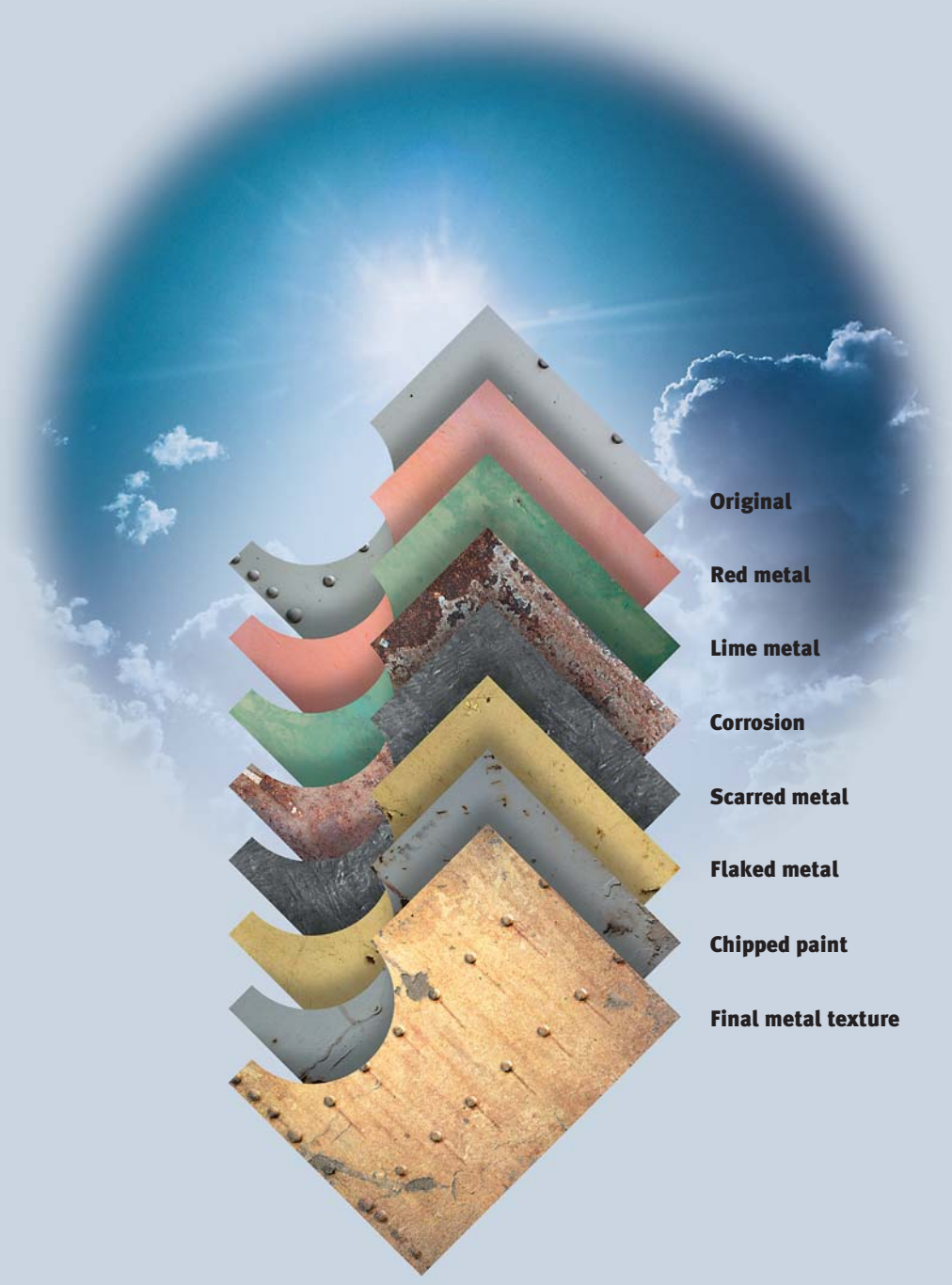
Ageing metal textures

Difficulty: Intermediate

Bill Fleming

Finding the perfect texture in the 'real world' can be a difficult process, particularly if you're trying to show a 500 year-old post-nuclear holocaust, windbeaten, chemical ravaged, heat-affected sheet of metal. Bill Fleming shows you how to combine multiple images to make a 'super texture'.



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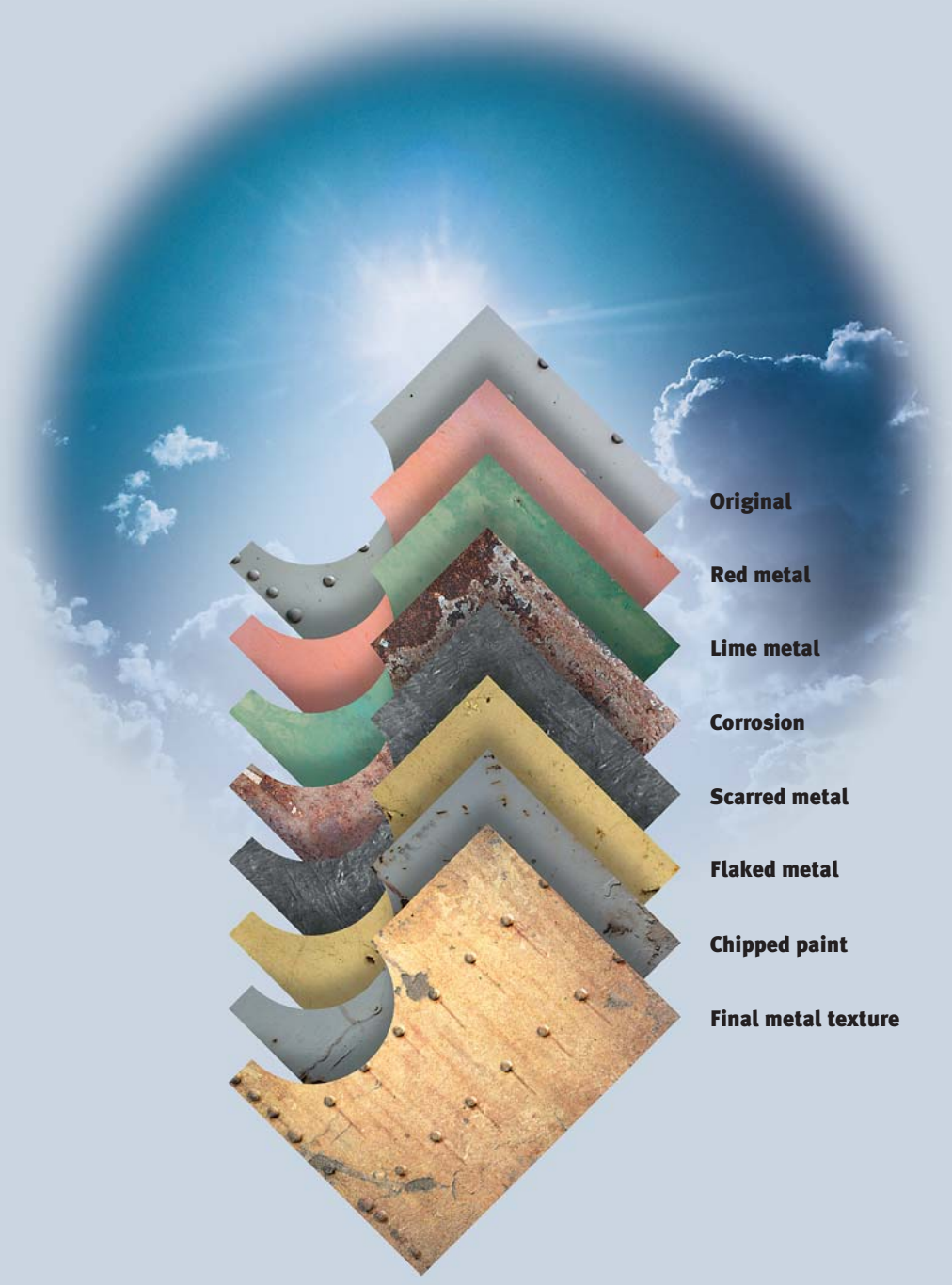
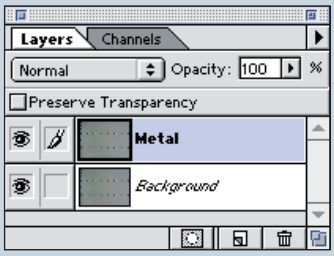
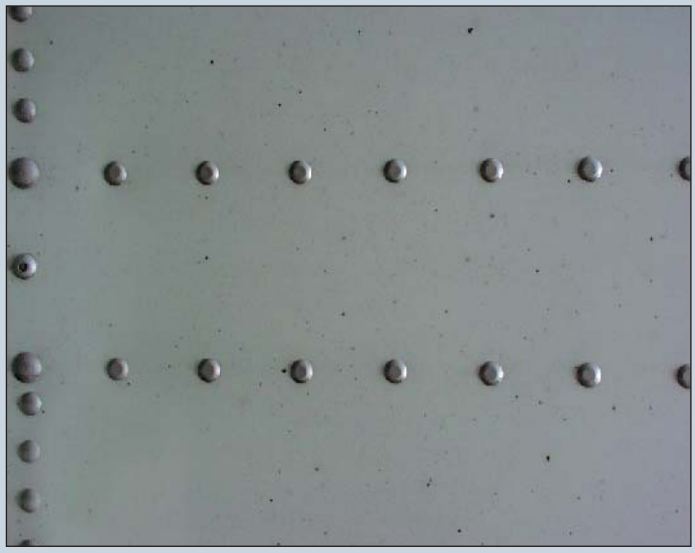
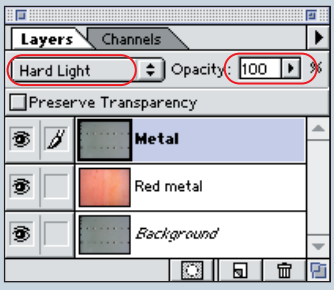
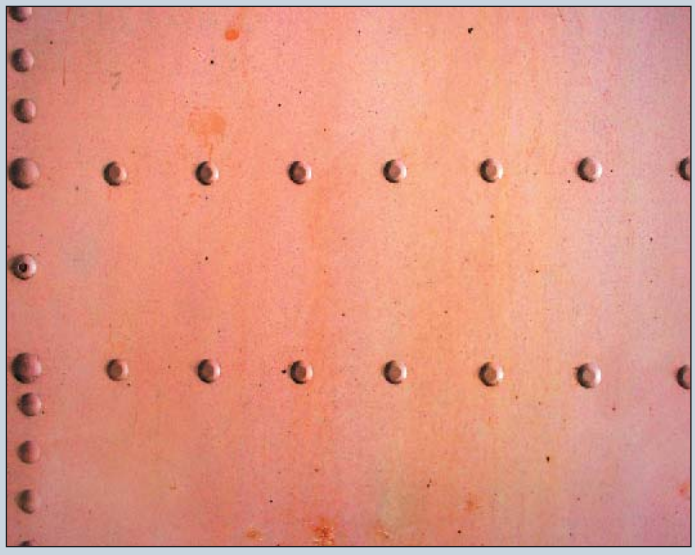




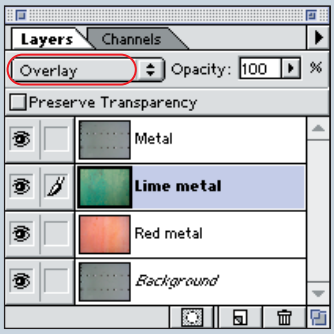


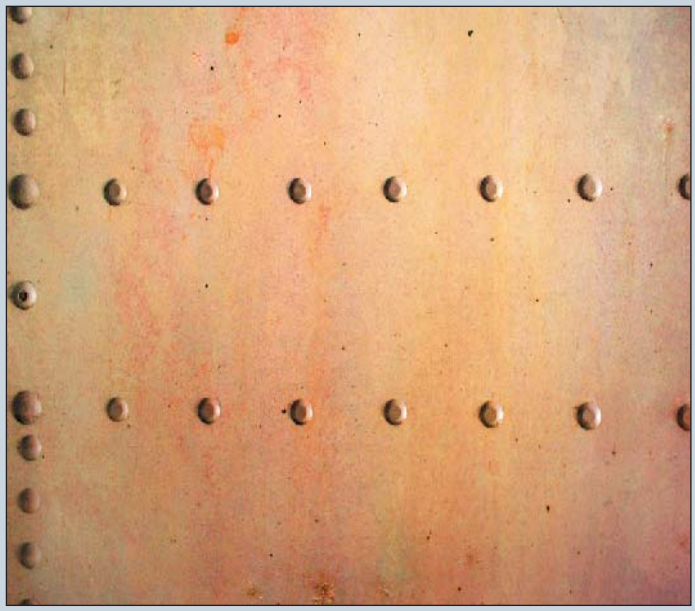
The original metal texture
We start by loading the original file: 'Metal'. Duplicate the Background layer and name the copy 'Metal'. We'll need this layer above the background so we can properly apply the blend modes.





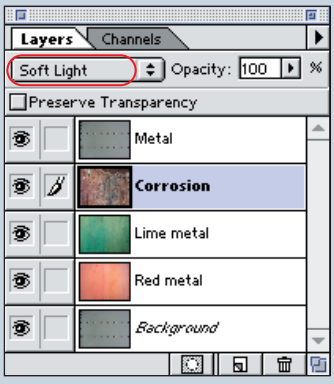
Adding texture detail
Load the 'Red metal' image, Select All (Command/Ctrl-A) and copy the image to the clipboard (Command/Ctrl-C). Click on the Background layer in the Metal file and Paste (Command/Ctrl-V) the image to create a new layer above the Background layer. Option/Alt-click on this layer and name it 'Red metal'. To combine the layers, we make the Metal layer blending mode Hard Light with an Opacity of 100%. Notice how the texture details of the 'Red metal' texture are now rendered onto our clean metal.



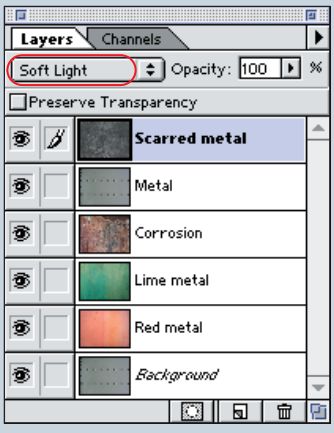


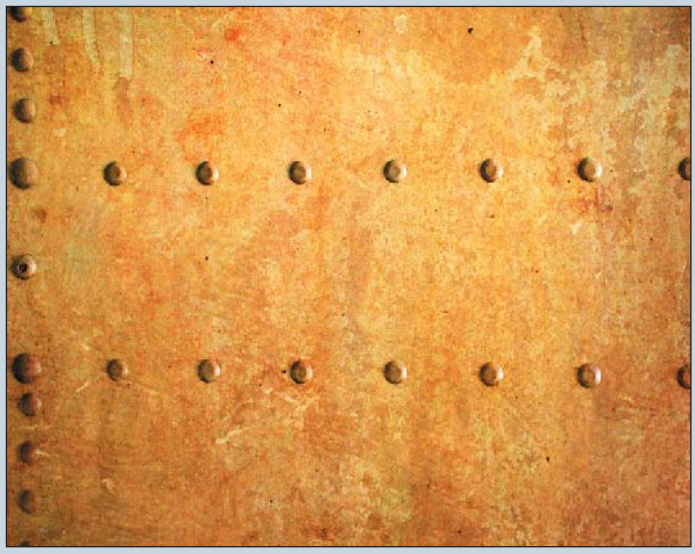
Changing colour and texture
Next we load the 'Lime metal' image, then copy it to a new layer above the 'Red metal' layer, naming it 'Lime metal'. This texture is actually a piece of cement that was under a water drain on an old building. The aging metal of the roof was bleeding a lovely green colour that stained the cement under the drain. Finally, we change the layer blend mode to Overlay. The metal texture now becomes a more natural yellow colour and gains a few more chaotic details, particularly some larger dark blotches and raised pimples.

Adding surface flaking
Load the 'Corrosion' image and copy it to a new layer above the 'Lime metal' layer and name the new layer 'Corrosion'.
This is a picture of an old piece of sheet metal found stacked behind an abandoned building. It was exposed to the elements so it rusted quite a bit.
Next we change the layer blend mode to Soft Light. This blend mode adds the nice detail of the metal surface flaking away.
We now need several layers of destruction on the metal for it to be realistic.



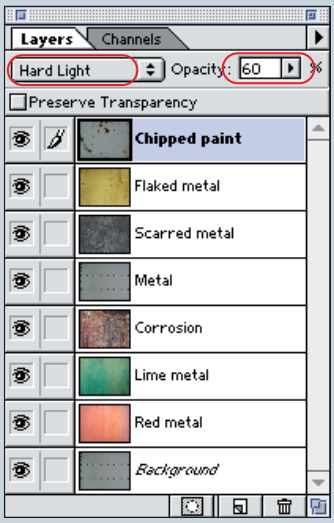
Adding additional scarring
Load the 'Scarred metal' image then copy it to a new layer above the 'Metal' layer, naming it 'Scarred metal'.
This new layer is added above the 'Metal' layer so the effects are more prominent.
Now we change the layer blend to Soft Light, which renders a variety of scars on the metal texture. It also adds richness to the texture by saturating its colours.
Next we can focus on the final and most interesting detail, which is the flaking.





Adding a second layer of flaking

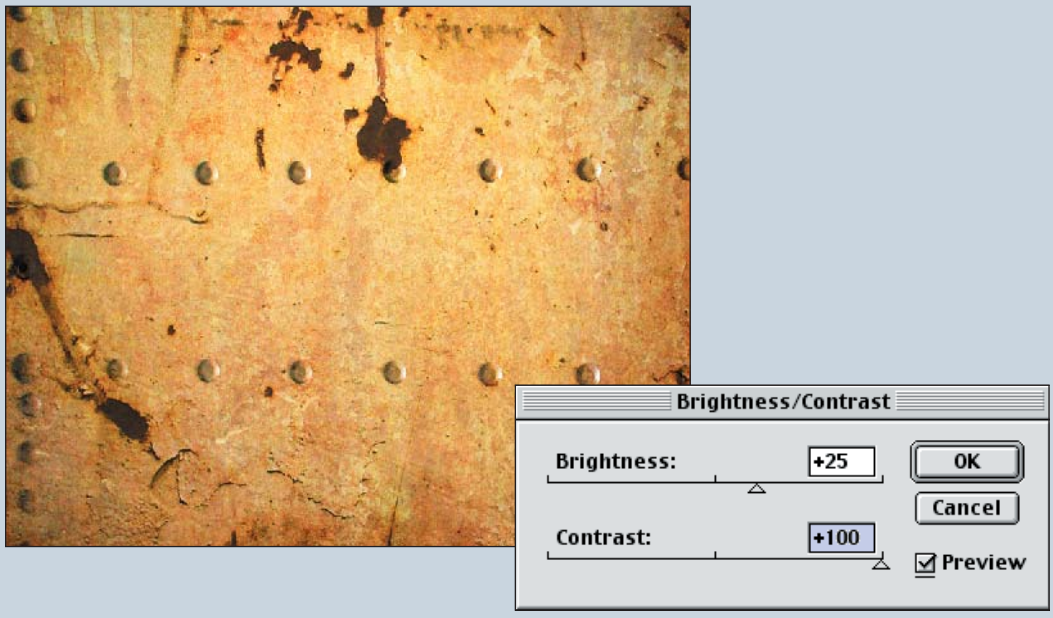
Load the 'Flaked metal' image then copy it to a new layer above the 'Scarred metal' layer naming the layer 'Flaked metal'. Finally, we change the layer blend mode to Soft Light, which renders a flaked area down the middle of the texture. This new flaked area looks great but we have one more layer of flaking to add—the most severe. We're going to add some large areas where the metal has completely flaked away revealing the metal beneath.



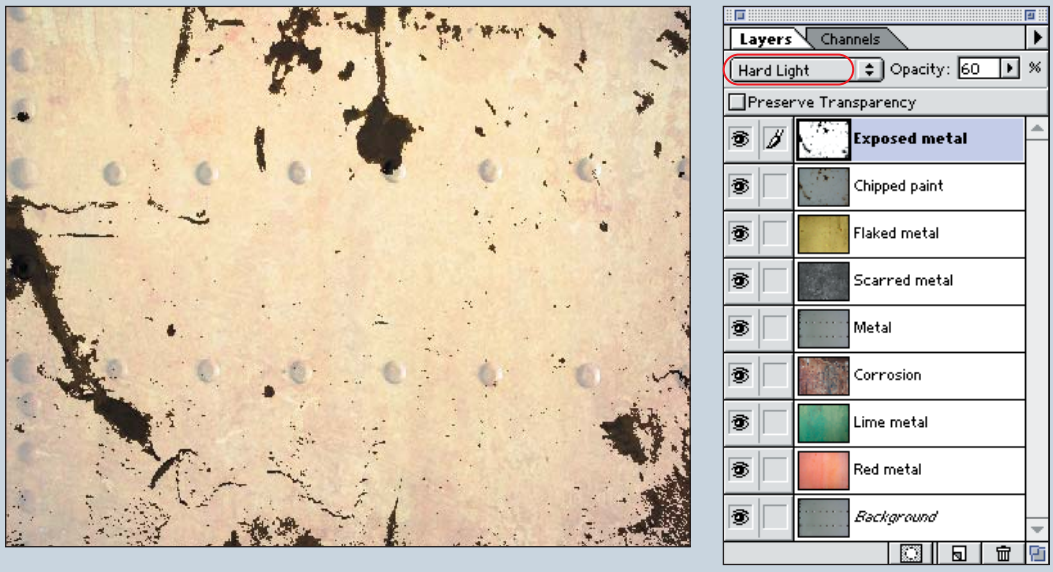
Creating major metal flaking

Load the 'Chipped paint' image then copy it to a new layer above the 'Flaked metal' layer and name the new layer 'Chipped paint'. Next we change the layer blend mode to Hard Light with an Opacity of 60%. This renders the major flaked areas to the metal texture and also desaturates the image giving it the appearance of oxidation. The texture in the exposed areas of the major flaking is the wrong colour and style. We want this area to be more of a gray metal since the metal beneath is aluminum and won't age as fast as the steel sheet metal over it. To change the metal in the exposed areas we'll be using another photo texture, but first we must define the exposed area to fill with the new metal.

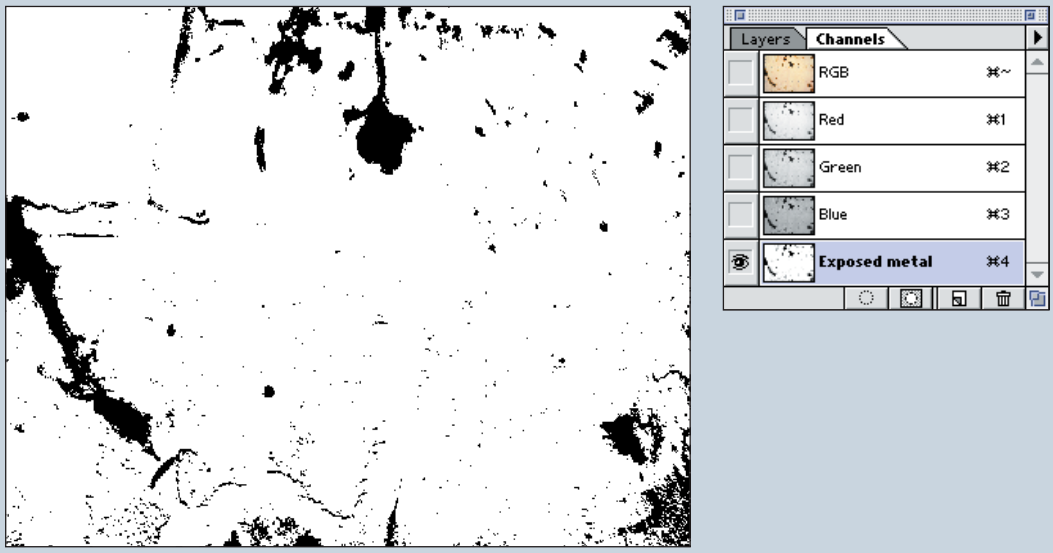
Defining the exposed metal selection
Duplicate the 'Chipped paint' layer and call it 'Exposed metal'. Desaturate the layer (Image > Mode > Desaturate). Using Brightness/Contrast (Image > Mode > Brightness/Contrast), set the Brightness to 25 and the Contrast to 100.

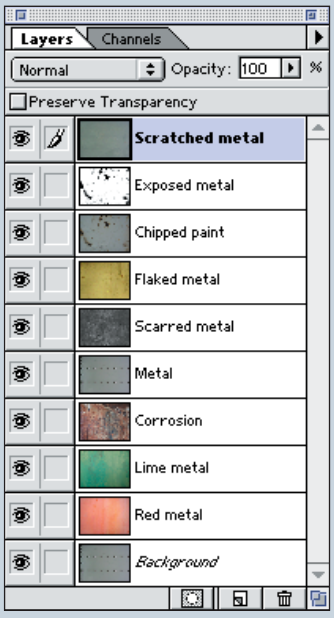


Isolated
This isolates the exposed areas as black spots on a white background.



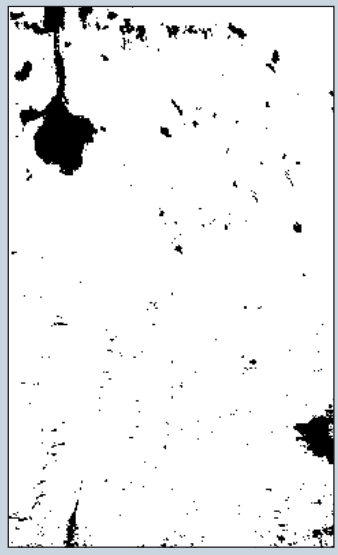
Exposed metal channel
Select All and Copy, then switch to the Channels tab and add a new channel called 'Exposed metal'. Paste the selection into this channel.
This is the selection we'll be using to fill the exposed areas.



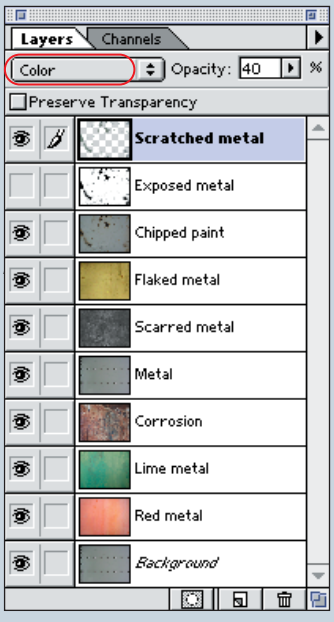


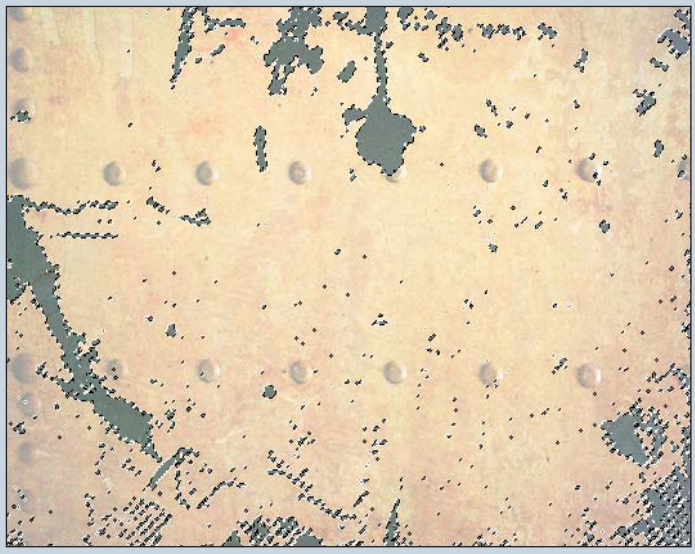
Exposed Metal selection

Exposed Metal channel

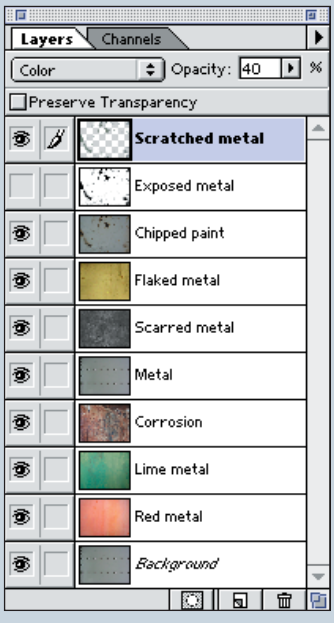


Adding the underlying metal
Load the 'Scratched metal' image then copy it to a new layer above the 'Chipped paint' layer, naming it 'Scratched metal'. To finish the underlying metal we load the 'Exposed metal' selection (Command/Ctrl-clicking the 'Exposed metal' channel) and then press Delete to remove the selected area. This leaves us with gray metal pieces over the exposed areas.



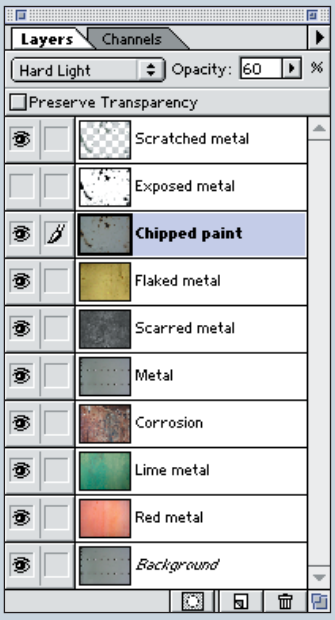


Colour blend mode
Now we set the layer blend mode to Color with an Opacity of 40%.

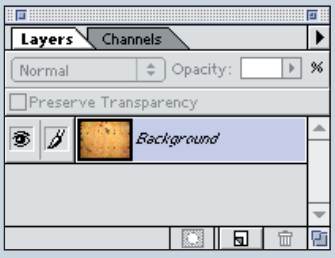


Exposed metal
This changes the exposed metal to a soft grey metal texture.

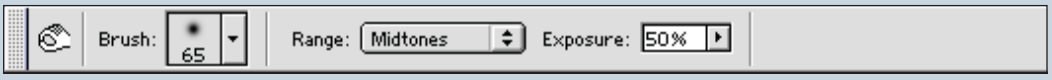
Adding drip stains
Adding dripping rust is simple. The foundation colour is already present. We just need to take advantage of it. For the rust to appear realistic it needs to have chaotic colour variations, which could take plenty of time to paint by hand but since the aged metal already has this chaos, we can use it for the rust. Save your file as 'Metal.psd', then flatten the image.



Flattened
Our aged metal is now ready for some drip stains.

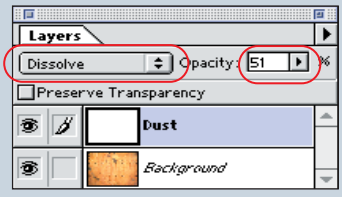


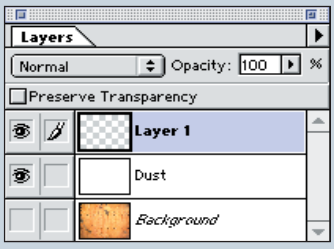
Burn tool
Select the Burn tool, set the Brush Size to 13 pixels and the Exposure to 20%.



Vertical strokes
Paint vertical strokes underneath the rivets. With the dripping rust complete, we're ready to lift the foreground metal off the background in the exposed areas.
Notice how the colour becomes a rust tone. All we are doing is saturating the colour that is already present.
As we paint the strokes under the rivets on the left we see the colour is a darker shade of brown, which is the predominant colour in this region. Burning the rust using the actual image colours ensures the rust we create looks natural.

Raising the surface metal
To raise the surface metal, set the Brush Size to 5 pixels and paint strokes under the top edge of the exposed areas. Burning this area darkens it, creating a shadow that lifts the surface metal off the underlying metal.
Okay, we're now finished with the Burn tool.

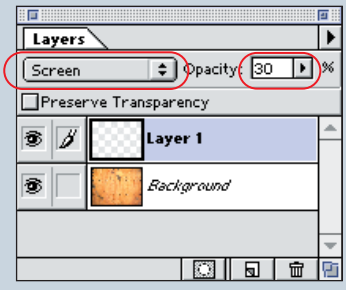




Dissolve

Gaussian Blur

Creating the dust layer
Add a new layer called 'Dust', fill with white, then set the blend mode to Dissolve and the Opacity to 51%. We need to soften the dust speckles and also make the layer editable. We'll need to render the layer so the dissolved pixels but on a layer with a Normal blend mode. Add a new layer, switch off the background layer and Merge Visible to combine the visible layers. Apply a Gaussian Blur with a Radius of .4 to soften the dust speckles.



Blending the dust
Set the layer blend mode to Screen and the Opacity to 30% to blend the dust with the metal below. We now have a subtle dust layer covering the metal, though it covers it too completely.

Removing dust under rivets
The spots under the rivets should have less dust so we need to remove it in this area. Select the Eraser tool with a Brush Size of 13 pixels and a Pressure of 100%. Paint strokes directly under the rivets to remove the dust. It's a subtle effect, but we are striving for photorealism.