EXERCISE PREVIEW

EXERCISE OVERVIEW

In this exercise you'll see a more "illustrative" use of Photoshop. You'll combine existing photos with digital art created from scratch in Photoshop to design a graphic.

DOWNLOADING THE FILES

1. To download the files you'll use in this exercise please visit:
   http://www.nobledesktop.com/goodies.html

2. Under **Photoshop Illustration Techniques,** click the appropriate link to the download the compressed PC/Mac files.

   NOTE: These instructions were written for Photoshop CS5 but things should work the same or similarly in most recent versions of Photoshop.

3. Once the file is downloaded and uncompressed you should have a folder named **JaguarIllustrationFiles** containing the following three images:

   • **jaguar.jpg**
   • **jaguar-interior.jpg**
   • **jaguar-finished.jpg**

4. In Photoshop, go to **File > Open.**

5. Navigate to the **JaguarIllustrationFiles** folder you downloaded.

6. In that folder double-click **jaguar-finished.jpg** to open it.

7. This is a flattened version of how the finished image will look.

8. Once you've had a good look at the file, **Close** it.

REMOVING THE CAR FROM THE WHITE BACKGROUND

1. Go to **File > Open.**

2. Navigate to the **JaguarIllustrationFiles** folder.

3. Double-click **jaguar.jpg** to open it.

4. In the **Toolbox,** click and hold on the **Lasso** (🔲) tool and choose the **Magnetic Lasso** (🔲) tool.

5. In the **Options** bar at the top of the screen, set the following options:
    Width: **10 px**   Contrast: **10%**   Frequency: **100**

6. Click **once anywhere** along the edge of the car to start the lasso selection.
    Do not click and hold. Just click once.

7. Move the cursor along the edge of the car. The lasso will lay down points along the path as the cursor moves. Keep in mind the following tips:
    *   When you reach a corner or tricky place (like near the car's tires), click to manually place a point.
    *   Press **Backspace** (WINDOWS) or **Delete** (MAC) to back up and delete points that have been placed incorrectly.

8. When you come back to your starting point, place the cursor over the first point, so it changes to a 🔲 , and click to finish the selection.

    The Magnetic Lasso may not do a great job on the tires, but you'll have a chance to make corrections later.

9. We need to deselect the area we see through the windows.
    Choose the **Magic Wand** (🔲) tool. If you don't see it, click and hold on the **Quick Selection** (🔲) tool and then choose it.

10. In the **Options** bar at the top of the screen set the Tolerance to **32.**

11. Hold **Alt** (WINDOWS) or **Option** (MAC) and click on the white part of the windshield to deselect it.

12. Keep holding **Alt** (WINDOWS) or **Option** (MAC) and click on the remaining white sections where you see through the glass.

13. Since background layers cannot have transparent areas, in the **Layers** panel, **double-click** on the **Background** layer to convert it to a normal layer.

    In the dialog that appears name it **exterior.** Click **OK.**

14. Go to the **Layer** menu and choose **Layer Mask > Reveal Selection.**

    The selection has been converted into a layer mask, which hides parts of a layer while revealing other parts. This provides more flexibility than simply deleting the white areas, since a layer mask can easily be modified, disabled, or trashed to recover all or part of the hidden region!

15. As shown on the right in the **Layers** panel, the **layer mask** thumbnail will already be selected. The extra border around the layer mask thumbnail indicates you are working on the mask, not the image.
   • Adding **black** to the mask will **conceal** parts of the layer.
   • Adding **white** will **reveal** parts of the layer.
   • Adding **grey** will **partially reveal** a portion of the layer, for a translucent effect.
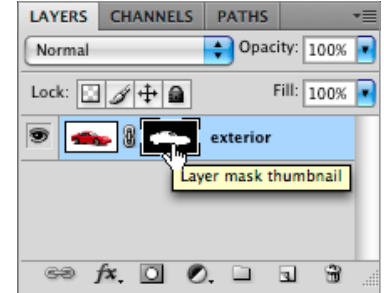
16. In the **Toolbox,** choose the **Brush** ( ) tool.

17. In the **Options** bar select a **hard edged brush** with a width of about **20** pixels. Make sure that the brush's opacity is set to **100%.**

18. In the **Toolbox,** click the **Default Colors** ( ) icon (or type the letter **D**) to set the **foreground color** to **white** and the **background color** to **black.**

19. Now you can correct the mask near the wheels and any other problem areas.
   • Paint **white** over the tires and any other missing portions of the car.
   • If any of the background is revealed, paint over it with **black** to hide it.

   NOTE: It's hard to see the white background over the light checkerboard pattern that Photoshop uses to indicate transparency. To fix that:

   A. Go to (WINDOWS): **Edit > Preferences > Transparency & Gamut.**
   (MAC): **Photoshop > Preferences > Transparency & Gamut.**

   B. Change the **Grid Colors** to **Dark** and click **OK.**

   Now any bits of white background will be easier to see!

20. Save the file as a **Photoshop** document named **yourname-jaguar.psd.**

ADDING THE SECOND IMAGE

1. Go to **File > Open.**

2. Navigate to the **JaguarIllustrationFiles** folder.

3. Double-click **jaguar-interior.jpg** to open it.

4. Go to **Select > All.**

5. Go to **Edit > Copy.**

6. Close **jaguar-interior.jpg.**

7. You should now be back in **yourname-jaguar.psd.**

8. Go to **Edit > Paste.** The interior photo should now be on top of the jaguar.

9. In the **Layers** panel, **double-click** the name of the new layer and rename it **interior.**

10. Drag the **interior** layer **below** the **exterior** layer.

11. Choose the **Move** ( ) tool.

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12. Use the **up arrow key** to nudge the **interior** layer until its top edge is flush with the top edge of the document.

   NOTE: When the **Move** (▸⊹) tool is active, the arrow keys move a layer or a selection in single-pixel increments. Holding **Shift** allows the arrow keys to nudge the layer or selection by ten pixels at a time.

COLORIZING THE BACKGROUND

The image of the cars' interior (in the background) needs some color.

1. With the **interior** layer still selected in the **Layers** panel, go to **Layer > New Fill Layer > Solid Color.**

2. In the dialog box that opens set the following two options:
   • Name it **background color.**
   • Under **Mode** change Normal to **Screen.**
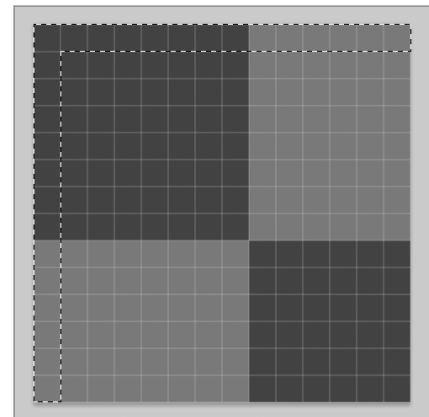
   Click **OK.**

3. In the **Color Picker** choose a **dark blue** color that you think looks good (watch in the background as it previews your choice).

   Click **OK.**

CREATING A GRID PATTERN

Let's take this image further by adding some abstract illustrative elements.

1. Go to **File > New** and set:
   • Width and Height to **14** pixels (make sure you don't choose 14 inches!)
   • Resolution: **72 pixels/inch**
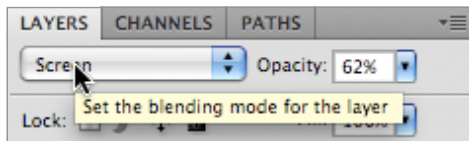   • Color Mode: **RGB (8 bit)**
   • Background Contents: **Transparent**

   Click **OK.**

2. Zoom in on the image as much as possible.

3. Hit **Ctrl–A** WINDOWS or **Cmd–A** MAC to select the entire image.

4. Choose the **Rectangular Marquee** (▢) tool.

5. On the keyboard, tap the **down arrow key once** and the **right arrow key once.**

6. Choose **Select > Inverse** and you should end up with the a row of pixels selected along the left and top sides (as shown to the right).

7. In the **Toolbox,** click on the **foreground** color.

8. In the Color Picker that appears choose a **light blue color** (but not too light).

9. Click **OK** to close the color picker.

10. Hit **Alt–Delete** (WINDOWS) or **Option–Delete** (MAC) to fill the selection with the foreground color.

11. Hit **Ctrl–A** (WINDOWS) or **Cmd–A** (MAC) to select the entire image.

12. Go to **Edit > Define Pattern.**

13. Name it **light blue grid** and click **OK.**

14. Close the document without saving changes.

ADDING THE GRID PATTERN

1. You should be back in **yourname-jaguar.psd.**

2. In the **Layers** panel make sure the **background color** layer is still selected.

3. Go to **Layer > New Fill Layer > Pattern.**

4. Name it **grid** and click **OK.**

5. The **light blue grid** pattern you just created should already be selected so click **OK.**

6. At the top of the **Layers** panel change the **grid** layer's blending mode from Normal to **Screen.**

7. The lines are too pronounced, so reduce the **Opacity** until you think it looks good.

CREATING A SCANLINE PATTERN

1. Go to **File > New** and set:
   • Width: **1 pixels** (don't use inches!)
   • Height: **2 pixels**
   • Resolution: **72 pixels/inch**
   • Color Mode: **RGB (8 bit)**
   • Background Contents: **Transparent**

   Click **OK.**

2. Zoom in on the image as much as possible.

3. In the **Toolbox,** choose the **Pencil** tool (✏). You may need to click and hold on the **Brush** (🖌) tool to find it.

4. In the **Options** bar, choose a **1 pixel hard brush.**

5. In the image, click once on the top pixel to fill it with the light blue foreground color.

6. Press **Ctrl–A** (WINDOWS) or **Cmd–A** (MAC) to select the entire image.

7. Go to **Edit > Define Pattern.**

8. Name it **light blue scanlines** and click **OK.**

9. Close the document without saving changes.

ADDING THE SCANLINE PATTERN

1. You should be back in **yourname-jaguar.psd.**

2. Use the **Rectangular Marquee** (▢) tool to select the bottom half of the image.

3. Go to **Layer > New Fill Layer > Pattern.**

4. Name it **scanlines** and click **OK.**

5. The **light blue scanlines** pattern you just created should already be selected so click **OK.**

    The pattern only shows up in the selection, because the selection was automatically turned into a mask for the new pattern fill layer!

6. At the top of the **Layers** panel change the **scanlines** layer's blending mode from Normal to **Screen.**

7. The lines are too pronounced so reduce the **Opacity** till you think it looks good.

ADDING THE TWO-TONE CIRCLE

We want to make a circle, as shown to the right, where the top half is lighter and the bottom half is darker.

1. Choose the **Elliptical Marquee** (◯) tool.

2. Make a large, circular selection behind the car. (Hold **Shift** while dragging to constrain it to a perfect circle.)

3. We want the layer we're about to create to be **behind** the patterns, so in the **Layers** panel select the **background color** layer.

4. Go to **Layer > New Fill Layer > Solid Color** and set the following two options:
    • Name it **light circle.**
    • Change the Mode to **Overlay.**

    Click **OK.**

5. The **light blue** color you've been using should already be selected. If you want to change it feel free, but otherwise just click **OK.**
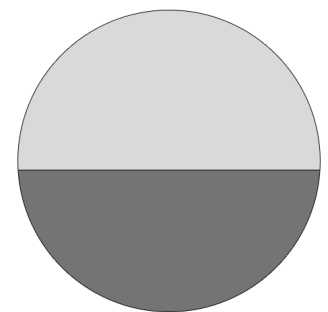
6.   Adjust the **Opacity** as you like.

7.   We want to make another circle exactly like it but **dark blue.**
     With the **light circle** layer still selected go to **Layer > Duplicate Layer.**

8.   Name it **dark circle** and click **OK.**

9.   In the **Layers** panel hide the **light circle** layer by clicking it's eye (👁).

10. The **dark circle** layer still is light blue, let's change the color. As shown below, in
     the **Layers** panel **double-click** the color thumbnail of the **dark circle** layer.

11. While in the **Color Picker,** choose a nice **dark blue** that looks good and click **OK.**

12. In the **Layers** panel make the **light circle layer** visible again (👁).

13. We need to hide (or mask out) the **top** of the **dark circle** and the **bottom** of the
     light circle. We'll start with the bottom of the light circle. The scanlines are only
     in the bottom half of the image, and so we'd like to use them as the dividing
     line between the top and bottom half of the circle. We can use the mask on the
     scanlines layer to help us with this.

     In the **Layers** panel, as shown below, hold **Ctrl** (WINDOWS) or **Cmd** (MAC) and click on
     the **mask thumbnail** in the **scanlines** layer.
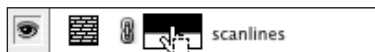
     NOTE: This is a quick technique for making selections from masks. It also works
     on layers, channels, and paths!

14. In the **Layers** panel, choose the **light circle** layer mask (be sure to click the **layer
     mask** and not just the layer).

15. In the **Toolbox,** click the **Default Colors** (◫) icon to set the **foreground** color
     to **white** and the **background** color to **black.**

16. Press the **Delete** key to delete the selected area of the mask to black,
     therefore **hiding** that bottom part of the **light** circle.

17. The mask thumbnail should look as shown below.
      The **white** on the mask **reveals** the contents of the layer.
     The **black** parts are **hidden.**

18. Go to **Select > Inverse.**

19. In the **Layers** panel, choose the **dark circle** layer mask (again, be sure to click on
     the **layer mask).**

20. Press **Delete** to delete the selected area of the mask to **black,**
   therefore **hiding** the top part of the **dark** circle.

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21. The mask thumbnail should now look as shown below.
Notice how the **white** part is the part you actually see.
The rest of the **black** area is **hidden.**

22. We're done with the selection so go to **Select > Deselect.**

23. Adjust the **Opacity** of the two circle layers to whatever you think looks good.

24. Let's add a stroke around the circle to make the edge stand out more.
With the **dark circle** layer still selected, go to **Layer > Layer Style > Stroke.**

• Set the size to a **1 pixel.**
• Set Position to **inside.**
• Click the box next to color and choose a **dark blue.**

25. Click **OK** to close the **Color Picker** window.

26. Click **OK** to close the **Layer Style** window.

27. Let's copy the stroke to the other circle.
As shown below, in the **Layers** panel hold **Alt** (WINDOWS) or Option (MAC) then drag
the **Effect** icon to the **light circle** layer and release. Now both layers should have
a stroke.
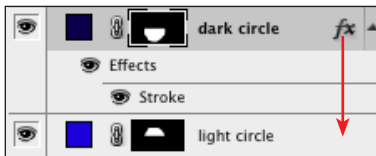
28. If needed position the car so it looks good over the background and circles.

(**FINISHING TOUCHES**)

Graphs can look high tech, even if they're unlabeled graphs that don't require
all that tedious research and analysis; so let's add a bar graph to the left side of
the image.

1. In the **Layers** panel select the **scanlines** layer.

2. Go to **Layer > New > Layer.**

3. Name it **bar graph** and click **OK.**

4. Use the **Rectangular Marquee** ( ) tool to select a wide rectangle half a grid-
line tall (about **7** pixels).

5. Let's choose the colors for the gradient we're about to create.
In the **Toolbox** make sure the **foreground** color is still the **light blue.**
If it's not, click the foreground color, choose a **light blue** and click **OK.**

6. In the **Toolbox** click on **the background color.**

7. Choose a **dark blue** and click **OK.**

8. Select the **Gradient** (▣) tool.

9. In the **Options** bar:

    • Choose **Linear Gradient** (▣).
    • As shown below, click the arrow beside the gradient preview.
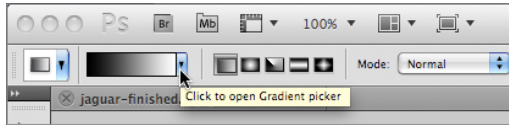
    • In the gradient picker that opens, **Double-click** the first gradient **(Foreground to Background)** to select it.

10. Draw the gradient within the selected area by holding **Shift** while you drag from **right** to **left.**

11. NOTE: Holding **Shift** as you create the gradient constrains it to 90° or 45° angles.

12. Choose the **Move** (▶) tool and position the bar at the left edge of the canvas.

13. Still in the **Move** (▶) tool, hold **Alt** WINDOWS or **Option** MAC as you click and drag the selected area. This moves a copy of the selection to a new location.

14. Continue to drag it (or use the arrow keys) to position this copy wherever you think it looks good.

15. Continue dragging off copies (by holding **Alt** WINDOWS or **Option** MAC) and repositioning them until you get something that looks like an actual bar graph. It will be more convincing if the bars are separated with approximately equal amounts of vertical space. Lining them up with the grid pattern will help you position them.

16. We're done with the selection so go to **Select > Deselect.**

FINISHING THE BOTTOM

Let's add some white area at the bottom of the image to make room for some text.

1. Using the **Rectangular Marquee** (▣) tool, select a band across the bottom of the image that takes up about the bottom half of the area under the car.

2. Go to **Layer > New Fill Layer > Solid Color.**

3. Name it **bottom band** and click **OK.**

4. Choose pure **white** and click **OK.**

5. In the **Layers** panel, make sure this new layer is directly **beneath** the **exterior** layer.

6. The bottom of the image might look better if it contrasted with the white area a bit more. Go to **Layer > New > Layer.**

7. Name it **darken above band** and click **OK.**

8. In the **Layers** panel drag it directly beneath the **bottom band** layer.

9. At the top of the **Layers** panel, change its blending mode from Normal
    to **Overlay.**

    NOTE: The **Overlay** blending mode allows the **black** to **darken** the appearance
    of the layers below, while keeping colors vivid.

10. In the **Toolbox,** choose the **Brush** (✏️) tool. To find it, you may need to click
    and hold on the **Pencil** (✏️) tool.

11. Choose a **large, soft-edged brush.**

12. Set the **foreground** color to **black.**

13. Paint onto this new layer near the very bottom, just above the white band.
    If you think it's too dark, just reduce the **Opacity** of the layer.

14. We're done making this high-tech illustration! If you like, complete it with a top
    layer(s) of text labeling the **Jaguar XKR Coupe.** Use your own judgement for
    font size, style, and placement. If you're curious, we used various weights of
    Helvetica Neue for our font.

MASKING TIPS

• When creating a mask select the parts of a layer you want to see. Then, when you
  click the **Add Layer Mask** (▣) button in the **Layers** panel, you'll see what was
  selected and everything will be masked out (or hidden).

• **Shift–Click** a mask thumbnail to disable it without throwing it away.

• **Alt–Click** WINDOWS or **Option–Click** MAC a mask thumbnail to view only the mask,
  not the image.

• **Alt–Shift–Click** WINDOWS or **Option–Shift–Click** MAC a mask thumbnail to view it as
  a shaded color overlay, much like a Quick Mask.

• Remove a mask by dragging the mask thumbnail to the trash. Photoshop will
  ask if you want to "Apply mask to layer before removing." If you click "Apply,"
  Photoshop will delete the areas of the layer that had been hidden by the mask.
  In most cases, you'll simply want to choose "Delete," to throw away the mask
  without affecting the image layer.