Using Artlandia SymmetryWorks you can create symmetry based designs for webpages, wallpaper, fabrics, quilting, and tiles—but did you know you can also use it to create some really great brushes?

If you don't have the Artlandia SymmetryWorks plugin for Illustrator, you can download a demo from Artlandia. It will only apply one symmetry of the plugin's choice per Illustrator session, but it will give you an idea of how the brushes are done.

Constructing the Pattern Tiles

This tutorial was done using Adobe Illustrator 10. Artlandia SymmetryWorks is a new filter that also works with Illustrator 9, and this tutorial will work with version 9 also.

We'll use a petal shape for this tutorial but any shape will work—experiment and try others. There is no end to the brushes you can create!

We'll start by drawing a petal shape with the pen tool. First turn the grid on by going to View > Show Grid to aid in drawing the petal.

Settings: Grid every 72 pixels, 8 subdivisions

Stroke: any color

Fill: None

Activate the Pen tool.
1. Click and drag up and to the right at point 1.

2. Move the pen over 8 squares, at a 90° angle and click. Drag the mouse up and to the right about 3 squares.

3. Click under the top line of the petal the approximate distance away equivalent to the width you want the finished petal to be and drag up and left.

4. Click on point 1 to close the shape.

If you like, you can turn off the grid now by going to View > Hide Grid.

Select the stroke and go to the object menu. When you install Artlandia SymmetryWorks, a new menu item appears on the Object menu. You'll also have a new palette on the artboard called SymmetryWorks.

**Object > SymmetryWorks > Make**

The pattern is created, using the last used option.

(Also note that you can at any time go to Object > SymmetryWorks > Release to release the pattern.)

This one is the **Six Rotations pattern**, with tiling set to $1 \times 1$. Experiment with different patterns. For a brush it is probably best to keep it fairly simple, but experimenting is the best way to find out!

I like the flower look of this one so that's what I'll use for my brush.

**Below** you can see how hovering the mouse over the pattern reveals the control points. Now you can also tell which petal is the original, since any edits to the petal itself need to be made to the original one. **Right:** When you are using more than one copy in the tiling options, you can edit the pattern by using these points and the direct select arrow (A) to select one point and manipulate it. This allows you to change the placement of the tiled copies in relation to each other.
To adjust the petal click on the original petal with the direct select arrow and adjust the bezier curves the same as you would do on any object. All petals in all copies of the pattern will be updated simultaneously to reflect any changes you make.

Experiment and pick the pattern you wish to use for your brush.

Adding a fill and brush stroke to the pattern

You can make a brush as the pattern is, but you can dress it up too. Add a fill color using the swatches.

Wait! What happened here? You have to be sure to use the direct select arrow (the white one!) to select ONLY the petal or you will get a mess like this when you try to apply a fill (or change the fill if your petal was already filled.)

If you try to change stroke color with the pattern control points selected you'll get this:
In both of the above cases, your selection was like this one:

Use the **direct select arrow** (A) to select just the petal. Now you can adjust the fill and stroke.

Add a fill color.

As long as the stroke was selected I also changed the stroke color to dark red.

With the petal still selected, use the **brushes palette** to add a brush stroke and set the stroke width as you want.

Constructing the brush
Use the selection, or black arrow now to select the pattern, and drag it to the brushes palette and drop it in.

It may not look like you're dragging the whole thing, but you are so if it appears as on the right, just keep dragging and drop it anywhere in the brushes palette.

When you get the new brush dialog box, choose **New Scatter Brush** and click **OK** to get the next dialog box.

Name the brush.

I left **size** and **spacing** at default, adjust these as you see fit.

If you want the brush to follow and stay on the path you draw, leave **scatter** at 0%. Experiment with the settings to choose how your brush is applied. I left **rotation** at 0°. Rotation can be set relative to page or path. I left it at **page**.

**Colorization**: set this to **Hue Shift**. That allows the brush color to change when you change the stroke color.

Click **OK** and the new brush is added to the brushes palette.

Applying the new brush
Draw a Path:

Click on the new brush in the brushes palette to apply it to the path.

Depending on the original size of your shape you may need to edit this. This one definitely needs editing.

Editing brushes is a simple matter in Illustrator! Just double click on the brush in the brushes palette to open the options again, and change them to suit. I’m changing this one to **Size: 33%** and **Spacing 33%**.

Experiment with these settings too. When you are satisfied, click OK, and then in the resulting dialog box choose **Apply to Strokes** to change the brush on strokes it has already been applied to, or **Leave Strokes** to have it apply only to new strokes drawn after your edits.

I chose **Apply to Strokes**. That’s much better!

Now try changing the stroke color. See how the Hue Shift option changes the dark red to dark blue and red to light blue?

**Variations**

Changing options:

- **Size** and **spacing** both were changed to **20%** and scatter set from **-25 to 25** and **Random**.

These screenshots show the path, and the results of the changes on the brush.
Using a style on the pattern

After drawing the shape, you can apply a style to it before or after applying Artlandia SymmetryWorks. If after, though, make sure to use the direct select tool to select the path only!

This style can be applied to the petal or the pattern after Artlandia SymmetryWorks is applied, but it won’t work as a brush because of the gradient and drop shadow. We need a simpler one to use for a brush.

For styles, use simple ones if you want to make it into a brush. Gradients and some other elements won’t be converted to brushes. If you’re using a style that won’t convert to a brush, Illustrator will let you know that. Just undo and try again. This style works fine for a brush.

Change the color if you wish.
Object > SymmetryWorks > Make

I used the Double Glide pattern on this one:

And Triple Rotation on this one:

Either of these will work great for a brush.

Triple Rotation:

Double Glide:

Pattern Brush

Pattern brushes can also be created using patterns generated with Artlandia SymmetryWorks. Drag the pattern you used for the scatter brush to the brush palette again, only this time when the dialog box comes up choose Pattern Brush and click OK.
Change the scale to 20% and the colorization method to Hue Shift in the Pattern Brush Options and click OK.

The brush shows up in the brushes palette.

In Illustrator 9, it's in two spaces, if you are using Illustrator 10 it will show up in three spaces.

Drag out a square or rectangle and apply the brush to it and you will see it's missing the corners.
To fix this, hold down the alt key and drag a second copy of the original pattern to the brushes palette and drop it in the first empty slot.

The pattern brush options will open again and you can see the corner tile has been added to the tiles. Click OK. When asked to Apply to Strokes or Leave Strokes, click the Apply to Strokes button.

The new tile is also added to the brush preview in the brushes palette, and the corner tiles are updated on the square.

These are brush basics in Illustrator; if you want more detailed information about creating pattern brushes with Illustrator 9 and 10, I have a tutorial on my Illustrator Tips and Tutorials page. Enjoy!

Try the Celtic Brush tutorial using Artlandia SymmetryWorks.
To use it you will need the free Adobe Acrobat Reader.

Contact Me

Disclaimer: Site Design and all graphics on this site are the property of and copyrighted to Sara Froehlich and Northlite Designs.

July 18, 2002