

Maya QNA_113	First published in 3DWorld Magazine 113 February 2009
Question:	<i>How do I create is a material with the look of tarnished silver? - Mgkaplan via the forums</i>



Tarnished silver is actually a chemical reaction with air called oxidation, making it change colour, lose its reflectivity and look plain messy. Here's one way to do this in CGI.

Open the hypershade and select the SHINY_SILVER shader. Drag it into the Work Area and click Graph > Input and Output Connections. Select the shader then Edit > Duplicate > Shading Network. Select the new shader in the work area, show its inputs and outputs then rename it to TARNISHED_SILVER. Apply it to one of the goblets and the jug group.

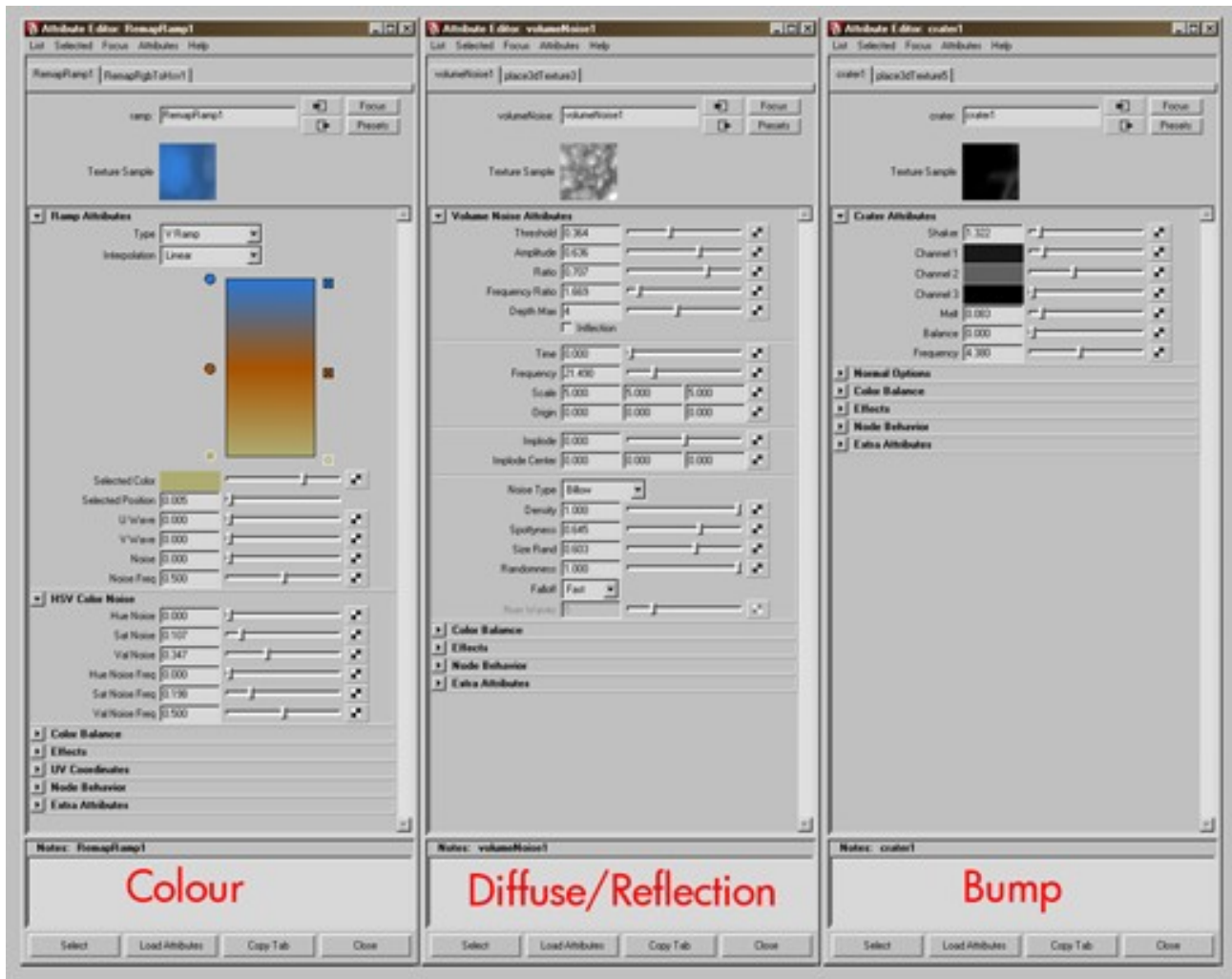
To make the ambient dirtier, double click the mib_amb_occlusion3 node and in the Attribute Editor that pops up, click on the Dark Color Picker. In the Color Picker's V change the value of -.25 to -.5. Keeping the attribute Editor open, click TARNISHED_SILVER and next to color, click the texture checkbox. From the Create Render Node window add a stucco. Set its channel 1 to black, channel 2 to white and its shaker to around 2.9. Next scale up the stucco's place3Dtexture by around 2.5. Reselect the stucco and in its Effects rolldown

click the button for Color Remap. change the RemapRamp's values to match RemapRamp1 in imagel. Select RemapRamp1 and then Edit > Duplicate > With Connections to Network. Change it's ramp to black to white and plug its output into the shader's diffuse to make it more dirty.

To break up the reflection, open up the mental ray rolldown of the shader and change the Mi Reflection Blur to 2 and the Reflection Blur Limit to 2. Change the Eccentricity to 0.5, the Specular Rolloff to around 0.6 then navigate to the ramp going into the Reflectivity. Make the bottom black and connect a Volume Noise to the top setting it to the information in imagel.

As a final effect, connect a crater to the shader's bump mapping node setting it to the values in imagel, the height of the bump to 0.1. Render, and you should have tarnished silver.

Image 1



Here are all the options you need to flag and the colours you need to create to make a convincing tarnished silver from the one in the start scene.

Image 2



So shiny and, err, not so shiny. Here is a final graded image created using almost nothing but procedural shaders and lots of blurred reflectivity.

Quick tip

For more accuracy, make the colour using texture maps of fingerprints and smears, which can be easily made with ink and paper then scanned in.