Creating or enlarging a hole in the center of a kaleidoscope
(Photoshop Elements)

There may be times when you want to create (or enlarge) a hole in the center of a kaleidoscope:
• if the center of the kaleidoscope does not enhance the subject;
• if you want to make the shape of the hole more uniform;
• if you want to add space for journaling; or
• if you want to add another photo in the center, etc.

We are going to start with the following kaleidoscope:

![Image of kaleidoscope](image.png)

Obviously the background color of this kaleidoscope has already been changed from the default white to a deep indigo. (See Changing the Background Color.) Notice that the center “hole” is fairly small and that while the design in the center portion of the kaleidoscope looks interesting, the legs have been chopped off. Our goal is to enlarge the center hole to make room for another photo. (Note: You do not have to start with a center hole in the kaleidoscope. You can create a hole and add a photo even if you don’t have a center hole to start with.)

1. Open the file that contains your kaleidoscope using either the File>Open menu command or the File Browser. (If you have just changed the background color, your kaleidoscope may already be open.)
2. Before we try to enlarge the hole, we will need to find the center of the kaleidoscope. The best way to do this in Photoshop Elements is with the Grid feature. However, before we turn on the Grid, we need to set the parameters with the Edit>Preferences/Grid… menu item (Fig. 1)

![Grid Preferences dialog box](image)

In this dialog box:

- Set the Gridline every value to 50 percent. (You may need to use the pull-down menu to find the "percent" unit of measurement.)
- Set the Subdivisions value to 1.
- Click OK.

If you do not see two lines crossing in the center of your kaleidoscope, you need to turn on the grid with the View>Grid menu command. You should now see the gridlines in your kaleidoscope image (Fig. 2). Also verify that the View>Snap to Grid menu item is checked. **Note:** The gridlines do not print; they are simply used to help position the different elements of an image.
3. Now that we have the grid showing us where the center of the kaleidoscope is we can work on enlarging the center hole. We will use the Shape tools to create the center hole. You can choose any of the Shape tools, but the **Ellipse Tool** and the **Polygon Tool** are the most popular for this purpose (Fig. 3a & 3b).

The Polygon Tool is located “under” the Ellipse Tool in the Toolbox. Click and hold on the Ellipse Tool (or any other Shape tool) in the Toolbox to view the drop-down menu. Then choose the Shape tool of your choice.

Since the **Ellipse Tool** and **Polygon Tool** work slightly differently, we’ll cover both of them starting with the **Ellipse Tool**. But first we need to decide what color we want the center hole to be. In this case, we’ll choose the same color as the background color. (Use the **Eyedropper Tool** to set the foreground color by clicking anywhere in the background area of the kaleidoscope image.)

**Note:** If you do not explicitly set the foreground color, the hole you create will be filled with whatever color is currently the foreground color. The foreground color is indicated by the top color patch at the bottom of the Toolbox.
4a. Choose the **Ellipse Tool** from the Toolbox (Fig. 3a). Click on the little down-arrow in the Options bar to bring up the Ellipse Options (Fig. 4). Choose **Circle (draw diameter or radius)** and make sure **From Center** is checked.

![Ellipse options](image)

Back in your kaleidoscope image, click near the center of the kaleidoscope (as indicated by the cross of the gridlines) and keeping the mouse button pressed, drag away from the center point. (The center of the ellipse will "snap to" the center of the kaleidoscope because **Snap to Grid** was checked in Step 2.) A white line indicates the outer edge of the circle as you drag away from the center point. When the circle is as big as you would like, let go of the mouse button (Fig. 5a). To get rid of the white line that remains around the outer edge of the circle, choose the **Layer>Merge Down** menu item or simply press **Ctrl-E** on your keyboard (Fig. 5b).

![The circle after releasing the mouse button.](image)  
![The circle after merging with the kaleidoscope.](image)

4b. While a circular hole in the center works well for many images, in this case the round shape seems to conflict with the straight lines on the outer edge of the kaleidoscope. We'll use the Polygon Tool to create a “hole” with straight edges. **(Note:** If you have already created a circular hole in the center and would prefer a polygon, you can delete the circle you just created by pressing **Ctrl-Z two times.**)
Choose the **Polygon Tool** from the Toolbox (Fig. 3b). In the Options bar, set the number of sides to 8 (Fig. 6). Click on the small down arrow in the Options bar and make sure all boxes are unchecked and the Radius field is blank (also Fig. 6).

![Fig. 6](image)

**Hint:** *You may have fun playing with some of the Polygon Options in the future (particularly the Star option), but for now we’ll leave them alone.*

Now in the kaleidoscope image, click near the center point and drag out along the horizontal gridline. Polygons always emanate from the center point and starting where the gridlines cross ensures that the polygon will be centered in the kaleidoscope (because **Snap to Grid** was set in Step 2.) In addition, dragging along the horizontal gridline ensures that the points of the polygon line up with the points of the kaleidoscope. When you have reached the size polygon you want, release the mouse button (Fig. 7a). To get rid of the white line that remains around the outer edge of the polygon, choose the **Layer>Merge Down** menu item or simply press **Ctrl-E** on your keyboard (Fig. 7b).

![Fig. 7a](image) ![Fig. 7b](image)

You have now successfully filled the center of your kaleidoscope with a solid color. If you want to add a border to the edge of the “hole”, do that now before you add a photo to the center! See *Adding a Border to a Kaleidoscope* and *Adding a Photo in the Center of a Kaleidoscope*. 