

# Weathering Concepts

A discussion about weathering techniques and their application

# Weathering is made up of 2 components

1. Technique - The technical skills required to apply the weathering to a model
2. Application - Utilizing technique to create a realistic representation of the real-world

# Weathering Technique

- There is no “right way” or “wrong way” to weather
- Depends on what technique each individual modeler is comfortable with
- There are several techniques that can be used to achieve the desired results. (There’s more than 1 way to “skin a cat”)

# Weathering Technique

- Weathering is an in-exact, imprecise science.
- Mother Nature never repeats herself twice.
- Mother Nature has had her share of “screw ups”
- So, the modeler doesn’t need to worry about “screwing up” a model

























# Weathering Techniques

- Chalks
- Artist's sketching pencils
- Artist's watercolor pencils
- Washes
- Artist Oils
- Air brushing
- Dry brushing

# Weathering Techniques

## Chalks

- Applied with artist brushes
- Stiffness of the brush has a big impact
  - Stiffer brushes create a more bold effect
  - Softer brushes create a more subtle effect
- Use chalks with a high pigment to binder ratio – my favorites are made by Unison.
- Generally, use a top to bottom brush stroke



# Weathering Techniques

## Artist's Colored Sketching Pencils

- Can be used to add lots of subtle highlights on models
  - Highlight rivet rows or other details
  - Rust spots
  - Simulate streaks
  - Simulate spots where the weathering was rubbed off
- Provides the modeler with a lot of control
  - Weathering only goes where you want it to go.
- Avoid using artist's pencils that have wax in them
- Derwent makes an outstanding line of sketching pencils

# Weathering Techniques

## Artist's Watercolor Pencils

- Like sketching pencils, they can be used to add lots of subtle highlights on models
- Unlike sketching pencils, these are water soluble
  - Can be used to create very realistic streaked effects
  - Can be wiped off with a moist cloth or cotton swab prior to being affixed to the model
- Derwent makes an outstanding line of watercolor pencils



# Weathering Techniques

## Washes

- Can be used to achieve effects that are very similar to those achieved with chalks
- Comes down to personal preference – what the modeler is more comfortable with
- Can be used to add highlights to a model
- I prefer chalks over washes because I feel chalks provide more control
- Others prefer washes because they feel that chalks are too “grainy”

# Weathering Techniques

## Artist's Oils

- Can be used to achieve streaking effects that are very similar to those achieved with artist's watercolor pencils
- Can also be used to simulate “textured” rust spots on a model
- Mineral spirits or other solvents required to achieve the streaking effects

# Weathering Techniques

## Airbrushing

- Can be used to achieve the effect of “grunge” being “sprayed” onto a model
  - Diesel exhaust on the roof of a locomotive
  - Wheel spray that accumulates on the ends of cars
- Can be used VERY sparingly to highlight rolling stock trucks
- I don’t rely much on my airbrush for weathering, but other modelers really like the effects that they can achieve, so it all depends on the individual



# Weathering Techniques

## Dry brushing

- Most of the effects that can be achieved by dry brushing can also be achieved with sketching and watercolor pencils
- Can be used effectively on couplers and brake hoses
- I tend to utilize pencils much more than dry brushing, but others get great results from dry brushing. Again, it depends on the individual.

# Weathering Application

# Weathering Application

- After the modeler is comfortable with his or her techniques, they'll want to apply these techniques to their models.
- Working from photos or just observing things around us in our day to day lives.
  - Noticing the details of how things weather under continued exposure to outdoor elements



# Weathering Application

- Weathering is “era neutral”
  - Steel still rusts
  - Paint still peels
  - Paint still fades
  - Wood still weathers
  - Car side imperfections (like door latches & ladders) still collect dirt

# Weathering Application

- Weathering is a “top down” phenomenon
  - Rain and moisture are one of the main elements that cause things to weather
  - Rainwater causes things to rust, run, streak, leak, peel, rot, warp, etc.
  - Gravity causes these “streaking” effects
  - Water pools when it reaches it’s lowest point (like side sills, end sills, door runners, etc.), which results in some interesting weathering

Chalks can easily be used to simulate the coat of grime on this carside. Note the paint running off the large “BAR”. This can be achieved with chalks or artist’s watercolor pencils. Artist sketching pencils can add subtle highlights.





Chalks can again be used to simulate the layer of grime on this carside. Note the rust color on the roof. This can also be simulated with a rust colored chalk, or combination of rust colored chalks.





Chalks lend themselves very nicely to simulating the road grime on this carside. A “stump” can be used to simulate the boot scrapes along the ladder rungs before the chalk is affixed to the car. An artist sketching pencil that matches the color of the carside can be used to simulate the scrapes if the chalk has been affixed.



Artist's sketching and artist's watercolor pencils can be used to simulate the rust on this carside.





Artist's watercolor pencils can be used to simulate the streaks on this carside.





Artist's watercolor pencils can be used to simulate the streaks on this carside.





A wash could be used to achieve the base coating of “grime” on this carside.  
Artist’s pencils or oils can be used to simulate the rust spots.





Artist's oils can be used to simulate the heavily rusted areas of this carside.





Airbrushing can be used to achieve the wheel spray on the end of the car. Wheel spray is found on every piece of rolling stock, even cars that have only recently been placed into service.



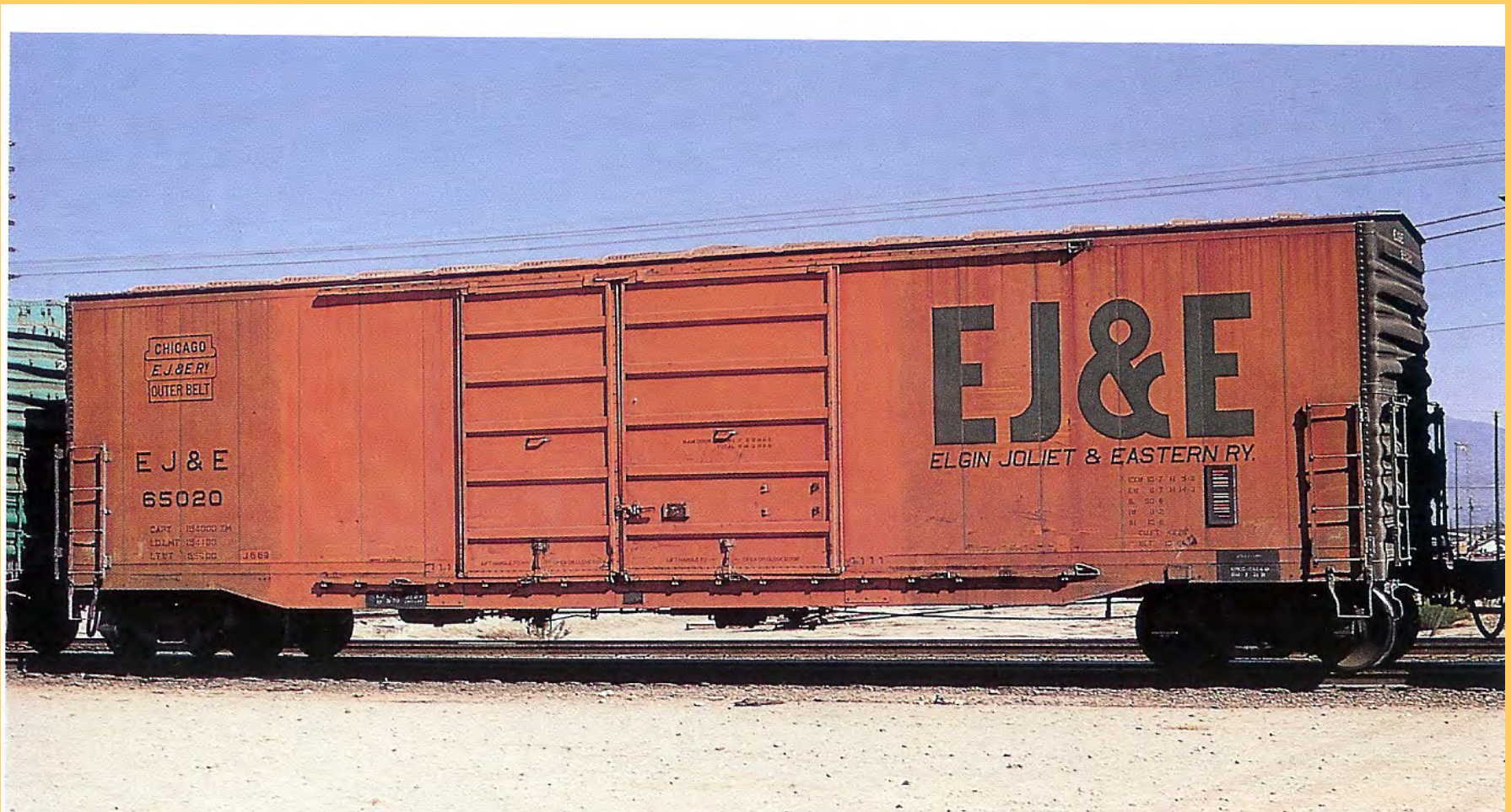


Airbrushing very lightly can be used to achieve the accumulation of diesel exhaust on the roof and the road grime accumulation on the pilot and trucks. A wash can be used to achieve the accumulation of dust and dirt in the filter vents.



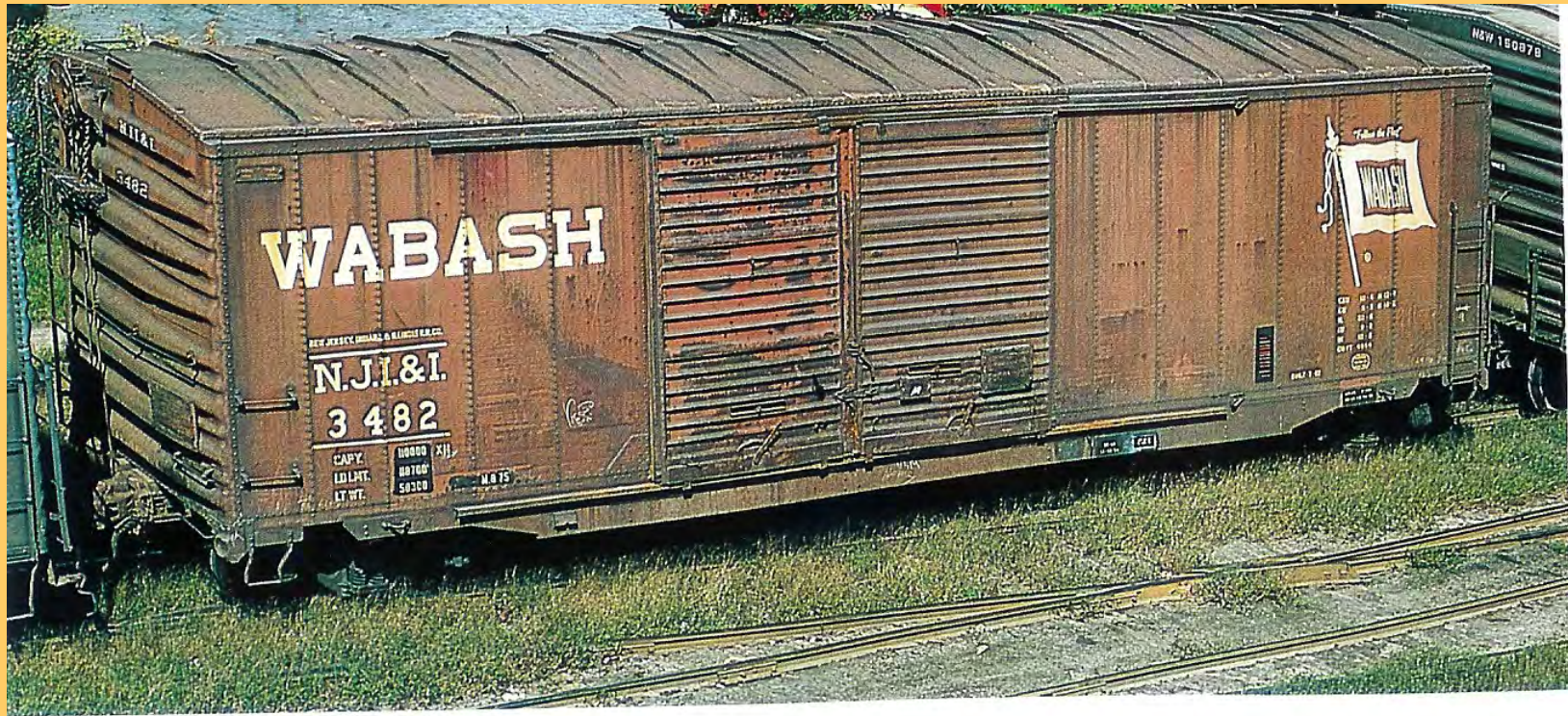


Note the “clean” section on this carside. Perhaps it was partially under a canopy or overhang while spotted on a siding, leaving only a part of the car exposed to the elements.





An interesting subject with lots of possibilities. How would you approach simulating this weathering project?





Another interesting subject with lots of possibilities. Note the apparent late date of this photo. The CB&Q car is sans roofwalk and the NP car is wearing an ACI label. A very late date to find an in-service single sheathed wooden boxcar!





This effect can be simulated with Chalks. Photograph taken near Leighton Crossing in Mundelein, Illinois.



Photograph of Prairie Cement Company located in Mundelein, Illinois.

The rust can be simulated with artist's sketching pencils and watercolor pencils. Can also use artist's oils to give some of the rust spots some "texture". Chalks can be used to add some base weathering.





Additional photo of Prairie Cement Company. Chalks and colored pencils can be used to simulate the streaks running down from the roofline and from the pipes that are attached to the exterior walls. A combination of artist's oils, sketching pencils, and watercolor pencils can be used to simulate the badly rusted base of the tank on the top of the structure.





Photograph taken near Leighton Crossing in Mundelein, Illinois. Chalks and colored pencils can simulate the rust accumulation on the roof and the rust streaks on the side of the building.





Photograph of EJ&E bridge crossing US Hwy 45 in Mundelein, Illinois. Colored pencils can be used to simulate the streaks running down from the rivet rows and the bridge deck.



Illustration of typical weathering pattern on the back of a highway trailer.

Chalks, colored pencils, and artist's oils are all candidates for use in simulating the look on this trailer.





## Illustration of weathering pattern at weld line

Artist's oils and/or colored pencils can be used to simulate the rust accumulation along this weld line.





## Illustration of trailer/Container corner post weathering pattern

Rust on the corner posts can be simulated with colored pencils. Artist's oils could also be used.



Streaked accumulation of dirt...

This streaked accumulation of dirt can be easily achieved with chalks, colored pencils, or a combination of both.





## Streaking rust

These streaks of rust can also easily be simulated with chalks.



Various subtle features on a typical small commercial building. Can be achieved with colored pencils.





View of weathering pattern on painted wood. Shows the “silvery” color that wood turns when exposed to the elements. Can be achieved with colored pencils.



Additional view of weathering pattern on painted wood





Questions or Comments???