

Channels

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Transition



Channels
Alpha

Chapter 8 Channels & Masks

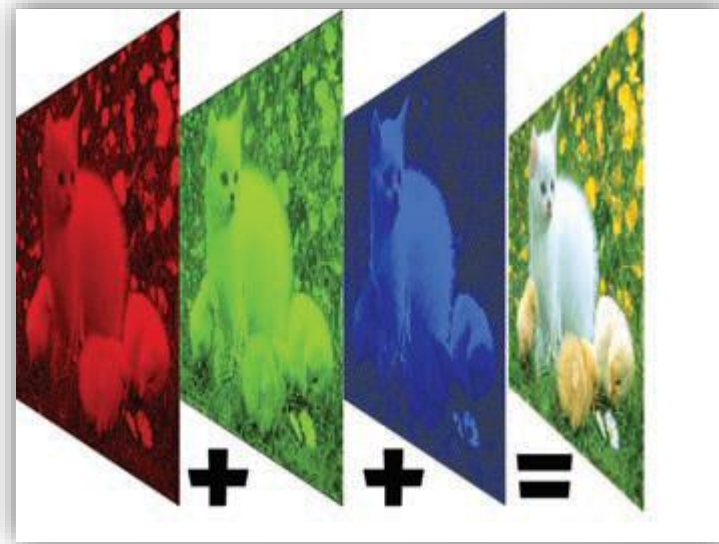
Transition
Color

CHANNELS

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Understanding Channels

- When we look at a colored image on our monitor, we are actually looking at a combination of only three colors: red, green, and blue. It is a combination of the three colors that produce the millions of colors we see.
- An image can be called a channel sandwich. Look at the image above. The image is three color channels that make up the final picture.



Displaying Channels

- The Channels palette is located in the same window as the Layers palette by default. This location can be easily changed, so if you cannot find the Channels palette, you can open the window by selecting **Window -> Show Channels**. Clicking on the Channels tab at any time will activate the Channels palette.
- To work on any channel individually, click on the appropriate channel listing in the Channels palette. The colored image will change to a gray scale image which represents the distribution of that color. When a channel is active, any edits in the main screen will affect only that channel.

Displaying Channels

- Open cat.psd. Switch to channels palette and apply a Noise effect only to the Red channel by selecting **Filter -> Noise -> Add** noise.
- Then switch to the **Layers palette**. Blur will only effect the red pixels.



Blurred Red Channel

The RGB/CYMK Color Channels

- The RGB/CYMK color channels are used to give you an indication of the separate color channels contained within your image. When combined, they create the full color spectrum of an image. Separated, they produce the individual color 'plates' that make up the image's color; Red-Green-Blue / Cyan-Yellow-Magenta-Black.
- You can apply most of Photoshop's filters/effects to these channels; to produce interesting imaging effects. Ones that you can't use will be dimmed out in the menus. But be careful doing this, as these channels will directly produce a destructive editing result on your image.



Alpha Channels

Alpha channels are more widely used to either create, edit, or save specific types of selections.

- ✓ Alpha channels are not part of your image's color composition, and have no effect on that directly.
- ✓ They are 256 gray scale in color.
- ✓ You can apply most of Photoshop's filters to them to create complex and interesting types of selections.
- ✓ Channels are also used as Texture Channels within the Lighting Effects filter, to create a minimal type of 3D effect on a colored area of a layer, or a specific selected area of an object on a layer.



Alpha Channels

- ✓ Quick Masks & Layer Masks use a temporary Alpha channel to store your selection/masking information.
- ✓ You can use any of Photoshop's painting tools to create and/or edit a channel. Menu options that you can't use will be dimmed (non selectable) in the menu lists.
- ✓ Channels can be loaded as active selections in the same manner that layers can; i.e. by holding the Ctrl key down while clicking on them.



Creating an Alpha Channel



Falcon



Alpha Layer

- Selection information is kept as channels in Photoshop. Switch to the *Channels Palette* and click on the *New Channel* icon to create a new channel.



3D Effects With Alpha Channels

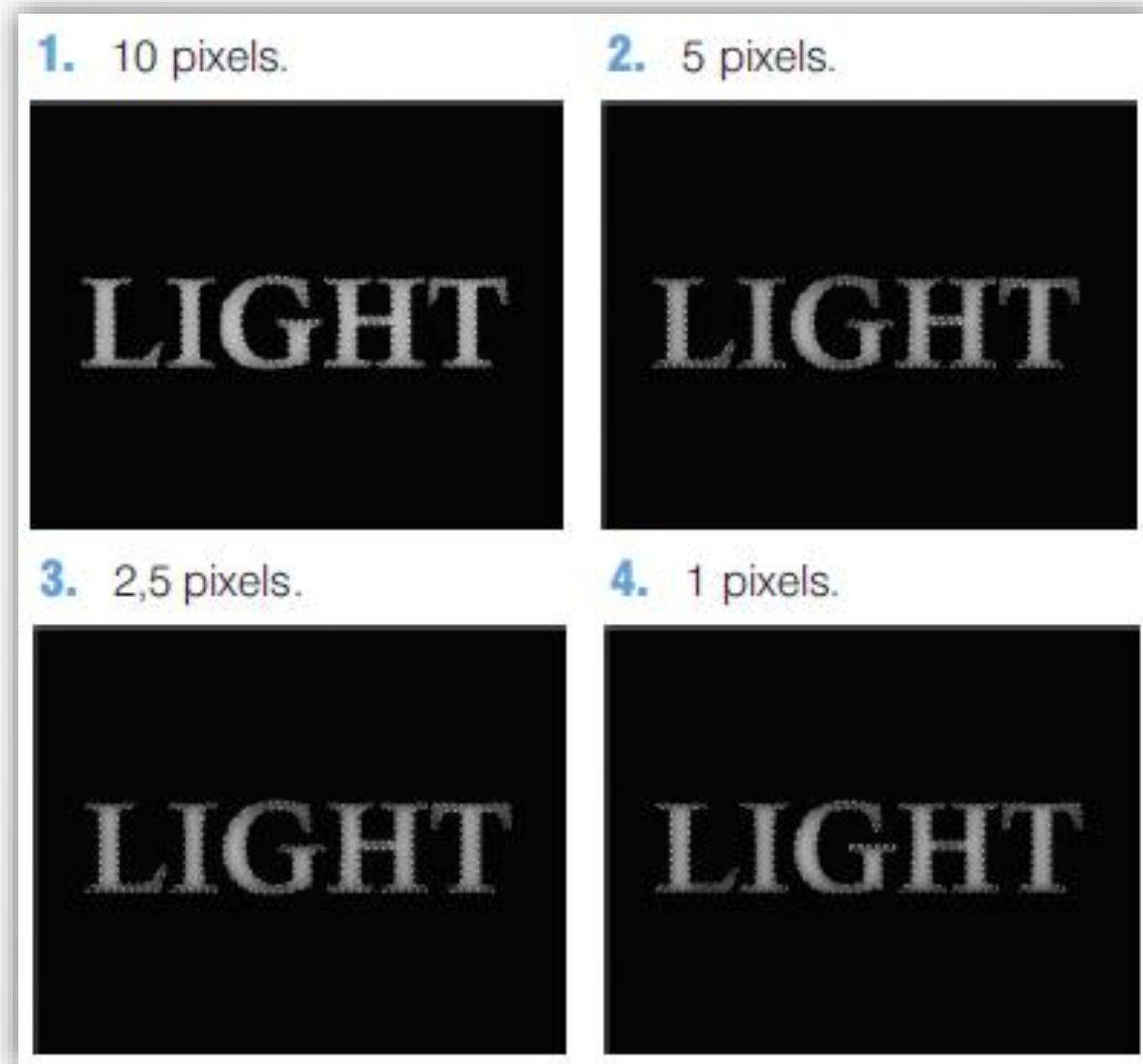
- It is not easy to understand the use of channels without using channel applications on an image. Channels are only used in some specific actions. Making 3D metal look like images is one of them.
- Create a document 500 X 400 with a 72 dpi. black background in RGB mode.
- Type Light with the font Calisto MT Bold, 120 pt. color: light grey.

3D Effects With Alpha Channels

- Rasterize the type, load the selection of Light text by CTRL+ clicking on the layer thumbnail and switch to the *Channels Palette*.
- Create a new channel and fill it with white. Any effect we give under the channels palette will not directly effect the real Light text in the Layers palette.
- Now when Light is still selected we will apply the *Blur Filter* 4 times with the given settings.
- Click on *Filter -> Blur -> Gaussian Blur*.

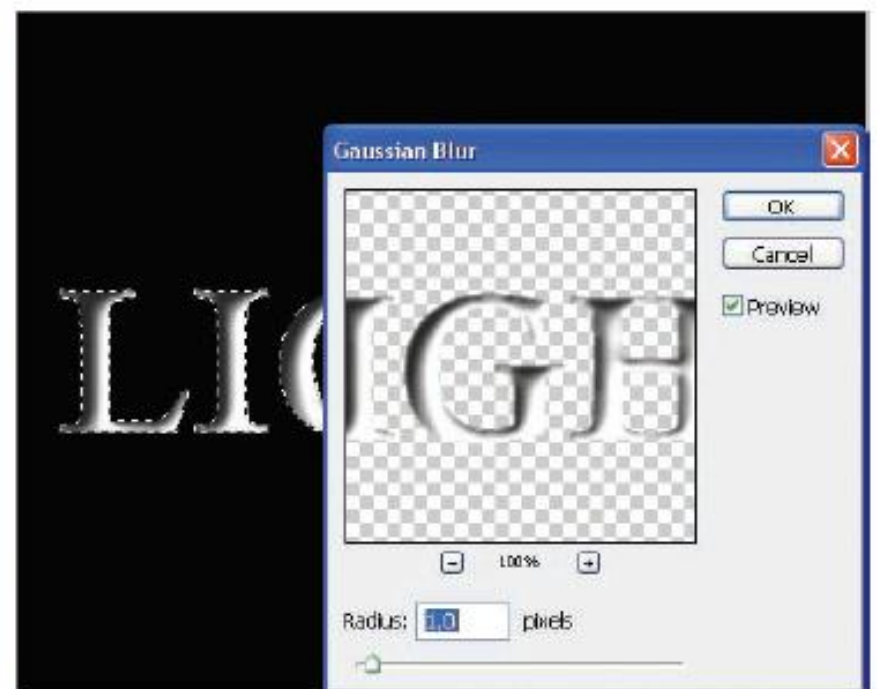
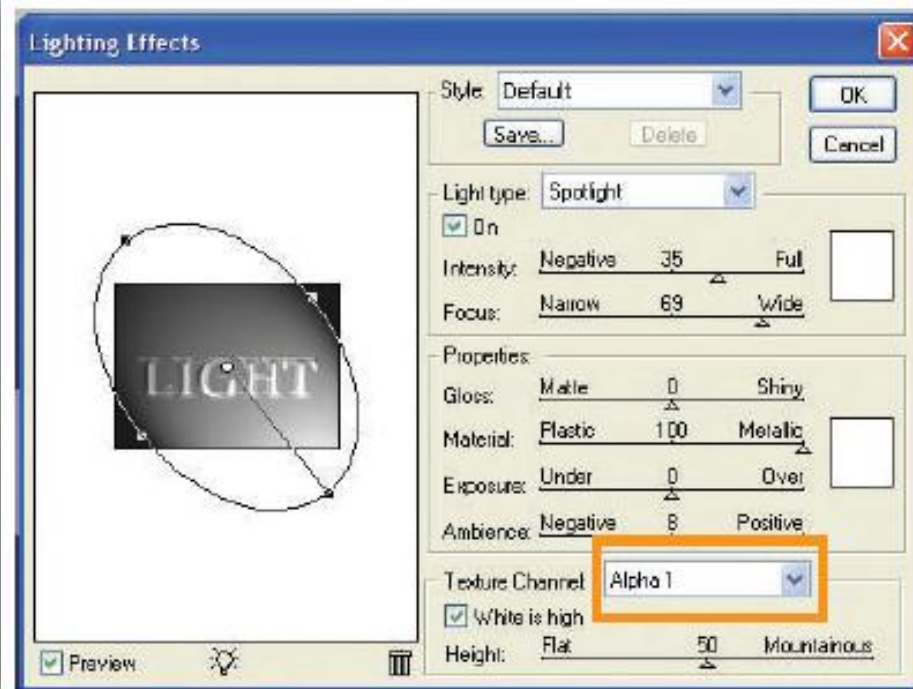


3D Effects With Alpha Channels



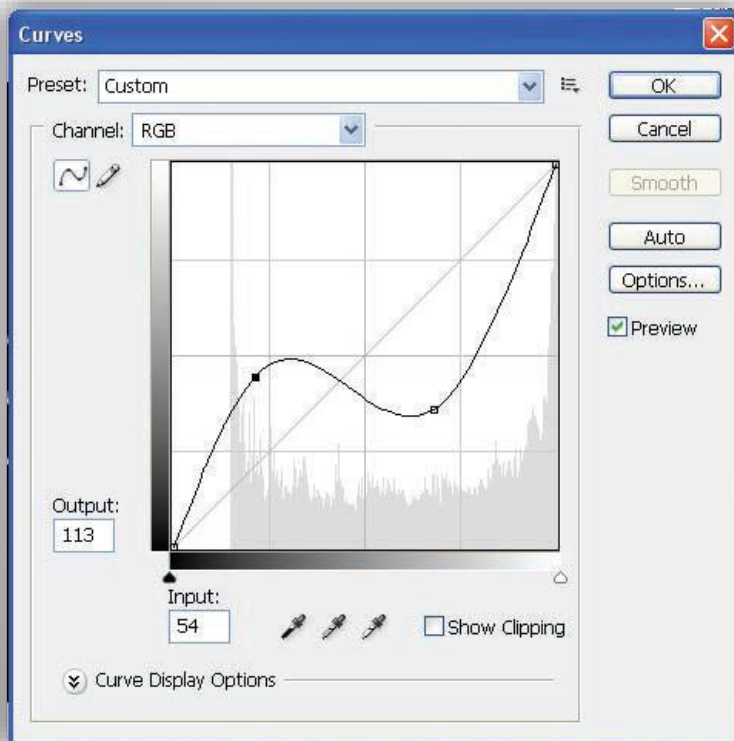
3D Effects With Alpha Channels

- Switch to the Layers palette and select the Light Layer if not selected. As you see no effect is applied to our image yet. Now go to **Filter -> Render -> Lightning Effects**. And apply the settings given:



3D Effects With Alpha Channels

- We load the **Alpha1** layer to apply the effect we have given in the *Channels Palette*. Go to **Image -> Adjust -> Curves** and shine the text. Then select the text and blur it 1 px. From **Filter -> Blur -> Gaussian Blur**.



MASKS



What is a Mask?

- **Masks** are simply a selection. They perform the exact same duty as the little marching ants in a selection boundary. The difference is you can make more complex selections with mask tools. Masks are incredibly useful for blending photos and hiding portions of images without altering them directly.
- **For example:** You will paint door but you don't want the door handle to be painted. You cover the handle with masking tape and after finishing painting the door, you remove the masking tape. Result: The door handle is paint free. Masks in Photoshop do the same job as masking tape does in painting.
- **In conclusion** "Masking comes down to one thing: getting a good transition between what's selected and what isn't." Masks help us to do selections that would be impossible using only selection tools.



Quick Masks

- **Quick mask** is a special mode in Photoshop that is devoted to defining a selection. While Photoshop is in Quick mask mode, all Photoshop functions, tools and commands work for defining the selected area. While in Quick Mask Mode no matter what you draw on the canvas or which effect you give, the drawings and filters will only effect the selection but not the layer.

Quick Masks

To switch to Quick Mask Mode:

- ✓ Click on the *Quick Mask Mode* icon on the *Toolbar*.



In quick mask mode there are two main colors; black and white. Black defines the area that will not be included to the selection and white means the area that will be selected. The tricky point here is that when you select black as the color and try to fill anywhere with black, the color on the screen will be purple: the default quick mask mode color. So don't be confused. You select black but screen color will be purple. The area you cover with purple will be excluded from the selection and only the parts with no color will be included in the selection.

To switch to standard mode Click on the Standard Mode icon on the toolbar which is located in the same place where the Quick Mask button is.

Practice : Applying Quick Mask to an Image

- Open the file tiger_eyes.psd.

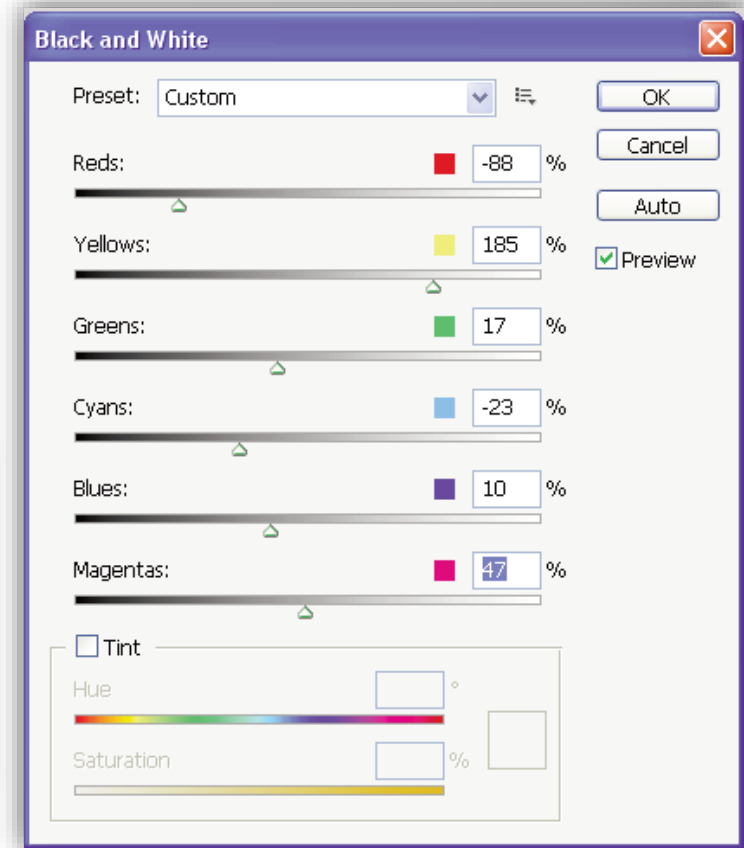


- By using the Zoom Tool on the toolbox, zoom in on the eyes of the big cat.
- Switch to the *Quick Mask Mode*. Be sure that black is the foreground color in this mode. Select an average size brush and fill both of the eyes with quick mask color. Do not exceed the boundaries of eyes.



Practice : Applying Quick Mask to an Image

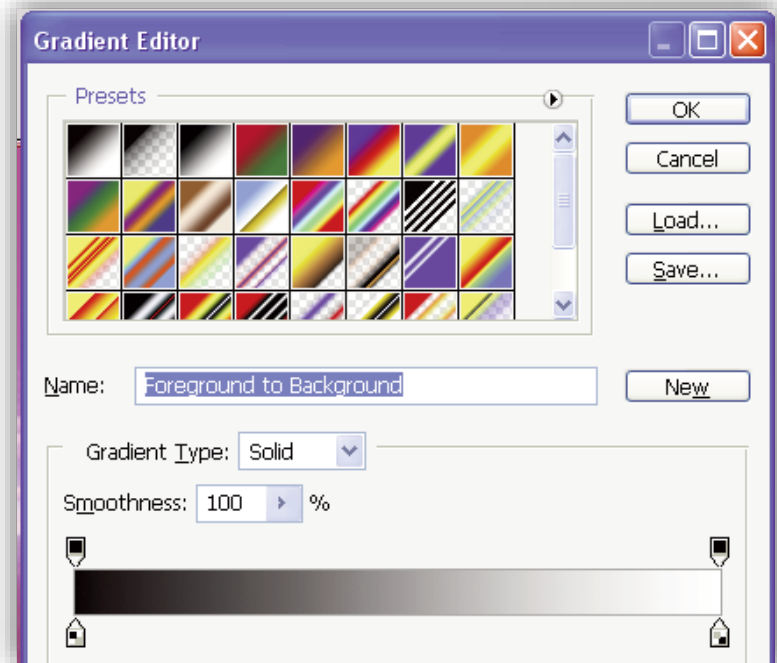
- Switch to the Standard Mode. Everywhere in the picture except the eyes is selected now. Click on **Image -> Adjustments -> Black and White** and apply these settings.



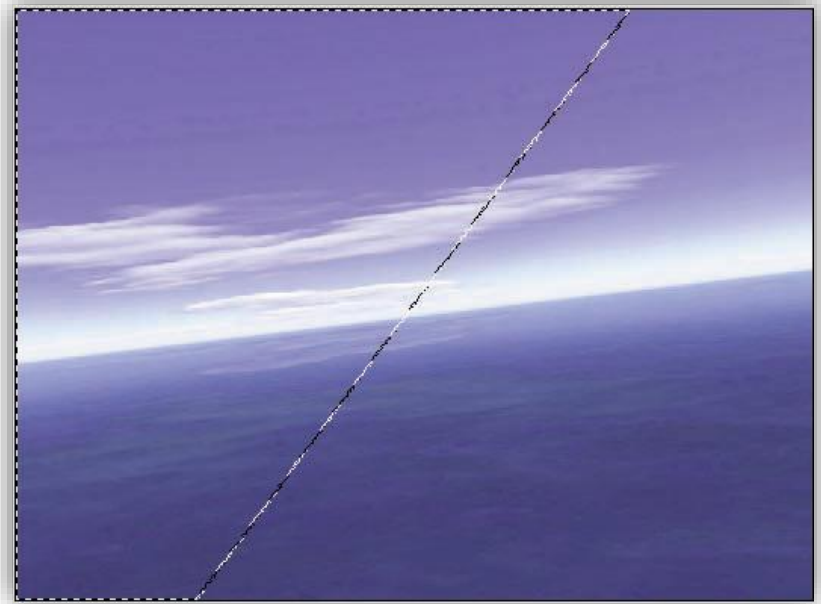
- Now our tiger has turned to white but the eyes are still the same color. By using Quick Mask, although eyes and the face are on the same layer, we have avoided Photoshop applying an effect to the eyes while it was being applied to the face.

Practice : Color Transition with Quick Mask Mode

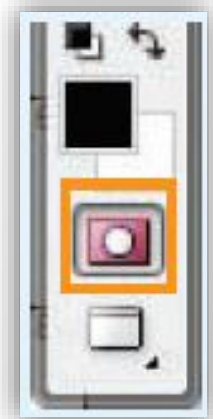
- Open the file **sea.psd**.
- Click on the **Quick Mask mode** icon to switch to the Quick Mask Mode.
- Time to define our selection. Click on the **Gradient Tool** icon and select the **Foreground to Background** gradient, press **OK**.
- As you see our foreground and background colors are white and black. Drag the cursor from the bottom-right corner to the top-left corner to draw a gradient.



Practice : Color Transition with Quick Mask Mode

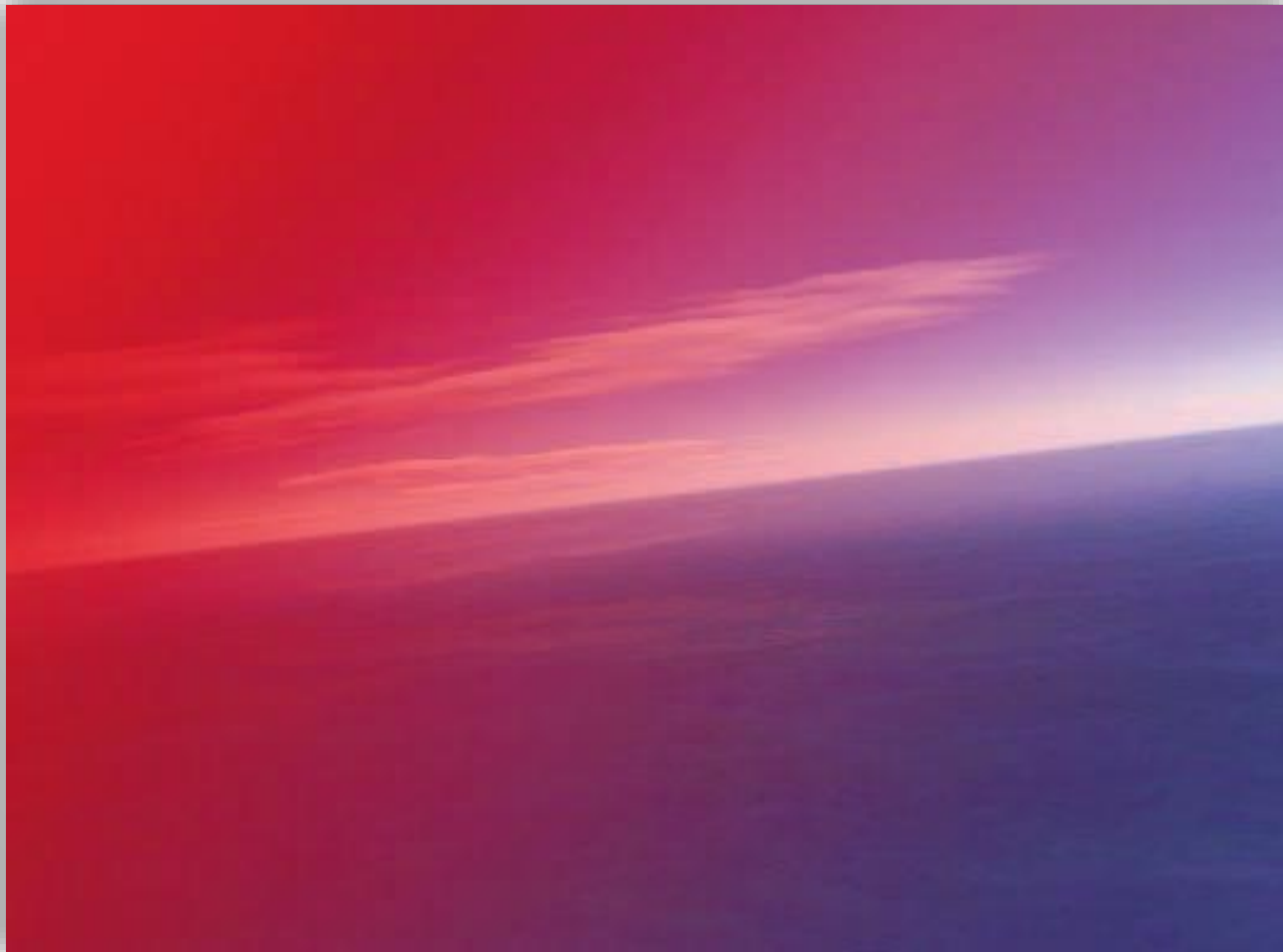


- Instead of filling the screen with black and white our gradient tool is just applying a quick mask color and transparent color. On the picture above, the transparent parts show the upcoming selection. Now click on the **Standard Mode** button to go to the Standard Mode. You will see a selection on your canvas.



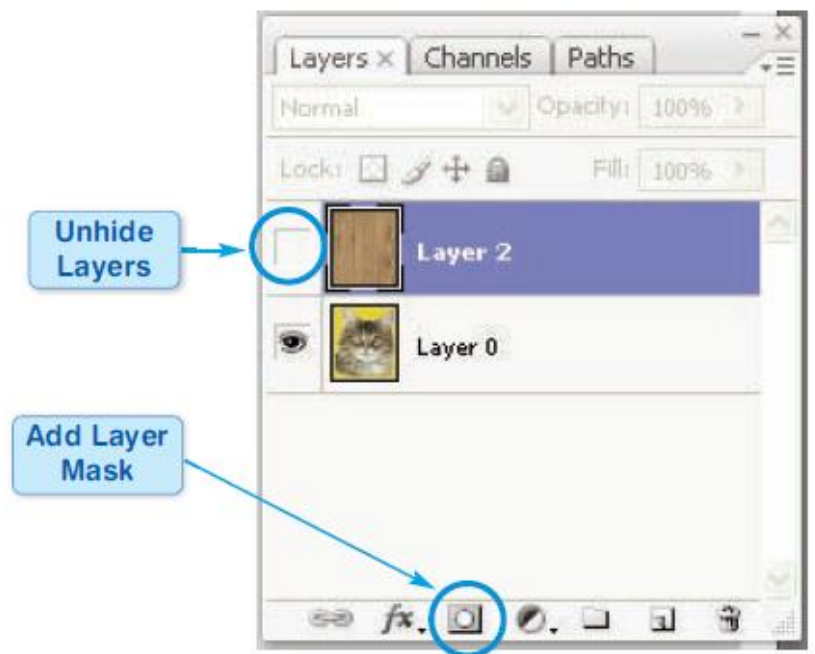
Practice : Color Transition with Quick Mask Mode

- Define any foreground color on the *Toolbox* and Click **Edit -> Fill -> Foreground color**. Here is the result.



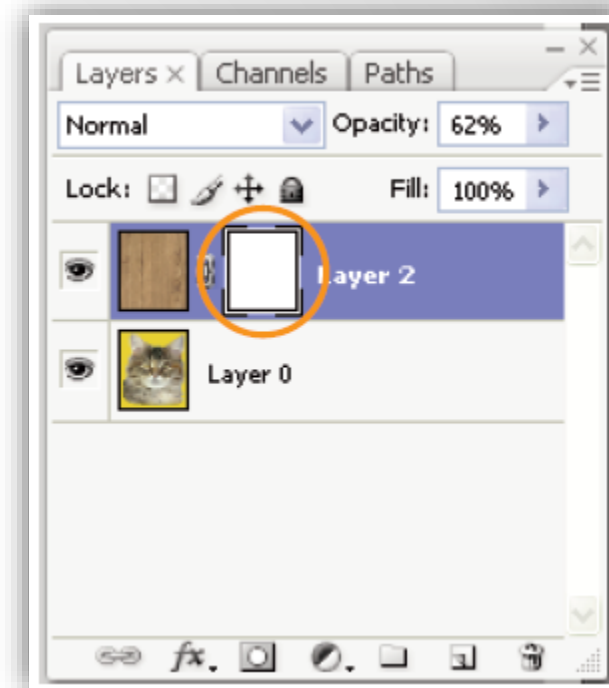
Layer Masks

- A **layer mask** in Photoshop is basically a way of hiding and revealing certain parts of a layer. Layer masks cannot be applied to Background or text layers.
- Open the file **cat_portrait.psd**, select and unhide Layer2. The cat will not be seen for a while.



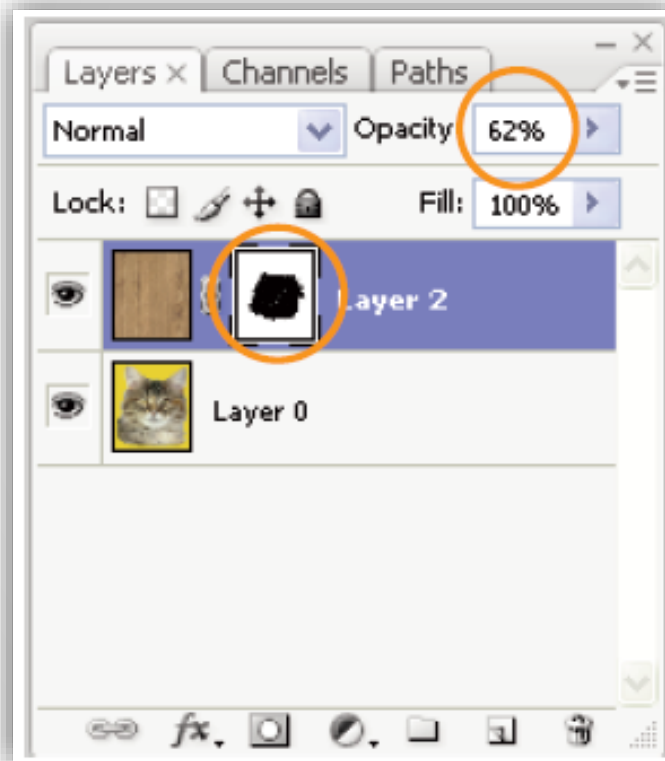
Layer Masks

- Now to create a layer mask: go to **Layer -> Layer Mask -> Reveal All** or click on the *Add Layer Mask* icon on the Layers Palette. A white background thumbnail has come to the Layer2 now. This means the whole of Layer 2 has turned to a mask and is waiting to be cut.
- When you paint on the mask using black, you are “cutting” the mask away to reveal what's beneath. Any white part of the mask is opaque, and the black part is transparent and any shades of gray are varying opacities.
- Time to cut the mask. Select the brush tool and choose an average size brush from brush toolbar which is located on top of the Photoshop screen.



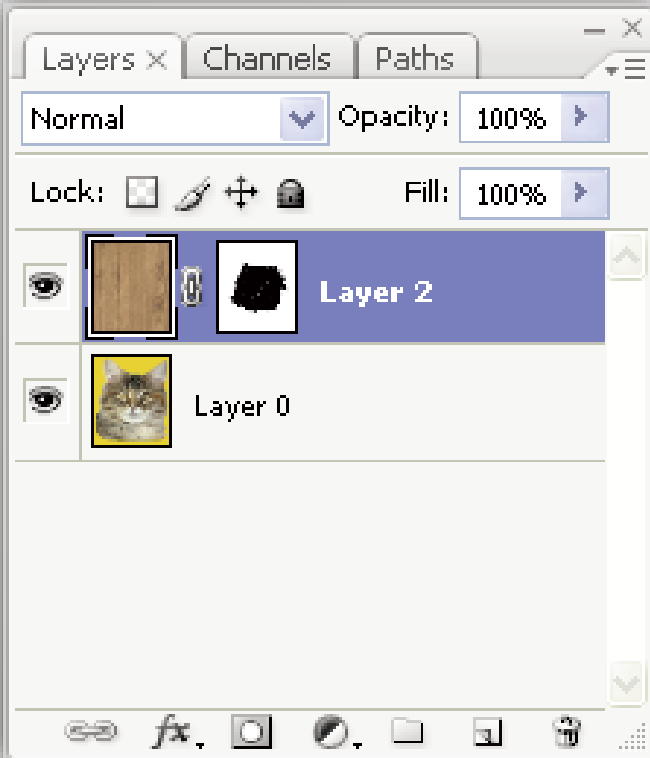
Layer Masks

- Be sure that your foreground color is black. Decrease the opacity of layer2 a bit to see beneath it and draw a circle like shape on the canvas to reveal the face of the cat.



Layer Masks

- Some parts of the white thumbnail on layer2 has turned to black now, which means I have cut those parts of the mask. Change the opacity of layer2 to %100 now.

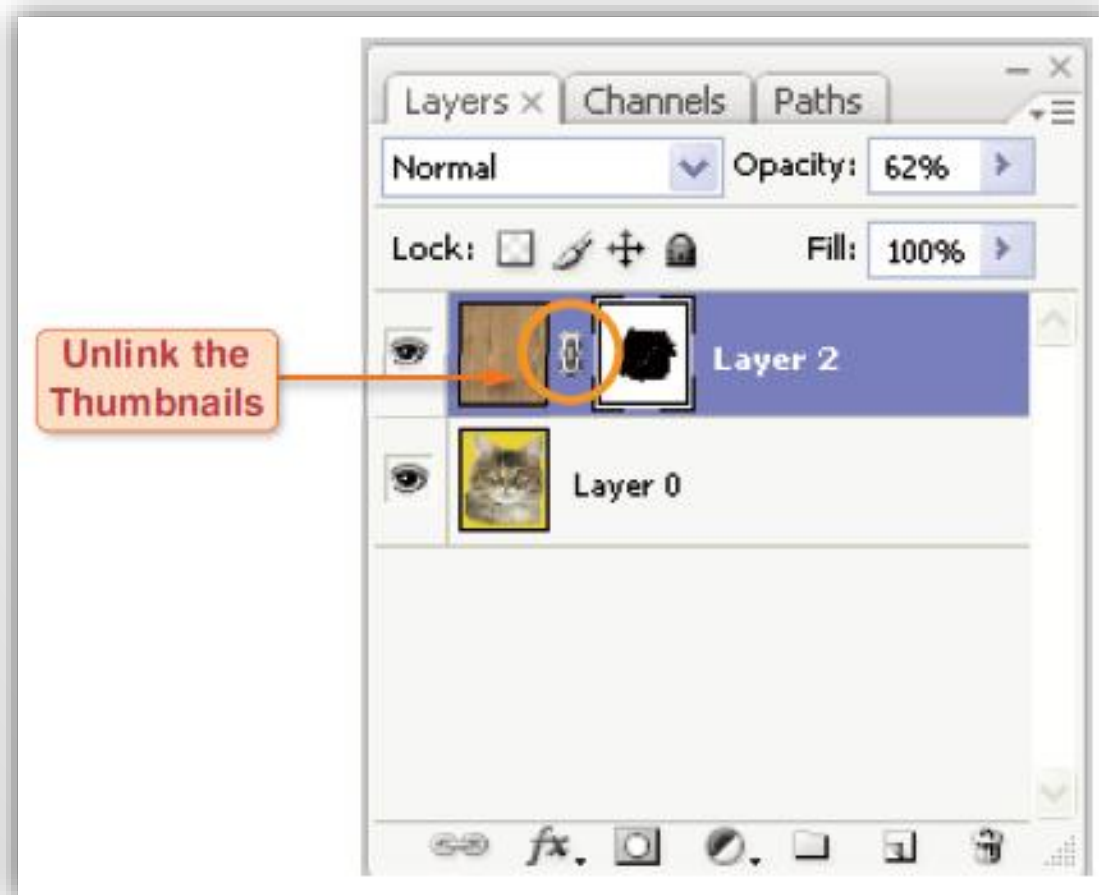


Now you may ask: Why did we use Layer Mask for this application? We could have done this with the Eraser Tool?

To answer this question let's go forward a few more steps.

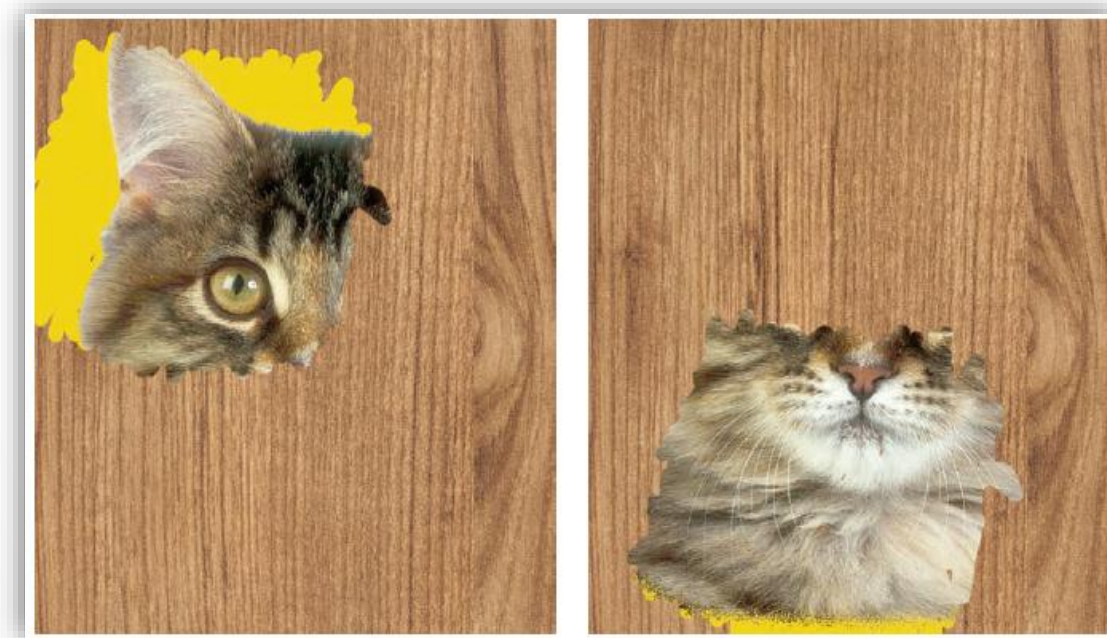
Layer Masks

- Click on the link between the white thumbnail and the picture thumbnail of Layer2. By doing this we freed the mask from its background and mobilized it.



Layer Masks

- Click on the white thumbnail to select the mask. Then using the *Move Tool* position the mask somewhere different than it's previous location.



- As you see, you can move the position of the mask without moving the wood texture. This feature is not available in any other selection tools other than masking.



Layer Masks

- **Applying a Mask**

- When the mask layer is selected follow **Layer -> Layer Mask -> Apply**. Once you select “apply” you can’t change the mask’s position anymore.

- **Deleting a Mask**

- When the mask layer is selected follow **Layer -> Layer Mask -> Delete**. The second way is by dragging the mask thumbnail(white thumbnail) to the Trash bin on the Layers palette.

Vector Masks

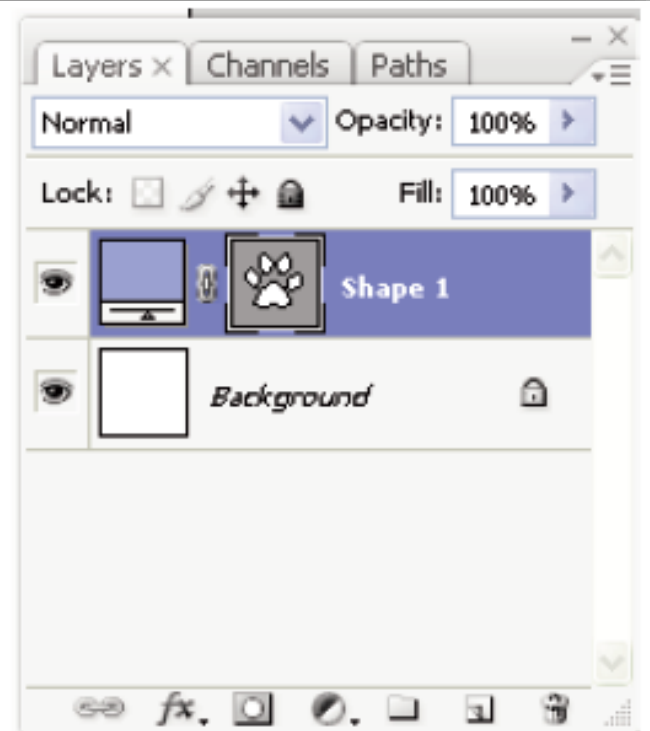
- The Custom Shape tools are a kind of layer mask. When you draw a custom shape, a vector mask layer is created for the shape. As seen on the layers palette the blue color is only filled to the shape area.

Vector Mask

To make a vector mask with a custom shape tool, the *Shape Layers* option should be active in the custom shapes toolbar.

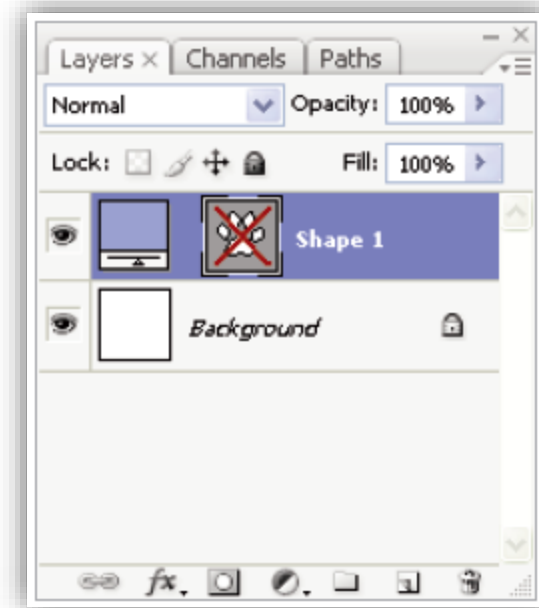


Custom Shape



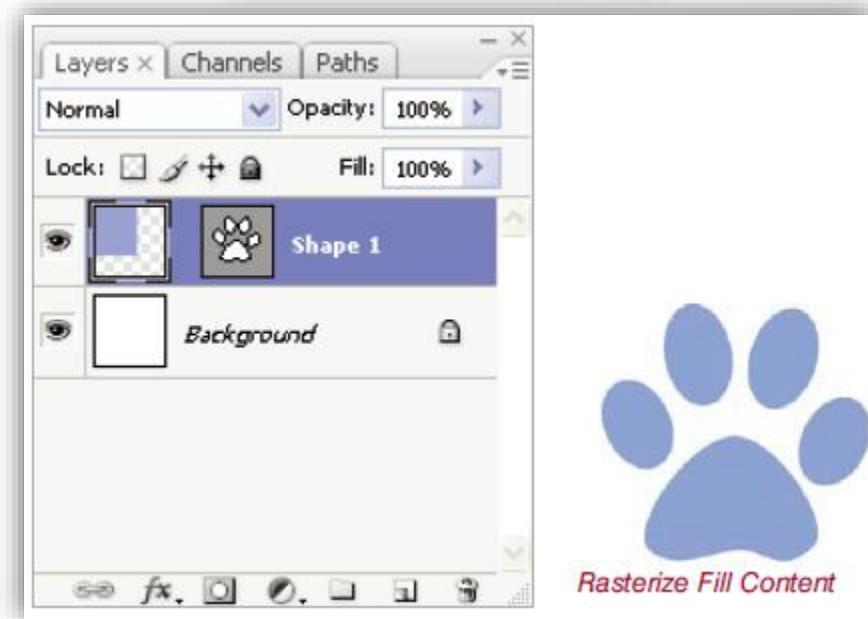
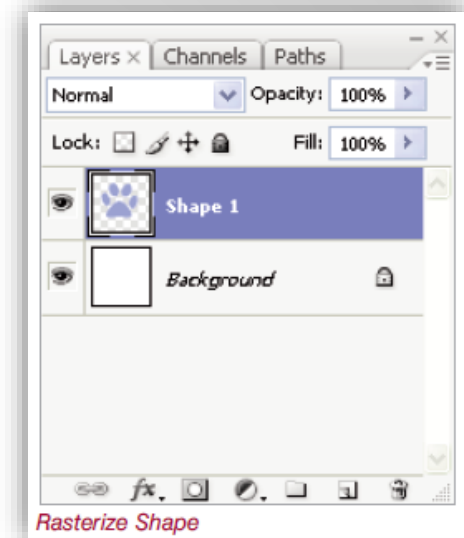
Vector Masks

- To see the function of the custom shape in a vector mask, when the mask layer is the active layer, go to **Layer -> Vector Mask -> Disable Vector mask**.
- Because the custom shape is disabled, color is filled to the whole of the image.
- To enable the vector mask go to **Layer -> Vector Mask -> Enable**.



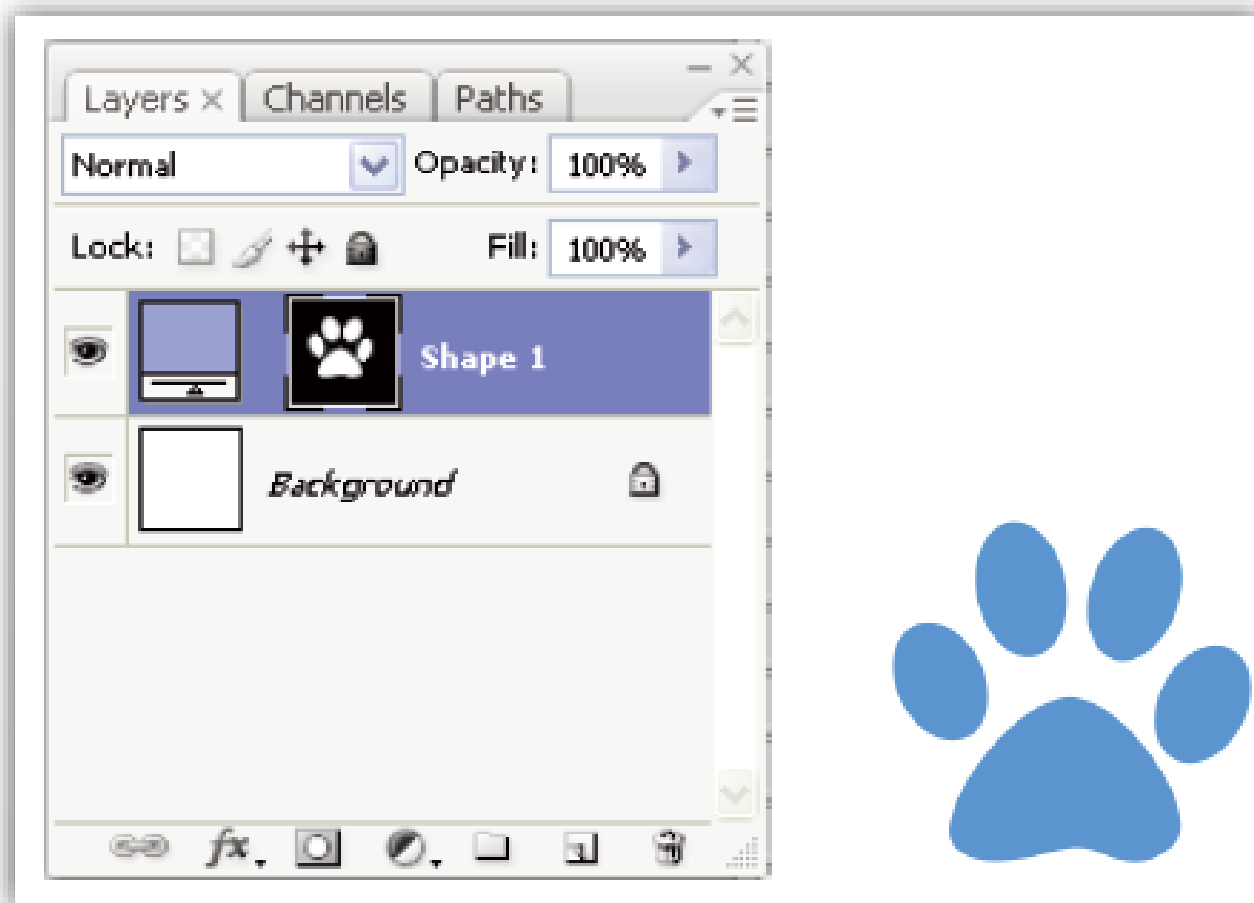
Rasterize a Vector Mask

- To rasterize a vector mask when the mask layer is selected go to **Layer -> Rasterize**. Here there are three options.
- **Rasterize Shape:** This option rasterizes the shape and everywhere except the shape will be transparent.
- **Rasterize Fill content:** If you rasterize the fill content, the shape will be locked to its position but you will be free to move the color inside the shape. To move the content, select the **Move Tool** and drag the content.



Rasterize a Vector Mask

- **Rasterize Vector Mask:** By rasterizing the vector mask you mask all parts of the layer which are out of the shape.



Practice : Baby

Baby

➔ Open the file **baby.psd** and desaturate all parts of the image except the baby. Use the *Quick Mask*.



The Original Image



The Final Image

Practice : Zambak

- Create a document 900 X 700 with 72 dpi. Create and arrange the layers as given. Apply a rainbow gradient to a layer. Make a mask from the **ZAMBAK** text and move it around the canvas.



The End

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