

Weathering, Aging, Rust and Bird Poop!

By Connie Sauve

WOOD:

Wire brush wood
Chip edges with Xacto knife
Wire brush again
Sand lightly
Bug Juice
Dirty water wash
Sap green
Black alcohol mixture. Won't loosen glues. Dries fast.
Go over shingles directions. Use 1/2" scale shingles.

METALS:

Age lead with Lead Blacken
Age brass with Brass black or Aluminum Black
Age copper
Vehicles: metal paints/aging solutions, rustall, dirt, hammer in dents, bullet holes.

CHALKS: stiff brush, spray afterwards

RUST:

Rustall or Burnt Sienna
Denatured alcohol
Iron paint then Rusting solution
Blacken nails, then add Burnt Sienna for rust
Spray paint matte black, rustall

PAPER:

Golden Oak stain
Antiquing spray

FABRICS:

Instant coffee
Tea

DIRTY WATER WASH:

Tube acrylic paints: ¼ tsp Mars Black, warmed with 1/8 tsp Raw Umber (mud puddle color), 3 tbs of distilled water.

DIRT: real dirt

PLASTIC MODELS:

Cut off or remove parts.
Flame for heating plastic and push in with a metal tool.
Rustall, chalks, sanding, dirt.

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To begin with, we use our own shingles, made from a thin (3/64"), fine-grained cedar veneer, approximately 1"long x 1/2"wide. (Yes, before cedar we used mahogany, but that is now a scarce material.) We like these dimensions because they are in-scale, they lie flat, and look realistic. Yes, they take a long time to lay, but roofs (and walls) comprise too great an expanse of a miniature to cover with something that looks clunky. Another bit of "Roof Truth" to consider: on a full-size house the roof is at least 20 ft. away from the person looking at it, so the shingles appear smaller than if you were right next to them. For a miniature, the viewer is face-to-face with shingles, and if they are even slightly over-scale they appear enormous.



MODEL A GARAGE, 1981

In miniatures, Noel and I work with what we call the illusion of reality. By that I mean we strive to build houses that remind people of real houses, particularly houses they feel comfortable in. For us comfort comes from an old house that has mellowed from exposure to weather and human habitation. When the viewer looks for a while, then says, "Oh! I remember a house my Uncle Joe lived in, and you know, in his attic he had...", then we know we've done our job. He or she has accepted our illusion of reality and taken it on as their own. However, if half the surface of the project is covered in an unconvincing material, there is no way our illusion will be a success. Basically a roof is something we put a whole lot of time into so people won't notice it!

So, we begin our illusion by darkening the roof with Bug Juice, or, if that isn't dark enough, then a wash of water and Grumbacher tube acrylic Mars Black. A wash is transparent. It is made by adding a lot of water to a little dab of pigment in a dish, then mixing well and applying before the pigment settles to the bottom of the dish. Darkening the roof takes the new look out of the wood. Over time, shingles shrink, or pieces get knocked off, and a dark roof won't draw attention to itself and break the illusion.

Next step is to lay a "shingle lift-strip" along the bottom of each section. This is a narrow strip (approx. 3/64" X 1/8"), that we darken to match the roof, and glue down with Elmer's white glue. Yes, we swear by Elmer's white: it lasts, is predictable and can be removed with water. By gluing the lower edge of the first row of shingles over this strip, a slant is established which allows all subsequent rows to lie flat. To glue down that first row, I

squeeze a narrow strip of glue along the top edge of a shingle, and another about 1/2" up from the bottom. I apply it to the roof so it overhangs both the lower roof edge, and the exposed side edge, enough to cover gutter edges and any trim I plan to edge the roof with. I allow about 1/8" to overhang 1/16" trims. It helps to tape on a temporary piece of trim the same dimension you want the overhang to be, so you don't have to eyeball it. Using the gluing lines on the first shingle as a guide, I then apply two beads of glue, (for top and bottom of the shingles) the length of the roof section. The idea is to use enough glue to hold down the shingles, without it oozing out between them. Clean any glue off the top surface right away with water. For spacing I try not to leave more than a literal hairline between shingles. Any more and the roof or glue will show through. Any less will look like a solid band of wood.



MODEL A GARAGE, 1981, DETAIL

Once the glue under the first row is fairly well set, I draw a line for the bottom edge of the next row. This sets the reveal, or how deep the rows will be. For most projects I want 1/2" between rows. For this I use a 3/8" w (Yes!) piece of stripwood for a ruler. Holding this 3/8" w strip along the lower edge of the first shingle course, I draw a pencil line, horizontal to the roof edge, the whole length of the section. The surprise is, due to the thickness of the stripwood and the pencil lead, it gives me a line 1/2" up from the lower shingle edge. Row two begins by applying the lower edge of the next course right on, or slightly above, that line. I draw a line for each row, not only for the reveal, but also to make sure my lines remain horizontal, to one another and the roof edge. Always measure from the bottom of a row, as the length of the shingles can vary. No, I don't make wavy shingle lines on purpose--it would look like The House That Jack Built. The rows will have enough irregularity just by trying to lay them straight!

Starting with row two, I glue on each shingle individually. A realistic roof has texture, so I coax a little warpage into my shingles by gluing with what I call the "T" method. I apply a bead of glue horizontally along the top of the shingle, then another down the center, forming a "T". This leaves the lower corners free, so they can curl slightly when I later age them. I want a subtle texture, not overt cupping. Noel and I aim to create buildings that improve with age, not tumble-down shacks. At the start it's better too little salt in the soup than too much.



MT. ST. HELEN'S, 1980

Nearing the peak, I make a smooth top roof edge by trimming the last few rows to length. I find it's best to do this before gluing them on. It's fine if you end with a short top row. When you come up the back side, you'll trim that top row to meet this one.

Aging shingles is a step-by-step process--how many steps is determined by the look you want. We begin by masking off the rest of the project with taped-on sheets of newspaper, then Bug Juicing the whole roof and allowing it to dry thoroughly. We apply Bug Juice with a 1" foam brush, methodically overlapping strokes to get full coverage on the first coat. Glue spots show up right away because they won't darken. To remove such spots, scrape with an Xacto blade, then dampen and scrub out any residue. Any light spots remaining can be later toned-down with a dirty water wash. Depending on the wood (test yours on a sample piece), Bug Juice will produce varying colors, from a neutral gray-brown, to gray, to black. Wait until the Juice is totally dry before judging the color. If your shingles look too dark, thin the Bug Juice with water until you get a neutral gray. Another antidote for dark shingles is to lighten them with an application of water and household bleach--about 50/50--applied with a 1" foam brush in smooth, downward strokes. Bleach also enhances the texture of the shingles, and adds a subtle, realistic greenish tinge. If you have silver gray walls, we recommend a darker roof for contrast. We usually aim for a medium-to-deep gray-brown.

With our cedar shingles, after the Bug Juice dries, I emphasize the wood grain by wire brushing the roof (with a housepainter's wire brush) in downward strokes. Then I sand the whole roof lightly, in downward strokes, with 80 grit sandpaper, then go back with a finer--100-120 grit--paper to add a little more age, especially near the lower edges. (Notice on full-size buildings how the bottom of each shingle, as well as the roofs, show more age.) For even more age, I may apply a bleach solution of 1 T bleach to 5 T water, which, after a few minutes, I dab off with wet paper towels (I recommend a mask and goggles if you sand after bleaching). When I'm happy with the texture, I then re-apply Bug Juice (use the same dilution as the first application) and allow it to dry. Still not satisfied, I make up a dirty water wash of Mars Black, warmed with a little Raw Umber (mud puddle color). Just before applying the wash, I dampen the roof with clear water, using a 1" foam brush. Then using a #10 watercolor round brush, I apply several washes (allowing each application to dry) until I come upon a tone I like.

About this time, Noel comes in with his #10 round and adds darker washes where a tree might have shaded the house, and a strong wash of Grumbacher Sap Green tube watercolor (watercolor is more transparent, and can be sponged off if the color is too strong), to indicate moss. If this is a really old roof (say, on a garden shed) I'll go back with some real moss, that I've pulled out almost hair-by-hair and trimmed to about 1/8" in length, and glue it under the edges of some of the greener shingles.



NORTH COVE KITCHEN 1983

For the famous Cape Cod silver-gray shingles, I begin with my favorite piece of driftwood from the beach to check my color against. After the Bug Juicing/brushing/ sanding/bleaching steps, I then mix a watery wash of Titanium White, the tinniest dab of Mars Black, and some Raw Umber. The umber warms up an undesirable blue cast from the black. This I apply in layers of the thinnest washes, checking my color against the driftwood sample to prevent it from getting too chalky, too blue, or too brown. Some variation is both inevitable and desirable.

For woodsier locales, or those shingles unaffected by the whitening qualities of salt air, it's a matter of adjusting the proportions of the pigments in the washes. On the Maine coast we've found houses that were silver gray on the ocean side, and a variegated almost chocolate brown on the shore sides. It takes practice to get the knack of it, but if you approach it cautiously, and allow each wash to dry, you can sneak up on any color you want. Think of a wash as a way to add tone, a feel, rather than as painting on color. Though I hate to say "always," I'll say it here anyway: to keep the toning even, always apply a wash over wood that has been dampened first with plain water. Add to that, "Look at the real thing whenever possible!" and you'll have all the tools necessary.

Once the weathering's done, we cap our roofs with flashing made from old wine bottle leads. As most wine is now sealed with plastic, you'll need to ask your miniature dealer (or stained glass supply or hardware store) about 1/64" (or thinner) lead tape. (The Dollhouse Factory (1-800-DOLLHOUSE) carries B&H Miniatures' Lead Foil Tape that should do the trick.) With an Xacto knife, cut the lead into $\frac{1}{2}$ " strips. Short lengths are fine (ours are $3\frac{3}{8}$ " long), as you'll be overlapping them on the roof (for authenticity and texture). Next, flatten the strips by rolling them out on a sheet of glass with a smooth, round Xacto knife handle. To "galvanize" flashing, Noel makes a watery wash (he calls it "colored water") with Grumbacher Mars Black and Titanium White (acrylics). Putting a dab of each near the rim of a saucer, and a pool of water in the middle, he mixes a light gray (dirty white) wash with a #10 round watercolor brush. He brushes on the mix, enough to break the surface resistance of the metal. "Just keep brushing, " he says, " 'til you break it down and the wash starts to adhere. Not thick, it's a wash you scrub in, apply wet and allow to pool." After it dries he applies a thin wash of Raw Umber acrylic, to warm the color slightly. Let it settle and pool with the natural irregularities of the metal.

While the strips dry, you can Bug Juice and glue a $\frac{3}{32}$ " dowel along the roof peak. This makes a better looking shape around which to apply the flashing than just the trimmed shingle tops. We then glue down the strips (with Elmer's), pressing them around the dowel so there is an equal amount of flashing on either side of the peak. We overlap each section by about 1/16" (to keep out the rain, of course!). As a final embellishment, you can ornament the peak by painting two map tacks with aluminum paint (to match the flashing) and sticking them into either end of the dowel. Other details will depend on the period, age and intricacy of the architecture you are miniaturizing.

- Pat Thomas

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HOMEMADE WOOD AGING WITH VINEGAR AND STEEL WOOL

Weathered wood can be appealing and beautiful in its own rustic way. It can be expensive, but luckily it is cheap and easy to do yourself. This will teach you how to age wood using vinegar and steel wool to get that weathered effect.

Gather your materials. This is a fairly simple process that requires minimal supplies. You may already have them at home. If not, you should be able to find everything you need at a dollar store, grocery store, or somewhere like Target or Walmart.

- White distilled vinegar. Any brand will do. I used **Apple Cider Vinegar**.
- Steel wool. Fine graded is ideal because it disintegrates best, but any grade will work.
- A container of some sort. This can be a bucket, a jar, a pot, a bowl, or whatever else you have on hand. If you dislike the smell of vinegar you may want to opt for a container you can close while the mixture sits, particularly if you want it to get quite dark, as this will involve letting it sit for a while.
- Rubber gloves. These are optional, but a good idea if you are concerned about cutting your fingers on the steel wool, or if you plan on making a particularly dark solution that might stain your fingers.
- A strainer. This is also optional, as you can apply the stain straight from whatever container you made it in. This will come in handy if you want to transfer the liquid to another container to store and use again later.
- A paintbrush.

Make sure you are staining an appropriate kind of wood. Some woods will work better than others. You don't want to go to the trouble of making a stain only to discover that it won't stain.

- Wood with bifurcated grains is best, particularly where the wood grain is layered in hard/soft layers, so the soft layers are affected by the process but the hard layers are not, causing the wood to look old.
- Softwoods are easier to work with than hardwoods. Southern yellow pine, western cedar, and fir are excellent candidates for aging. Red oak, maple, or other slow-growing, tightly grained woods are not.
- Hardwoods with a distinct grain, such as hickory, white oak, elm, or ash, can also work well.
- This method is not appropriate for laminate flooring, as the vinegar will likely cause the glue holding the layers together to fall apart.

Decide how you want your wood to look. Stains made with steel wool and vinegar range from a reddish, rusty brown, to a very dark, burnt brown. They also range in intensity from very subtle, to very intense. These factors are influenced by the ratio of steel wool to vinegar, and by how long you let the mixture sit. Before you begin, decide approximately color stain you want to create, and plan accordingly.

- The color of the stain is determined by how long it sits. Stain soaked for just a couple days will have a dark, burnt tone. The longer it sits, the rustier in color it will become.
- The intensity of the stain is determined both by how many steel wool pads you use, and how long you let the mixture sit. 1-3 steel wool pads to a half-gallon of vinegar should work for most projects. If you want your stain to darken faster, try adding another steel wool pad. If it becomes too dark, simply dilute it with water.

Break up your steel wool. This step is not strictly required, but it will help the disintegration process and speed things up. You will want to wear plastic gloves to avoid cutting your fingers. Break apart the steel wool pads, and put the pieces in the container you are mixing your stain in.

Combine your materials. This is pretty straightforward. Just pour the vinegar over the steel wool. Give it a good mix, and put the cover on.

Let it sit. You can create a very subtle stain in just 15 minutes or so, but you will probably want to wait longer. 2-4 days will make a stain suitable for most projects, but you can let the mixture steep for months at a time to create a more dramatic effect.

Strain the stain. This is an optional step and is more important if you plan on storing the stain for later use. When it reaches the color you want, you can pour the mixture through a colander and into a new, sealable container. You can also use it straight from whatever container it is in.

Stain a test surface. Without knowing what your stain looks like when applied, you might not want to brush it onto your furniture just yet. Brush some onto a scrap piece of the same sort of wood, or a part of whatever you are staining that is not usually visible, and wait an hour. If you don't like the color you end up with, make adjustments to your mixture; add more steel wool or wait longer if you want it to be darker, wait longer if you want it to be redder, or dilute it with water if you want it to be more subtle.

Sand the wood. Sanding your wood down before painting it can give it an even more dramatically weathered look. This step is optional, and your stain should look good with or without it. It's just a matter of what effect you want to achieve.

Brush the stain onto the wood. There is no particular technique necessary for this. Brush in the direction of the grain, coating it evenly, and let it sit to allow the stain to penetrate the wood. Then just let it dry, and sit back and admire your work.