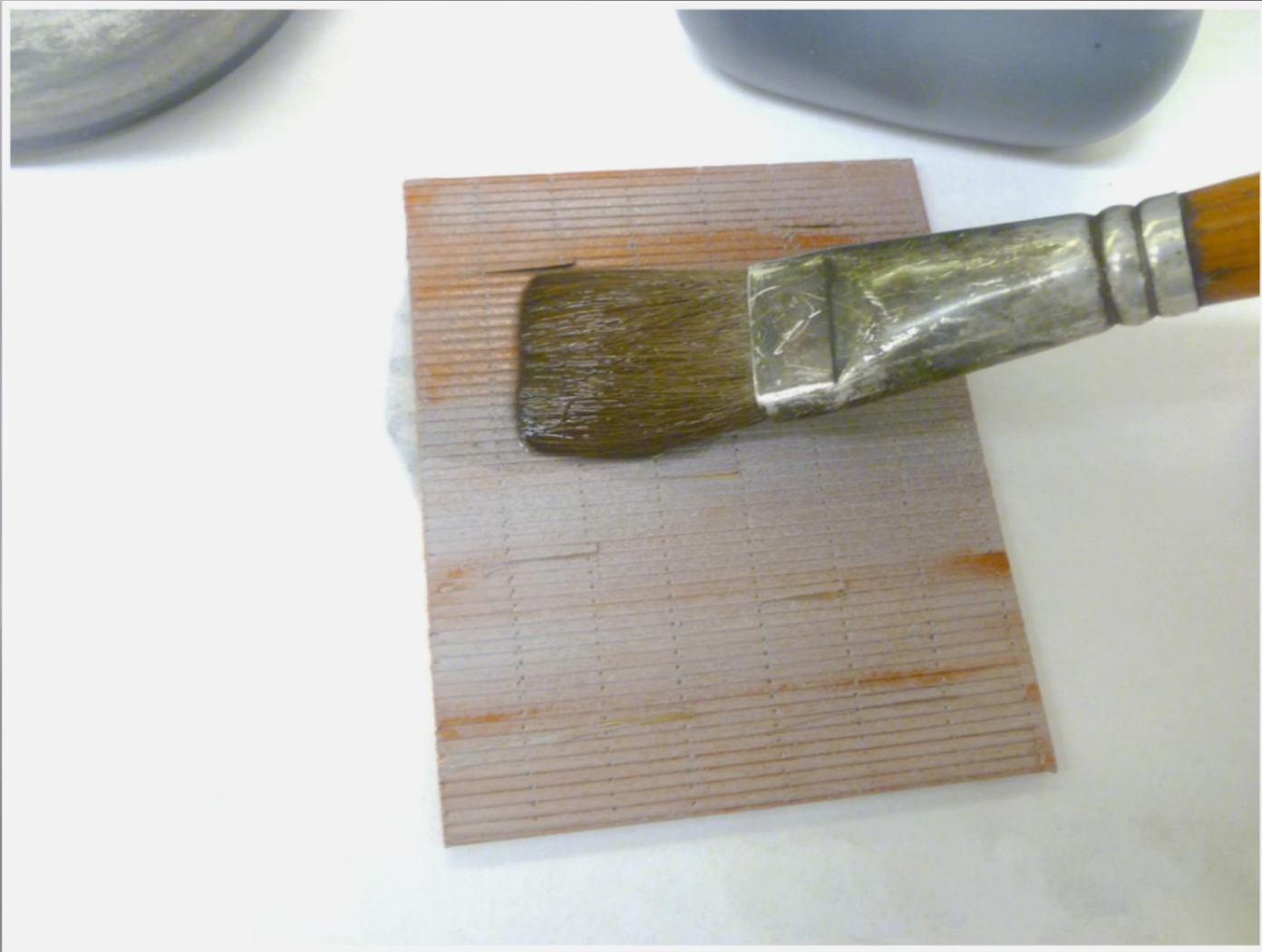
Model Railroading as an Art Form – Weathered Wood Walls

Use a Single Edge Razor Blade to Cut a Vertical Joint in the Board a Then Lift a Board Here and There.



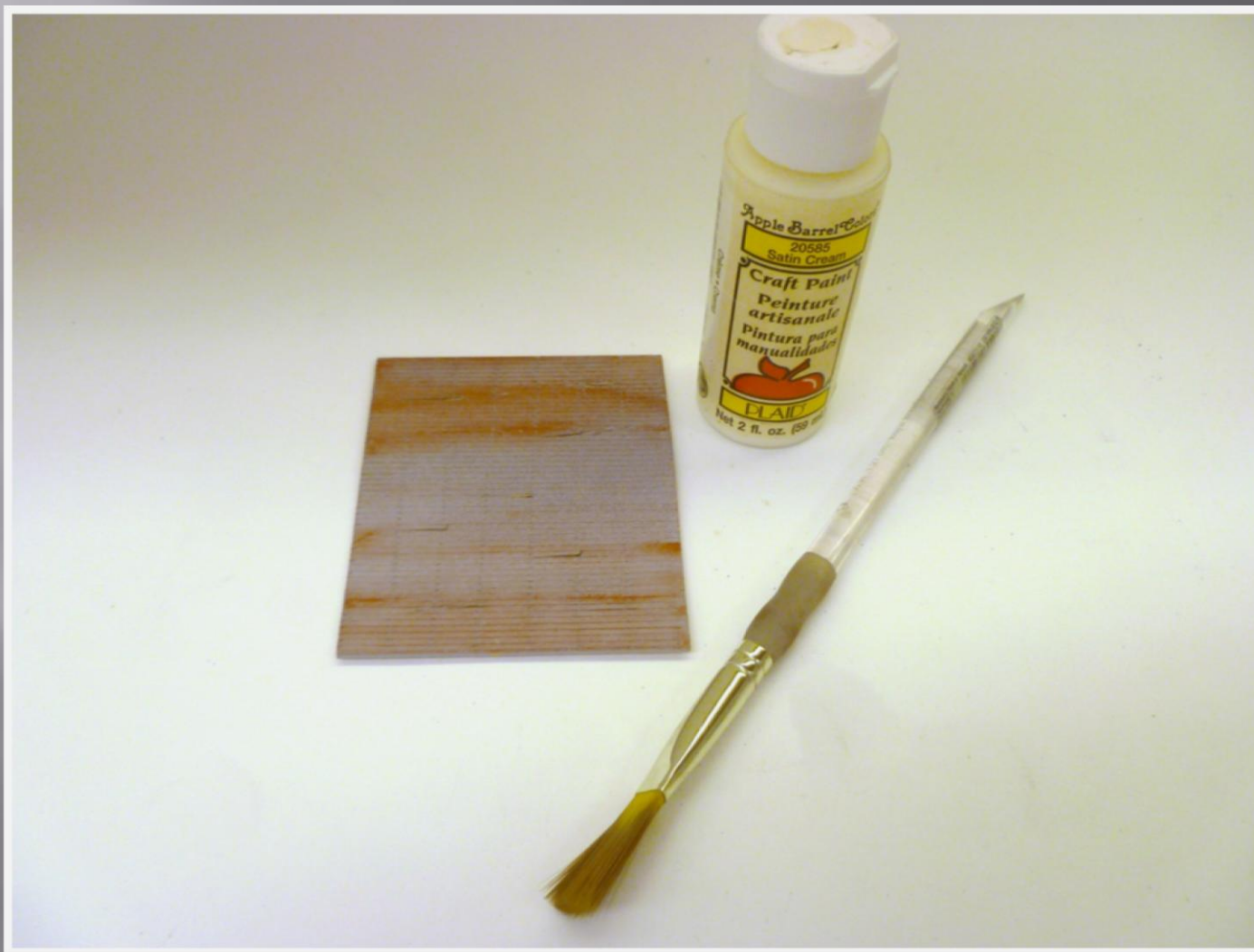
Model Railroading as an Art Form – Weathered Wood Walls

Brush with India Ink/Alcohol Mixture.



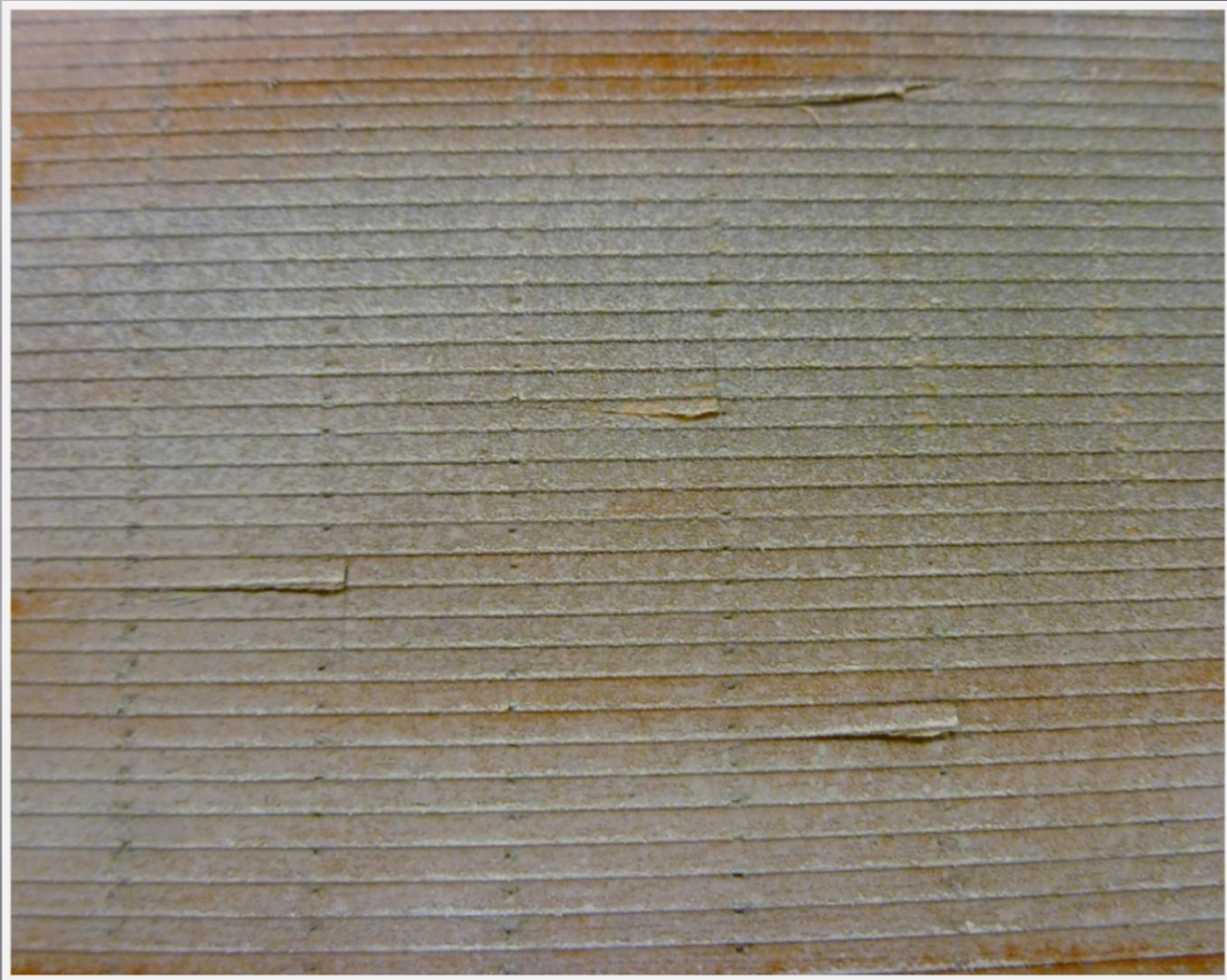
Model Railroading as an Art Form – Weathered Wood Walls

Dry Brush Vertically with Off White to Highlight the Exposed Lower Edges of the Siding Boards.



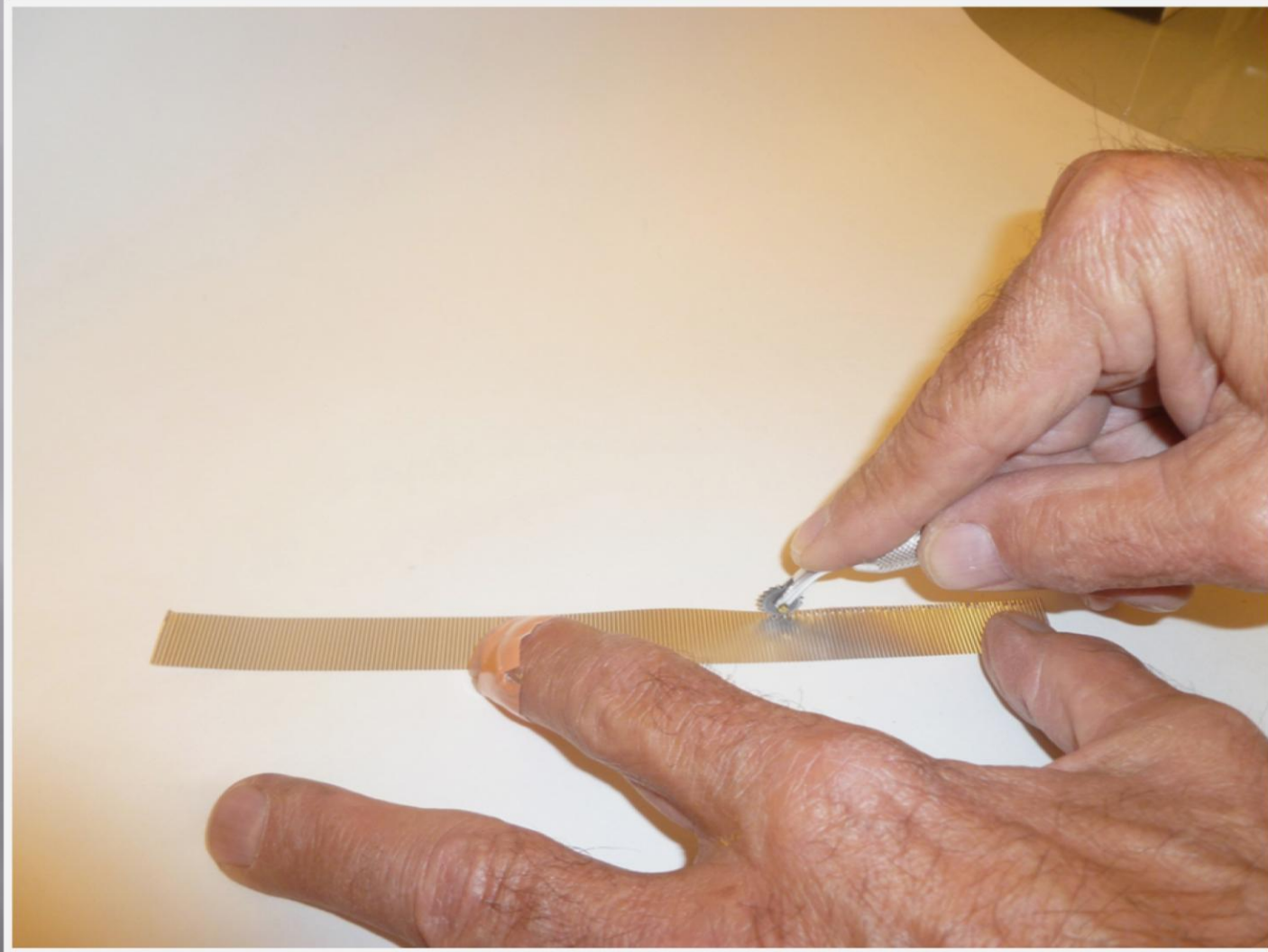
Model Railroading as an Art Form – Weathered Wood Walls

Final Appearance After Dry Brushing.



Model Railroading as an Art Form – Corrugated Iron

Run a “pounce” wheel along the lower edge of the material to simulate nail holes.



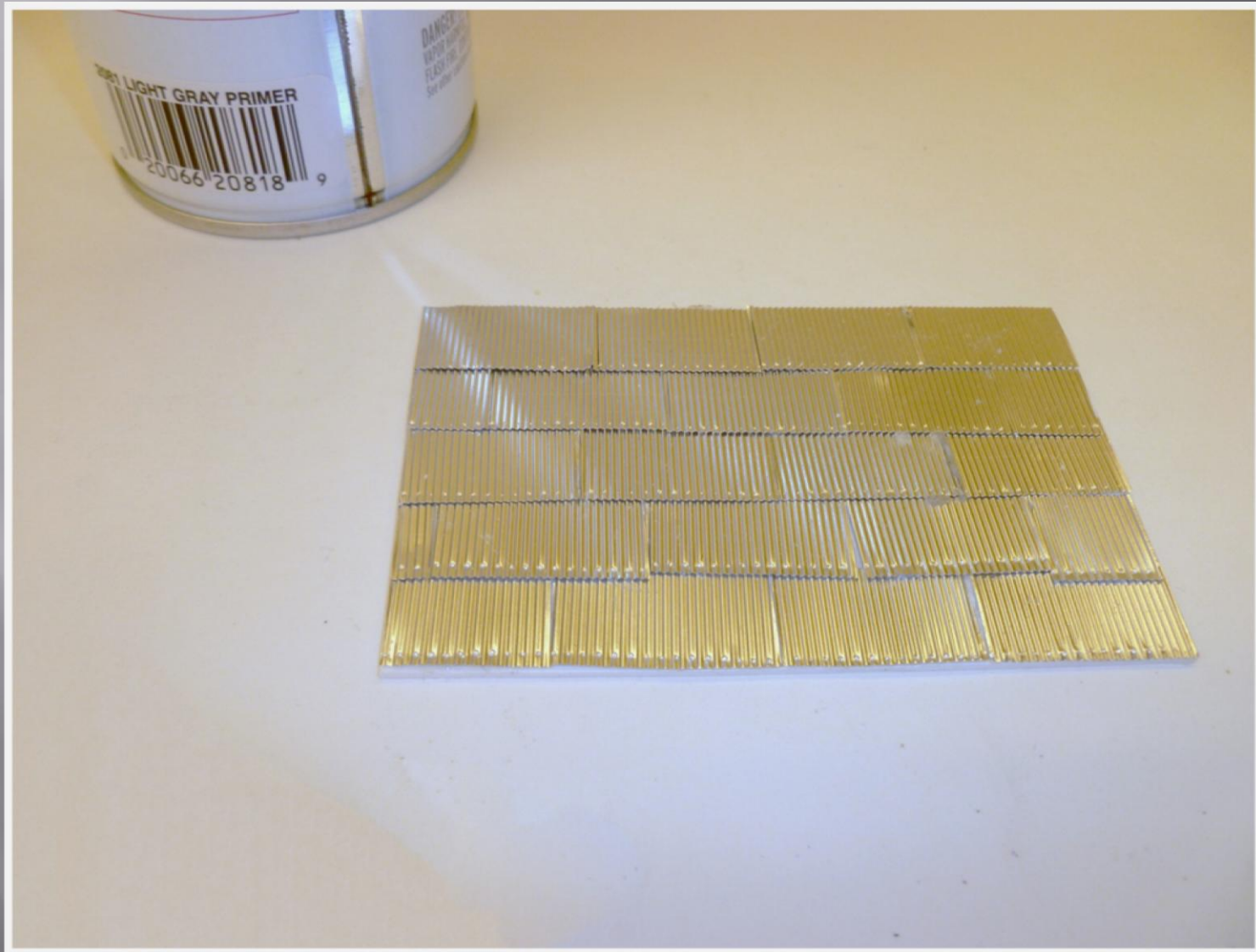
Model Railroading as an Art Form – Corrugated Iron

Use "Tacky Glue" on the wall (in this case a piece of styrene sheet) to attach the corrugated siding.



Model Railroading as an Art Form – Corrugated Iron

Corrugated Iron Siding Glued in Place.



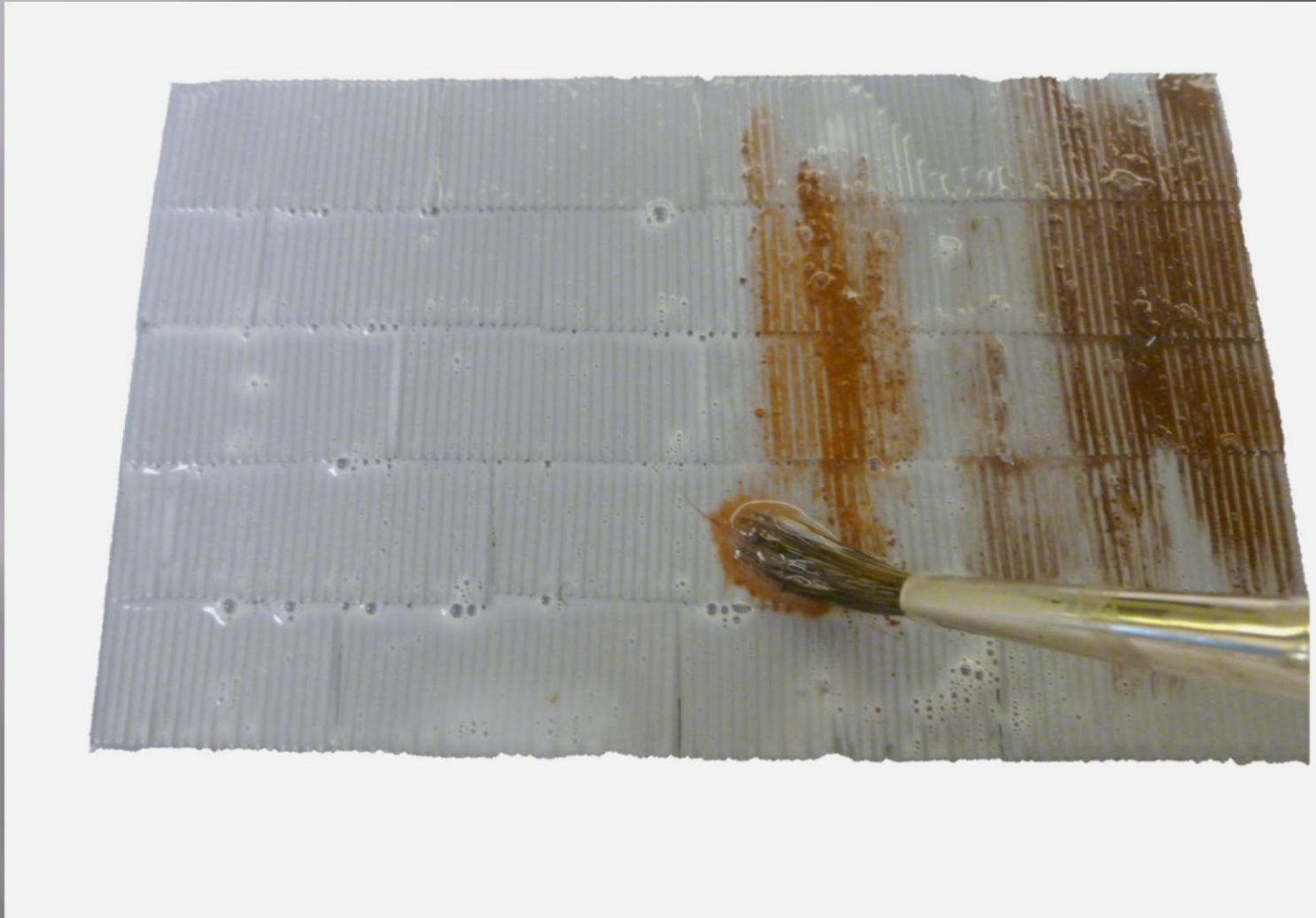
Model Railroading as an Art Form – Corrugated Iron

Corrugated Iron Siding Glued in Place. Spray Paint with Light Gray Primer



Model Railroading as an Art Form – Corrugated Iron

The Step is to Mix White Glue and Water 1:5 and Brush on With the India Ink/ Alcohol Mixture. White This is Wet Streak with Dark and Light Rust Colored Chalk. Remove Large Chunks.



Model Railroading as an Art Form – Corrugated Iron

This is Corrugated Iron Siding Looks When Dry. It has a Nice Granular Surface.



Model Railroading as an Art Form – Corrugated Iron

I Added a Final Dusting of Light Gray Chalk to Tone Down the Rust Effect and to Blend the Colors Together.



Model Railroading as an Art Form – Corrugated Iron

Unusual corrugated roofing pattern weathering.



Model Railroading as an Art Form – Corrugated Iron

Unusual corrugated roofing pattern weathering..



Model Railroading as an Art Form – Yard Details Scrap Wood

Break Various Lengths of Small Strip Wood into Random Pieces and Soak in the India Ink Alcohol Mixture. Note How the Following Details Cost Next to Nothing to Produce.



Model Railroading as an Art Form – Yard Details Scrap Wood

Here is the Appearance When Dry and Ready to Place on the Layout.



Model Railroading as an Art Form – Newspaper

Brush a Piece of White Paper with Yellow Ochre Thinned with the India Ink/Alcohol Mixture. It Looks Light Aged Newspaper with Tiny Writing!



Model Railroading as an Art Form – Newspaper

Cut into HO Scale Size Newspaper Pieces with Small Scissors!



Model Railroading as an Art Form – Discarded Tie Plated

Brush a Sheet of Paper with Rust Color.



Model Railroading as an Art Form – Discarded Tie Plated

When Dry Cut into Tiny HO Scale Sized Tie Plate Pieces with Small Scissors.



Model Railroading as an Art Form – Discarded Steel Strapping

Brush Rust Brown Construction paper with the India Ink/ Alcohol Mixture.



Model Railroading as an Art Form – Discarded Steel Strapping

When Dry Use Small Scissors to Cut in Tiny Strips.



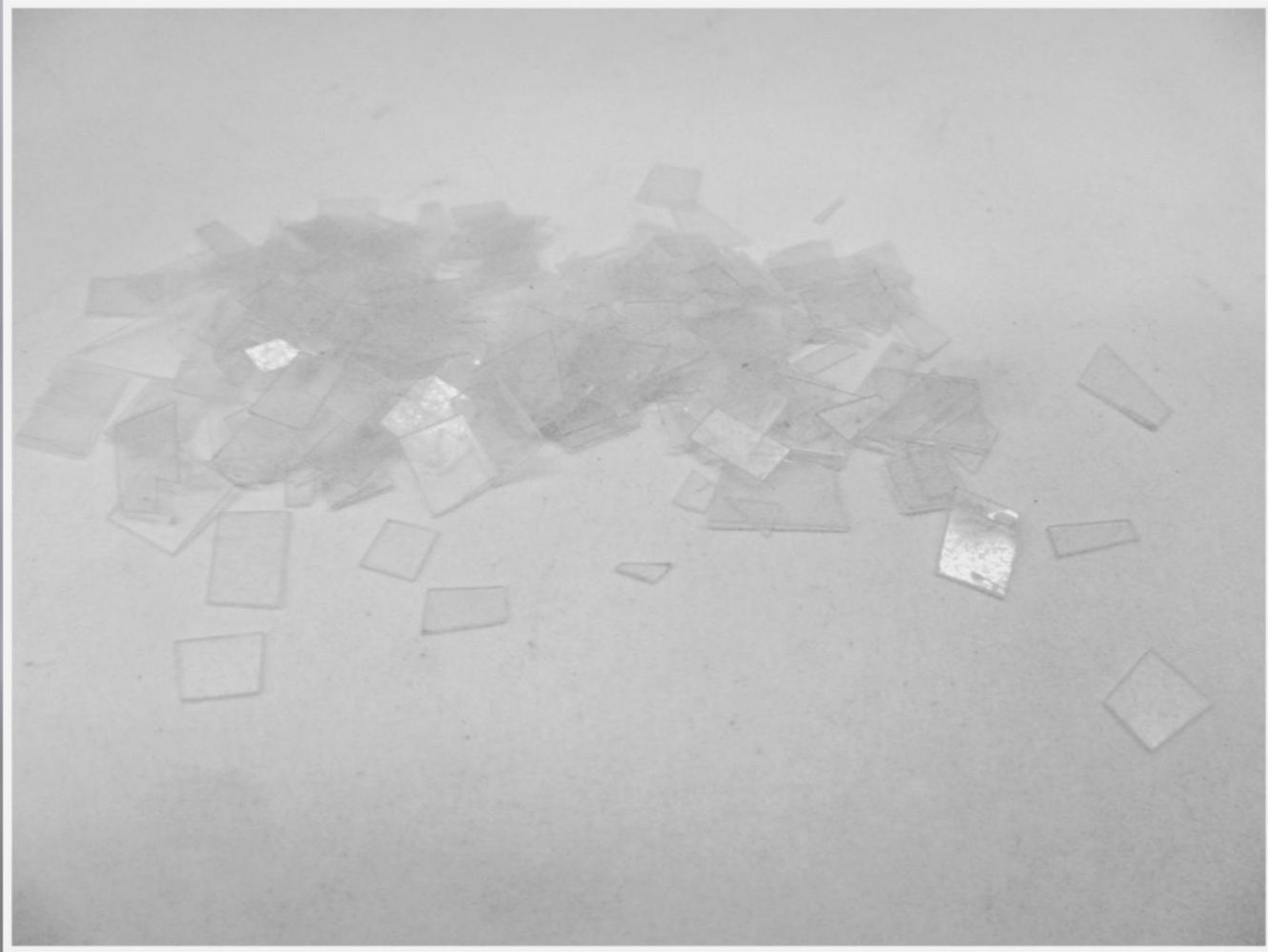
Model Railroading as an Art Form – Broken Glass

Spray Clear .015 Sheet Styrene With Lusterless Flat.



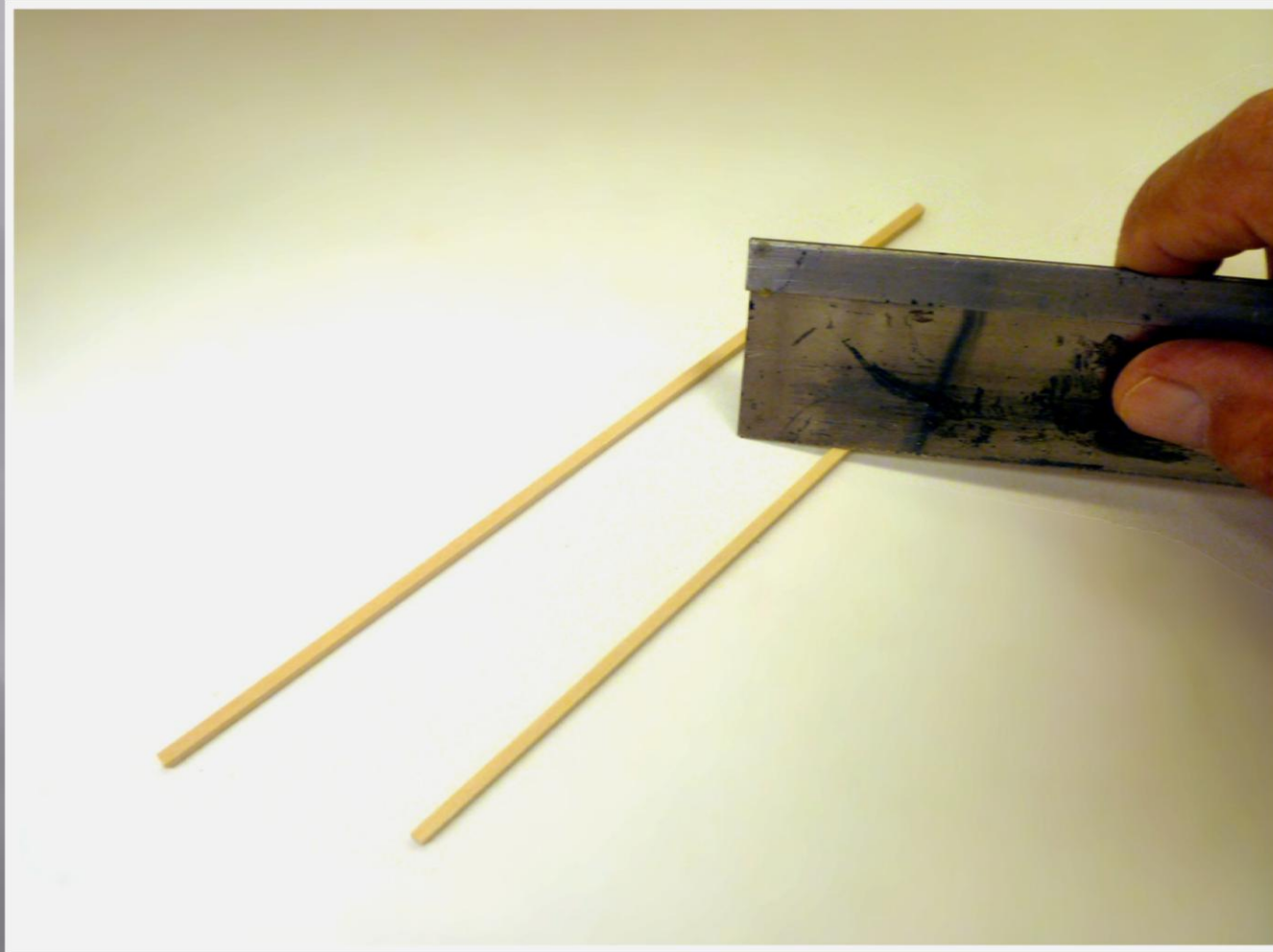
Model Railroading as an Art Form – Broken Glass

Cut into Random Pieces or Glass Shards.



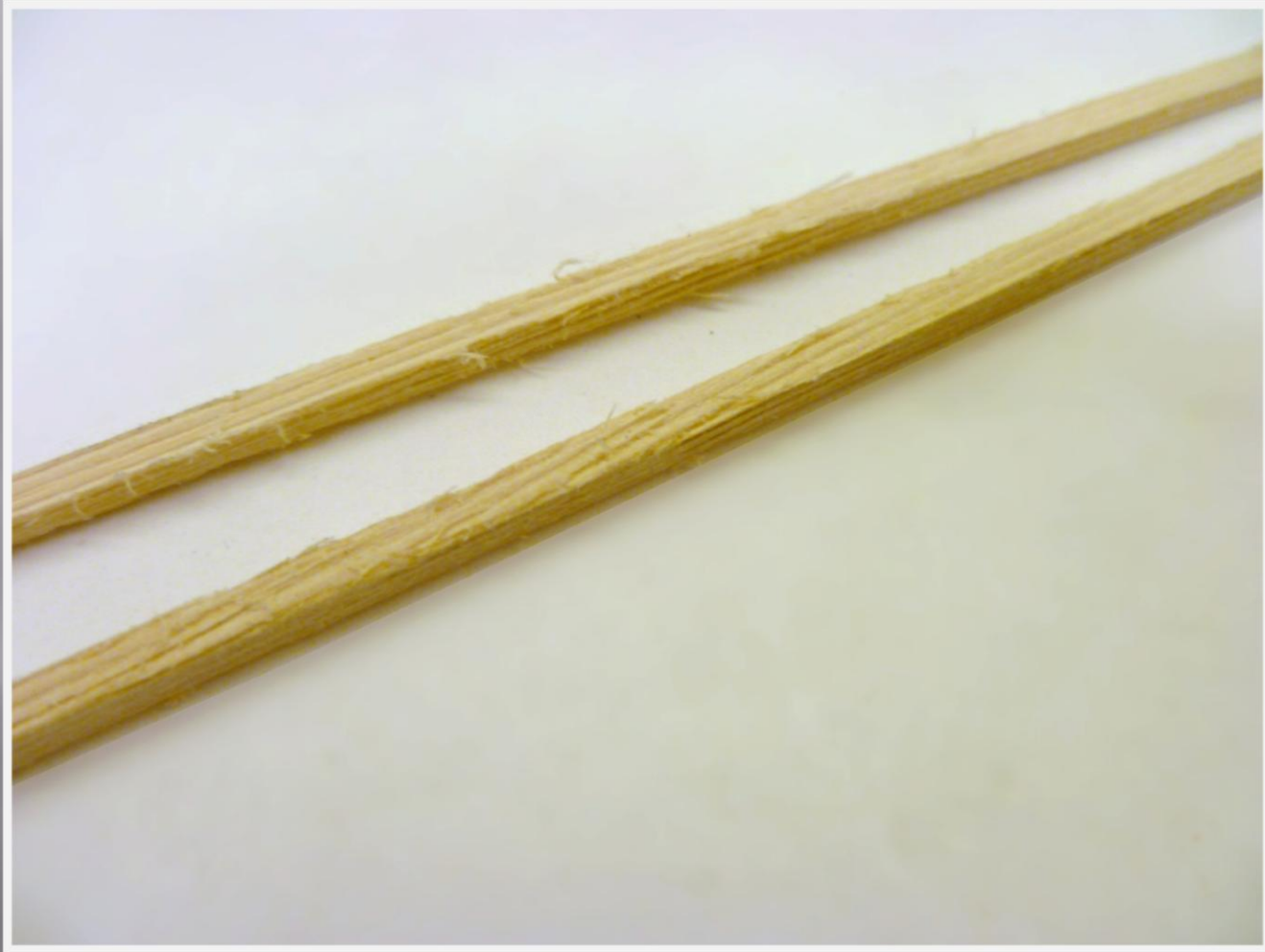
Model Railroading as an Art Form – Rotted Ties

Take 3/32" Square Strip Wood and Cut into About 8" Lengths. Use a Razor Saw to Rough Up All Four Side and then the Four Corners.



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Model Railroading as an Art Form – Rotted Ties

Cut into Scale 8 ½' Length and Then Stain With Raw Sienna Acrylic Paint Diluted.



Model Railroading as an Art Form – Rotted Ties

Then Dip in the India Ink/ Alcohol Mixture..



Model Railroading as an Art Form – Rotted Ties

Final Appearance When Dry.



Model Railroading as an Art Form – Rotted Ties

Don't Forget to Add Stacks of New Tie Also Spilled Coad, Sand, Grain Etc.



Model Railroading as an Art Form – Details on the Layout

Not How These Tiny Details Add to the Realism of These Layout Scenes.



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Model Railroading as an Art Form – Details on the Layout

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Model Railroading as an Art Form – Painting/Weathering Track

I paint and weather the track after it is in place on the layout. I apply silicone spray to the throw bar area to keep glue and paint from jamming the moving parts.



Model Railroading as an Art Form – Painting/Weathering Track

I put small strip of wood pieces between the point rails in the stock rails to keep paint out of the contact area.



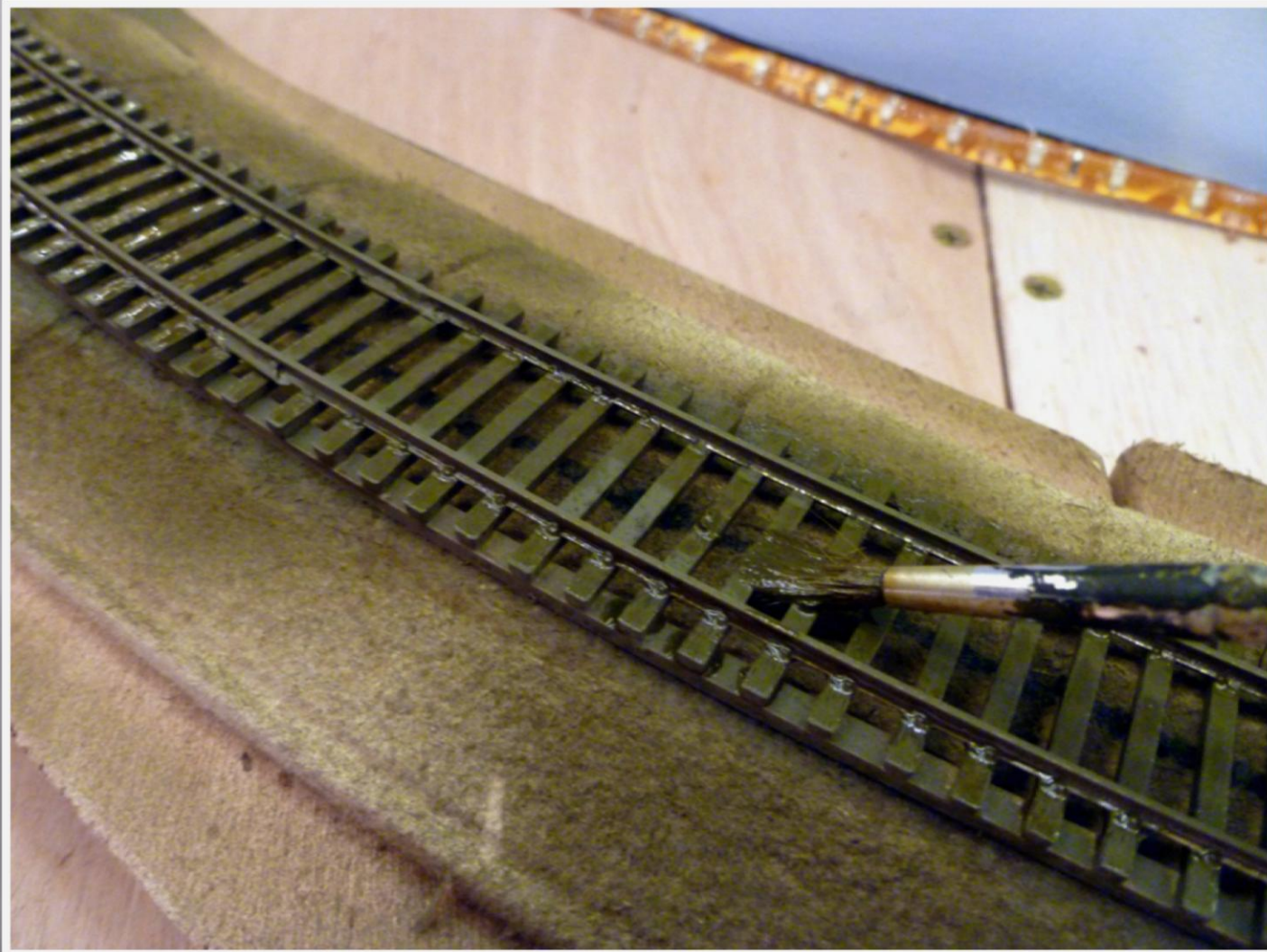
Model Railroading as an Art Form – Painting/Weathering Track

Then I spray paint the install track in place using paper or plastic drop cloth material to mask the area. For the mainline areas I used Floquil Rail Brown developed by George Selios. There are replacements available. Sidings or lesser used track can be sprayed with light gray or rust color.



Model Railroading as an Art Form - Painting/Weathering Track

Next brush the ties between the rails and on either side of the rails with oak stain.



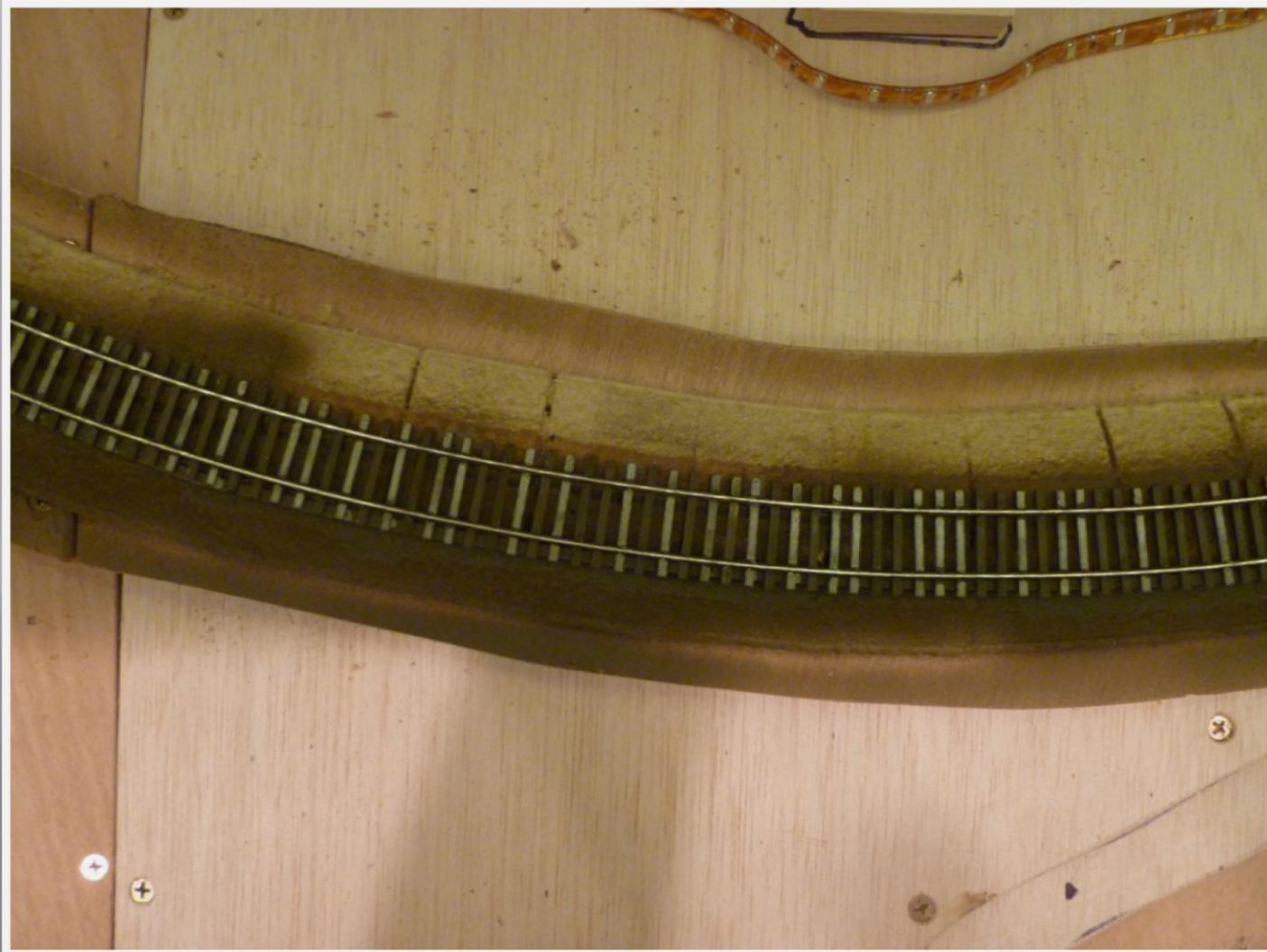
Model Railroading as an Art Form - Painting/Weathering Track

When this is dried, brush random ties with light gray and others with additional oak stain.



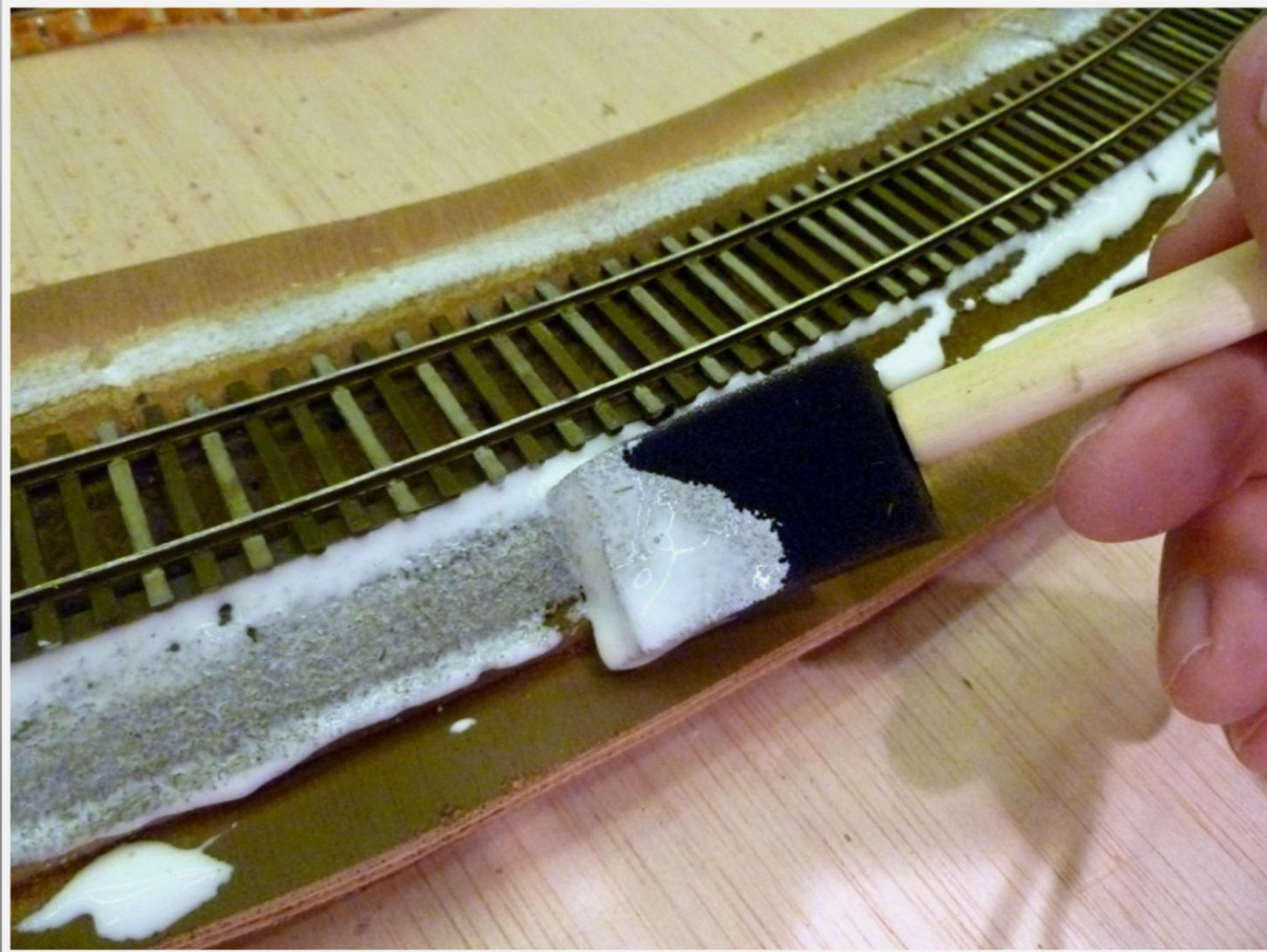
Model Railroading as an Art Form - Painting/Weathering Track

Here is the final appearance after painting. The track is now ready for ballasting.



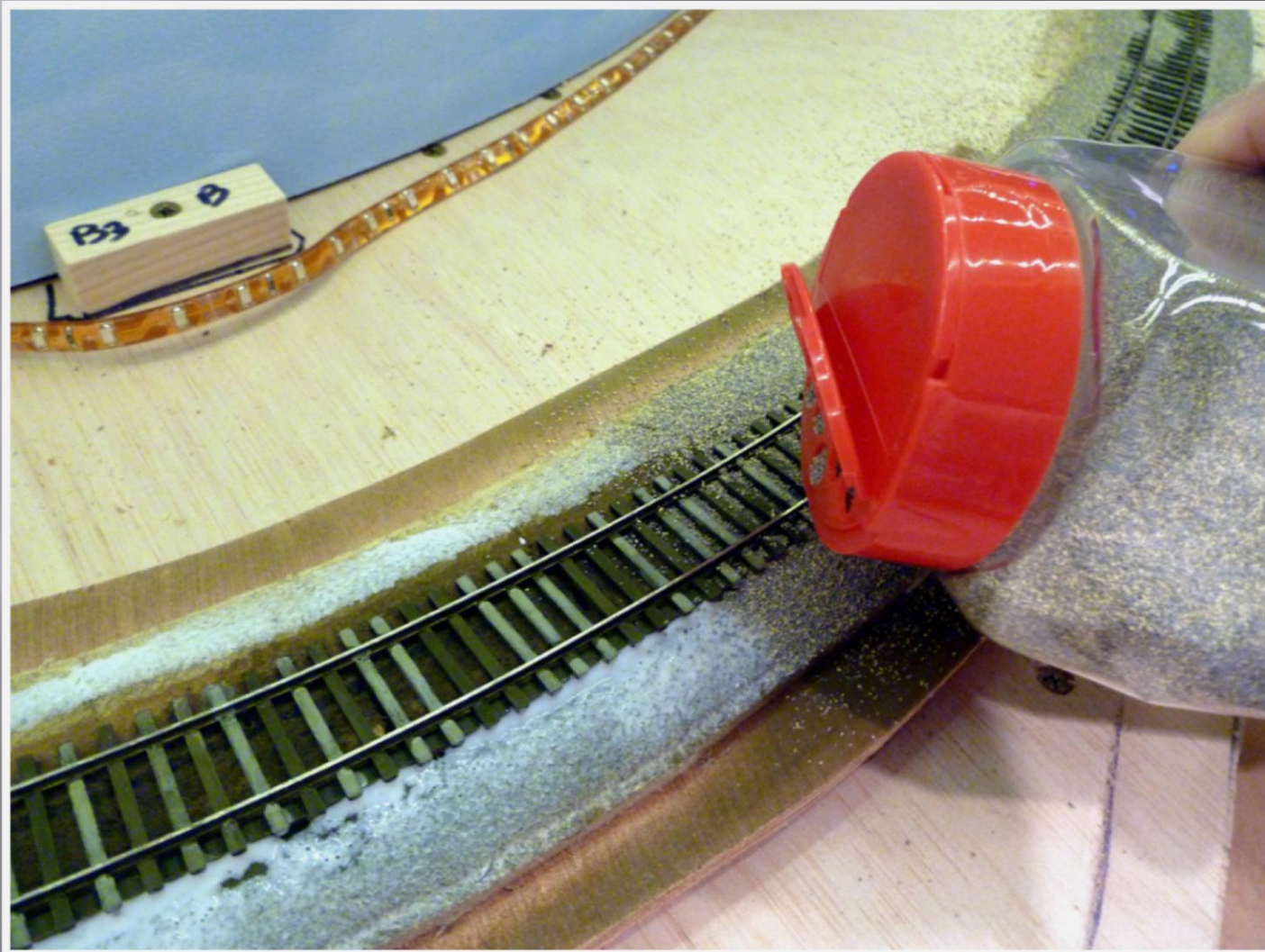
Model Railroading as an Art Form - Painting/Weathering Track

Told the ballast in place on the slope sides I first use a foam brush to apply full strength white glue.



Model Railroading as an Art Form – Painting/Weathering Track

And then use a sugar bowl to apply the balance. The use with scenic and scale ballast. Create a color to suit your railroad. In this case I am using two parts gray to one part buff ballast.



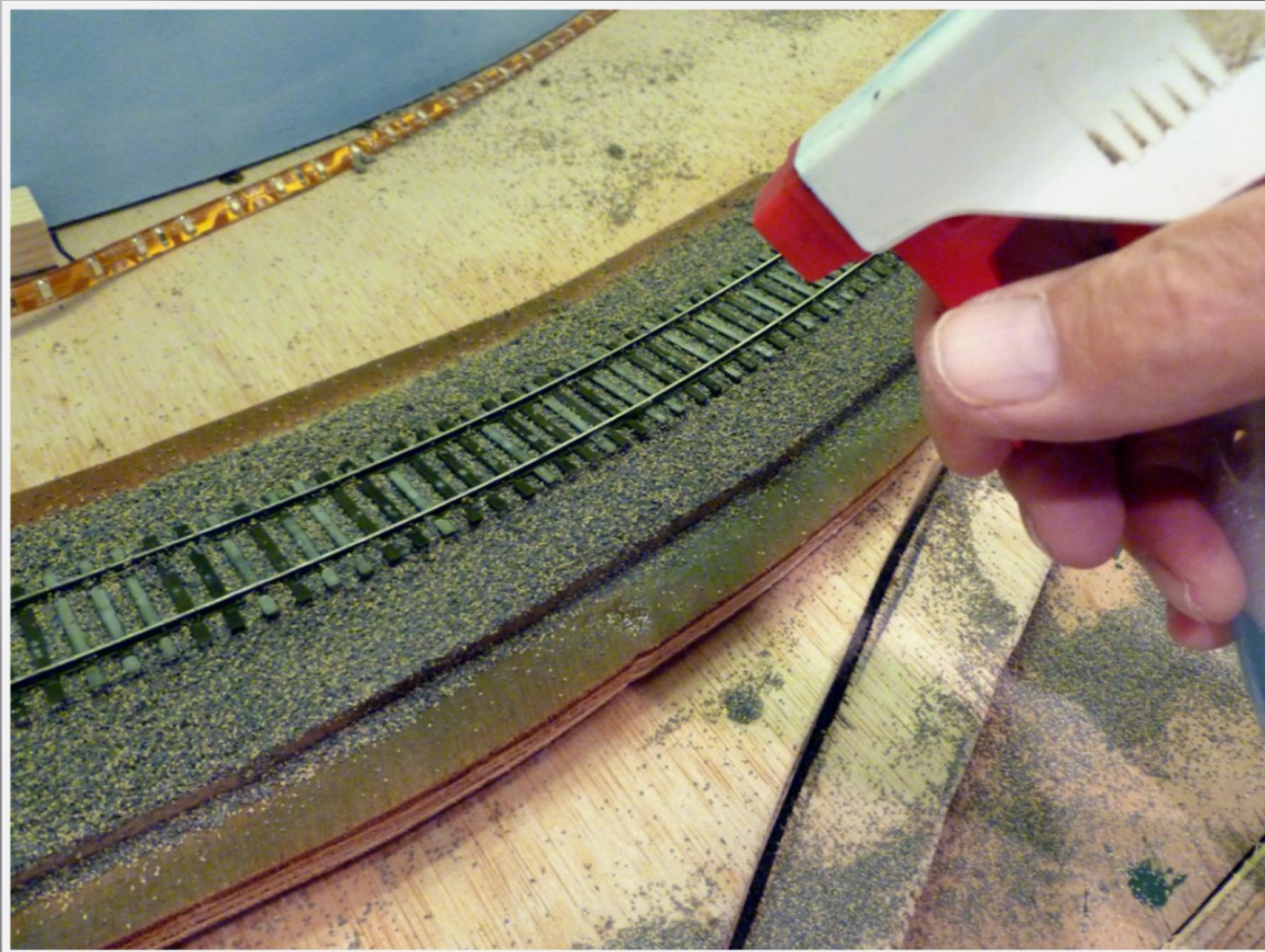
Model Railroading as an Art Form – Painting/Weathering Track

I use a wide soft brush to gently remove the ballast from the tops of the ties and spread evenly along the sloping sections.



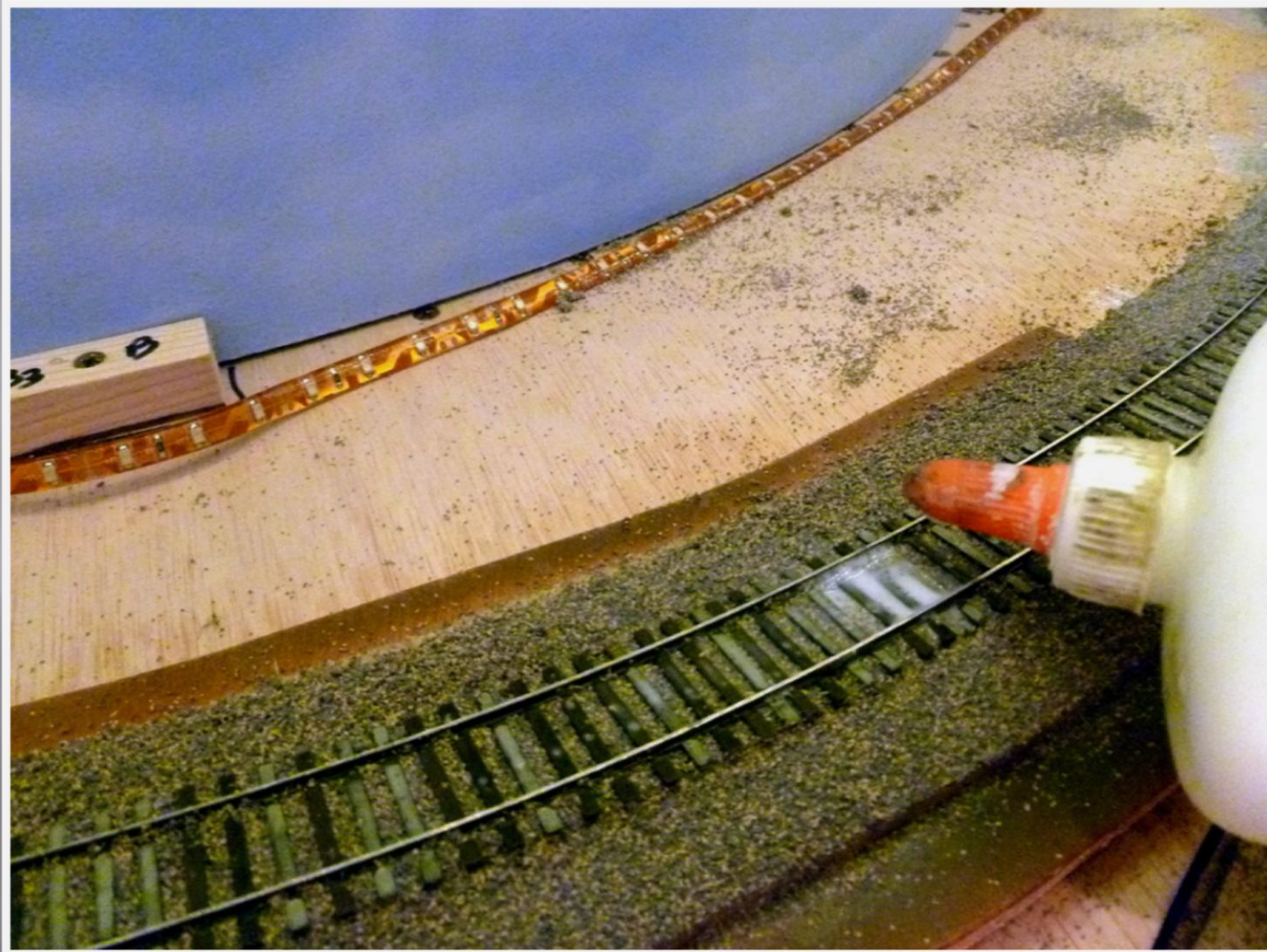
Model Railroading as an Art Form – Painting/Weathering Track

Next mist the ballast attract with water with a few drops of liquid detergent added, (wet water) or I just use Windex.



Model Railroading as an Art Form – Painting/Weathering Track

I then fix the ballast in place by gently applying a mixture of diluted white glue, one part glue to four parts water. I use the applicator shown rather than a spray bottle which tends to clog.



Model Railroading as an Art Form – Painting/Weathering Track

Later in the day when the track is partially dry I apply the delete glue a second time. A day or two later when the glue is completely dry use a plastic card to scrape straight ballast from the ties between the rails and on either side of the rails.



Model Railroading as an Art Form – Painting/Weathering Track

The final step as to whether the track. Because everything up to this point has been water-based I use oil paint and turpentine (Turpenoid which is odorless) this way it will not soften the ballast or glue. Lamp black is used to simulate grease up the center of the track and raw sienna to simulate rust from dripping reefer cars on the outer ends of the ties.



Model Railroading as an Art Form - Painting/Weathering Track

Use a wide brush to apply the dilute lamp black oil paint between the rails.



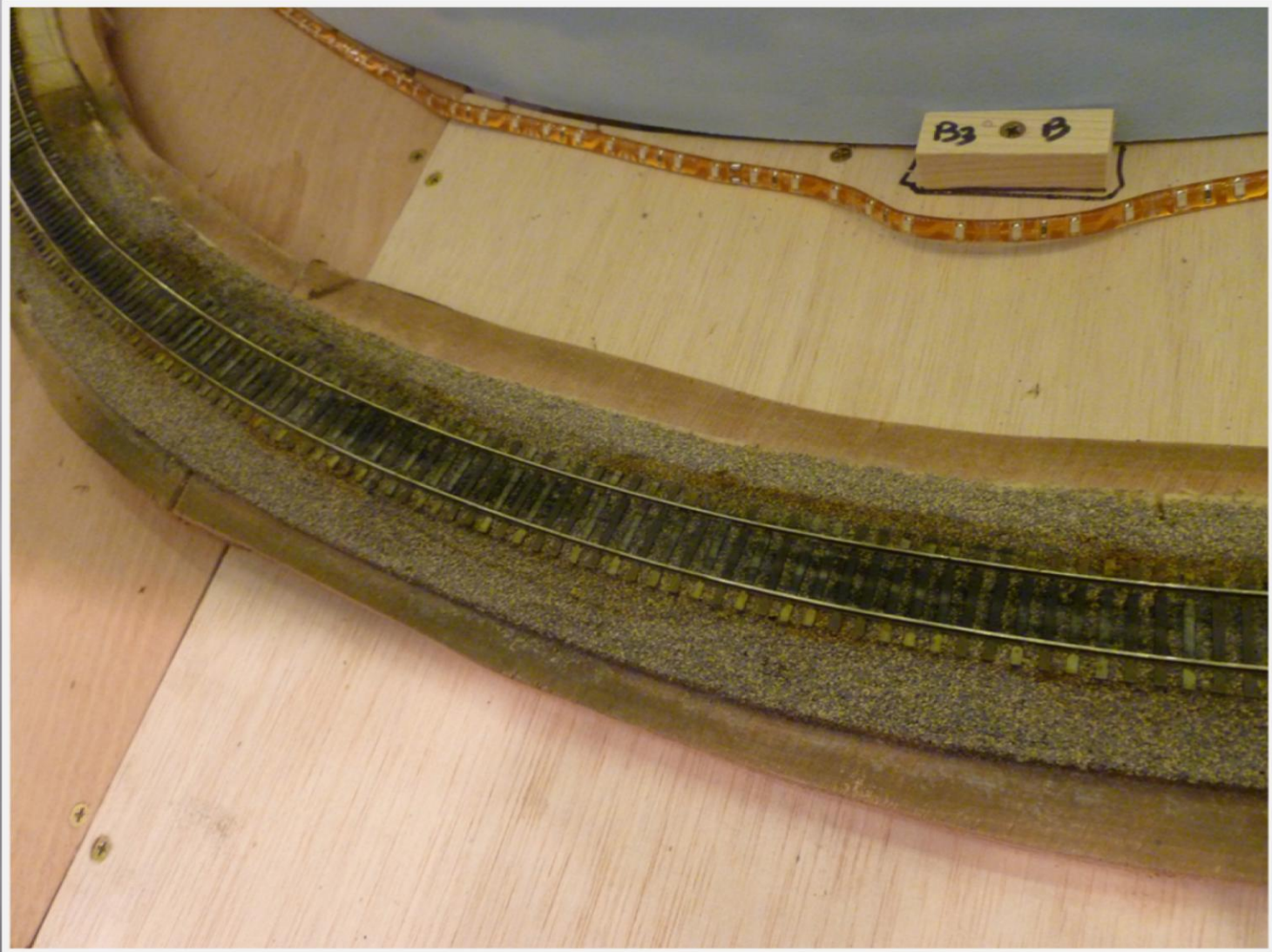
Model Railroading as an Art Form - Painting/Weathering Track

Use a wide brush to apply the dilute raw sienna oil paint along the sides the rails.



Model Railroading as an Art Form – Painting/Weathering Track

Finally clean the tops of the rails with an abrasive block and vacuum about any stray residue.
Here is the final appearance of the mainline track ready to run trains.



Model Railroading as an Art Form – Painting/Weathering Track

Varied Appearance. The Back Yard Tracks are Rail Brown Set in Cinders, the Middle Tracks Rail Brown Set in Ballast, the Front Track is Rust Colored Set in Dirt.



Model Railroading as an Art Form – Additional Details

Don't Forget;

Mail boxes, city/rural

Police/Fire call boxes

Street signs

Highway signs

Trash cans

Man Hole Covers

Street Lamps

Fire Hydrants

For vehicles;

Open windows

Open doors, hoods, trunks

White walls

License plates

Weather, rust, grime, dust bowl brown

Figures;

Figures are more effective if placed in “social groups” that tell a story