# Dahlia Mosaic –
## *a blended pattern from a digital photo*

### by Gudny Campbell



Mosaic Dahlia, 16" x 16", by Gudny Campbell

Playing with Adobe® Photoshop® Elements software, discovering new tools, and combining them to make digital art are some of my favorite pastimes. When I realized geometric patterns could have transparent parts, I began creating stencil-like designs and tiling them. About the same time, I discovered the magic of blending. Friends admired my designs and wanted to learn how to create them, which led to my book *Creating with Pixels*. My Dahlia Mosaic quilt applies the techniques, which are explained in the book, of blending a stencil like pattern with one or more photos and/or filtered texture. When printed on treated silk or cot-

ton, and then quilted, digital design is given a whole new dimension.

In Elements, you can create a pattern such as the half-square triangle, then use it tiled and resized as you like. Additionally, you can blend the pattern with photos to create many different designs.

Blending is the magic which transforms your design with some amazing results. Blending on a selected layer interacts with the layers below, changing the darkness, lightness, contrast, or brightness. Pixels on the blend layer combine with pixels on the base layer in different ways, depending on the blending mode se-

lected. The bottom layer, the base, is always the photo. You can stack multiple layers above the base layer with the same or different blending modes. Take five minutes to watch the Adobe TV blending modes video for a better understanding of blending modes: http://tv.adobe.com/watch/learn-photoshop-elements-7/blending-layers-together/.

This article explains how you can create a half-square triangle pattern, add it to the current Elements pattern library, and then adjust the pattern to create different sized triangles. It then describes how to blend the triangles with your digital photo and create a mosaic filtered version of your photo for the pixelated border.

While there are multiple ways for entering many Elements commands (from the top menu, by right-clicking, using keyboard shortcuts or in the Layers panel) the following instructions show one way to use the Elements tools for Versions 5 through 11. Version 11 has a different screen interface, but the menus and tools work the same way.

## Tools & supplies

- Adobe® Photoshop® Elements software.
  *Editor's note: These instructions should work with Adobe® Photoshop® software as well.*
- Digital photo 300 PPI or higher
- Inkjet printer
- Fabric sheets for inkjet printer
- Fabric for backing and binding

Now let's get started. *Editor's note: For each section below the first paragraph describes what you will accomplish in the section. Detailed, numbered steps follow the introduction.*

## Create the triangle pattern

Draw and save the half-square triangle pattern to layer over the photo. For both photo and pattern, I recommend 300 ppi so you can print on paper or fabric or, optionally, enlarge the design up to 16" x 16" later.

1. Open the Adobe® Photoshop® Elements software Editor. In version 11 click on **Expert**. For other versions click on **full** or **edit**. From the top menu select **File > New > Blank File**, size 4" x 4", transparent background, color mode RGB, 300 ppi resolution. Click **OK**.

2. Make the grid lines visible so it will be easier to line up your triangles later. From the top menu, select **Edit >** on the PC or **Photoshop Elements** on the MAC, then **> Preferences > Guides & Grid**. Set gridlines **50** and **%** from the pull down menu, and set subdivisions to 2. Click **OK**. I changed the grid color to red to make it easier to see. From the top menu, select **View > Grid** and **View > Snap to > Grid**.

3. Select the Custom Shape tool on the left side of your screen in the toolbox. In version 11, it is a star under the draw section. In previous versions, if the toolbox is not visible, select **Window > Tools** on the top menu. If you do not see the Heart icon, right-click on one of the other icons shown, then click on the Heart icon.

On the options bar, set options to Fixed Size 8" height 4" width. Select **Shape > Triangle**, and set the color to black. Click and draw the triangle. It will not be in the right place, but you will fix it in the next step. On the options bar click on **Simplify**.

4. Click on the **Move** tool. Zoom way out, so there is a lot of room outside the image. Drag the triangle so it lines up on the top and bottom, and half of it is outside the image. Click on the green arrow or press **Enter** (fig. 1).
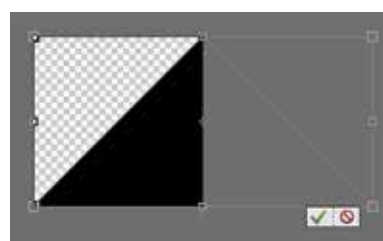


Fig. 1

5. To shade the triangle, set the foreground/ background colors to the default black/white. From the top menu select *Filter > Sketch > Bas Relief*. Set detail to 15, smoothness to 15, and light to top left. Click **OK**.

6. To create the pattern, from the top menu select *Edit > Define Pattern*. Name it ½ Square Triangle. I also add the size in inches and the resolution (½ Square Triangle 4"x4" r300) so I can easily check sizing later when creating patterns. *Note: This step adds the pattern to the bottom of the current Elements pattern library. To view and manage your pattern libraries, from the top menu select **Edit > Preset Manager**, then select **patterns** from the pull down menu.*

7. Close the file without saving because the triangle is now an Elements pattern.

## Create the design

Select an interesting photo which has several colors and some contrast (fig. 2). Check your photo's resolution, tweak if needed, and crop to 8" x 8".

Fig. 2

1. *File > Open* your photo. *File > Save As* your project.psd file.

2. If the image needs retouching, from the top menu select *Enhance > Unsharp Mask* and sharpen it, or click on *Quick* (located at the top of your screen) for other editing options.

3. Check the resolution to see how much you can

later enlarge the image. To do this, from the top menu select *Image > Resize > Image Size*. Make sure that *Resample Image* is *off* and *Constrain Proportions* is *on*. Change the resolution to 300 ppi. If the height or width is less than 8", your photo resolution is not high enough to later resize the project larger than 12" x 12" because the photo will not be sharp, so take this into account when printing. If you want a larger quilt, click on *Cancel* and choose a different photo.

4. Click on the *Crop tool*. On the options bar set the height to 8", width to 8" and resolution to 300. Drag to fit and click on the green checkmark or press *Enter*.

5. From the top menu, select *Enhance > Adjust Lighting > Levels* to tweak the photo contrast.

6. Double click on the layer, change the name to Photo, and then click OK.

## Create the triangles top

Create the two triangle pattern layers with blending modes set to Luminosity which will allow your photo's color to show through the triangles. Figure 3 shows several of the selections for this step.

1. Duplicate the <u>Photo</u> layer, and in the Layers panel, click on the eye icon to hide the bottom layer. In version 11, clicking on the layer eye icon puts a thin diagonal line through it to indicate the layer is invisible. In previous versions the eye disappears.

2. Click on the top <u>Photo copy</u> layer.

3. To add a pattern, from the top menu select *Layer > New Fill Layer > Pattern* and click *OK*, select the *½ Square Triangle* and scale to 50 %. Click *OK*, then *Layer > Simplify Layer*. Name the layer <u>Triangle 50 %</u>.

4. At the top of the Layers Panel, click on the Blending Mode pull down menu which says Normal and set the blending mode to *Luminosity*.

5. From the top menu select *Image > Rotate > Flip Layer Vertical.*

Fig. 3

6. Select **Layer > New Fill Layer > Pattern** and click **OK**, select the ½ Square Triangle again and scale to 100 % this time. Click **OK**, then **Layer > Simplify Layer**. Name the layer Triangle 100 %.

7. Click on the Blending Mode pull down menu to set the blending mode to **Luminosity** on this layer.

8. At the top of the Layers Panel, click on the Opacity slider and reduce the Triangle 100 % layer opacity to 80 %.

9. Nudge the triangle layers to line them up if needed.

10. Optional: If you want to play with the different blending modes, change the design, click on one of the Triangle layers and scroll through its blending modes, then scroll through the other Triangle layer blending modes. If you find a combination you like better, continue to step 11, otherwise set the blending modes back to **Luminosity**.

From the top menu, select **Layer > Merge Visible.** In the Layers Panel, click on the eye icon to make the Triangle 100 % layer invisible.

12. **File > Save.**

### Create the Mosaic border

The border combines two layers of your photo at about 30 % opacity with a mosaic filtered layer. Refer to figure 4 as you work.

1. Click on the bottom Photo layer and make it visible.

2. Drag the Photo layer to the Create a New Layer icon in the Layers Panel to duplicate the layer.

3. From the top menu select **Filter > Pixelate > Mosaic**. Set the cell size to 200. Click **OK**. Name it Border.

4. Click on the Photo layer. Move it above the Border layer. At the top of the layers panel, click on the Opacity slider and reduce the Photo layer opacity
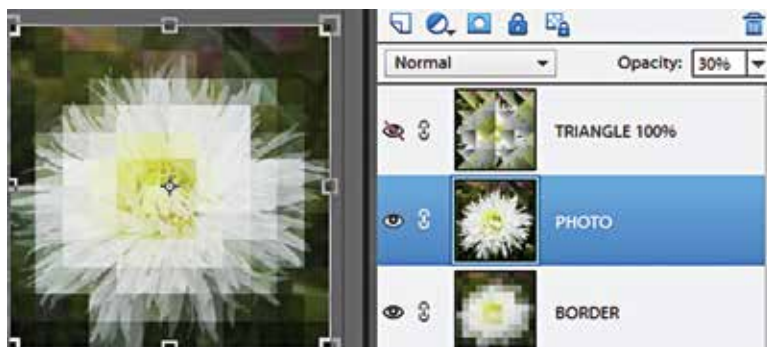


Fig. 4

to around 30 %. You should see both the Photo and the Border layers.

5. Optional step: Play with the photo size. I dragged the photo outside the file boundaries to show more of the dahlia petals. Zoom out so there is space outside the file. Click on the **Move** tool and drag the photo outside the file boundaries. Click on the green arrow or press Enter. Drag the **Crop** tool around the image and click on the green arrow or press **Enter**.

6. From the top menu, select **Layer > Merge Down**.

### Position the design

Increase the canvas to 12"x12", then enlarge the border and position the smaller triangle layer on top.

1. From the top menu select **Image > Resize > Canvas Size**. Change the height to 12" and width to 12". This is the finished size with 2" borders. Make sure Relative is off. Click **OK**.

2. With the **Move** tool, drag the Border layer corners to enlarge it so it covers the whole file. Click on the green arrow or press **Enter**.

3. Unhide the Triangle 100 % layer.

4. **File > Save.**

### Create the Inner Border

Add the inner border using the Rectangular Marquee tool (fig. 5).

1. With the **Move** tool, click on the top layer, and then click on the **Create a New Layer** icon in the Layers Panel.

2. To add the inner border, use the **Rectangular Marquee** tool to draw a selection around the triangles. From the top menu select **Edit > Stroke**. Enter the width 30. Click on Location: **Inside** for square corners, **Outside** for slightly rounded corners. Optionally change the color. Click **OK**. Undo and repeat if you want a thinner or thicker inner border. Add patterns and/or layer styles like

bevel and drop shadow. Scroll through blending modes to soften the border. I used Darken.

3. From the top menu, select **Enhance > Adjust Lighting > Levels** on the Triangles and/or the Border layers to tweak contrast.

4. **File > Save**.

Congratulations on finishing your original design!

### Print on fabric

Print on pre-treated, paper-backed, fabric sheets in an inkjet printer. Most printers print on fabric more successfully if you choose the heavyweight matte setting and higher print quality.

*Print options:*

• If you have a 13" wide printer, you can print the whole 12" x 12" project on one 13" x 19" sheet.

• If you have an 8½" wide printer, you can reduce the size to 8" x 8" to print the whole project on one 8½" x 11" sheet, or use the printer's tile or poster setting to print on 4 sheets.

• To manually select an area to print, click on the **Rectangular Marquee** tool to highlight a section, then from the top menu select **Edit > Copy Merged**, then **File > New > Image from Clipboard**. Print the new file. Repeat for all areas.

• If the minimum size of your original photo at 300 ppi was at least 8" wide or high, you can increase
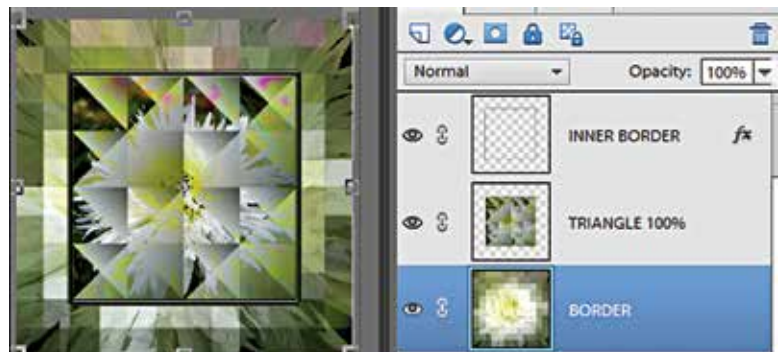


Fig. 5

the project size to 16" x 16", and then select the printer's tile or poster settings to print on 4 fabric sheets.

After printing, follow the manufacturer's instructions for any fabric treatment. Trim leaving a ¼" seam allowance all around. Layer backing, batting and quilt top and quilt as desired. Add binding and a sleeve you would for any quilt.

## Ideas to spark your creativity

You can create different versions of the same image with different filters or photos and arrange them as blocks on a quilt. Try different photos and subject, audition different blending modes by scrolling through the selections, or apply another filter in place of *Mosaic*.

For the quilt in figure 6 I started with a close up photo of a tulip, then changed the Triangle 50 % layer blending mode to *Linear Light*, and created a *Filter > Distort > Wave Square* filter for the border.

Using the same tulip photo, I scrolled through blending modes on the Triangles and set the Triangle 100 % layer to *Linear Light* and the Triangle 50 % layer to *Hue* (fig. 7). I converted the border Mosaic layer to black and white.
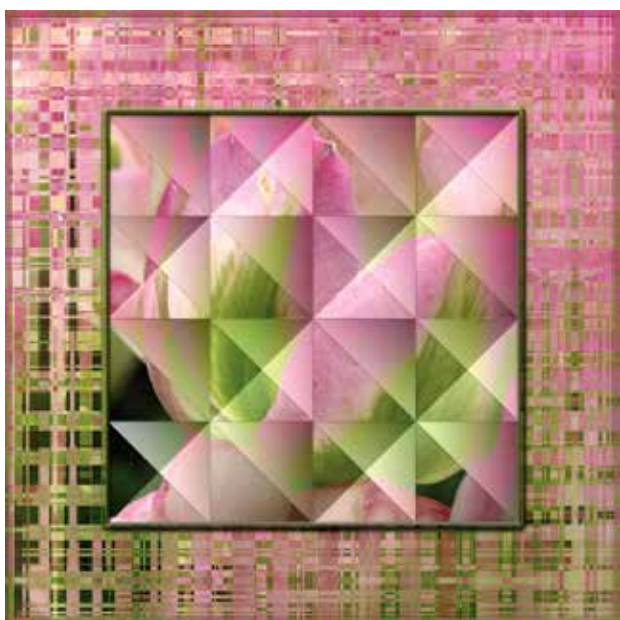
Starting with an ocean photo (fig. 8), I changed the Triangle 100 % blending mode to *Soft Light*. I skipped creating the Mosaic layer, using only the photo as the border so it looks like the triangles are floating in the ocean.
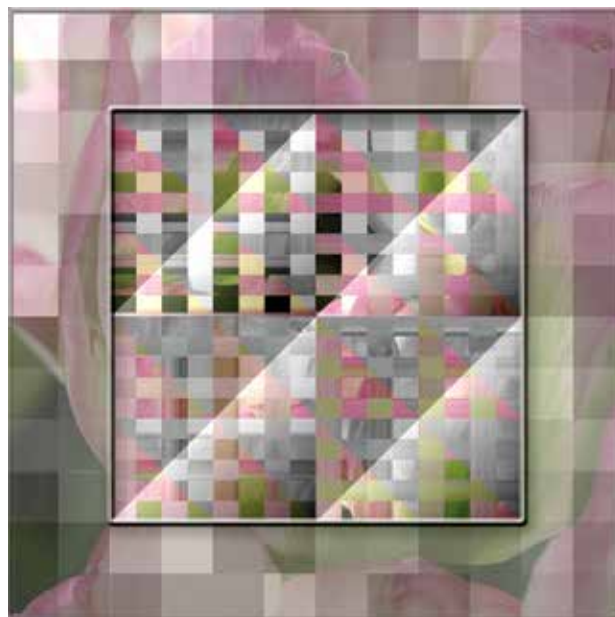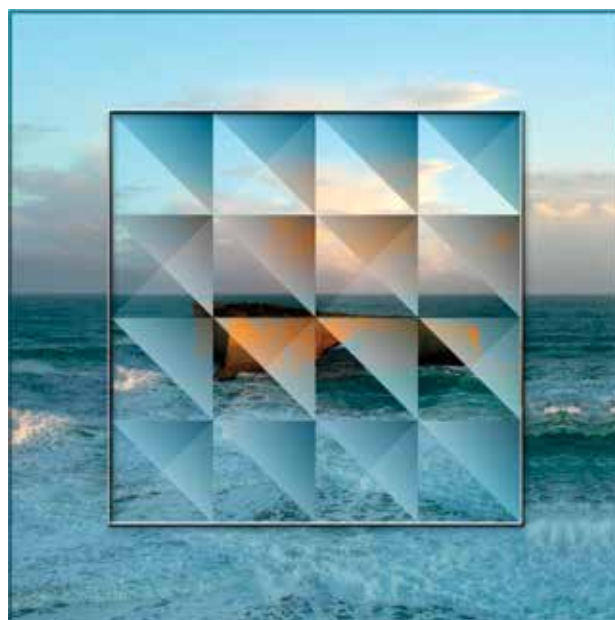


Fig. 7



Fig. 6



Fig. 8