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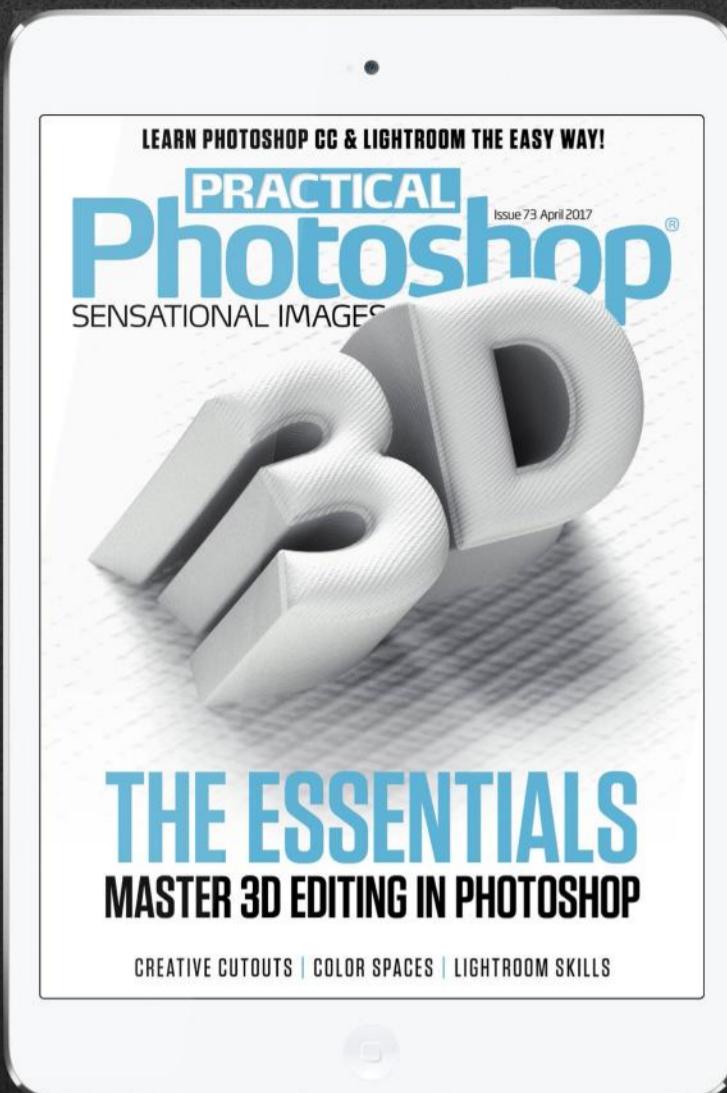
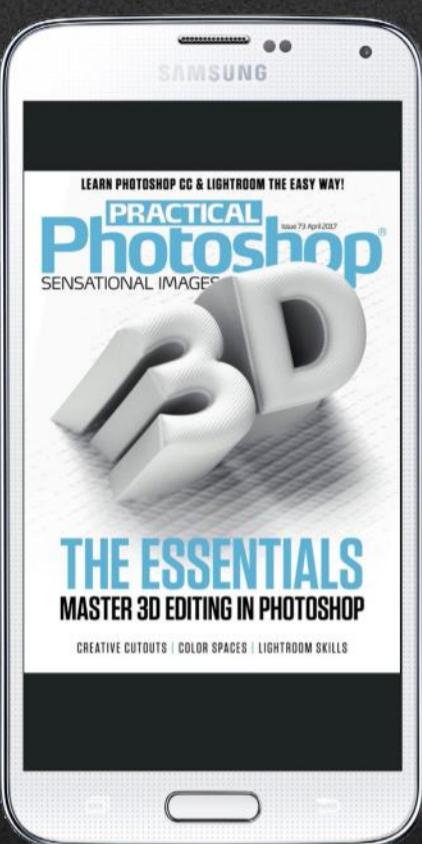
Issue 73 April 2017



# THE ESSENTIALS

## MASTER 3D EDITING IN PHOTOSHOP

CREATIVE CUTOUTS | COLOR SPACES | LIGHTROOM SKILLS



**“Welcome to issue 73 of Practical Photoshop! If you enjoy the issue, why not subscribe and get a whole year for just \$19.99? ”**



Most of us probably didn't get Photoshop for its 3D tools - but this is the direction digital imaging is heading. It's a must-learn skill to keep ahead of the curve. Besides, 3D is one of those features that opens up endless possibilities. Amazing effects are just a few clicks away - and we'll get you started.

**James Paterson**

James Paterson, Editor • [james.paterson@futurenet.com](mailto:james.paterson@futurenet.com)

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## HIGHLIGHTS: WHAT'S INSIDE...

### 10 ESSENTIAL 3D TRICKS AND TIPS

■ Get up and running with Photoshop's 3D tools

### CREATE A 3D COFFEE CUP

■ Learn basic 3D modeling skills and create a designer cup

### COMFORTABLE WITH COLOR SPACES?

■ Learn all about color settings and modes in Photoshop

### CREATIVE CUTOUTS

■ Discover four ways to cut out and rework your portraits

### LIGHTROOM'S DEVELOP MODULE

■ Get to know the essential Lightroom editing tools



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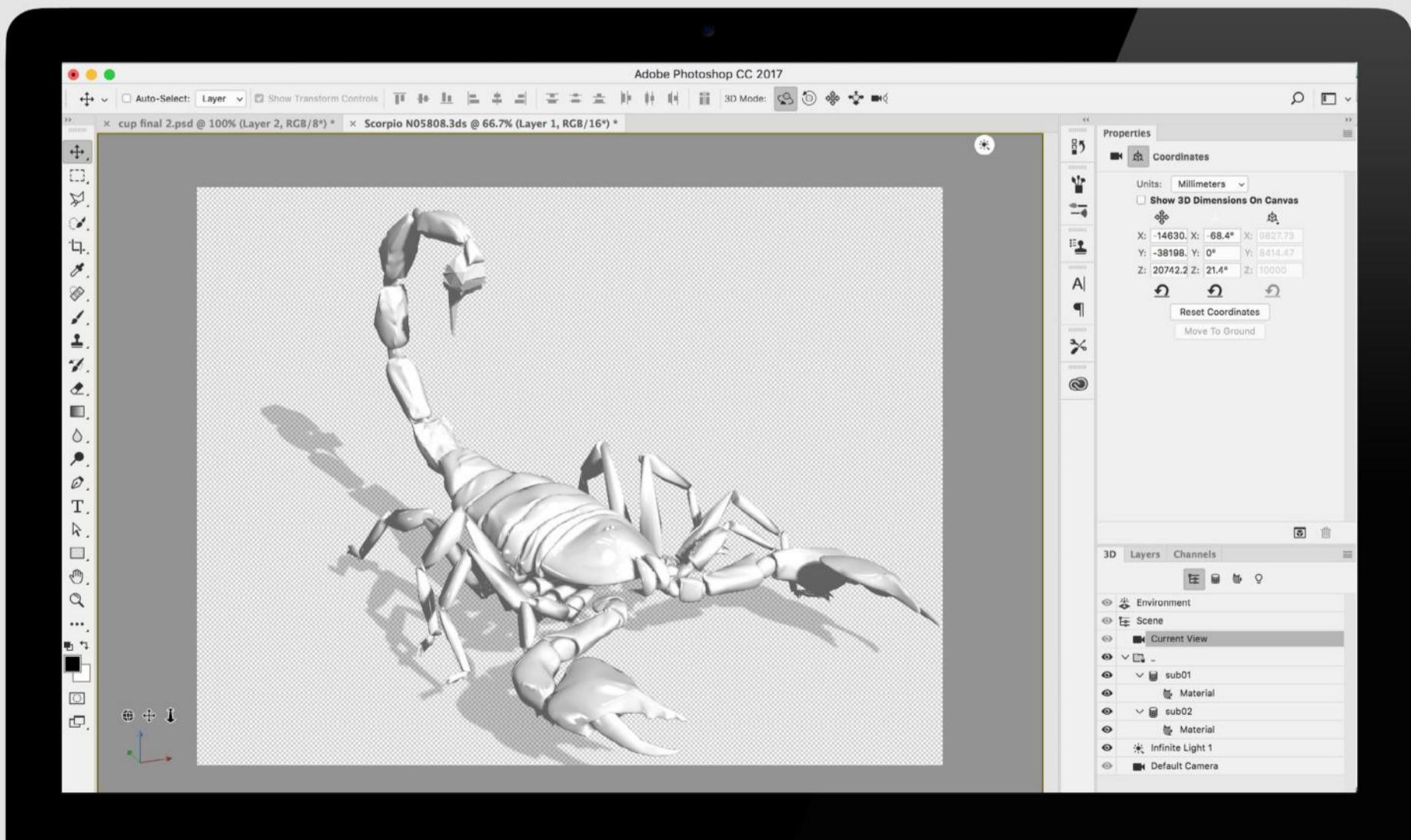
# GET STARTED WITH 3D IN PHOTOSHOP

10 essential tips, tricks and techniques to get you up and running with 3D editing in Photoshop



Over the next few pages we'll explore some of the most essential 3D tools Photoshop has to offer and explain how to create a variety of stunning 3D effects - from creating and blending 3D text to building life-like objects.

If you're new to 3D or just in need of inspiration, you'll find 10 essential tips, tricks and techniques to get you started, followed by an in-depth tutorial on how to make a realistic designer coffee cup completely from scratch...





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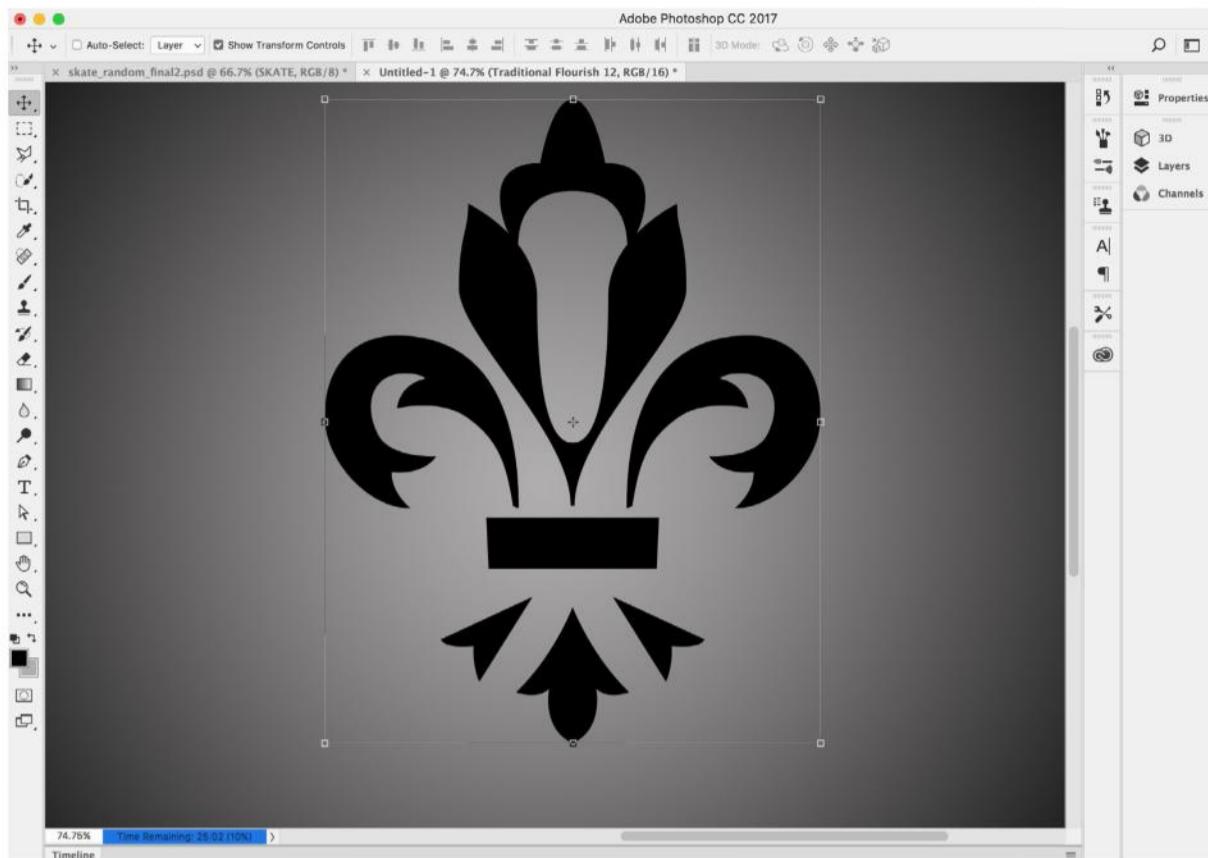
## TIP 1 EXTRUDE YOUR FIRST SHAPE

Here's how to get started with your first 3D shape...

► You can extrude any 2D shape you like into a 3D object – including text. Simply make the shape on a new layer, then go to 3D > New 3D Extrusion From Selected Layer.

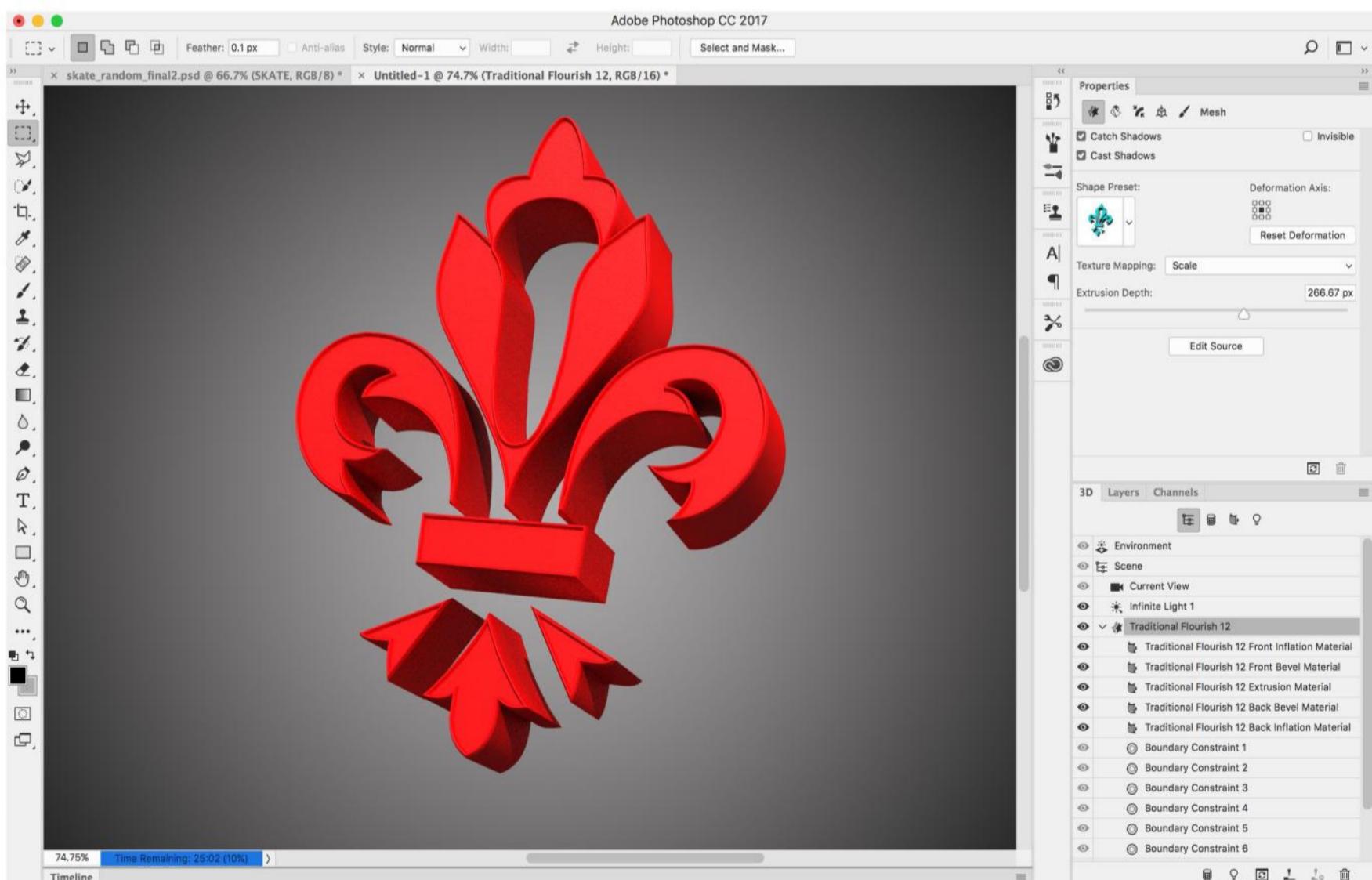
Photoshop's 3D modelling tools are quite basic, so you're limited to a few simple controls. You can change the extrusion depth, add bevels and caps to inflate the surface, and twist or

skew the extrusion. But even these enable you to create all manner of interesting shapes. There are also a few basic meshes you can use, like spheres, cubes and pyramids.



## STEP 1 MAKE A 2D SHAPE

Any shape can be extruded to 3D. Here we begin with a 2D vector shape (downloaded from the Creative Cloud App Assets). Make a new layer for this shape. Alternatively, you can create text or start off with an image, or go to 3D > New Mesh from Layer for a variety of simple ready-made shapes.



## STEP 2 EXTRUDE IT TO 3D

Go to 3D > New 3D Extrusion From Selected Layer to create a 3D shape. Grab the Move tool then use the axis widget to rotate it. Use the Extrusion depth control in the Properties panel to change the depth, and highlight the Front Elevation and Extrusion materials in the 3D panel to add colored materials to your new 3D object.

# TIP 2 EXPLORE THE 3D PANELS

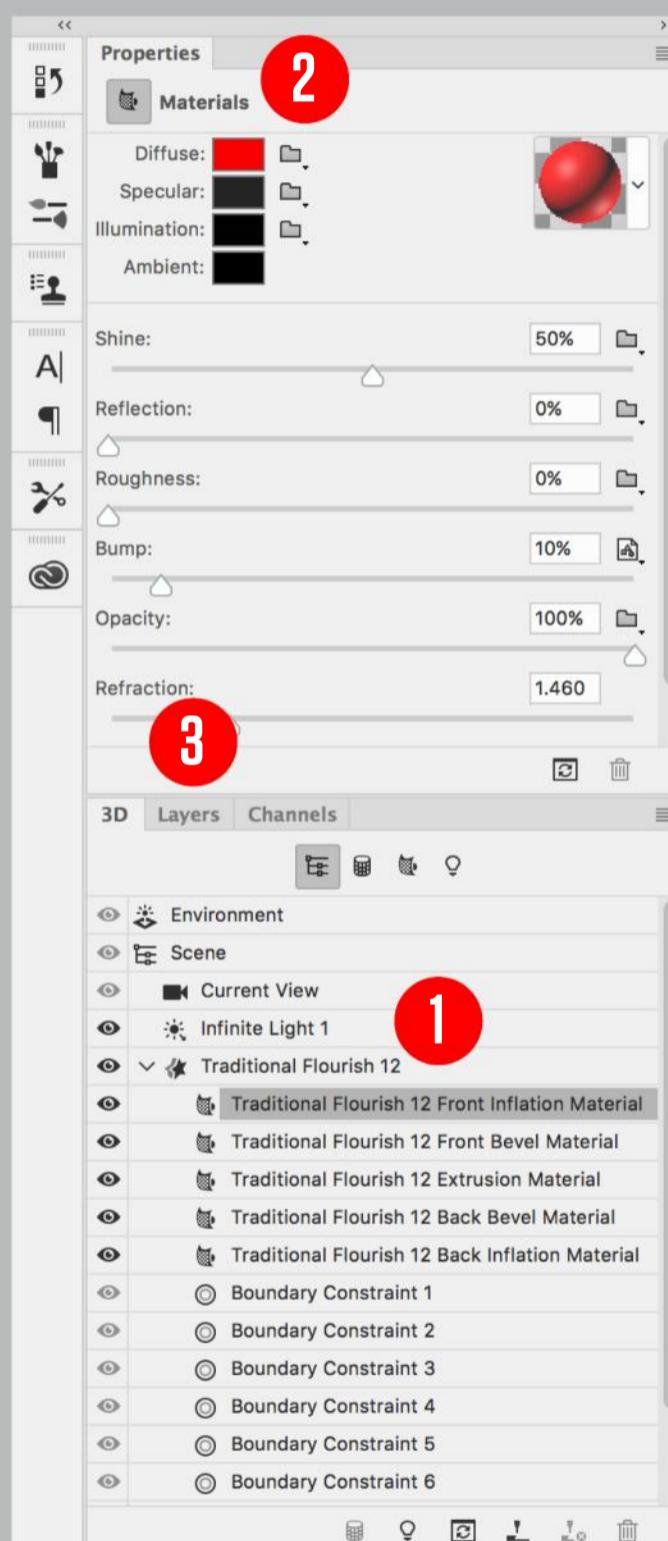
Move between three panels to create your objects

If you're new to 3D in Photoshop, it's easy to get overwhelmed by the sheer number of settings and controls. It helps if you can master the dynamic between three panels: 3D, Properties and Layers...

1

## THE 3D PANEL

When you first make a 3D shape in Photoshop, you'll be asked if you want to switch to the 3D workspace. This is usually a good idea, as it'll give you the panels you need. Crucially, it shows the 3D and Properties panels. You'll quickly come to realize that these are the two most important panels for 3D editing. Every element in your 3D scene is housed inside the 3D panel. This will include shapes, lights and cameras. What's more, every 3D shape will also have sub-menus that let you alter the surfaces that make it up, named 'front extrusion material', 'front bevel material' and so on.



2

## THE PROPERTIES PANEL

Each time you click on an element in the 3D panel, the Properties panel will change

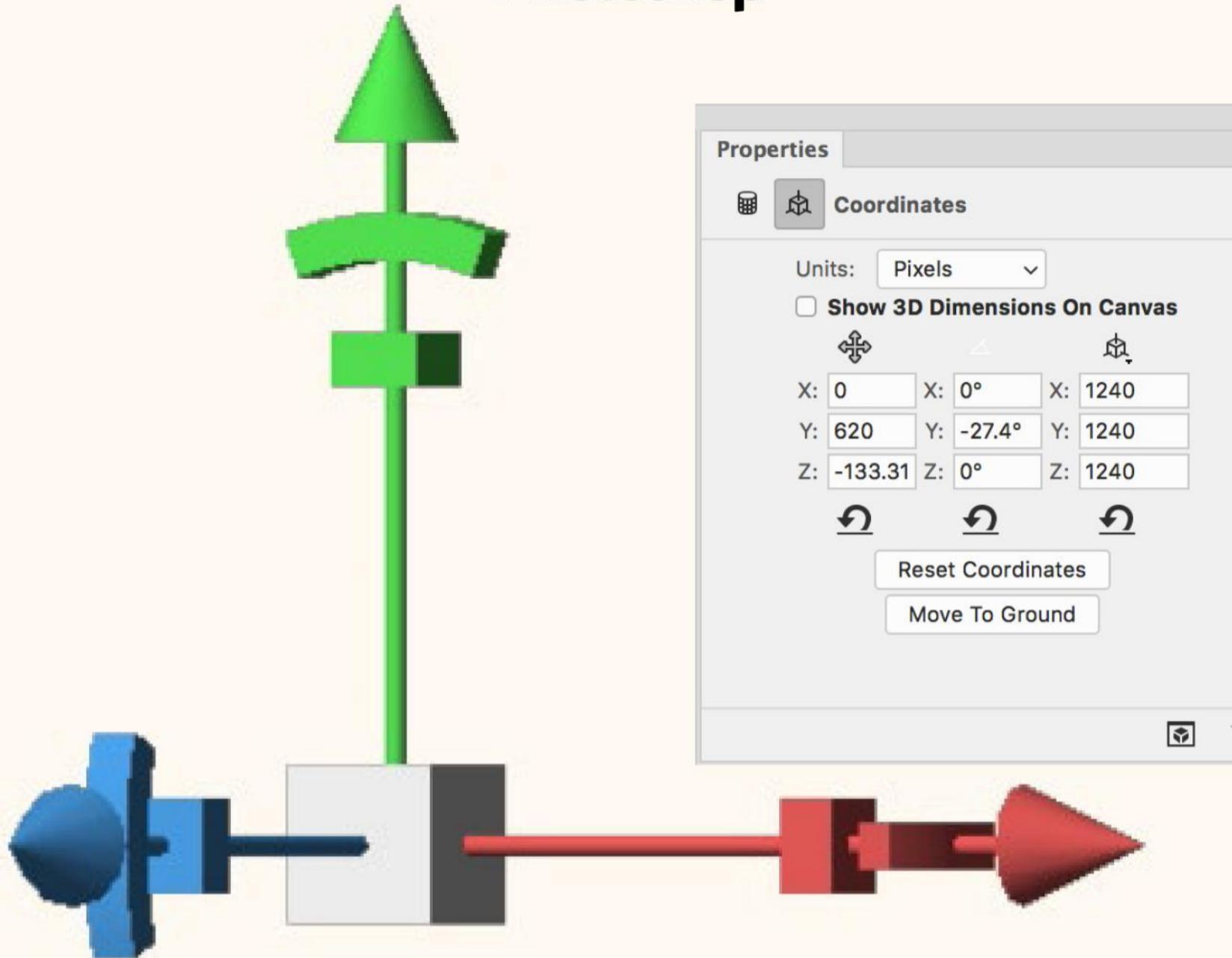
to display the settings for that particular object. So if you click on a material, for example, Properties gives you options for altering the

material. Click on a light and you can change the direction, softness and intensity of it. Click on the Current View, and you'll see options appear to alter the characteristics of the camera.

3

## THE LAYERS PANEL

Photoshop users are used to the idea that if you want to keep separate parts of an image editable, you keep them on separate layers. However, this isn't always the best option with 3D objects. If you have two layers that each hold a 3D object, those objects are effectively in different worlds, each with their own camera view and lighting. If you merge both layers into one, the top layer will enter the same 3D space as the lower layer. Now the two shapes will still be independently editable (via the 3D panel) but they'll also interact with one another in a realistic way.



## TIP 3 AXIS AND COORDINATES

Master these useful tools for positioning your 3D objects

► Grab the Move tool and click on any 3D shape and you'll see a colored three-way axis widget. This lets you change the position of 3D objects, meshes and lights. Each of the three directional lines - X, Y and Z - has three controls. The arrowhead lets you move the object along that axis. The little bent line lets you rotate the object, while the little rectangle stretches or

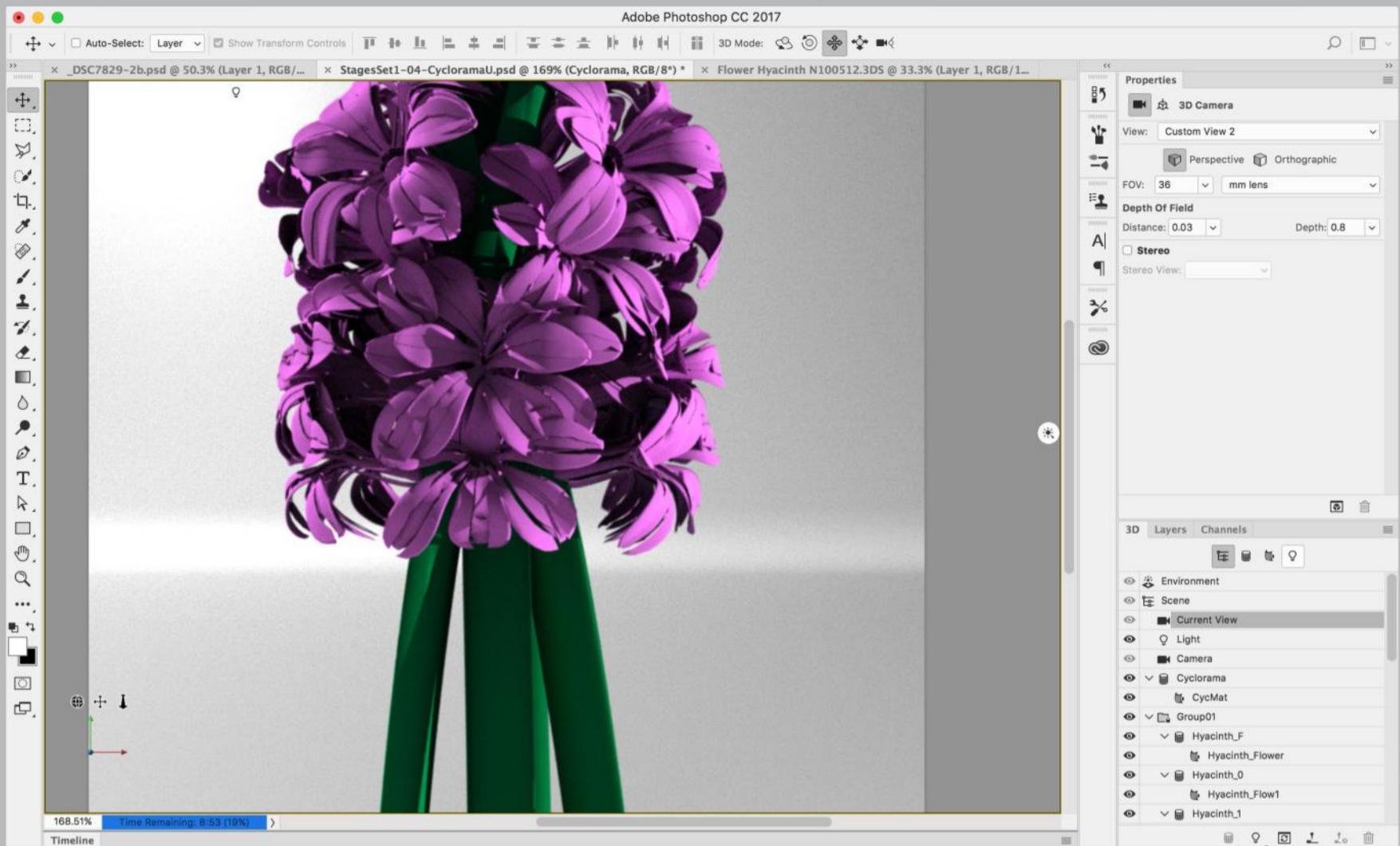
shrinks along that line. If you want to scale uniformly, drag the centre square.

As these three controls are often close together or overlapping, it can be tricky to latch on to the right one. It might help to resize the widget - hold Shift and drag the centre square up to make the axis widget larger.

Sometimes the axis widget isn't the best tool for the job. For more precise

work, or for times when you need to line up several objects, the Coordinates control can be useful. After selecting an object in the 3D panel, click the Coordinates icon at the top of Properties to access this control.

Drag any of the values to alter the position. The first column sets the 3D position, the second column sets the rotation angle, and the third adjusts the scale.



## TIP 4 MOVING THE CAMERA OR THE OBJECT

There's a big difference between moving an object and your view of it...

► For beginners to 3D, it can take a little time to get your head around navigating 3D space. Every object has its own X, Y and Z coordinates to place them within the scene. Imagine a huge empty room where objects can be positioned anywhere, from ceiling to floor and from wall to wall.

As well as positioning your objects, you also have control over the view of those

objects. Sometimes this can lead to confusion: you might think you're moving the object, but in fact you're moving the camera's view of it instead. Keep tabs on what is selected in the 3D panel. If the 3D shape is selected, the Move tool will let you reposition it; if Current View is selected, you can pan, dolly and zoom the camera.

Keep in mind that the scene lighting may change

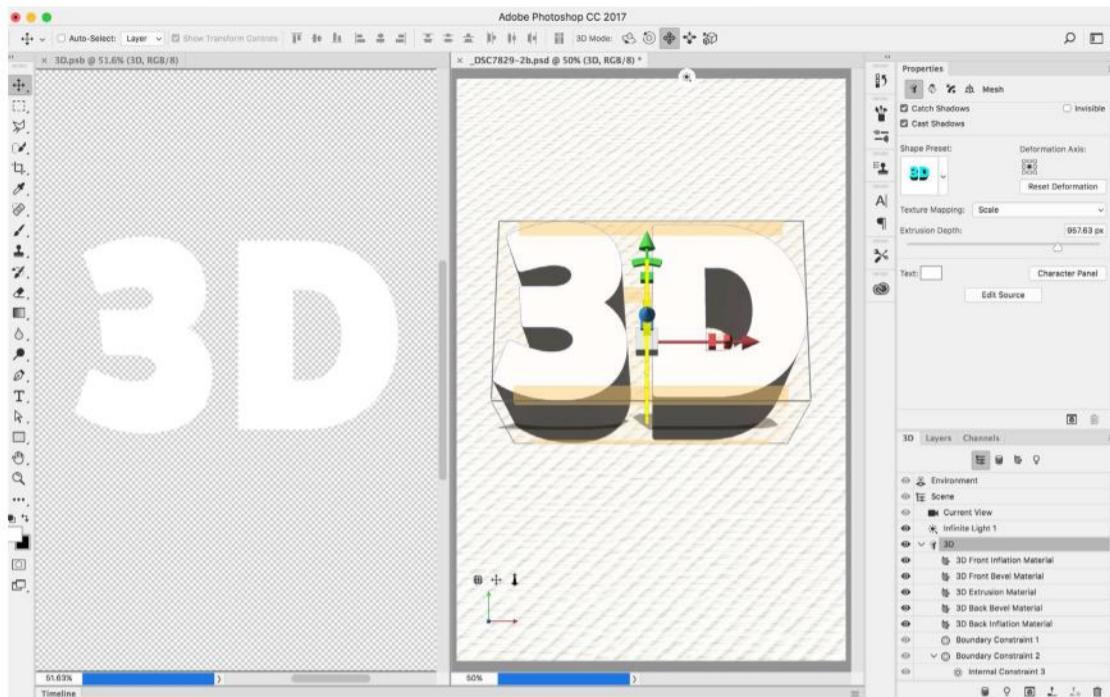
when you move your camera position. If you're a photographer, think of it this way. Imagine you have a vase of flowers lit with a window to the right. If you move the flowers but keep the camera still, then the light will stay on the right. However, if you keep the flowers still but move the camera position straight on to the window, then the lighting in the scene will be altered.



**WATCH THE VIDEO**  
<http://tiny.cc/o40yjv>

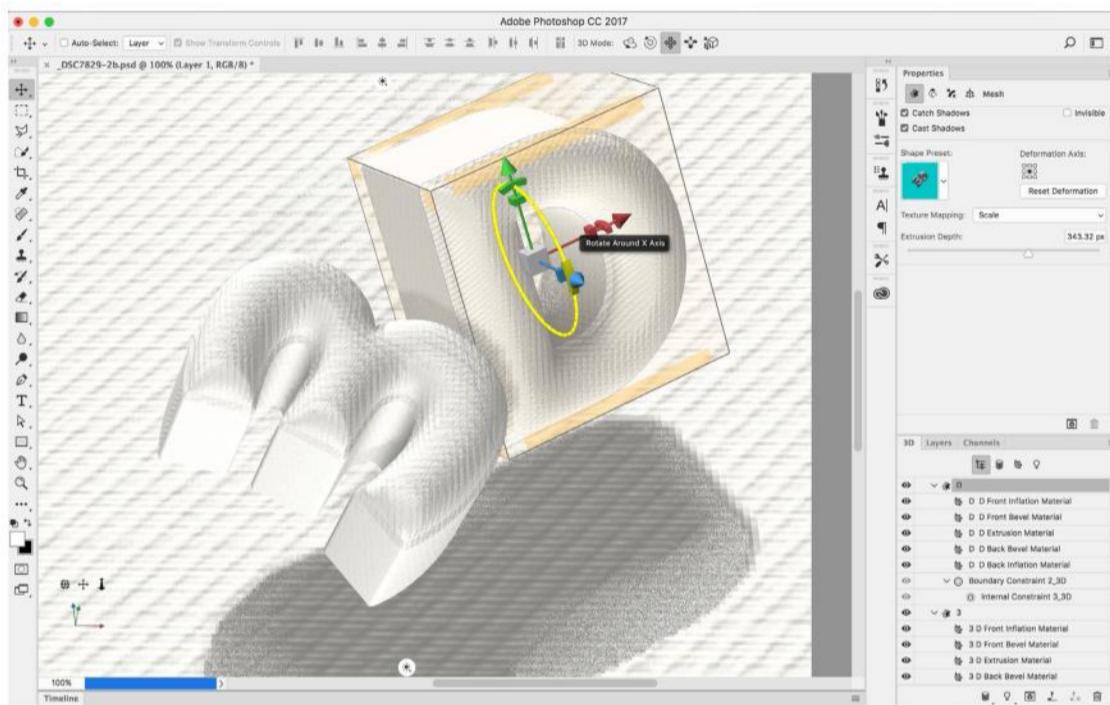
## **TIP 5 TEXT TRICKS**

Keep these tricks in mind when you make your 3D text...



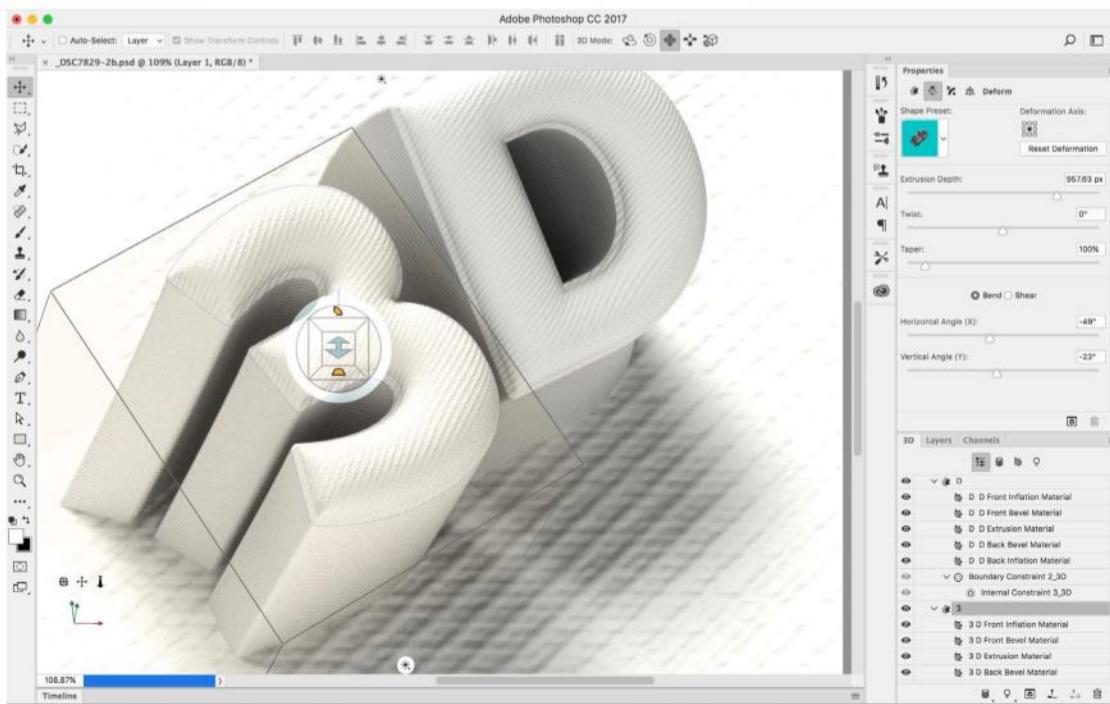
## STEP 1 EDIT SOURCE

Even after extruding your text to a 3D shape, you can edit what the letters or words say. Highlight the 3D shape in the 3D panel, then go click the Edit Source button in Properties. This'll open up the words in a new document, where you can make changes then save, and the 3D text will be updated.



## STEP 2 SPLIT EXTRUSION

When you initially extrude a word to 3D it comes as a single shape. But if you go to 3D > Split Extrusion, each individual letter becomes its own editable shape. This means you can change the position of each letter independently. Keep in mind that, once split, you can't choose Edit Source. (See above.)



## STEP 3 CAPS AND BEVELS

Caps and bevels add shape and depth to your letters. Highlight the 3D shape in the 3D panel, then go to the Properties panel and click the Cap icon at the top. Use the controls below to add a bevel or inflate the surfaces. The Deform panel is also great fun - it lets you twist and skew the extrusion like this.

# TIP 6 RENDER YOUR SCENE

Learn how to make test renders as you work, then a final render at the end of your project

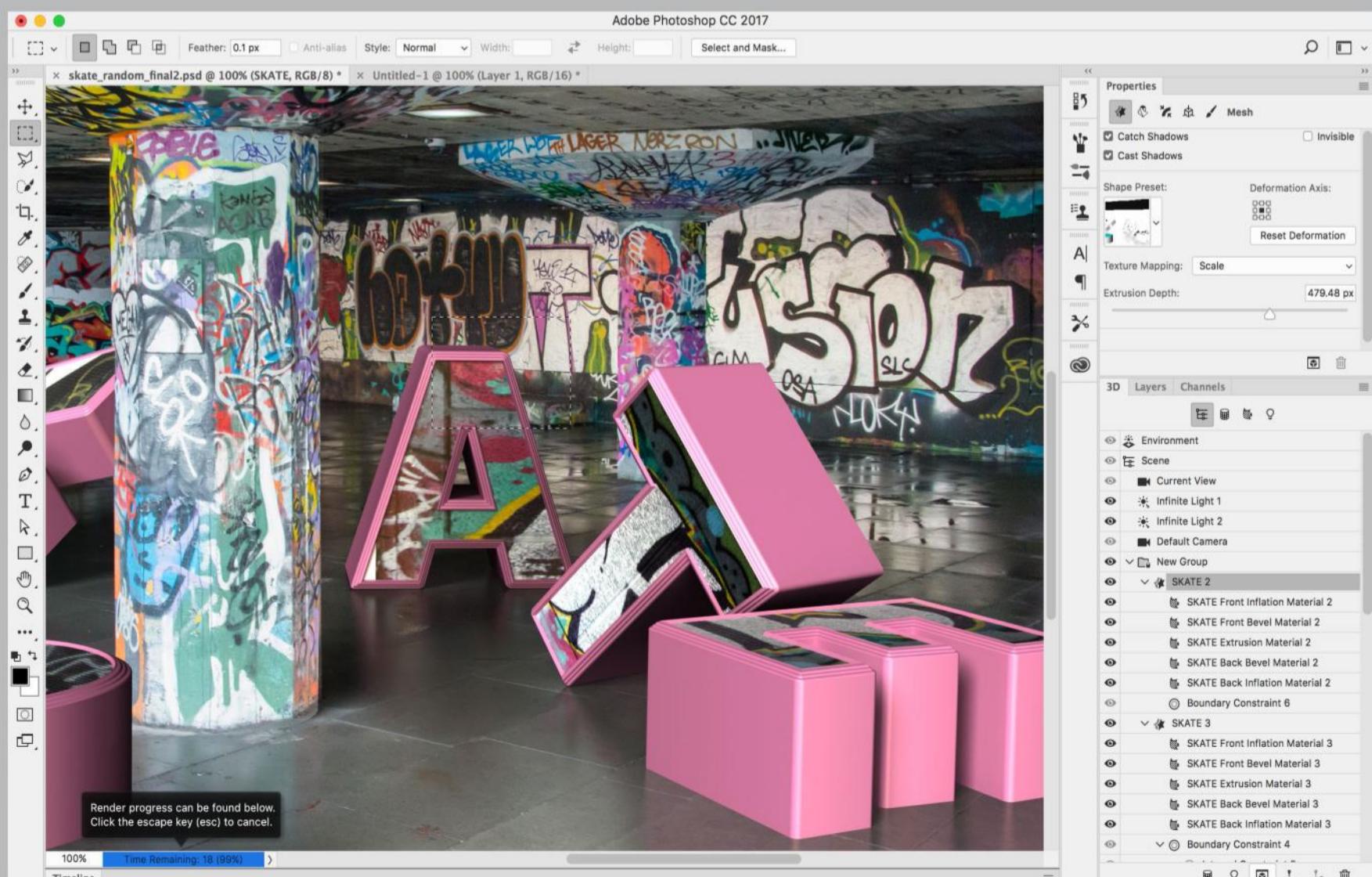
► Rendering is the single biggest pain with 3D editing. It can take ages - especially with large image sizes and complex or transparent objects. Not only do you need to render the scene at the end of the project (click the Render button in the 3D panel for this), you also often need to render as you work, to check that the lighting and materials are looking the way you want them to.

Fortunately, you don't need to render the entire image every time. Instead, you can make a rectangular selection over a portion of the model with the Rectangular Marquee tool, then click Render. Now it'll only render the selected area, which will take much less time.

While your computer is rendering, you can see the progress in the bar at the bottom left. For test renders, there's often no need to

wait for it to complete - 50% should be enough to judge your lighting and materials. Press Esc at any time to stop.

When your project is complete, click Render to finish. Now comes the wait. You can alter the render quality in Preferences > 3D, which can speed things up. Once the render is complete, make a new layer and press Ctrl/Cmd+Shift+Alt+E to merge a flat version of the image, which you can edit.



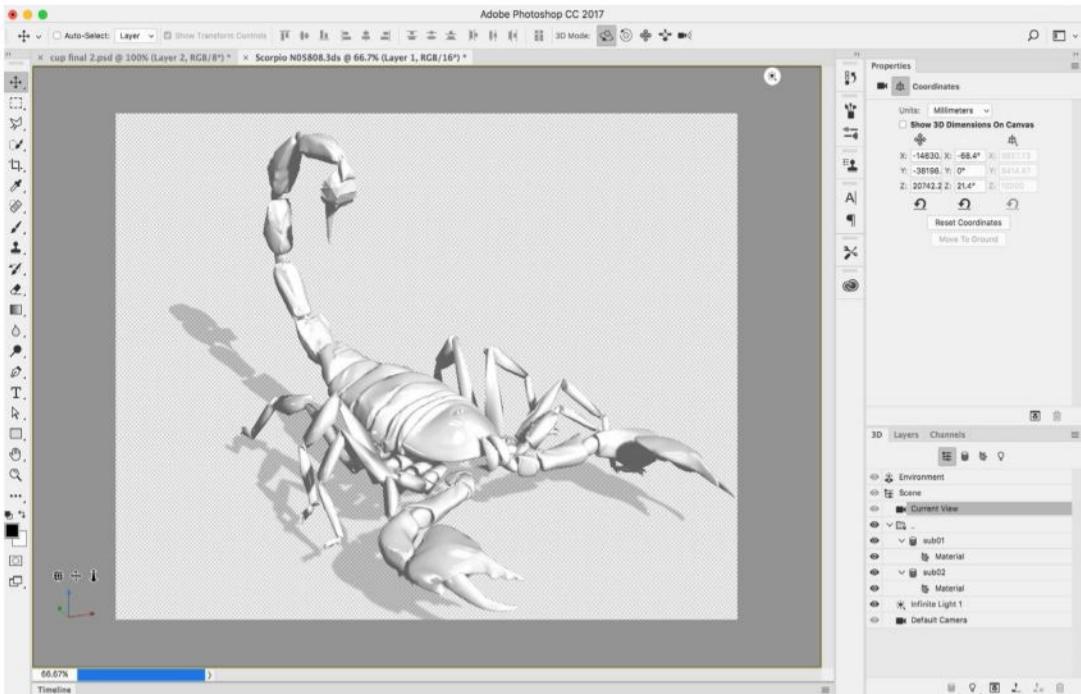


## TIP 7 SOURCE FREE OBJECTS

Build up your library of 3D objects with the wealth of free-of-charge models you'll find online...

► There are lots of 3D models online that are ready to download and import into Photoshop – and many go way beyond the level of modelling achievable with Photoshop's 3D tools. A good source of free online models is [archive3d.net](http://archive3d.net), which houses thousands of downloadable models like the scorpion here – although many come in file formats not recognized by Photoshop. Here are the 3D file formats that Photoshop can open:

**3D STUDIO (IMPORT ONLY)**  
**DAE (COLLADA)**  
**FLASH 3D\* (EXPORT ONLY)**  
**JPS\* (JPEG STEREO)**  
**KMZ (GOOGLE EARTH 4)**  
**MPO\* (MULTI-PICTURE FORMAT)**  
**U3D**  
**WAVEFRONT|OBJ**

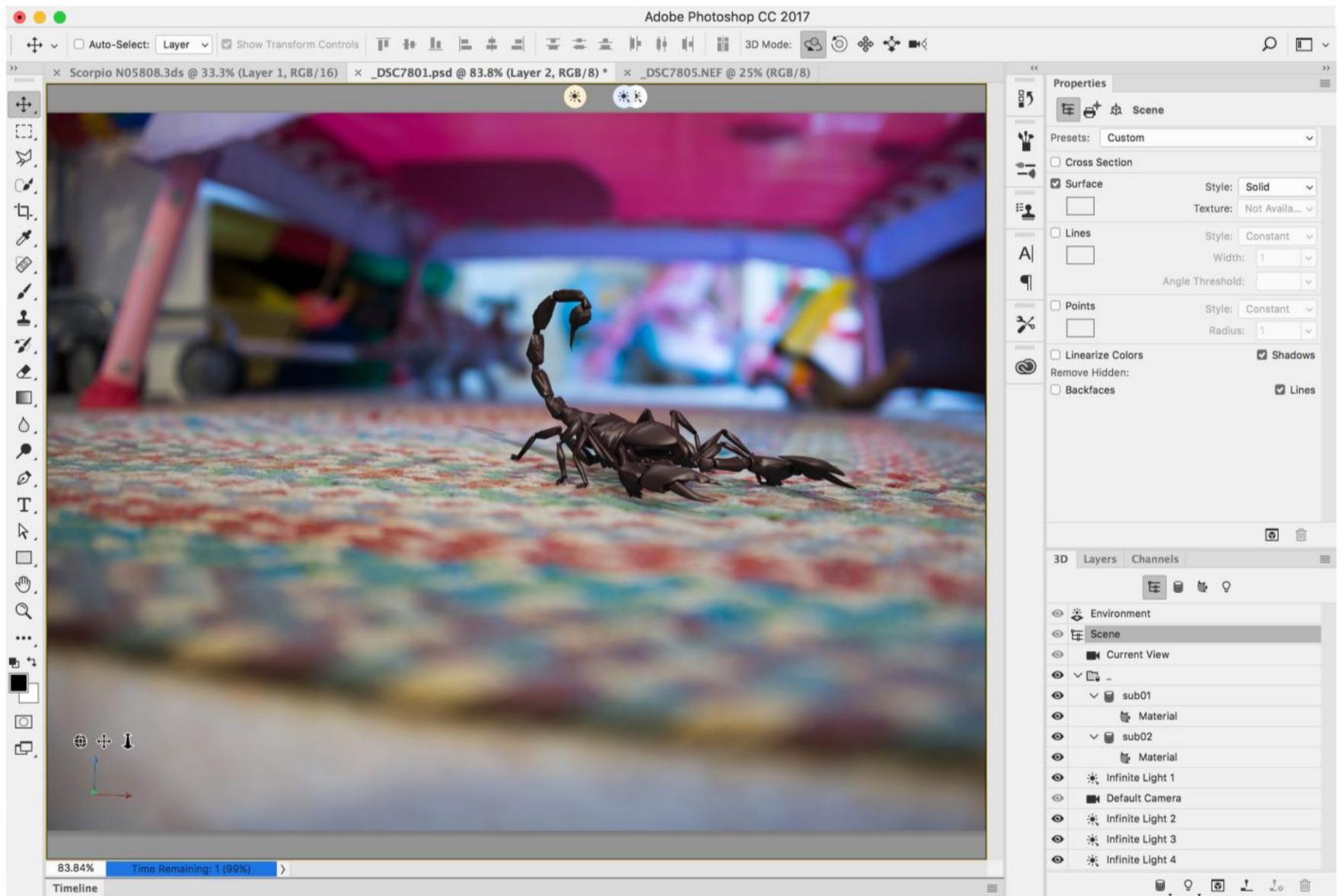


## STEP 1

### DOWNLOAD A FREE MODEL

Go to [archive3d.net](http://archive3d.net) and choose an object to download, making sure the file format is compatible.

Once it's download, open it in Photoshop. Often, like the scorpion here, you need to add a material to finish the model off. Highlight the materials in the 3D panel then use the Properties panel to add a material preset.



## STEP 2

### ADD THE MODEL TO YOUR IMAGE

Copy the scorpion layer across to the background image, then use the Move tool to position it in place. Add lights that match the existing lighting in the scene. Here we added two lights: a warm overhead light, and a cooler backlight to mimic the window light from behind. You can add colors to lights using the Properties panel.

# TIP 8 USE FUSE

Create 3D characters in seconds with Adobe Fuse, then pose them in Photoshop

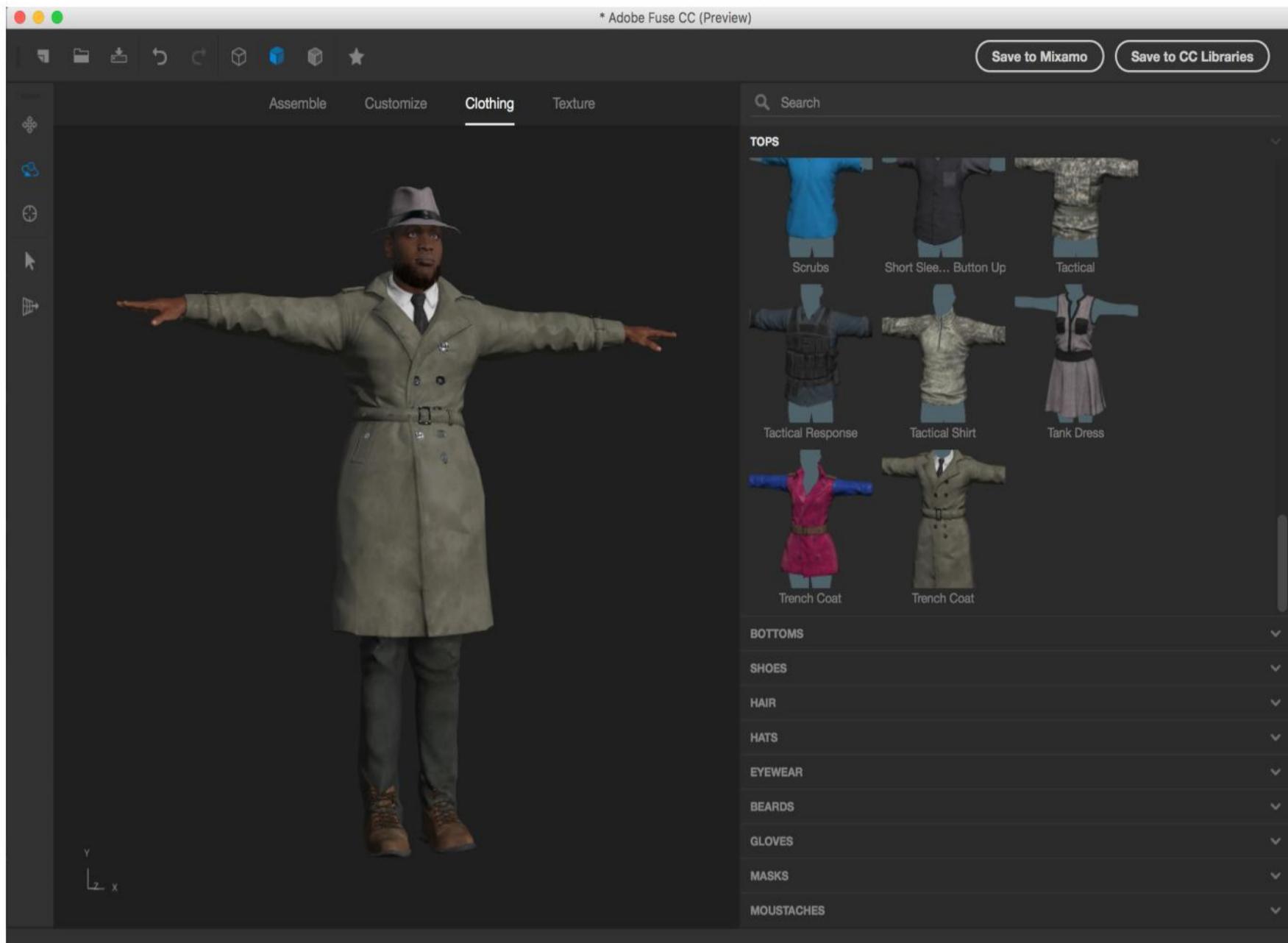


► There are many simple modelling programs out there, including Adobe's own Fuse (available to download for anyone with a CC subscription). Fuse lets you create 3D characters by piecing together body parts

and clothing - it's so simple that even a complete novice can create a customized character in minutes.

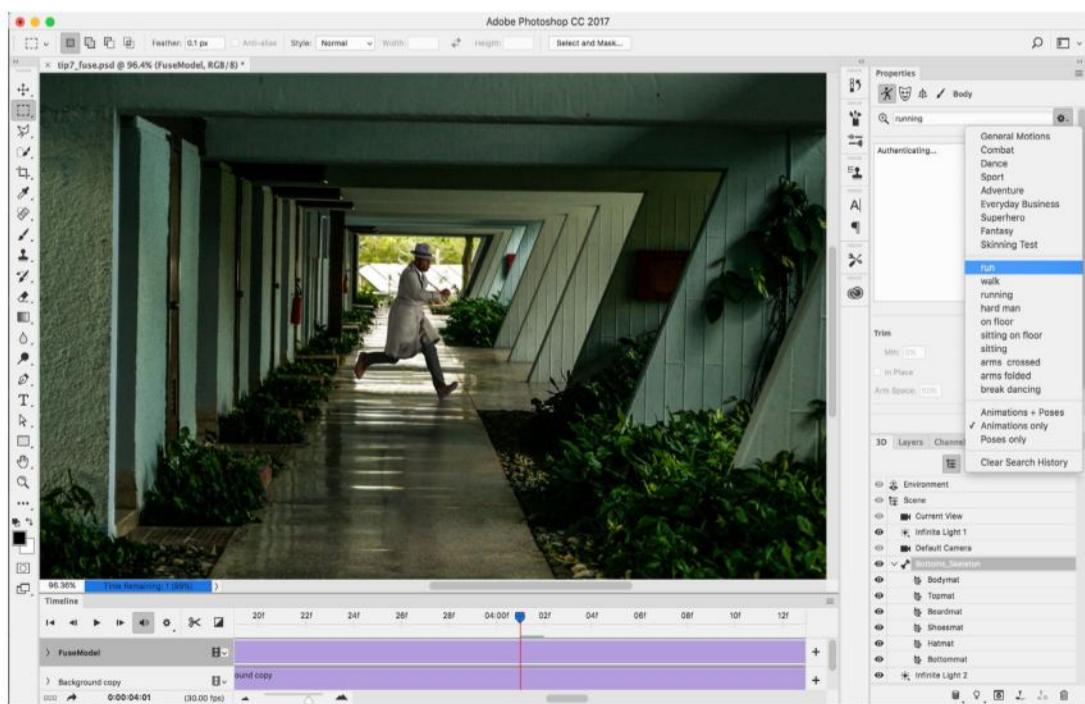
Characters can be synced to your Libraries panel, then used in your 3D projects in Photoshop. You can even

animate the character, using preset animations like dances or fight moves. To do so, highlight the model in the 3D panel, choose an animation in Properties, then use the Timeline to scroll through the animated sequence.



## STEP 1 BODY-BUILDING

Download Adobe Fuse using the Creative Cloud App and start it up. The program is very simple: just choose body parts, clothing, facial hair and so on until your character is complete. Once you've finished, click Sync To CC Libraries: after a few seconds the character will appear in your Libraries panel in Photoshop.



## STEP 2 DROP INTO AN IMAGE

Drag and drop the character into your image then position it in the scene. Highlight the shape ('bottoms\_skeleton') in the 3D panel then go to the Properties panel and click the Animation icon at the top. Choose an animation, then go to Window > Timeline to scroll through the sequence until you hit on the best pose.

# TIP 9 REALISTIC CAMERA BLUR

Experiment with camera focal length and depth of field for natural-looking blur effects

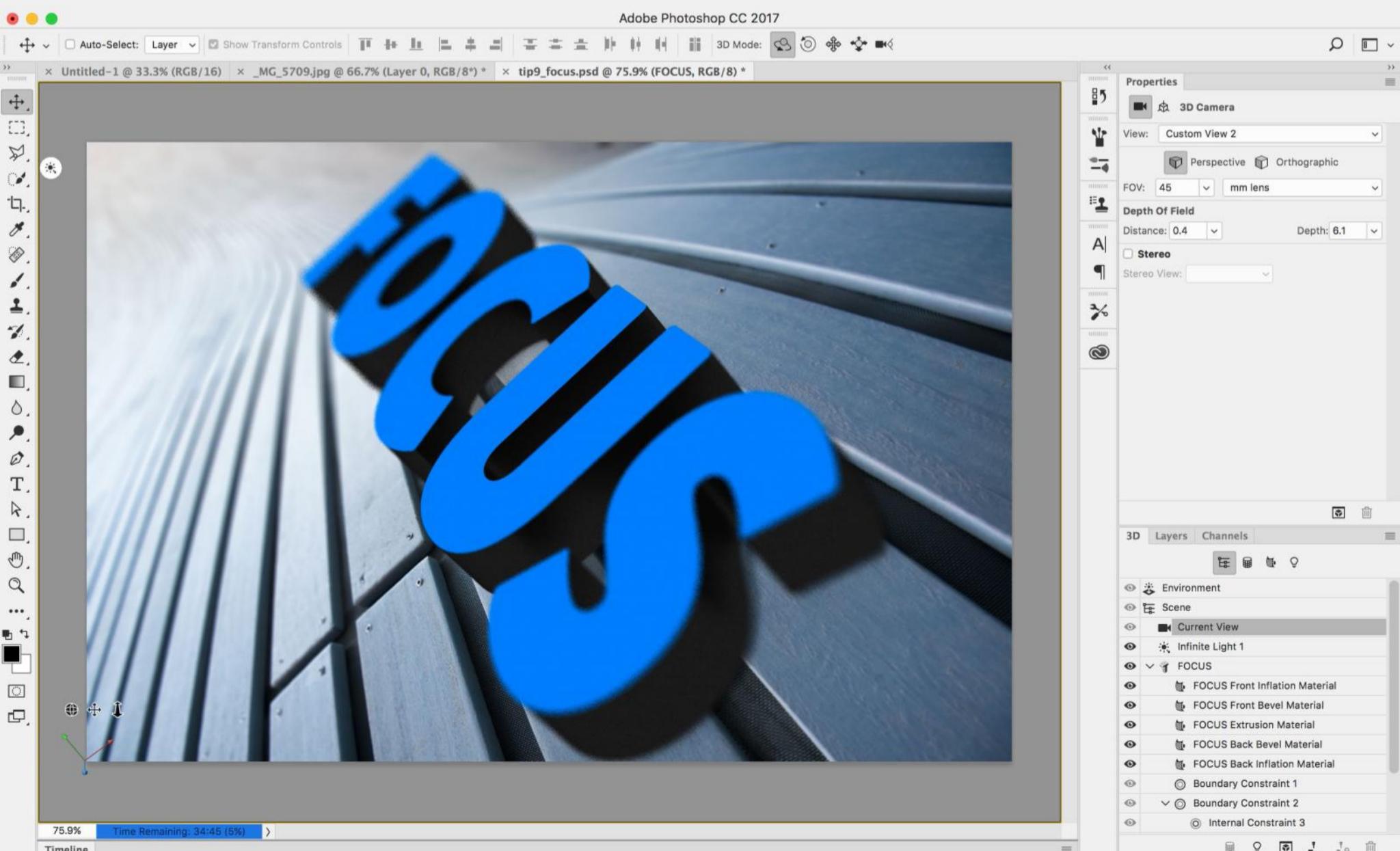
► As any photographer knows, your choice of focal length and depth of field can have a dramatic effect on the look of a photo. When it comes to editing in 3D, you also have control over these factors, using the virtual camera that presents your scene.

With Current View selected in the 3D panel, the Properties panel lets you alter Field of View (FoV).

This is like the focal length of the camera's lens. A long focal length means objects will look more compressed, while a wider length means more foreshortening and distortion. Once you've altered the FoV, you usually need to adjust the camera position too by moving closer or further away. To do this, use the dolly move control (accessed at the top of the screen when the Move

tool is active and the Current View is highlighted).

As well as the focal length, you can also alter the focus point and depth of field - so if you like, you can give your scene a shallow-focus effect with a blurred-out backdrop. Use the Distance slider to set the point of focus (the sharp area), then use the Depth slider to determine how swiftly the sharpness falls away into a blur.



# TIP 10 USE YOUR PHOTO-EDITING SKILLS

There's no need to do everything in 3D – finish your image off with the tools you know best...



► Once you've rendered your scene, you might notice that something needs a slight visual tweak. But ask yourself: is it really worth waiting for another render? For simple adjustments to

the lighting or brightness, it might be easier to finish off the job with Photoshop's easier tonal tools rather than spending more time in 3D mode. So try merging a new layer by pressing Ctrl/

Cmd+Shift+Alt+E, then use tonal tools like Curves, the Camera Raw filter (pictured) or the Dodge and Burn tools to perfect the look of the scene. Every Photoshop tool is at your disposal...



**WATCH THE VIDEO**  
<http://tiny.cc/040yjy>



# MAKE A COFFEE CUP

Discover how to create a designer coffee cup from scratch with our in-depth tutorial - and get to grips with many of the essential 3D tools in Photoshop

## PROJECT INFO

### You'll learn

- How to make a coffee cup, adjust materials, drop in photos and much more

### You'll need

- Photoshop CC

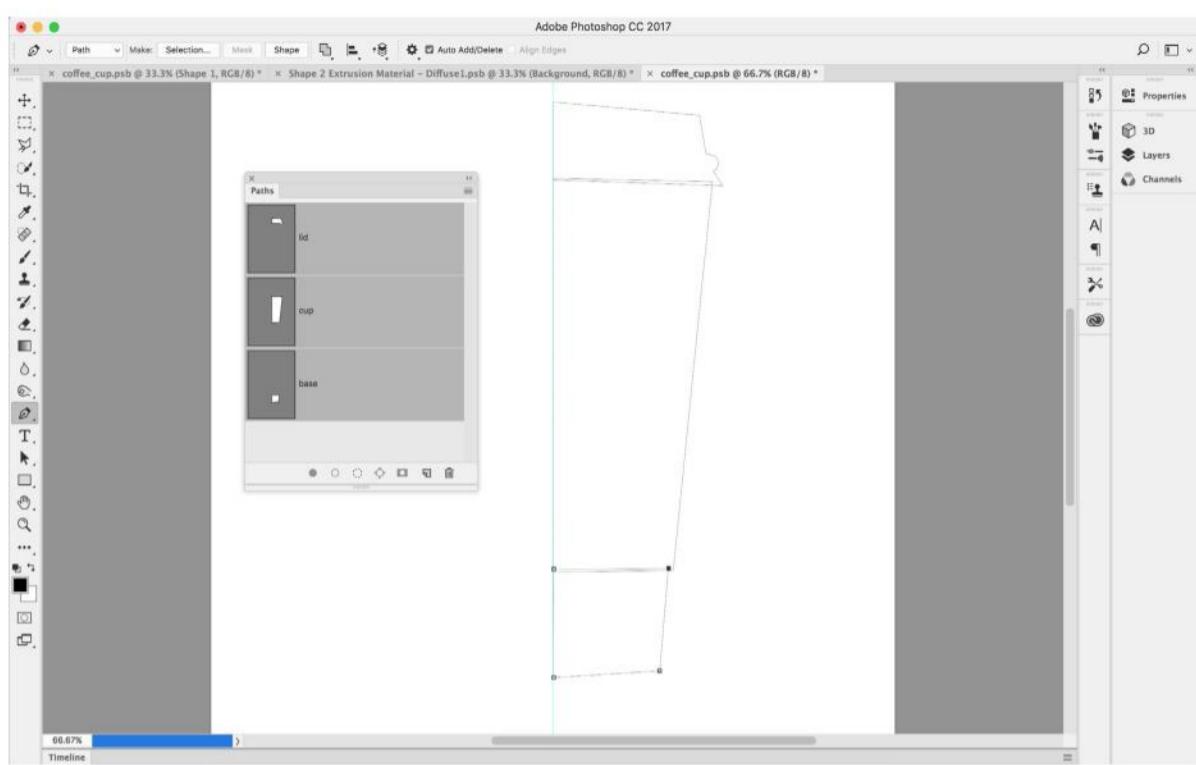
### It'll take

- 30 minutes

► DOWNLOAD THE PROJECT FILES HERE <http://tiny.cc/pc9yjy> ON YOUR PC OR MAC ◀◀

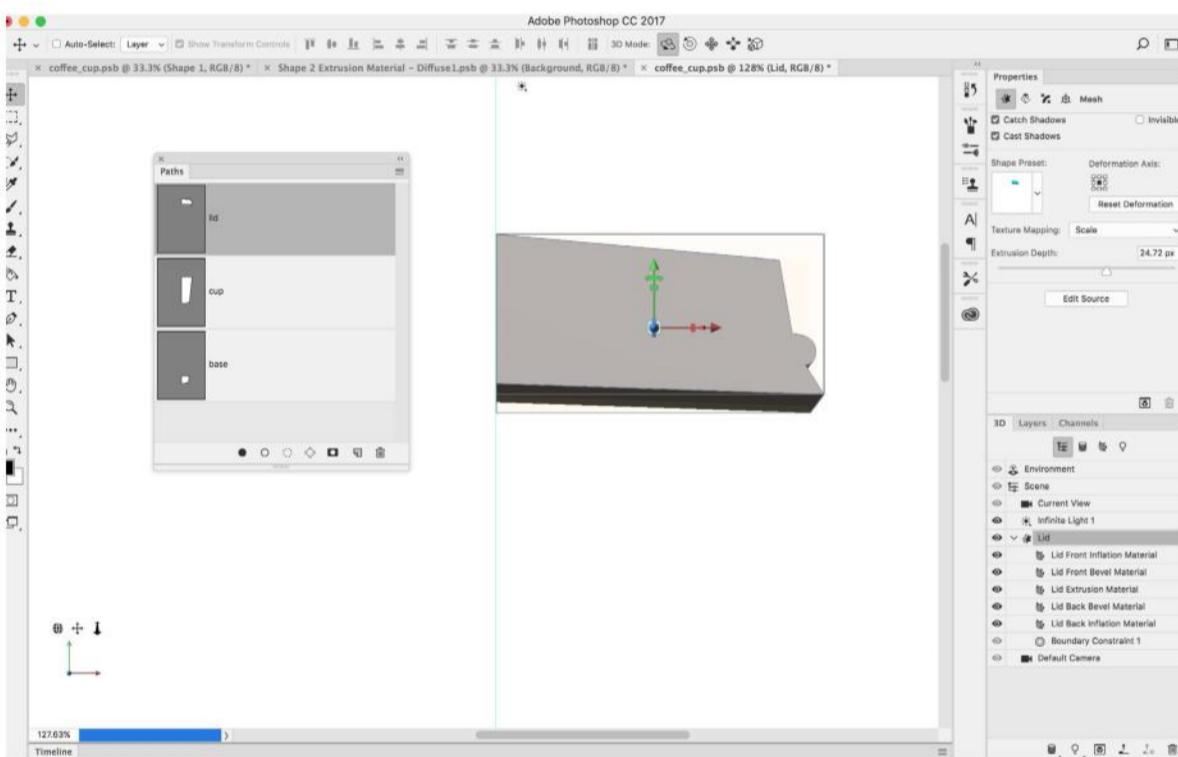
## 01 MAKE A CROSS SECTION

Grab the Pen tool. You need to draw out half a cross-section of a coffee cup, split into sections for the lid, the cup body and the base. Click points to draw straight lines, and drag for curved lines. Once a part is complete, go to the Paths panel and make a new path for the next section.



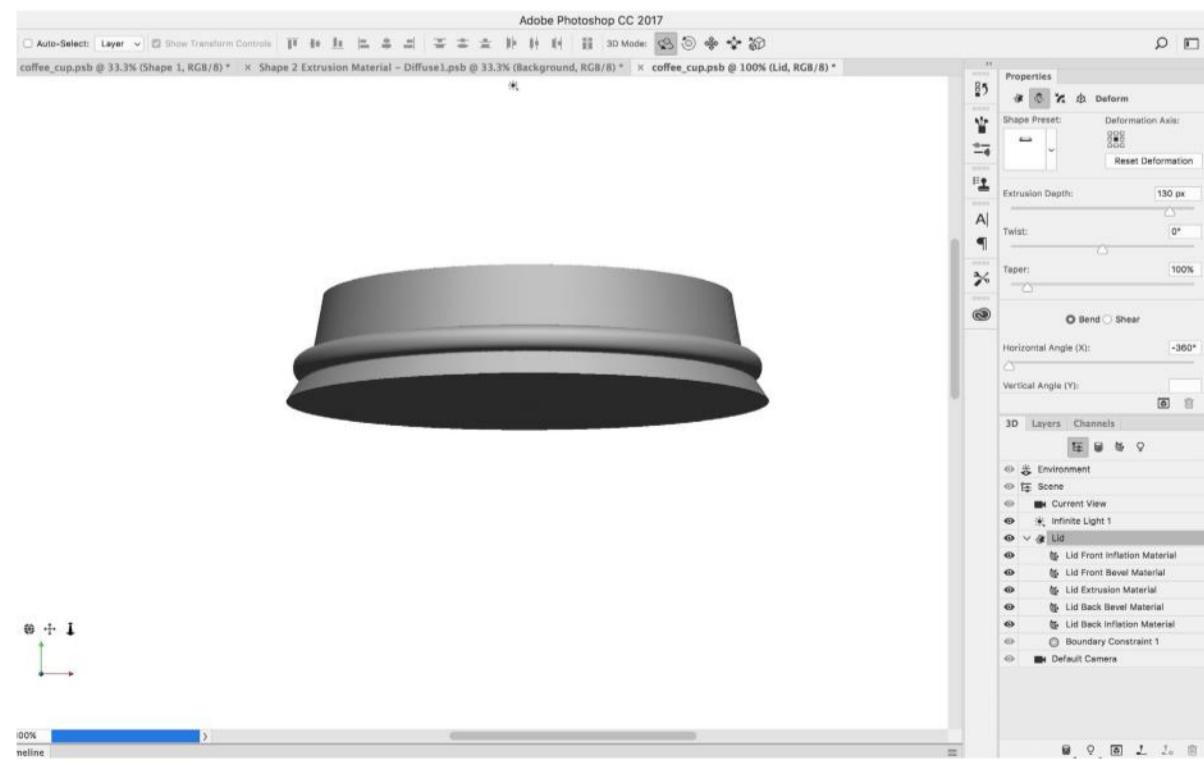
## 02 EXTRUDE THE PATH

Go to the Layers panel and make a new layer then double-click the name and rename it 'Lid'. Next, highlight the lid shape in the Paths panel. Go to 3D > New 3D Extrusion From Selected Path. When prompted, switch to the 3D workspace (or select it from the workspace list in the top right).



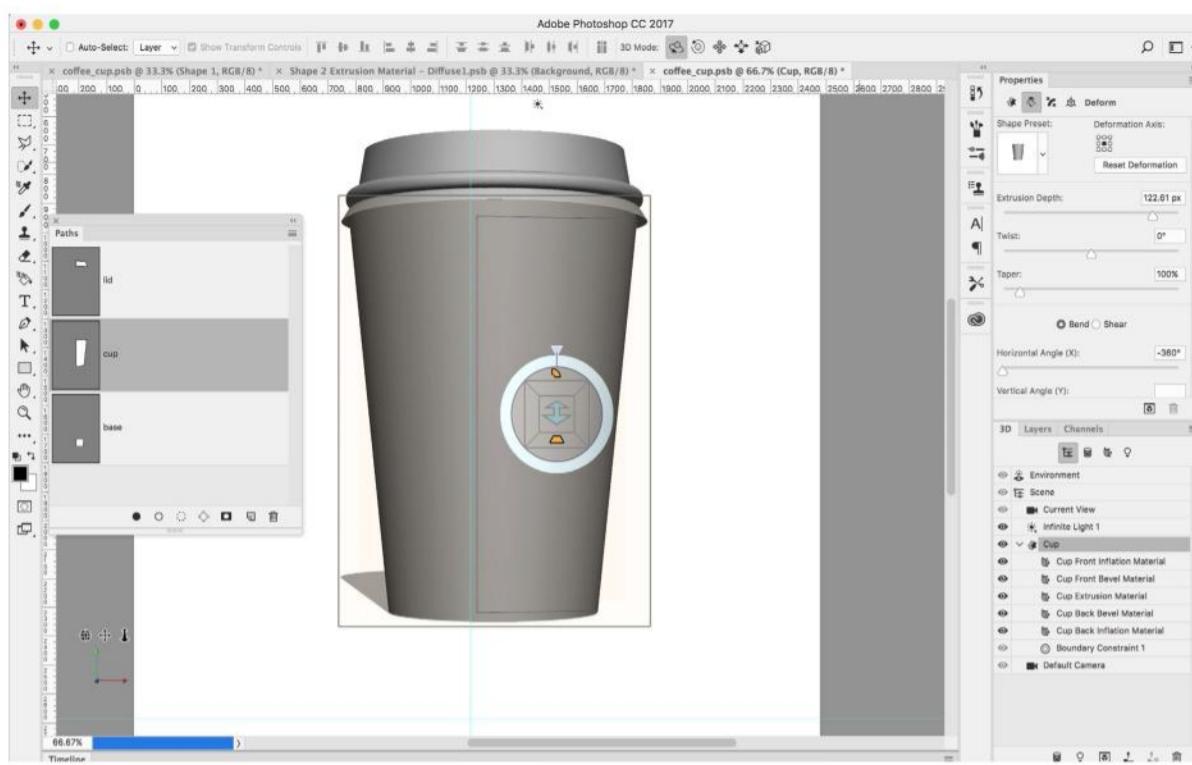
## 03 TWIST THE EXTRUSION

Go to the Properties panel. There are several icons at the top of the panel that let you access sub-menus. Click the second one, 'Deform'. Go to the Horizontal Angle and drag it down to -360. Increase the Extrusion depth slider until it forms a circular shape, achieved at around 130px here.



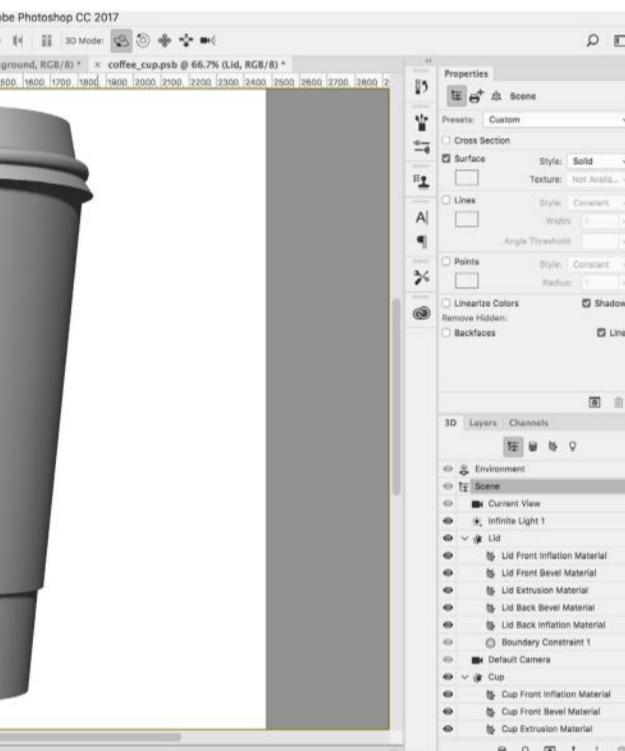
## 04 MAKE THE CUP

Go back to the Layers panel and make a new layer named 'Cup'. Go to the Paths panel and highlight the body of the cup. Once again, go to 3D > New 3D Extrusion From Selected Path; then, as before, use the Horizontal Angle and Extrusion sliders in the Properties panel to create a circular shape.



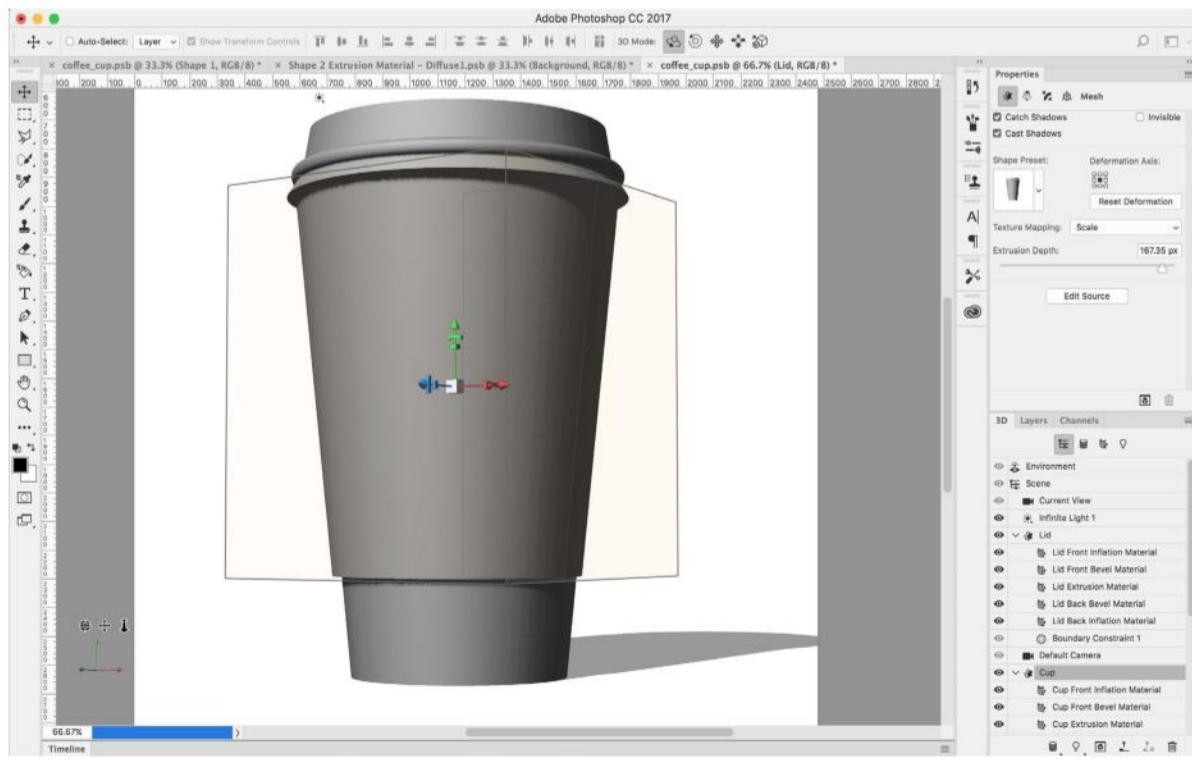
## 05 CREATE THE BASE

Make a third new layer and extrude the base in the same way as you did before. Next hold Ctrl/Cmd and click the three layers in the Layers panel to highlight them, then press Ctrl/Cmd+E to merge them into one layer. Go to the 3D panel. Each shape you've created still remains editable from here.



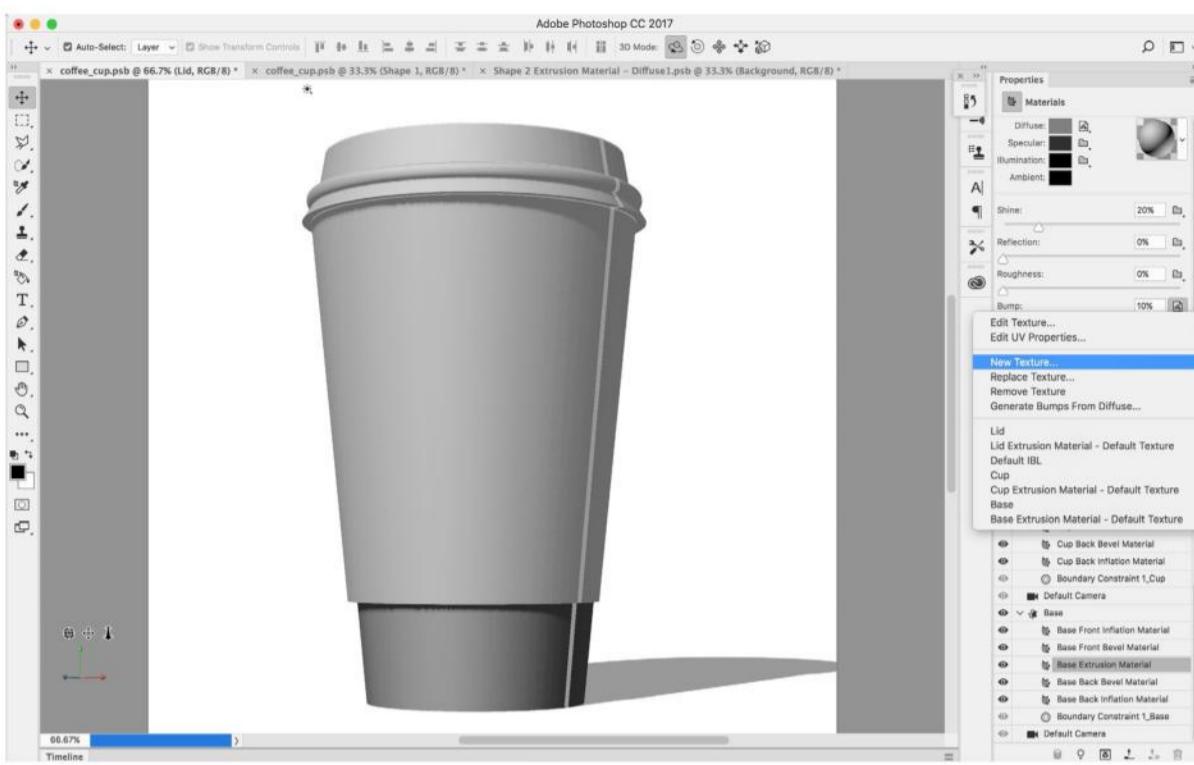
## 06 ADJUST THE VIEW

Click Current View in the 3D panel, then use the camera controls along the top of the image window to rotate and zoom until you're happy with the view. You might also want to highlight each shape and tweak the Extrusion Depth values until the shape of the cup looks right to you.



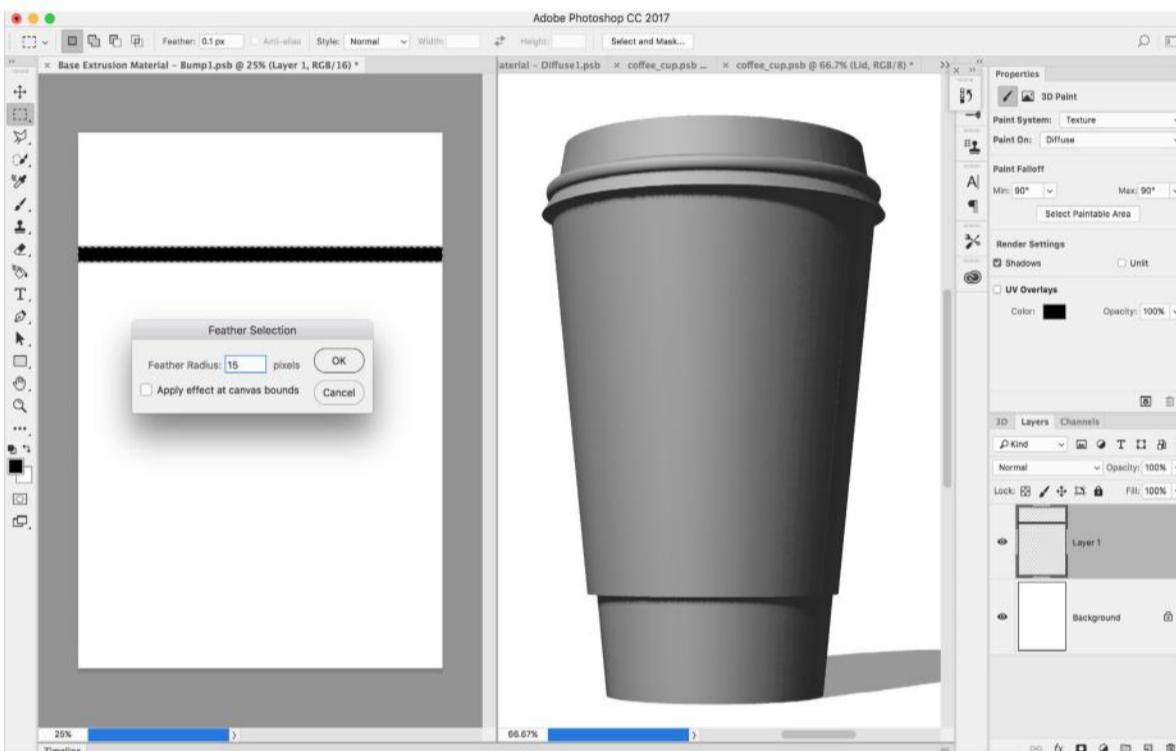
## 07 BUMP THE BASE

Next you'll add ridges to the base, to make it look like cardboard. Go to the Base shape in the 3D panel, then highlight Base Extrusion Material. In Properties, click the folder icon to the right of the Bump slider and choose New Material. Click OK in the New dialog to open a new image.



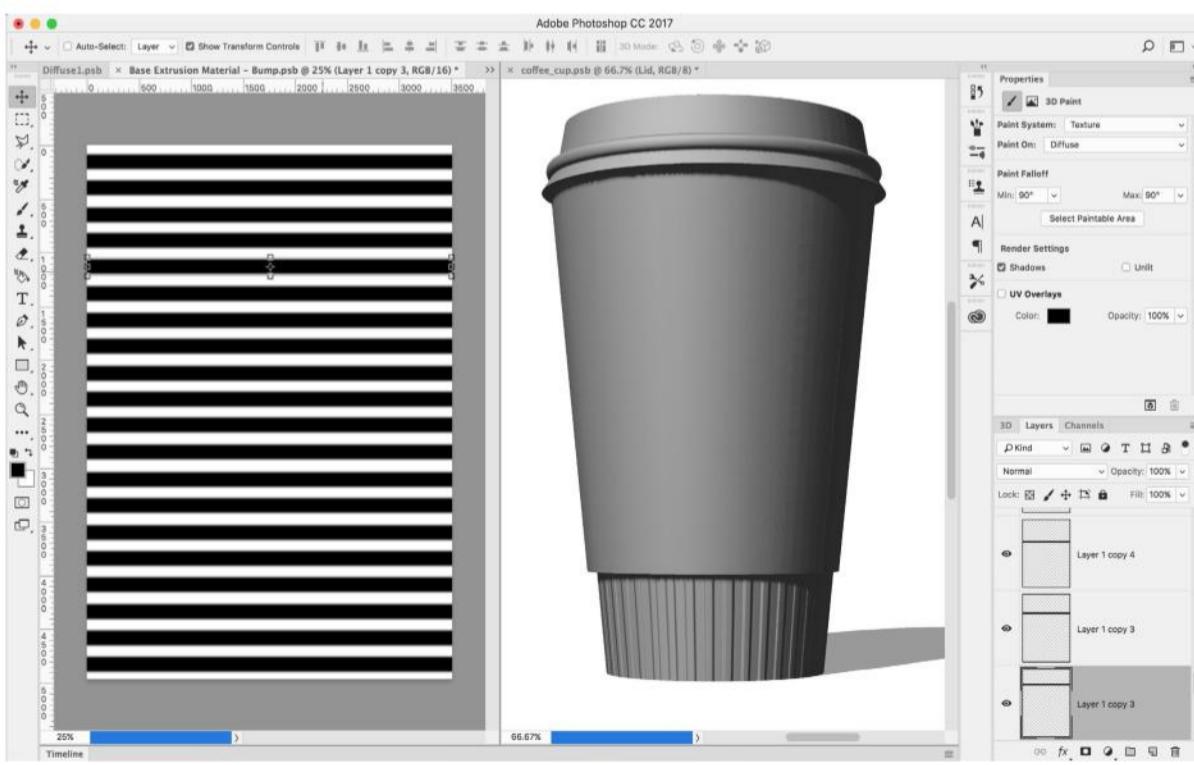
## 08 MAKE A STRIP

Go to Window > Arrange > 2-Up Vertical to see both windows. In the new material window, add a layer then grab the Rectangular Marquee tool and drag a bar-like selection across the image. Right-click, choose Feather and set about 15px. Go to Edit > Fill and set Contents to Black.



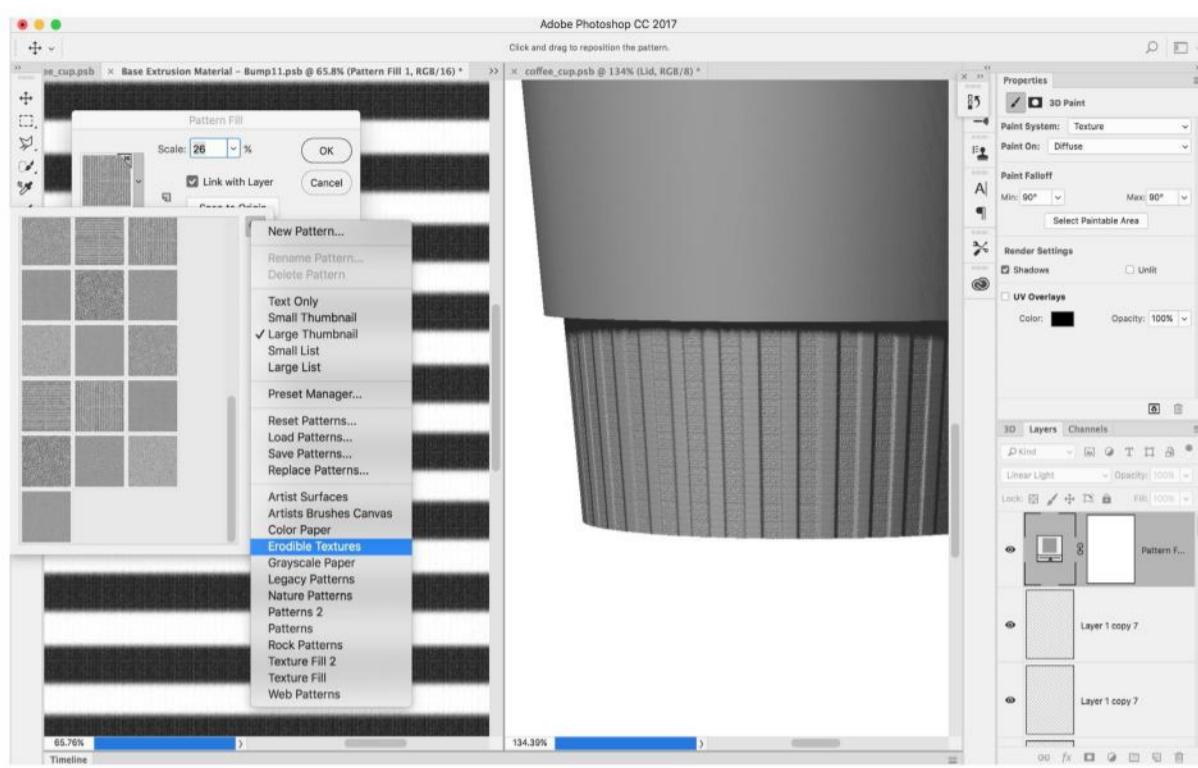
## 09 REPEAT THE PATTERN

Grab the Move tool, hold Alt and drag the black bar to make a copy. Position it just below, then Alt-drag repeatedly until the bars fill the frame. Press Ctrl/Cmd+S at any time to see the cardboard ridges appear on the base of the coffee cup. Increase Bump in Properties to expand them.



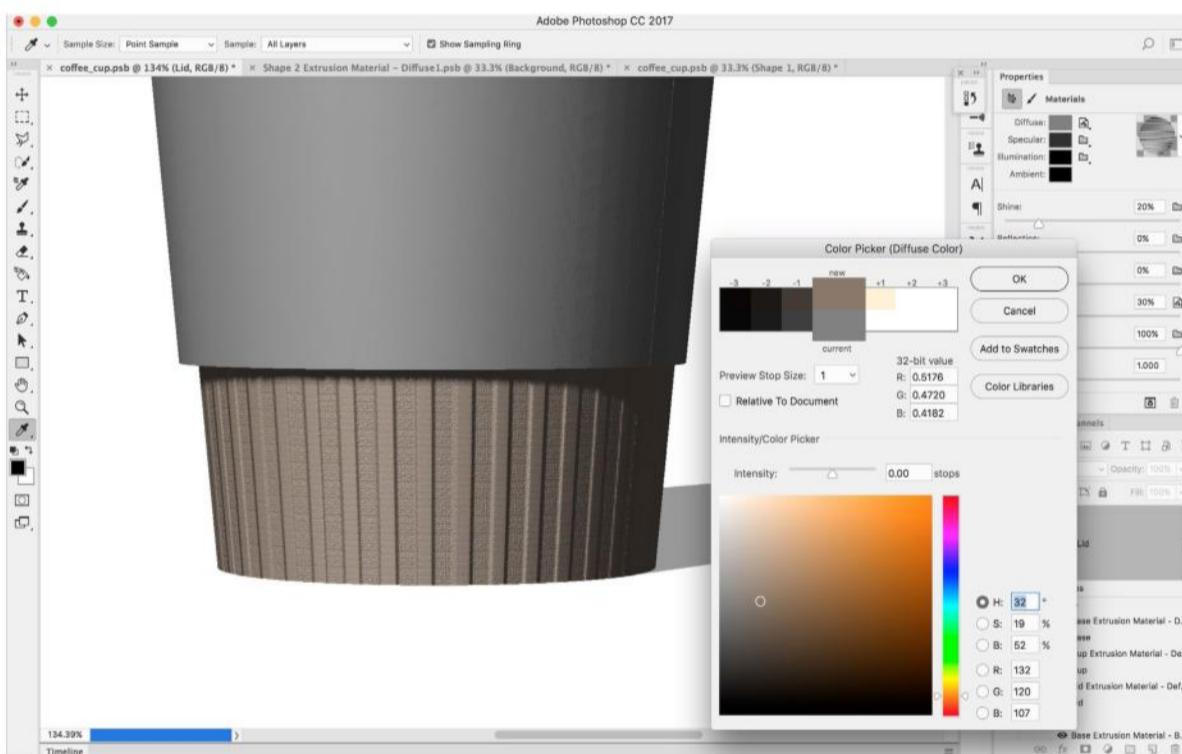
## 10 ADD A TEXTURE

When you're happy, highlight the top layer in the material image, then go to Layer > New Fill Layer > Pattern. Click the flyout, choose Erodible Textures and choose Laid Vertical. Change the Blend Mode to Linear Light and adjust Scale, saving to see how it affects the texture of the base.



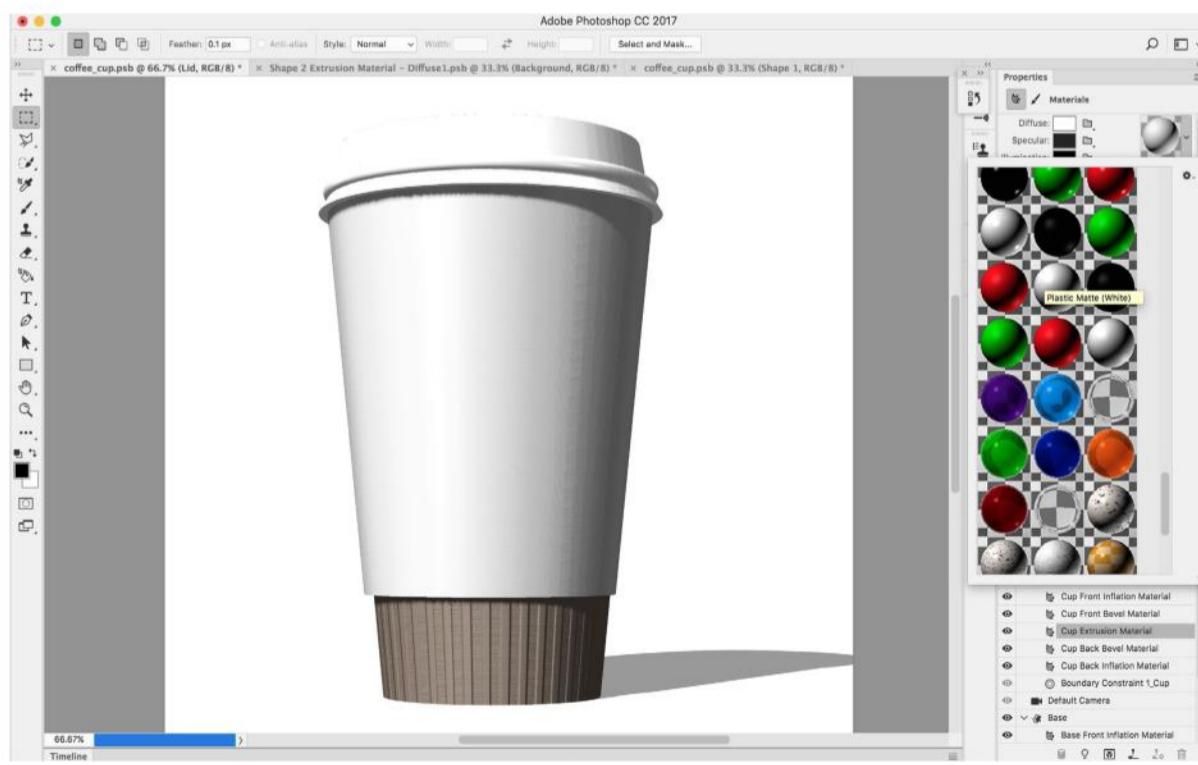
## 11 CHOOSE A COLOR

Save and close the material image window. With Base Extrusion Material highlighted in the 3D panel, go to Properties, click the color picker next to Diffuse, and choose a color for the corrugated base. Next go to 3D > Get More Content Online. Click the Download Materials Zip link and unzip the file.



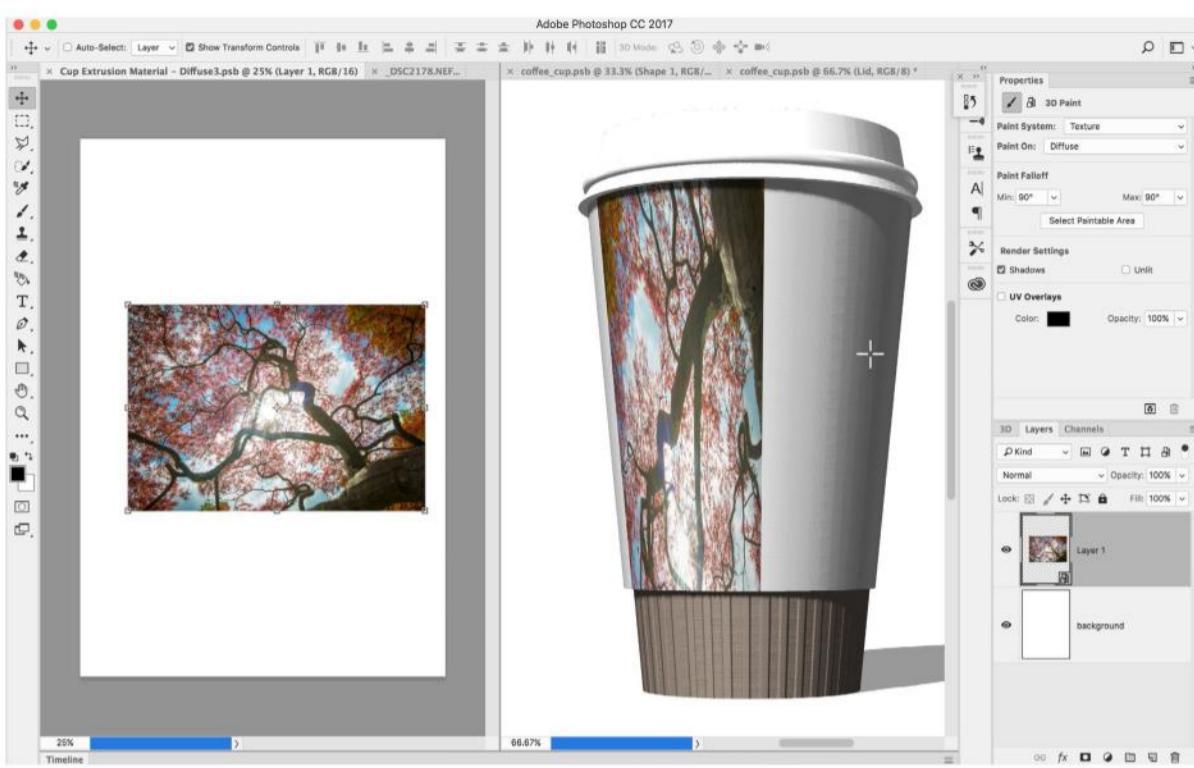
## 12 ADD A MATERIAL PRESET

Highlight Cup Extrusion Material in the 3D panel. Click the circular material preset in the Properties panel, click the flyout and load the newly downloaded materials. Choose Plastic Matte (White) for the cup, then highlight Lid Extrusion Material and choose Plastic Glossy (White).



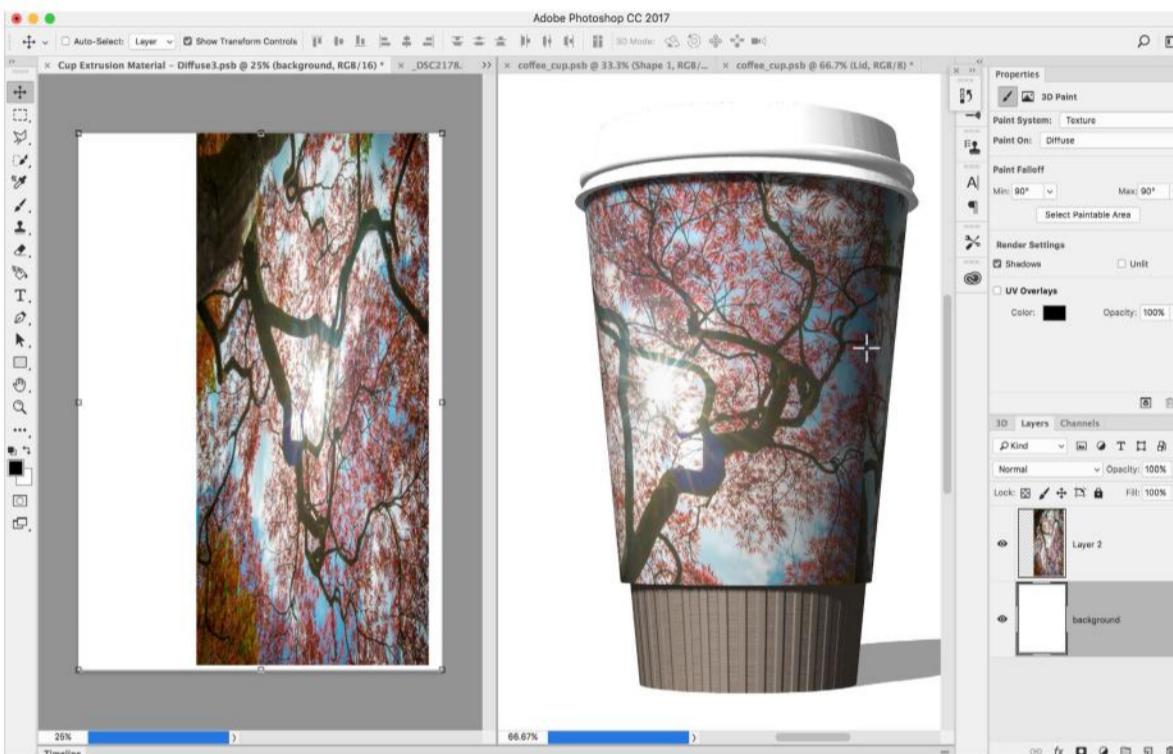
## 13 DROP A PHOTO

Click Cup Extrusion Material. Go to Properties and click the folder icon next to Diffuse. Choose New Texture and click OK. Drag in an image file (cup1\_pic here) then right-click the image layer and choose Convert to Smart Object. Go to View > Arrange > 2-Up Vertical and click Ctrl/Cmd+S to save.



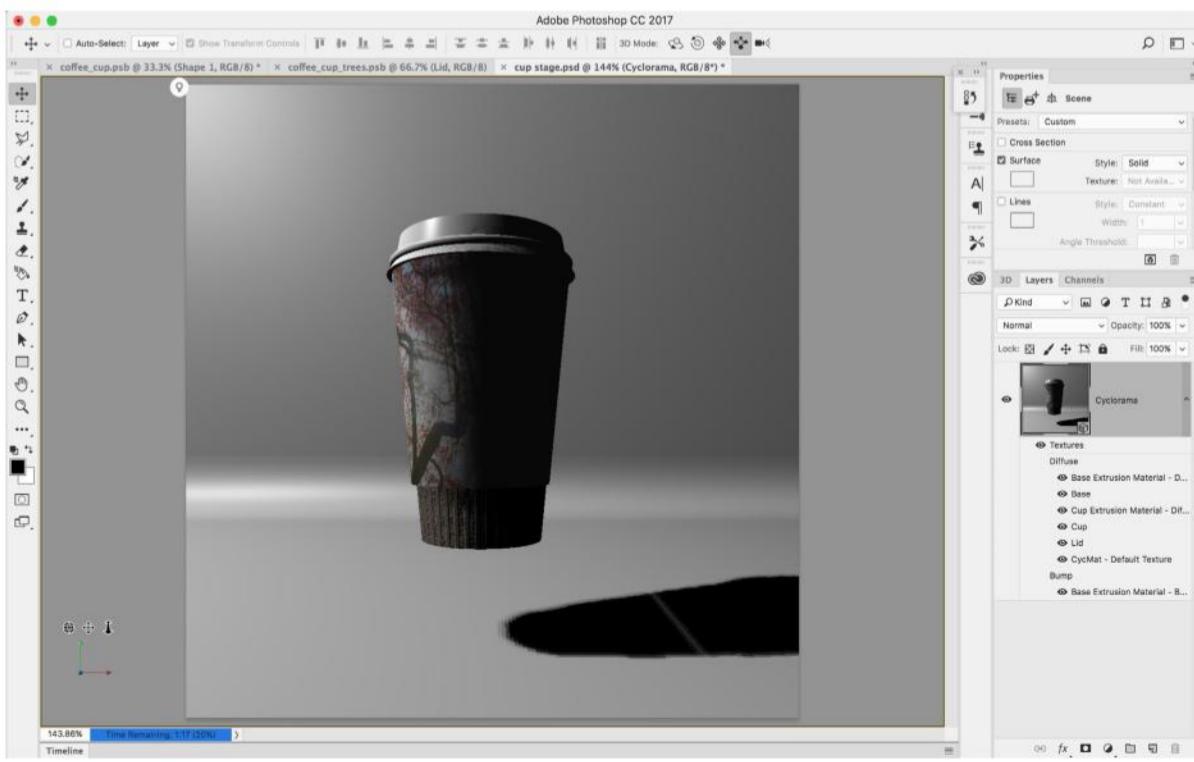
## 14 TRANSFORM TO FIT

Chances are the image will be squashed or stretched and the wrong way around, so you need to press Ctrl/Cmd+T for transform, then right-click and choose Rotate 90 clockwise. Press Ctrl/Cmd+S to save and see how it looks; continue transforming and saving until it looks right.



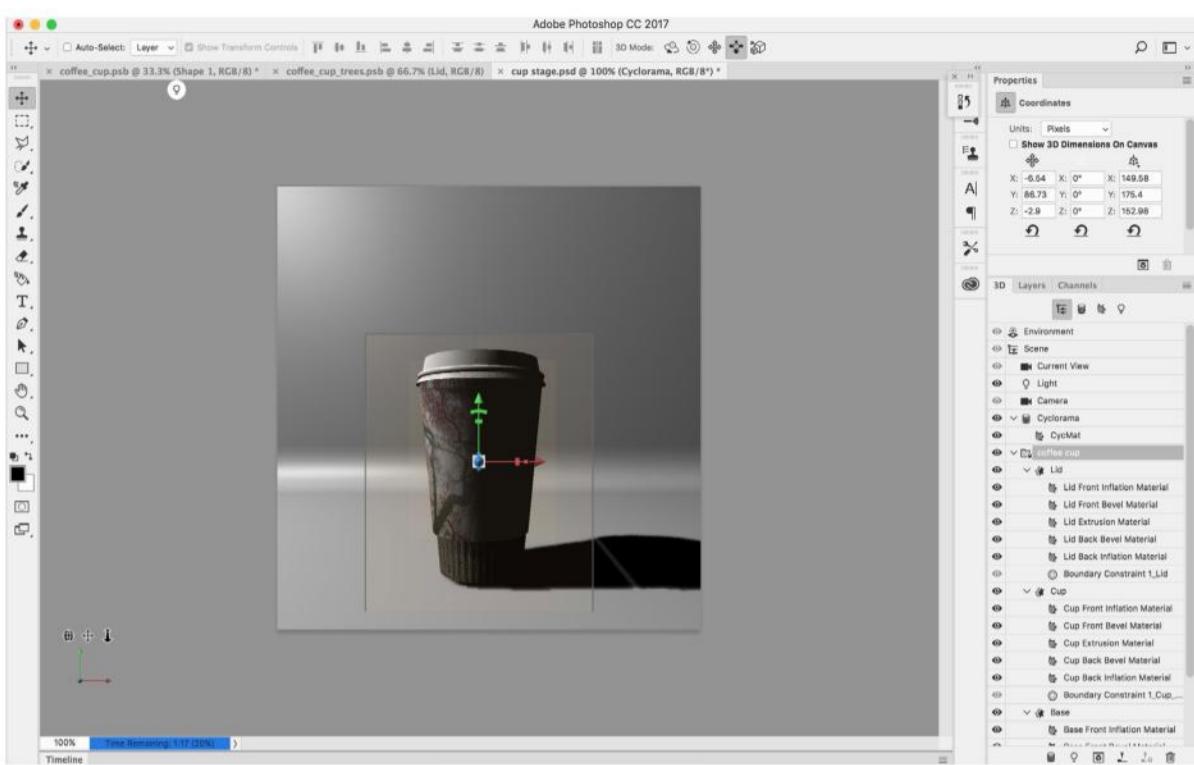
## 15 SET THE STAGE

When you're happy, save and close the material window. Next go to 3D > Get More Content and download the two free stage sets. Open Stage Set-1-01. Go back to the cup; go to the Layers panel, right-click the layer and pick Duplicate. Choose the stage in the Destination settings and click OK.



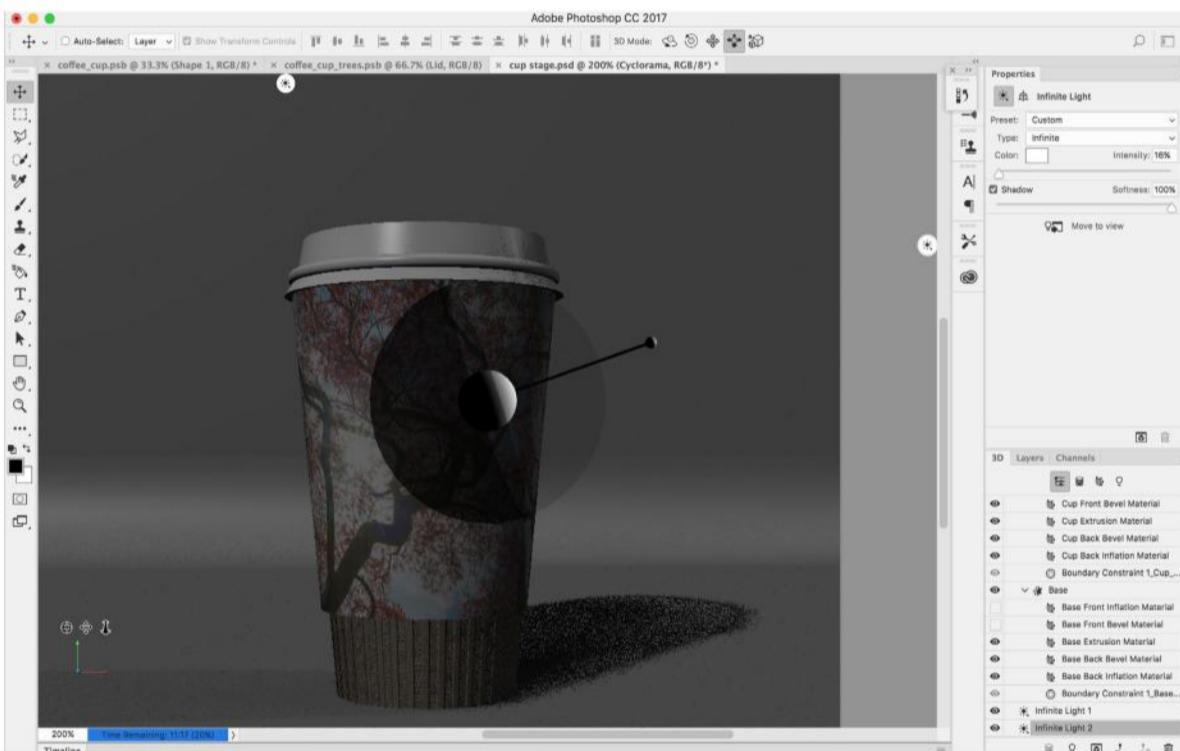
## 16 MOVE TO THE GROUND

Go to the stage image. Ctrl/Cmd-click to select both layers, then press Ctrl/Cmd+E to merge. Go to the 3D panel, Ctrl/Cmd-click to highlight the Lid, Cup and Base shapes, then go to 3D > Group Objects. Rename the group as 'Coffee Cup'. Go to 3D > Move Object To Ground Plane.



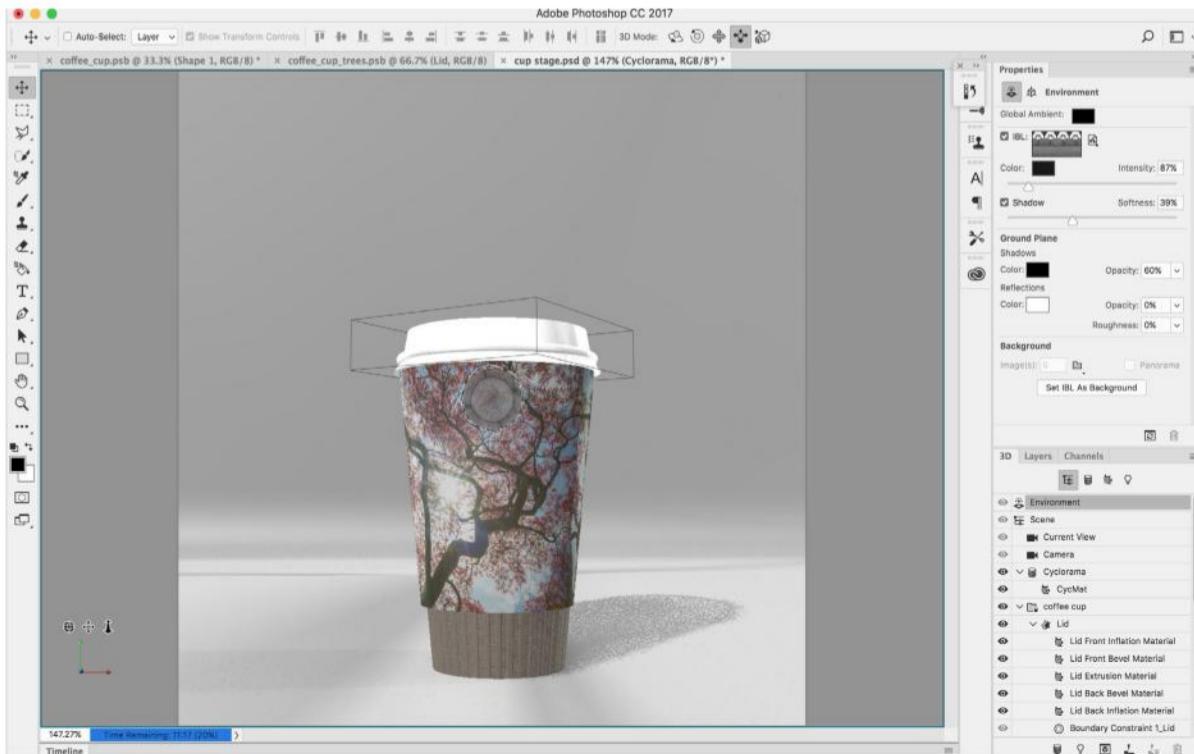
## 17 LIGHT THE SCENE

Right-click the existing 'Light' in the 3D panel and delete it. Click the Light icon at the bottom of the panel to add a new Infinite Light. Adjust the direction, then go to Properties and increase Shadow Softness. Add a second light from the right, lower the intensity and increase the softness.



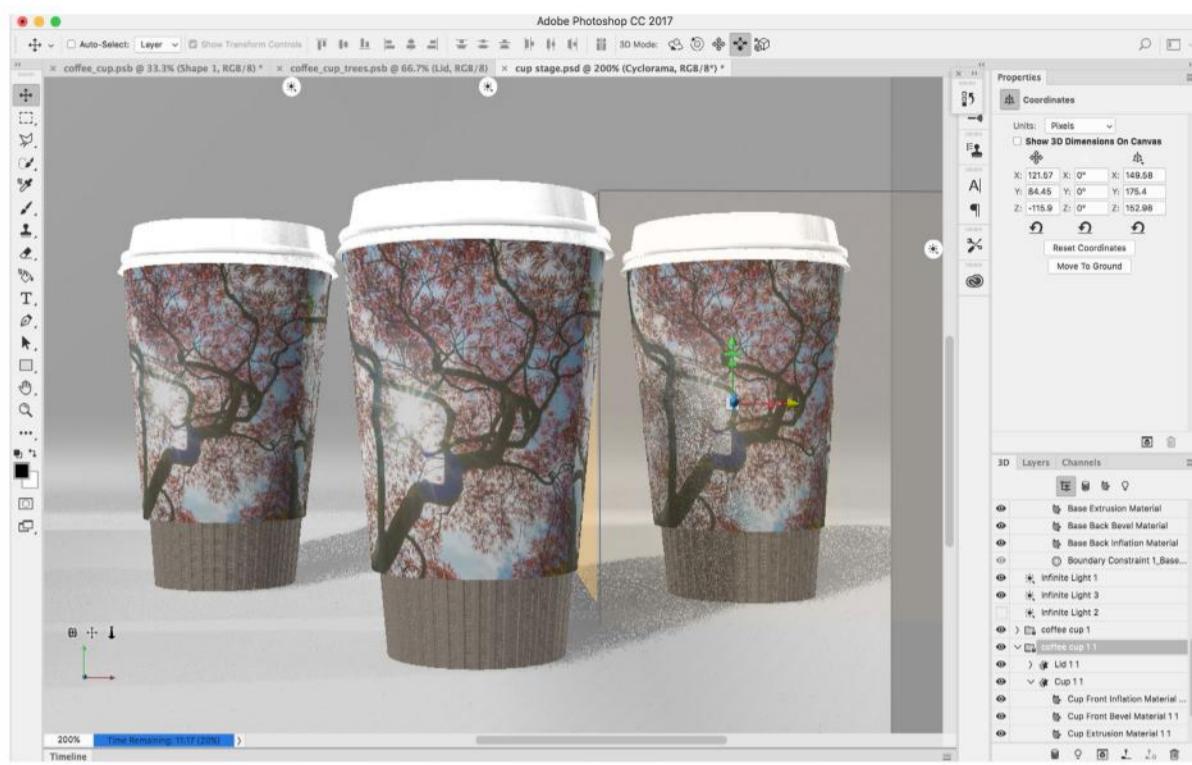
## 18 ADD MORE LIGHTING

Go to 3D > Get More Content and download the Image-Based Lights sets. Go to the 3D panel and click Environment, then go to Properties and click the file icon next to IBL to load an image. Load in 03 from IBLS Creative Hi Res. Lower the intensity slightly, and use the Move tool to tweak the reflections.



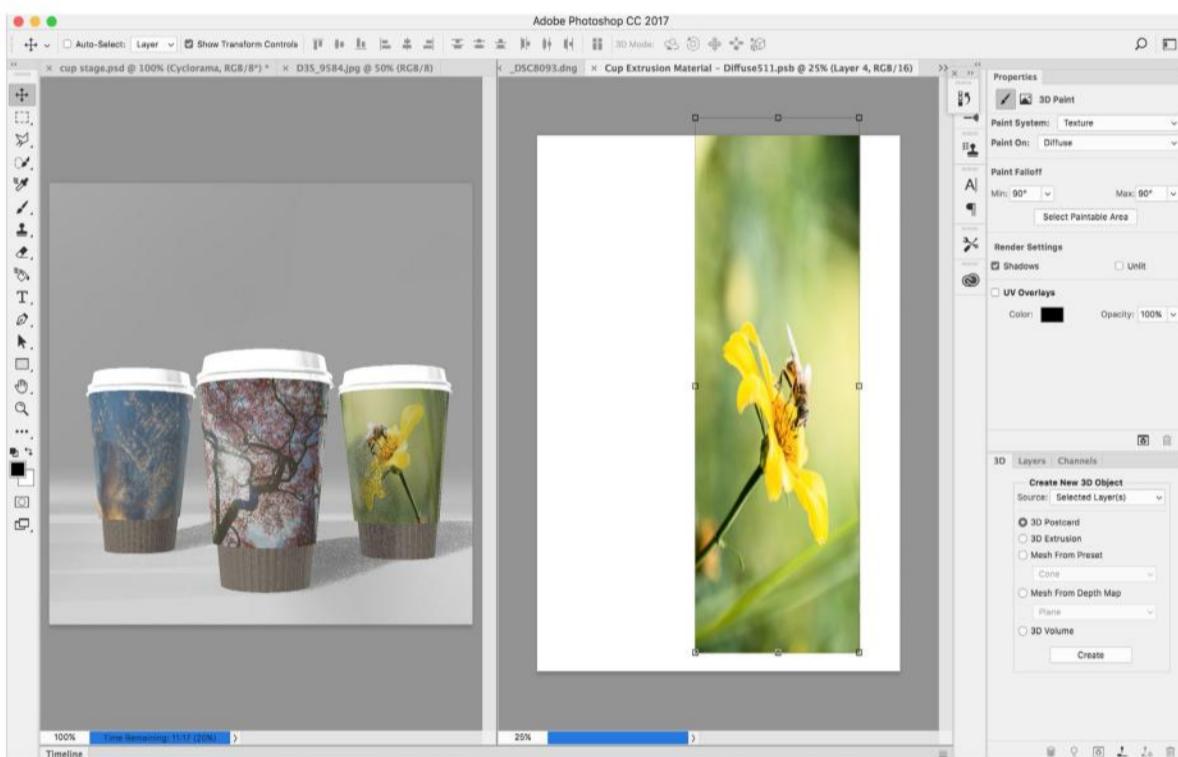
## 19 COPY THE CUP

Go to the 3D panel, right-click the Coffee Cup group you made earlier and choose Duplicate. Use the Axis control to move the copy of the cup across and to the right (using the Move on X and Move on Z arrows), then duplicate it again to make a third coffee cup and move it across to the left-hand side.



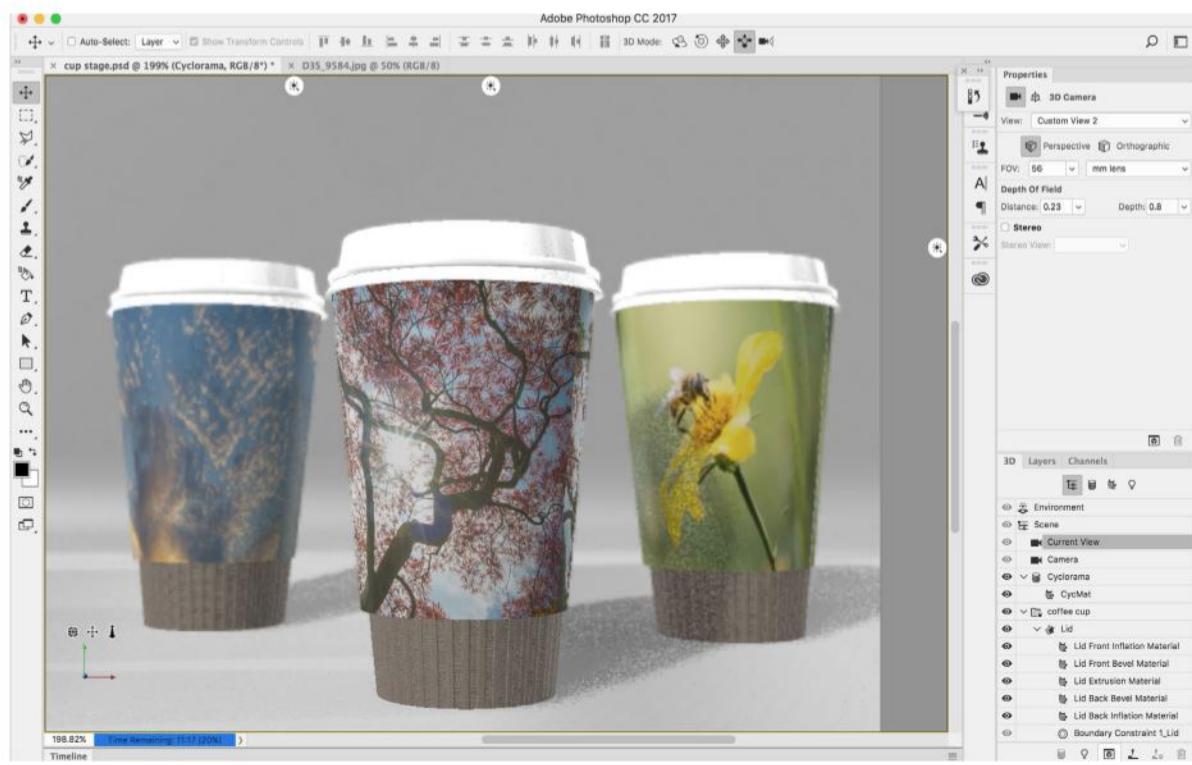
## 20 CHANGE THE IMAGES

Go to the 3D panel and highlight Cup Extrusion Material on a duplicate. Go to Properties, click the icon next to Diffuse, and pick Edit Texture. Copy and paste in a different image to change the overlay on the cup, again transforming the image until it looks right. Repeat for the other cup.



## 21 SOFTEN THE FOCUS

Click Current View. In Properties, adjust Depth to 0.8 and Distance to 0.23 to make a shallow depth-of-field effect. Click the Render icon at the bottom of the 3D panel. Once done, press Ctrl/Cmd+Shift+Alt+E to merge a 2D layer, then make any final tonal adjustments you like.





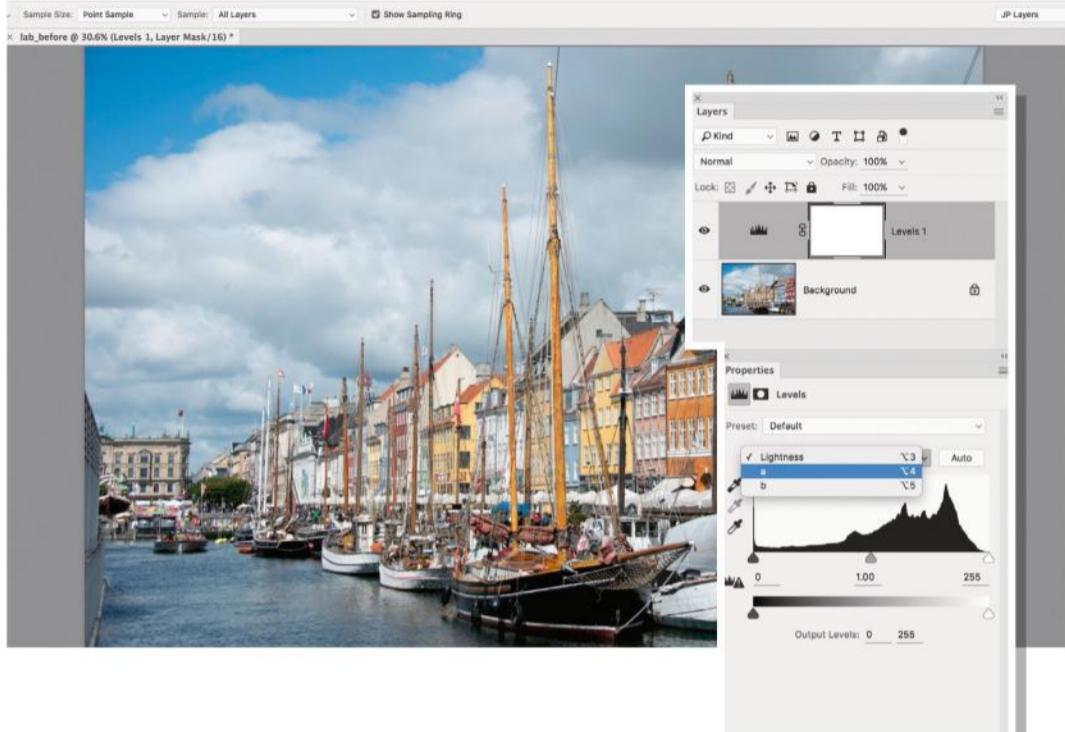
# GET TO GRIPS WITH COLOR MODES

Can you tell your CMYK from your Lab and your sRGB from your Prophoto? Here's why color modes matter to your images

► DOWNLOAD THE PROJECT FILES HERE <http://tiny.cc/pc9yjy> ON YOUR PC OR MAC ◀◀

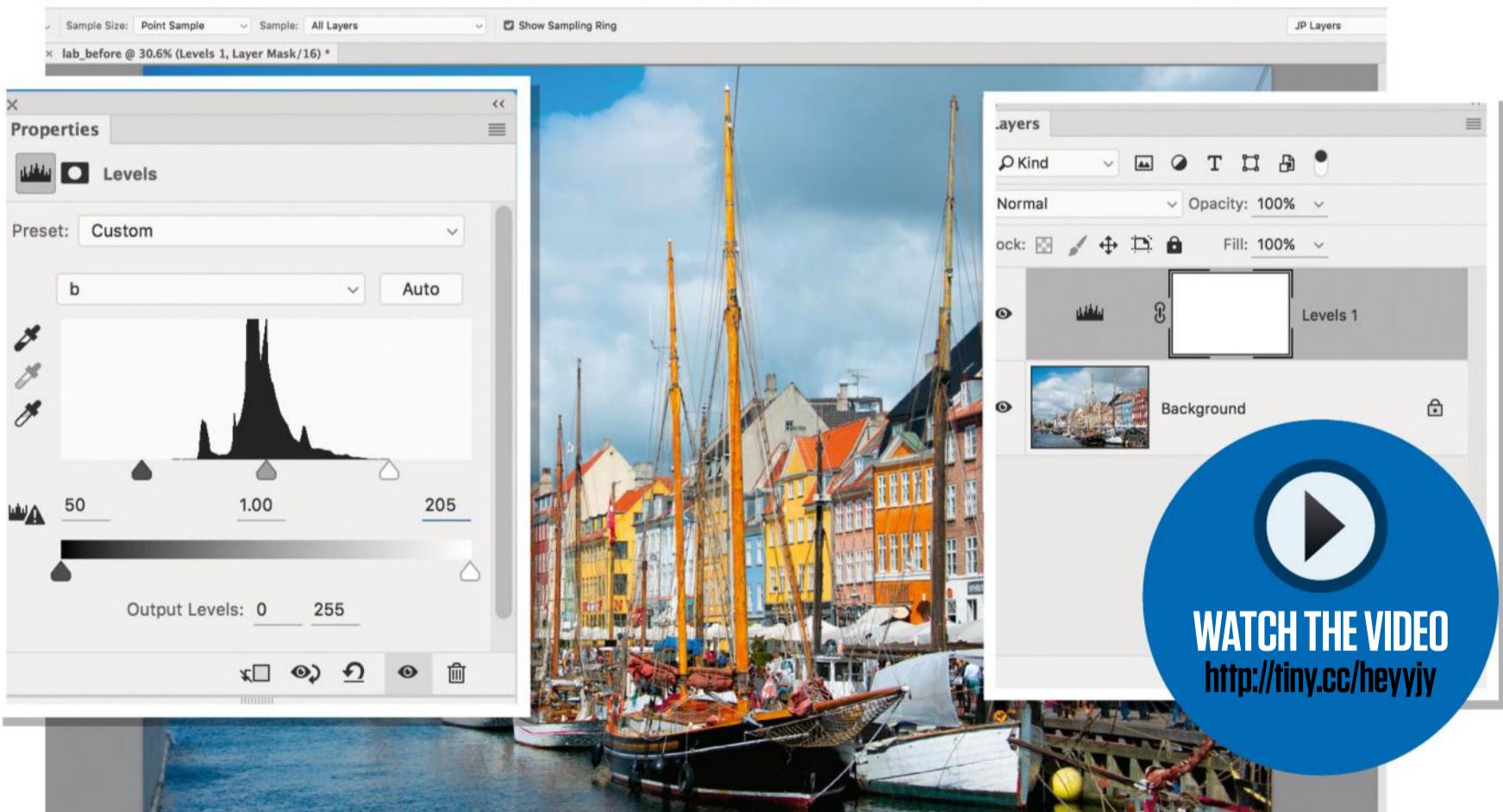
# STEP BY STEP BEST COLORS WITH LAB

Switching between modes can bring all kinds of benefits



## 01 CHANGE TO LAB

Lab is a mode that separates color and detail, which makes it great for boosting weak hues. Go to Image > Mode > Lab Color. Open the Layers panel, click the Create Adjustment Layer icon and choose Levels. Click the dropdown menu at the top. It shows Lightness, A and B. Select A.



## 02 SQUEEZE THE SLIDERS

You can boost colors by dragging the black and white points inwards by equal amounts. Using the boxes below the graph, set Blacks to 50. The tonal range is 0-255, and 255 minus 50 is 205, so input 205 in the Whites box. Select the B channel and again squeeze in the white and black points by equal amounts. Flatten the image and convert back to RGB.

# PHOTOSHOP ANATOMY

Your concise guide to the most useful color modes

## MODES AND PROFILES

Digital devices don't see color: they see data. Each pixel in an image is assigned certain data that gets interpreted as a color. But this interpretation differs depending on the color mode of the display. Photoshop offers several standard color modes to work in. To switch between modes, go to **Image > Mode**.

1

### RGB

Found in TVs and monitors, RGB is the most common color space. It stands for red, green and blue: any color can be made from a combination of these. There are several types (choose in **Edit > Color Settings**): sRGB has a smaller gamut that suits web images and inkjet printers; Adobe RGB 1998 holds more colors; and Prophoto RGB offers the widest gamut of color.



2

### LAB COLOR

Lab interprets colors based on how we see them, rather than how a screen might display them. Lab is useful because it splits up color and luminosity data, enabling some advanced Photoshop techniques. The L channel - luminosity - is like a black-and-white version of your image. The A channel contains a magenta-green split of colors, while B contains a yellow-blue split.

3

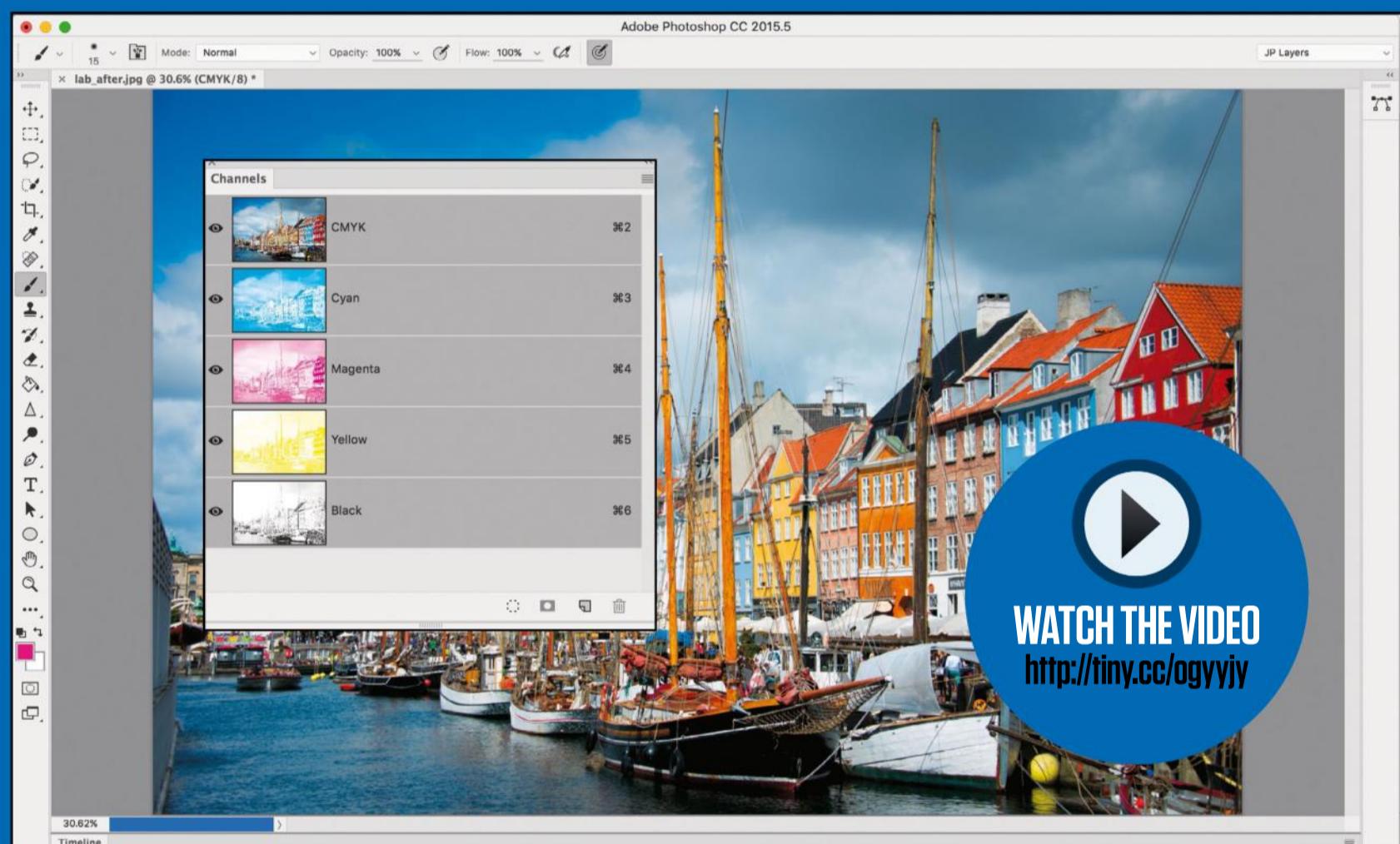
### 8-BIT VS 16-BIT

If you want the most color information, open your raw files in 16-bit mode. (Click **Workflow Options** below the image in Camera Raw to set a bit depth.) This'll give you 281 trillion colors, as opposed to 16.8 million in 8-bit. That's far more than any display can render, but it prevents the banding you might see in gradients in 8-bit mode.

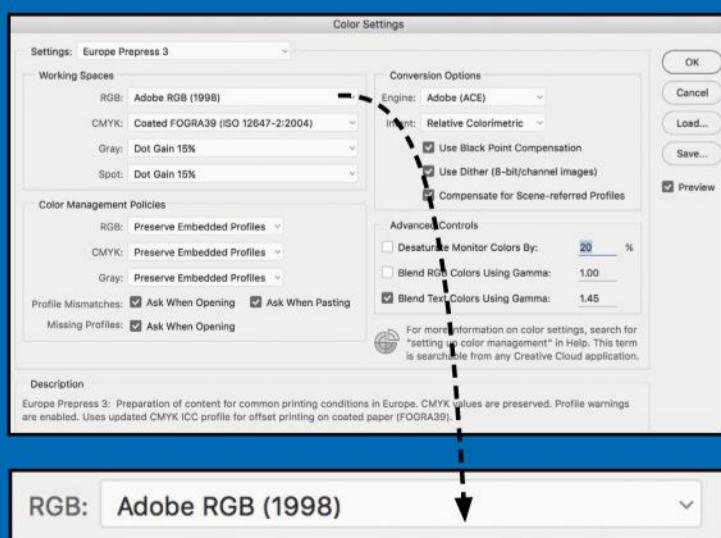
# PHOTOSHOP ANATOMY

Your concise guide to the most useful color modes

**CMYK** Standing for Cyan Magenta Yellow Key (Black), CMYK is for printing and pre-press purposes. The color values relate to the amount of ink needed for each. A print can never be as bright and vibrant as a digital screen, however, which is why you'll often see colors dulling down when they're converted to CMYK. You can get an idea of the channels that make up the image with Window > Channels.



**WATCH THE VIDEO**  
<http://tiny.cc/ogyyjy>



**PROPHOTO** Prophoto is the widest color space Photoshop offers, encompassing even 'impossible' colors. The upshot of using this broad gamut is minimal color degradation during processing. Set up Prophoto (Edit > Color Settings > RGB) if you work with raw files or use Lightroom (which uses Prophoto). Keep in mind, though, that it's the output that matters. A poorly managed Prophoto workflow can lead to worse-looking colors.

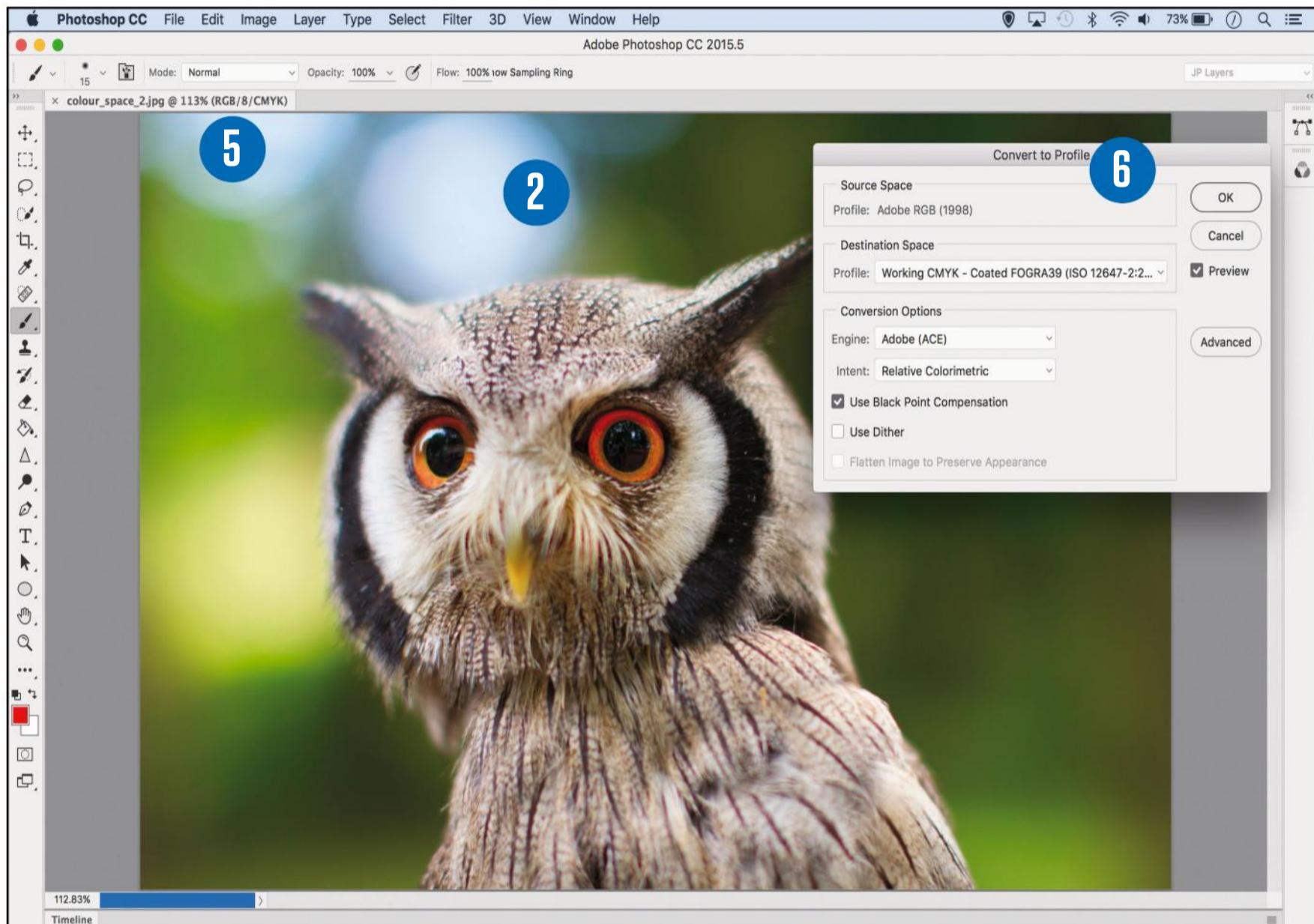
# CONVERT FROM RGB TO CMYK

How to prepare your on-screen photo for printing out

1

3

4



Sometimes you'll convert images to CMYK for printing. You could just go to **Image > Mode > CMYK** [1]. However, this may have a dramatic effect on the color and saturation – especially blues and cyans [2]. This is because RGB and CMYK are fundamentally opposite. RGB is additive, meaning that adding more of each color will eventually lead to white. With CMYK the starting point – the paper you print on – is white: as color is added, you get further from white and closer to black.

Before converting, go to **View > Proof Setup** [4] and choose **Working CMYK**, then **View > Proof Colors**. As displayed in the file info [5], this lets you see how the image will look in CMYK while still allowing you to work in RGB. Use the saturation and color controls in the Camera Raw filter to improve the colors, then use **Edit > Convert to Profile** [6] to assign a specific output profile. (Ask your printer for this.)



# GET CREATIVE WITH CUT-OUTS

Learn how to cut out your subject and add amazing effects with these four super-simple techniques...

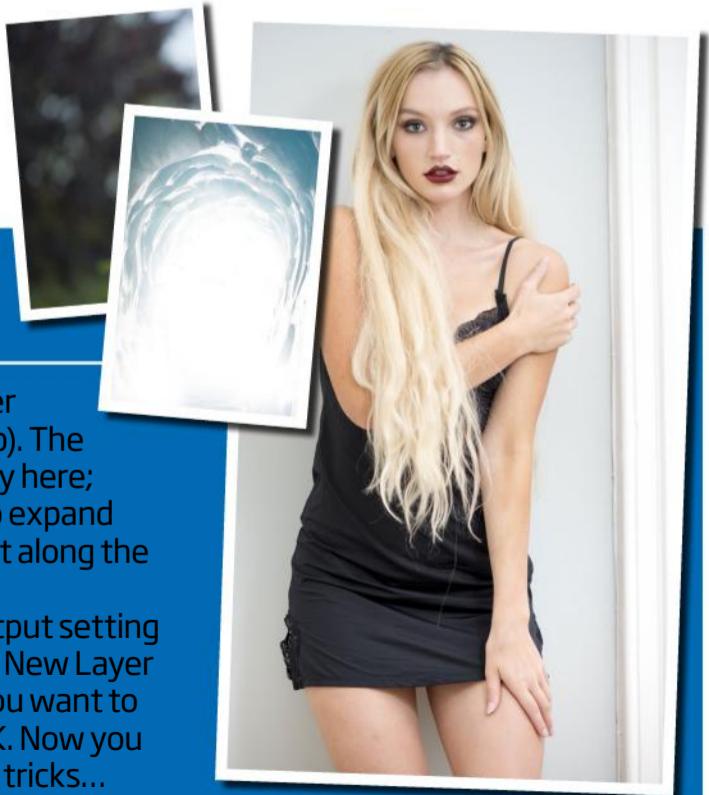
## CUT OUT A PERSON

All cut-outs start with a selection. While there are several tools for the job, the Quick Selection tool is often the easiest and best. With this tool active, paint over the subject, then hold Alt and paint in any areas where it latches onto background detail. Continue until you have a decent selection.

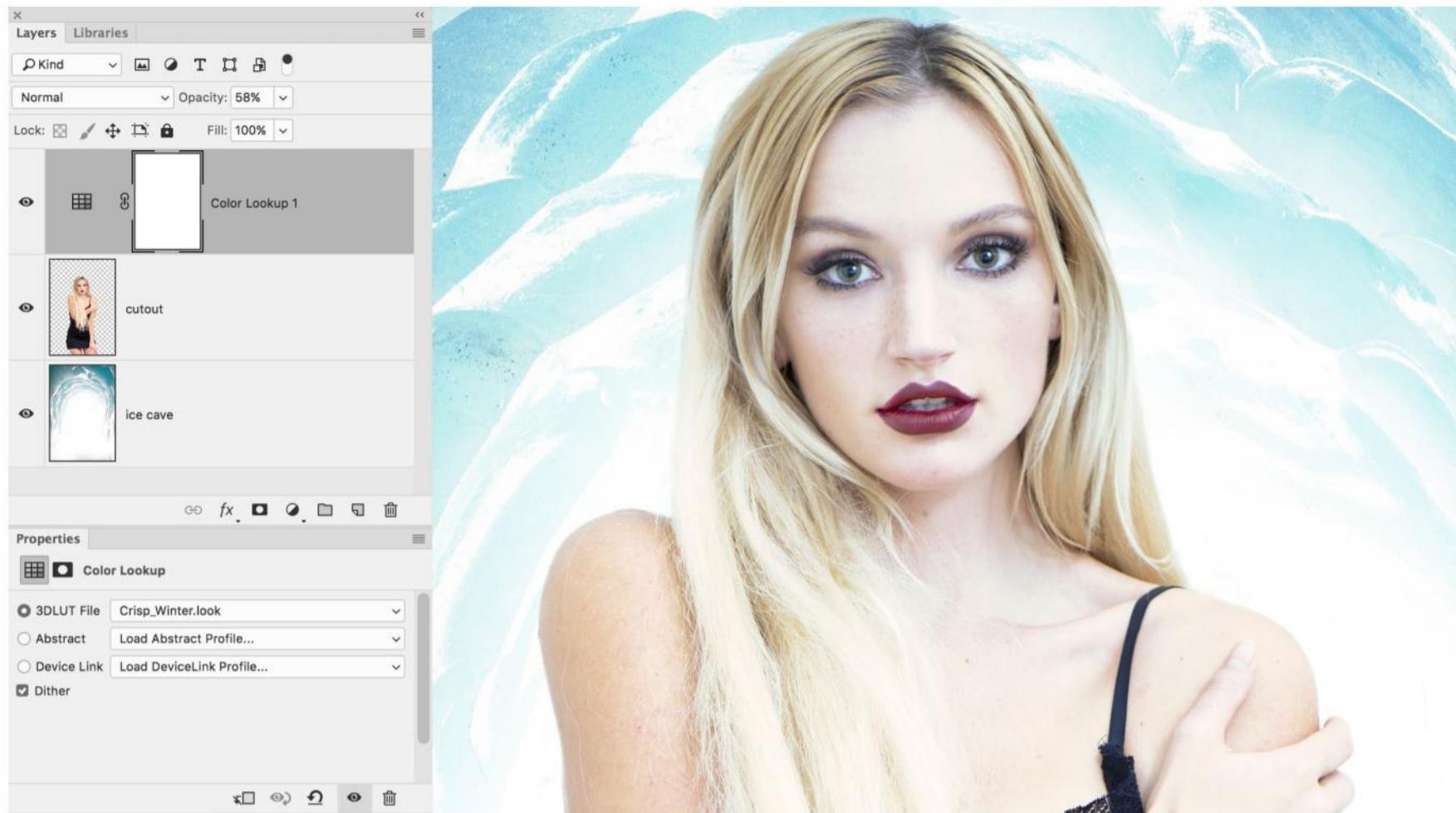
Next, you need to click the Select And Mask button

(or Refine Edge in older versions of Photoshop). The Radius controls are key here; increase the Radius to expand the area of refinement along the edge of the selection.

Next, choose an Output setting - either Layer Mask or New Layer depending on what you want to do next - then click OK. Now you can try out these four tricks...



► DOWNLOAD THE PROJECT FILES HERE <http://tiny.cc/pc9yjy> ON YOUR PC OR MAC ◀◀

**01**

## CHANGE THE BACKDROP

Cut out the subject and you can drop in any background you like. Here we've transported our model to a wintery ice cave. Simply drag in the new backdrop with the Move tool and move the layer underneath the cut-out layer, then press Ctrl/Cmd+T and use the bounding box to position the backdrop. To finish, add an Adjustment Layer like a Photo Filter or Color Lookup to tweak the overall hues and tones.



## 02 **MAKE A POSTER DESIGN**

Cut out and desaturate the subject, then go to Filter > Filter Gallery > Artistic and apply Poster Edges. Next, fill a layer with red and drag below the cut-out. Make a new layer and grab the Gradient tool. Set the Angle Gradient style, open the Gradient Editor and choose Type: Noise. Drag out from the centre, then desaturate, blur and set the Blend Mode to Overlay. Finally, apply grain and vignette effects with the FX tab in Filter > Camera Raw Filter.



The image shows a woman with long blonde hair, wearing a black sleeveless dress with a ruched front. She is standing with one hand on her hip and the other arm bent with her hand near her shoulder. The image has a 3D anaglyph effect, where the left eye sees a red-tinted version of the scene and the right eye sees a cyan-tinted version, creating a stereoscopic effect when viewed with 3D glasses.

**03**

## CREATE A 3D ANAGLYPH

Convert your cut-out subject to black and white, then select the subject and make two copies. Double-click one cut-out layer and uncheck the R channel box. Double-click the other one and uncheck the G and B channels. With the Move tool, nudge the red layer to the left and the cyan layer to the right. Finally, highlight the background layer and clone around the edges to fill in background detail 'behind' the subject. Grab some red/blue 3D glasses and enjoy your old-school stereoscopic image!

**Layers** Libraries

Kind: Normal Opacity: 100%

Lock: Fill: 100%

red

cyan

cloned background



## 04 BRUSH SCATTER EFFECTS

Cut out the subject to a new layer, then drop in a dark backdrop. Add a layer mask to the cut-out layer. Grab the Brush tool and set its color to black. Open the Creative Cloud App and search for 'geometric scatter brush', then download a set to your Libraries. Grab the brush and paint on the mask to hide scattered areas. Make new layers, Alt-click to sample colors, then paint to add scattered bits and pieces.

# LEARN LIGHTROOM TODAY!



▲ This month, get to know the heart of Lightroom's editing tools: the Develop Module

◀ If you'd like to watch the complete course now, get the app from the Apple App Store

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# ESSENTIALS

Your quick-start guide and reference to image editing in Photoshop



► If you're relatively new to editing in Photoshop, or you just don't know where to begin, then this section is the best place to get started. Over the next nine pages, you'll find an overview of the different versions of Photoshop available; a breakdown of the

typical image-editing workflow in Photoshop; an overview of raw file editing; a guide to the six most useful layers; and a glossary of the most useful shortcuts. This guide condenses most of the tools and techniques you'll use every time you import a new roll of pictures.



## PHOTOSHOP CC

**£8.57/\$9.99 PER MONTH** WINDOWS, macOS



Photoshop is the software of choice for most professional and non-professional photographers. Beyond the standard photo-editing features, it boasts a vast array of more creative tools and filters. Layers are one of the key differences between Photoshop and Lightroom. They enable you to mask out selected parts to build up increasingly sophisticated images.



## ELEMENTS 15

**£79.10/\$99.99** WINDOWS, macOS



Elements is the consumer variant of Photoshop, and contains many of its key tools and features within a simplified interface. It's limited, but it does provide access to layers for those who have switched to a Lightroom workflow.

## LIGHTROOM 6

**£100.07 OR INCLUDED WITH CREATIVE CLOUD** WINDOWS, macOS



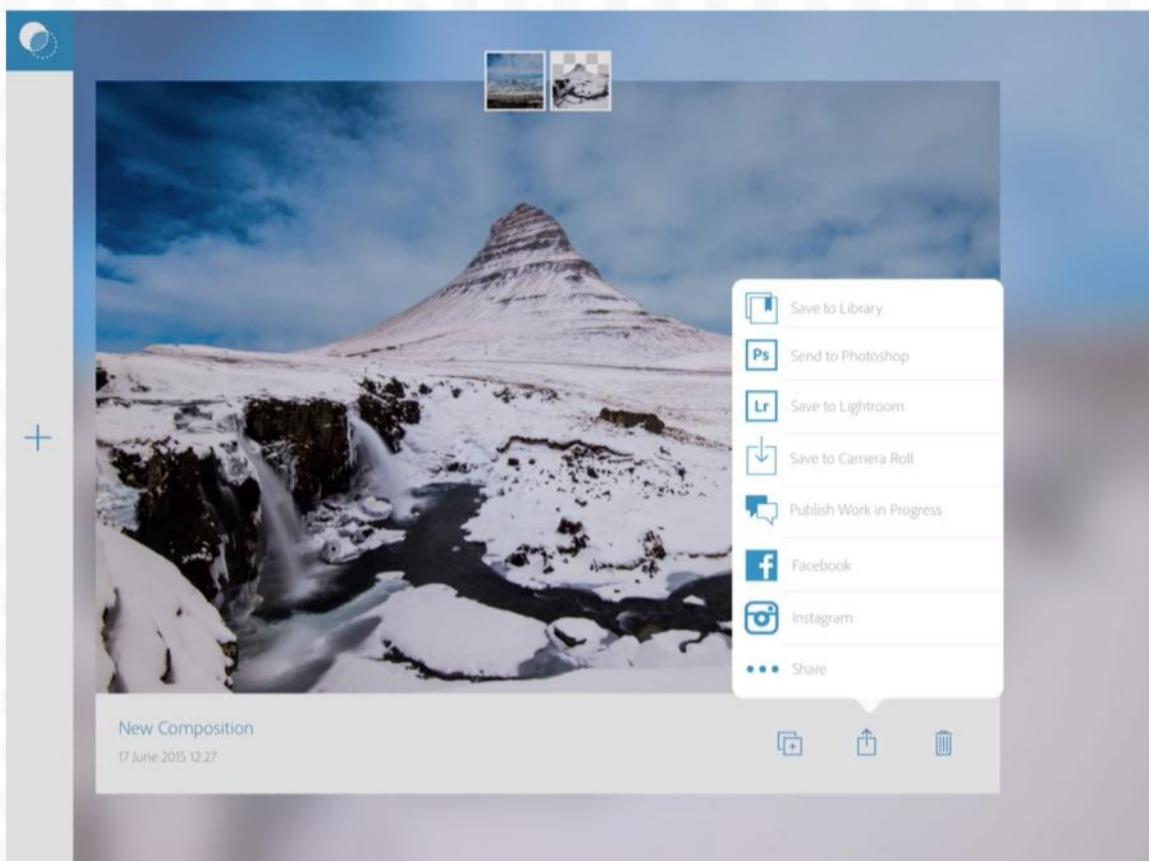
Lightroom combines the professional raw-processing tools in the more expensive Photoshop CC with the asset-organizing powers of the cheaper Photoshop Elements. Lightroom is available as a traditional boxed copy (Lightroom 6), and as part of a Creative Cloud subscription (Lightroom CC). Essentially, the applications are the same, except Lightroom CC has Creative Cloud support, ongoing updates, and access to the mobile and web workflows.

## LIGHTROOM MOBILE

**INCLUDED WITH CREATIVE CLOUD**  
IPHONE, IPAD, ANDROID



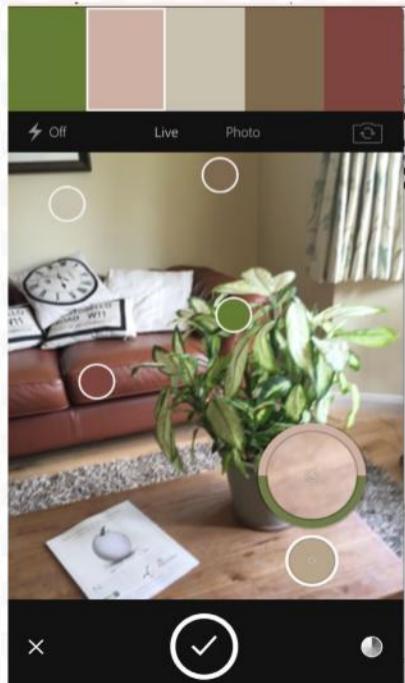
Lightroom Mobile is the lightweight iPad, iPhone and Android version of the application, integrated with Lightroom CC but not Lightroom 6. To use Lightroom Mobile you need to sign up for an Adobe ID so that you can access the Adobe Creative Cloud. This enables you to create a collection of photos on your desktop copy of Lightroom and sync them via the Creative Cloud to Lightroom Mobile on your portable devices. You can then use Lightroom Mobile to edit or add ratings to your pictures.



## ADOBE PHOTOSHOP MIX

FREE IPAD, ANDROID

 Mix enables you to merge two photos together to create a composite image. It offers a simplified compositing process that makes it easy for beginners to start combining an object from one image with a background from another. You can then send the composite to Photoshop for further edits. If you like, you can also use Mix to edit a single image. It offers a few simple tonal adjustments and more complex edits such as Content-Aware Fill.



## ADOBE COLOR

FREE IPHONE, IPAD, ANDROID

 If you ever need help selecting coordinated colors for your designs, try using Adobe Color. It enables you to create color themes from photos taken on your mobile device. This could be anything from a scene in your local park to a famous painting. So if you come across an inspirational scene, capture the colors and save them.

## ADOBE SHAPE

FREE

IPHONE, IPAD, ANDROID



Adobe Shape enables you to turn photos and sketches into beautiful vector shapes for use in your designs or artwork. The app smooths out jagged edges in images, resulting in gorgeous vectors that are endlessly scalable, just as if you'd drawn them by hand with the Pen tool. Make a shape with the mobile app and the next time you open Photoshop on your desktop, the shape will sync to your Library. Drag it in to any document to add color and make further adjustments.

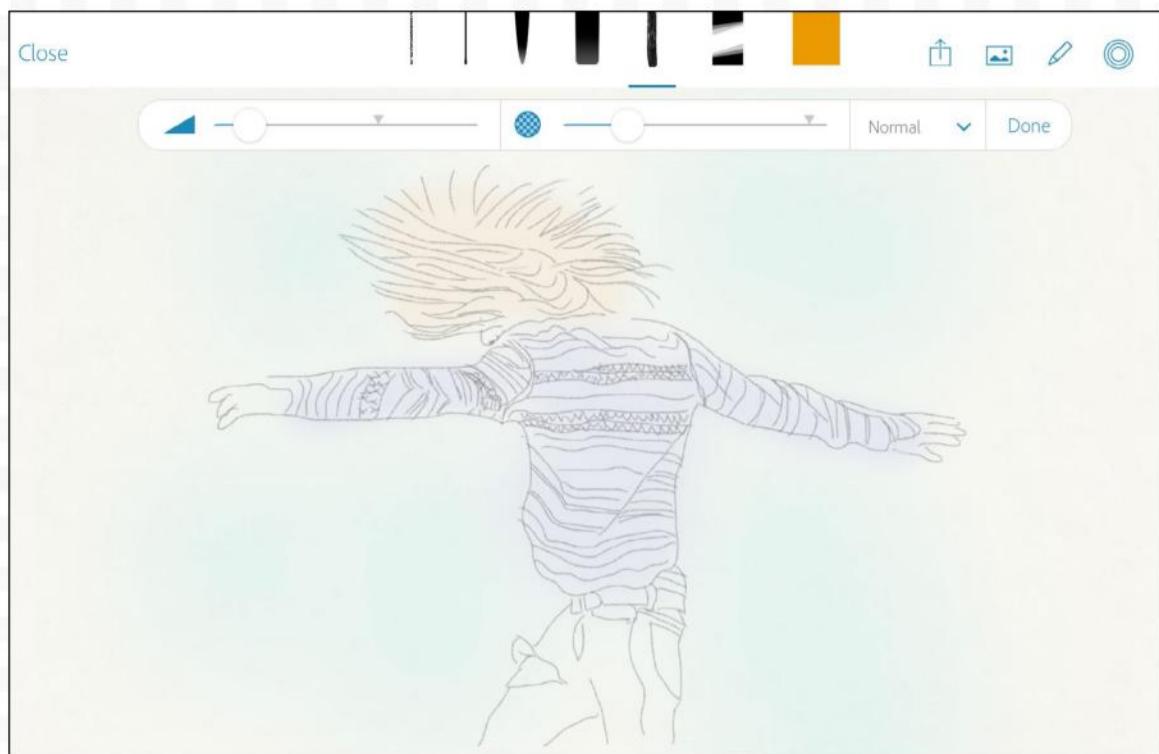
## ADOBE BRUSH

FREE

IPHONE, IPAD, ANDROID



Adobe Brush enables you to make your own custom brushes from photos or sketches for use in Photoshop, Illustrator or the Sketch app. The most successful subjects are usually those that can be easily isolated, such as a splash against white, or a leaf against the sky. You can capture objects for your brush tips using your device's camera, choose from your camera roll, or use your Creative Cloud library. Once captured, you can then fine-tune the look of the tip and apply brush settings.



## ADOBE PHOTOSHOP SKETCH

**FREE IPAD**

 As the name suggests, this app enables you to paint freehand using a selection of brushes, colors and other tools. However, Sketch is more than just a painting app. It also enables you to connect with like-minded creatives, so you can follow artists and see their work updating. Once you're done sketching the image on your iPad, you can upload to the Sketch community or continue working on the image in Photoshop CC. You can also bring in brushes made with Adobe Brush, and for those who can't paint, there's an option to overlay images so you can trace over a photo. Sketch is compatible with Adobe's pen and ruler hardware, Ink and Slide, but you can get great results with your finger.

## PHOTOSHOP FIX

**FREE IPAD**

 Fix is a retouching app for altering portraits and fixing marks or blemishes in your photos. Intelligent facial recognition locks onto eyes, lips, noses and chins, making it easy to tweak a smile, tuck in a jawline or enlarge eyes, should you wish.



## ADOBECOMP CC

**FREE IPAD**



If you're a designer who wants to build a quick layout for a web or print page, then Comp is the ideal place to start piecing ideas, images and text together. You can draw common design elements such as text or image boxes with quick gestures. For example, a couple of squiggly lines with a dot makes a header, and a cross makes an image box. It makes it easy to mock up a layout in seconds. You can then add words and graphics. The app even spits out a Photoshop, Illustrator or InDesign document.

## BEHANCE CREATIVE PORTFOLIO

**FREE IPAD, IPHONE**



Behance is the online social space for creatives to share and showcase their portfolios, connect with one another, and find work. With work from the best photographers, digital artists and designers out there, it's also a great place to find inspiration for a new project. If you're a Creative Cloud subscriber you can set up a Behance page in minutes. The Behance app for iOS devices enables you to manage your page, while the Creative Portfolio app provides a polished portfolio.

# THE IMAGE-EDITING WORKFLOW

Manage your photos from capture to output in three stages

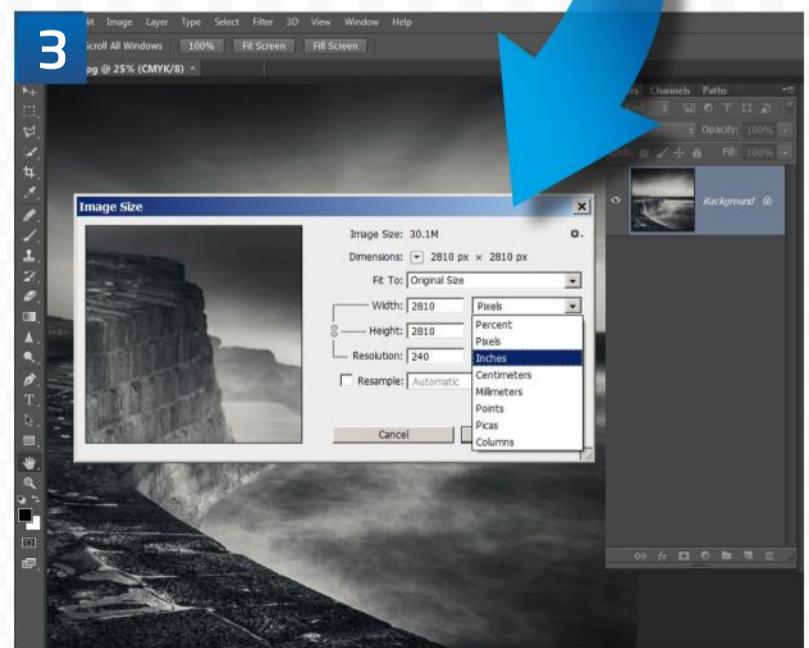
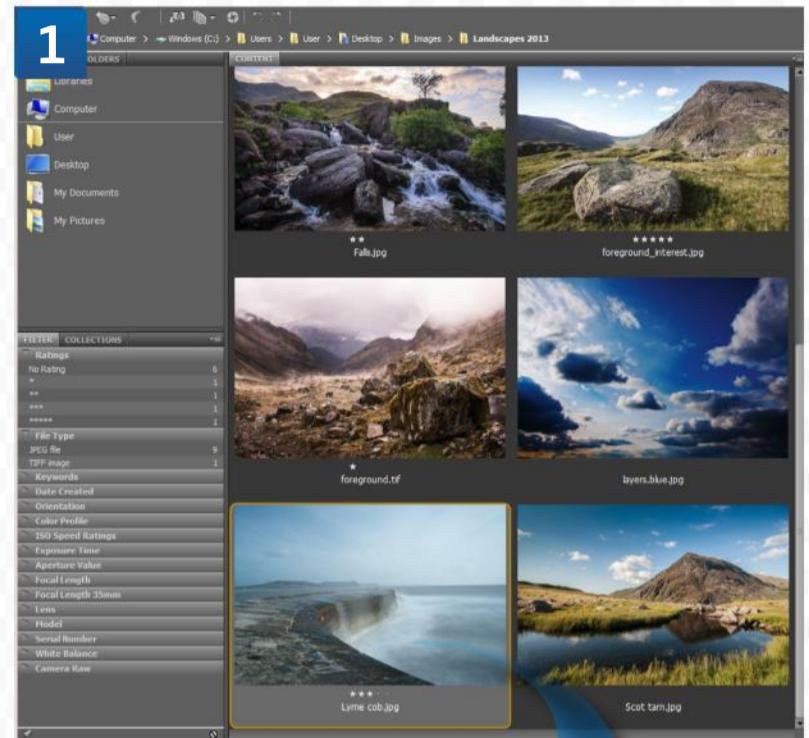
**►** The image-editing process begins as soon as you've transferred your photos from your memory card to your computer.

**1** The first stage is to begin sifting through your pictures to discover which are the keepers. The image organizer that comes with Photoshop is ideal for this task. Adobe Bridge has controls for keywording, rating and filtering your images, and there are handy tools for batch renaming files, creating panoramic stitches, making contact sheets and more.

Launch Adobe Bridge and navigate to a folder containing new images. Use the cursor keys to quickly flick through the images and click below a thumbnail to add a star rating, or use the keyboard shortcut **Cmd/Ctrl+1-5**. You can then filter your images by the star rating to group the ones you want to work on.

**2** The next step is to open the images from Bridge into Adobe Camera Raw. ACR is the best place to make initial changes to your images to boost tones and correct any problems with exposure and so on. It doesn't enable you to combine images - you'll use Photoshop for that - but it does enable you to make the kind of edits photographers need.

**3** In Photoshop, you can further refine the image with layers and adjustment layers, which offer a much more flexible way of working than ACR. Once you've finished, it's time to share it with a wider audience. Go to File>Save, and your image will be saved as a Photoshop document (PSD). This keeps all the layers intact, which means you can go back and retweak the image at a later date. However, PSD files are large and take up lots of hard drive space. If you want to share your images online or via email or social media, save them as JPEGs.



# THE BASICS OF RAW PROCESSING

Discover how to process your raw files to perfection

 The latest version of the raw file processor included with Photoshop is so powerful that most photos can be processed entirely in the raw processor, with no need for further editing in Photoshop. And by making your adjustments in Adobe Camera Raw

rather than in Photoshop, you'll ensure the best possible image quality, because raw files contain more picture information than bitmap images such as un-layered PSDs and JPEGs. Here's our reference to the features you'll use the most in the Basic panel.

## THE BASIC PANEL IN ACR

### TEMPERATURE

Use this slider to warm or cool an image if the White Balance tool fails to correct a color cast

### TINT

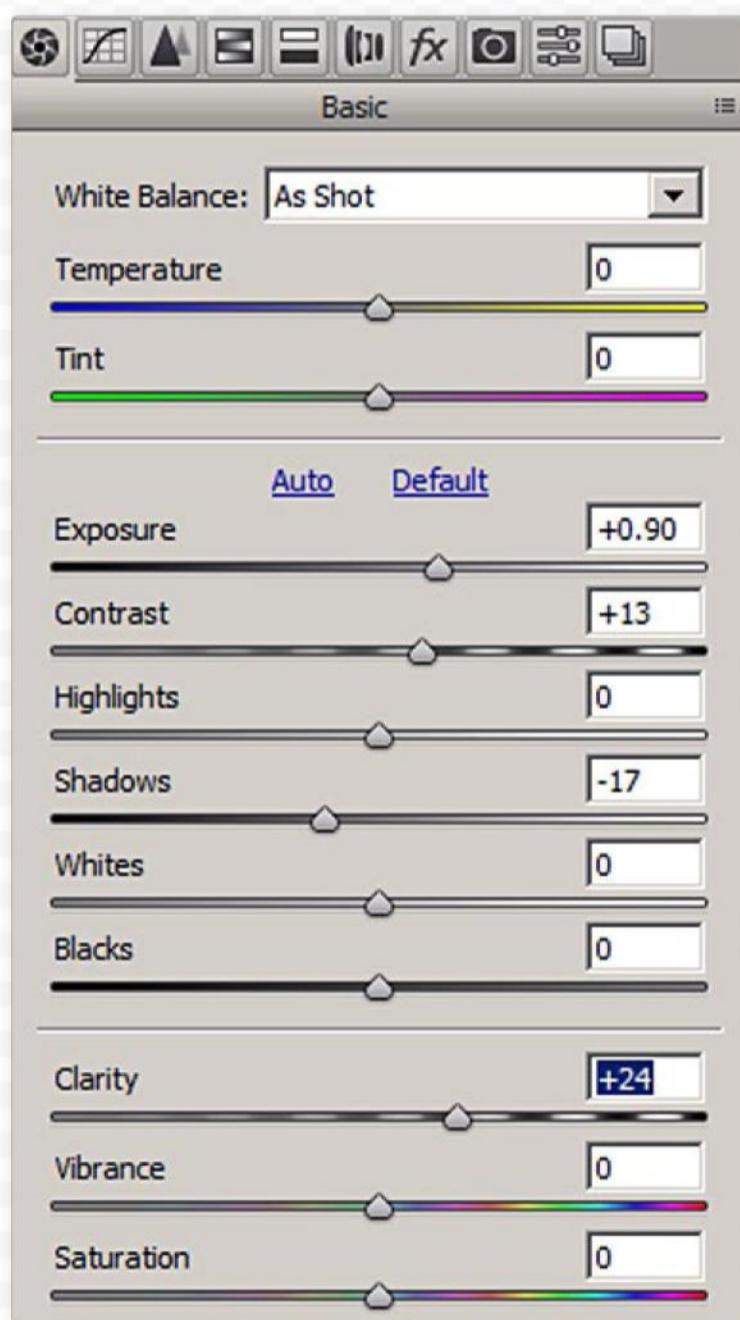
This slider enables you to correct a green or magenta cast, again, if the White Balance tool fails

### EXPOSURE

Controls the overall brightness of the image

### BLACKS

Sets a point on the tonal range at which pixels should be pure black



### SATURATION

Controls the overall color intensity of the image

### CONTRAST

Makes light pixels brighter and dark pixels darker

### HIGHLIGHTS

Controls the brightness of the lightest pixels

### SHADOWS

Controls the brightness of the darkest pixels

### WHITES

Sets a point on the tonal range at which pixels should be pure white

### CLARITY

Controls the amount of midtone contrast

### VIBRANCE

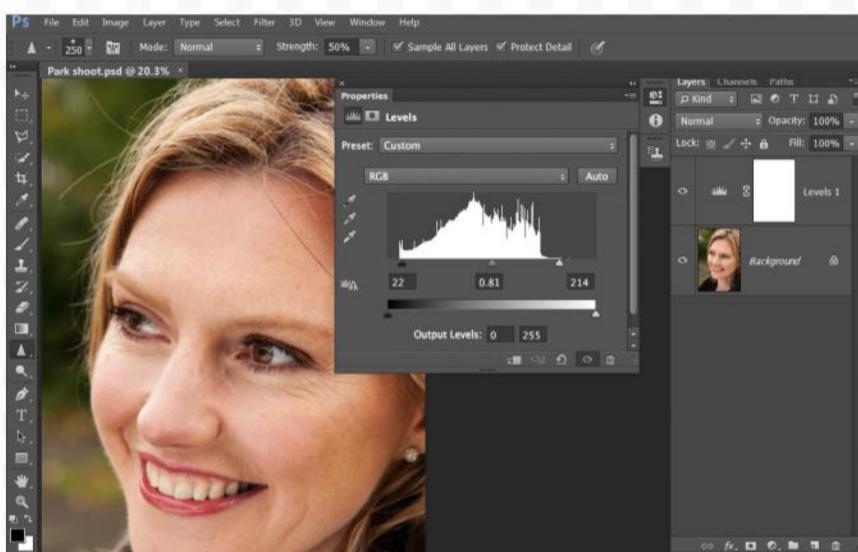
Adjusts the intensity of the less-saturated colors

# SIX ESSENTIAL LAYERS FOR PHOTOS

The six most frequently used Photoshop layers for image editing, and how to use them to improve almost any photo

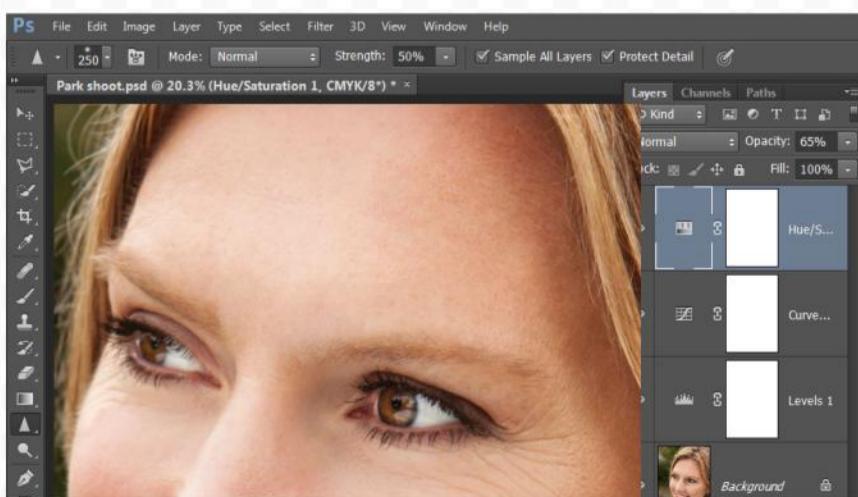
 Photoshop has many types of layers and adjustment layers available, but there are six that you'll find you need to use again and again. Learning how they should be

used may seem a little daunting for beginners, but once you've got to grips with them, you'll find they play a part in the creative process of almost every image you make.



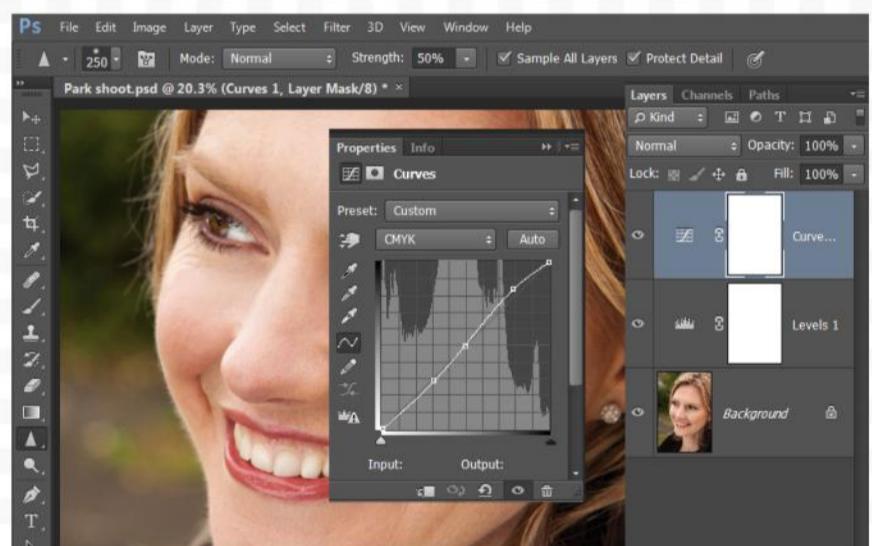
## 02 CURVES

Curves is one of the most powerful adjustment layers. An S-shaped curve brightens the highlights and darkens the shadows, resulting in extra contrast. Create a Curves Adjustment Layer and click the middle of the diagonal line to add a central control point. Drag down on the lower part of the line and drag up on the upper part of the line to improve image contrast.



## 01 LEVELS

This should be the first layer you add to an image, because it fundamentally alters the tonal range of the entire image. Create a Levels Adjustment Layer, drag the Black Point slider inwards until it touches the left-hand edge of the histogram, and drag the White Point slider inwards to the right-hand edge. This remaps the tones of the image to make more of the available tonal range.

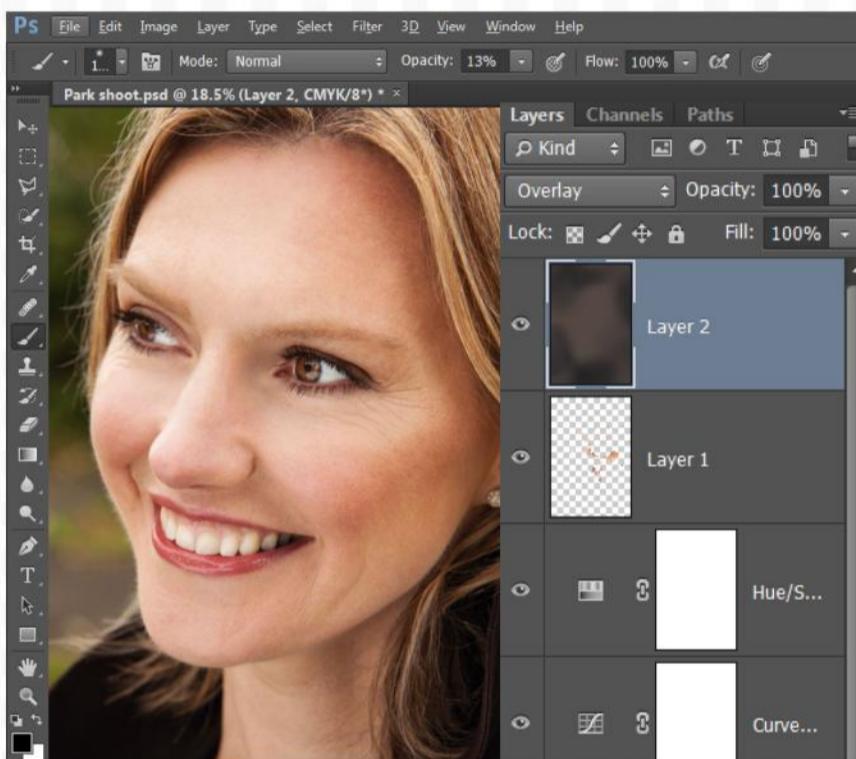
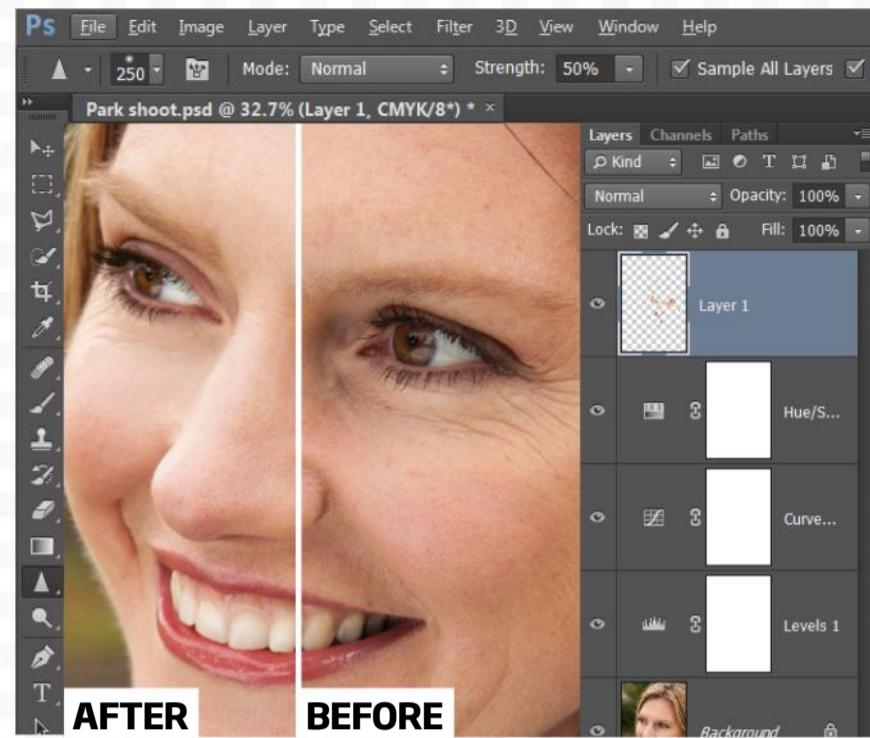


## 03 HUE/SATURATION

This adjustment layer is best used for altering the intensity and brightness of individual color channels in an image - greens and blues in landscapes, for instance. Create a Hue/Saturation Adjustment Layer, click the Master menu and choose the color channel you'd like to adjust. Small changes are usually the most effective.

## 04 HEALING LAYER

Most photos contain unwanted marks or blemishes. The Spot Healing Brush tool is effective at removing these. The best way to apply the healing is on a new blank layer, so that you can easily tone down or remove selected healing work later without having to start from scratch because you healed directly on the background layer. To do this, create a new blank layer, choose the Spot Healing Brush tool from the Tools panel and tick Sample All Layers on the Options Bar, then continue as normal.

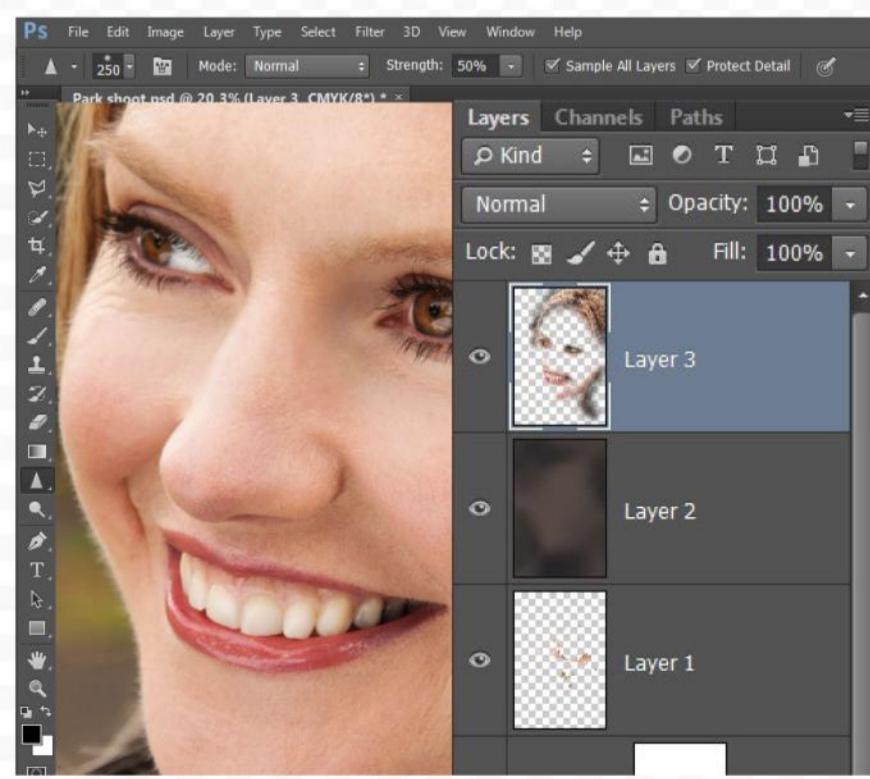


## 06 SELECTIVE SHARPENING

Once all other adjustments have been made, you need to sharpen the image for output. The traditional way is to create a merged layer at the top of the stack, apply Unsharp Mask, then paint on the mask to remove the sharpening from those parts of the image you want to remain soft. However, the Sharpen tool enables more control over the process by enabling you to build up the effect by brushing repeatedly with a low opacity brush. Create a new blank layer, select the Sharpen tool, tick Sample All Layers and set a Strength of 50% or lower.

## 05 DODGE AND BURN

One of the best ways to enhance a photo is by lightening or darkening selected areas of the image. This can be done with the Dodge and Burn tools, but rather than use them directly on the image, a separate grey layer gives you greater control. To create a Dodge and Burn layer, hold down Alt and click the Create a new layer icon in the Layers panel. Give the layer a name, then choose Mode: Overlay. Check Fill with Overlay-neutral color and click OK. Now use the Dodge and Burn tools (with Range set to Midtones) to work on the new layer.



# 14 ESSENTIAL KEYBOARD SHORTCUTS

14 keyboard shortcuts that will massively improve your speed and efficiency while working in Photoshop

D

Reset the foreground and background colors to black and white

**ALT+[SCROLL WHEEL]**

Zoom in or out of the image

**CMD/CTRL+SHIFT+ALT+E**

Create a merged copy of all the layers in the layer stack

**SPACE BAR**

Temporarily switch the current tool to the Hand tool, for moving around the image while zoomed in

**ALT+[EYE ICON]**

Switch off the visibility of all other layers in the layer stack, for before-and-after comparisons

**CMD/CTRL+I**

Invert the color of a layer mask to black

**SHIFT+[LAYER MASK]**

Disable the effects of a layer mask

X

Switch the foreground and background color swatches

[ OR ]

Resize the brush tip

**SHIFT+[ OR ]**

Cycle backwards or forwards through the layer blend modes

**CMD/CTRL+ALT+Z**

Undo the last change made to the document. Works multiple times

**CMD/CTRL+[LAYER MASK]**

Load the currently active layer mask as a new selection

**CMD/CTRL+T**

Activate the Free Transform tool

**CMD/CTRL+J**

Duplicate the current layer

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