



INTRODUCTION TO GRAPHICS

Displacement Mapping III: Dressing the Model

Information
Sheet No. PS740



Displacement maps are useful for making 2D patterns “wrap” around fold or curves on an object with a perceivable depth.

Displacement maps



are used a lot when texturing clothing or monsters.

The art to above was a bit rushed but hopefully it will be enough to help you unlock the secrets of this advanced Photoshop technique.

First...prepare your line art.

Place it on it's own layer and change it's blending mode to “Multiply”. This will allow you to paint and work on layers underneath the line art without painting over or obstructing the line art.

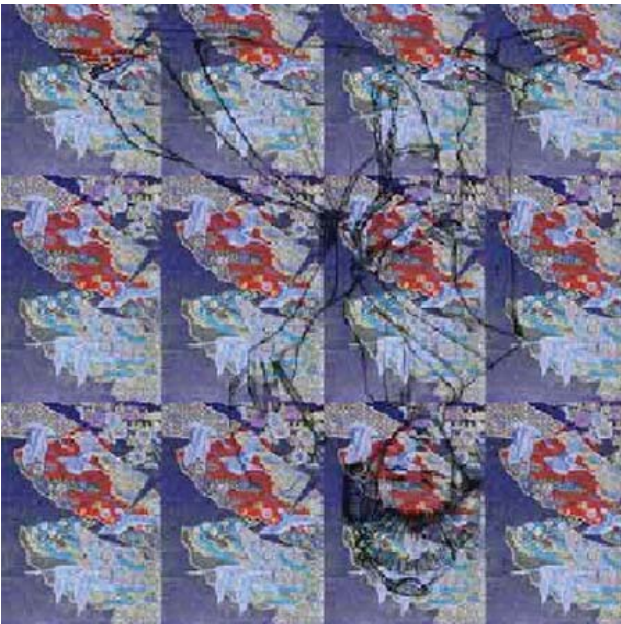
Basically, “Multiply” makes white invisible whereas “Screen” makes Black invisible.



Color in the portions that will not be affected by the displacement map.

In this picture you will be adding patterns to the Kimono, OBI and Fan.

Choose a pattern and then, by using the eyedropper, grab complimentary colors from the pattern so the Kimono's trim will look nice with it when you apply it.



Create a new layer above your color layer and below your line art layer.

Name it "Pattern" so you know what it is later.

Find a pattern on the net or scan one in that you like. Fill the entire layer with this pattern.



Hide your pattern layer by clicking the EYE off.

Switch to your channels palette. Create a new channel and mask out the part of the drawing you want to apply the pattern to. (Paint the area white)

If you see only black, make sure you click the "EYE" on for the RGB channel. Your new Alpha channel should then be 50% red so you can see what your painting over.



Make a copy of the channel you just masked out and begin shading it to match the light source you've established in your picture. Apply a Gaussian Blur of a few pixels when you have it shaded the way you like it.

Copy this channel (select all, COPY) and paste it into it's own document. (ctrl+N , ctrl+V).

Go back to your main art document and make the "Pattern" layer active by clicking on it.

Go to your filters menu and choose "Distort>Displace" Choose the default setting of 10,10..repeat edge pixels. Click OK and browse to the "Displacement.PSD" document we previously saved. Click OK.



Now your texture is "wrapped" around the folds and curves we shaded. If the effect is too strong, undo the filter and redo it with a lower setting like 5.5 or so.

Use the mask channel you made that doesn't have shading to select the textured area. Invert the selection and trim away the excess pattern.

Now the pattern is wrapped but still requires some shading. Use the dodge tool to add highlights in the appropriate areas. Repeat this process for any other areas you want to wrap a pattern around. Go back to page 1 to see the completed version of this piece.