



Fig. 1 WEATHERING PATTERNS



▲ Fig. 2 SMOOTH SIDES. For smooth-sided cars like this boxcar, John starts the weathering process by painting light streaks on the sides to simulate where dirt and grime have washed off of the roof.



▲ Fig. 3 RIBBED SIDES. When spraying light streaks on rib-sided cars such as this hopper, John aims the spray between the side posts. Starting at one end, he uses a quick top-to-bottom motion to spray each car panel individually.

soot on the roof) occurs faster and should be applied over it.

I spray one color at a time on all the cars that I'm painting, then switch to the next color and repeat the process. When using a fine tip, it's essential to keep your airbrush as clean as possible so that it doesn't clog or spray globs of paint. While painting, I wear disposable latex gloves (available at any drug store) to protect my hands.

I start by applying light streaks to the sides of the carbody, as shown in fig. 2, using a quick vertical stroke from top to bottom with my airbrush. If I am painting a rib-sided car, I spray only the panels (between the ribs) and keep the streak parallel to the ribs on either side. See fig. 3. I recommend practicing this technique on an index card or an old car shell until you are comfortable with it. Next, I paint thin, dark streaks on the ribs with a very narrow spray, again moving quickly from top to bottom. Figure 4 shows these vertical streaks on the Pennsy boxcar on the left.

When the weathering on the carbody is finished, I paint the underbody and trucks with a color that matches the ballast dust and dirt from the car's home region as shown in fig. 5. Using the same color, I also paint streaks halfway up the car's ends above each rail. See fig. 6. These are caused by roadbed dust kicked up by the next car in a train.

Control coat and soot

Next, I spray a control coat – Grimy Black diluted 50 percent with thinner – over the entire carbody. This makes a car's lettering look dull and mutes the weathering, avoiding stark contrasts in color. The more control coat you apply the older the car will look.

In fig. 4, I sprayed several passes of control coat on the car to the left; it looks like it has not seen any new paint in many years. The car on the right has only one light pass of control coat and looks like it was painted only a few months ago.

Finally, I spray the roof with a dusting of soot and/or diesel exhaust, with the heaviest coating along the center line and lightest along the edges. If you model the steam era, spray Engine Black to simulate soot – especially if your layout has hills or mountains. The amount of soot on car roofs will be heavy because steam engines work hard on grades throwing up lots of cinders.

Diesel exhaust is thinner, and car roofs require only a dusting of Oily Black.

Optional weathering details

Once a freight car has been weathered using the quick and dirty process, you can either put it in service "as is," or add some more weathering to make it unique.

- **Rust:** Stirrup steps, lower ladder rungs, door stops, truck springs, brake shoes, coupler faces, and end poling pockets usually display rusty spots. I hand-paint rust on these parts using a no. 5/0 brush (see fig. 7) as the last step in the weathering process.

- **Dust:** Cars from dry climates such as the Southwest often pick up a heavy coating of dust, which settles into every nook and cranny of the carbody. I spray Floquil Dust on these cars after the basic weathering is complete, but before spraying soot on the roof. I hold my airbrush above the roofline and spray down onto the sides and ends at a narrow angle, producing the dusty car in fig. 8.

- **Galvanized roofs:** During the transition era many boxcar roofs displayed patches of galvanized steel showing where the paint had started to peel away. I add these spots of bare metal after all of the car's weathering is complete except for the roof soot. Using a no. 1 brush and Polly Scale Undercoat Light Gray, I paint irregularly shaped blotches on the roof



▲ Fig. 4 RIBS AND RIVETS. The Pennsylvania boxcar (left) has light streaks on its panels and dark streaks along its rivet lines. The Pennsy car also has a liberal coating of control coat (Grimy Black diluted 50 percent) to make it look older than the Baltimore & Ohio car (right).

TABLE 1 – Paint colors used for freight car weathering

Weathering pattern: Light streaks on side panels Polly Scale (water-based acrylic): Erie-Lackawanna Gray Floquil (enamel thinned with organic solvents): Grime	Weathering pattern: Roof soot (steam era) Polly Scale: Engine Black Floquil: Engine Black
Weathering pattern: Dark streaks on ribs/rivets Polly Scale: Grimy Black Floquil: Grimy Black	Weathering pattern: Roof soot (diesel era) Polly Scale: Oily Black Floquil: No match, use Oily Black
Weathering pattern: Trucks and underbody Polly Scale: see table 2 Floquil: see table 2	Weathering pattern: Dilution (for fine tip airbrush) Polly Scale: 20-25 percent distilled water Floquil: 15-20 percent Dio-Sol
Weathering pattern: End streaks Polly Scale: see table 2 Floquil: see table 2	Weathering pattern: Control coat Polly Scale: Grimy Black, thinned 50 percent with distilled water Floquil: Grimy Black, thinned 50 percent with Dio-Sol
Weathering pattern: Rust Polly Scale: Rust Floquil: Rust	



▲ Fig. 5 ROAD DUST. John sprays Earth on the underframe, trucks, and lower portion of the bodies of his cars to simulate dust and dirt kicked up from the roadbed. He changes colors on cars that operate in different regions of North America as shown in table 2.