

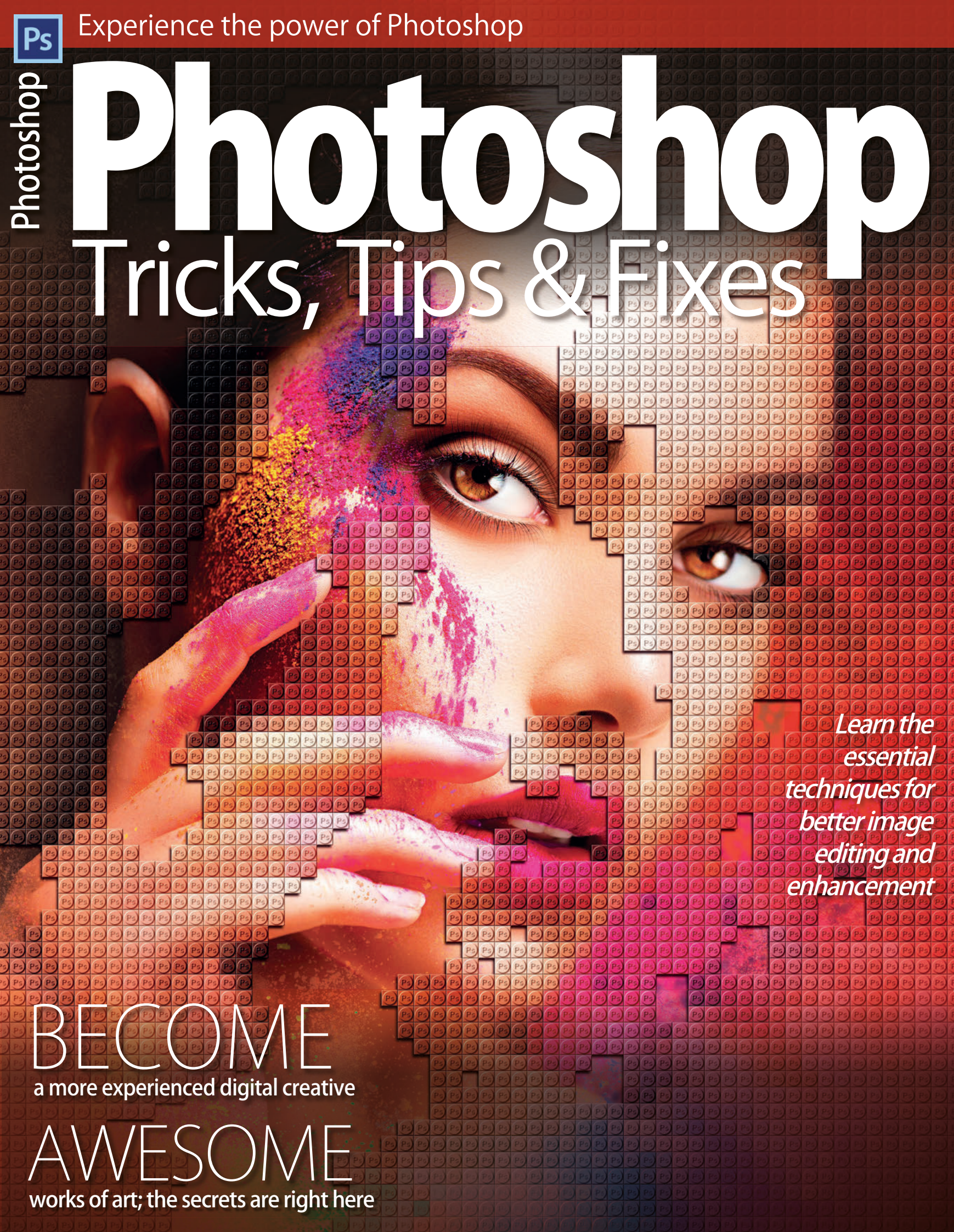


Experience the power of Photoshop

Photoshop

Photoshop

Tricks, Tips & Fixes



*Learn the
essential
techniques for
better image
editing and
enhancement*

BECOME

a more experienced digital creative

AWESOME

works of art; the secrets are right here

Photoshop

Tricks, Tips & Fixes



Your photo editing journey starts here

Let us show you just how powerful Photoshop is, while discovering a range of tools and techniques that can make excellent digital artists of us all. Even if you are a beginner, Photoshop is easier to learn than you might imagine. This guide begins with the various tools and editing basics that can get you up and running in no time. The second half concentrates on some creative projects that will expand on what you've learnt and have you creating new images just like a digital professional.



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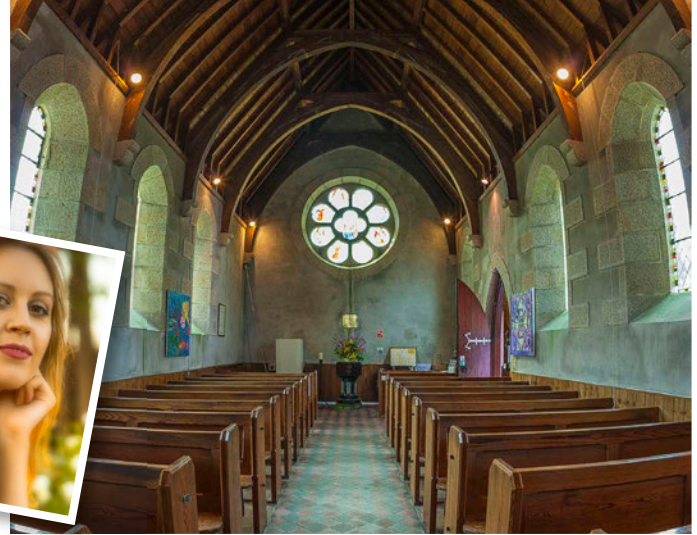
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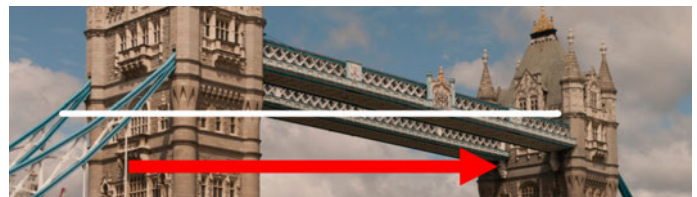


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Starting with Photoshop

It might seem like Photoshop is a daunting program to master, full of technical jargon, tools, menus and a way of working that may be new to you, especially if you've not encountered layer-based editing before. This is where we help you uncover the power of Photoshop, and it begins with the essentials.

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Main Interface

This is Photoshop's graphic user front end

Photoshop has a great interface, with a dark slate grey work area, slightly lighter menu and palette bars and sharp white text. It looks great and really makes photos stand out from the background. Let's see what it has to offer.

Menu Bar

You'll find all the options menus here. Read on for more details.

Tool Palette

Here you'll find your main editing tools. The following pages look at the individual tools and what you can do with them.

Tool Option Bar

For each tool on the palette there are options, such as brush size or softness. You'll find them in this area.

Document Window

Each window you open will have its own tab to identify it. It includes the document name, current scaling and colour space being used.

Document Details

Here you'll find the compressed and real size of your document.



USEFUL TIP

You can set up your own workspaces to reflect the way you work, and save them so that you can quickly switch from one to another.



Active Image

The new interface provides a larger area to work on your images, with a darker background colour.

Rulers

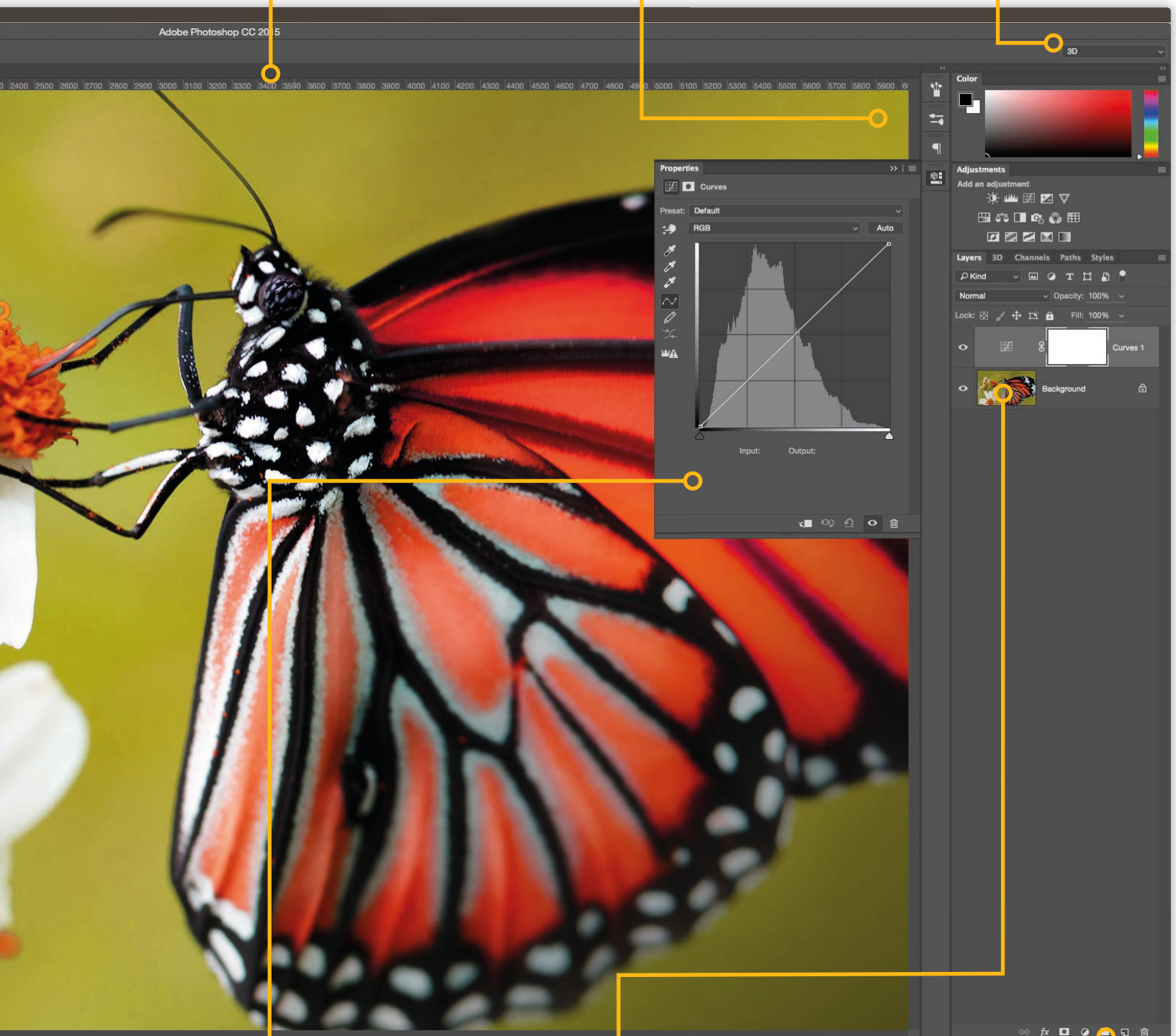
Use these to accurately measure positions on your image, and drag guidelines from here to help line up text and layers.

Palettes

There are a number of interchangeable palettes available, which you can choose from the Window menu.

Workspace Option

Choose between preset workspace arrangements, including 3D workspaces and other user options.



Fly-out Palettes

You can set up your own custom list of frequently used palettes, and access them by clicking on these buttons.

Layer Palette

Here you'll find the layers of the image you're currently working on. Layers at the top of the stack will appear above those below.

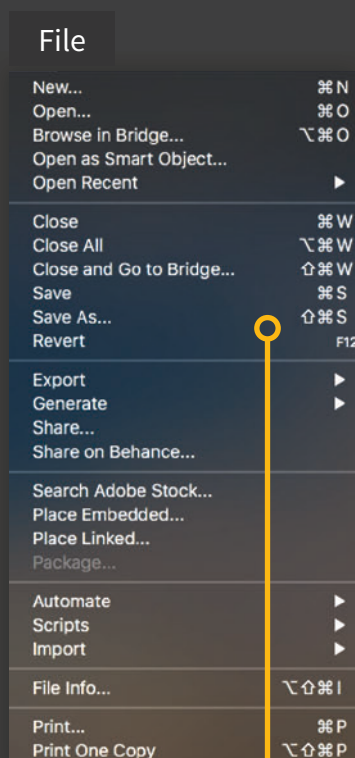
Layer Options

Here you can add effects, layer styles, adjustments and other options to your currently active layers.

Menus

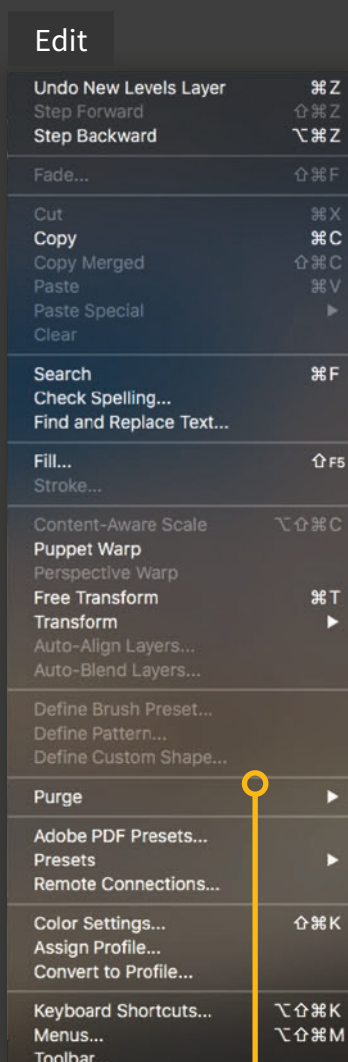
One look at the menus and you begin to understand Photoshop's complexity and versatility

The main interface of Photoshop has no fewer than eleven menus and a Help option, each with many options, and with many additional nested sub-menus. It's vital to become familiar with the contents of the most important ones, because once you know where to look for everything you'll be able to work more quickly, efficiently and confidently. Let's take a look at some of the key menu listings.



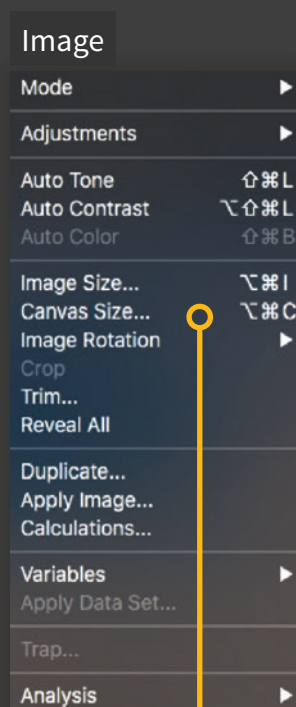
File

The most important options here are New... to create a new document, Open... to open an existing document, Save to save your current project in its default file format and location, and Save As... which gives you the option to save in a different format or location, and to change the file name. Also in the File menu are the important Automate and Scripts sub-menus, which provide advanced batch processing and automated editing options.



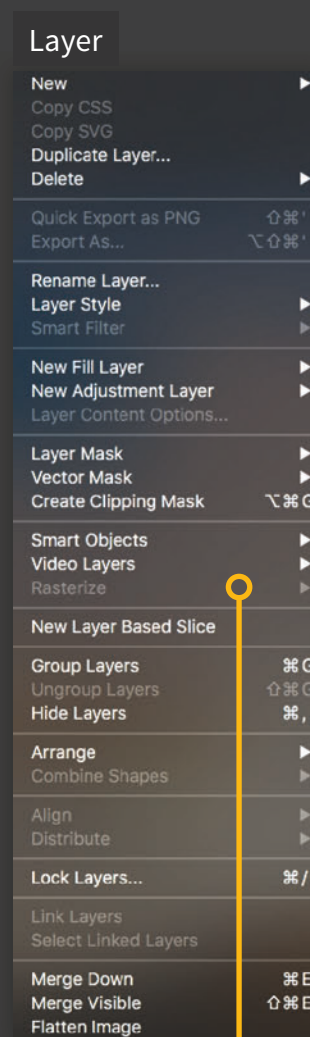
Edit

The Edit menu has many features you'll find familiar if you use a word processor, including Copy, Paste and Cut functions and even a spelling checker, although you'll probably find it quicker to use the keyboard shortcuts for these. You'll also find the useful features Fill, Stroke, Content-aware Scale, Puppet Warp and Free Transform, as well as the colour profiles and Preferences sub-menu.



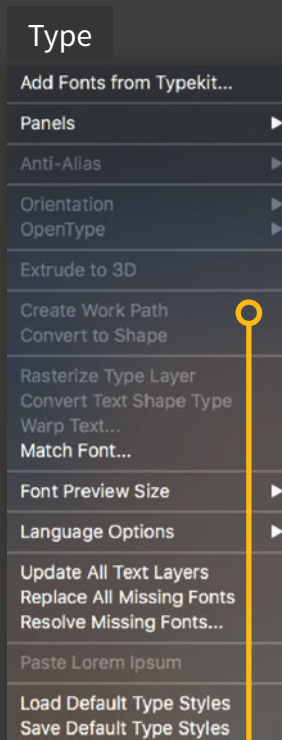
Image

The Image menu is where you come to make changes to the whole image, including Mode (colour type), Image Size, Canvas Size and Image Rotation, but the most important thing you'll find here is the Adjustments sub-menu, which Adobe could probably have made into a separate main menu in its own right. Under Adjustments you'll find all your main image controls, such as Brightness/Contrast, Levels, Curves, Hue/Saturation and many more. You'll find many of these duplicated on the Adjustment Layer palette.



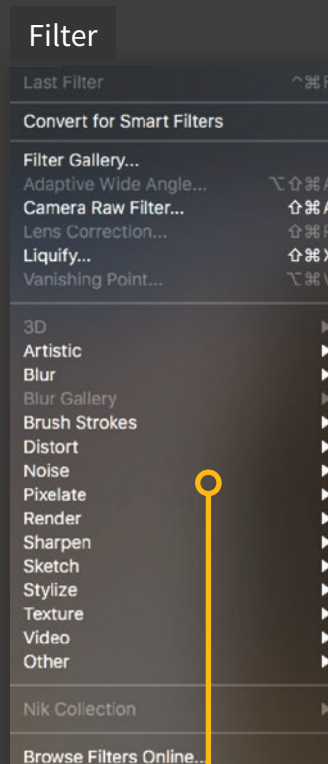
Layer

Layers are a vital feature of Photoshop. The most important options here though are New, which lets you create and name a new layer, and New Adjustment Layer, which adds a non-destructive editing layer to your image. The Merge and Flatten options can also be found here along with Mask and Slice options.



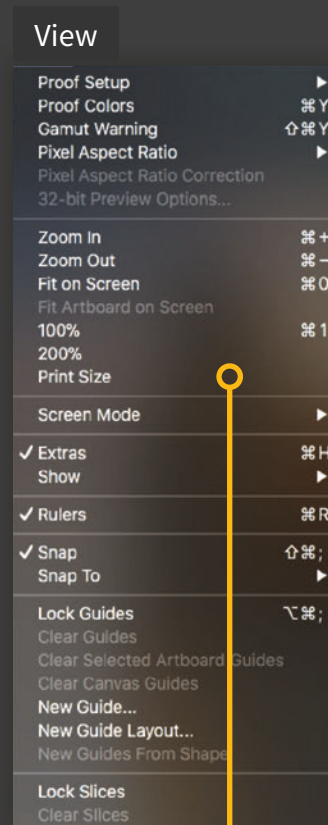
Type

The latest version of Photoshop includes many new text presentation and handling options. Most of these can be found in the fly-out Character and Paragraph panels on the right of the screen or accessed from the Panels option at the top of the menu, but others can be found here, including 3D text, warping, and special foreign language options.



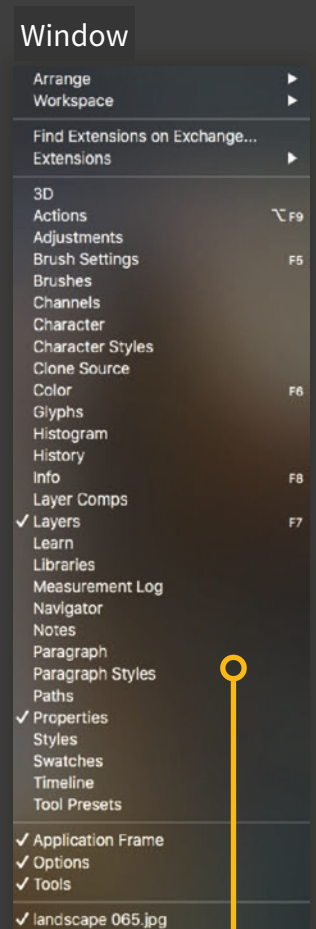
Filter

Photoshop CS6 and Creative Cloud saw a major overhaul of the Filters menu, with many new options, including the amazing Adaptive Wide Angle feature. There's the ever-popular Liquify filter, automatic lens distortion correction, as well as a huge range of other filters and effects. Don't go too wild though, most of them are best used sparingly!



View

The View menu is home to the basic viewing controls such as zoom level, but again you'll want to control those using shortcuts to save time. You'll also find the very useful controls for the Snap functions, including guide lines, essential when you're laying out a design or composing text on an image.



Window

This isn't a menu you'll be using constantly, but it does hold some very useful features, such as the Arrange and Workspace sub-menus, which allow you to control the layout of tabs, windows and the various tool palettes and panels.

The Toolbar

Let's take a look at Photoshop's main editing tools

The main elements of the Photoshop Toolbar haven't changed all that much since the introduction of Layers and the Move tool with version 3.0, back in 1994. The shape has changed a bit, elongating into a single column to take advantage of today's larger monitors, and a few more tools have been added over the years, but anyone who's familiar with any previous version of Photoshop will soon feel right at home with the latest version.

In common with previous versions, most of the tools have alternate

options, denoted by a small arrow in the bottom right corner of the tool icon. Click and hold on any tool bearing this mark to see a pop-up menu showing the other options that are available. Most of the tools can also be selected by using a hotkey shortcut. These shortcuts can be customised via a link in the Edit menu, but of the default keys, among the most useful are "C" for the Crop tool, "M" for Marquee selection tool, and "E" for the Eraser. Here's a quick run-down of what you have available on the Toolbar.



USEFUL TIP

Most of the tools in the toolbar have alternative options, denoted by the small arrow below and right of the icon. Click and hold on the icon to see the pop-up alternative menu. This diagram shows the alternative menus for each tool. You can move the Toolbar around by dragging the border at the top, or switch back to the old two-column look by clicking the double arrow.

MOVE	
MARQUEE	
MARQUEE LASSO	
MAGIC WAND	
CROP	
EYEDROPPER	
SPOT HEALING	
BRUSH	
CLONE STAMP	
HISTORY BRUSH	
ERASER	
GRADIENT	
SMUDGE	
BURN	
PEN	
TYPE	
PATH SELECTION	
LINE	
HAND	
ZOOM	
EDIT TOOLBAR	
SWITCH COLOUR	
SET COLOUR	
QUICK MASK MODE	
SCREEN MODE	

Move

Used to move pixel information on the active layer or selection. You can also create multiple layouts using the Artboard feature.

Move Tool	V
Artboard Tool	V

Marquee

The Marquee is used to select an area of the active layer. Alternative options include an elliptical shape and single row or column selections.

Rectangular Marquee Tool	M
Elliptical Marquee Tool	M
Single Row Marquee Tool	
Single Column Marquee Tool	

Lasso

The Lasso is also used to make area selections from the active layer, but this time the shape can be irregular, marked out by clicking or drawing a line around the area to be selected.

Lasso Tool	L
Polygonal Lasso Tool	L
Magnetic Lasso Tool	L

Magic Wand

Yet another area selection tool, this one can select an area based on its colour. The alternative option is Quick Selection, which as the name suggests can be used to paint an area into the selection created.

Quick Selection Tool	W
Magic Wand Tool	W

Eyedropper

The Eyedropper and its extensive list of alternatives provide you with tools that can tell you more about the image you're working on, such as colour values, sizes and even a tool for counting objects in an image.

Eyedropper Tool	I
3D Material Eyedropper Tool	I
Color Sampler Tool	I
Ruler Tool	I
Note Tool	I
Count Tool	I

Crop

The Crop tool has seen a major overhaul in Photoshop CS6, but it still does the same job. Use it to select one area of an image and discard the rest.

	Crop Tool	C
	Perspective Crop Tool	C
	Slice Tool	C
	Slice Select Tool	C

Burn

Burn, and its alternatives Dodge and Sponge, are based on photographic darkroom techniques, and are used to selectively lighten, darken images.

	Dodge Tool	O
	Burn Tool	O
	Sponge Tool	O

Spot Healing

Another tool that has seen some changes in the latest version, the Spot Healing tool is for removing small blemishes such as stray hairs or dust spots from your images.

	Spot Healing Brush Tool	J
	Healing Brush Tool	J
	Patch Tool	J
	Content-Aware Move Tool	J
	Red Eye Tool	J

Pen

The Pen tool is used to draw smooth curves for lines or selections, using something called Bezier curves. They can produce great results.

	Pen Tool	P
	Freeform Pen Tool	P
	Add Anchor Point Tool	
	Delete Anchor Point Tool	
	Convert Point Tool	

Path Selection

Paths are used for many purposes in Photoshop. Use this tool and its alternative to select a path to use.

	Path Selection Tool	A
	Direct Selection Tool	A

Type

The Type tool is another area that received a major overhaul in version CS6. It is now part of a powerful text system.

	Horizontal Type Tool	T
	Vertical Type Tool	T
	Vertical Type Mask Tool	T

Brush

The Brush tool is one of the most basic and most useful for all types of image editing, painting and drawing. Alternatives include the equally useful Pencil tool, as well as colour replacement and colour mixing.

	Brush Tool	B
	Pencil Tool	B
	Color Replacement Tool	B
	Mixer Brush Tool	B

Line

The Line tool and its alternatives are used to create shapes and paths on your images. It is very useful for graphics work and adding arrows and custom shapes.

	Rectangle Tool	U
	Rounded Rectangle Tool	U
	Ellipse Tool	U
	Polygon Tool	U
	Line Tool	U

Clone Stamp

Arguably the most powerful of Photoshop's many tools, the Clone Stamp is used to copy one area of an image onto another. Removing any unwanted element in your image.

	Clone Stamp Tool	S
	Pattern Stamp Tool	S

History Brush

Used in conjunction with the History palette the History Brush can be used to selectively restore certain areas of an image to a previous state. It's useful if you're making a changes to an image.

	History Brush Tool	Y
	Art History Brush Tool	Y

Eraser

As the name implies, the Eraser tool is a special brush that can delete an area of an image, layer or selection.

	Eraser Tool	E
	Background Eraser Tool	E
	Magic Eraser Tool	E

Gradient

The Gradient tool can apply a fill-in to an area that fades gradually from one colour to another.

	Gradient Tool	G
	Paint Bucket Tool	G
	3D Material Drop Tool	G

Smudge

The Smudge tool, along with its alternatives the Blur and Sharpen tools, can be used to blend and alter colours and details in smaller areas of the image.

	Blur Tool	
	Sharpen Tool	
	Smudge Tool	

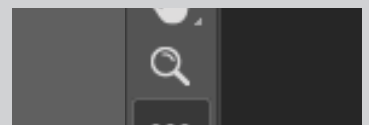
Hand

The hand tool is used to navigate around a large image. It is most often used via its default keyboard shortcut, the space bar.

	Hand Tool	H
	Rotate View Tool	R

Zoom

This tool simply zooms in to an area of the image. Again it is most often used via a shortcut, in this case CTRL + or CTRL -.



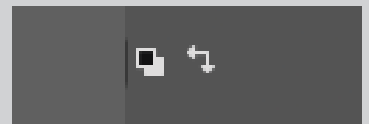
Edit Toolbar

The Edit Toolbar enables you to customise your toolbar to add or remove tools to your specific requirement.



Switch Colour

Clicking on this swaps the current background colour for the current foreground colour.



Set Colour

Clicking here brings up the colour chooser palette, which lets you choose the foreground or background colours.



Quick Mask mode

The Quick Mask mode is a great way of making complex selections using the drawing and painting tools.





Keyboard Shortcuts

There's always a quicker way of doing almost everything in Photoshop

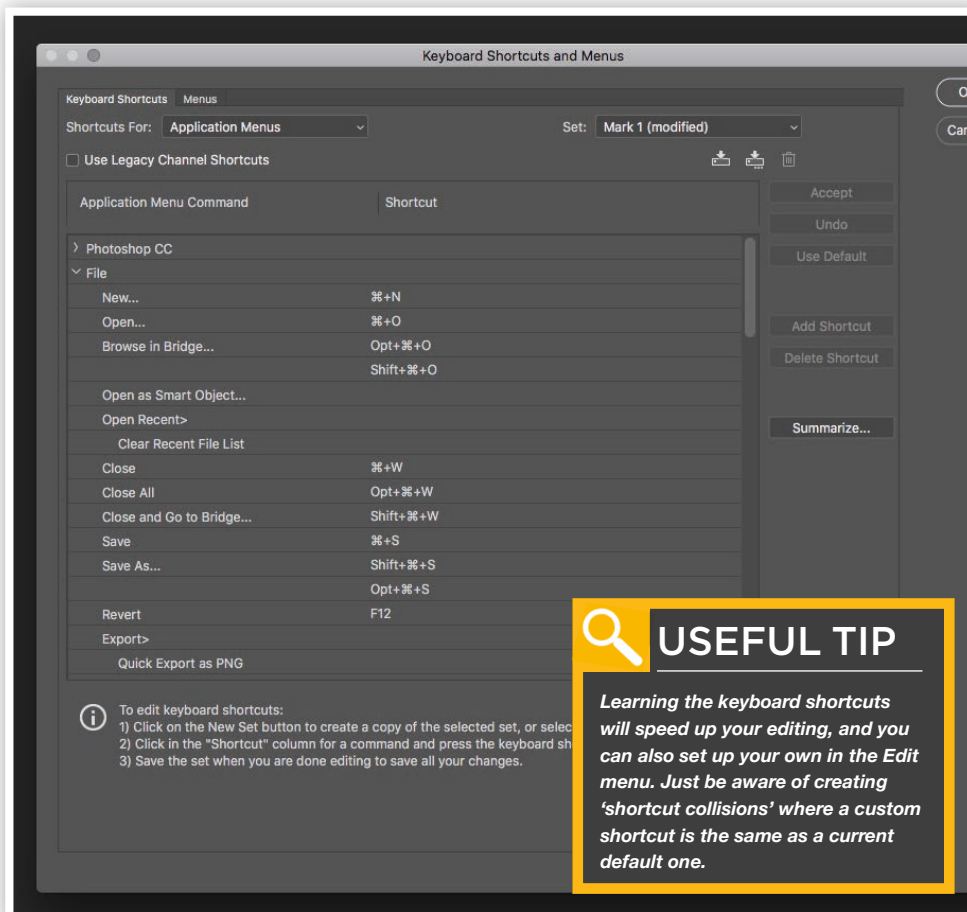
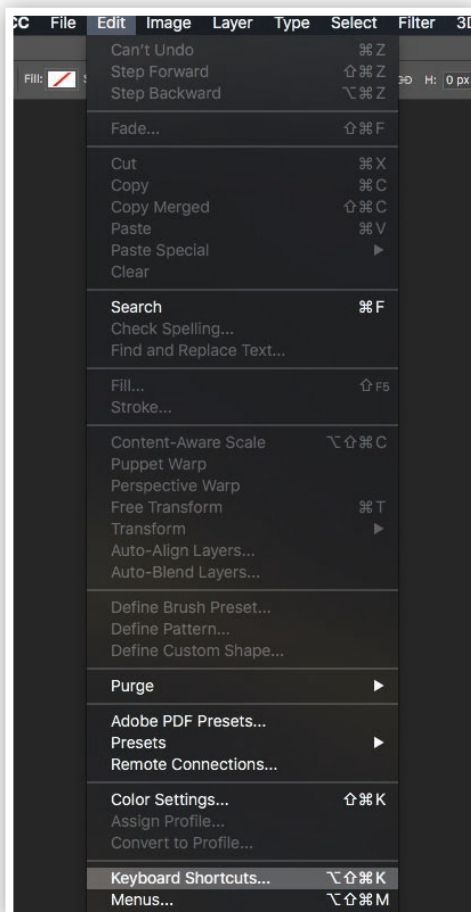
One of Photoshop's best features is its huge list of fully customisable keyboard shortcuts. Almost all of the program's functions can be accessed quickly by pressing various combinations of keys, and once you learn those shortcuts your workflow will speed up immensely. You can even make up your own for your most frequently-used operations.

Customising Shortcuts

You'll find the keyboard shortcut preferences menu at the bottom of the Edit menu, although naturally it has its own keyboard shortcut, Alt+Shift+Ctrl+K. You'll find an exhaustive list of all Photoshop functions, broken down into category headings matching the names of the main menus. You'll find that many operations

already have their own default shortcuts. You can easily change these, or even add your own new ones. To apply a shortcut to an operation, first locate it in the list, and then click in the space to the right of the name. You'll see a small text window appear, and the next key or combination of keys that you press will appear here. If the

combination is already used by another shortcut you'll see a notification warning you of this, and asking if you want to proceed with the change. If you click Accept the new shortcut will be applied immediately. Take care when making your own shortcuts that you don't accidentally overwrite some useful defaults.



Some Useful Default Shortcuts

Here are some of the more commonly-used shortcuts for image editing. There are many more of course, but it's worth taking the time to memorise these ones. You'll work efficiently and they'll make your life a whole lot easier.

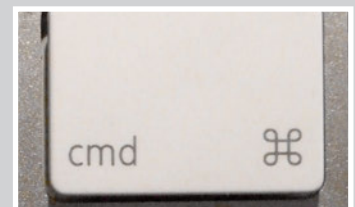
CREATE NEW DOCUMENT control + N	REDO LAST STEP shift + control + Z	INVERT SELECTION shift + control + I	PASTE FROM CLIPBOARD control + V
CREATE NEW LAYER shift + control + N	LEVELS control + L	ZOOM IN VIEW control + +	COPY TO CLIPBOARD control + C
CLOSE CURRENT DOCUMENT control + W	CURVES control + M	ZOOM OUT VIEW control + -	CUT TO CLIPBOARD control + X
CLOSE ALL DOCUMENTS alt + control + W	INCREASE BRUSH SIZE }	FIT ON SCREEN control + 0	FREE TRANSFORM control + T
SAVE CURRENT DOCUMENT control + S	DECREASE BRUSH SIZE [	100% ZOOM alt + control + 0	TURN SNAP ON OR OFF shift + control + ;
SAVE AS control + shift + S	BRING CURRENT LAYER TO TOP shift + control + }	SHOW RULERS control + R	SELECT ALL ON CURRENT LAYER control + A
UNDO/REDO control + Z	MOVE CURRENT LAYER UP control + }	SHOW OR HIDE GRID control + "	DESELECT ALL control + D
UNDO LAST STEP alt + control + Z	MOVE CURRENT LAYER DOWN control + [	SHOW OR HIDE GUIDES control + ;	HELP F1

Important Note

On a PC the Ctrl key for your shortcuts looks like this on a standard Windows keyboard. If you use a PC and you see an instruction in this title to use a Cmd key, then just use Ctrl instead.



On a Mac computer the Ctrl key is replaced by the Cmd key on a standard Mac keyboard. If you use a Mac and you see an instruction in this title to use the Ctrl key, just use your Cmd key instead.



Using Layers

Understanding layers is fundamental to Photoshop editing

The concept of Layers was first introduced with Photoshop 3.0 in 1994, and has become the very core of Photoshop image editing, as well as being imitated by every other image editing program on the market. Layers are exactly what they sound like; the elements of the image are stacked up and displayed in

descending order. Since layers can include transparency, lower layers can be visible through higher layers.

Effects, adjustments and operations can be applied to individual layers, or to all the layers at once. You can move layers around relative to one another, change the order of layers in the stack, turn layers on

or off, and delete layers without affecting the others. Some people seem to have a hard time getting their head around the concept of layers, so the best way to think of them is as a pile of glass panels with the elements that make up the image painted onto them, with you looking down on them from above to see how they stack up.



Layers have a number of advantages. For one thing, the ability to change one element on one layer without affecting the other layers means that you can edit your image non-destructively. For example if you want to perform an operation on a layer but you're not sure how it's going to turn out, just make a duplicate layer, set the original to be invisible, then do your editing on the copy. If you don't like the result, you can simply delete it and go back to the original.

There are four main types of layer. There are Pixel layers, which contain the graphical elements of the image. There are Text layers, which contain text information which can be edited and resized. There are Vector layers, which contain vector information such as shapes and

work paths, and then there are Adjustment layers, which contain embedded commands that affect the layer immediately below. We'll look at Adjustment layers in more detail on the following pages.

There is a downside to using layers, and that is the file sizes they generate. Adding layers and the information that goes along with them massively increases the size of the file, so when you've finished editing and you want to save the picture you've created, it's usually a good idea to Flatten the image, which merges all the layers together into a single image.



USEFUL TIP

Click on a layer, press and hold the Shift key on your keyboard and click on another layer to multi-select a number of layers.

The Layer Palette

Knowing your way around the Layer palette is vital if you want to make the best use of this feature.

Blend Mode

Determines how the layer interacts with the layer below it. Can be changed for every layer one by one, or for a group.

Opacity

Controls how transparent the layer is, and how much of the layer below will show through.

Layer Filters

Choose to display only one type of layer, or all of them, and by selecting from the drop-down you can select the order to show them in.

Fill

Similar to Opacity, but only works on pixel information, ignoring blending options and layer effects.

Layer Locks

By clicking on these buttons you can lock the layer from any further activity. Transparency, image pixels and position can be locked independently of each other.

Text Layer

There are several different types of layer. Text layers, not surprisingly, contain text characters.

Background

The Background layer is the default bottom layer, and always starts off locked when you open a new Photoshop document.

Link Layers

Highlight a few layers and then click this button to link the layers. Transform and Move commands will affect all linked layers.

Visibility

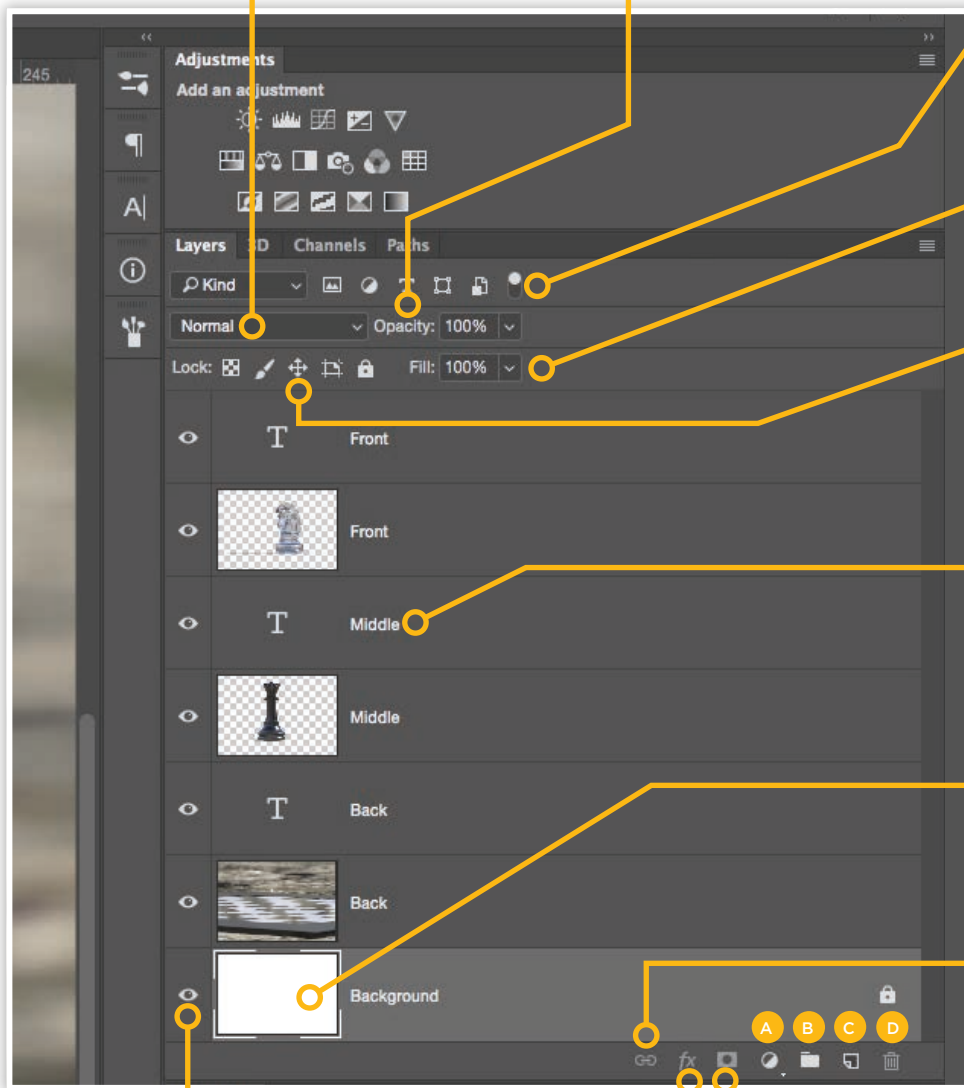
Clicking on the eyeball simply renders the layer and all its effects invisible.

Layer Styles

Add effects such as drop shadow, bevelled edges, inner glow and more.

Layer Mask

Add a mask to a pixel-based layer to reveal or conceal information using a black or white brush.



A Adjustment Layer

An alternative to the main layer menu, you can add all the adjustment effects such as Levels, Brightness and Contrast and Saturation here too.

B New Group

Creates a new layer group, into which you can drag and drop layers, which helps you to organise layers in a big complicated composition.

C New Layer

Clicking on this button creates a new blank layer directly above the currently active layer.

D Delete Layer

Does exactly what you'd expect it to do. Click to delete the currently active layer, or drag a layer onto the button to delete it.

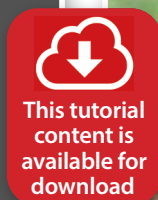
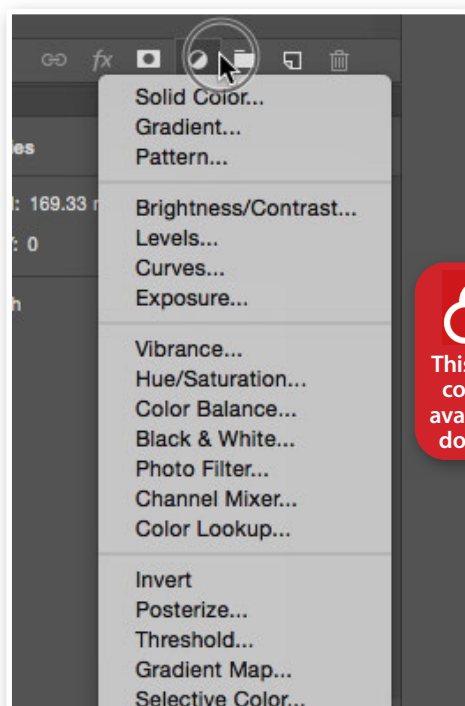
Adjustment Layers

A great way to edit your images without damaging them

Although there are many editing options in the Image > Adjustment menu, they all have one thing in common. When you apply them to an image the effect they have is destructive, because they discard information from the original image. For example, if you apply Curves, the Hue/

Saturation, then add a Photo Filter effect, that's three operations that have discarded information, each one degrading your image quality. If you apply an operation repeatedly, such as multiple Curves corrections, you'll actually be able to see the degradation. The only way to undo

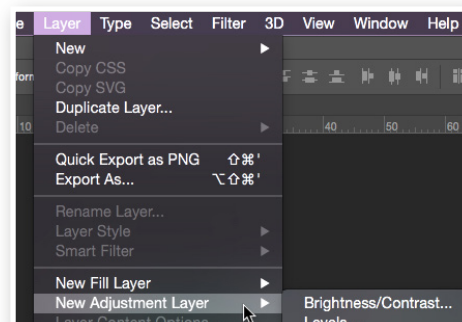
the damage done by these modifications is to revert to an earlier version by using undo or the History palette, but that also undoes all your subsequent editing as well. This degradation is much worse with 8-bit than with 16-bit images, since there's less information to start with.



It's impossible to avoid this image degradation altogether, but by using Adjustment Layers we can reduce it as much as possible. Adjustment Layers sit above the pixel layer in the stack, and their effects are applied in real time as the layers are displayed. That way if you change your mind about an effect, or wish to change it after it has been applied, your alteration doesn't have any further effect on the layer below it, and the image degradation isn't applied until the layers are

merged when flattening the image.

You can apply Adjustment Layers in several ways. First, you'll find a list of available layers in the Layer > New Adjustment Layer menu. Second, if you have the Adjustments palette open (it's open in the default interface workspace) you can click on the button for the layer you want to apply. Third, you can click on the middle button at the bottom of the Layer Palette. All of these offer exactly the same list of options and produce the same results.



The Adjustment Layer Palette

Click on any of these buttons to instantly create a new adjustment layer.

- 01 **Brightness/Contrast**
Edit image tonal range.
- 02 **Levels**
Adjust colour and tonal range.
- 03 **Curves**
Adjust points through the tonal range.
- 04 **Exposure**
Adjust an images' exposure range.
- 05 **Vibrance**
Enhance less saturated colours first.
- 06 **Hue/Saturation**
Alter Hue, Saturation and Lightness.
- 07 **Colour Balance**
Add colour to shadows and highlights.
- 08 **Black and White**
Convert to monotone or greyscale.



- 09 **Photo Filter**
Add custom colour cast to images.
- 10 **Channel Mixer**
Create tinted or greyscale images.
- 11 **Colour Lookup**
Add preset colour effects to images.
- 12 **Invert**
Inverts image colours like a negative.
- 13 **Posterize**
Adjust the number of tonal levels.
- 14 **Threshold**
Convert to black and white bitmap.
- 15 **Selective Colour**
Alter individual primary colours.
- 16 **Gradient Map**
Maps an image to a custom gradient fill.



Before and After

This photo of Alfie was taken on a Canon 5DMK3. The subject was photographed on an overcast day and there was little contrast. By applying Levels, Saturation and Photo Filter adjustments to the image, the colours have been saturated and contrast enhanced to bring back some punch and detail to the image.

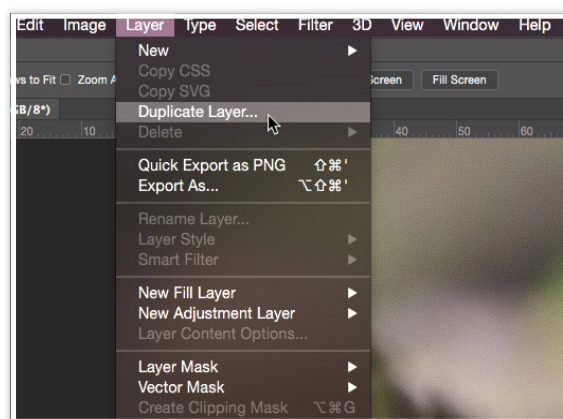
Using Layer Masks

Add effects non-destructively with Layer Masks

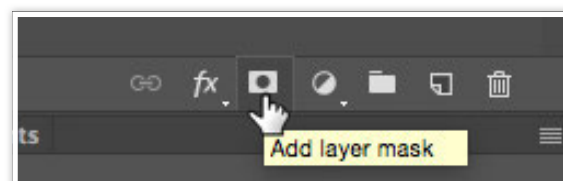
While the Quick Mask function is an easy way to selectively edit your pictures, the more traditional method is to use Layer Masks. The advantage to this method is that it is non-destructive, so if you don't like the results you can just go back and start again. It is also repeatable, because you can use the same mask for multiple effects, saving you time and effort. For this quick tutorial we'll use a Layer Mask to apply a selective monochrome or colour extraction effect. We'll start with this bright image of a buttercup. The yellows will remain in colour while the rest of the picture will be changed to black and white.



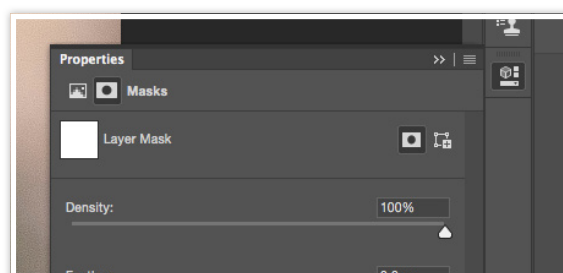
01 To start with, right-click on the thumbnail of the photo in the layer palette and select Duplicate Layer from the menu. Alternatively click and drag the layer thumbnail in the palette onto the New Layer button at the bottom of the palette, which will also duplicate the layer.



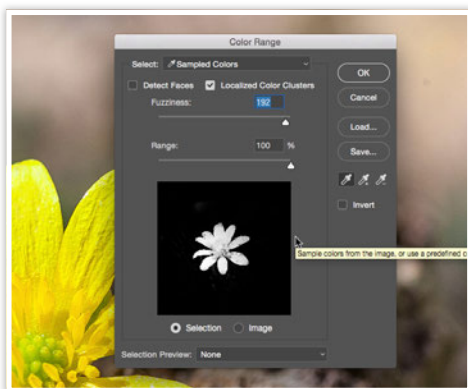
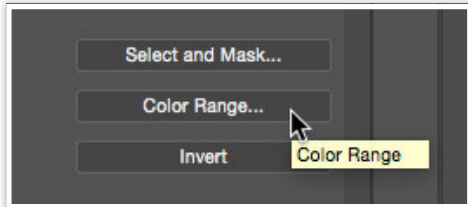
02 Next, activate the new layer by clicking on it in the palette, and then click on the Add Layer Mask button at the bottom of the palette.



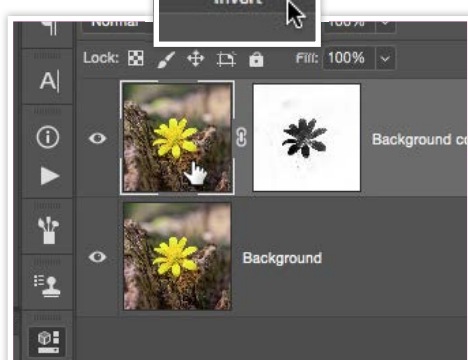
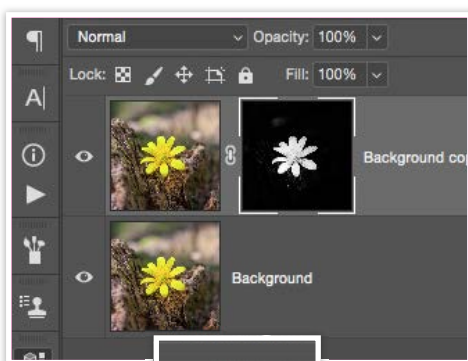
03 A white square will appear in the layer palette representing the new mask. Double-click on this and the Layer Mask palette will fly out. This palette lets you configure the mask in a variety of ways.



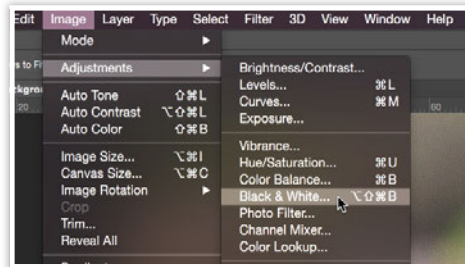
04 Click on the Color Range button and you'll see a new window appear with a colour range picker, and the cursor will change to an eyedropper tool. Click on the yellow petals of the flower, and adjust the sliders so that as much of the colour as possible is selected, but none of the background. Click OK when you're happy.



05 Now we've got a mask that covers the shape of the flower but what we need is a mask that leaves the chosen colour, but covers everything else, so click on the Invert button that swaps the mask and the background. This effectively creates a hole in the layer through which the background layer will be visible.



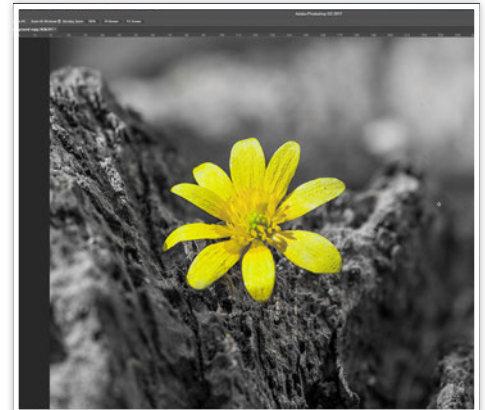
06 Next we can apply the effect to the top layer. For this one we'll use the Black and White menu option, since it's a quick and easy effect. You'll find it in the Image > Adjustments menu.



07 You can adjust the parameters of the Black and White effect with the sliders on the window that appears. The results are a matter of personal taste, so adjust the parameters until you're happy.



08 The Layer Mask can be used to produce any kind of selective effect like this, and the great part of it is that the original image is still intact in the background layer, so if you're unhappy with the finished result you can just delete the effect layer and start again. However as you can see, the effect is just about perfect.



USEFUL TIP

Always remember that layer masks do not erase any of a layer's detail, it just makes certain details invisible without deleting them. This is referred to as non-destructive image editing.



Selection Tools

Photoshop provides multiple methods for isolating areas of your image

The ability to select discrete areas of an image and change them in isolation is fundamental to Photoshop editing, and to help with this there are many different ways of making that selection. The most frequently used are the Marquee tools, which allow

you to select regular shapes such as rectangles, ellipses and lines. For irregular shapes there are several Lasso tools, which let you draw the area to be selected. For quicker selections there are the Magic Wand and Quick Selection tools.

Common Options

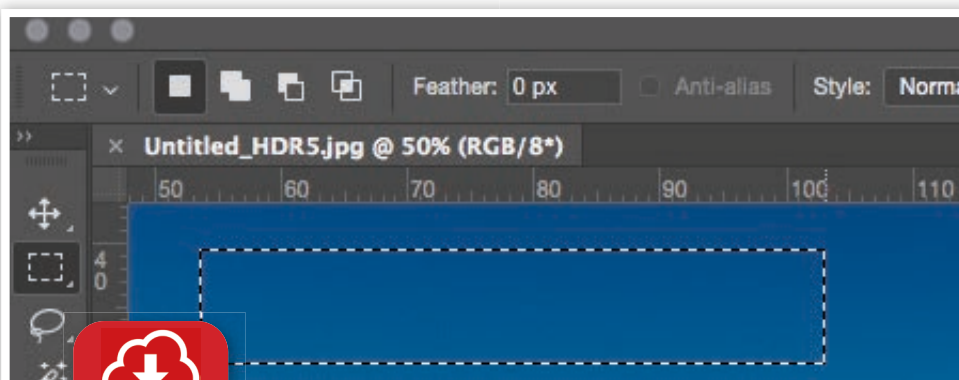
If you look across the top left of your menu bar, you will see there are common tool options for all of the selection tools. The first row of four buttons are: New Selection, which is the default setting; Add To Selection, which can also be activated temporarily by holding down the Shift key; Subtract From Selection, also activated by the Alt key; and Intersect With Selection, which selects only from areas you have already selected.

Edge Refinement

The next option is Feather, which softens the edge of the selection, useful for gradual effects. The edge of the selection can be further adjusted by using the Refine Edge menu in CS6 or Select and Mask in Photoshop CC, which uses sophisticated edge-detection techniques to automatically select around things like fine hair or soft and blurred edges.

USEFUL TIP

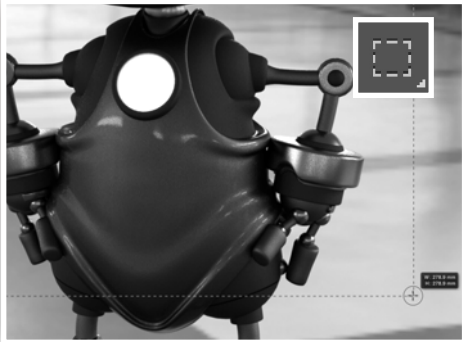
You can use the Quick Selection tool to quickly paint a selection using an adjustable round brush tip. As you drag, the selection expands outward and automatically finds and follows defined edges in the image. If the tool isn't visible in your toolbar, hold down the Magic Wand tool to see the fly-out menu with the additional options that are available to you.



This tutorial content is available for download

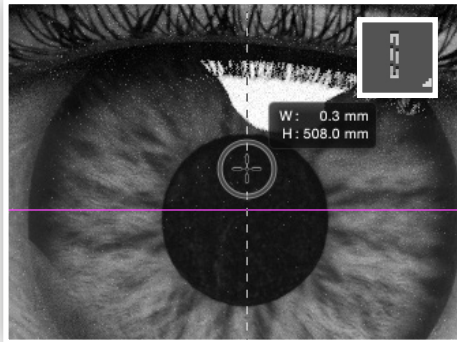


Rectangular Marquee



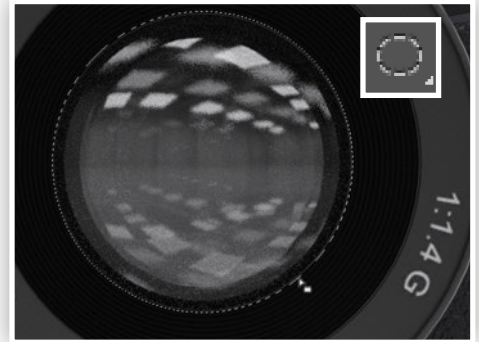
Lets you make a selection of a rectangular area of any size or aspect ratio. Just click and drag to the right size. Hold down the Shift key to constrain the selection to a square shape, and use the arrow keys to move the selection area.

Single Column Marquee



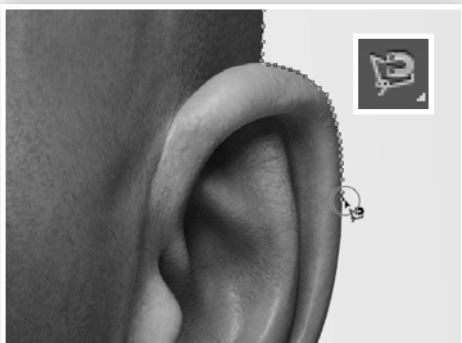
This option creates a selection of just a single vertical column of pixels. This is useful for tidying up other selections or crops that are just a little too big. Click near the area you want to select, and then drag the marquee to the exact location.

Elliptical Marquee



Create a selection of an elliptical shape of any size or proportion. Just click and drag to the size and shape you need, and hold down the Shift key to draw a circle. If you hold down the Alt key the ellipse will be centred on the starting point.

Magnetic Lasso



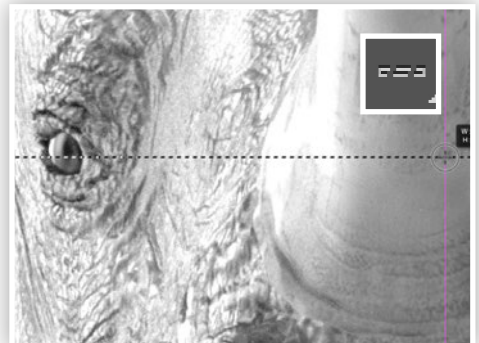
This tool uses edge-detection to try to match your selection to the edges of the subject in the image. You simply draw a line as closely as possible to what you want, and it should automatically snap to the edge. Works best on high contrast areas.

Lasso



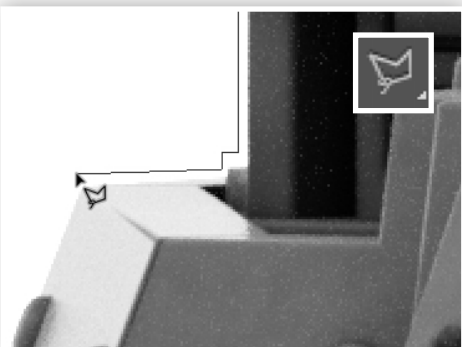
The Lasso is also used to make area selections from the active layer, but this time the shape can be irregular, marked out by clicking or drawing a line around the area to be selected. Join up your lasso at the point you started to close the selection.

Single Row Marquee



This is the same as Single Column Marquee, but this time it selects a single horizontal row of pixels. As with the Single Column Marquee option, click near the area you want to select, and then drag the marquee to the exact location.

Polygonal Lasso



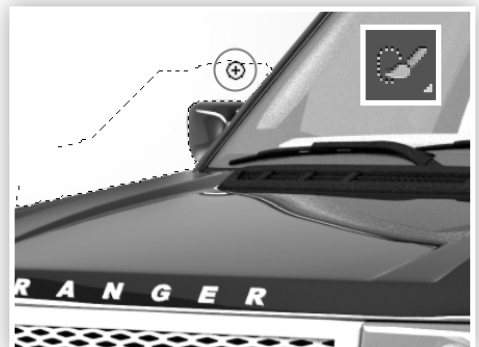
The Polygonal Lasso lets you draw a point-to-point line around your subject. It can only draw straight lines, but by using very short sections it's possible to approximate a curved line. To draw curved lines you need to use the Pen tool.

Magic Wand



This tool lets you select areas of the same colour and brightness, and by adjusting the tolerance and whether or not it will select contiguous areas, you can use it to do things like automatically select all the sky in your image.

Quick Selection



This tool lets you paint a selection, and uses edge detection to try to match the selection to the nearest edge in the image. Again it's often only an approximation, and will have problems with blurred or low contrast edges.

Making Selections

The ability to select and modify only part of an image is fundamental to how Photoshop works



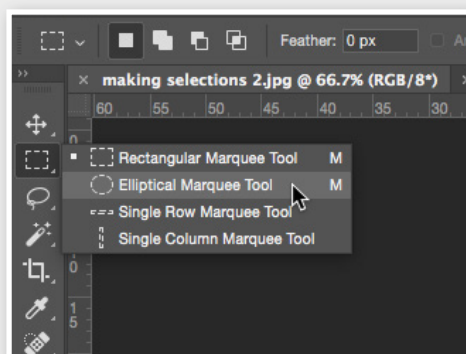
One of the most basic features of Photoshop is the ability to modify only part of an image, leaving the rest unchanged. The way that we do this is by using Selections, and there are several tools and menu operations that we can use to help us achieve this.

After the Move tool, the next three icons on the Tool Palette are all selection tools, giving you a wide range of methods for isolating an area of your image. Some are fully manual, while others use varying degrees of automation.

The most basic Selection tools are the Rectangular and Elliptical Marquee tools. These both allow you to manually select a simple shape of any size, or of a fixed size or aspect ratio. You can select several areas, either separately or joined together, and with a hard edge or a soft feathered edge. The various Lasso tools let you select an area of irregular shape, again with the option of a feathered edge. You can draw the area freehand, or use point-to-point lines for greater precision.

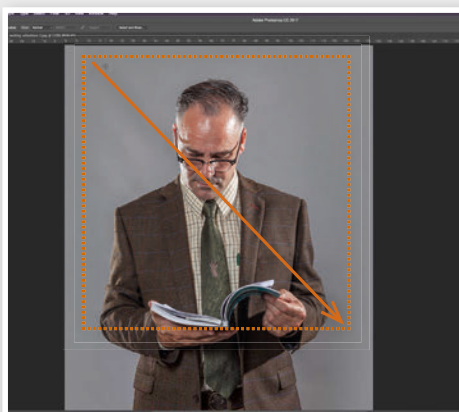
Let's take a look at the process of making a selection, and examine the various options that are available.

Elliptical Marquee Tool



01 The Elliptical Marquee tool works in much the same way as the Rectangular Marquee, but draws a curved shape.

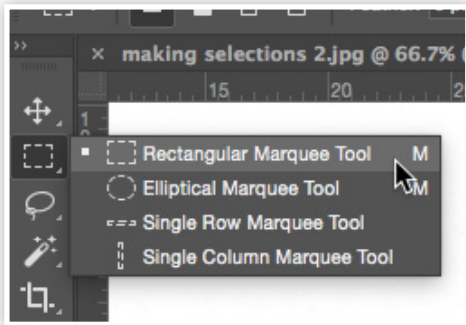
02 As with the Rectangular Marquee, you can set the size or aspect ratio. A ratio of 1x1 draws a circle, other ratios draw ellipses of various sizes.



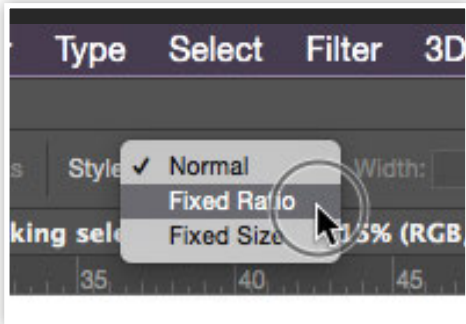
03 To draw an ellipse around your selection, imagine that it's actually a rectangle, start from one corner and drag to the diagonally opposite corner. This can be tricky to get right, so alternatively hold down the Alt key and start from the centre of where you want your ellipse to be.



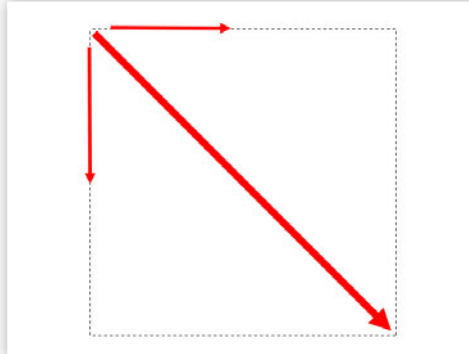
Simple Area Selection



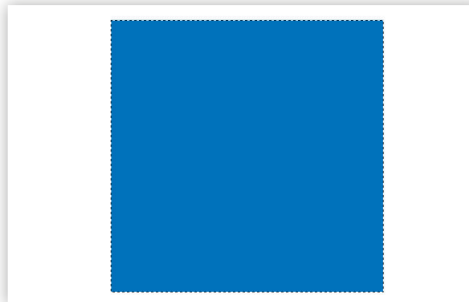
01 Let's start off with the simplest selection tool, the Rectangular Marquee. This is used, as the name implies, for selecting simple rectangular shapes.



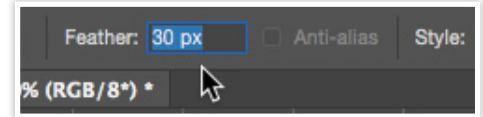
02 You can draw a freehand rectangle, or fix the size or aspect ratio by using the tool options. Let's draw a perfect square selection by setting a ratio of 1x1.



03 To draw a square, click on a point where you want one of the corners to be, then hold and drag to the diagonally opposite corner. You'll see the "marching ants" line of the selection box appear following the cursor.



04 If you use the Paint Bucket tool to fill the area you've selected you'll see that the edges are very sharp.



05 To make a soft-edged selection, type a number into the Feather box. The higher the number, the more blurred the edge will be.

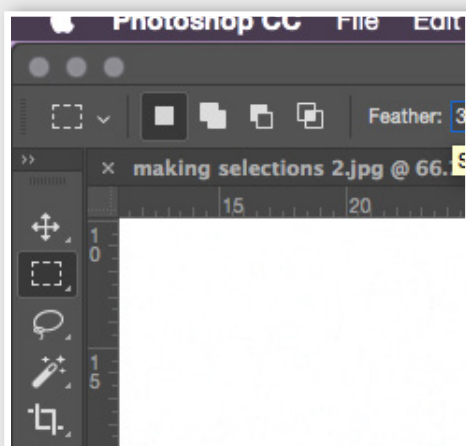


06 This time if you draw a selection and fill it, you'll see that the edges are very blurred, with the marquee "marching ants" line in the middle of the blurred area.

USEFUL TIP

If you want to select more than one area or add to the current selection, holding down the Shift key will temporarily put the tool into "Add to Selection" mode.

Polygonal Lasso Tool



01 For selecting more complex shapes, the best option is the Polygonal Lasso tool, or if you want to draw freehand, then the Lasso Tool is the one to go for. Drawing freehand may be quite odd using a mouse, but with a little practice you can use it with confidence.



02 With the Polygonal Lasso, you click around the edge of the area you want to select. When you complete the loop, or double-click, the selection is completed and you'll see the "marching ants" border.

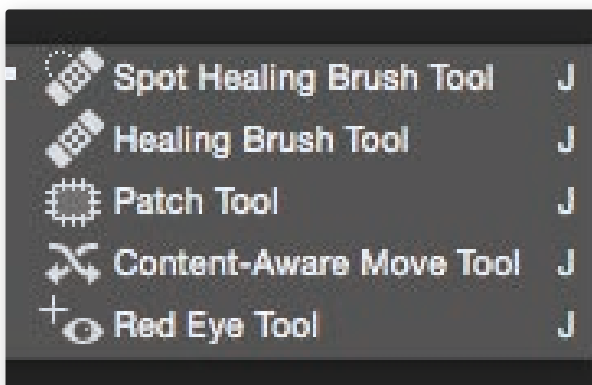


03 A Polygonal Lasso selection is ideal if you want to cut or copy a complex shape out of a background, for example to make it part of another picture. It is particularly helpful when your subject has lots of straight, regular edges that are easy to follow.

Healing Brush Tools

Clean-up minor blemishes, dust spots and stray hairs with the Healing Brush tools

Even with a modern digital camera, your photos may have slight imperfections. Maybe it's just a stray hairs or an unwelcome skin blemish in a portrait, or maybe some dust has managed to get onto your sensor, causing dark spots on your photos. Whatever the reason, sometimes you need to remove some small features from your images, and the best tools for this are the Healing tools. There are five healing tools in Photoshop, which you can see if you click and hold on the Spot Healing Brush tool icon in the tool palette.



USEFUL TIP

To get the best out of the healing tools, you need to work with care and not overdo the effect. The key to success is to be subtle. There is also no reason you can't use several of the healing brushes to make sure you get a perfectly healed image.

Healing Brush Tool



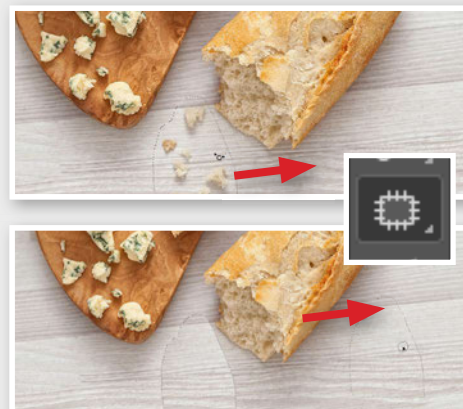
The Healing Brush is a legacy from older versions of Photoshop. It does much the same job as the Spot Healing Brush, but is rather less sophisticated. It works in much the same way as the Clone Stamp tool. To heal a blemish, you first need to set a sample point by clicking on an area of similar texture while holding down the Alt key, then painting the sample over the blemish. As ever, when it comes to healing and cloning techniques, subtlety is the key. You may find that it might take several attempts to get a good texture that doesn't stand out as being cloned in.

Content Aware Move



The Content Aware Move tool was introduced in Photoshop CS6. The idea is that you can simply draw a selection around an object and then drag it to another place. The program analyses the surrounding area and fills in the source with a matching texture. In practice the Content Aware Move tool is only useful in very specific circumstances, when the object you want to move is surrounded by a uniform texture. You will find that the more even the texture, the better the final result. Backgrounds such as grass and blue sky are much more successful candidates for this.

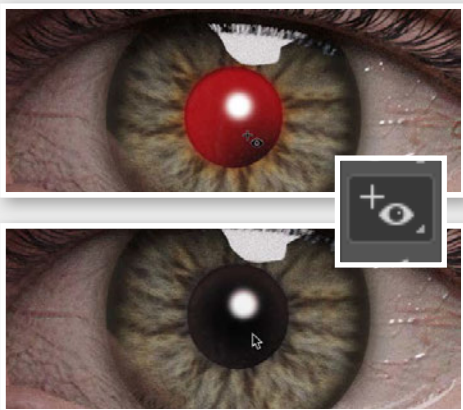
Patch Tool



The Patch tool is used for repairing larger areas. It can be used in one of two ways; either draw around the area you want to replace and then drag the sample to an area of matching clean texture, or sample an area of clean texture and then drag it over the part you want to replace. Here, a patch of wooden floor can be used to remove some bread crumbs from the shot. As you drag the patch, it will show you a real-time overlay over your target area so you can align it as best you can to ensure a good patch.

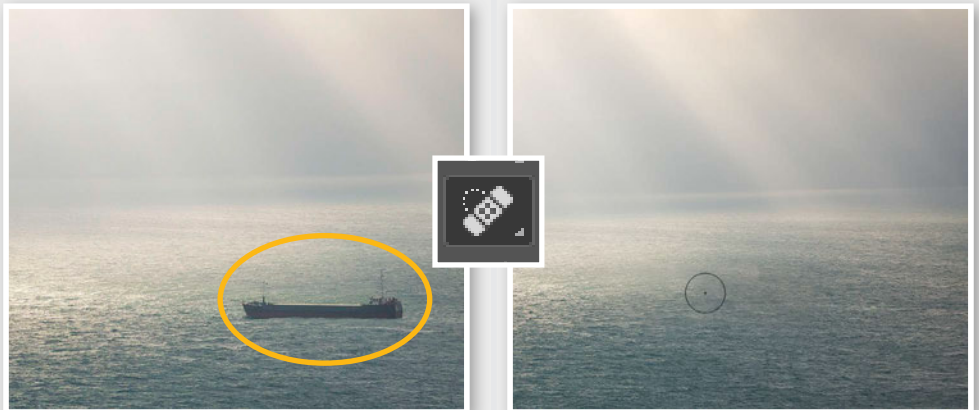


Red Eye Tool



Red Eye is caused by light from a camera flash reflecting off the blood vessels at the back of the eye when the pupil is wide open. It's possible to avoid it by proper camera technique, but if you find it in one of your portraits, Photoshop has a quick and easy tool to help remove it. Simply click on the offending redness and the tool will automatically analyse how much redness there is in the subject's eyes and remove it and replace it with a more natural-looking tone which is usually black or a very dark tone.

Spot Healing Brush Tool



For removing small objects such as dust spots and stray hairs, the Spot Healing Brush is the most useful and effective tool at your disposal. In some cases, you can even remove larger objects and people. When you use it to paint over an object, the brush samples the area around it and replaces the object with a simulation of the background. The way that it samples can be selected, and most effective option is Content Aware sampling. The brush parameters can be adjusted like any other brush.



USEFUL TIP

Camera sensors pick up dust spots over time. Use the Spot Healing Brush to remove unwanted sensor dust spots that appear on your digital images. As you can see from these examples, you can also remove larger objects as long as you have an even background behind it, otherwise the effect might look fake.

Brushes, Pencil and Eraser

Photoshop has many tools to help you create images as well as edit them

Although it is primarily designed and best known as an image editing program, Photoshop also offers a range of versatile tools, allowing you to create original artwork as well as adapting existing images. The brushes, pencils and eraser are designed to behave as much like their real life counterparts as possible, to make using them an intuitive process. If you have a graphics tablet and a pen, this helps even more.

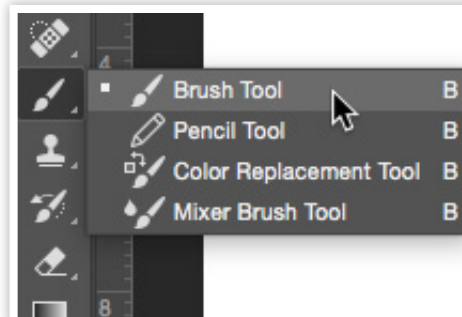


The Brush Tool

The most useful drawing implement is the Brush (keyboard shortcut B), which is a multi-purpose tool that can emulate almost any type of drawing tool imaginable, be it a fine pencil, a felt-tip marker pen, a soft-bristle brush, an airbrush, or anything in between. The Brush tool has received a major upgrade for version CS6, and now has more options and more pre-sets than ever before, giving you unparalleled versatility for creating your own artistic Photoshop masterpieces.

You select the Brush tool by clicking on its icon in the tool palette, but to get the most out of it you need to open the new Brush palette by clicking on the little folder-shaped icon in the options bar.

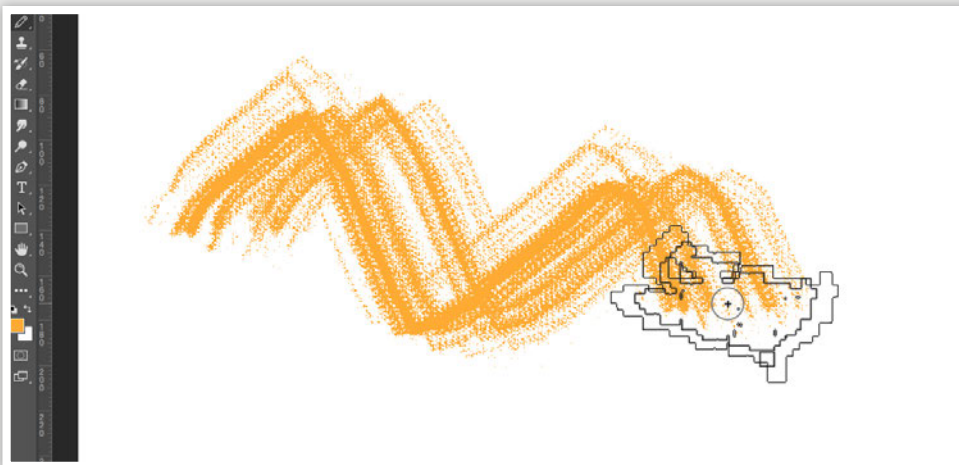
When you take a look at the new Brush palette you'll be blown away by just how customisable it is. You can adjust the shape of the brush tip, the density, length, thickness, stiffness and angle of the brush bristles, and adjust or disable brush spacing. As well as



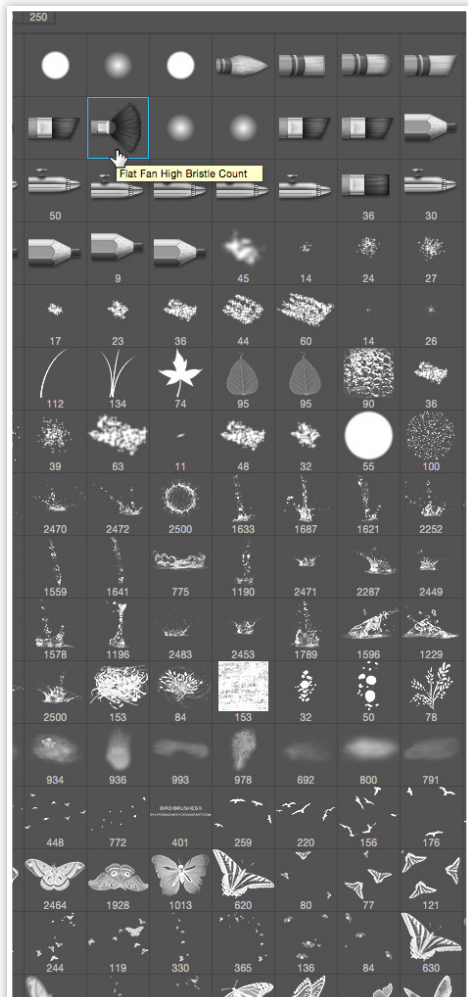
The Pencil Tool

The Pencil tool used to be a separate item from the Brush tool, but with radical expansion of the Brush in Photoshop to include simulations of numerous types of pencil, the Pencil tool itself now is just a variation of the Brush tool, and uses the same options palette. It's not without its uses though.

The Pencil can be used as a secondary brush, which can save time swapping between pre-sets, and can also be used to apply a stroke to work paths. You can press Shift + B to make it appear. By default it uses the 1 pixel brush size. The pencil tool is limited to hard-edged brush shapes of various sizes.

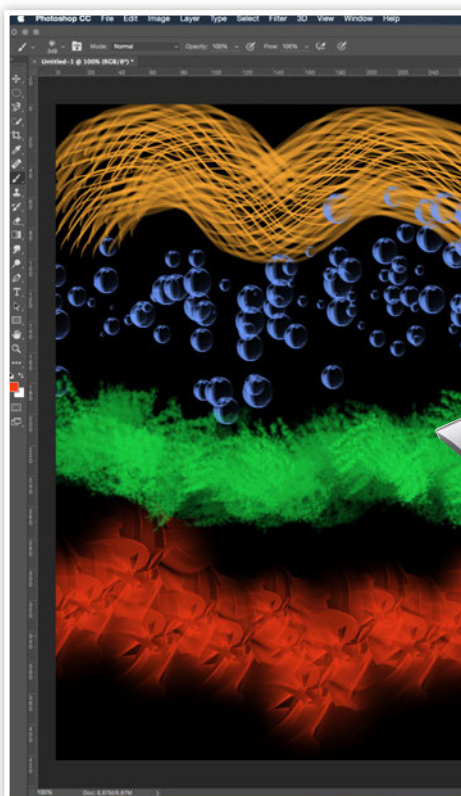


this there are many more options, allowing you to add random scattering, noise, texture, wet edge simulation, airbrush-like build-up, and both shape and colour dynamics. If this degree of control is too time-consuming there are also dozens of pre-set brushes, a small sample of which you can see in the picture shown below.

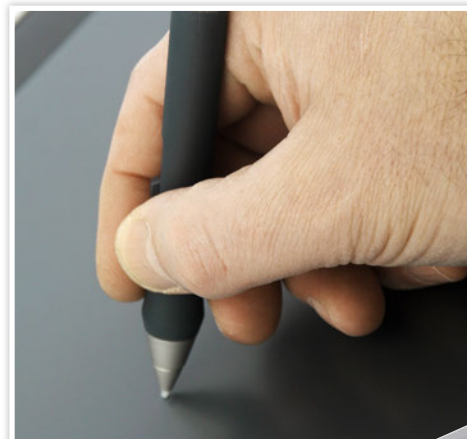


There are pre-set brushes to simulate airbrushes, pastel crayons, big soft brushes, small stiff bristles, pencils, felt pens, sponges, and even template brushes to quickly draw grass or leaves. The options and adjustments can be applied to pre-set brushes, so you can customise them for your own specific needs. You can even make your own brushes if you want.

As well as options for the appearance and texture of the brush, there are also options for how it interacts with the layer that you paint on. These are called Blend Modes, and you can choose which one to use by clicking on the Modes button in the tool options bar.



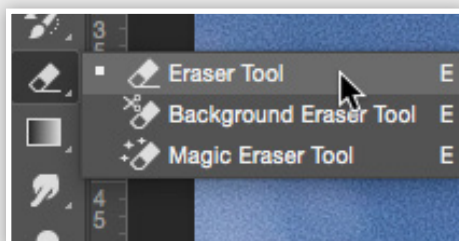
Many people will probably use Photoshop with a pen and tablet device, such as the Wacom Intuos 4 shown here. The Brush tool includes options for pen tablet users, such as allowing pen pressure to control either brush size or opacity.



The Eraser Tool

The Eraser tool (keyboard shortcut E) is a specialised variation on the brush tool, and uses the same palette options. It differs from the standard brush in that it can render pixels from a layer transparent, allowing the layer beneath to show through. If used on the background layer it paints in whatever the current background colour is set to.

As well as the Brush palette options, the Eraser also has tool options including Opacity, Flow, and one unique one, Erase to History, which can be used in conjunction with the History palette to selectively undo changes in layers. The Mode options for the Eraser are Brush, Pencil or Block, which is a small square-shaped eraser of fixed size and full opacity.



There are two other Eraser options available if you click and hold on the Eraser tool. Background Eraser can, as the name suggests, erase parts of the background, but it does this by converting the background into a layer. Magic Eraser simply combines the Magic Wand tool with the Eraser tool, and selectively erases contiguous areas of colour.





Basic Editing Techniques

Now you can move on to the next stage and get even more from your photos. Let's explore some of the main editing and manipulation techniques you can apply to your images. You will be able to edit, modify selections, crop and adjust exposure. Explore more of the foundations that lead to becoming a Photoshop pro.

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The Clone Stamp Tool

Remove unwanted elements from your photos

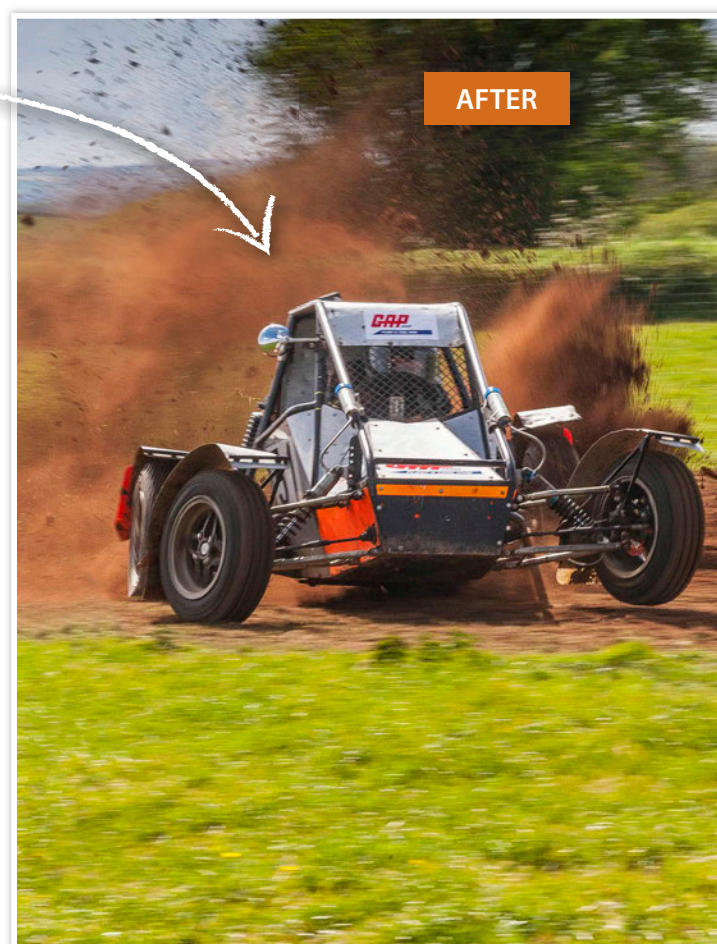
The Clone Stamp tool (also known as the Clone Brush in some programs) is one of the most useful items in your image editing tool kit. Despite recent developments such as Photoshop's Spot Healing tool and Content-aware fill, it is still the most precise and reliable way to retouch photographs, allowing you to remove unwanted

elements such as dust spots, skin blemishes, lens flare, telephone lines and other intrusive objects from your pictures. Because the process is entirely manual it can be somewhat time-consuming, but the results are often superior to the output of the more modern automatic tools.



USEFUL TIP

Vary brush size by using the open and close square brackets keys, and vary brush hardness with the curly brackets.

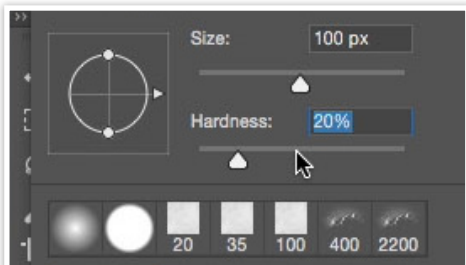
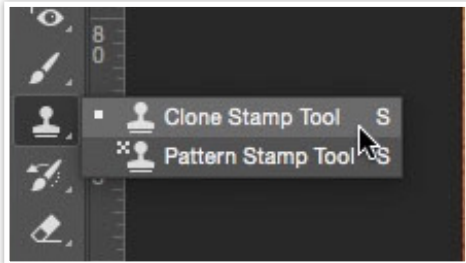


The Clone Stamp works by copying ("cloning") pixels from a selected target area and placing them over the unwanted objects. Using the Clone Stamp it is relatively straightforward to remove even quite large unwanted objects from a photo. Our example is a photo taken at a motorsport event. It is a good shot with plenty of action and flying dirt, but we thought the flags in

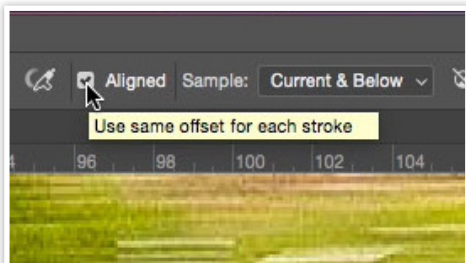
the foreground were a bit distracting, as was the telephone line stretching across the back of the shot in the top left corner.

We decided it would be a good demonstration of the power of the Clone Stamp tool to remove both flags and the telephone line from the shot. Let's see how they were removed.

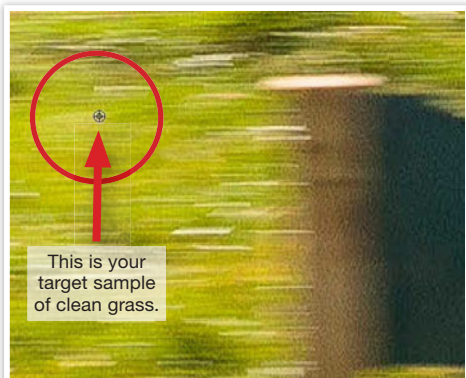
01 Go to your toolbar and select the Clone Stamp Tool (S). For the image we're working on, a brush Size of about 75 - 100 pixels will be fine. You can make the brush Hardness anywhere between 0% - 20%. We're going to start with the flag in the lower right corner.



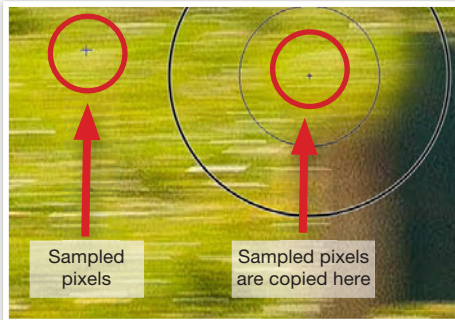
02 Make sure that you have the Aligned option ticked. This means that the sampling area of your brush moves as your brush does, otherwise you will clone the same sampled area repeatedly until you alter it.



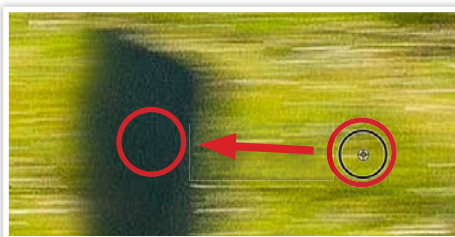
03 Find an area of clean grass next to the flag and then press your Alt key. A small target icon will appear. Anything under this target will be your sample to be used as the starting point of the cloning. Left-click your mouse to confirm this as your sample area.



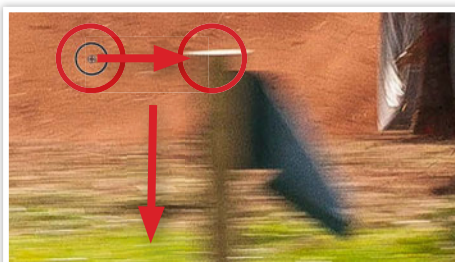
04 Now move your cursor over the top of the flag, level with your target area from the last step. It is shown as an overlay so you can see what you are about to clone on top of your flag. If you click and drag your mouse down the flag pole, the grass adjacent to it will be cloned over the top, removing the pole.



05 You can now choose another target sample to the right of the flag and clone grass from that side over the remaining area of the green flag. If you notice any repeated areas that stand out as being cloned, you can choose a new target area and clone in some new grass to keep the pattern random.



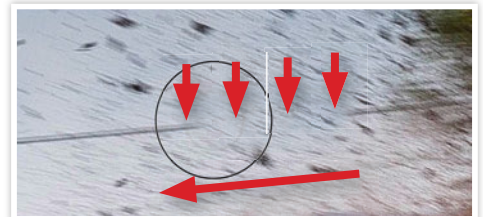
06 You can now move to the second flag on the left and create a new sample to clone over the pole as you did with the first. Again, watch out for obvious repeat patterns as you clone clean areas on top of the flag pole.



07 Now you can remove the green flag by sampling an area of the mud to the left of it and cloning that over the top of the remaining part of the flag. Finally, we can remove that telephone line from the top of the shot using the same techniques for both flags.



08 The random nature of the dirt flying across the frame is actually quite useful. sample an area directly above the unwanted telephone line and then clone the sample on top of it. You can simply click on the telephone line and drag the mouse to the left, cloning the patch of dirt that is directly above it as you do.



09 Once complete, you can assess the result and if you see any obvious repeating patterns that give the game away, you can simply clone new areas over the offending repeated parts with random grass and sky as needed.



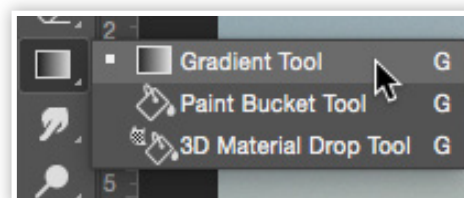
Gradient Fill & Paint Bucket

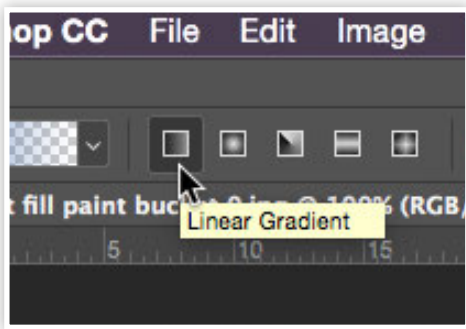
Fill layers and selections with colours, textures and gradients

One very useful facility that Photoshop provides is the Gradient tool. It can fill an area of a layer with a gradual blend between multiple colours. You can choose from a selection of pre-set gradient fills or create your own. It's a great way to add gradient filters for enhancing photographs, or to create effects

such as vignettes and centre-spot soft-focus. Let's take a closer look at how it works.

You'll find the Gradient tool about halfway down the Tool Palette. It has its own unique set of options in the Tool Options bar, the main one being the Gradient Picker, which lets you choose from a list of pre-set gradients.





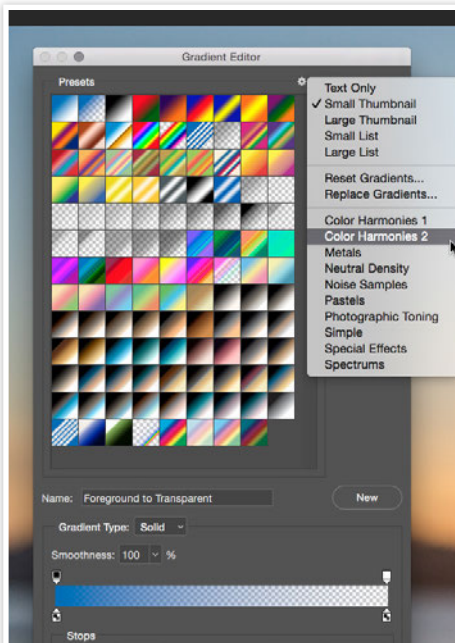
Next to this is a row of buttons that create different gradient shapes. The default setting is a straight linear gradient, but other options include Radial, Angle, Reflected and Diamond shapes.



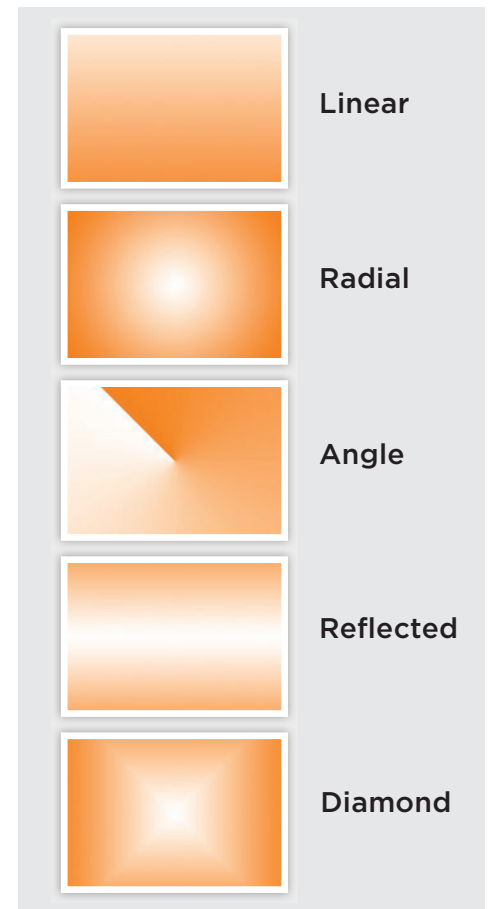
Like the Brush tools the Gradient has blend modes that let you mix the gradient colour fill with the layer below it in various ways. This is a great way to enhance sunset landscape shots, by using a blue-to-transparent gradient fill in color mode, as in the example seen here.

Photoshop comes with a selection of default pre-set gradients loaded, but there are other packs of gradients available. You can load in these other packs via the Gradient menu. If you open the Gradient Picker you'll see a small icon like a cog wheel. If you click on this you'll see the menu, with the list of standard gradient packs available to load at the bottom.

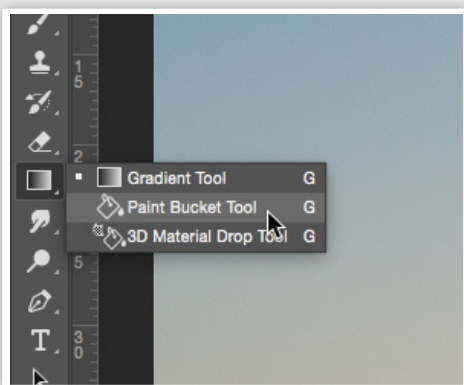
Other gradient tool options include the overall layer opacity, reversing the direction of the gradient colour mix, changing the "dither" of the colour mixing, and toggling the transparency.



Below are the main gradient types that you can choose from the tool options bar at the top left of your screen.

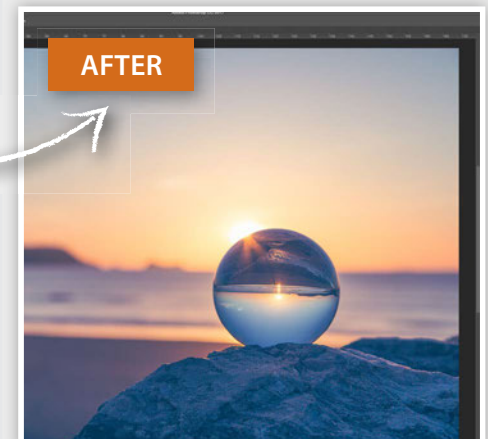
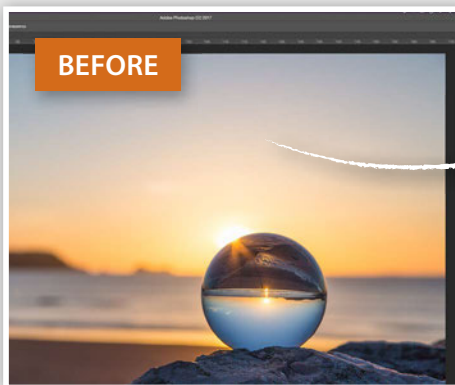


Paint Bucket Tool



If you click and hold on the Gradient tool you'll find that one of its options is the Paint Bucket tool, which is used to fill an area, a layer or a selection with a solid colour. In combination with layer transparency and blend modes it's a great way to add a colour tint or filter to a whole image.

If you use the Paint Bucket on the background layer of your image it will fill in an area of contiguous colour in much the same



way as the Magic Wand tool. To add a tint to a whole image, create a new layer, then fill it with the colour. It will fill the whole layer, and you can then use layer transparency and blend modes to achieve the effect you're looking for.

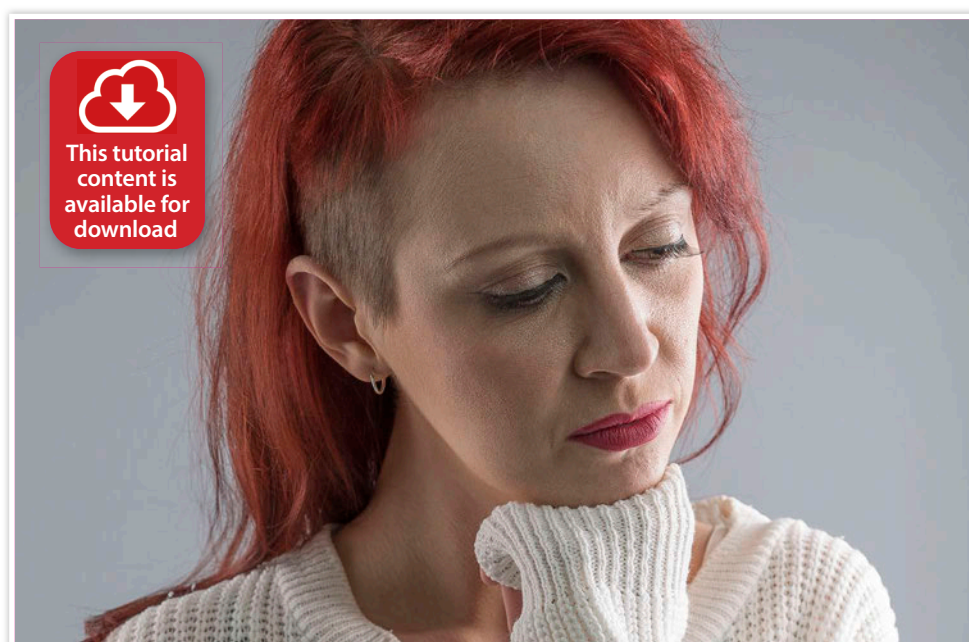
To get this cross-processed photo effect, we used a blue colour, at 70% opacity, and a Lighten blend mode, which combines the fill colour with the darker colours of the background image.

USEFUL TIP

Remember that the Paint Bucket uses the same edge detection as the Magic Wand tool. If you want to fill the whole screen, use a new layer.

Modifying Selections

Photoshop has sophisticated tools to refine selections

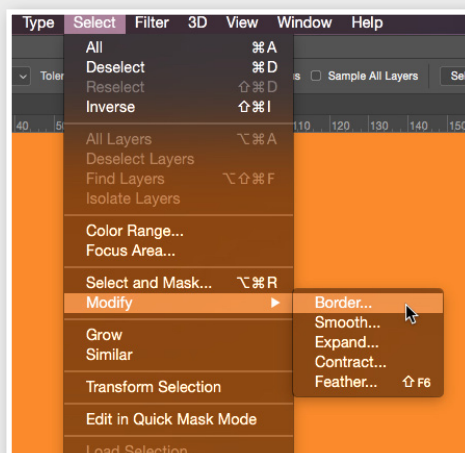


Photoshop's standard selection tools, the Marquee, Lasso and Magic Wand, are fine for making basic selections of regular, well defined shapes, but they're not so good at picking out soft-edged or very fine shapes. One thing in particular that has always been a problem is the edge of fine or untidy hair. Take this photo for example:

This model has been photographed in a typical studio setting, with good lighting and against a plain light grey background. Photos like this are used all the time for catalogues, advertising posters and the like.

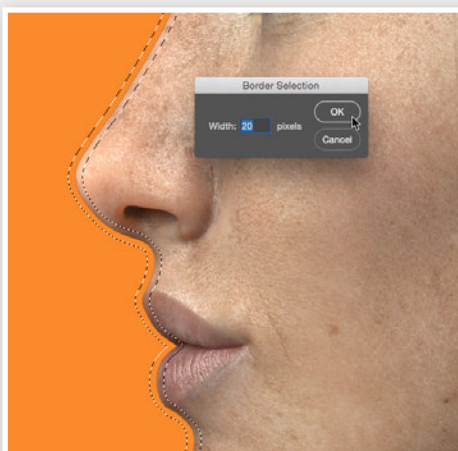
However, in order to fit these needs the model will have to be separated from the background. With a plain background like this, it would be tempting to use a normal selection tool such as the Magic Wand. However if we try it, what we end up with is something like this:

Modify Selection



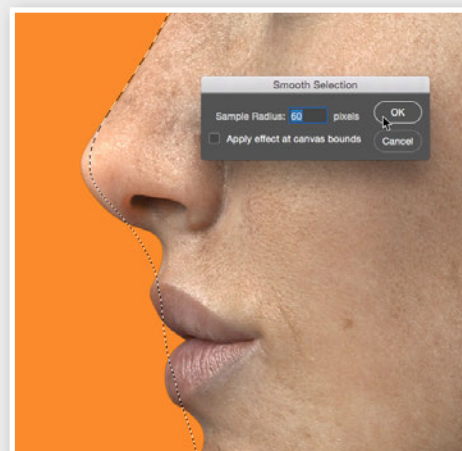
Photoshop has other tools to modify a selection which you'll find, appropriately enough, in the Select menu, under Modify. The options include Border, Smooth, Expand, Contract and Feather. They're all relatively simple, but useful nonetheless. We have some examples to show you.

Border

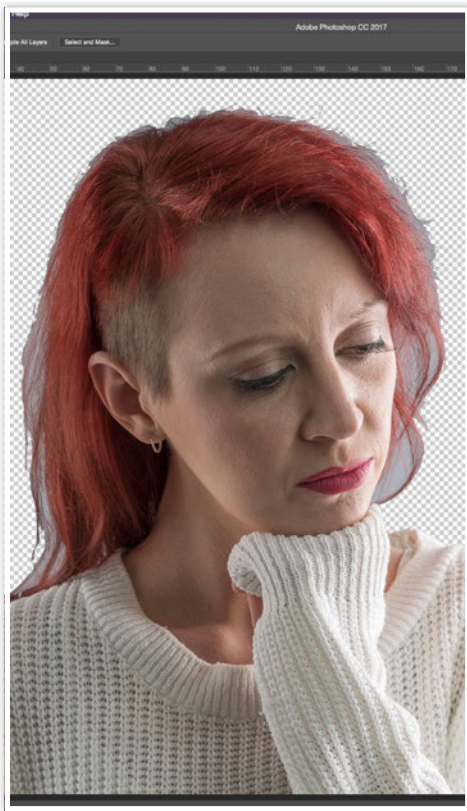


Border converts the single-line selection into a border of the specified width. You can use this selection to create a border around your selection by using the Paint Bucket tool. Be aware that the border extends an equal amount from either side of your original selection.

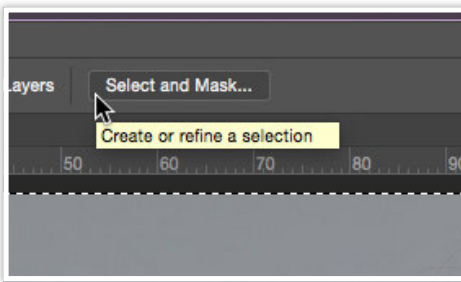
Smooth



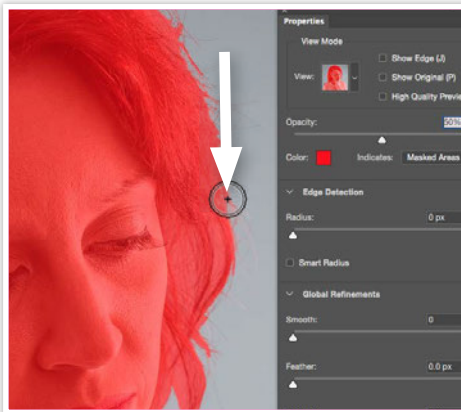
Smooth removes the kinks and wrinkles from the line of your selection. It's useful when you're selecting smooth-edged objects, but it will round off the corners of any irregular shapes. The larger the value of Smooth Selection, the smoother and less detailed the selection becomes.



As you can see, the edge around the model's hair looks terrible. The automatic Magic Wand selection has produced a very jagged edge, because it can't distinguish between the fine edge of the hair and the background. Fortunately the latest version of Photoshop has a feature called Select and Mask, which is capable of making much finer distinctions.



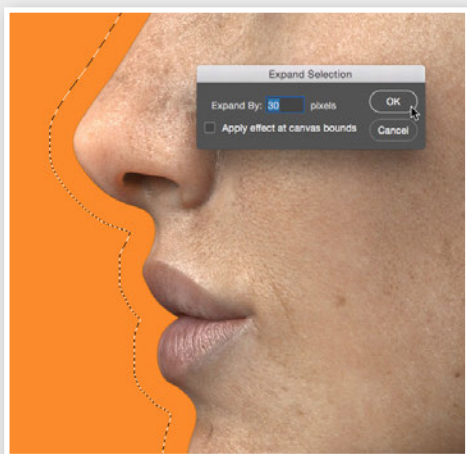
Select and Mask is very easy to use. Starting with a Magic Wand or Polygonal Lasso selection as close as possible to the edge of the hair or any other soft edge, click on the Refine Edge button on the tool options bar. In the dialog window that opens, in Edge Definition, check the box marked Smart Radius, and use the square brackets keys to set the brush size so that it's large enough to cover the hazy edge area around the hair. Then simply paint around the edge, overlapping both the model and the background.



When you've been around all the edge area that you want to refine, click OK, and then wait a few seconds while the program recalculates the edge. As you can see here, the result is a good improvement over the first attempt.

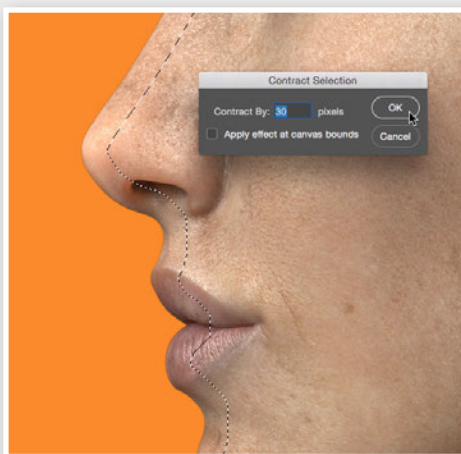


Expand



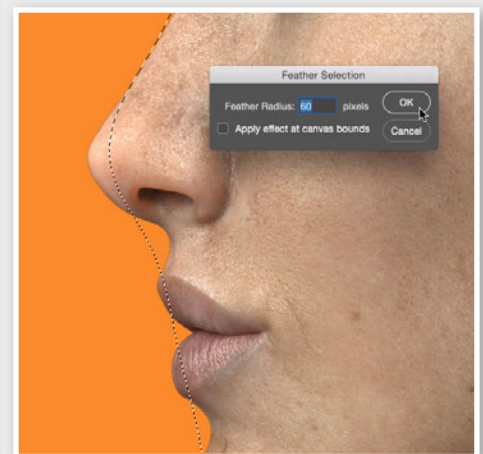
Expand, as the name suggests, expands the size of the selection by the specified number of pixels. The larger the value you expand the selection by, the detail and shape of your original selection will begin to decrease as it enlarges outwards.

Contract



Contract is the opposite of Expand. It shrinks the size of the selection by the specified number of pixels. As with the Expand option, the more you Contract the selection, the original selection shape's detail will become less well defined.

Feather



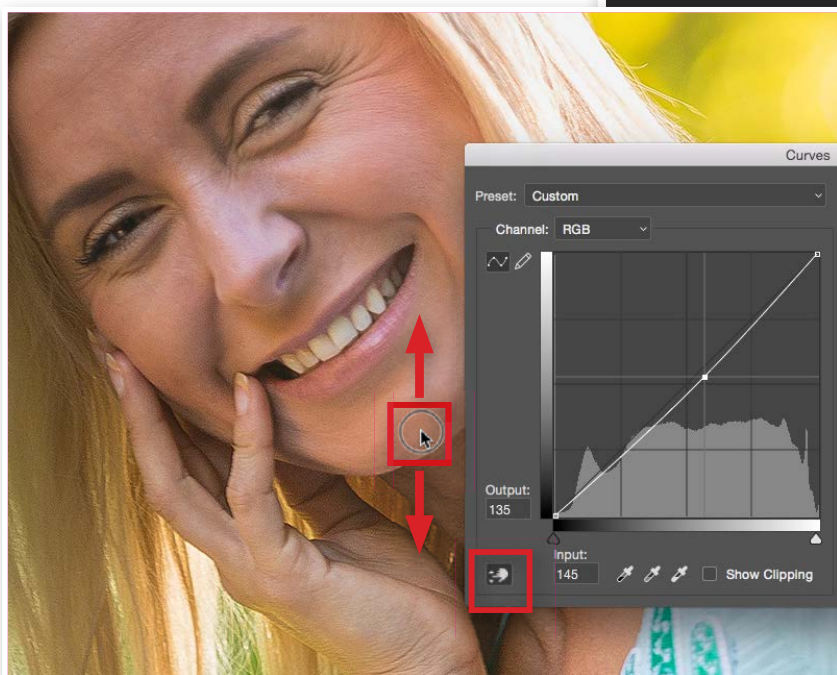
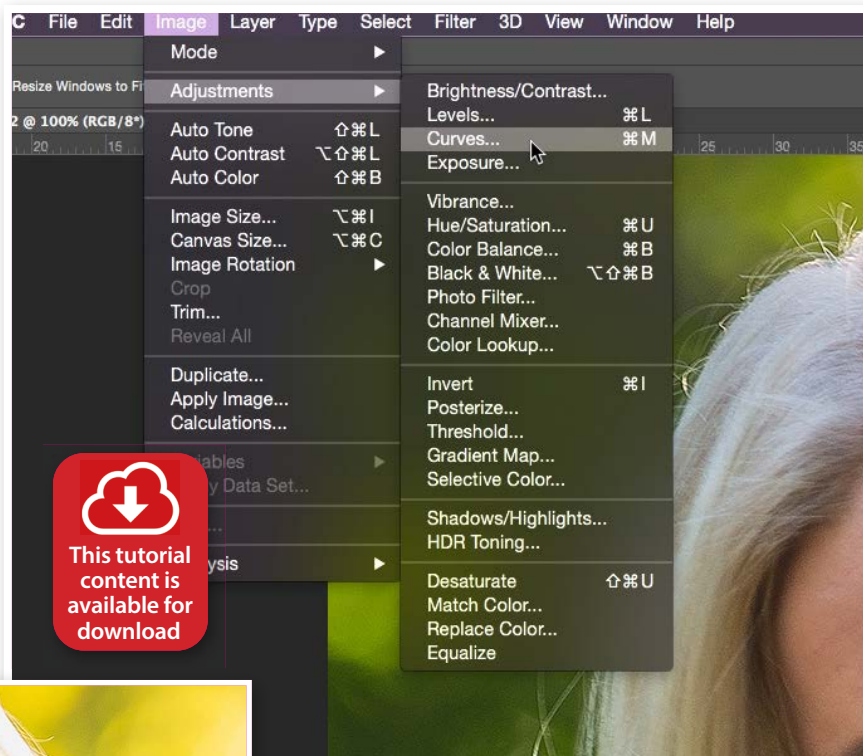
We've looked at Feather before. It softens the edge of the selection by the radius set in the dialog box. It's perhaps the most useful option here, particularly if you're trying to copy and paste the selection into a background. Unlike Smooth, this creates a soft vignette effect.

Curves and Levels

The most versatile way to adjust, brightness and contrast in your digital images

You'll find the Curves function in the Image > Adjustments menu, or use the keyboard shortcut Cmd+M. The Curves dialog looks a bit daunting at first; a graph with a diagonal line running up the middle of it, like a difficult piece of maths homework. It's nothing to be scared of though, and is in fact the most useful and versatile tool for making adjustments to the exposure and tonal balance of your images. We'll use this picture of Ursula as the image to begin with. What we want to do first is crop it down so we just have the main part of her face and hair with some trees beyond.

The Curves graph is a histogram showing the relative strengths of different tones within the image. It shows the input distribution along the bottom of the graph, and the output up the vertical axis. The straight diagonal line from corner to corner indicates that there is a 1:1 ratio between input and output at all tones; the output is exactly the same as the input, as you'd expect. It is by adjusting the line and altering the ratio of input tones to output tones, that we can achieve a number of effects. The left-hand end of the horizontal axis represents the darker tones,



while the right-hand end represents the highlights.

The Curves graph can be manipulated in several ways. You can move the line directly, by clicking on it to place new anchor points and then dragging these points into new positions. You can also use the arrow keys to nudge a selected point up, down, left or right. There's no limit to where the line can start or finish, or where it goes in between, which can lead to some extraordinary results.

In later versions of Photoshop there's an even more useful way to use Curves. Just to the lower left of the histogram you'll see a button with a hand and two arrows on it. If you click this button and then move the cursor over the image you'll notice a point on the line move up and down as the cursor passes over lighter and darker areas. Pick a spot that you want to lighten, click on it and drag upward, and you'll see the tone curve move to match. Using this awesome feature you can selectively lighten or darken pretty much every tone in the image.

Boosting Contrast

Add two anchor points to the tone curve roughly one-third of the way from either end. Drag the shape of the line into a narrow S-shaped curve, slightly raising the upper half of the curve and lowering the lower half of it, leaving the mid-point and both ends in the same positions. This will brighten the lighter areas of the image, while darkening the darker areas, increasing the contrast while maintaining the same overall exposure. It's an excellent way to make very precise adjustments to contrast. Mid-tone lightness can be adjusted by moving the mid-point on the curve up or down.



Emphasising Highlights



To boost the highlights of an image move the highest point leftwards along the top horizontal axis. This increases the brightness of the lighter pixels, and may cause the brighter highlights to be burned out, but the result can be quite pleasing for the right kind of image. This technique works well in monochrome, producing an ethereal high-key image.

Emphasising Shadows



Moving the lowest point on the curve to the right will darken the shadows, but this will lose both shadow and mid-tone detail. This can be alleviated by moving the mid-point of the curve upwards slightly, flattening the upper part of the curve and brightening the mid-tones. This emphasising of shadows is very similar to boosting contrast, but can create a more extreme result.

Brightening Mid-tones

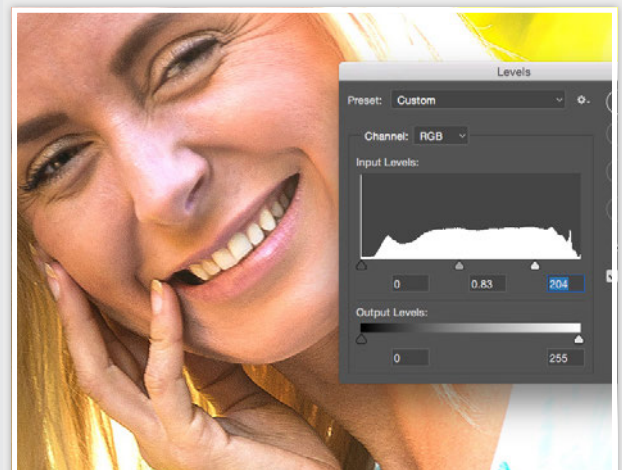
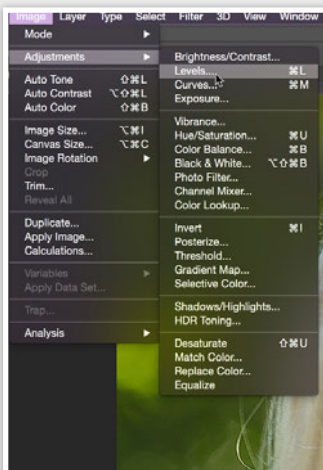


For images with very high contrast sometimes it is necessary to boost the mid-tones to balance the image. To do this, set three points on the tone curve at roughly equal positions along the curve, and then move the middle one upwards to achieve the effect. The other two points act as anchors, keeping the shadows and highlights unchanged. Moving the mid-point downwards has the opposite effect.

Levels

A quick, easy and accurate way to adjust brightness and contrast

Also in the Image > Adjustments menu you'll find Levels, keyboard shortcut Cmd+L. The Levels function is easier to use than Curves, and lets you quickly adjust the black and white points and overall brightness of your image. It's particularly useful for images that contain a lot of light or dark areas, such as dark objects on a light background, because it provides a method for fixing the lightest and darkest areas of the image, while leaving the mid-tones free to be adjusted upward or downward.



Cropping and Resizing

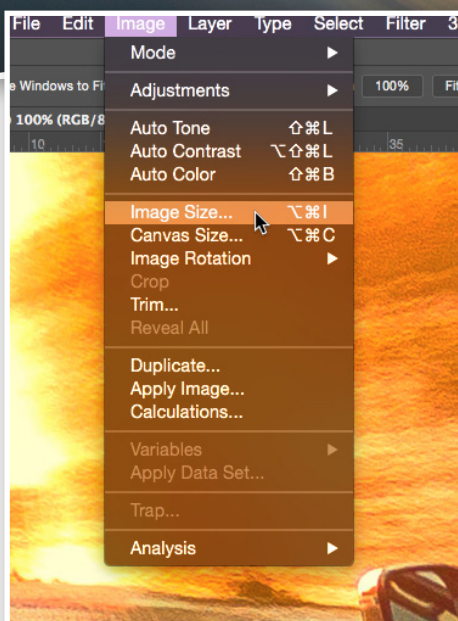
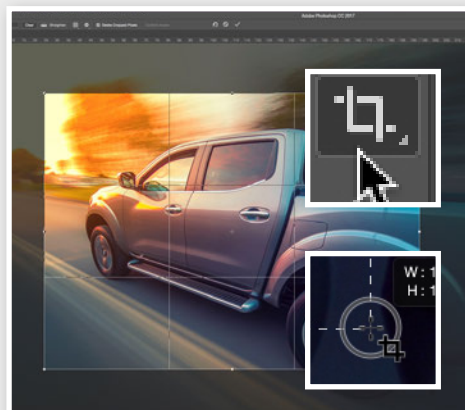
Changing the size of a digital photograph

Sometimes a digital photograph can be the wrong size. Maybe you've got too much of the surroundings in the picture, when you wanted to concentrate on just the main subject, or maybe the whole image is too big, and you need to make it smaller to send via email or publish on a website. Doing both of these things is very quick and simple in Photoshop.

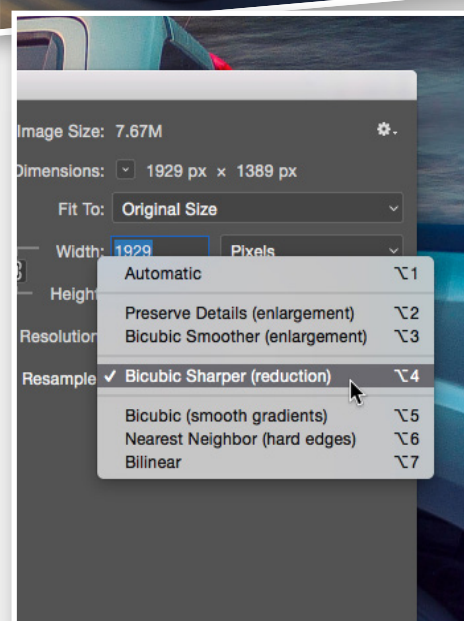
We'll use this wide-angle automotive shot as the image to start with. What we want to do first is crop it down so we just have a tighter view of the truck.

01 The best tool for the job is, not surprisingly, the Crop tool. You'll find it in the tool palette, fourth down from the top. It looks a bit like two set-squares.

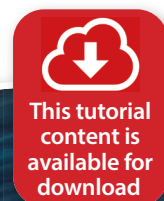
02 The crop tool is very easy to use. Simply click near one corner and then drag a box around the area you want to crop. Don't worry if you don't get the size exactly right first time, because you can adjust the size of the box by using the drag-handles on each side and corner. Press Enter to perform the crop.



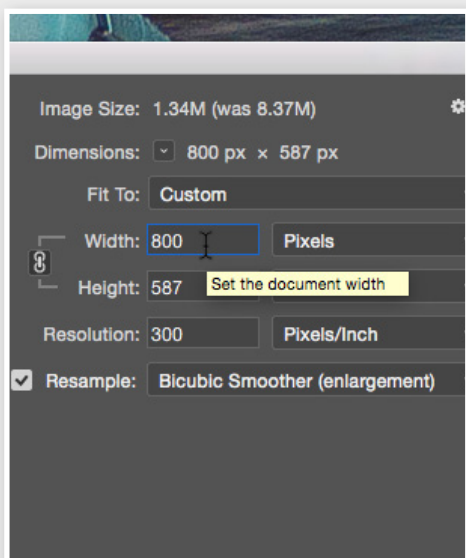
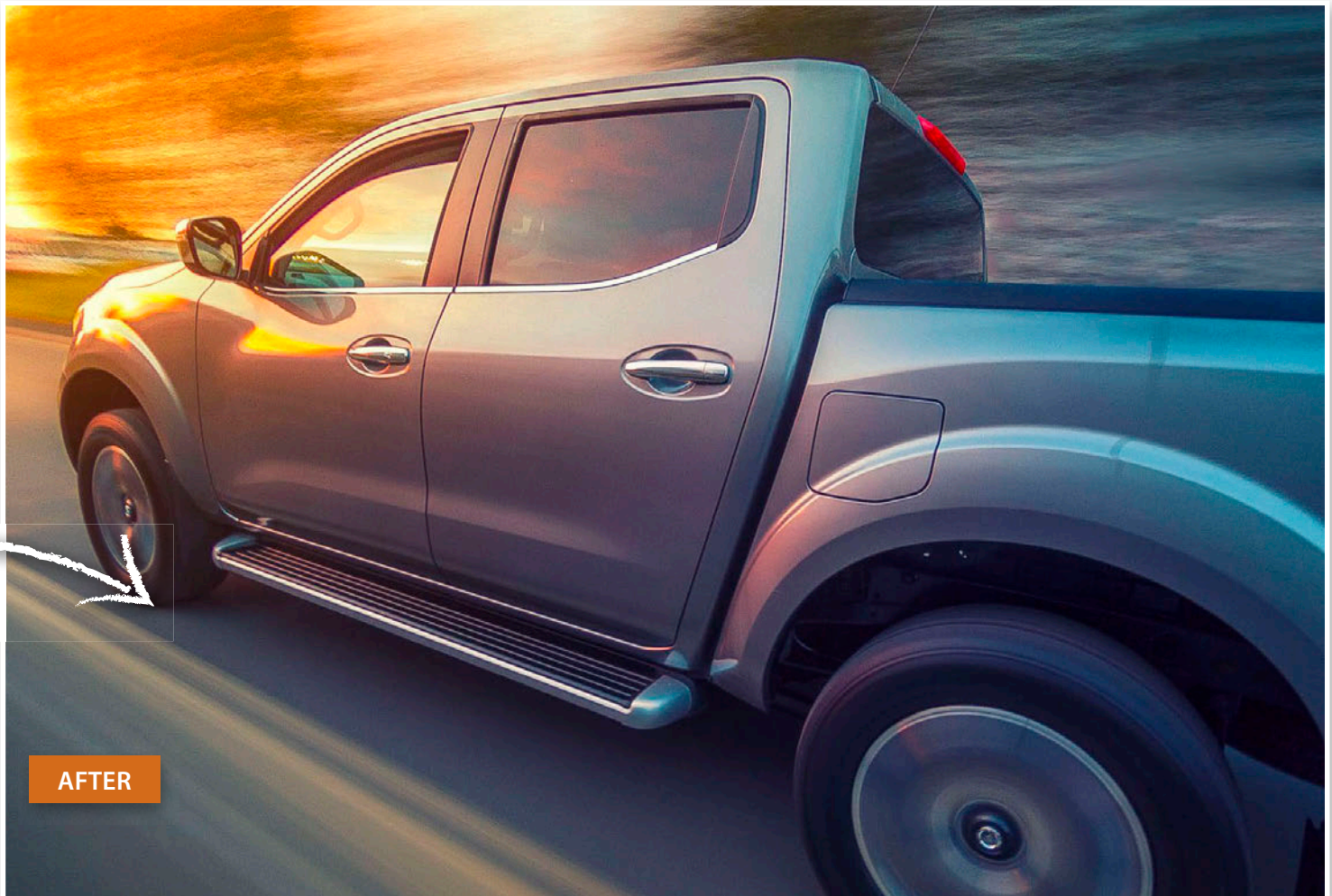
03 Next we'll resize the image. To do this you'll need to get to the Image menu and select Image Size, or use the keyboard shortcut Cmd + Alt + I.



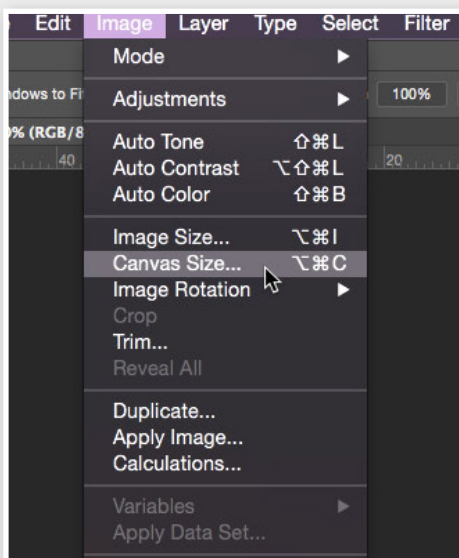
04 In the Image Size dialog box, check the box marked Resample Image, and open the drop-down option panel below it. We're reducing the size of this picture, so select Bicubic Sharper.



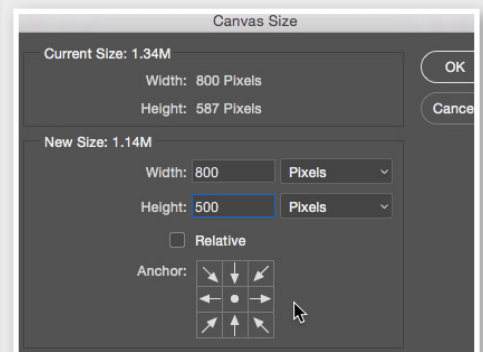
BEFORE



05 In the Pixel Dimensions panel, enter the width that you want your image to appear. If we were preparing this picture for a website, a width of 800 pixels would be ideal. The height will change automatically to keep the aspect ratio the same. Press OK to resize the picture.



06 Next, go back to the Image menu, but this time choose Canvas Size, or use the keyboard shortcut **Cmd + Alt + C**. Canvas Size will allow you to be able to extend the dimensions of your current document by adding extra pixels to the image. Bear in mind this is different than simply resizing the image.



07 You'll see the current size in pixels at the top of the panel, with the width as 800 pixels. In the lower window put in a height of 500 pixels. If your main subject is not in the centre of the frame, you can alter the anchor point by clicking on the arrows surrounding the box below. Click OK to perform the resize. You'll get a warning that you're about to chop off part of the image, but just ignore it.

Now we've resized the image to 800 x 500, a convenient size for display on many mobile devices, and ideal for uploading to a website or sending via email.

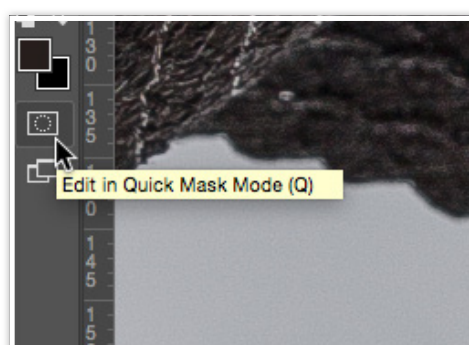
Quick Mask Mode



USEFUL TIP

By varying the transparency of the Quick Mask selection you can alter the effect of the edit you want to perform.

There's a quicker way of editing selections and masks



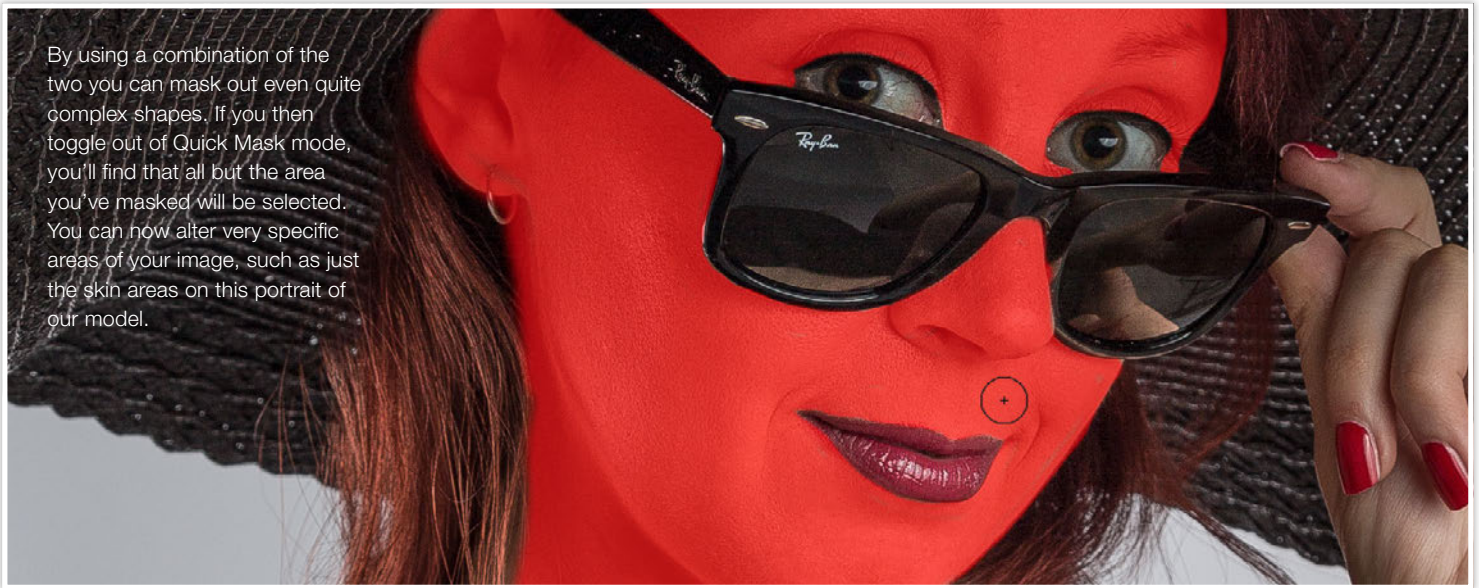
Often when editing in Photoshop it's useful to be able to block off certain areas that we don't want to be affected. For that we use masks, and there are several ways of creating them, but by far the easiest is Quick Mask, a fantastically useful feature that was first introduced in Photoshop 7. Quick Mask lets you create and edit masks and selections quickly and easily using any of Photoshop's pixel painting tools to apply a brushed mask with freehand strokes of the mouse. It's extremely simple to use, but it can produce a wide and varied range of results. You'll find the Quick Mask mode button near the bottom of the Tool Palette. Clicking it will toggle Quick Mask mode on or off.



The most basic way that Quick Mask is used is with the brush tool. When you switch on Quick Mask, you'll notice that the foreground and background colours change to black and white. Select a normal paint brush and start painting in black. You'll see that instead of black, the colour is a translucent red. Paint this colour over the area you want to mask.

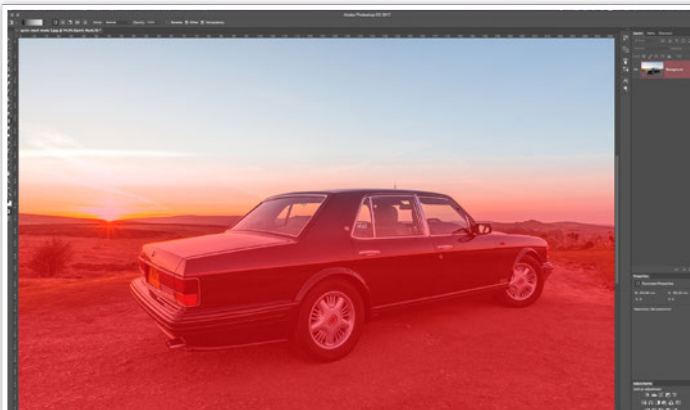
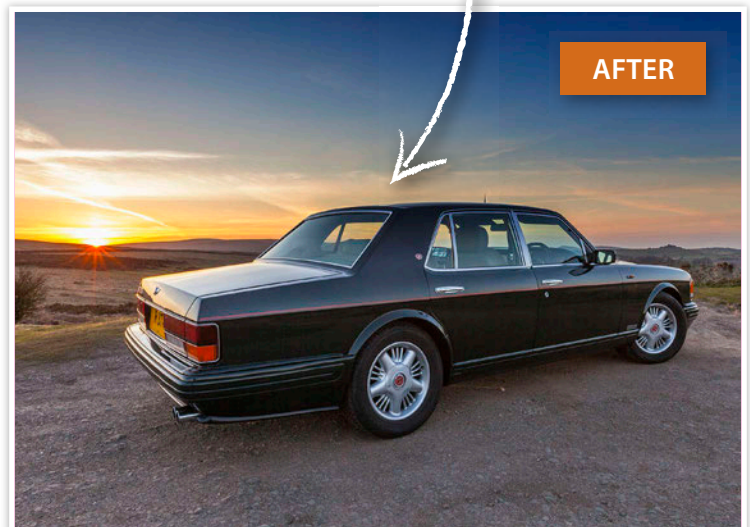
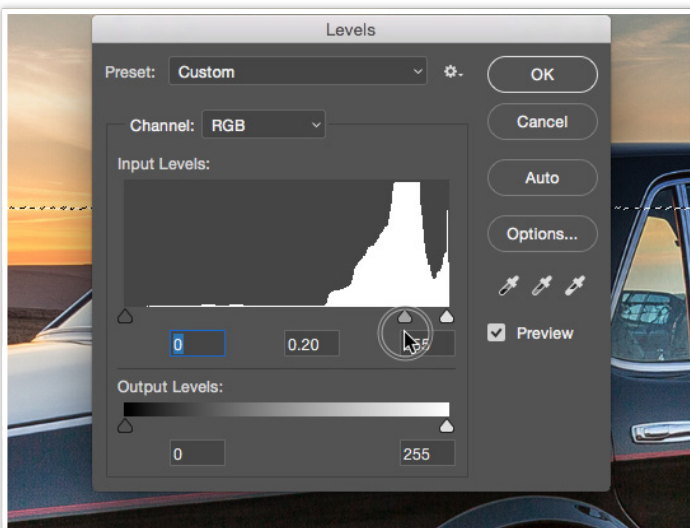
If you make a mistake and overlap your area, simply switch to the white background colour. Painting white will erase the mask.

By using a combination of the two you can mask out even quite complex shapes. If you then toggle out of Quick Mask mode, you'll find that all but the area you've masked will be selected. You can now alter very specific areas of your image, such as just the skin areas on this portrait of our model.



Gradient Mask

There are other ways to apply Quick Mask. For example it can be used with the Gradient Tool to produce gradual mask effects. Simply enter Quick Mask mode, then select the Gradient Tool. Drag a gradient fill over the area you wish to affect, and when you release the mouse button you'll see that the gradient effect is in translucent red, like the painted Quick Mask.

**BEFORE****AFTER**

You can now use this gradient mask to produce graduated effects on the image. For instance, on this picture we can darken the sky and leave the foreground as it is by using a graduated Levels function. The gradient mask ensures a smooth transition from the full effect at the upper edge to zero effect at the lower edge of the picture.

Content-aware Fill and Scale

Photoshop contains image processing technology so advanced it looks like magic

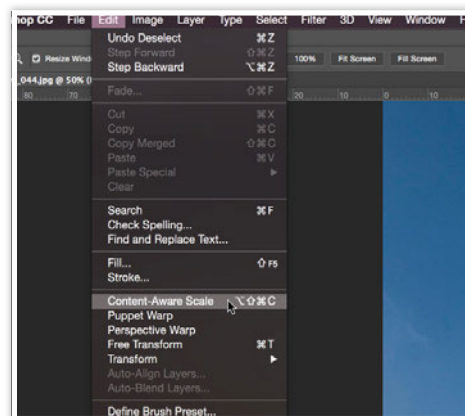
Photoshop CS4 introduced the world to an amazing new technology called Content-aware Scaling, which can resize an image while preserving the proportions of important image elements. It works by analysing the image and removing lines of pixels that contain relatively little information, so that a plain background will be affected before the main subject. The best way to illustrate the effect is with examples, such as this picture of a clock tower.

Content-aware Scaling

01 If we resize the image vertically by 75 percent using the standard Photoshop Image Size menu option, the people and cars will end up looking flattened and out of proportion, since their height has also been reduced by 70 percent.



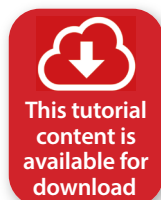
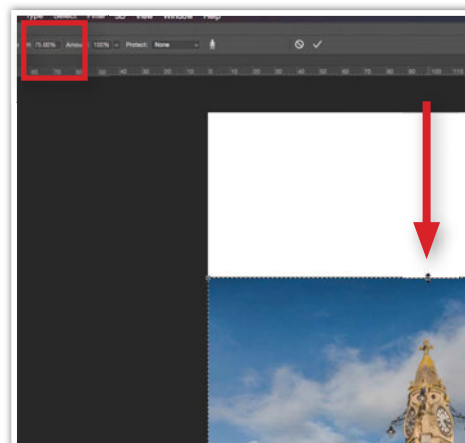
03 You'll find Content-aware Scaling in the Edit menu, but it will be greyed out unless you've converted the image into a layer.



02 However if we use Content-aware Scaling, the clever algorithm detects that the areas that are just sky contain relatively little information, and so this time when we re-scale the image it deletes those pixels first, preserving the more information-rich pixels that hold the details including the people. As a result a 75 percent height reduction leaves the scene looking relatively unchanged, although the area of blue sky has been reduced.



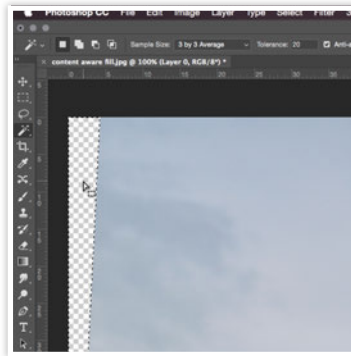
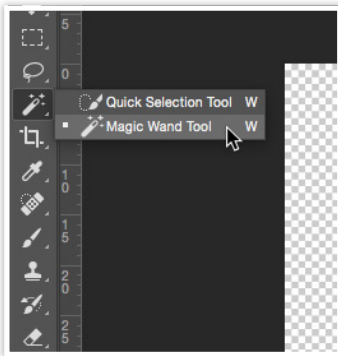
04 You use Content-aware Scaling in just the same way as the normal Image Size option. Either drag the handles on each edge in the direction you want, or directly enter the proportions into the text boxes on the tool options bar. Content-aware Scaling works for both height and width, and can also be used to enlarge an image.



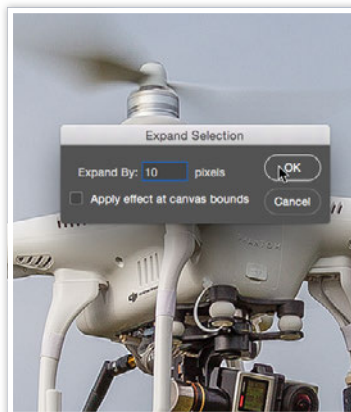
Content-aware Fill and Move

Photoshop CS5 took the content-aware technology further with the introduction of Content-aware Fill. This extremely useful function can fill in blank areas of an image with an approximation of the surrounding area, which makes it particularly handy for filling those triangular edges that are left after rotating an image, for example when levelling the horizon line. Again it's relatively easy to use.

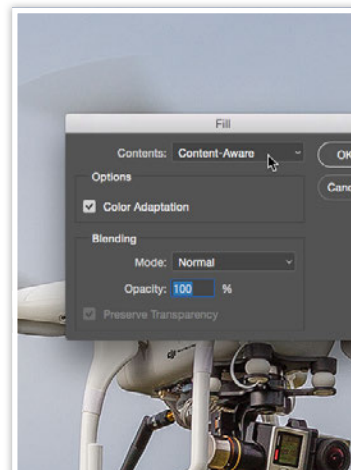
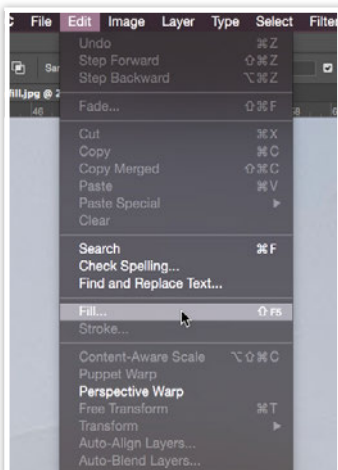
- 01** Starting with an image that has just been rotated, leaving those empty triangles, take the Magic Wand tool and select the plain areas.



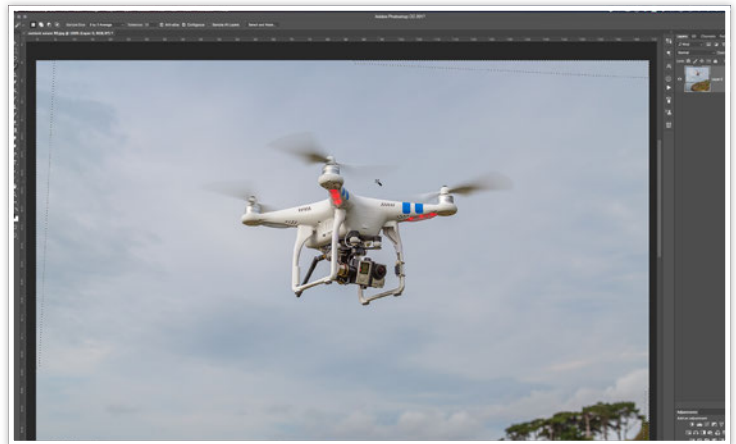
- 02** Next, go to the Select menu and click on Modify > Expand. Increase the selection area by a decent amount; for this picture 10 pixels should do nicely.



- 03** You'll find Fill in the Edit menu. Click on it and you'll see the Fill options window appear. Content-aware should be selected by default, but if not choose it from the drop-down menu.

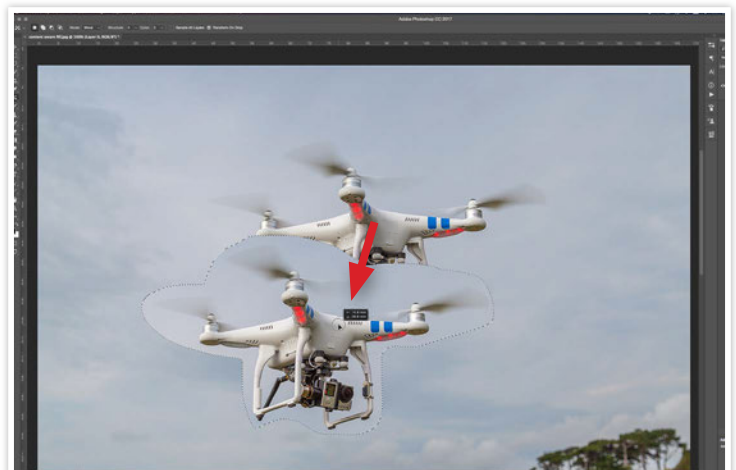
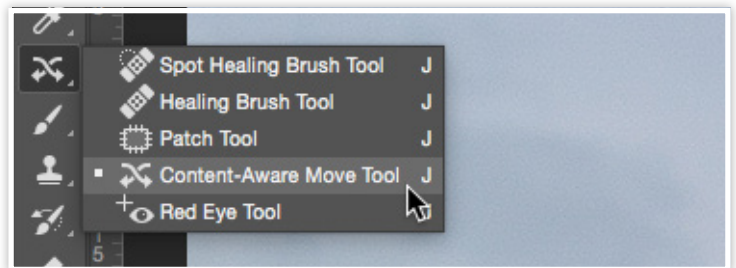


- 04** There will be a short pause while Photoshop analyses the image, but then it will fill in the blank areas with a texture derived from the content of the immediately surrounding area.



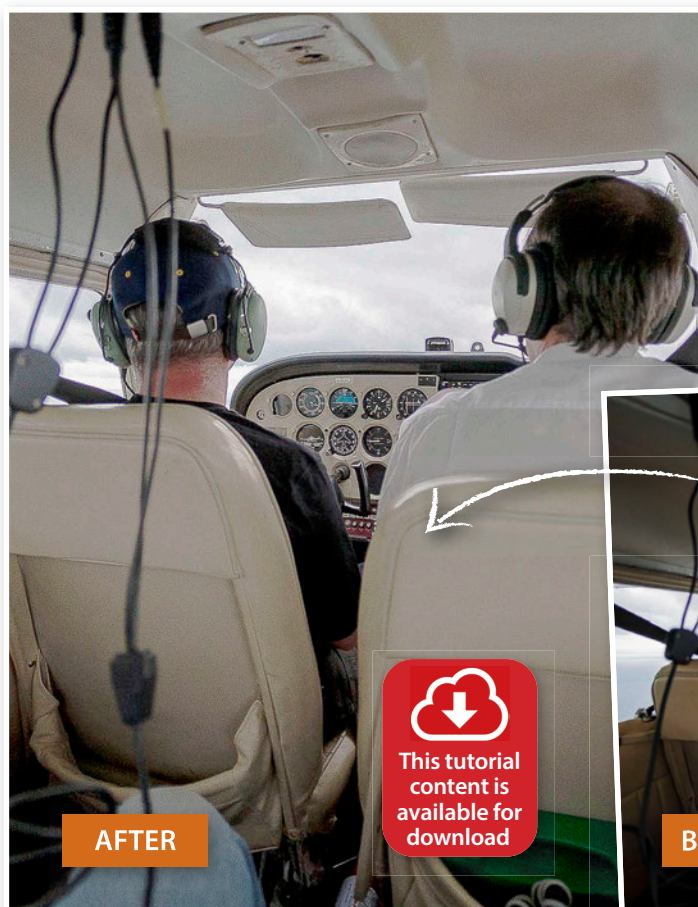
- 05** Content-aware Move is a new feature introduced with Photoshop CS6, and uses the same technology as Content-aware Fill. The idea is that you can select an object on a background and move it to a new area of the image. The Content-aware algorithm should automatically fill in the area that you moved from and also blend in the moved object.

In practice it's not actually much use unless the object to be moved is on a virtually plain background, in which case it's often simpler to use the Clone Stamp anyway, but some people may find it useful.



Adjusting Exposure

Correcting your exposure mistakes is easy with Photoshop

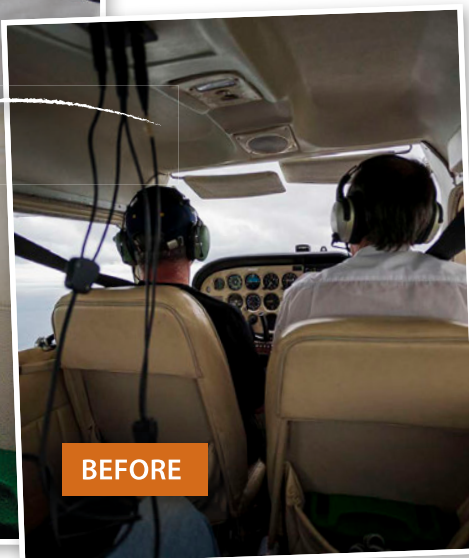


Even with the sophisticated technology found in the light metering systems of modern digital cameras, they are not infallible. Some lighting conditions can confuse them, resulting in pictures that are over or under-exposed.

All cameras have a limited dynamic range, levels of illumination at which they record featureless pure white or featureless pure black. The tonal variation available between those two extremes depends on the quality of the lens, sensor and image processor that captured it, and the bit-depth of the file type used to record it. For maximum bit-depth it's always best to use Raw mode, since this will usually store images in 42-bit or even 48-bit form, capturing greater dynamic range. We'll look at improving the exposure of the more common JPEG images from a compact camera. JPEG images are usually only 24-bit, so have less latitude for any exposure recovery.

Over-exposure tends to be more of a problem than under-exposure, since burned-out highlights contain no detail, but the JPEG format is surprisingly good capturing detail in areas that might initially look like featureless black. As a result it's often possible to rescue shots that are quite badly under-exposed, although this will also amplify any noise in the image, there is a trade-off for image quality.

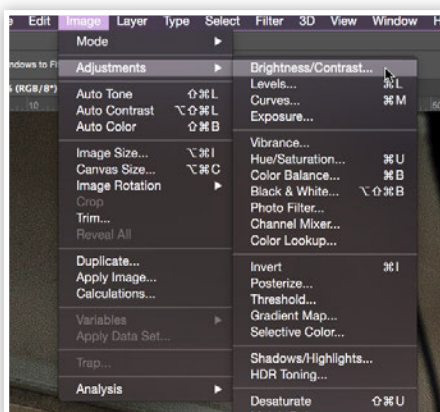
Take a look at this shot. It was an average meter reading taken against quite a bright but featureless sky as seen out of the windows. The pilots are in darker shadow and under-exposed. It would have been a better idea to use spot metering, but we can still rescue it using an image editing program.



Brightness/Contrast

The quickest and easiest way to brighten the photo is to simply turn up the brightness. You'll find Brightness/Contrast as an adjustment layer in the palette on the right, or in the Image > Adjustment menu. The Brightness/Contrast function in recent versions of Photoshop has been changed to improve contrast and tonal balance when adjusting the brightness of your images.

By moving the Brightness slider to the right, the overall brightness of the entire photo is increased, but the new algorithm retains a reasonable balance in shadow tones. You can tweak the effect with the Contrast slider, the result is reasonably acceptable.





Levels

Photoshop offers another way of altering brightness and contrast, but this time with more subtlety and control, by adjusting the Levels histogram. You'll find Levels in the same Image > Adjustment sub-menu as Brightness/Contrast. The Levels histogram is basically a graph showing the proportion of pixels in the image at each colour intensity. The far left-hand end of the graph represents black, and the right-hand end is white, with every tone in

between represented by a spike on the graph. On the bottom axis of the graph are three points, the left representing the black cut-off point, the right the white cut-off point, and the one in the middle representing the midtone point.

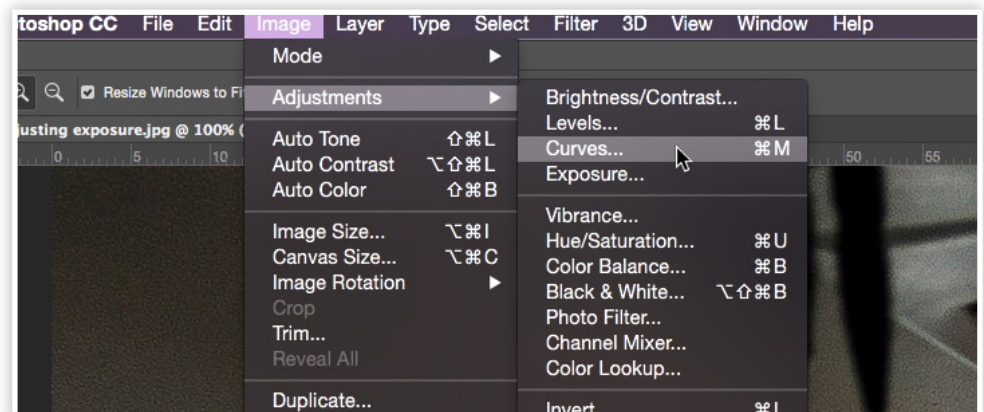
As you can see from the graph our image is mostly shadows and midtones, with little highlights, so we need to brighten some of those shadows into mid-tones. The way we do this is by moving the mid-tone

and highlights points left towards the shadows. This has the effect of bringing out a lot of the detail from the shadow areas without burning out any more highlights. It also leaves the deeper shadow areas intact. It is a far better way of adjusting the exposure of a photograph than simply altering the Brightness/Contrast, however it isn't quite the best way. Adjusting the Levels mid-point is still strictly linear in its adjustment.

Curves

The Curves adjustment option, again found in the Image > Adjustment menu and as an adjustment layer option, is a method of changing the relative brightness of specific tones and ranges of tones within an image, giving precise control over exposure. Learning to use it properly is a core skill in image editing, and will enable you to make precise and subtle changes to brightness and relative contrast not just of the image as a whole, but also of individual colour channels.

Drag the Curves output line around by clicking at any point, then moving the handle that appears. To improve this picture we need to brighten the shadows and mid-tones, while simultaneously darkening the highlights, so we should drag the lower side of the curve upwards, and the upper part of the curve downwards, creating an inverted S-shaped curve. As with many Photoshop techniques, the key here is subtlety. Push the curve too far and you'll ruin the picture, so keep an eye on it as you progress.



USEFUL TIP

As with most Photoshop editing techniques, subtlety is the key. If you push the curves too far you'll lose detail.



Building Your Editing Skills

At this point you will be more familiar with the core elements of Photoshop and understand more about what makes it tick. We're going to take the techniques learnt in the previous section and develop your skill set a little further. Discover more about what makes Photoshop so popular.

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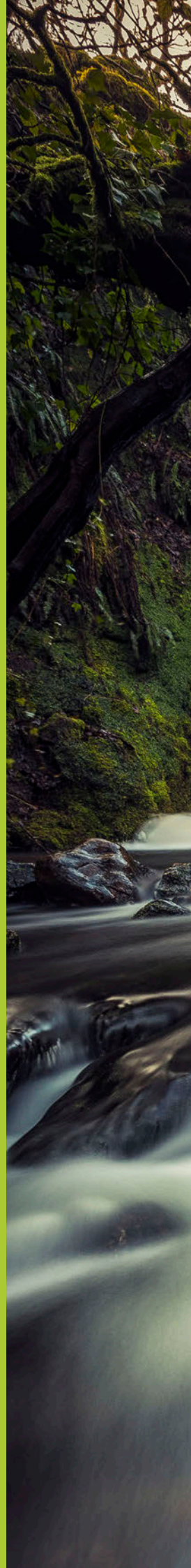
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Contrast and Saturation

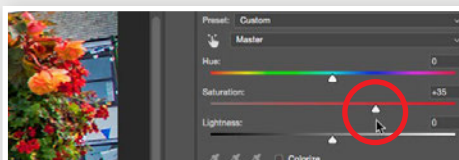
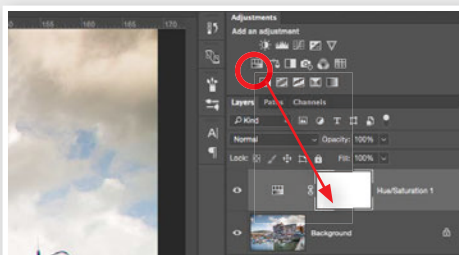
Using curves and blend modes to improve colour saturation and contrast in your digital photos



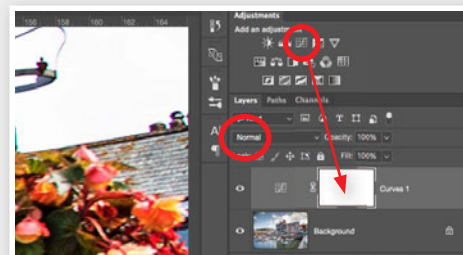
When you take a digital photo of a scene, you are relying on your camera to be able to capture all the colours and tones that you see. Unfortunately most digital cameras simply aren't capable of recording the full range of colours and shades that the human eye can see, so your photo of what was a bright and colourful scene may prove to be a bit of a disappointment when you see it on your monitor. Fortunately there are many different ways to improve both contrast and colour saturation, which might help to restore some of the sparkle to your photos. Let's take a look at some of the alternatives.



01 As an example we'll use this snapshot of Dartmouth. In reality the colour of the scene is much more intense than it looks here, but the digital camera that was used to take the photo was set to a neutral and flat colour mode to capture as much dynamic range as possible. This mode generally leaves images looking a bit pale and lacking contrast and vibrant colour. This shouldn't be a problem as the shot is well exposed and contains plenty of detail that will suit the increase in saturation.



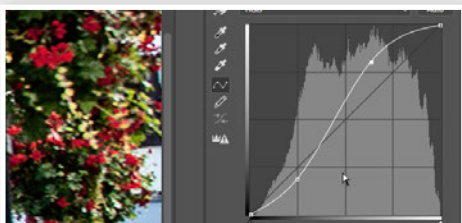
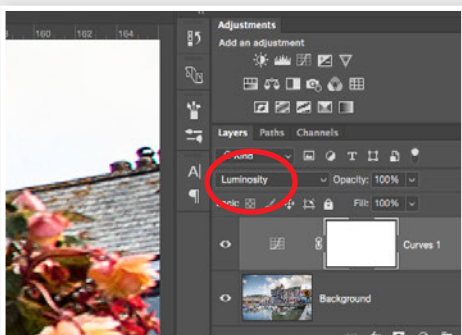
02 The simplest way to improve the saturation is by adding a Hue/Saturation adjustment layer. Like many other parts of the program, Hue/Saturation has been improved in Photoshop, producing a smoother result than previous versions. If you were to boost the saturation by about +45, you'd restore some of the missing colour, but it's a scattergun approach and doesn't offer much fine control. It can also increase noise in shadow areas in JPEG images. Let's look at more options.



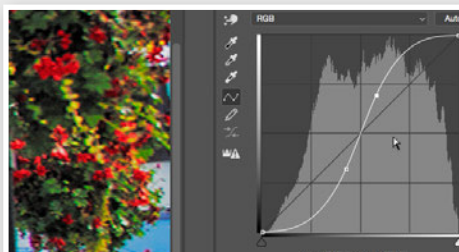
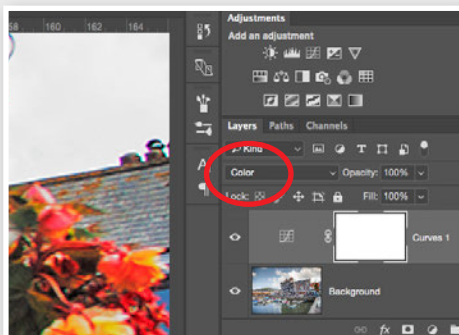
03 A much more controllable way to adjust both saturation and contrast is to use a Curves adjustment layer. We've already looked at Curves in the section on adjusting exposure, but by using Blend Modes we can also use Curves to enhance saturation. In Normal blend mode the curve will change both contrast and saturation. We're using the same S-shaped curve, which boosts brightness at the upper end of the scale and darkens shadows at the lower end.



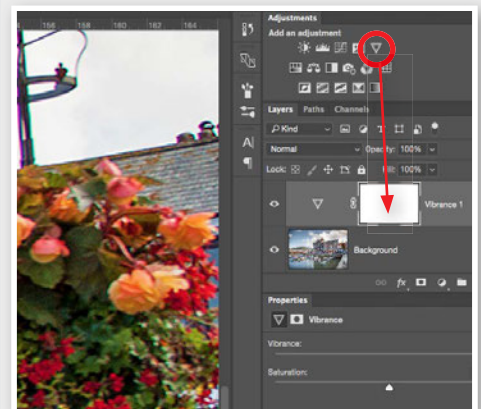
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04 By changing the blend mode to Luminosity, the curve will only affect brightness, so the same S-shaped enhancement curve will improve contrast, lightening highlights and darkening shadows without affecting colour saturation.



05 Conversely, by using a Color blend mode, the S-shaped curve will alter colour saturation without affecting brightness, so shadows and highlights are unaffected. This is great to keep noise under control.



06 Another way to improve saturation is a Photoshop function called Vibrance, which can also be applied as an adjustment layer. Vibrance is a difficult thing to quantify. It is a saturation function, but it works on a graph, affecting the least saturated areas most, and the most saturated areas least. On a picture like this it can help, but it has to be used with contrast enhancement for best effect, which may again cause an increase in noise. This option is less intense than using Saturation. Vibrance is best used when processing a Raw image file.

Adding a Graduated Filter

Graduated filters can improve photos by adding depth and colour to the sky



Photographers use graduated filters placed in front of the camera lens to selectively change the exposure and sometimes the colour of part of a picture, usually to darken the sky to bring out details in the clouds and balance the exposure with the landscape in the foreground. They come in many different shapes, sizes and colours to fit all types of camera system.

As with most photographic techniques, it's possible to duplicate the effect of graduated filters using Adobe Photoshop, and as usual there are several ways to accomplish this. For this example we'll use an image of a sunrise on the Devon coast.



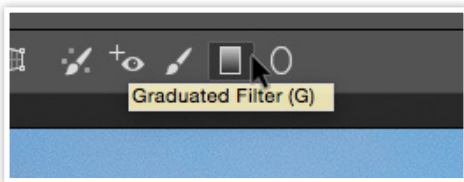
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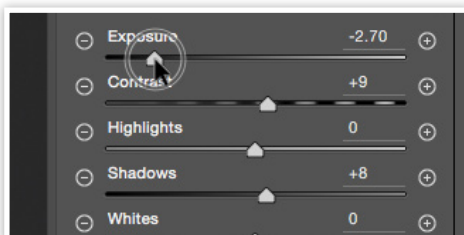
Graduated Filter in Camera Raw

Since this photo was taken using Raw mode, we can use the Graduated Filter tool in Adobe Camera Raw (ACR). ACR is the Raw processing application supplied with each version of Photoshop, and allows you to add the effect during processing. This is by far the best way to do it, since it preserves the maximum amount of detail in the photograph.

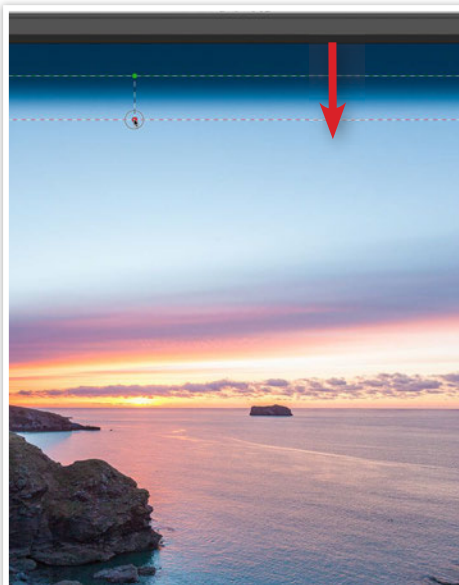
01 When you open the image in Adobe Camera Raw, you'll see a row of tool icons across the top of the main image window. The Graduated Filter icon is to the right.



02 When you click on the Graduated Filter icon, you'll see the control panel on the right of the screen change. The filter can apply many different effects, but the one we want to use is a reduction in exposure. A setting between -2.00 and -2.70 should produce a suitable effect for this picture.



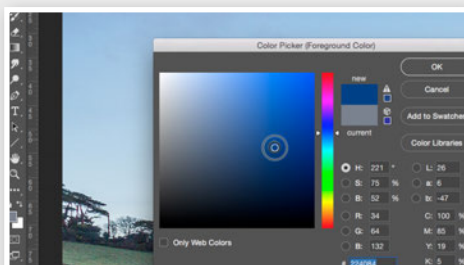
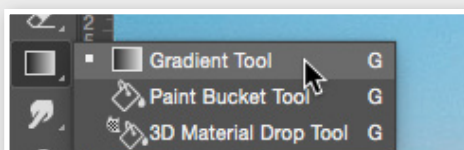
03 To apply the filter, drag a line down from the top of the screen to the horizon line. You'll see a horizontal and vertical dotted line like an inverted T. You'll also notice that you can change the angle of the line by moving the cursor left and right. To constrain the line to the vertical, hold down the Shift key while dragging.



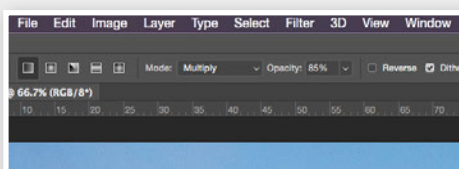
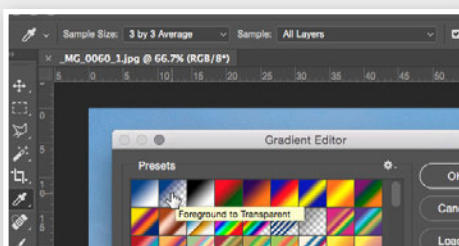
04 The red dotted line marks the lower, least saturated edge of the gradient effect, but there is also a green line at the top of the frame. This marks the top or most saturated edge of the effect, with a smooth gradient between the two lines. If you drag this green line down, more of the image will be at maximum effect and the gradient will be shorter.



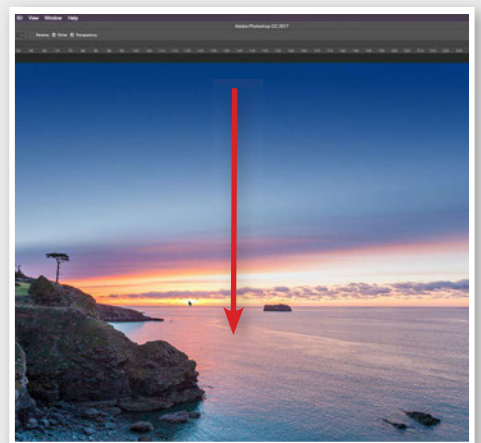
Graduated Filter in Photoshop



01 If your photo wasn't taken in Raw mode, you can apply a graduated filter using the Gradient Tool. To set up the graduated filter, first select the Gradient Tool, then set the foreground colour to blue by clicking on the foreground square and then using the colour picker.



02 Next, in the tool options bar, click on the gradient editor and select Foreground to Transparent, click on the button for Linear Gradient, set the Blending mode to Multiply, and the Opacity to 85 percent. Make sure the boxes for Dither and Transparency are checked.



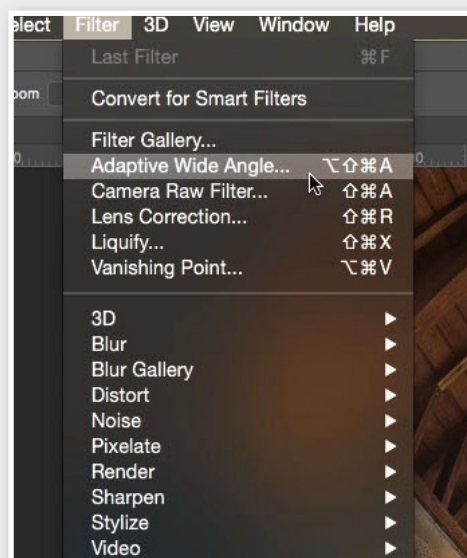
03 To apply the gradient to the picture, start at the top of the frame, click and drag down to the horizon line. If you hold down the shift key it will constrain the line to the vertical. The blue is blended into the clouds making them darker. It's always a good idea to tailor the blend colour to match the sky.

Correcting Lens Distortion

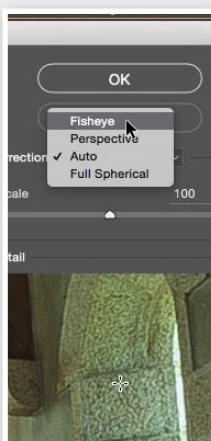
Correct the optical distortion of ultra-wide lenses with Photoshop's Adaptive Wide Angle



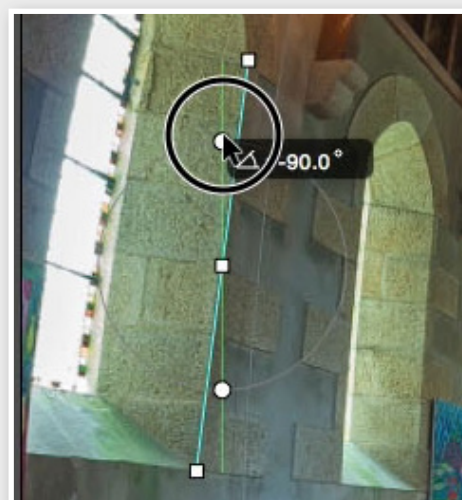
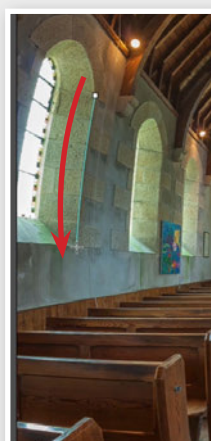
One of the new features introduced with Photoshop CS6 is called Adaptive Wide Angle; this can warp and bend an image to undo the optical distortion common to all very wide angle lenses. We've all seen photographs taken with "fish-eye" lenses. These lenses are called ultra-wide-angle, because the angle of view that they can capture can be as much as 180 degrees. Naturally the ability to squeeze half a room into the same shot comes at a price, and that is extreme optical distortion. Straight and parallel lines appear to be bent, perspective is massively shortened and familiar objects take on almost unrecognisable proportions. In the photo opposite, the straight uprights of the window alcoves and bench seats seem to curve inwards, the walls seem to bulge outwards and the whole effect is quite disconcerting.



01 Adaptive Wide Angle attempts to correct at least some of these problems, and can warp the picture to undo most of the optical distortion. Remarkably it can do all this while still preserving most of the detail in the picture. You'll find Adaptive Wide Angle in the Filters menu.



02 In the Adaptive Wide Angle interface, first select the Constraint tool from the panel on the upper left of the main screen, and select Fisheye from the Correction drop-down menu. Pick one of the vertical lines, in this case one of the stone window alcoves, click near the top of it and drag a line down the length of it. You should find that the line will automatically curve to follow the line, but you can drag the control handle in the mid-point of the line to match it up to the curvature.



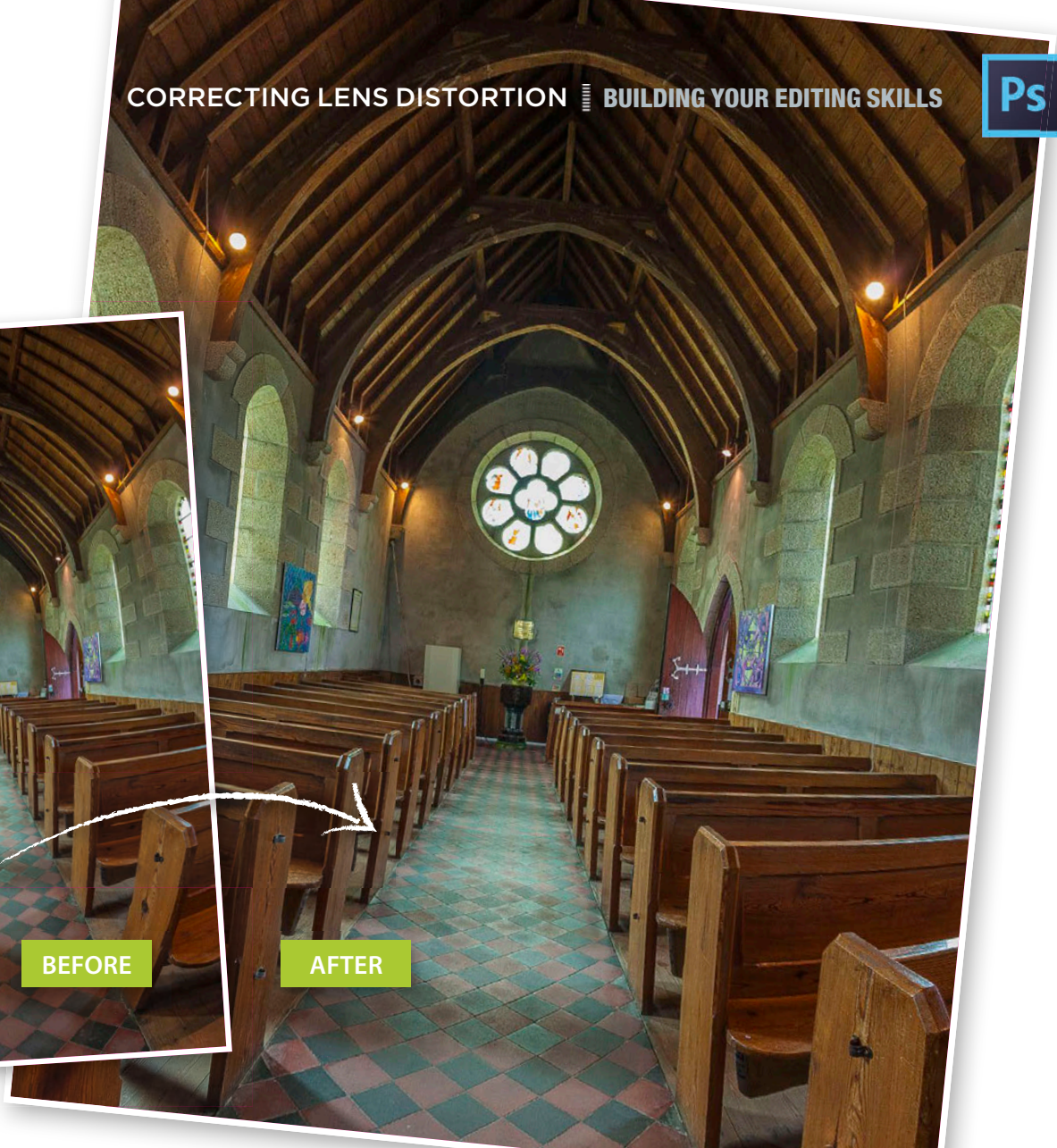
03 The line will automatically warp the picture to make the curved line straight. You'll see that there is a circle overlaid on the line, with two more control handles where they intersect. You can drag these handles, rotating the line to bring it into a vertical position. If you hold down the shift key it will automatically snap to vertical right away.



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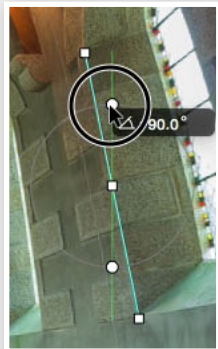
BEFORE



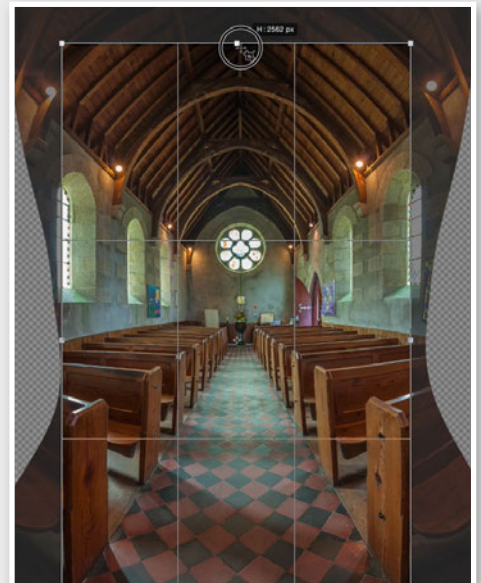
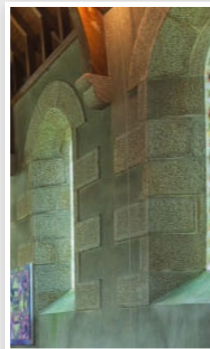
AFTER



04 Pick a line on the opposite side of the picture and repeat the process, dragging a line down the upright of the stone wall. This too will automatically straighten up the line.



05 Again, drag the handle on the circular line to move the upright into a vertical position. If you've done it right the vertical curvature distortion of the image should now be looking better. You may notice that the correction isn't quite perfect; there may still be some slight curvature of the various uprights and horizontals, but it's certainly a great improvement, and the vertical structures are much straighter. You can carry on and try to correct more of the curvature, but be aware of how much warping is being applied to the image to straighten everything out. Click OK when you're done to finalise the correction.



06 The process will have left some empty spaces at the edges of the image, so it will be necessary to crop the image to remove these. This does mean losing some of the original photograph, but the result is much less distorted than it was at the start.

Panorama Stitching

Get the whole of the landscape into one ultra-wide picture

Many digital cameras have a feature known as “Panorama Stitching” or “Panorama Assist” mode. It’s there to help with a particular type of photograph, or rather series of photographs, in which successive shots are taken as the camera is panned across a scene. After you take the first shot, the camera shows the edge of that shot superimposed on the monitor so you can match up the position of features in successive shots, producing a long continuous photo showing an entire panoramic scene. You can also shoot your pan sequence manually, especially if you have a tripod handy to keep the camera level. When it’s done well the results can be breathtaking, but getting a satisfactory result isn’t as easy as it looks.

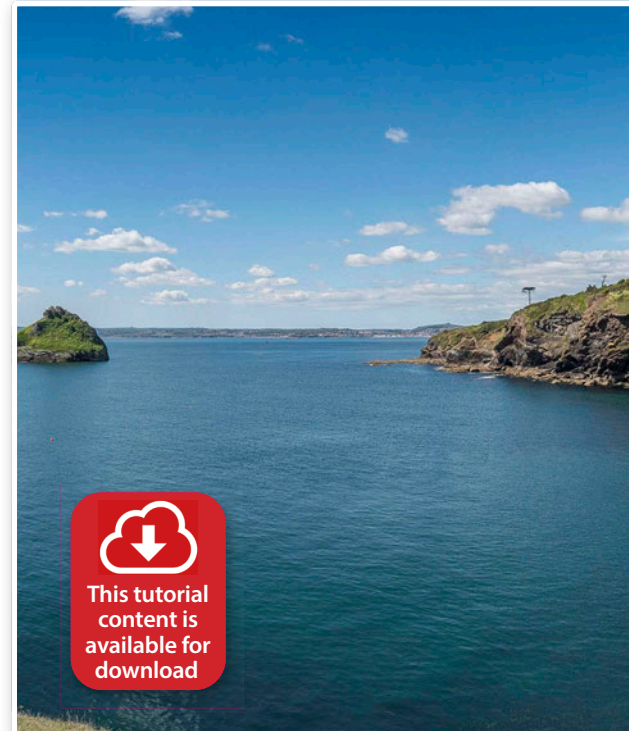
BEFORE

For the purposes of this tutorial we’ll use this example of a four-shot sequence taken down on the Devon coast.

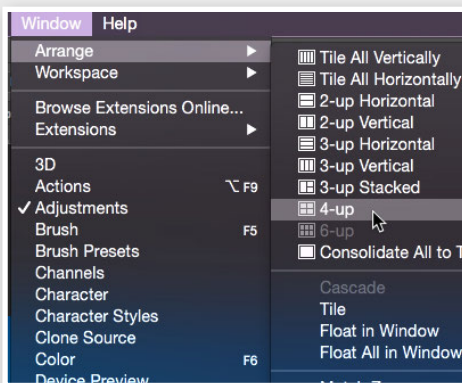


USEFUL TIP

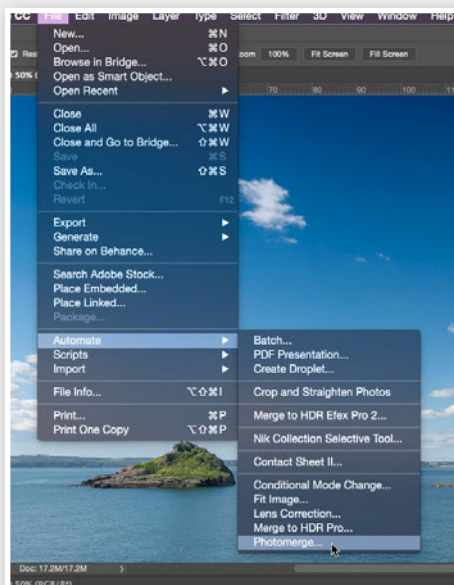
If shooting a panoramic sequence manually, always make sure that you have a large enough overlap between each shot you take. For best results, it is advisable to have about 25% of the previous frame visible each time.



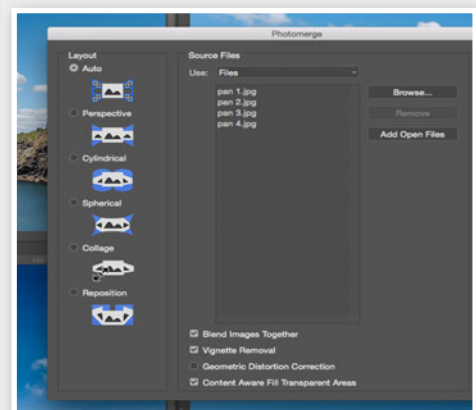
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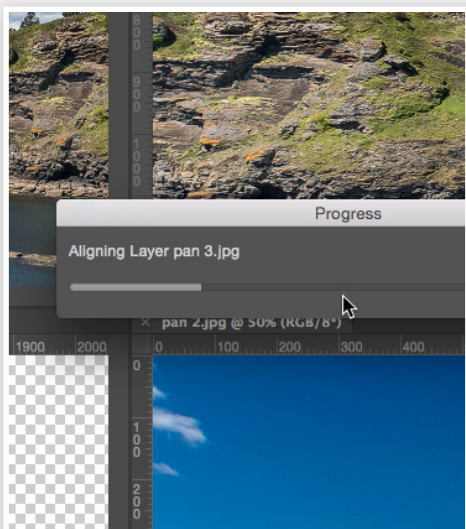
01 Having downloaded our panorama pictures from the camera into a folder on the PC, it’s time to fire up Photoshop and stitch them together into a panorama. Locate the files on your hard drive and open all of them in Photoshop. If you go to the Window > Arrange menu you can view them all at once in 4-up Horizontal mode. Not essential, but it gives you a chance to make a last-minute exposure check.



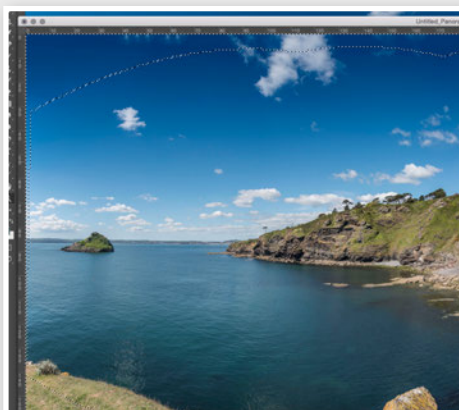
02 In Photoshop you’ll find Photomerge in the File menu under Automate, along with several other automatic processes.



03 The Photomerge window offers a number of options for how to arrange your panoramic shots. For a simple landscape panorama like this the Auto option should work fine. Click on the Add Open Files button to add the three shots to the Photomerge list, and check the top two options and the bottom option to attempt to fill blank areas with the Content Aware tool.



04 Once you click OK the merging process starts, and it is completely automatic. It will take a while to complete, possibly quite a long while if you have a slow computer and/or very large image files.



05 Once the Panorama has been rendered, you'll see that there are areas where the program has had to warp the pictures to correct for perspective. This is where the Content Aware Fill tool will have attempted to add something that looks a bit like sky and fields. Depending on how well the fill works, you can always crop out these areas.

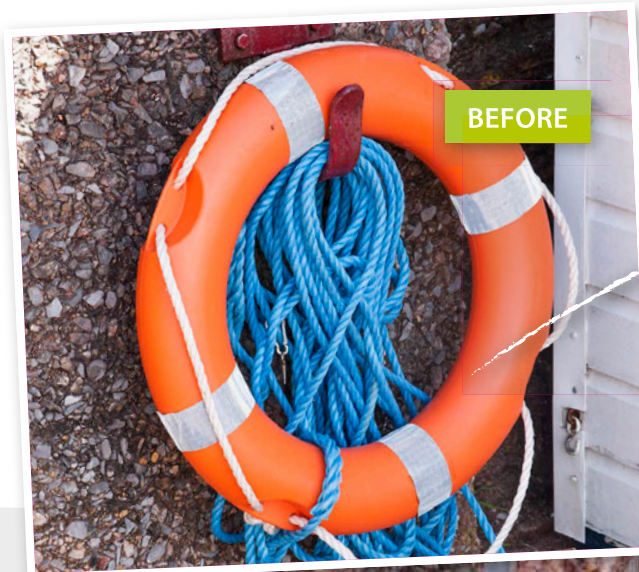


06 You can also use the crop tool to straighten out any slight tilt in your horizon, but hopefully you won't need it. The finished result should look something like this.

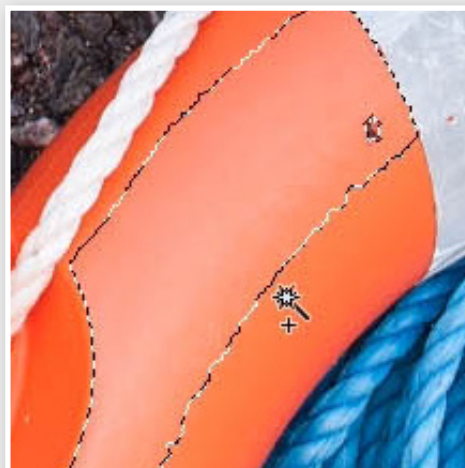
Colour Replacement

Swapping one colour for another

One relatively simple operation that you can do in Photoshop is to replace one colour with another. By using some of the selection tools we looked at earlier, along with the Hue/Saturation controls, we can change the colour of individual objects in our photos, such as replacing the colour of the lifebuoy in this shot.

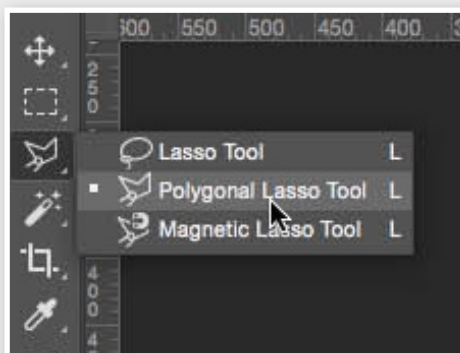


01 Selecting large areas of the same colour is one of those few occasions where the Magic Wand tool is actually useful, so we'll use it as a starting point here. With a tolerance setting of 20 it should be able to pick out the buoy ring without too much trouble.



02 With the Magic Wand, it's best to add a bit at a time.

Click on an area that's a mid-tone for the total area you want to select, and you'll find that the wand tool will select an area around it. The size of the selection will depend on the tolerance setting. By holding down the Shift key and carefully clicking on areas around your starting selection, you can add more areas. If the wand selects part of the background, use Cmd+Z to undo that step, and try again more carefully, possibly adjusting the tolerance downwards if it keeps happening.

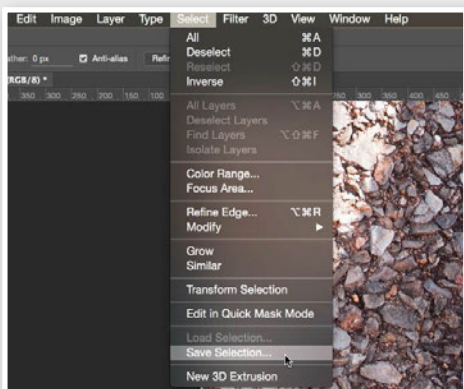


03 When you've reached the limit of what you can usefully select using the Magic Wand tool, you can finish your selection using the Polygonal Lasso tool. By setting the Feather to zero you can produce a sharp-edges selection. Alternatively, use the Selection Brush tool.

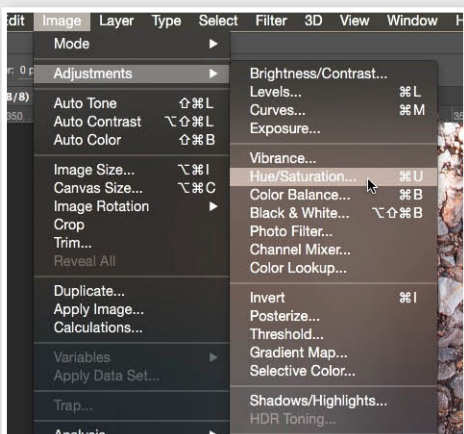


04 Again hold down the Shift key to add more areas to your selection. If you need to remove any areas from the selection, such as the rope and metal hook, you can subtract by holding down the Alt key and going around them with the Lasso.

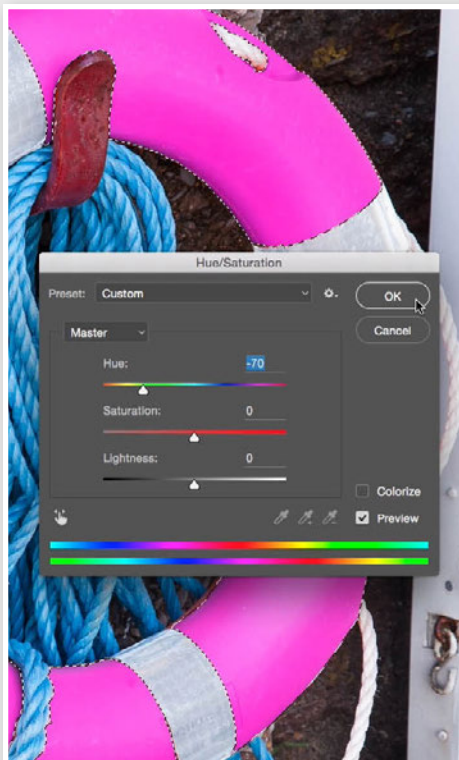
AFTER



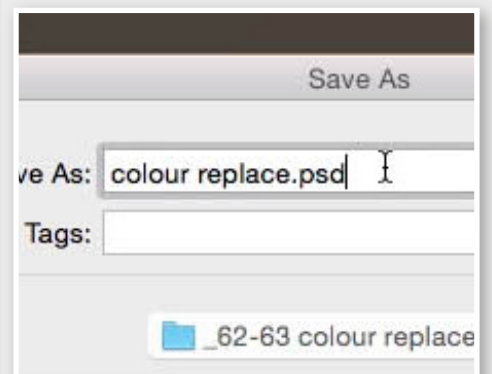
05 When you've selected all the bits you want to repaint, you can save the selection for later use, to save you doing all that work again if you change your mind.



06 Although there are several filters we could use at this point, the most versatile way to change the colour of the selected area is the Hue/Saturation/Lightness option. This is common to most editing programs. In Elements you'll find it in the Enhance menu.



07 You have three options under the Hue/Saturation setting. Leave the Lightness slider in the middle position to preserve the overall brightness of the object, but you can experiment by moving the Saturation and Hue sliders around. As you move the Hue slider, the colour will start to shift through the spectrum of colours, or you can produce subtle colour changes with lower saturation settings, or say to hell with subtlety and go for broke with full saturation.

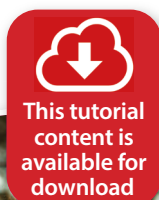


08 When you're happy with the result, or when your eyes start bleeding, you can clear the selection by using the keyboard shortcut Cmd+D, and then save the result. When you save the final image as a .PSD file in Photoshop or Elements, the selections are saved as well, embedded in the file.

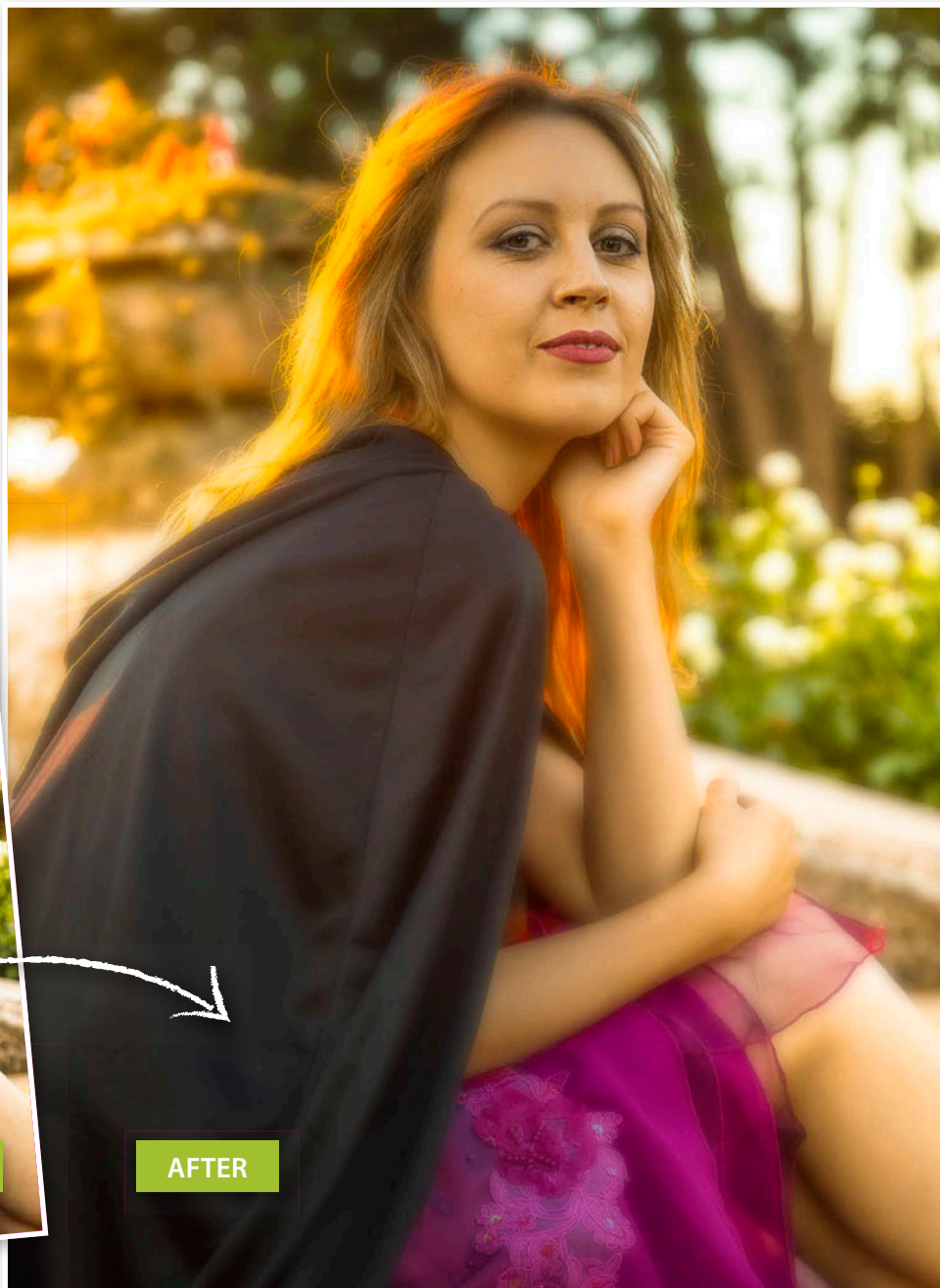
Soft Focus Technique

Adding a soft focus effect gives your portraits a romantic feel

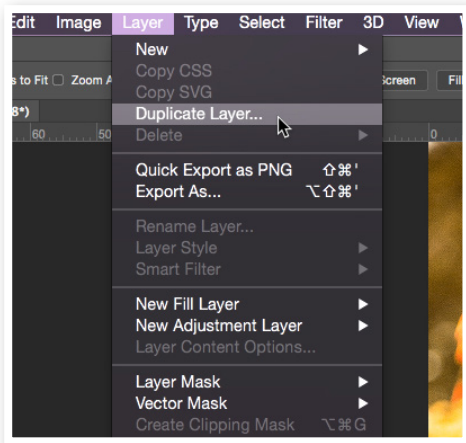
Soft focus is an effect used widely in television and in the movies, as well as in many commercial and advertising photographs, for producing a dreamy romantic look. It's also a big favourite with wedding photographers. In traditional photography the effect is achieved with a special filter fitted over the camera lens. Many digital cameras now include soft focus as a digital effect, but we can produce the same results in Photoshop with ease using Gaussian blur and layer transparency.



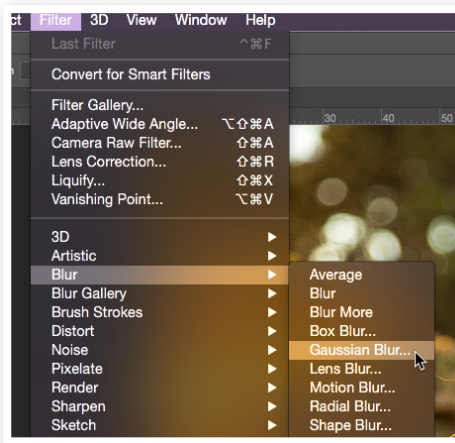
BEFORE



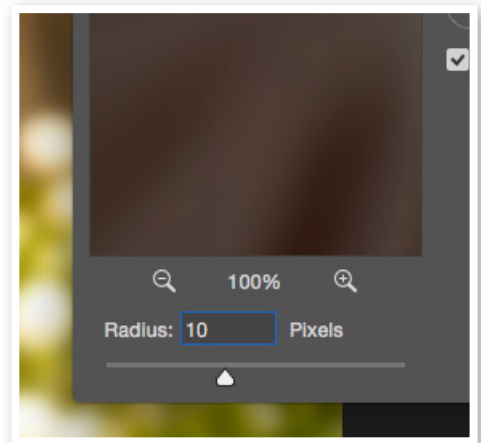
AFTER



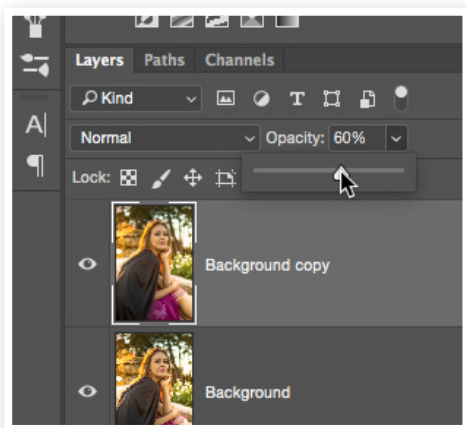
01 The first step is to turn the picture into two identical layers. To do this, go to the Layer menu, and select Duplicate Layer. Don't worry about naming this layer, it's the only one we're going to make.



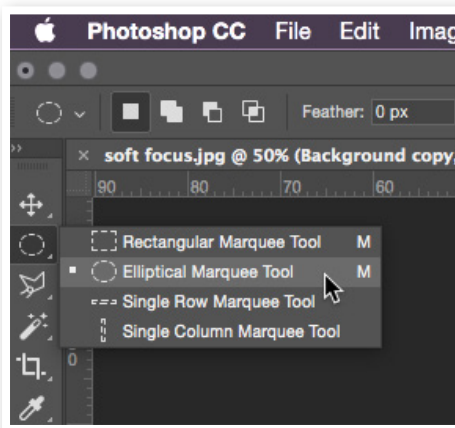
02 Next, go to the Filter menu, move down to Blur, and select Gaussian Blur. This is a special type of blurring that can be adjusted to produce certain effects.



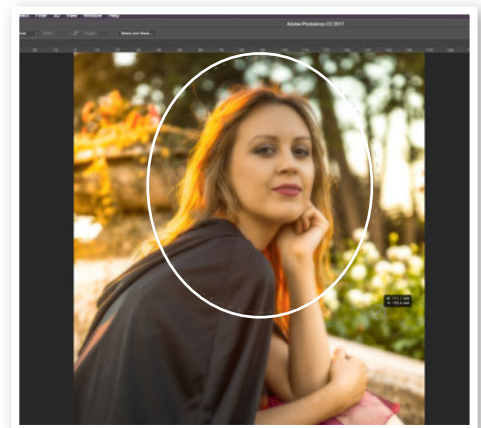
03 We don't need very much blurring to produce the soft-focus effect, so for this portrait shot, set a radius of 10 pixels. You may need a smaller radius for smaller images, but keep it subtle.



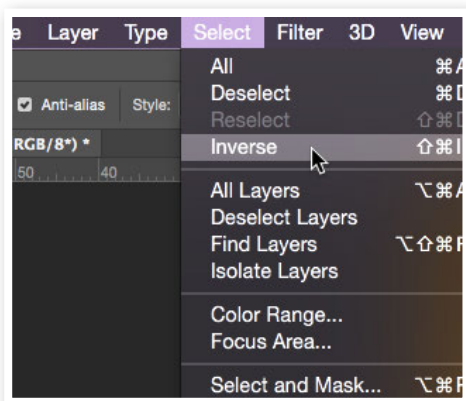
04 In the Layers palette, set the transparency of the blurred layer to around 60 percent. This lets the still-sharp lower layer to show through, mitigating the effects of the Gaussian blur. If you feel it is too blurred, you can drop the Opacity down to about 40% if you like.



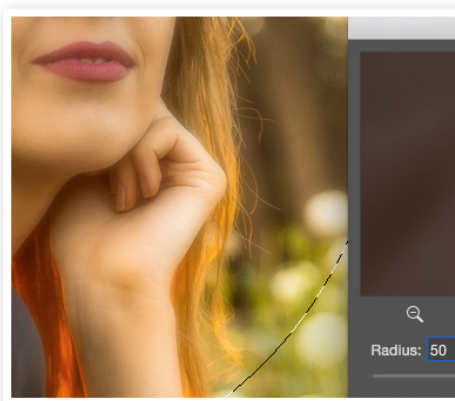
05 We can further enhance the look of the picture by adding an elliptical vignette of further blurring around the subject. This is a technique that portrait photographers have been using almost since the invention of photography. First, select the Elliptical Marquee tool.



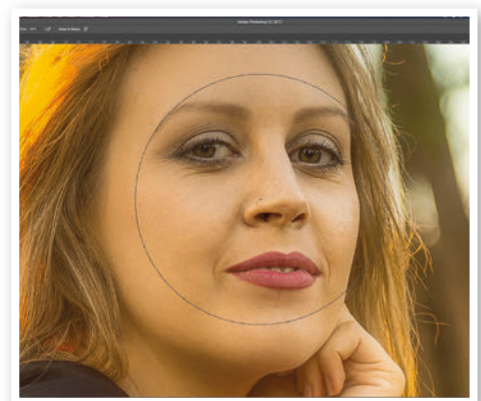
06 Drag an elliptical marquee selection around the portrait subject. This may take a few tries to get right, so use Cmd+D to de-select if you get it wrong. When you're happy with it, go to the Select menu and click on Feather. Set a radius of about 40-50 pixels.



07 Next, select Inverse from the Select menu to change the selection so that everything outside the ellipse is selected.



08 Now add a Lens blur filter to the selection, giving it a slightly bigger radius than before; around 50 pixels should do the job.



09 One final option is to use a soft eraser and erase areas of the blurred layer around your subject's face to keep it sharp if you prefer.



What is Raw Mode?

A Raw file is an image format for digital cameras that offers a higher quality than standard jpeg files. It is an uncompressed and unprocessed readout of the camera's sensor and is essential in creating the best possible photos. Photoshop offers you a digital darkroom where these files can be processed.

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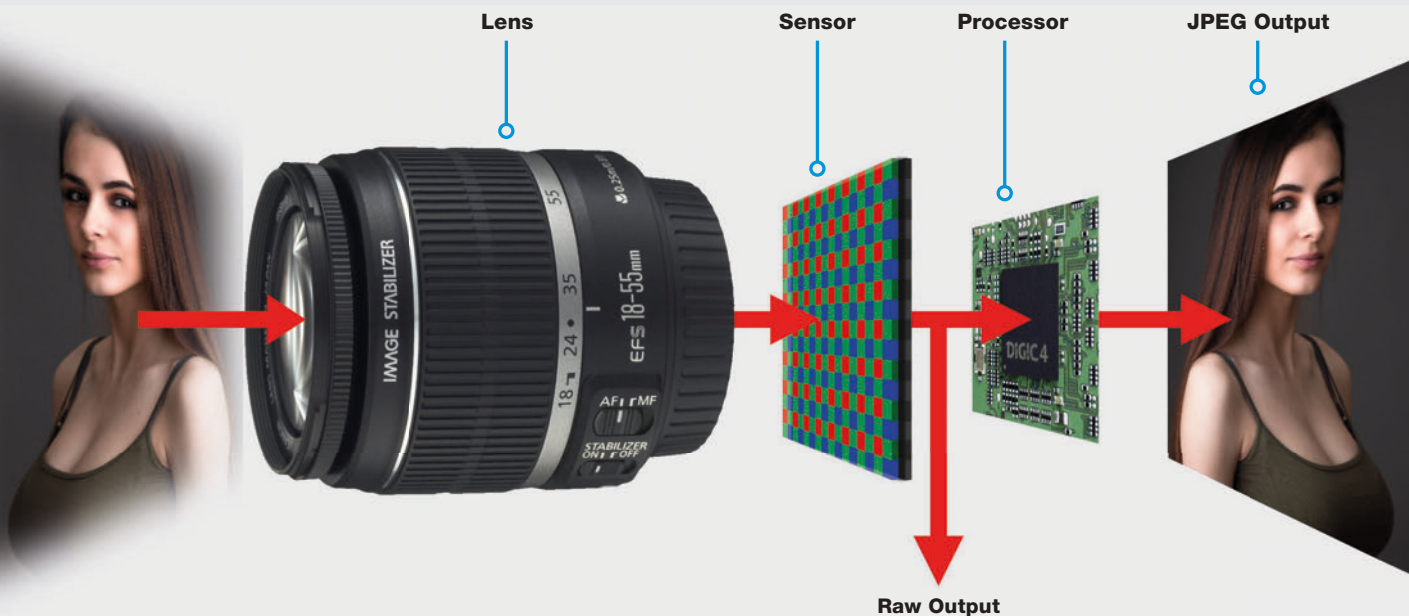
Processing Raw Files

For the best possible quality, shoot in Raw mode

All digital SLRs and Compact System Cameras, and most of the better compact cameras, have a shooting option called Raw mode. You'll usually find it in the menu as an option under image quality. Raw mode offers greatly improved image quality over the usual JPEG image file format, and is recommended for all serious photographers. Let's take a closer look at Raw mode, find out how it works and see how it can help you produce better photographs.



What is Raw Mode?



Raw mode is a special image recording option that is available on digital SLRs, Compact System Cameras, and other high-quality digital cameras. If your camera has this option, you have access to much higher image quality than the standard JPEG file format.

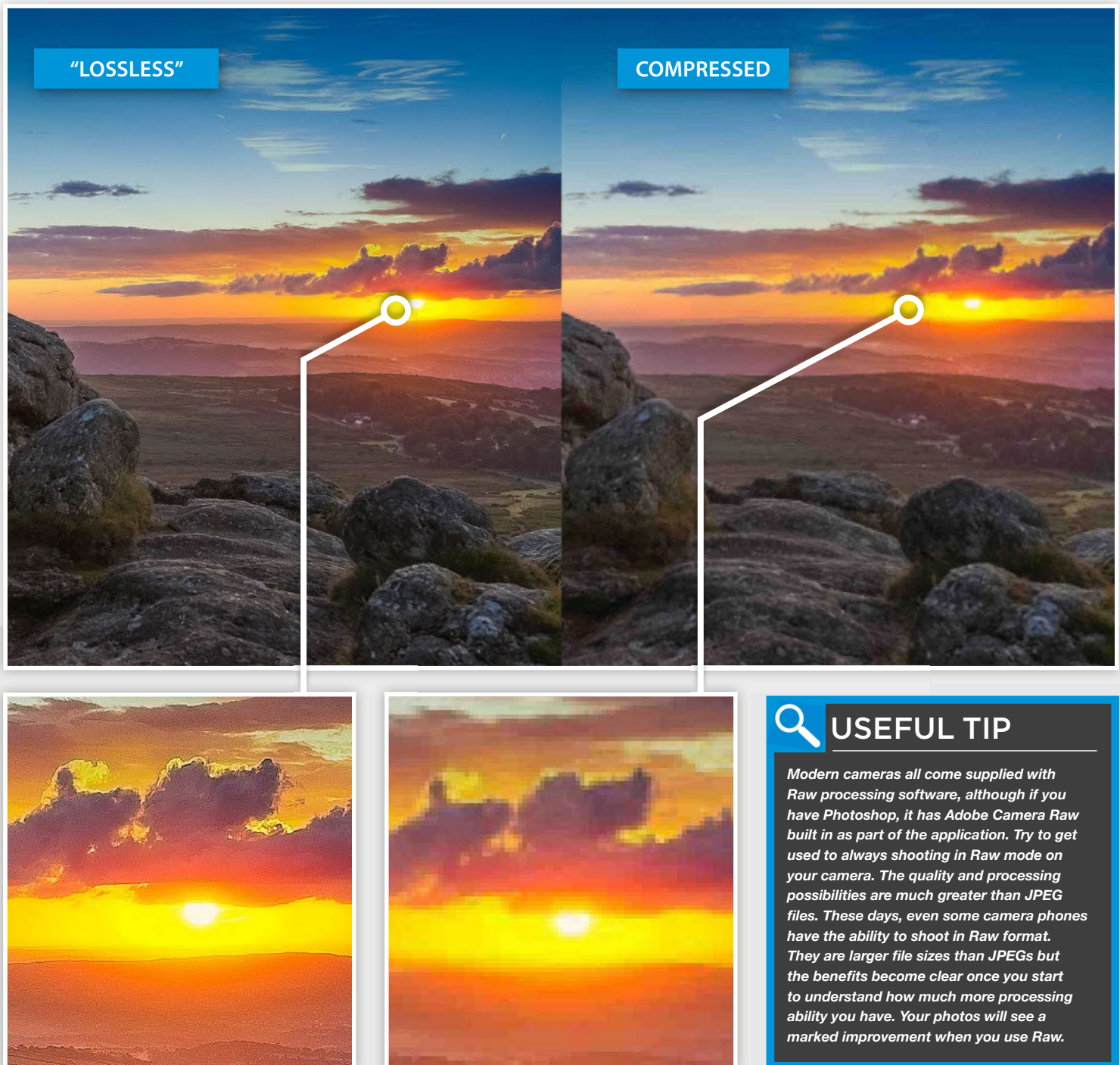
Essentially, Raw mode is just what it sounds like. It's the raw data pretty much straight from the camera's sensor. In a digital camera the photographic image is, as I'm sure you're aware,

captured by an electronic image sensor. This sensor has millions of tiny photocells that produce a charge when they are exposed to light; the brighter the light, the higher the charge. Digital camera sensors don't record the colour of the light hitting them, just the brightness, so a special mosaic of coloured filters is placed in front of the sensor, called a Bayer filter.

Naturally, the image generated by the sensor and filter wouldn't make much sense to the unaided

eye, so the signal from the sensor feeds into the camera's image processor, a combination of computer electronics and software which turns the brightness data from the sensor, adjusted for the colours in the Bayer filter, into a full colour digital image that you can view and print.

Part of that process includes reducing the bit-depth of the basic image data (the amount of 1s and 0s used by a computer to describe each pixel), usually from 36-bit (12 bits per channel)



USEFUL TIP

Modern cameras all come supplied with Raw processing software, although if you have Photoshop, it has Adobe Camera Raw built in as part of the application. Try to get used to always shooting in Raw mode on your camera. The quality and processing possibilities are much greater than JPEG files. These days, even some camera phones have the ability to shoot in Raw format. They are larger file sizes than JPEGs but the benefits become clear once you start to understand how much more processing ability you have. Your photos will see a marked improvement when you use Raw.

or even 48-bit (16 bits per channel) to 24-bit (8 bits per channel), which makes a smaller and more easily processed file, but loses some colour depth because of the smaller palette that can be represented by that many bits. Other adjustments to the colour balance, such as unusual white balance settings, can also reduce image quality, as will heavy noise reduction.

In order to save space on the memory card, produce faster transfers and make it easier to display and print the photograph on a computer, the image is usually converted to a compressed JPEG file. Unfortunately JPEG compression also reduces the image quality, and can introduce

artefacts into some areas of the image.

The main advantage of Raw shooting, apart from the improvement in overall image quality, is that it bypasses the in-camera image processing, such as white balance, saturation, sharpness etc. This sounds illogical, but it's not really. The processing that takes place in the camera is pre-set before the shot is taken, and irreversible once the image has been converted to a JPEG file. By shooting in Raw mode, you can make the processing adjustments after the shot has been taken, and if you need to change them you can do so as long as you have the original Raw file.

The downside to Raw file recording is of course

that the saved files are much larger, so they take a lot longer to save to the memory card, and you can fit fewer of them on there. For a typical 16MP DSLR, a high quality JPEG file will be around 8MB, while a Raw file will be around 25MB, over three times the size.

Many of the more recent DSLRs have the ability to record Raw and JPEG image files simultaneously. This has the advantage of the convenience of JPEG with the versatility and quality of Raw, but takes up even more space on your memory card. Fortunately the price of very large memory cards is falling almost daily, so this needn't be much of a problem.

ACR Interface

Adobe Camera Raw isn't as difficult as it looks

Photoshop comes with Adobe Camera Raw, usually shortened to ACR. It offers a range of processing options that enable you to get the best out of your photos, including exposure adjustment, sharpening, noise reduction, colour correction and automatic correction for lens distortion. It is regularly updated to maintain compatibility with all the latest cameras and lenses. Like the rest of Photoshop, it's easy to get started. Let's take a look at the interface and see what it has to offer.

Toolbar

This holds all the main selectable tools, most of which are similar to tools in the main Photoshop interface, including Zoom, Hand, Crop, Straighten, Spot Removal, Red Eye Removal, and a newly-added feature that can add a graduated filter to your picture.

Control Palette

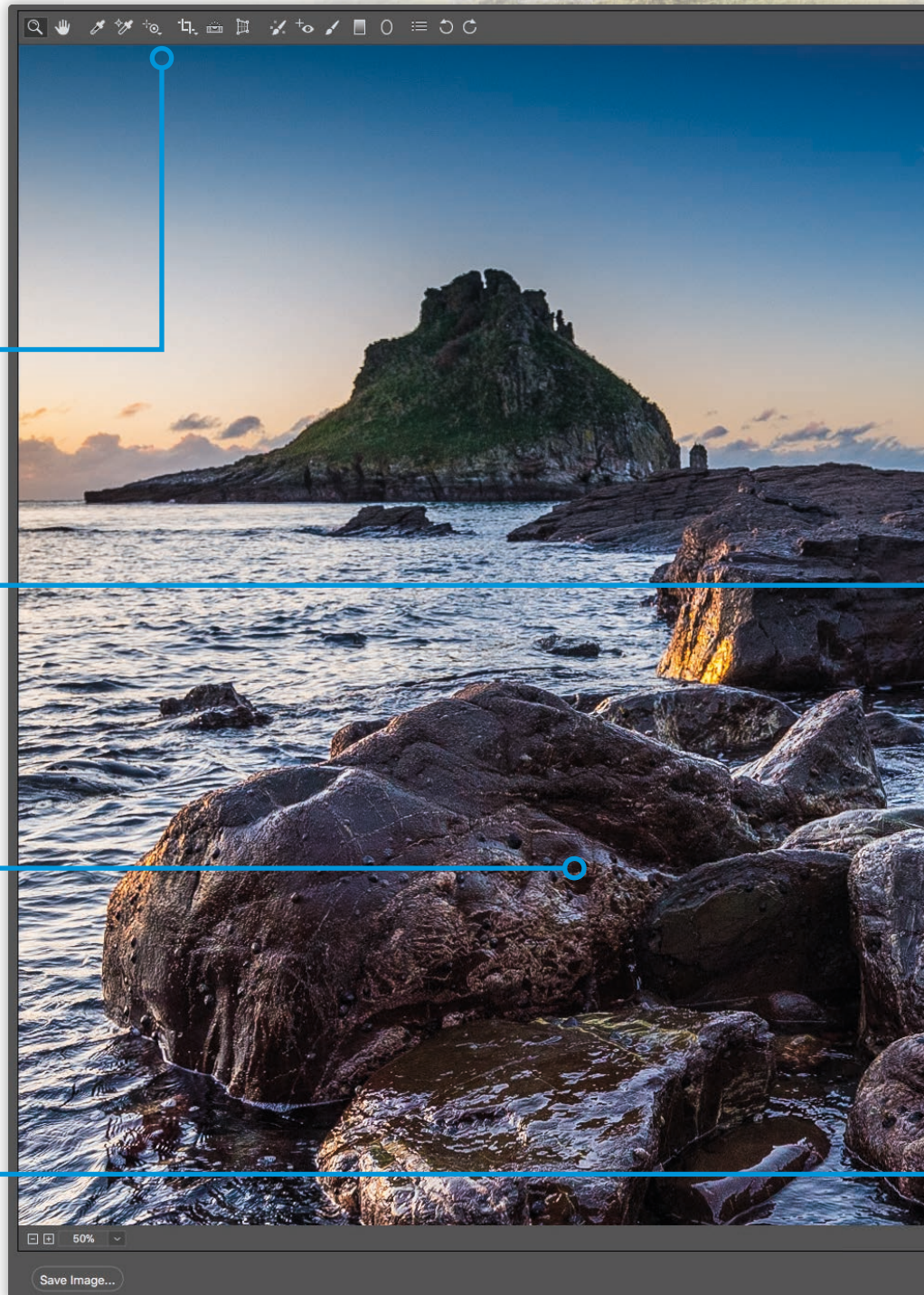
This is the main dialogue palette, which contains the controls for each tabbed section. Most of the controls are sliders, and you can see the results of each adjustment both in realtime on the histogram and in the main image window.

Image Window

This is the main window displaying the image you're currently working on. All changes that you make during Raw editing will be visible here. You can zoom into the image using the magnification controls at the bottom left, or use the usual CTRL + and CTRL - shortcuts. You can see what effect your editing has had by checking and unchecking the preview option at the top right.

Output Options

At the bottom of the screen you'll find the controls for when you've finished your editing. If you click on the blue link you'll see a range of output options, since Adobe Camera Raw can process your pictures in a range of sizes. You can also save your edits back into the Raw file to keep them for later.



Control Tabs

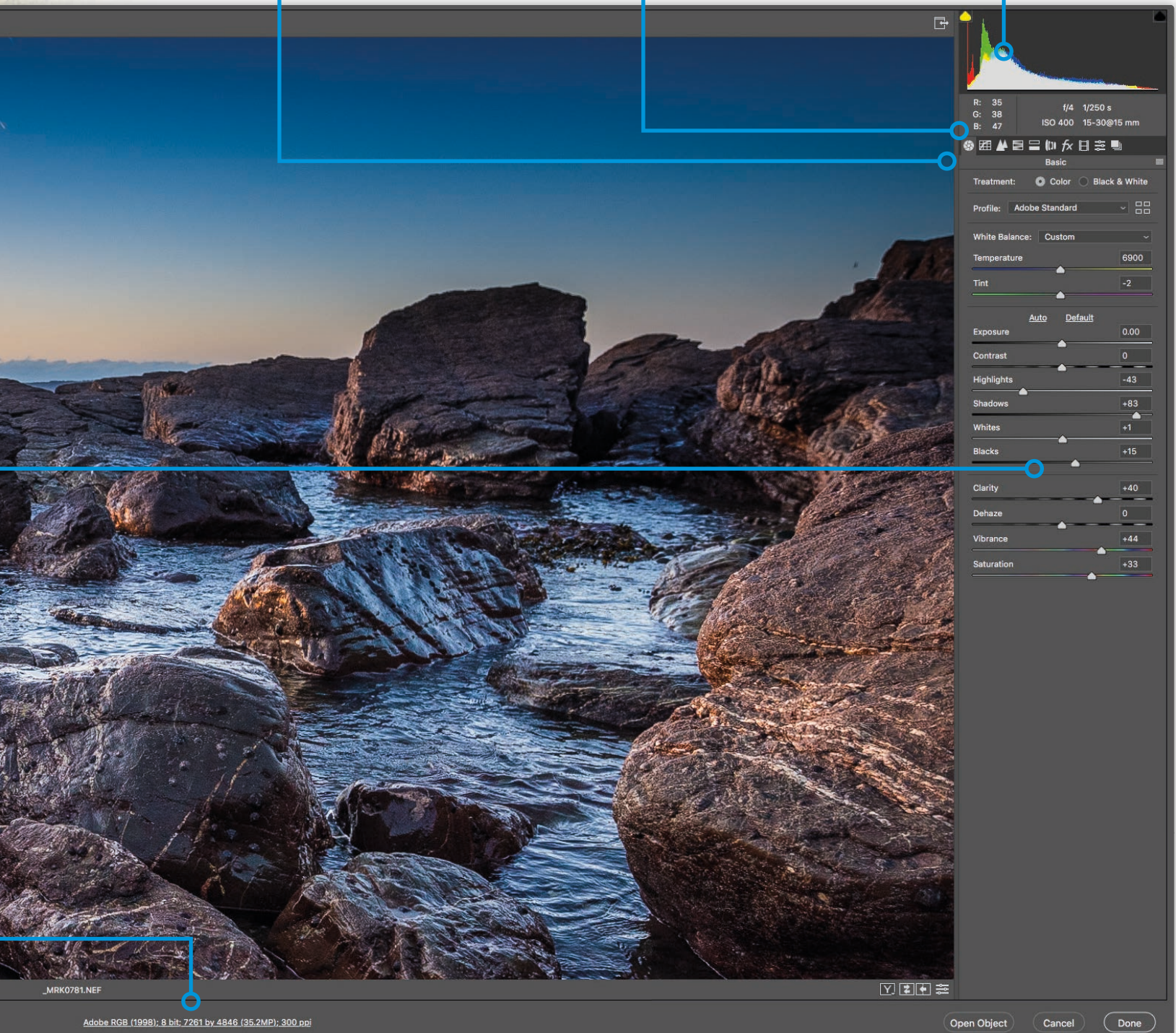
Camera Raw breaks the workflow down into discrete sections, each with its own tabbed palette, and you can switch between them by clicking here. The tabs are, from left to right: Basic, Tone Curve, Detail, HSL/Greyscale, Split Toning, Lens Correction, Effects, Camera Calibration, Presets and Snapshots.

Information Palette

The left side of this panel shows the RGB colour values at the cursor position. The larger right side of the area displays the exposure information for the image, including the aperture, shutter speed, ISO setting and focal length of the lens.

Histogram

The Histogram shows you the number of pixels of each tone in your image and changes as you make exposure and colour balance adjustments. The graph represents the colour in digital form, with levels from 0 to 255, with the darkest on the left and the brightest on the right. The white area represents the combined colours, but you can also look at each colour channel individually.

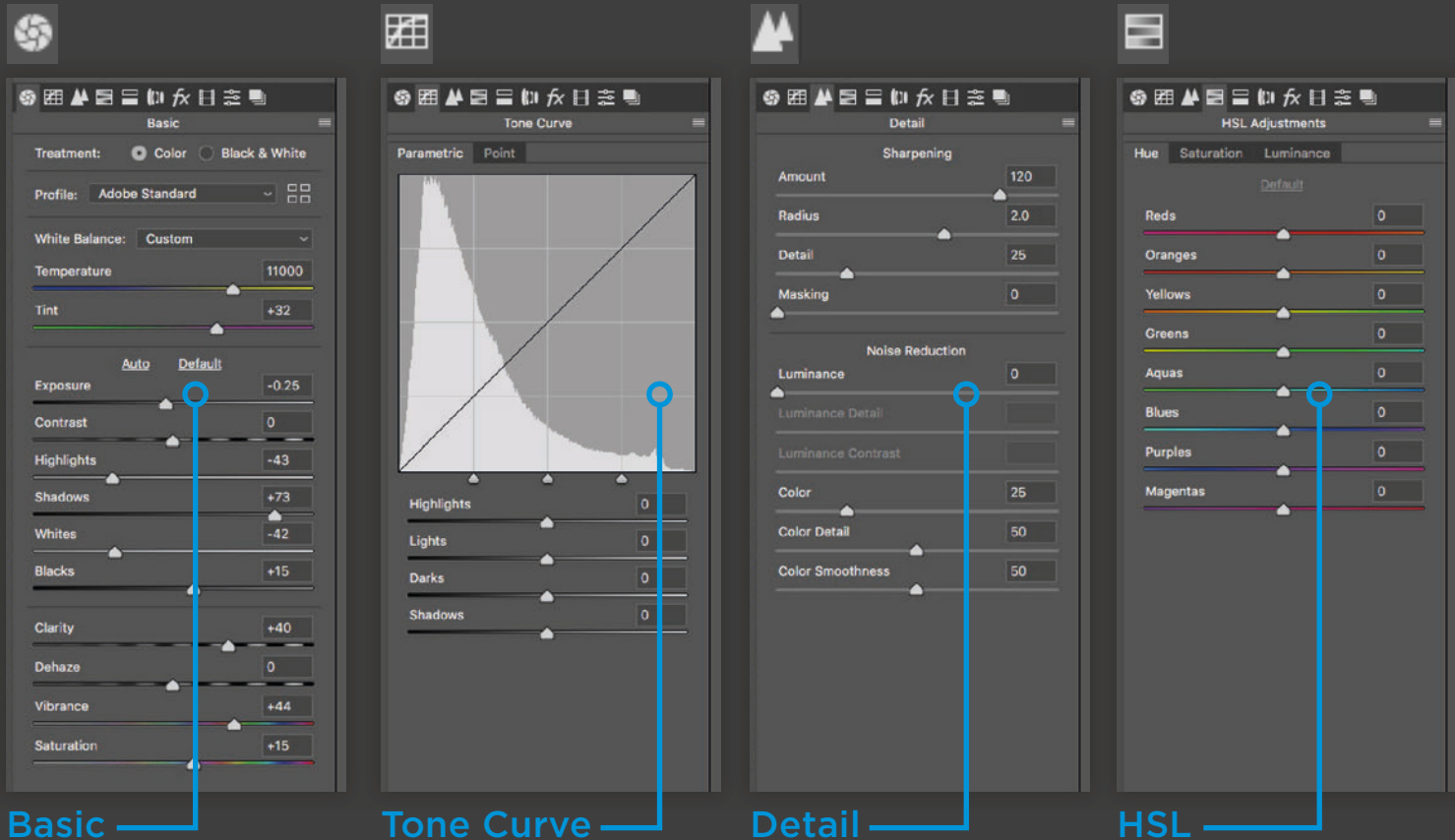


ACR Menus

Adobe Camera Raw has a powerful set of features all nested within a series of easily accessible control tabs.

The main interface of Adobe Camera Raw is comprised of ten menus, each with a series of control sliders and some additional menu tabs to access further features. Although you will no doubt spend most of

your time working in the Basic panel, when used in conjunction with adjustments from the other control panels, you will be able to enhance your images beyond what you thought possible in no time at all.



Basic

The Basic panel in ACR is probably the one you will spend the most time in and also making the most important global image adjustments. Apart from choosing the colour treatment, you can adjust Exposure, Contrast, Highlights and Shadows as well as Clarity, Vibrance, and Saturation. More recent additions include being able to apply a colour profile from a collection of presets and the Dehaze option to reduce haze in your photos.

Tone Curve

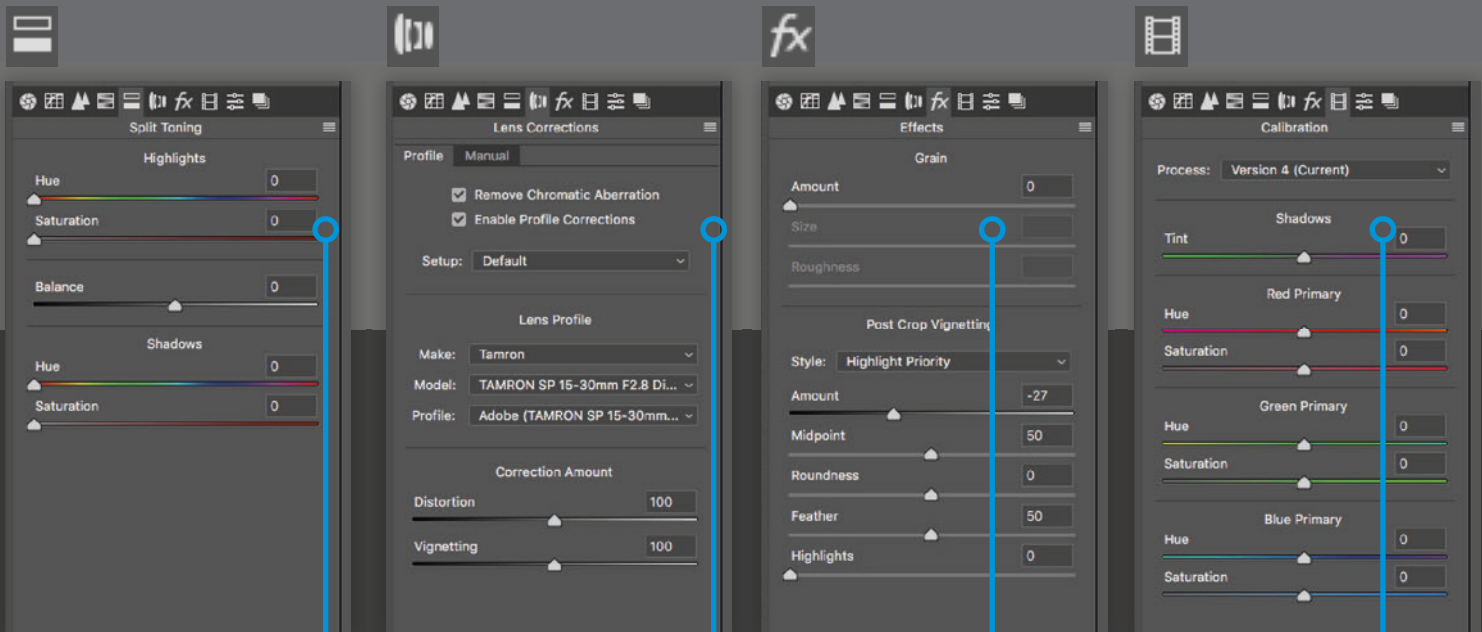
The Tone Curve options in ACR behave very much like the Levels and Curves Adjustments you can make in Photoshop itself. The basic Parametric adjustments allow you to use sliders to individually adjust Highlights, Lights, Darks and Shadows. The Point Curve adjustment allows you to place control points and create your own custom curves by moving the points around to your own personal preference.

Detail

The Detail section concerns itself with how you handle both Sharpening and Noise Reduction in your Raw files. Sharpening is basically an increase in the contrast of the brightest and darkest edges in your image. Too high a value and you may suffer image degradation. The Detail and Masking sliders can effectively suppress the halo effects of over sharpening. The Noise Reduction settings help you reduce the amount of image noise and colour artefacts seen in high ISO photos.

HSL

The HSL panel, which is an acronym for Hue, Saturation and Luminance, is where you can get to grips with the colours in your images and how you can affect them. The first panel is Hue, which lets you alter a specific range of colour values such as reds for example; then alter their hue to make them more magenta or make orange more yellow or blue more purple. The other panels allow the adjustment of their colour intensity and brightness.



Split Toning

Split Toning is a particular effect you can apply to your images in order to control how much of a certain colour appears in the highlights or shadows of your images. There are Hue and Saturation sliders for both Highlights and Shadows. Set a Hue value and then increase its Saturation amount. When you do so, that chosen colour will start to dominate the brightest and darkest areas of the shot. The Balance slider governs which is most dominant.

Lens Corrections

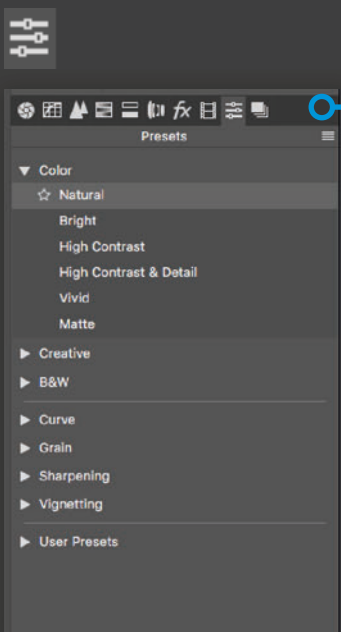
Throughout its life Adobe Camera Raw has been updated at regular intervals. Each new update brings the latest Lens Correction profiles that can automatically assess your photo and determine what lens was used on the camera that took the shot. Once it knows what lens was used, it can apply a set of corrections that can eliminate lens aberrations and distortions specific to that lens. It does also allow for manual adjusts as well.

Effects

The Effects panel allows you to add Grain to your image, with three values to control its impact. You can specify the Amount, the Size of the grains and the Roughness of the image grain you apply. The other effect is Post Crop Vignetting which allows you to darken the outer edges of the photo before and after you've cropped the photo. You can control the Amount, Midpoint, Roundness, Feather and Highlights.

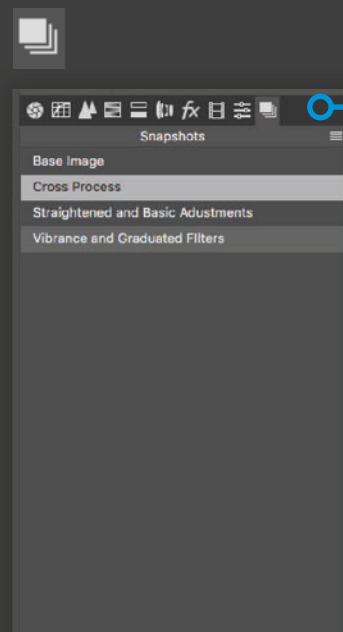
Calibration

Found in both Adobe Camera Raw and Lightroom is a module that is more powerful than it may look at first glance. Mainly used as a calibration for your camera it can be a brilliantly creative tool. You could think of it as a more refined Hue and Saturation adjustment tool. You can alter the Tint value found in the shadows of your image, as well as adjust the general use of Hue and Saturation in the Red Green and Blue channels of your image for much finer control.



Presets

This is another recent addition to Adobe Camera Raw. Normally, you can save a preferred method of image adjustment as a User Preset and that would have been that. Now, there are also a number of new Presets added that mean you can apply one-click adjustments to your photos. These presets range from High Contrast colour adjustments to Cross Process effects and a number of Creative and Black and White options too.

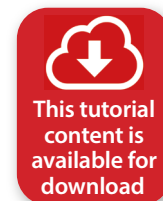


Snapshots

Here is another more recent feature that you normally find on another Adobe product, Lightroom. Snapshots, as the name implies, allows you to create a snapshot of a particular part of the adjustment process. If you have a set of basic edits you like, you can Snapshot it. If you then make a series of edits that you don't like, you can always go back to a previous state by clicking on one of the Snapshots you stored whilst you were working.

ACR Workflow

Getting the most out of your Raw files

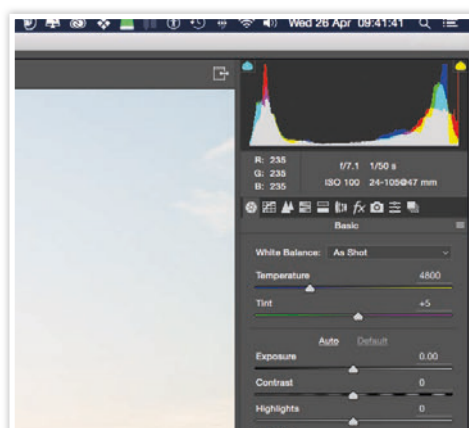


Ask any five professional photographers about the process they use to create their pictures, you'll get five different answers. The amount of processing and adjustment used will vary, depending on the job at hand and

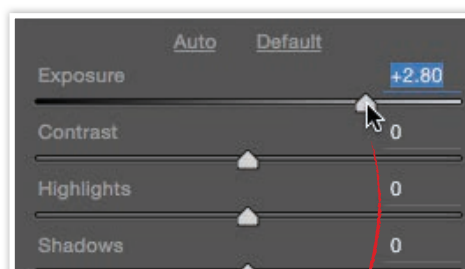
the type of final image required, as well as the type of camera used to take the photo and the use to which the photo will be put. There are certain operations that will be common to most photos that you'll want to process,

so we'll take a look at a common general purpose workflow that will be suitable for most types of photo. We'll be using a coastal sunrise photo of Paignton beach shot with a Canon 5DMK3 and an EF24-105 f/4 lens.

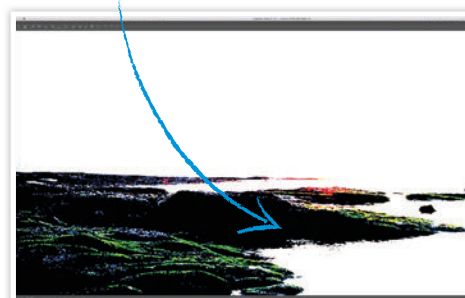
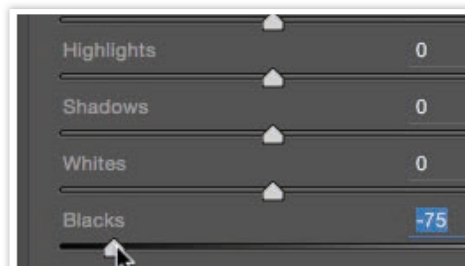
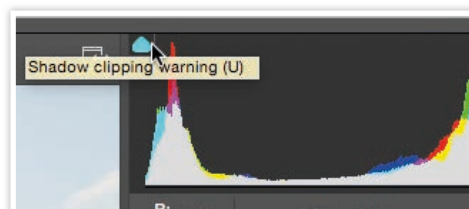
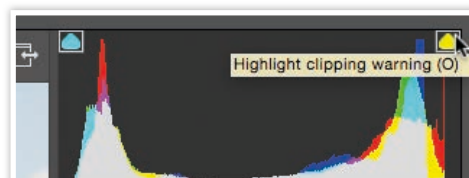
01 If you look at the histogram at the top right of the screen you'll notice that the line at the right (brightest) end of the graph is relatively flat compared to the peaks on the left. Ideally the graph should fill the area between the lightest and darkest ends of the range, so we need to slightly boost the lighter end of the graph without causing over-exposure.



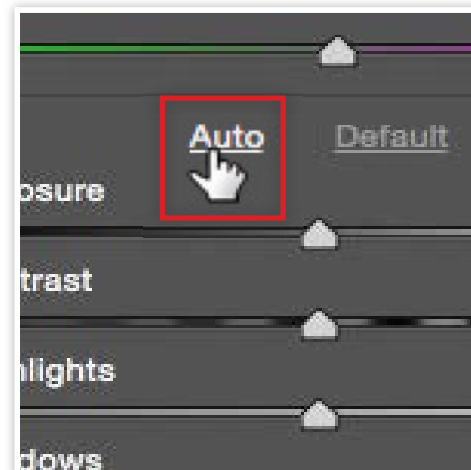
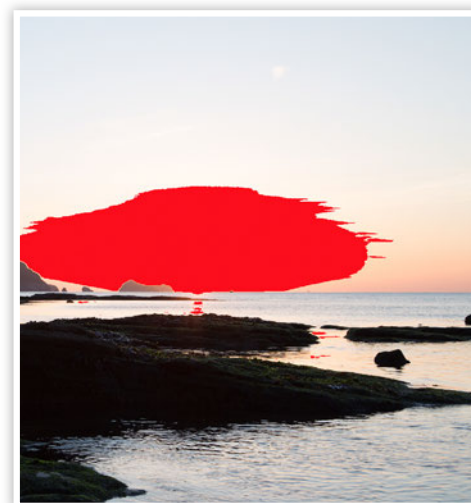
03 While holding down the Alt key (Option on Mac), move the exposure slider to the right. With the key held down, all you'll see will be the over-exposed areas. You can do this with any of the first six sliders, and it's a good way to make adjustments without going too far.



02 To ensure that we don't lose too much detail to highlight clipping, click on the arrow in the top right corner of the histogram window. This turns on the highlight clipping warning. Any over-exposed areas will turn bright red in the image window. Clicking on the left button turns on the shadow clipping warning.



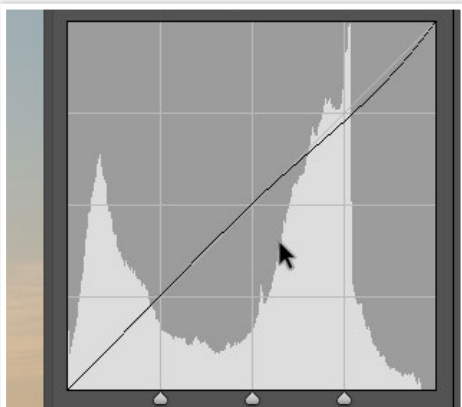
04 We can spend a while carefully adjusting the various sliders by hand to try and equalise the histogram, but the quickest way to get close to the optimum result is to let Camera Raw do the hard work. If you click on Auto the software will automatically adjust the image to produce a good approximation to a perfect exposure. It's probably not going to be ideal, but it will give us a good starting point. You'll notice that the sun on the horizon and the clouds around it are over-exposed, but that's OK. We're looking for a good spread of tones, and that includes white.



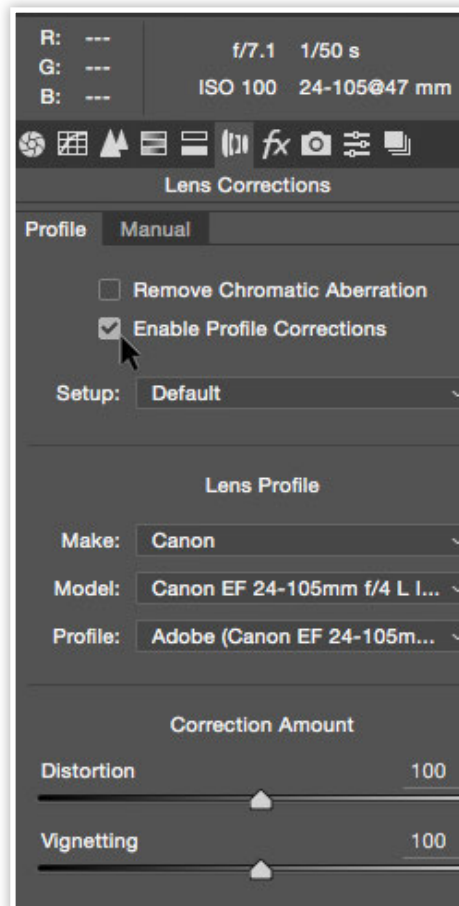
05 The Auto adjustment has made a good job of this particular picture, but for landscape shots a little bit of extra saturation usually looks good, so we'll boost the vibrance by about +30 and the saturation slider by +20 to get the colours of the sunlight, sea and sky to really pop out.



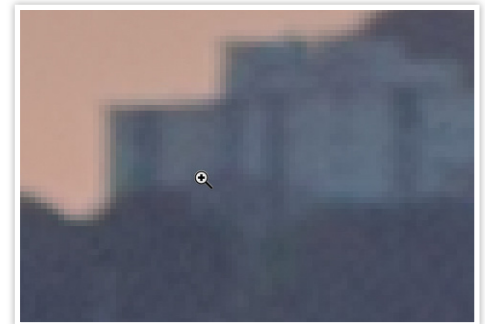
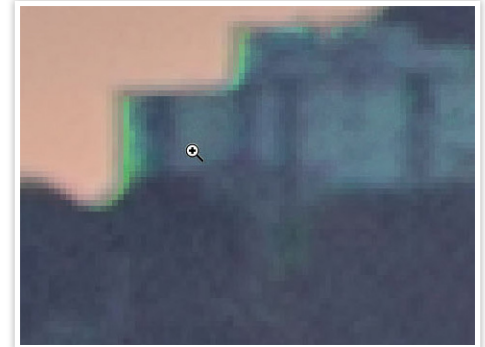
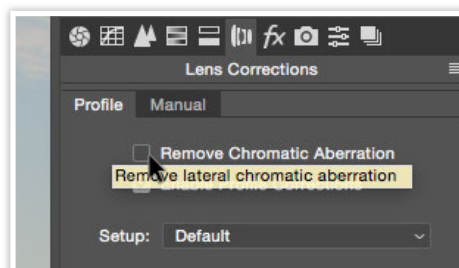
06 Adobe Camera Raw also provides a second method of adjusting contrast, by altering the tone curve. Although it's no more accurate than using the sliders many people will prefer it because it's nice and simple and gives a good visual representation of what we're doing. It's also a lot harder to burn out the highlights using curves. By boosting the highlights a lot, and then boosting the other sliders in decreasing amounts we can quickly equalise the histogram without losing too much quality.



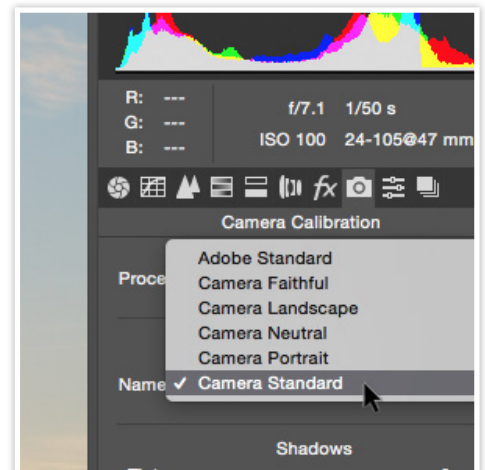
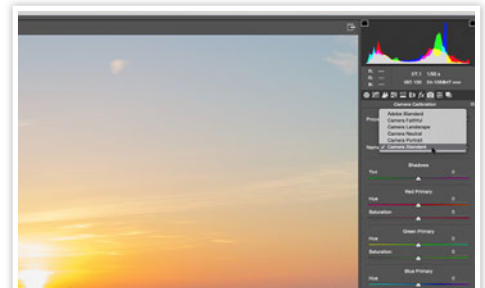
07 One of the best things about Adobe Camera Raw is its lens correction feature. The Canon 24-105mm f/4 lens used to take this picture is a nice bit of glass, but it's not perfect. Although it's hard to see at a glance, this wide-angle shot does suffer from some pincushion distortion and slight chromatic aberration. Fortunately Camera Raw comes pre-loaded with correction profiles for a huge list of popular lenses, including this one. All you need to do to automatically correct the optical distortion caused by the lens is to check the box Enable Lens Profile Corrections. You'll see the change happen to your image immediately.



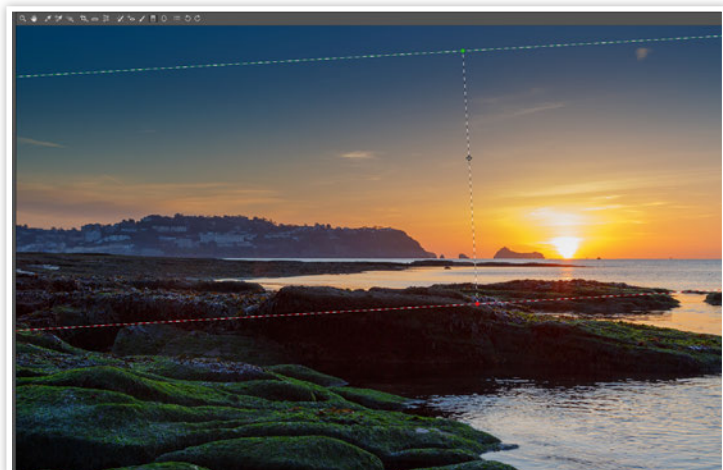
08 The chromatic aberration is just as easy to fix. Click on the Color tab in the Lens Correction palette and simply check the box Remove Chromatic Aberration. You'll need to zoom in near the edge of the frame to see the difference, but you'll notice the effects at once.



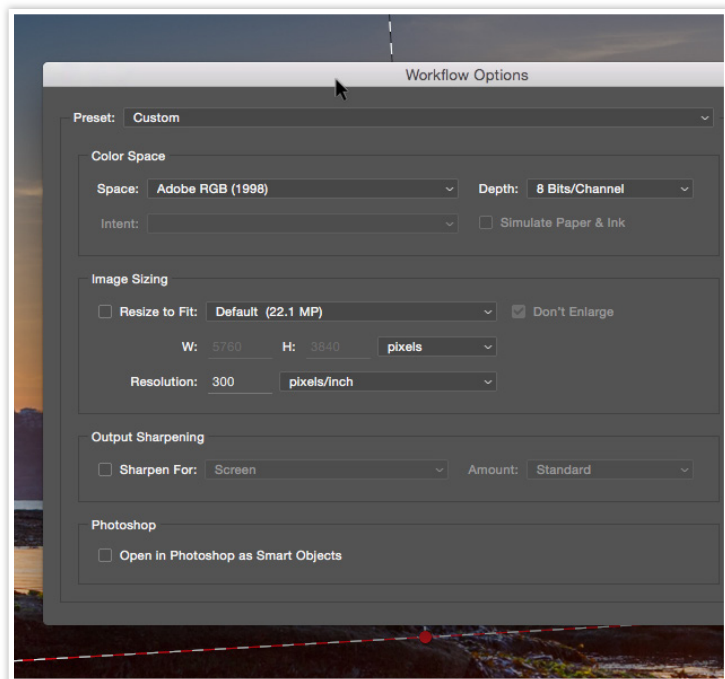
09 The next step is largely a matter of personal taste, but you can also choose to use a camera profile for the colour calibration too. In the Camera Calibration tab, click on the Camera Profile button, and from the drop-down menu select Camera Standard. This sets the colour rendering profile to the embedded profile recorded by the camera. The 5DMK 3 does produce some really great colours, so for this shot we'll use the camera profile.



10 For this particular image, the sky is a bit lighter than it needs to be, but we can easily darken it down a bit by adding a high quality digital graduated filter in Camera Raw. Click on the Graduated Filter button at the top of the screen, and you'll see the filter control palette appear. Set the exposure slider to about -1.5 or -2, then in the image window drag down from the top of the picture to just below the horizon line to apply the filter. If you hold down the shift key while dragging it will stay parallel with the top of the frame.



11 Finally we have the output options. Camera Raw gives you the option to output the processed image in a number of different ways, but which one you use will depend on what you want to do with the finished image. For most purposes the default settings will be ideal, but you may need to select a different colour space, and for maximum colour fidelity you can output in 16-bit format. You can also choose an image size different from the native resolution of your camera, but be aware that choosing a larger size doesn't magically create new pixels; the image will be enlarged using Photoshop's bicubic resampling algorithm. If you're planning to print the picture you might also want to look at the sharpening options. When you're happy with your choice, click OK, and then Open Image. The picture will now open in Photoshop, from where you can either carry out more editing, or save the picture in JPEG or TIFF format.





USEFUL TIP

Any adjustments you make to your image do not directly affect the Raw file. They are added to an XMP file that is used to keep a record of all your image modifications. When you finally save your final image, to preserve as much detail as possible, try saving your photos as TIFF files instead of JPEG, since it uses lossless compression and keeps all that detail in your images.



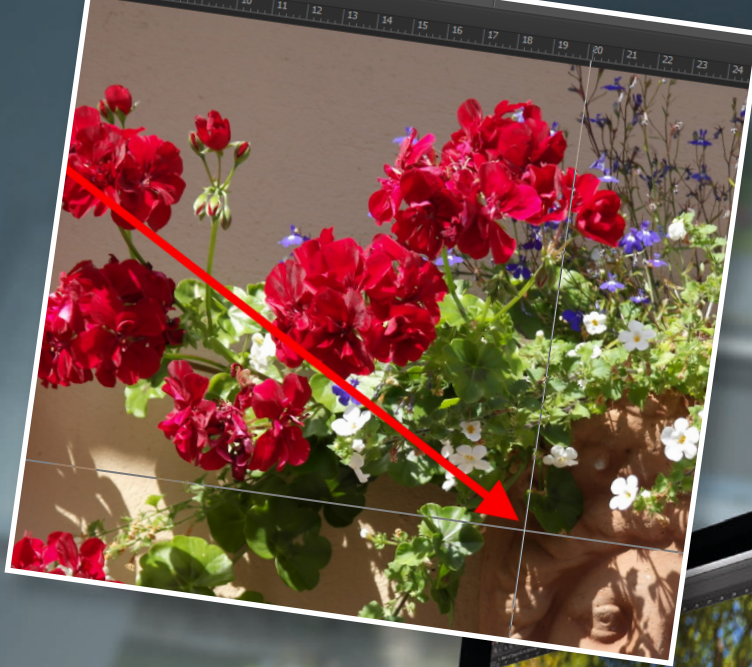


Photoshop Top Tips

We highlight a number of great tips to help you work smarter and faster in Photoshop.

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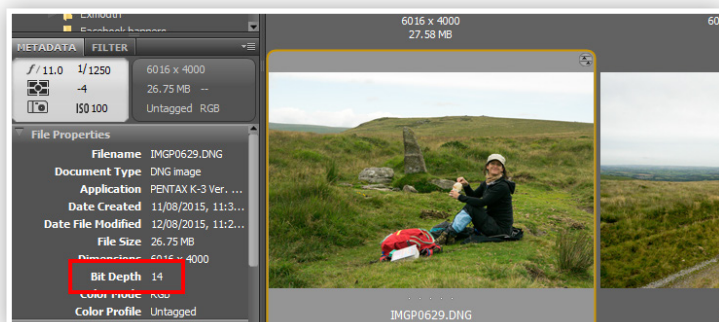


Keyboard shortcuts



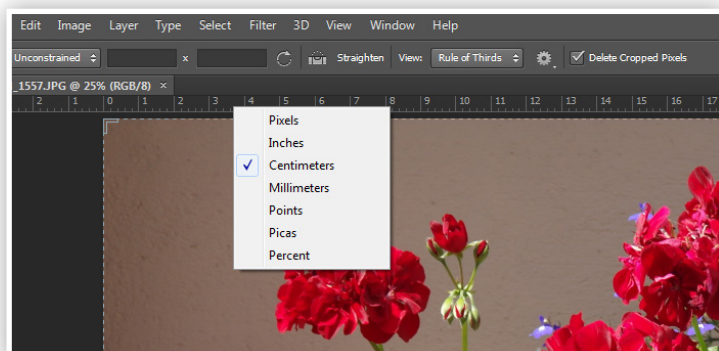
01 The most useful keyboard shortcuts are: Shift+Ctrl+N to create a new layer, Ctrl+ and Ctrl- which zoom in and out of an image, Ctrl+0 which fills the screen and Ctrl+Alt+0 which zooms to 100%. The Space bar lets you drag the zoomed image around, C selects the Crop tool, M the Marquee tool, B the Brush tool and E the Eraser.

Raw mode



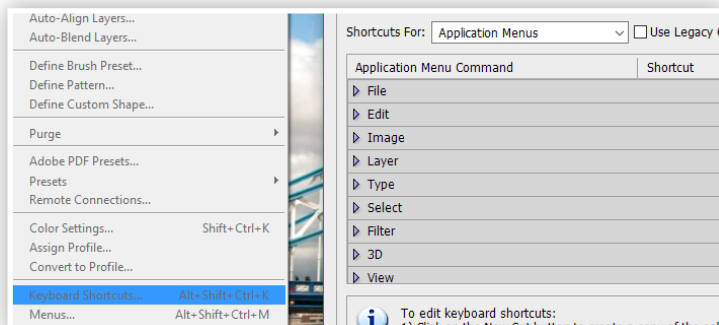
03 If your camera has a raw mode, use it whenever possible. Raw files normally contain more bits per pixel, which means that they can reveal more detail in shadow and highlight areas, as well as more colour gradations than a compressed JPEG image. You can use this to give extra latitude in exposure adjustment during editing.

Units and rulers



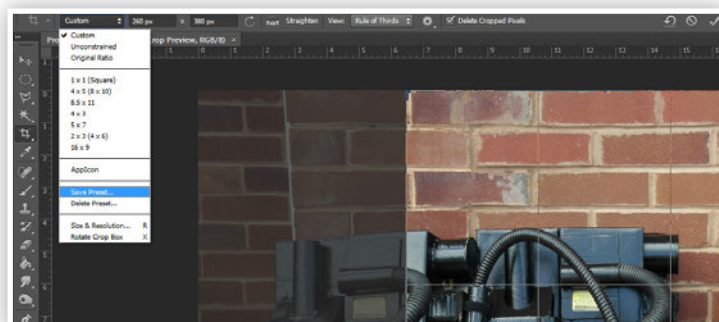
05 The rulers Ctrl+R are a very useful tool if you're doing some precise editing. The default ruler is measured in pixels but if you're printing to an exact size you might find inches or centimetres more useful. You can set the ruler units by right-clicking on the ruler bar and selecting from the pop-up menu.

Set up your own shortcuts



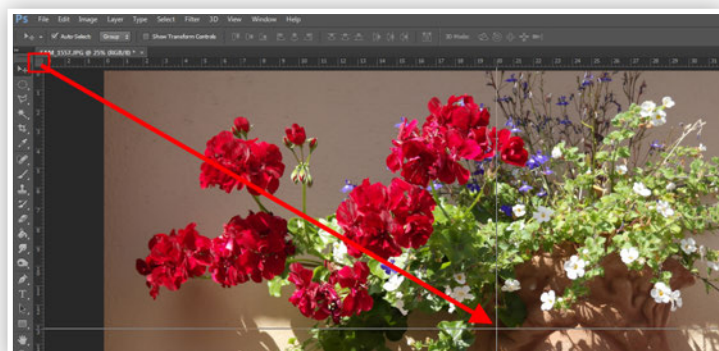
02 If there are certain operations that you carry out frequently for which there is no shortcut, simply make your own. Go to Edit > Keyboard Shortcuts or press Shift+Ctrl+Alt+K. A very useful one is to assign Flatten Image to Ctrl+F. The menu will warn you of any conflicts with existing shortcuts.

Set up your crops



04 If you frequently crop your images to a particular size or resolution, such as for a web gallery or for printing, you can save that crop as a preset so that you don't have to manually enter it every time. Remember that you can rotate the crop window by 90 degrees by pressing the "X" key.

The zero point



06 The default zero point for both the horizontal and vertical rulers is the upper left corner of the image but you can set the zero point wherever you like. Simply click on the blank square in the upper left corner between the rulers and drag down and right. Wherever you release the cross hairs will be the new zero point. To revert to default, double click in the square.

The power of the crop



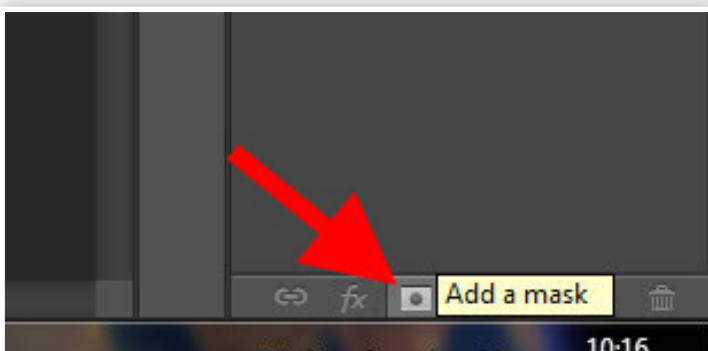
- 07** Many digital cameras today shoot at resolutions well over 20 megapixels, so you can afford to chop off as much as half the image and still have a useable print and if you're sharing your picture online you can lose even more. Cropping can help to improve composition and focus the viewer's attention on a specific detail within the frame.

Using Levels



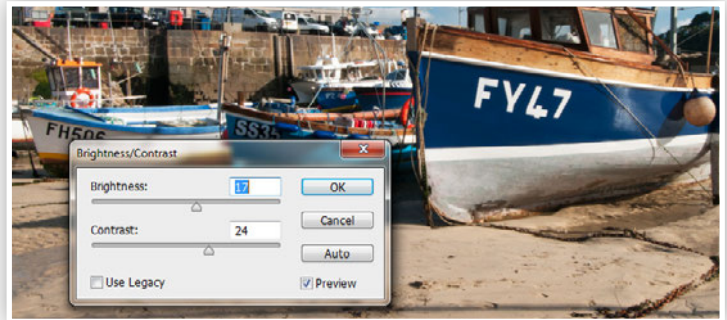
- 09** If you want to darken or lighten an image without losing shadow detail or burning out highlights, use the Levels control **Ctrl+L**. Move the middle slider below the histogram to the left to lighten the mid tones in the image and move it right to darken them.

Easy full layer mask



- 11** If you use layer masks a lot (and why wouldn't you?), here's a quick and simple tip. To instantly add a mask that covers the entire layer, simply click on the layer mask button, in the bottom right of the screen, while holding down the **Alt** key. Hey presto, instant full layer mask.

Add punch to your photos



- 08** Pictures shot on mobile phones or cheaper digital cameras may lack contrast, leaving them looking a bit dull. You can improve these images quickly and easily by boosting contrast. Don't overdo it, because you risk losing shadow detail. If necessary add a little brightness too, to compensate.

Switch zoom levels



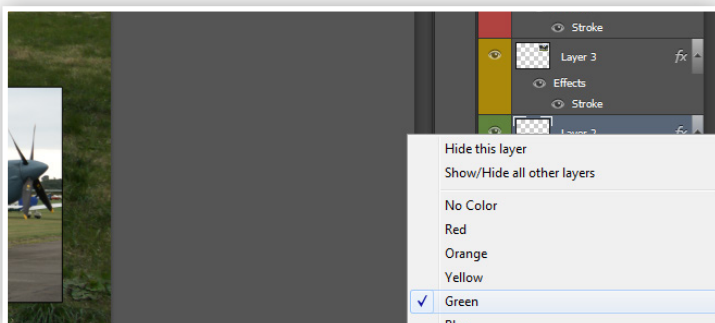
- 10** When you're carefully editing a picture and you've zoomed right in, it can often be helpful to zoom out again from time to time. You can instantly flip back to the full frame view by holding down the **"H"** key and clicking anywhere on the image. Release the mouse button to go back to the zoomed view, centred on the cursor.

The workspace background



- 12** If you're bored with that dull grey default background you can instantly change it to any colour you want. Set a foreground colour by clicking on the colour palette or using the colour mixer, and then select the fill bucket tool. Click anywhere on the background while holding down the **Shift** key and it will change to your foreground colour.

Colour code layers



13 If you're working with a lot of layers in your image, the layers palette can get a bit confusing. You can help yourself by colour coding the layers, making them easier to distinguish visually. Right-click on the eye symbol in the layer palette and choose a colour from the pop-up menu.

View a single layer



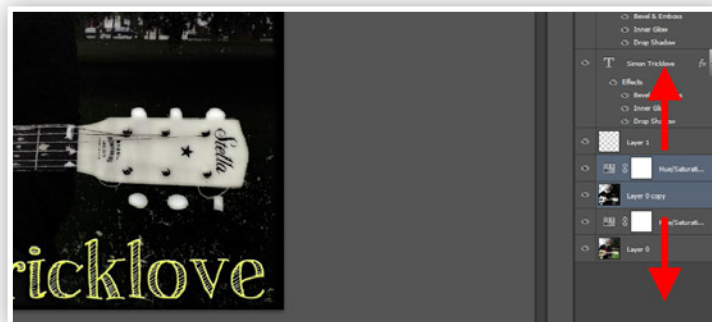
14 If you're working with multiple layers, it can often be helpful to view just one layer on its own. Rather than go through the tiresome process of clicking on the eye symbol and hiding each layer separately, you can just click on the eye symbol of the layer you want to isolate, while holding down the Alt key. This will automatically hide all the other layers.

Instant layer duplication



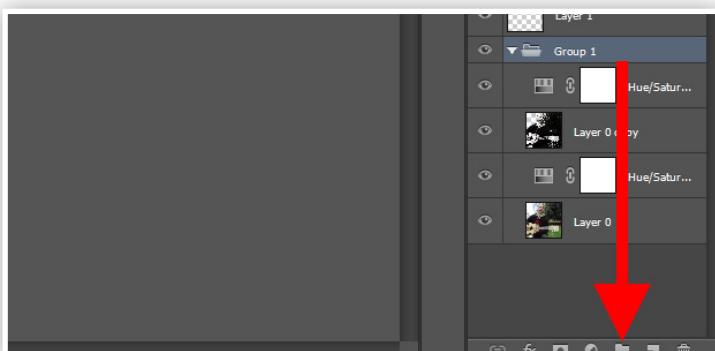
15 If you want to make a duplicate of a layer, style or mask, you don't have to mess around opening context menus and selecting "Duplicate". Simply click on the layer and drag it, while holding down the Alt key. This will instantly create a duplicate of the original layer under your mouse cursor.

Moving layers



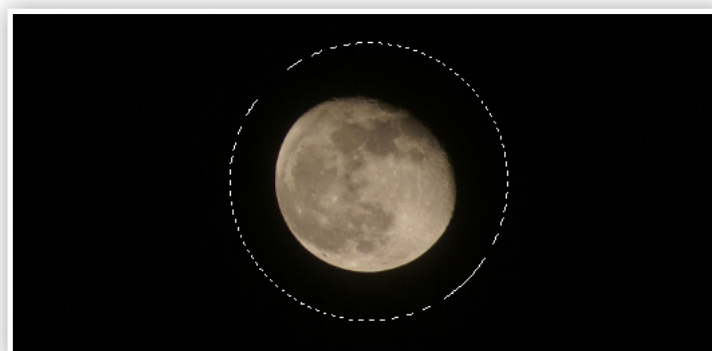
16 If you're working on a multi-layer Photoshop project and you want to rearrange the order of the layers, you can use a keyboard shortcut to do so. Click on the layer (or multiple layers using Shift-select) and then use Ctrl+[or] to move the selected layers up or down the stack. Adjustment layers won't move with their associated layer unless also selected.

How to group layers



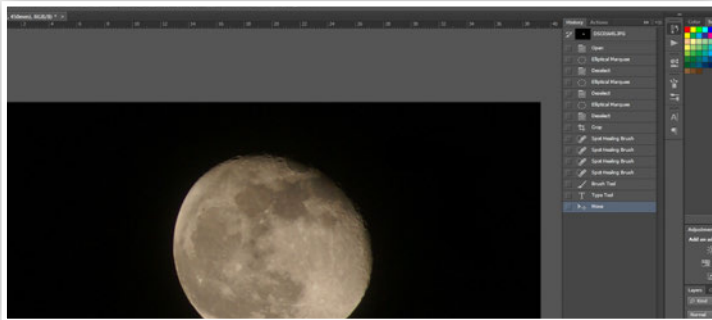
17 Layer groups are very useful but can be a bit fiddly to set up, dragging each individual layer into the group. Luckily there's a much quicker way to group layers; simply Shift-select all the layers you want to add to the new group and then drag them down onto the "Create a new group" icon at the bottom of the layer palette.

Centre marquee selections



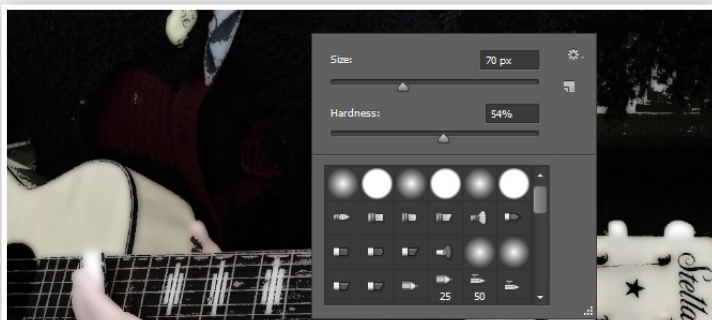
18 When you use the marquee tool to make a selection, it starts from the corner in which you started, which can be difficult to position accurately. If you hold down the Alt key it will centre the selection on your starting position. If you also hold down the Shift key, the selection will be a regular shape, i.e. an ellipse will be a circle and a rectangle will be a square.

Multiple undo



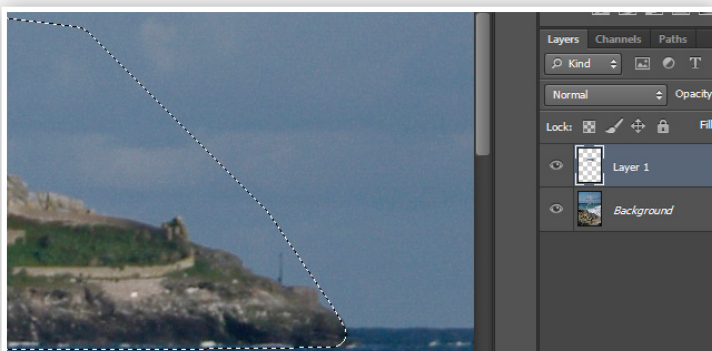
- 19** As with most apps, hitting Ctrl+Z in Photoshop will undo the last action you performed, which you probably already knew. Did you also know that pressing Ctrl+Alt+Z lets you undo multiple steps? Keep pressing the combo until you get back the state you need, up to the memory limit of your “undos”.

Context menus



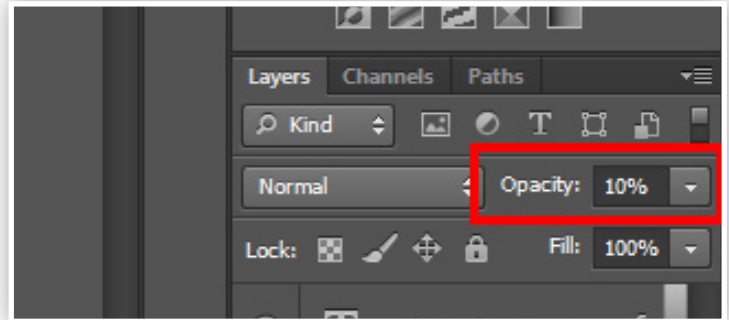
- 21** Most Photoshop tools have handy context menus that let you customise the tool's parameters quickly and easily. To see the context menu, select the tool and right-click anywhere on the image. For example, right-clicking while using the brush tool lets you set the size, hardness and brush type.

Copy and paste in place



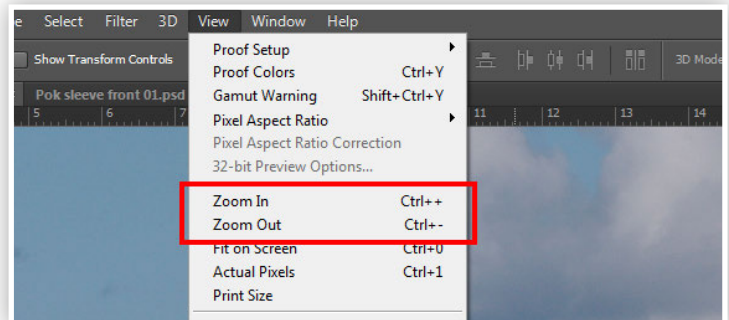
- 23** Normally, when you paste a copied selection into a new layer using the menu, it will be positioned in the middle of the current screen. However, if you use the shortcuts Ctrl+C to copy, Ctrl+X to cut and Ctrl+V to paste, it will be pasted into the same position as it was originally.

Layer opacity change



- 20** It's often useful to make a layer semitransparent, so you can see what's going on underneath it. Rather than messing about with the layer opacity slider, simply hit a number button. Pressing 1 will set the layer transparency to 10%, 2 to 20% and so on. Note that this doesn't work if you have the paint brush tool selected.

Workspace navigation



- 22** When you're doing fine detailed work on an image it's very useful to be able to zoom in and out, so you can see how your edits look in the bigger picture. The hotkeys for zooming are Ctrl and +/-, and you can use the space bar to temporarily activate the Hand tool, so you can move the image around.

Instant layer selection



- 24** If you need to quickly make a selection of the contents of a layer, even if it's a path, a channel or a text layer, simply hold down the Ctrl key and click on the thumbnail in the layers palette. You'll see the “marching ants” appear around your selection.

Quickly switch lasso tools



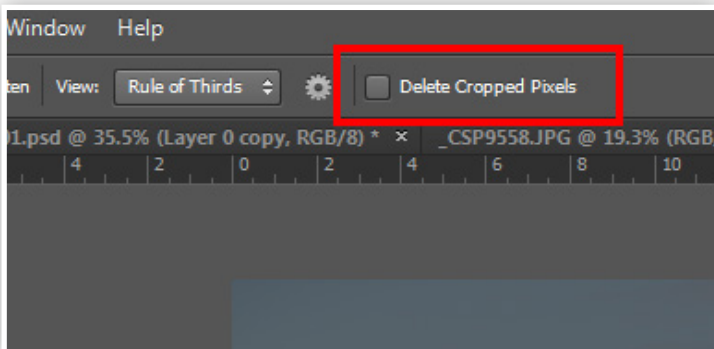
- 25** If you're making a selection using the freehand lasso tool, you can instantly switch to the polygonal lasso tool at any time, which is handy if the shape you're selecting has a combination of curved and straight lines. Simply press the Alt key and release the mouse button; hold the mouse button and press Alt again to swap back.

Add, subtract and intersect



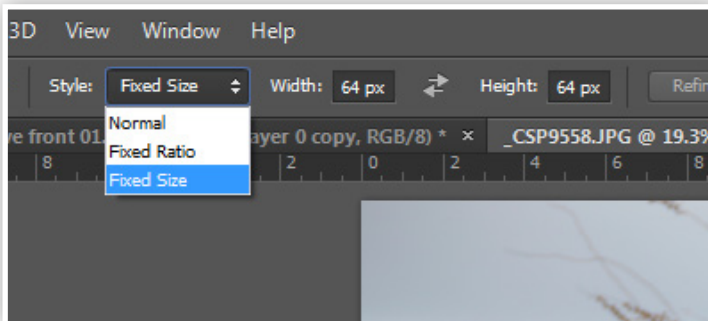
- 27** You probably already know that when making a selection using any of the relevant tools, you can add to the existing selection by holding down the Shift key; did you know that holding down the Alt key will subtract from the selection, while Alt and Shift together will select the intersection.

Non-destructive cropping



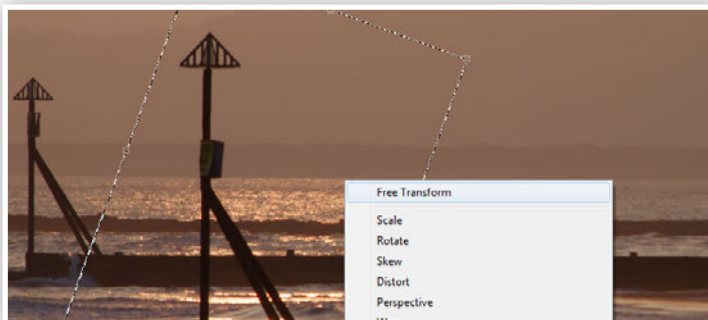
- 29** When you're cropping an image, take a look at the option bar at the top of the screen. You'll notice a check box called Delete Cropped Pixels. It's a good idea to uncheck this box as doing so hides the cropped off area of the image rather than deleting it, which means you can go back and recrop if you change your mind.

Fixed ratio selections



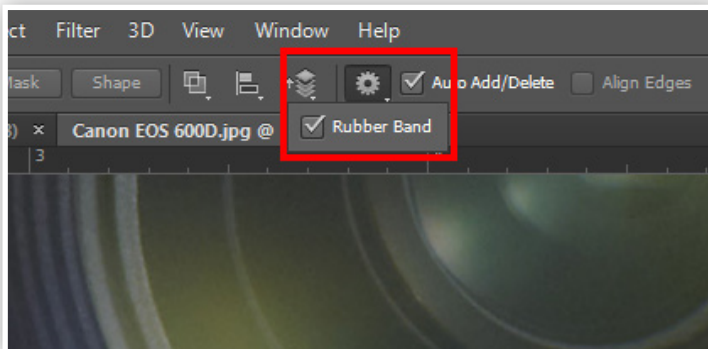
- 26** Both the rectangular and elliptical marquee tools have a useful option to select a set size or ratio. Click on the Style button in the option bar at the top of the screen and choose from the pop-up menu. You can enter the size or ratio dimensions in the two windows to the right of the button.

Transform selections



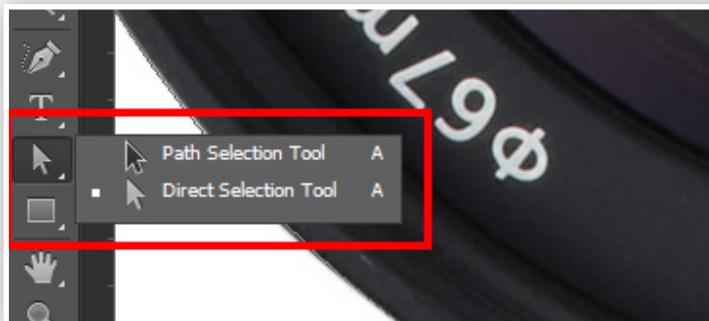
- 28** You can transform a selection just as you can with a layer. Make your selection, then right-click on it and select "Free Transform" from the context menu. You'll see the familiar grab handles appear around the selection, and if you right-click again you'll see the same Transform options that you'd see when manipulating a layer.

Pen tool curve preview



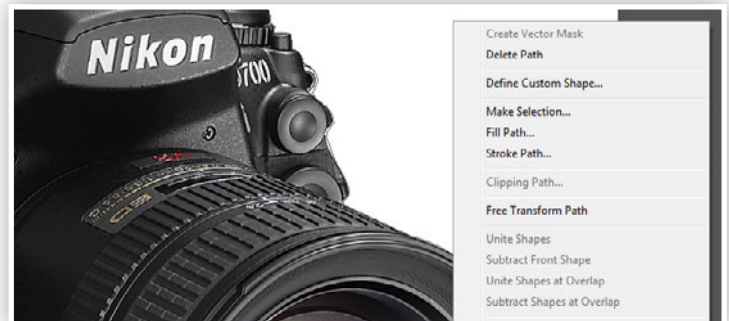
- 30** The pen tool is by far the best way of tracing out smoothly curved paths, but it takes a lot of practice to become proficient in its use. One thing that can help you get to grips with this difficult tool is the "Rubber Band" option, which you'll find hidden under a button in the option bar. It lets you see a preview of the next path curve before you click the anchor point.

Move anchor points



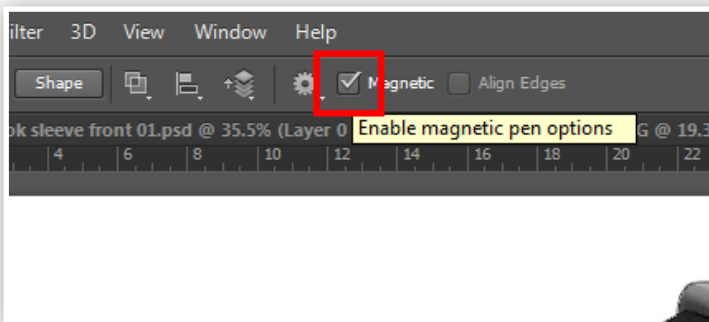
31 When you're using the Pen tool to create a path, you can hold down Ctrl to temporarily switch to the Direct Selection tool. This allows you to move the anchor points and control handles that you've already put down, letting you precisely edit the curve of your path.

Path options



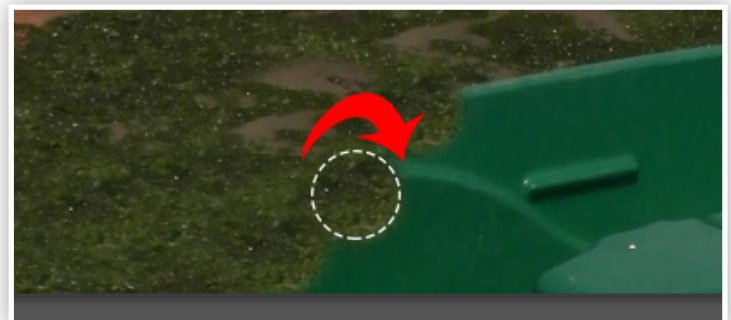
32 Once you've created a work path using the pen tool, you can right-click anywhere on the image to see a context menu full of path options including: stroke path, fill path and make selection from path. This is a great way of cutting out complex curved shapes from a background and is a vital Photoshop skill.

Magnetic pen



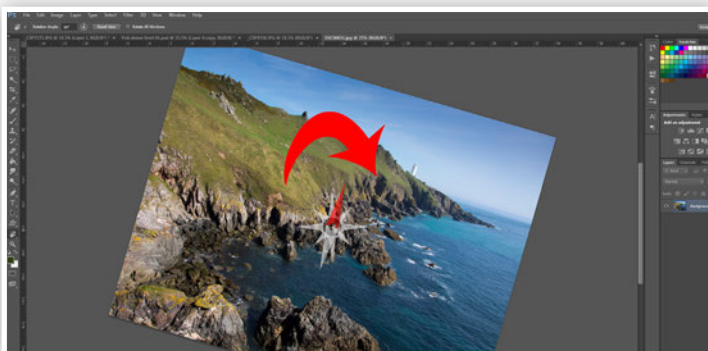
33 If you're having a hard time tracing the outline of a shape using the pen tool there are several options available to help you. One of the most useful is the Magnetic option, which you'll find in the options bar at the top of the screen when using the freehand pen. It works just like the magic wand selection tool and follows lines of contrast.

Rotate clone stamp



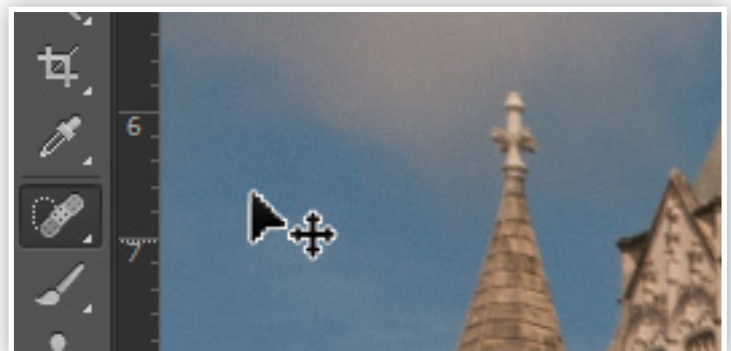
34 Trying to copy fine details such as tree branches or parts of a building can be difficult using the clone brush but there's one clever and little known trick that can help. Once you've selected your clone source, pressing Shift+Alt and the < or > keys will rotate it, allowing you to alter the angle of the stamp. Clone around corners!

Canvas rotation



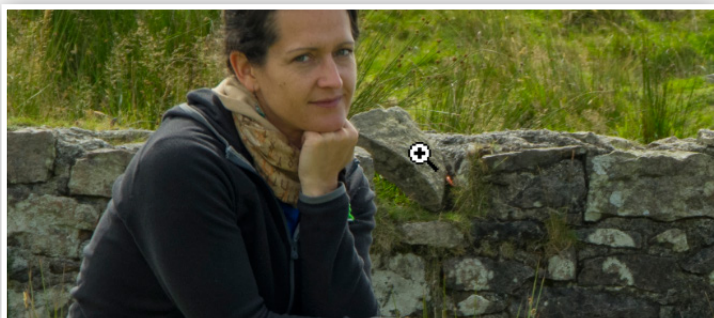
35 When you're drawing on paper you'll often rotate the sketch pad to draw smooth lines, so why not do the same thing with Photoshop? Press R to activate the Rotate View tool, which lets you non-destructively rotate the entire canvas. When you're done, click the Reset View button in the upper left of the screen.

Temporary move tool



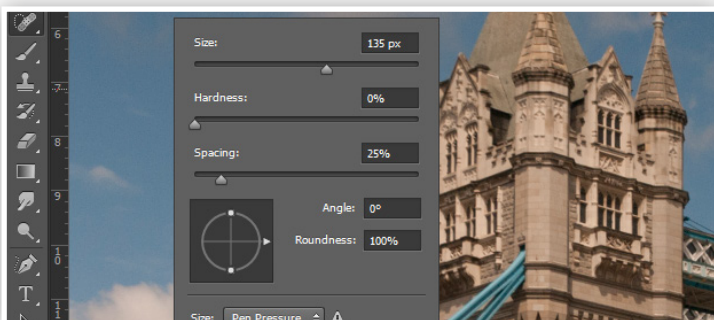
36 While using most tools from the tool palette, you can hold the Ctrl key to temporarily switch to the Move tool so you can reposition the element you're working on. Just release the Ctrl key to go back to using your original tool. Note that with the Crop tool the Ctrl key switches to the Straighten tool.

Targeted zoom



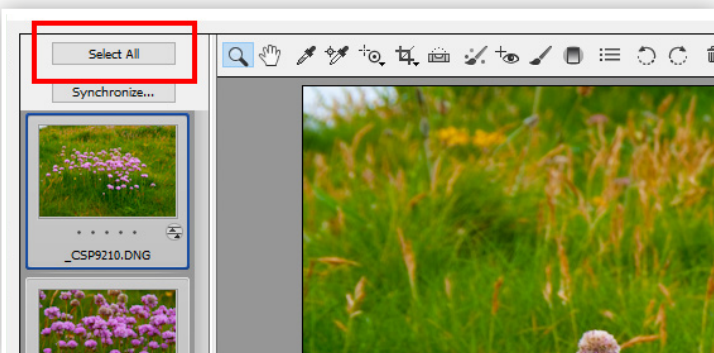
- 37** While it's fairly quick and easy to zoom using the Ctrl + and Ctrl - keyboard shortcuts, an even quicker way is to hold down Ctrl and Space and then click and drag to the left or right. The advantage of doing it this way is that the zoom is centred on your current cursor position, rather than the centre of the image.

Right-click



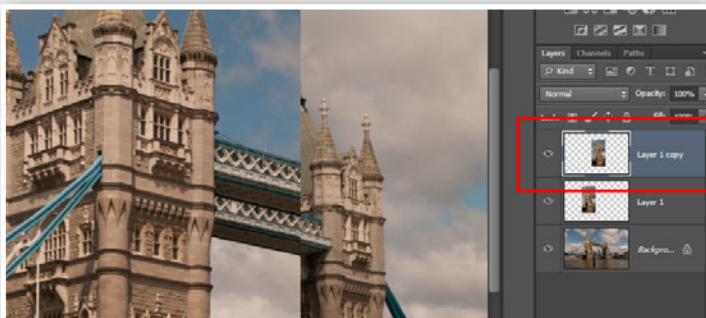
- 39** Almost all tools have a contextual menu that you can access with a right-click. This usually gives you the tool's major controls and a few handy shortcuts. As well as the active tool, where you right-click affects the menu too. For example, a right-click over a layer thumbnail or mask thumbnail gives different options.

Select All



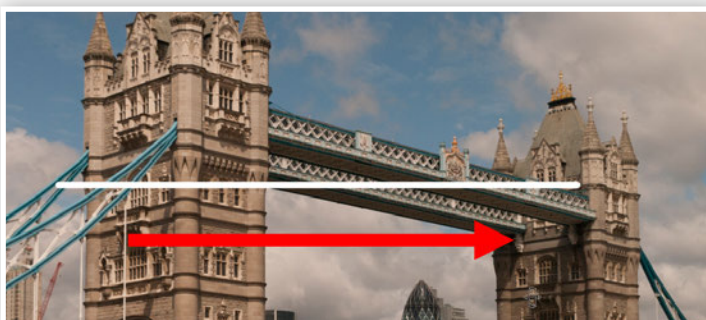
- 41** To save a lot of time when processing a group of similar raw mode images, open them all in Adobe Camera Raw and then click on the Select All button in the upper left of the window. Now any changes that you make to one image will be applied to all the selected images.

Instant layer copy



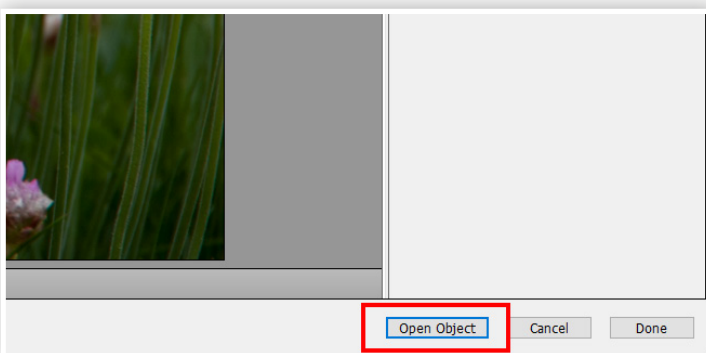
- 38** If you need to quickly make a duplicate of the layer you're working on, simply hold down Ctrl+Alt and then click and drag on the layer in question. You'll instantly drag off a copy of the layer, leaving the original layer still in place. This is handy for repeating text layers amongst other things.

Drawing straight lines



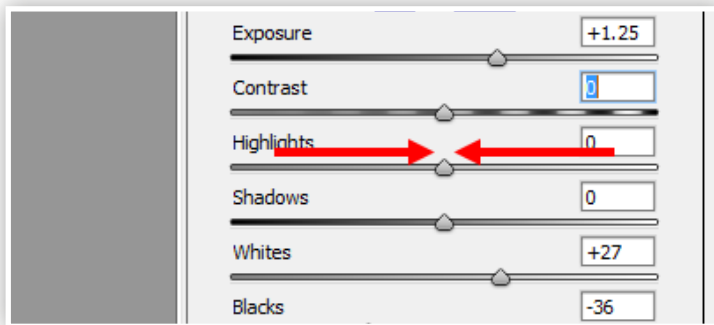
- 40** When you're trying to draw a straight horizontal or vertical line with the brush or marquee tool, hold down the Shift key and the line will automatically snap to either the X or Y axis, whichever is closer. This also works for the shape tool.

Smart Objects



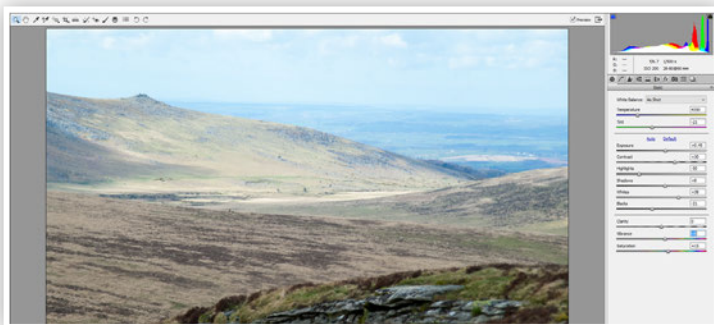
- 42** Hold down Shift when finishing your edit in Adobe Camera Raw and the Open Image button switches to Open Object. The file opens as a Smart Object in Photoshop. Double-click the layer thumbnail in Photoshop's layer palette to go back and edit the layer in Adobe Camera Raw at any time. see a preview of the next path curve before you click the anchor point.

Zero sliders in ACR



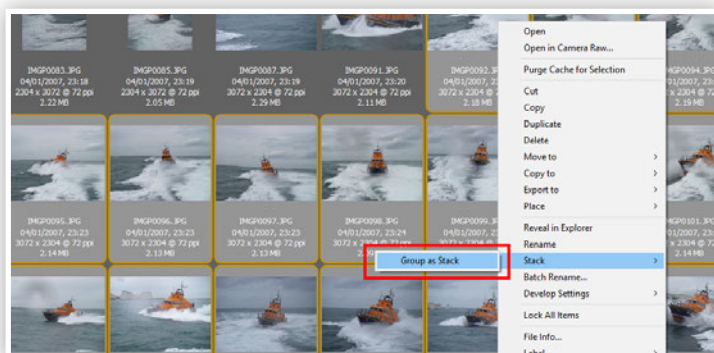
43 When editing in Adobe Camera Raw you can quickly return any of the sliders to the zero or centred position by double-clicking on them. If you click once, then the slider jumps to the point you're over, so you can use this function to see a "before and after" preview of any adjustment you've made.

Full screen view



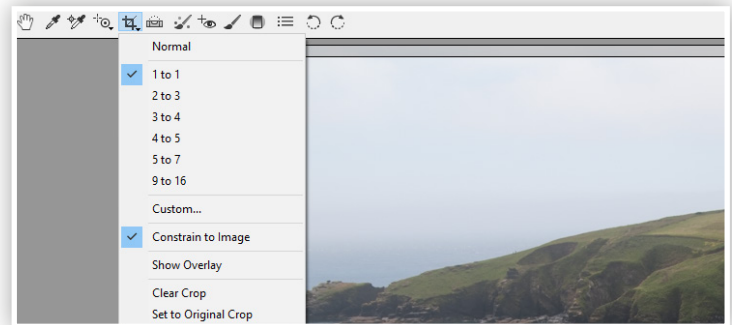
45 The Adobe Camera Raw editing screen doesn't have the usual Windows buttons in the upper right corner, so you may have been wondering how to make the most of your screen size while editing. Rather than manually dragging the screen out to full size, simply tap the F key to switch to full screen view.

Group images as a stack



47 If you're a keen photographer you probably have thousands of images to sort through. You can make this easier in Adobe Bridge by grouping similar images together in stacks. Select a group of files in the Content pane (hold down Shift and click the first and last image) then right-click on any of them and select Stacks > Group as Stack.

Camera Raw crop ratios



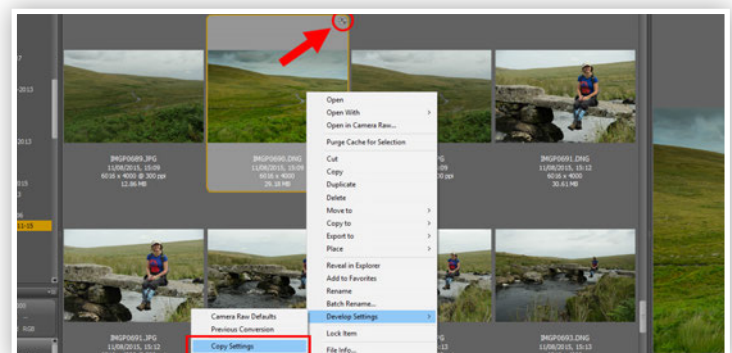
44 To see a list of the different preset crop ratios available in Adobe Camera Raw, hold down the mouse button over the Crop tool button. Remember that like everything else in Adobe Camera Raw, cropping is non-destructive, so you can try out different ratios and adjust the crop at any time.

3D carousel view



46 If you want to browse through your image library in a more interesting way, try the 3D carousel view in Adobe Bridge. Simply navigate to the folder you want to view and hit Ctrl+B. You can scroll through the images with the left and right arrow keys and use the down arrow to remove an image from the view.

Copy and paste settings



48 You can copy Adobe Camera Raw editing settings from one image to another in Adobe Bridge. In the Contents pane, right-click any image with the circular icon that indicates that you've edited it in Camera Raw, then go to Develop Settings > Copy Settings. Next, right-click on one or more other images and select Paste Settings. See a preview of the next path curve before you click the anchor point.



Photo Editing Projects

It's time to take it to the next level. Over the following pages are a number of tutorials to help you explore more of the power of photo editing and image manipulation. Professional photographers and digital artists use techniques like these every day and now you can turn your creativity up to 11!

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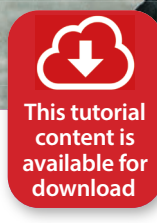
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Compositing and Blending Images

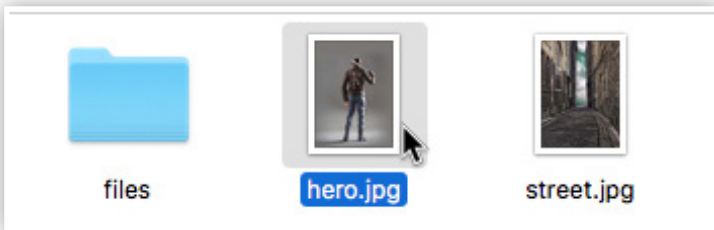
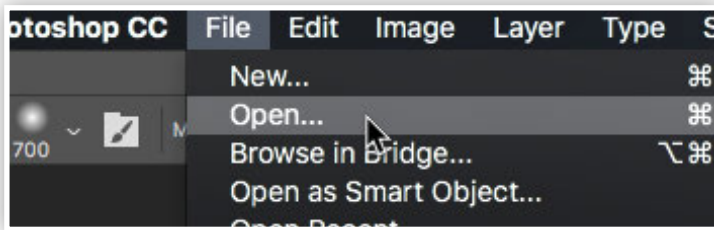
The graphic professionals method that anyone can use



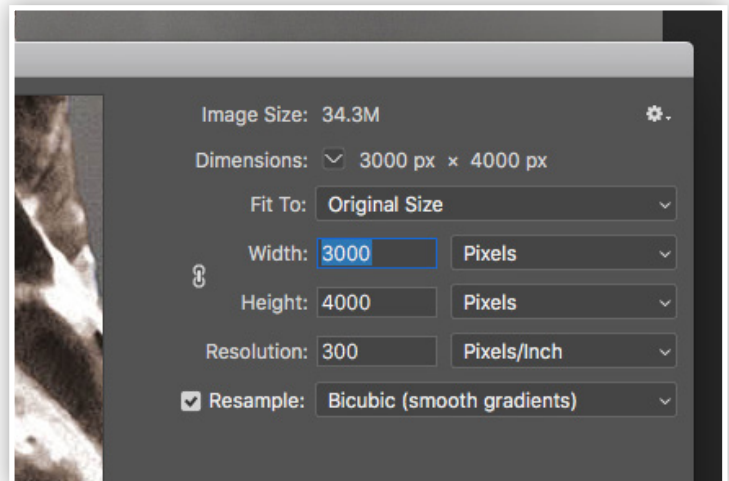
Compositing is the combining of visual elements from separate sources into single images, often to create the illusion that all those elements are part of the same scene. There are a number of ways to produce composite images. In this tutorial we will be looking at a fairly typical approach for the two

main elements of the image which is the grey/neutral background compositing technique. The beauty of shooting your main subject against a grey screen is that it gives them a well defined edge that makes the process of blending them into another environment all the easier. Whether your subject is normal human-

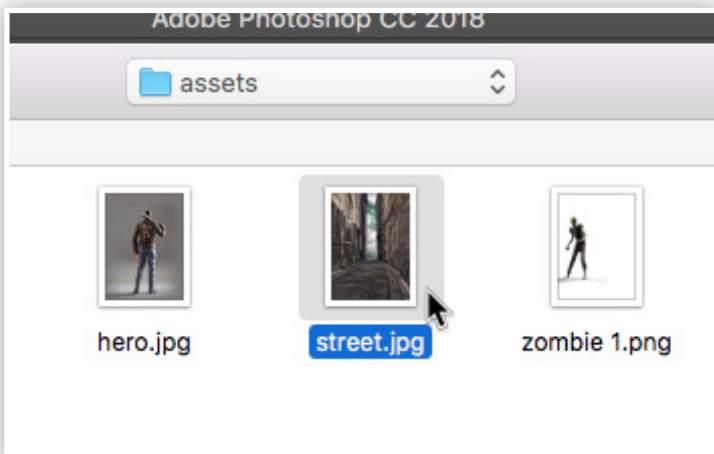
sized or in this case, just a 150mm tall action figure, grey screen compositing is the choice of many graphics professionals and is easier to do than you think. To flesh the scene out, we have a background and some additional graphics to create what could easily be a movie poster for the next big zombie apocalypse blockbuster.



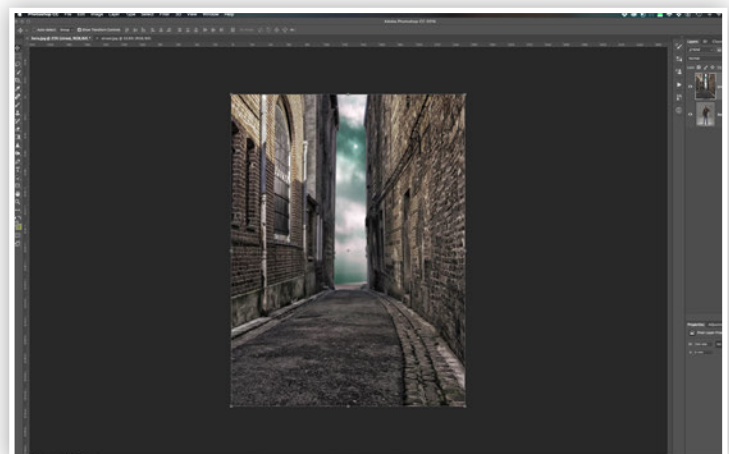
01 There are a number of elements to work with, but you need to start with the two main parts first. Go to File > Open and navigate to the file called 'hero.jpg'. Click Open and the image of a baseball bat wielding hero will be opened in Photoshop.



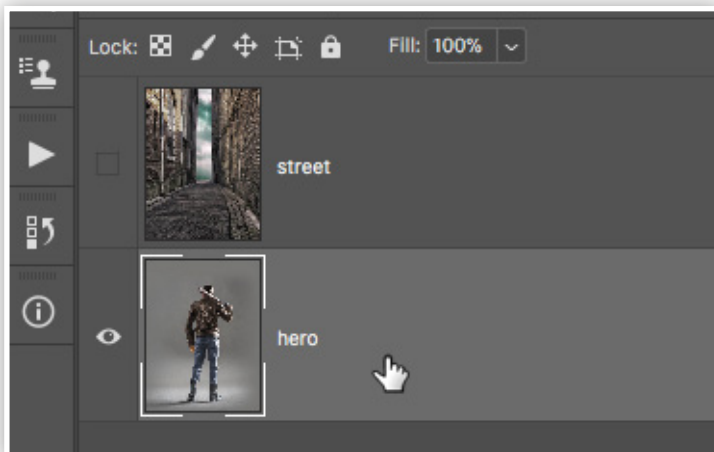
02 The image is 3000 pixels wide x 4000 pixels high. Certain settings and brushes used are based on an image that size but if working with images of a different size, you may need to alter your settings accordingly.



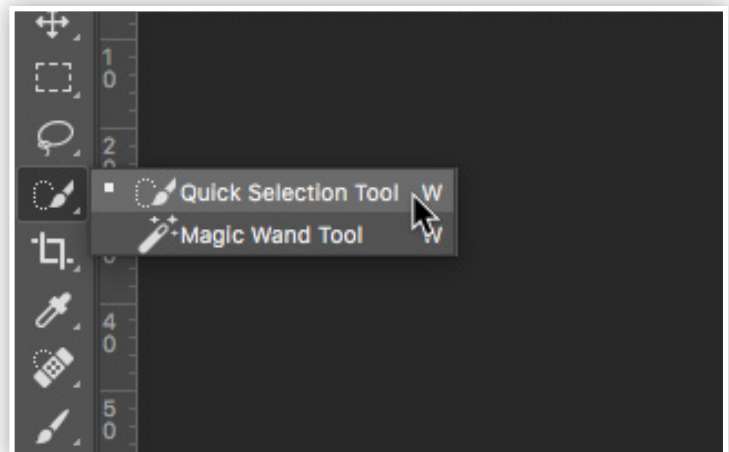
03 Next, go to File > Open again and navigate to the file called 'street.jpg' and click Open. This image will open in its own document. Now we need to combine the two images. Press Cmd + A to select all and then Cmd + C to copy the street image to the clipboard.



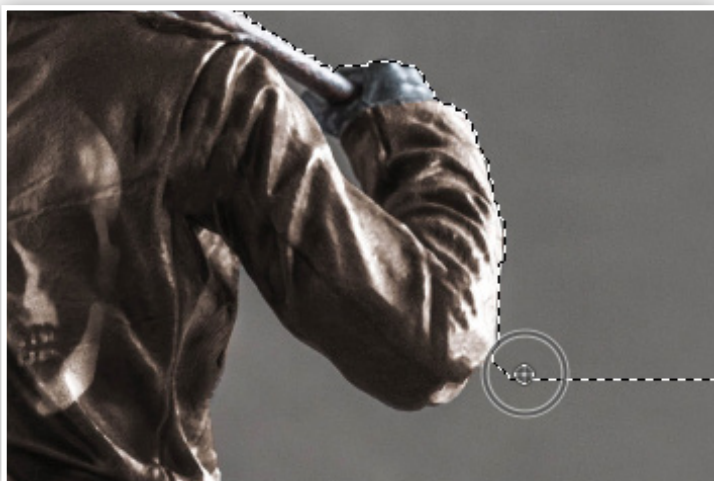
04 Go back to the 'hero' document and then press Cmd + V. This will paste the street image you just copied into the document containing the image of the hero. You can convert the Background to a layer by clicking the padlock icon on the right of the layer.



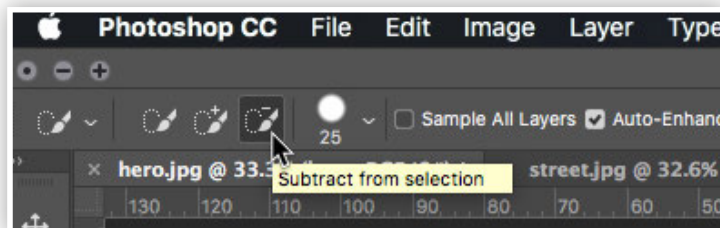
05 You now have two layers. You can name the recently pasted layer 'street' and the unlocked background of the man can be named 'hero'. For the moment, turn off the visibility of the 'street' layer by clicking the small eye icon next to its thumbnail.



06 Click on the 'hero' layer to make sure it is active and then go to the toolbar and choose the Quick Selection Tool (W). This is where the grey background that the figure was photographed on will help you make an accurate selection of him.



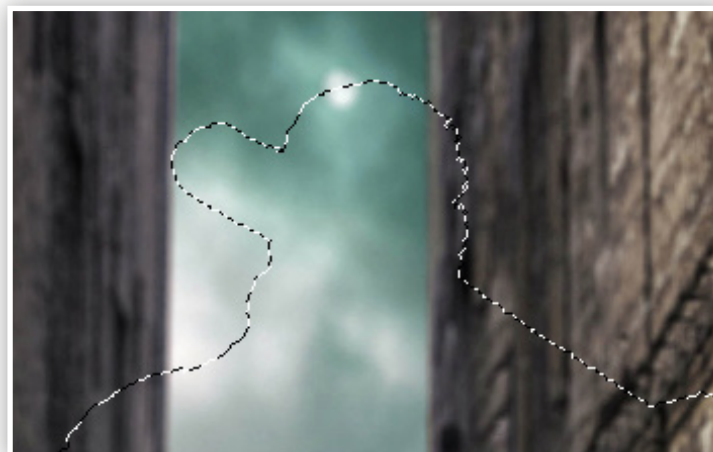
07 Take your Quick Selection Tool and select a brush size of about 25 from the tool options menu. Then click anywhere on the grey background and drag the cursor around the outside edge of the man. Make sure you also select the gap in his left arm.



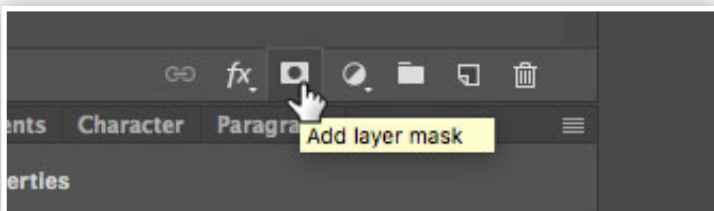
08 If the Quick Selection Tool selects too much, such as his left boot, you can go to the tool option menu at the top and click the Subtract From Selection button. Carefully draw over his boot and that part of the selection will be removed.



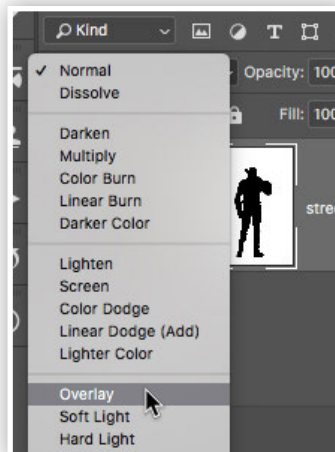
09 You can use the add or subtract selection options to make sure just the background is now selected. Most areas should be fine but as noted, the boots, and in this case, the tip of the baseball bat, need a little attention to get the selection correct.



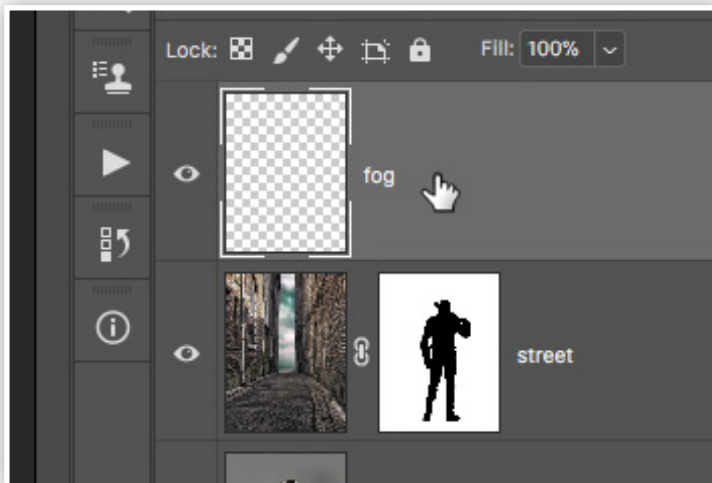
10 Keep the selection active and click on the 'street' layer visibility icon to turn it back on. You will see your selection, denoted by the marching ants, overlaid on the street image. Now you need a mask.



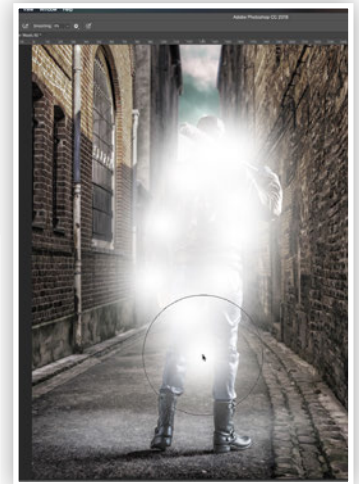
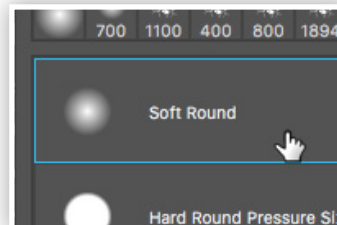
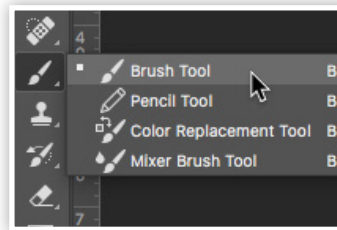
11 Go to the layer options panel and click on the Add Layer Mask button. When you do, a mask in the shape of the selection will be added to the 'street' layer. Any white area of the mask reveals the street image, black areas conceal it.



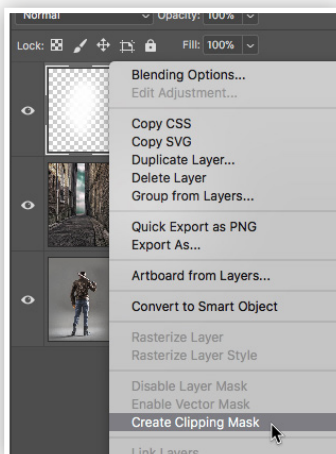
12 At the moment, the figure of the hero looks very obviously like a cut out. Click the 'street' layer and then choose Overlay from the Blend Mode panel. Now both images blend much more smoothly, with light and shadow of the grey mixing with the street image.



13 Go to the layer options panel again and choose Create A New Layer. Name this new layer 'fog' and make sure it is at the top of the layer stack. This is a little visual technique to create some more separation between figure and background.



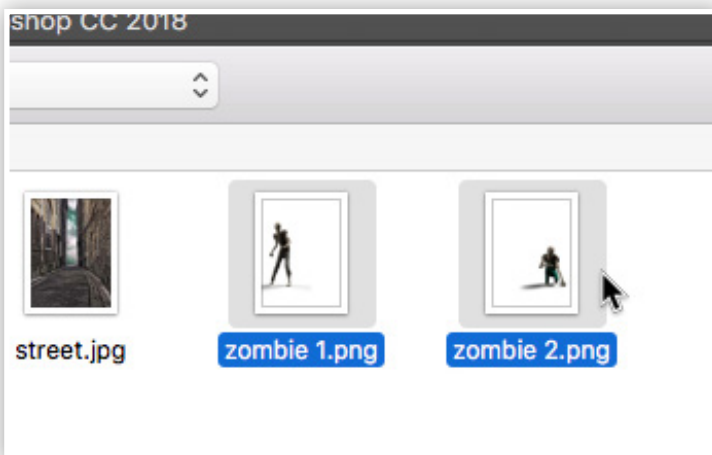
14 With the 'fog' layer active, go to the toolbar and choose the Brush Tool (B). Set foreground colour to white and use a soft round brush of about 1200 pixels and paint white around the figure of the man. Blur the brush marks by about 125 pixels.



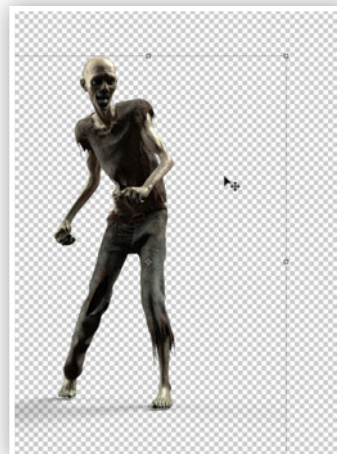
15 Obviously the white brush marks have obscured the man but if you right-click the 'fog' layer, you can select Create Clipping Mask from the menu. The 'fog' layer is clipped to the layer below and inherits the mask properties you created, revealing the man.



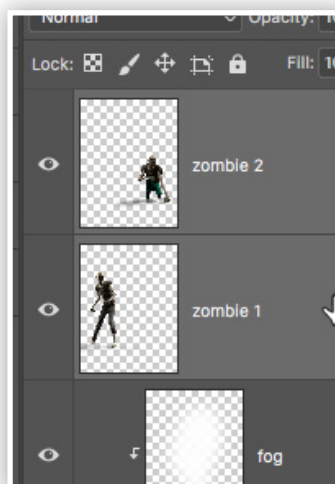
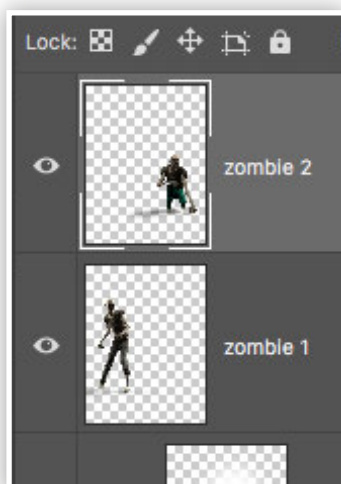
16 You can adjust the Opacity of the 'fog' layer as you wish; we set it to about 50%, just enough to help separate the foreground figure's outline from the busy details of the street image. Now you can add the extra character elements.



17 Go to File > Open and navigate to where 'zombie 1.png' and 'zombie 2.png' are kept. Highlight them both and click Open. Both of the files will be opened in Photoshop in their documents. Go to 'zombie 1.png' first.

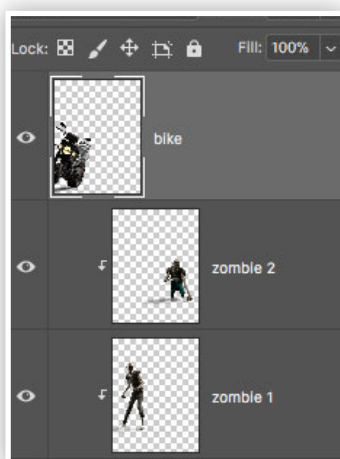
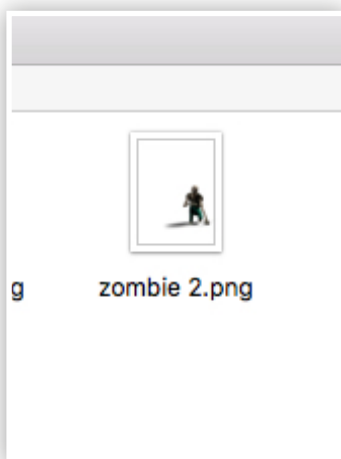


18 If you press Cmd + A to select all content and then press Cmd + C to copy all selected, you can then go back to your original document and press Cmd + V to paste the first zombie into the document. It will appear on a new layer which you can call 'zombie 1'.



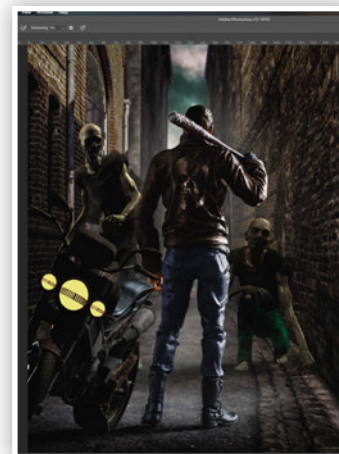
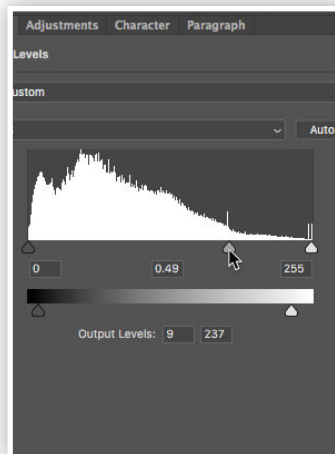
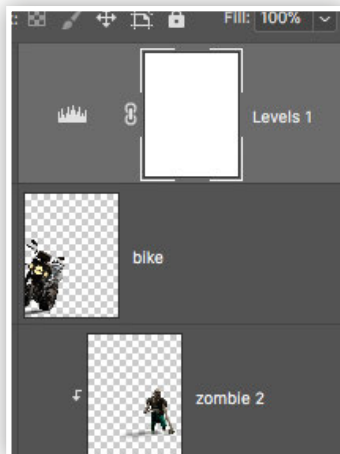
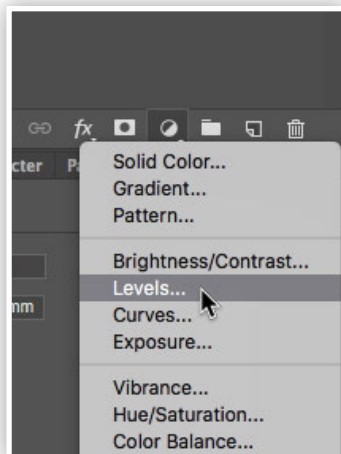
19 Repeat the process with the second zombie image and name its layer 'zombie 2'. Both zombies are at the top of the layer stack and you can see that they appear to float in front of our main foreground character. Let's fix that next.

20 Hold Shift and left-click on each zombie's layer to highlight them both. Now right-click on them and a context menu will appear. Choose Create Clipping Mask. You will see that both layers are now clipped in the same way the 'fog' layer was previously.



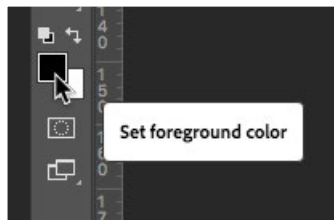
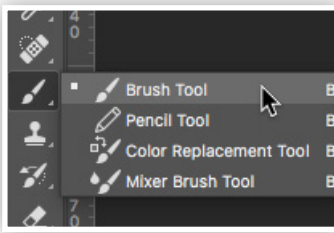
21 There is one more asset we can include to finish our scene off. Go to File > Open again and open the 'bike.png' file. Just as you did with the zombies, you can copy and paste this image into your main document at the top of the stack. Name the layer 'bike'.

22 Since the 'bike' layer appears in front of our character, there is no requirement to clip it like the zombies and the fog. Now that we have all our elements in place, they can each be moved within the scene as you see fit. We can also boost the drama a little.

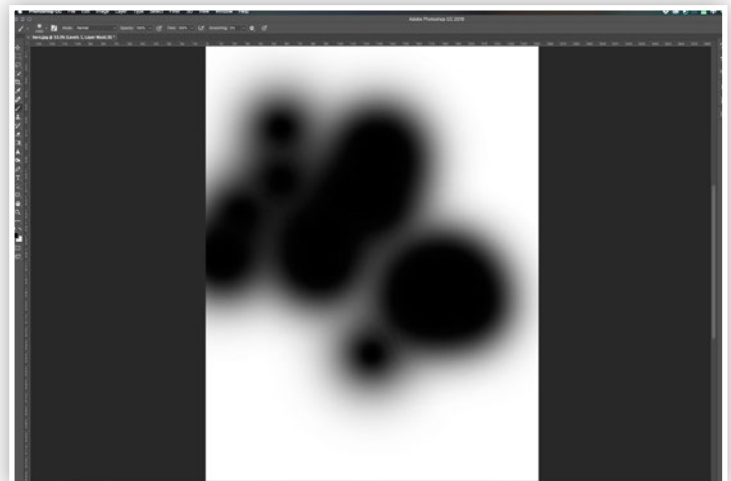


23 Go to the layer options panel and click on the Create New Fill Or Adjustment button. Choose Levels from the dropdown list. This will add an adjustment layer to the top of the stack; use it to boost light and shadow in the image.

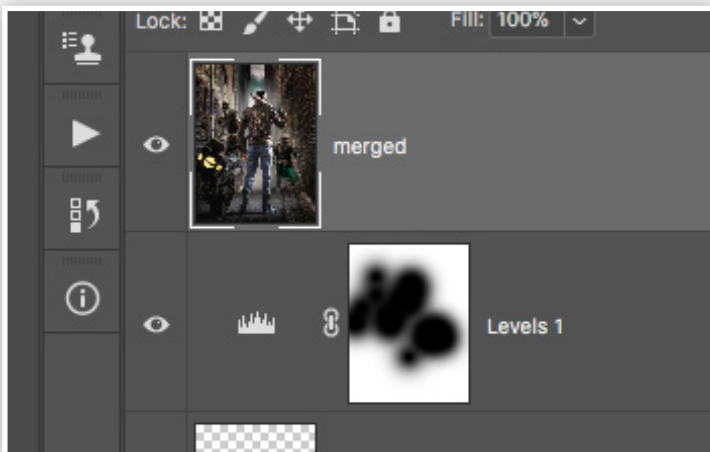
24 With the 'Levels 1' adjustment layer active, go to its Properties and push the middle Midtone slider to the right. All the middle tones will be darkened but since this is affecting the whole image, you need to be a little more selective.



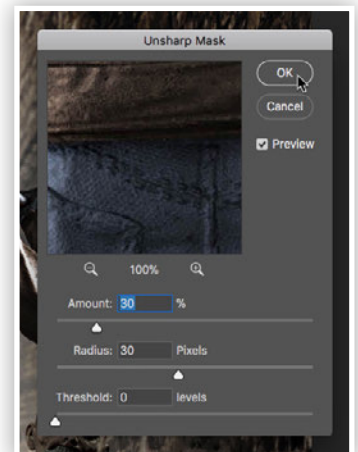
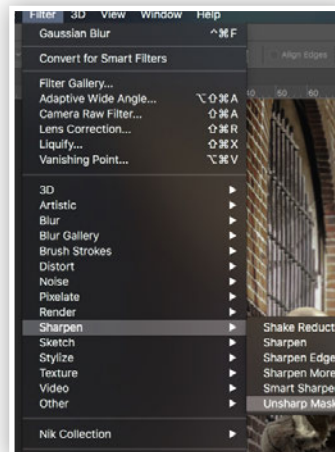
25 Keep the adjustment layer active and go to the toolbar and choose the Brush Tool (B). Set the Foreground Colour to black and use a large soft round brush to paint black on the 'Levels 1' layer mask where you do not want the darkening effects to be seen.



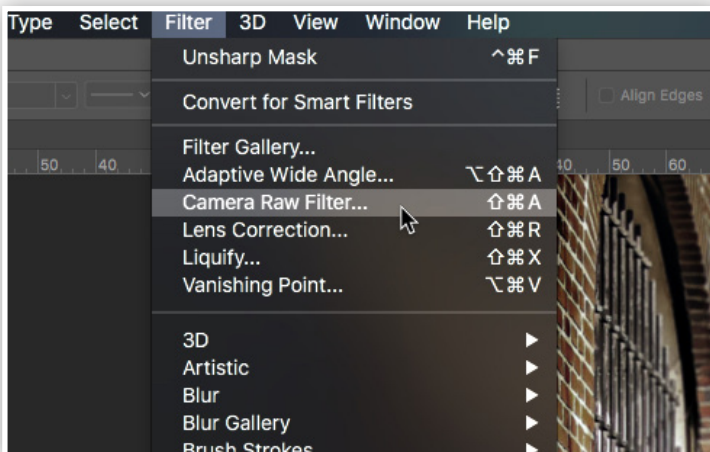
26 We painted around the three characters to keep them at their original brightness but made sure that their surroundings are darker. If you Alt + left-click the mask, you can see the brush marks that conceal the effects of the adjustments you've made.



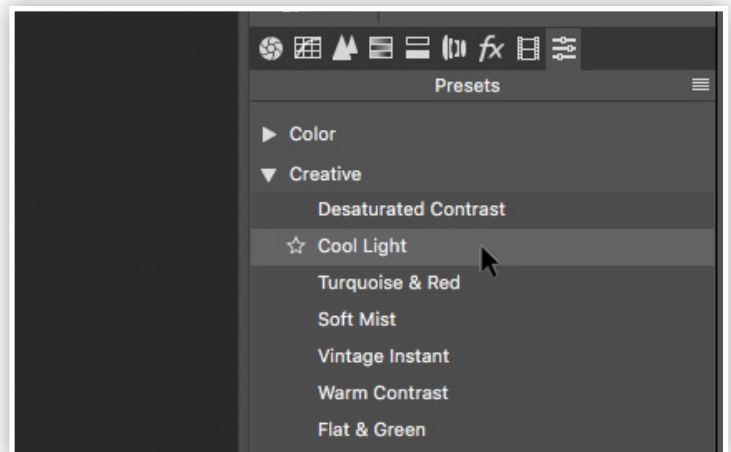
27 If you press Shift + Alt + Cmd + E, you can create a new layer that is a merged version of all the layers you've created so far. Think of it as a snapshot of the work done so far. Be aware that any layers that are turned off, will not be merged into the snapshot.



28 Call this new layer 'merged'. You can add some extra sharpness and boost contrast quickly by going to Filter > Sharpen > Unsharp Mask. Set the Amount to 30% and Radius to 30 Pixels. Threshold is 0 Levels.



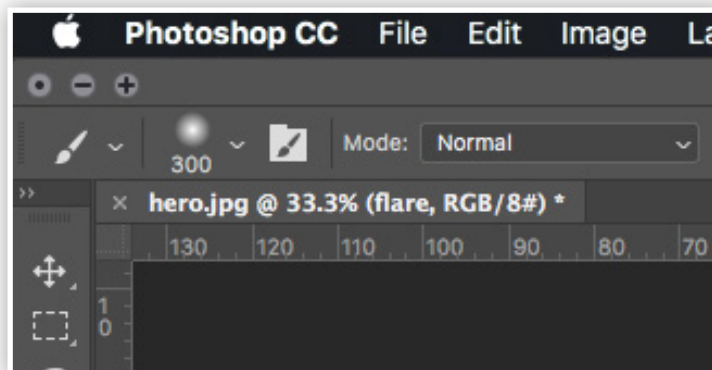
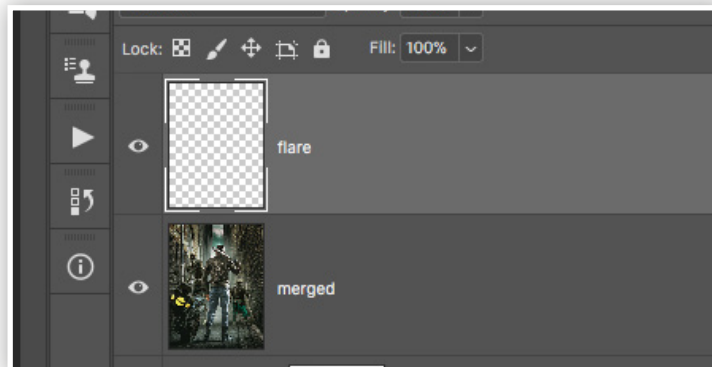
29 This boosts overall contrast and adds a level of sharpness, bringing out detail in the image. Now you can think about the colour in your image. If you go to Filter > Camera Raw Filter (Shift + Cmd + A), you can play with some of its new filter options.



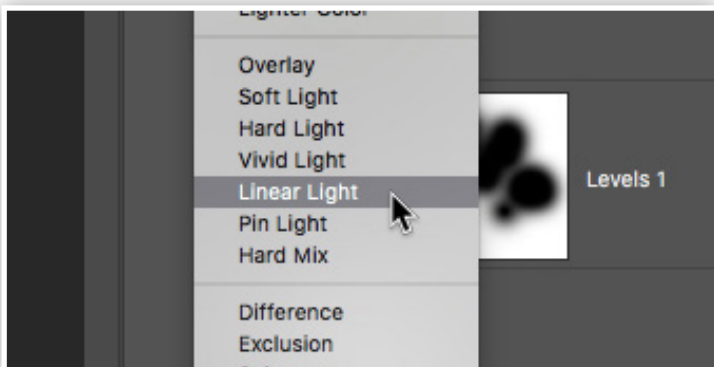
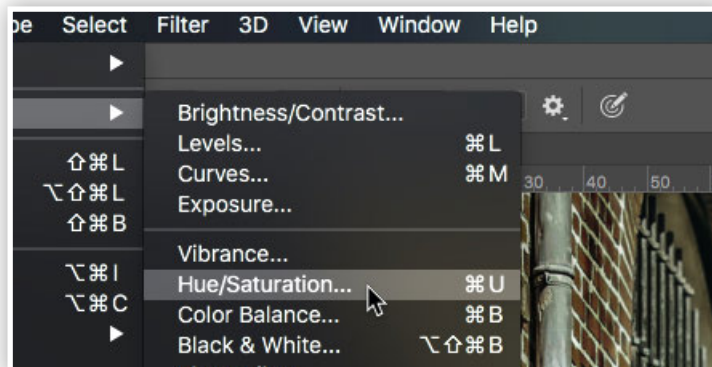
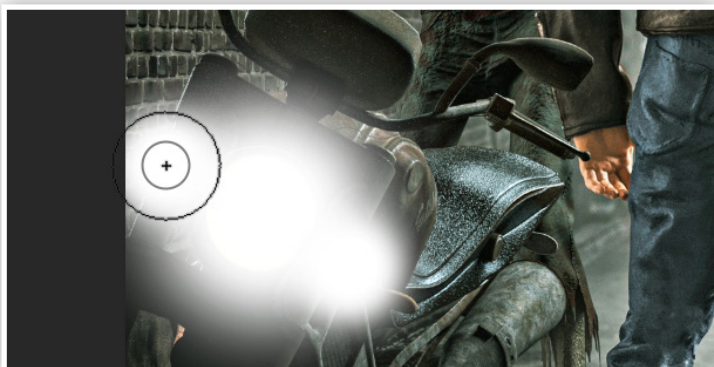
30 The 'merged' layer will open in Adobe Camera Raw (ACR). The latest version of ACR now has some interesting new creative filters which can be found under the Presets tab. You can preview each filter's effect on your image until you see something you like.



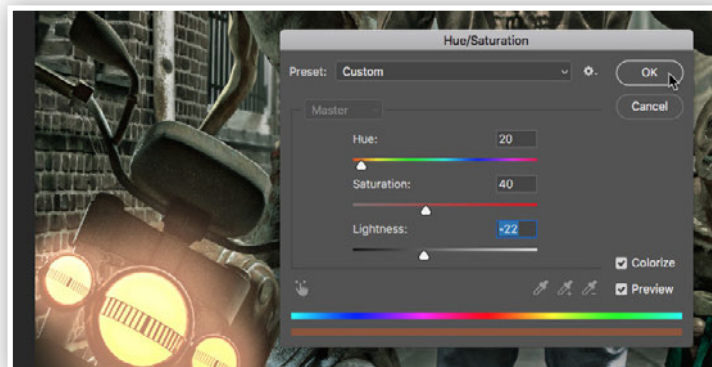
31 We chose the Flat & Green preset under the Creative options as this suited the content of the image quite well. We also employed ACR's own Basic adjustment options too, to add more contrast and colour saturation. Click OK when you're happy with the changes.



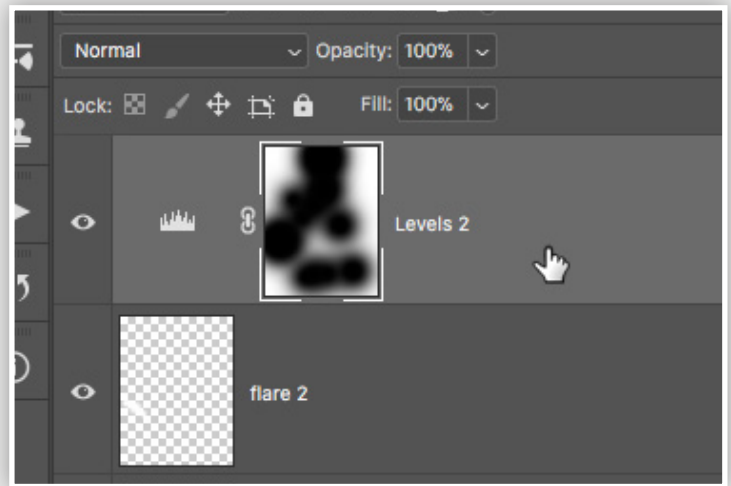
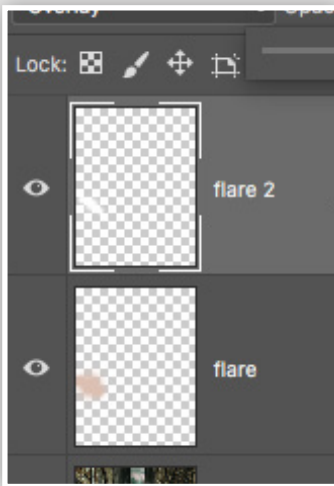
32 ACR will hand the 'merged' layer back to Photoshop where you can see it updated with the adjustments you've just made. You can add a new layer next and call it 'flare'. Go to the Brush Tool and choose a soft white brush of about 300 pixels.



33 Paint over the headlights of the bike with the white brush. Then set the Blend Mode of the 'flare' layer to Linear Light. This is a favourite method of ours for adding a glowing effect to bright areas in an image.



34 Go to Image > Adjustments > Hue/Saturation (Cmd + U) and in the panel that appears, check the Colorize button, set Hue to 20, Saturation to 40 and Lightness to -22. Click OK to apply a yellow glow to the headlights.



35 Create another layer called 'flare 2' and make its Blend Mode Overlay. Now paint with your white brush on top of the glow you just made to enhance the light effect of the bike's headlights.

36 We also added another Levels adjustment to darken the edges a little more using the same selective masking methods used in step 25. Your image is finished. Our hero is about to face off with the zombie hordes and we have front row seats.



Create amazing art today

Compositing is easier than you think, and great fun too.

How to Retouch Skin

Beauty retouching workflow for great skin

Before the advent of digital technology, it was the job of the makeup artist to get the skin looking perfect on set or in the studio. Now, thanks to Photoshop you are the makeup artist. You can control exactly how you want your model to look in the final image. As ever, there are numerous ways you can go about retouching skin. Some techniques are very simple but do not give natural results. Some take it to extremes and

end up with their models looking like mannequins. Of course, there has been much debate about the use of retouching and manipulation. All we are looking to do is make the skin look as smooth and glowing as possible. We are going to use a technique called frequency separation. Simply put, you break the base image down into two components. One layer carries just colour and tonal information, the other layer holds detail and texture. This means you can work on one, without affecting the other. It's a simple and effective method.

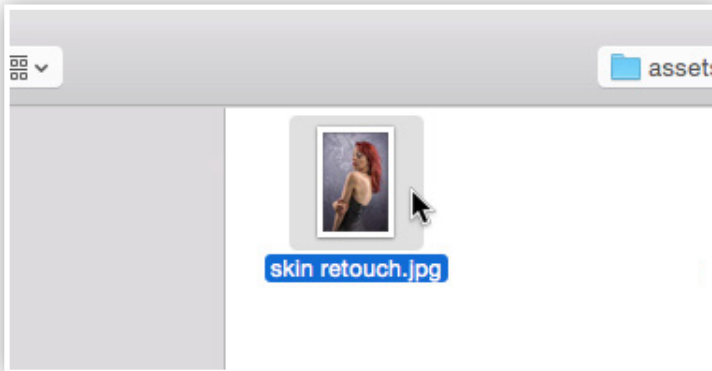
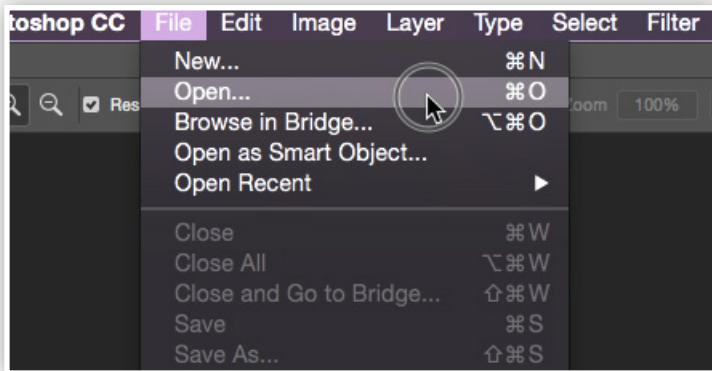


AFTER

BEFORE



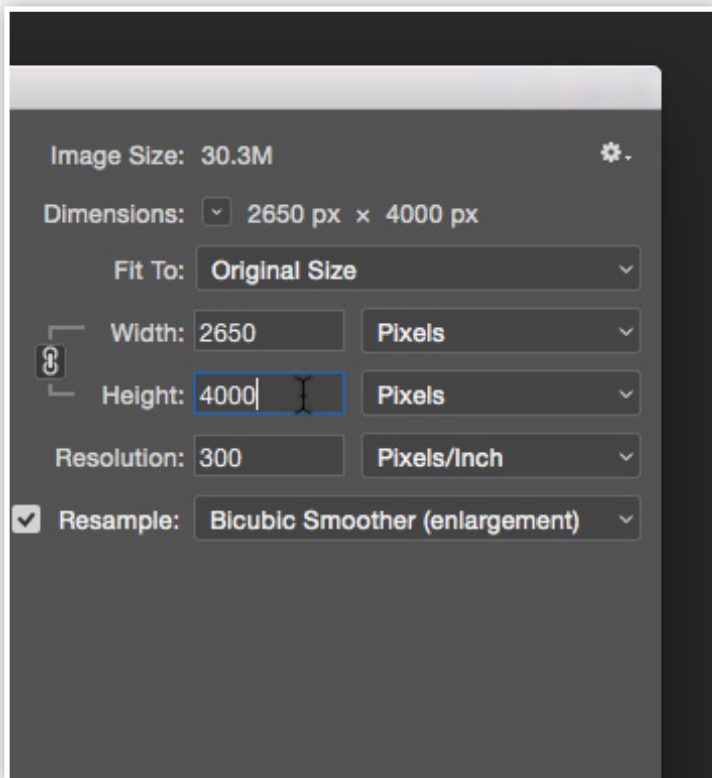
This tutorial content is available for download



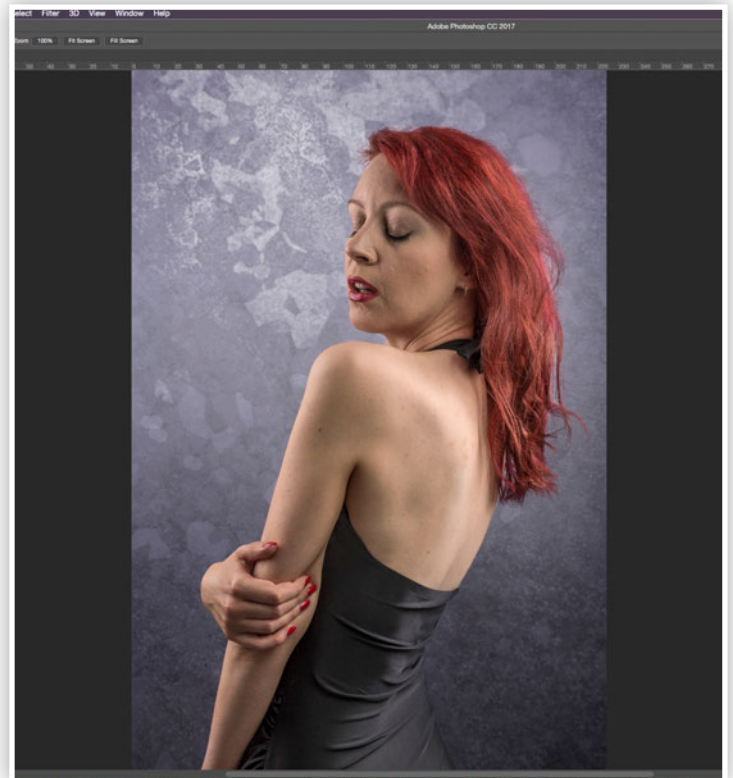
01 Open Photoshop, then go to File > Open (Cmd + O) and navigate to where the 'skin retouch.jpg' is kept. Double-click it or click Open to proceed.



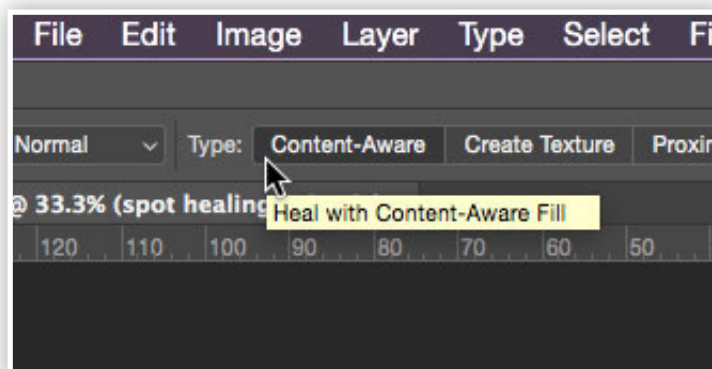
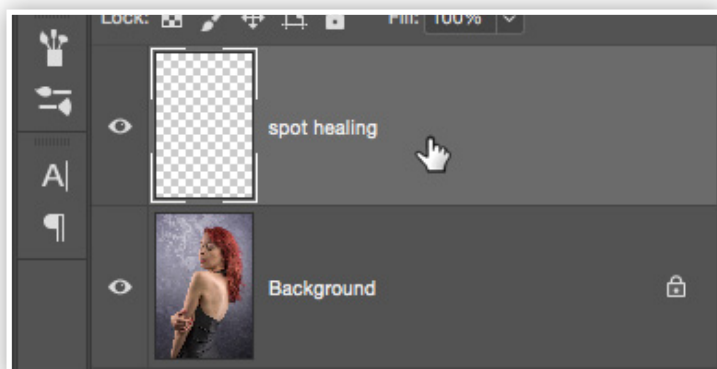
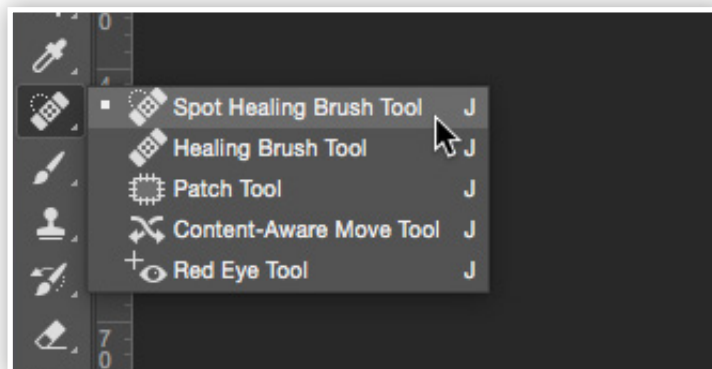
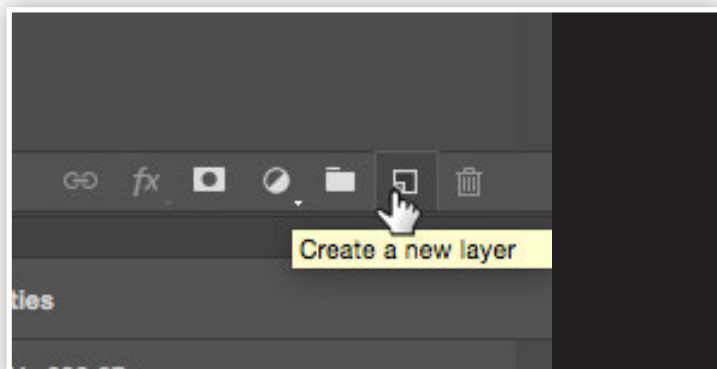
02 This is your base image. It was shot in the studio with our model Sarah-Jane. Although some makeup was used, her bare shoulders and back could do with some retouching to even it out and reduce the crease by her neck.



03 Our example image is 2650 pixels wide by 4000 pixels high. The settings and brush sizes are based on an image this size. If you use a smaller image for instance, then your settings will need to alter accordingly.

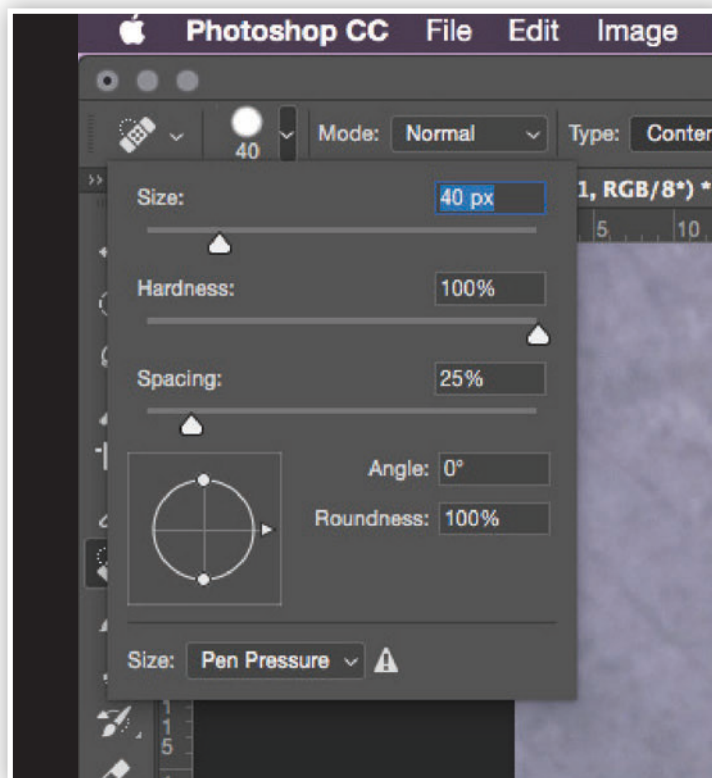
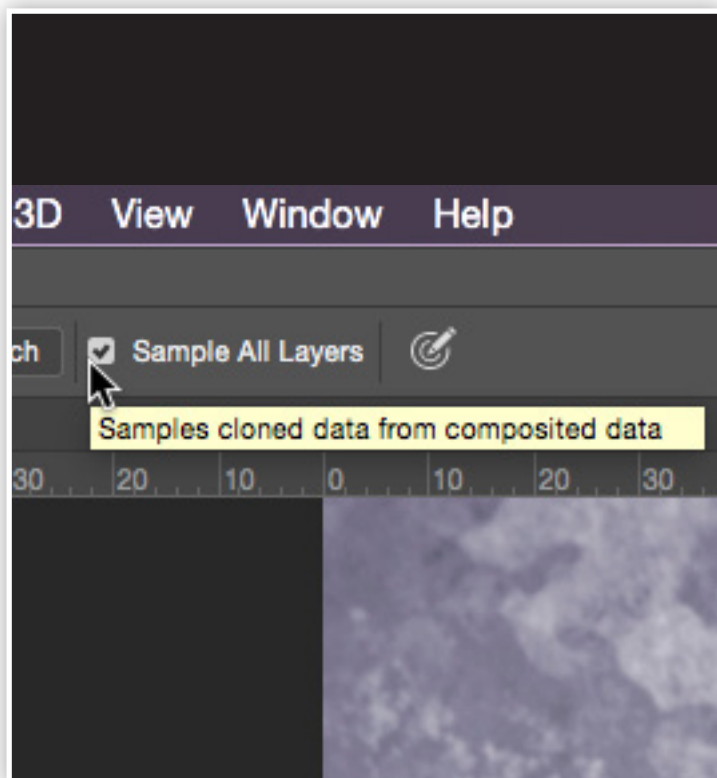


04 We are going to start with a basic skin clean-up which will be an important aspect of the retouch as a whole. Getting this part right will make the rest much easier as we progress.



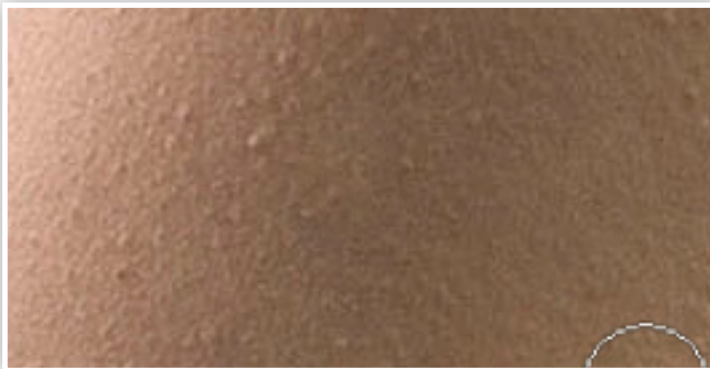
05 Click on the Create New Layer button. Name this layer 'spot healing' and make sure it is the active layer. You are going to do the basic skin clean-up, but all the healing done will appear on this layer, leaving the original image untouched.

06 Select the Spot Healing Brush Tool (J) from your toolbar. From the top context menu make sure the Type is set to Content-aware. It will analyse the image and create the best texture to apply over the spot you clicked on.

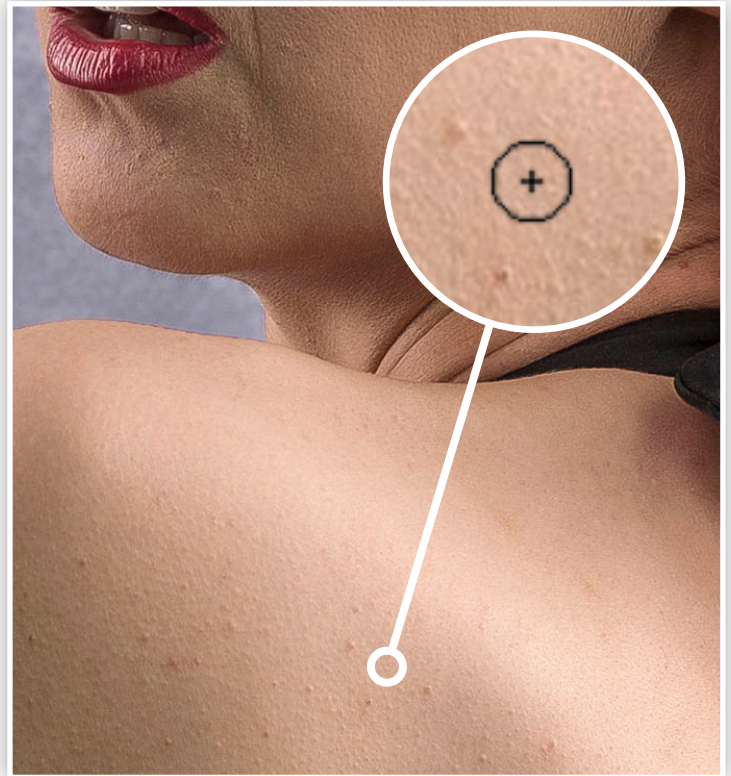


07 You also need to make sure that the Sample All Layers is checked. Each time you click to heal an area on your model's skin, the cloned data will appear on the 'spot healing' layer.

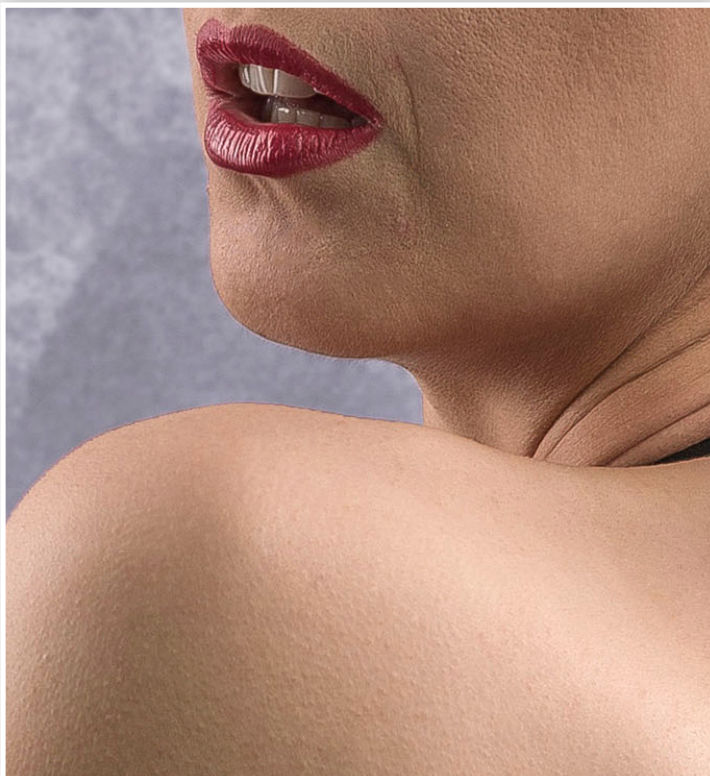
08 The healing brush can be set to about 30-40 pixels and needs to be around 60-100 per cent Hardness, start to click on any flaws, blemishes and imperfections on her skin.



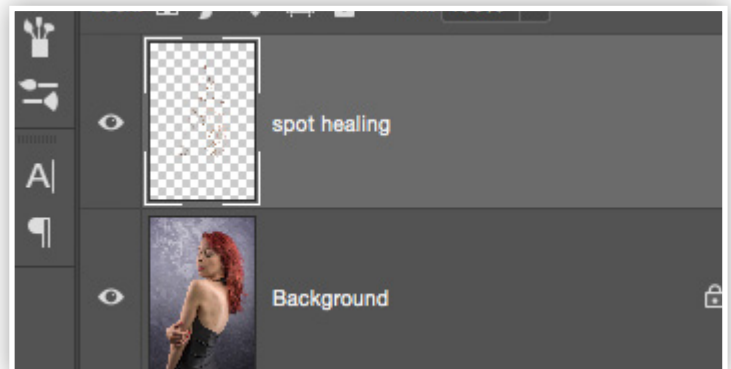
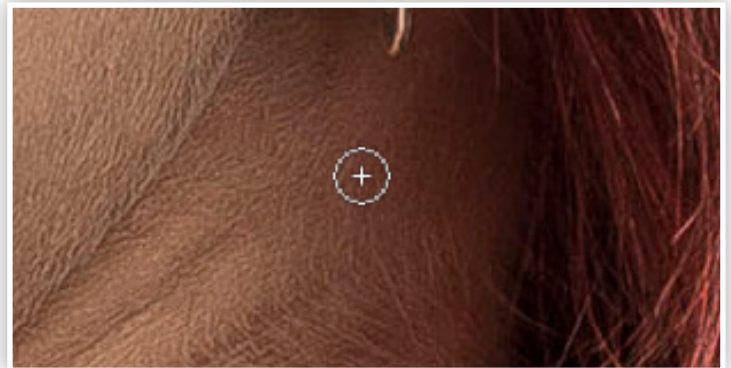
09 As you click your brush on each blemish, the areas will automatically be filled in with skin texture that matches and the blemishes will be removed.



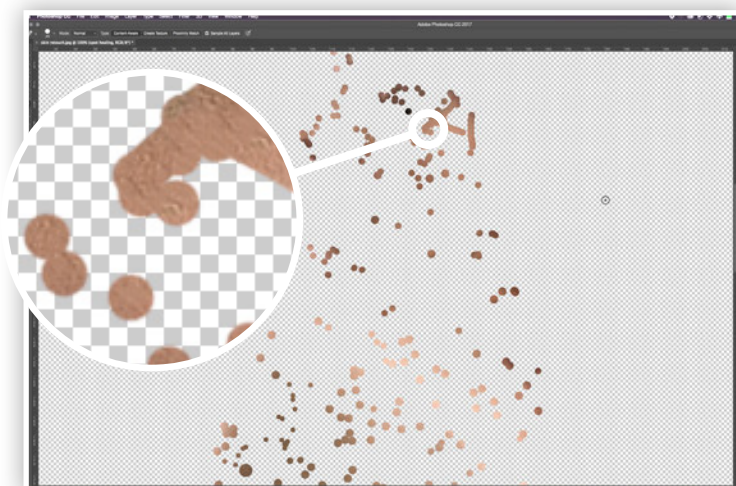
10 Keep working around her shoulders, back and face to remove any unwanted imperfections. Don't worry too much about creases or wrinkles, they can be addressed later.



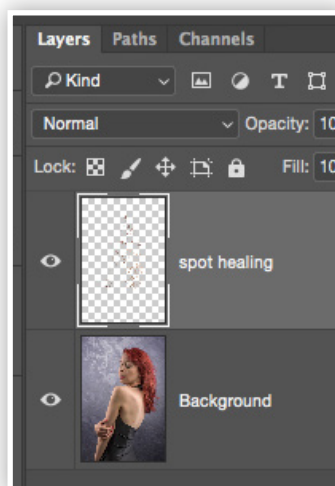
11 It's worth spending as much time as you can on this part. A good base retouch now will literally be a great foundation on which the rest of the retouching can be built. This part took about ten minutes.



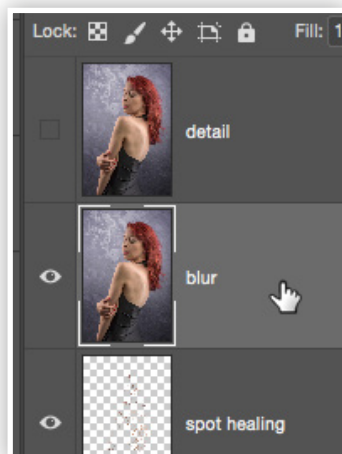
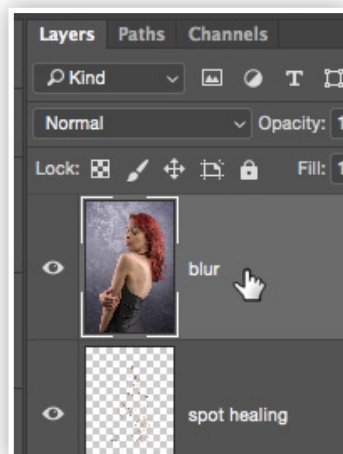
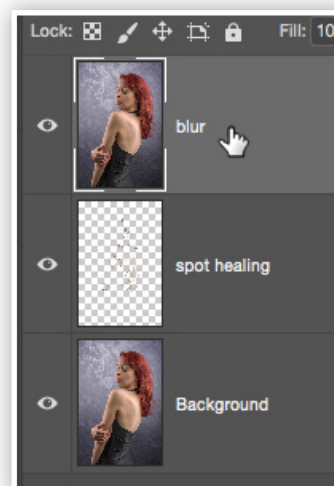
12 As we mentioned, every time you click the healing tool on her skin, the resulting healed area is added to the 'spot healing' layer only. This is a great non-destructive method to use.



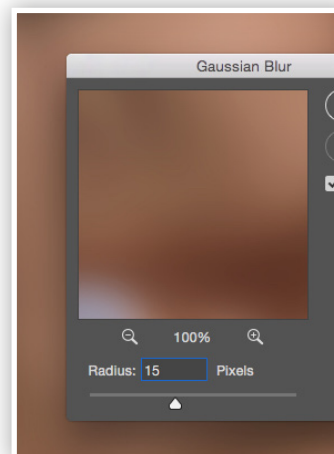
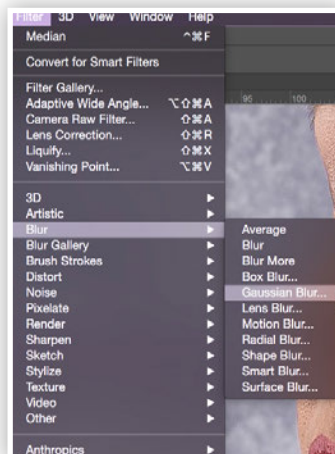
13 If you view the 'spot healing' layer on its own by Alt + left-clicking on that layer's visibility icon, you'll see all your newly healed skin is only on this layer. Alt + left-click again to return to normal view.



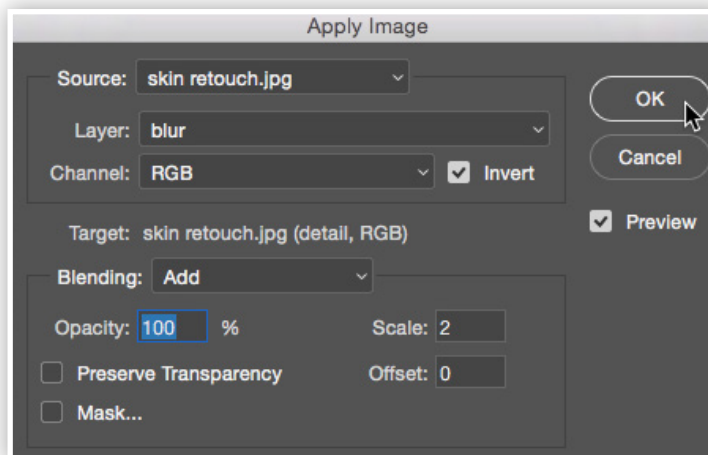
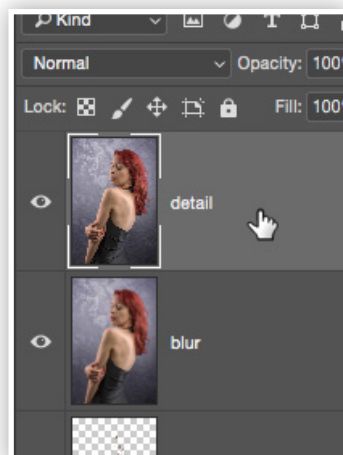
14 With the 'spot healing' layer active press Shift + Alt + Cmd + E to create a merged duplicate of both the 'Background' and 'spot healing' layers. Name this new layer 'blur'.



15 Press Cmd + J to duplicate the 'blur' layer. Rename this top layer 'detail'. For the moment click the visibility icon for the 'detail' layer to turn it off. Click the 'blur' layer to make it active.

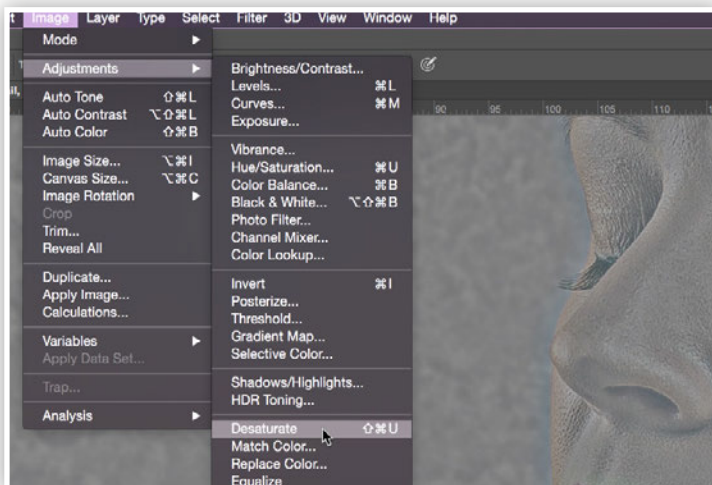


16 Go to Filter > Blur > Gaussian Blur and make the blur Radius about 10-15 pixels. This is enough to remove any strong detail and texture but keep all the colour information. Click OK to proceed.

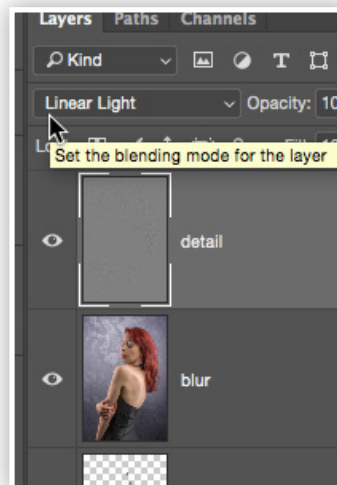


17 Make the 'detail' layer visible again, and while it's active, go to Image > Apply Image. This is where we create a layer that has no colour information, just texture and detail.

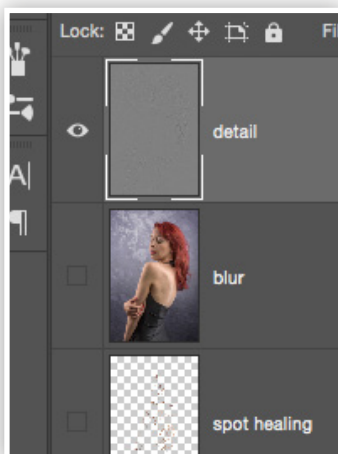
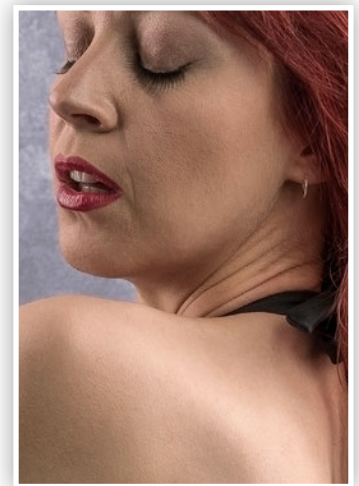
18 Match the settings as shown above. Layer = blur, Channel = RGB, Invert button is checked. The Blending mode is set to Add. Opacity is 100 per cent and Scale is 2 and Offset is 0. Click OK to proceed.



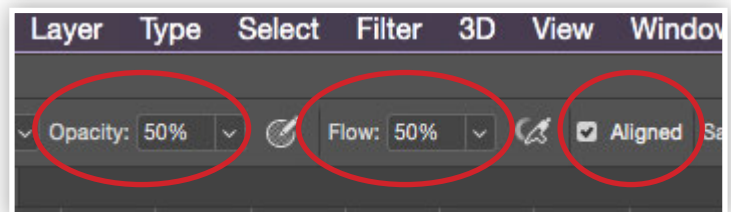
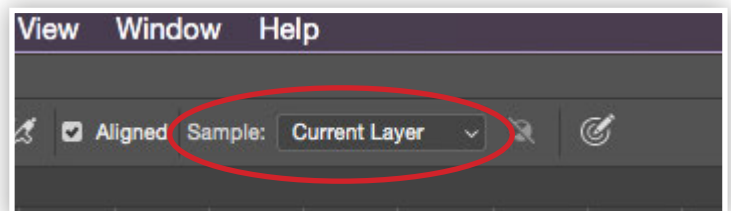
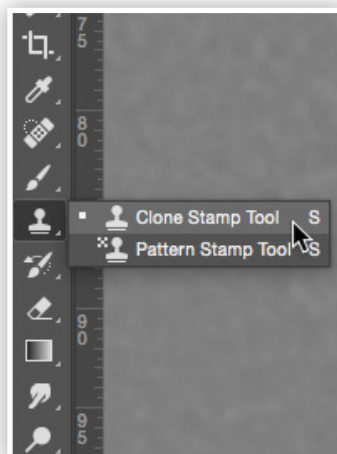
19 The 'detail' layer now looks very different. At this point go to Image > Adjustments > Desaturate (Shift + Cmd + U) to remove any colour and click OK to continue.



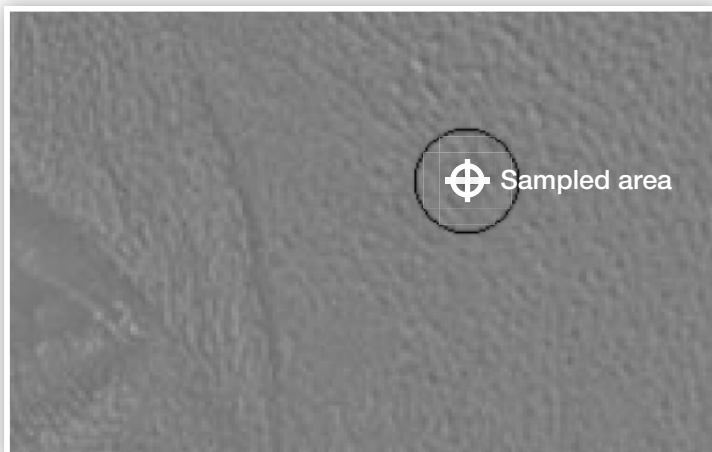
20 Now you need to set the 'detail' layer Blend Mode to Linear Light. The portrait will appear to have gone back to normal. This is because the combination of the 'detail' and 'blur' layers blended together creates the illusion.



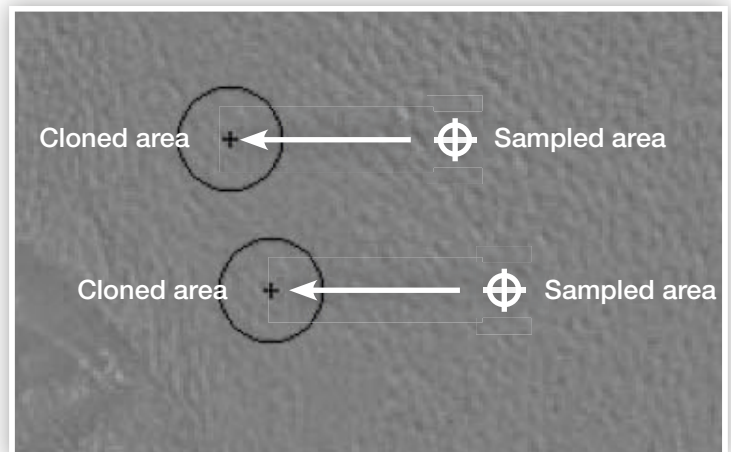
21 For the moment, turn off all layers except the 'detail' layer which we will work on next. Zoom in close to your image and choose the Clone Stamp Tool from your toolbar (press S).



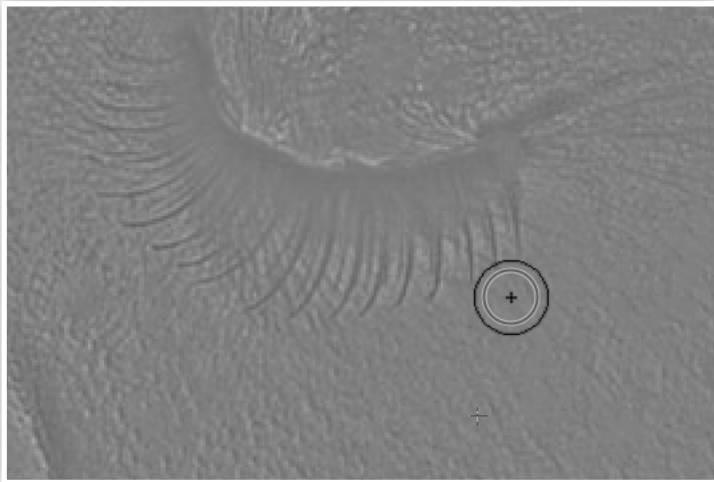
22 It is important to note that you must now make sure that in the top context menu, Sample is set to Current Layer. Make Opacity 50 per cent and Flow 50 per cent and check the Aligned button. This will let us clone with more control.



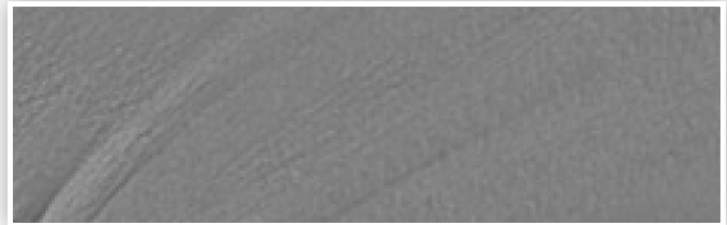
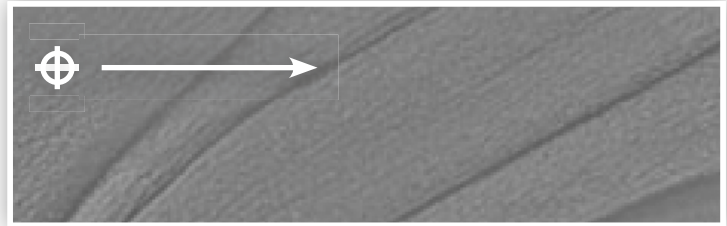
23 Start with the creases around her mouth. Hold the Alt key and your cursor will change to a small crosshair. Choose an area of unblemished skin texture next to the crease and left-click to make that area your clone sample.



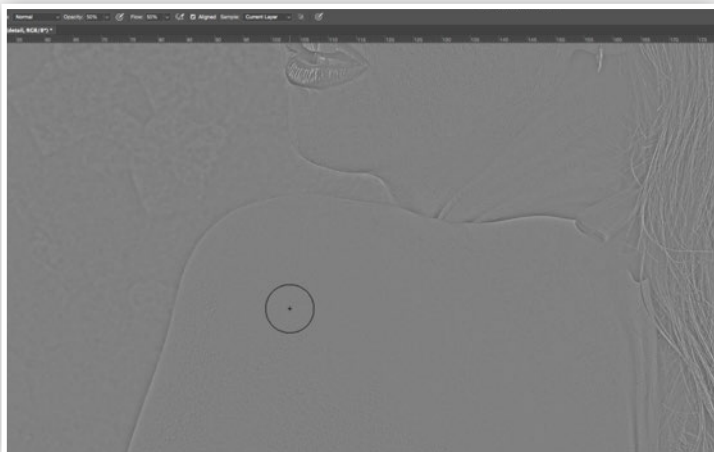
24 Now you can begin to brush this sampled area of clean skin onto the crease next to it. Whilst you clone, watch out for repeating patterns. If you need to, sample a new area of clean skin and carry on cloning.



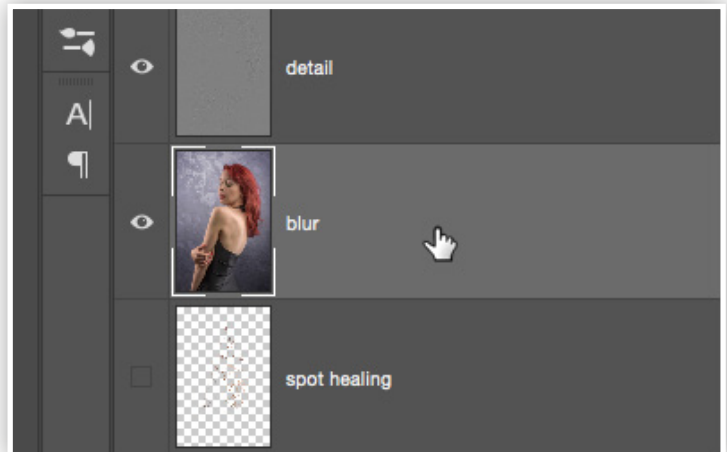
25 Work your way around the face, cloning areas of clean skin onto any wrinkles and imperfections that you want to remove. You can even clone some skin over stray hair around her face to remove it.



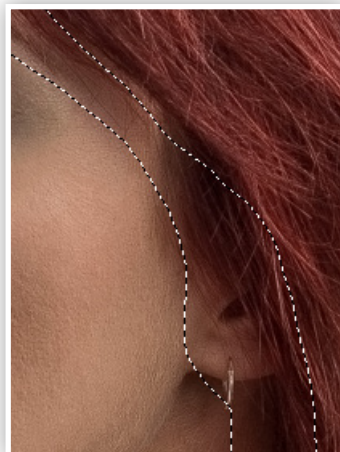
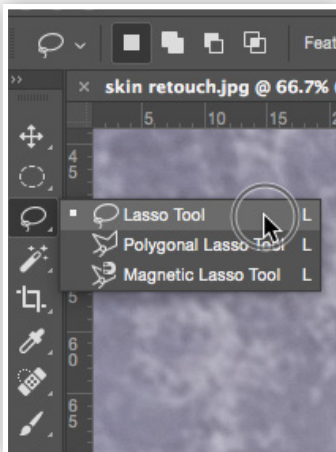
26 Now sample some clean skin texture from her cheek and use that to reduce the creases on her neck. You don't have to completely eliminate them, just make them less visible.



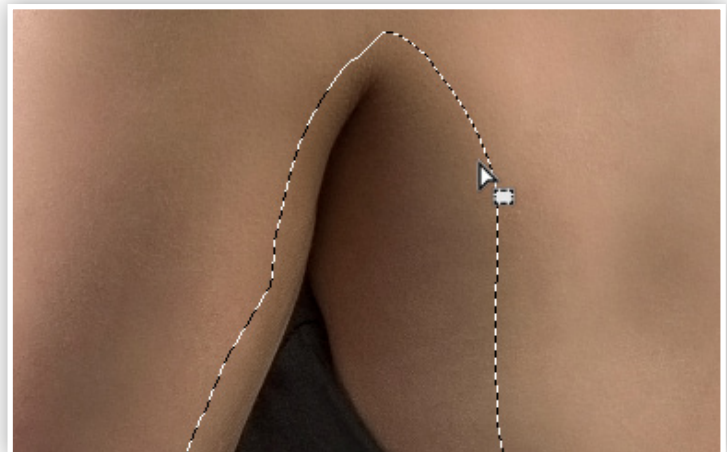
27 Next you can start cloning a clean area of skin from her back and use it to even out her shoulders, arm and lower back.



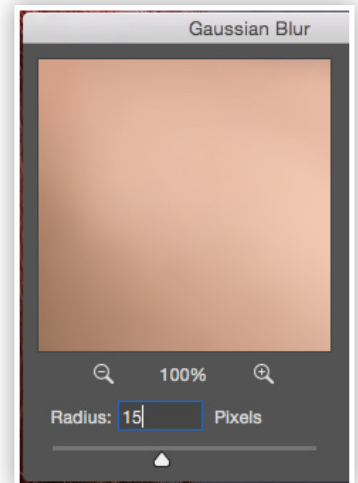
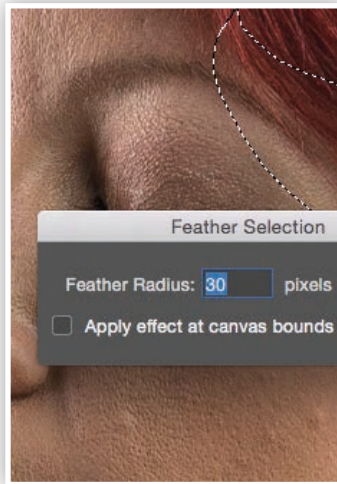
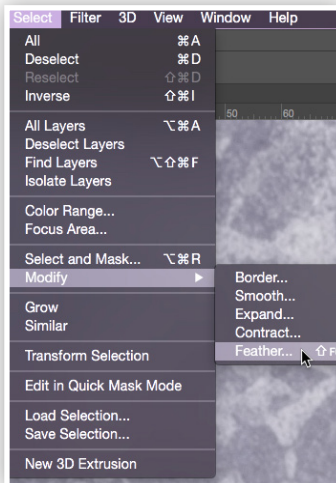
28 An optional tweak is to soften some of the darker areas of the image. To do this, make the 'blur' layer visible and active. You are going to selectively blur some additional areas on this layer.



29 Select your Lasso Tool from the toolbar (L), click draw a rough selection around the darker areas of her head, ear and neck. Once you join the Lasso up to the starting point, the marching ants will appear.

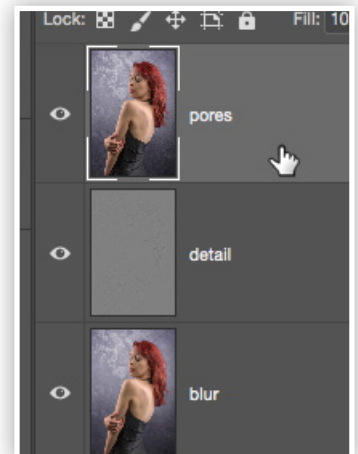
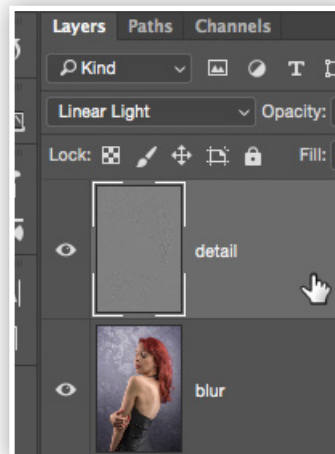


30 If there are any other darker areas you want to soften, hold the Shift key, and you will be able to draw another selection to add to the first one you drew with the Lasso Tool.



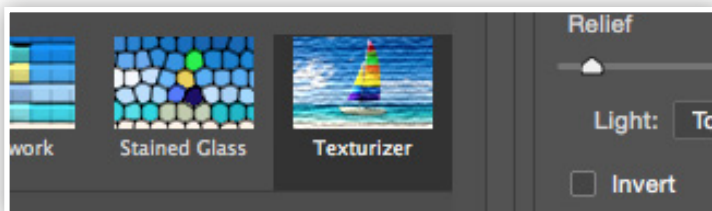
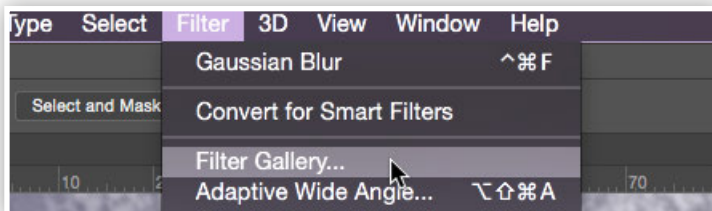
31 Go to Select > Modify > Feather (Shift + F6) and feather the selection by about 30 pixels. Click OK to apply the feather.

32 Now go to Filter > Blur > Gaussian Blur and set the Radius to about 15 pixels. Click OK to apply the blur. The effect is subtle, and is a good way to remove any remaining harsh shadows or generally soften the image some more.

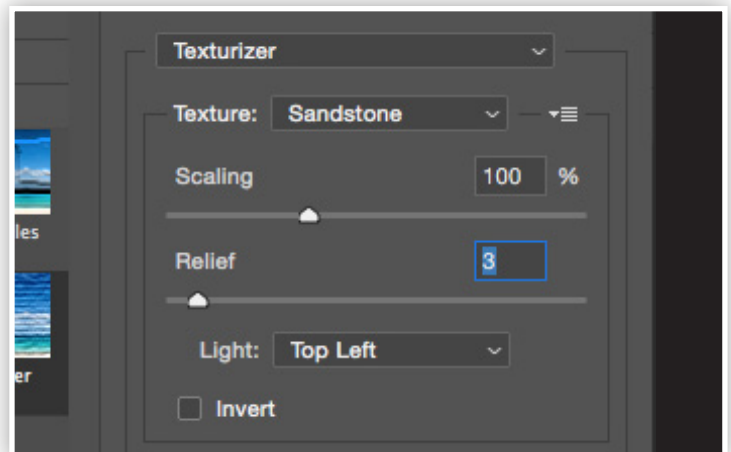


33 We now have our image with its basic skin clean-up and also its blur and detail layers which have been modified to give us skin which is free of blemishes. Now we can add some texture to enhance it further.

34 Make sure the 'detail' layer is active and then press Shift + Alt + Cmd + E. This will create a new layer that is a merged version of all the currently visible layers. Name this layer 'pores'.



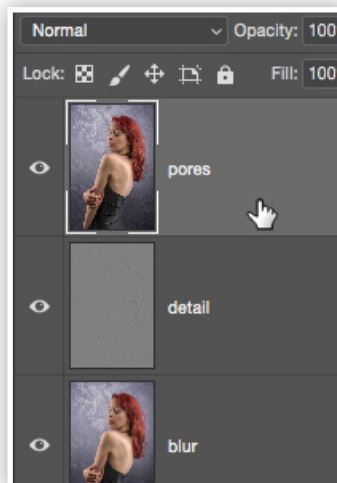
35 Go to Filter > Filter Gallery to open the Filter Gallery panel. Open the Texture tab and choose Texturizer from the list of options.



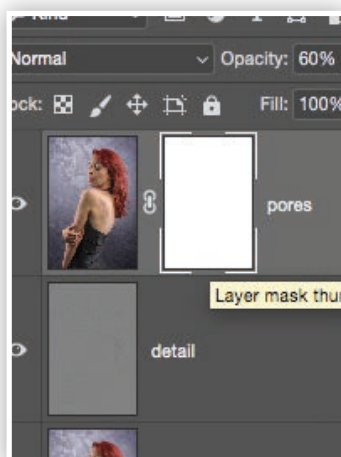
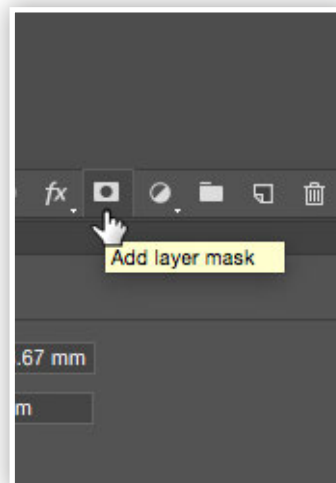
36 Make sure the Texture is set to Sandstone and Scaling is about 100 per cent. Relief can be about 3 and Light is set to Top Left. The Invert button can be left unchecked. Click OK to add this texture to the 'pores' layer.



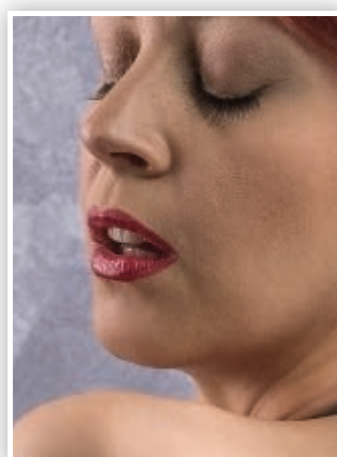
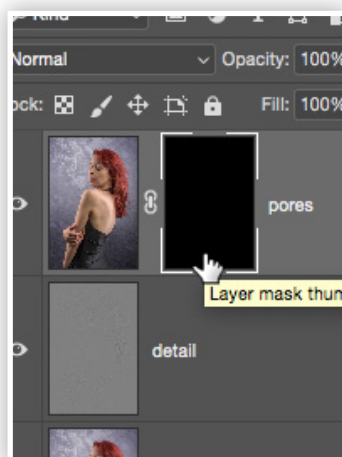
37 Obviously, the texture has been applied to the entire image but we can sort that out with the aid of some masking.



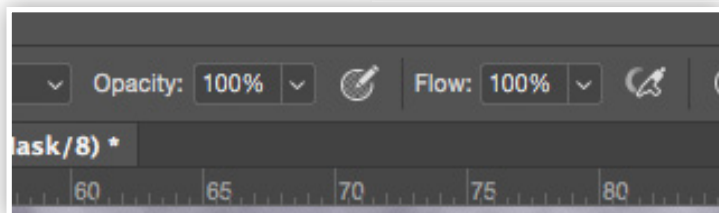
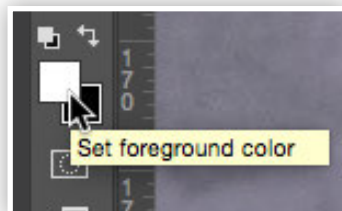
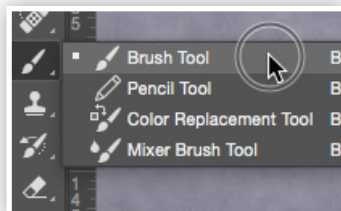
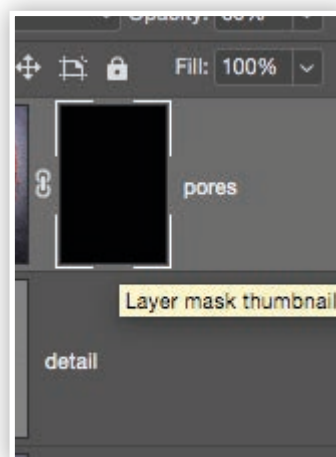
38 Keep the 'pores' layer active and then click on the Add Layer Mask button at the bottom of the layers palette.



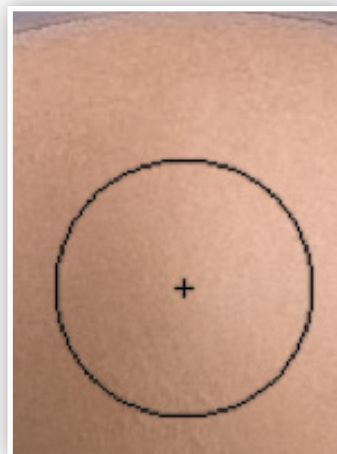
39 A mask will be added to the 'pores' layer. Click the mask thumbnail itself to make it active and press Cmd + I to invert it from white to black.



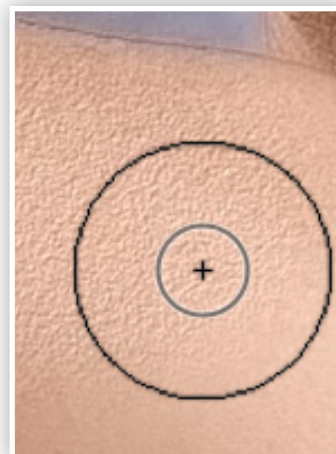
40 When you do, the 'pores' layer will become invisible for the moment. We can now selectively reveal just the textured areas we want to be visible. Make sure the 'pores' layer mask is active, not the image itself.



41 Go to your toolbar and select the Brush Tool (B). Make sure the Foreground Color is white and choose a soft brush of about 125 pixels. Make sure Opacity and Flow are both 100 per cent.

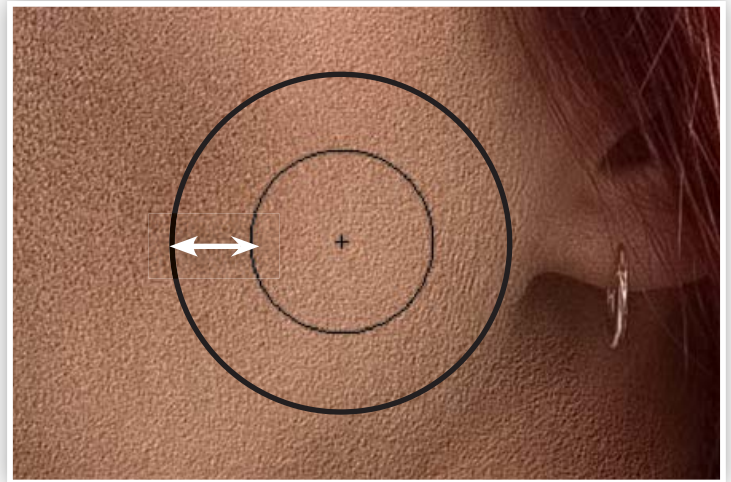


42 Start to paint with your white brush over areas of skin. As you do, the 'pores' layer texture will be revealed with each stroke.

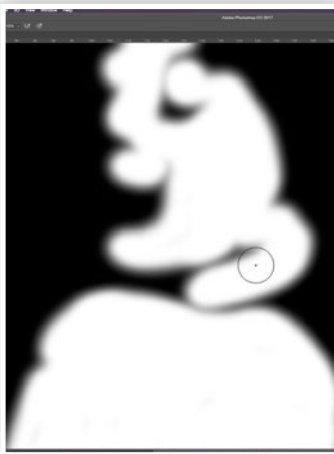




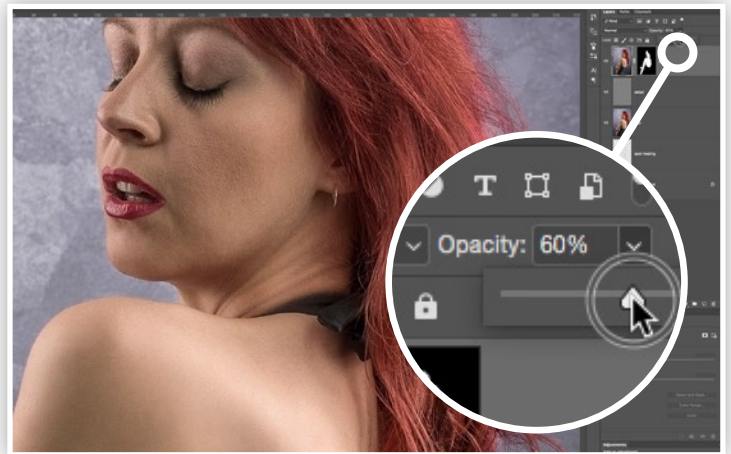
- 43 Work your way over the shoulders, arm, lower back and then her face. Avoid brushing over her lips, eyes and teeth.



- 44 As you paint, if you need to make the brush smaller or larger press the [or] keys to make the brush size scale up or down to fit the areas you are painting over.



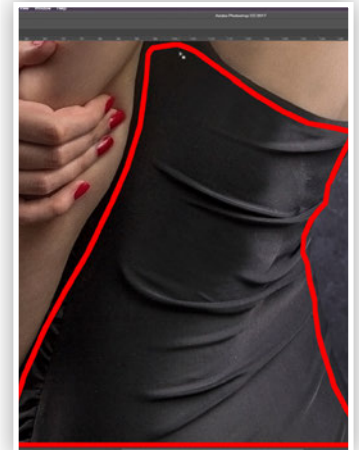
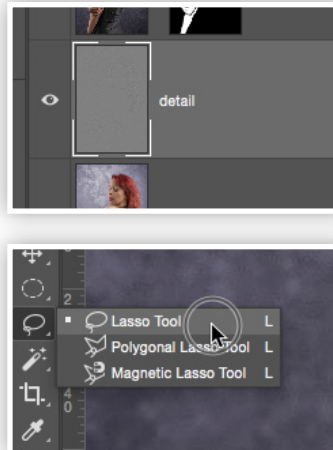
- 45 If you press the Alt key and left-click on the 'pores' layer mask thumbnail, you can see the areas you've painted in white on the mask. Press Alt + left-click again to return to the standard view.



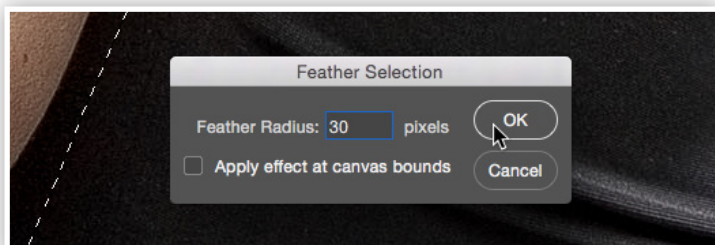
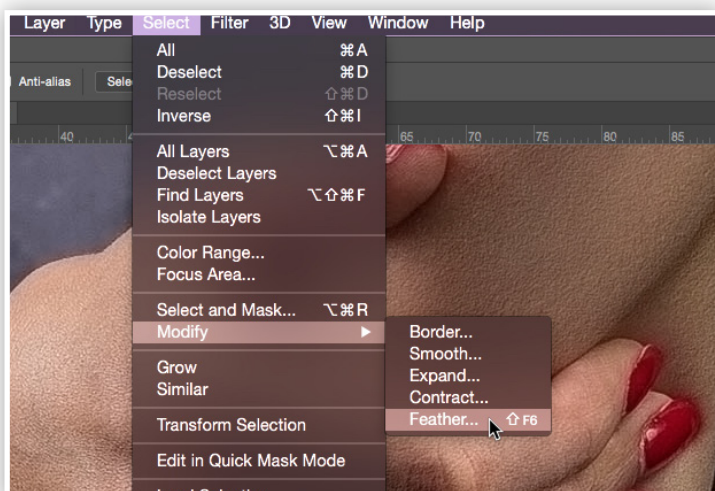
- 46 At the moment, the texture is a little too obvious. Click on the 'pores' layer thumbnail and make its Opacity about 50-60 per cent. This makes the texture more subtle.



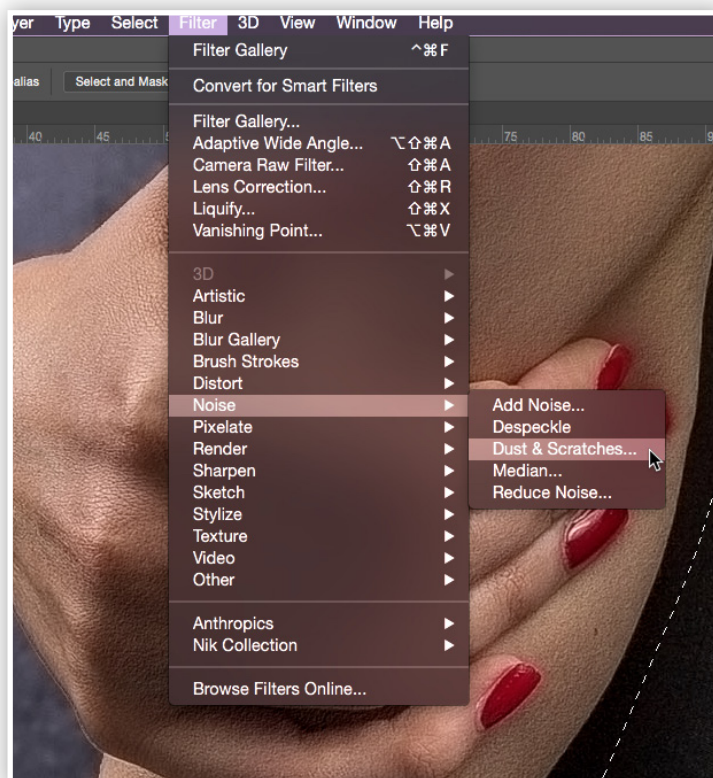
- 47 Once final thing to retouch is her swimsuit. If you look closely, you'll see dust and fluff on it which we want to remove. There is a really simple way to do that.



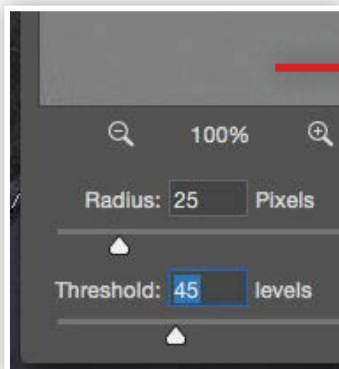
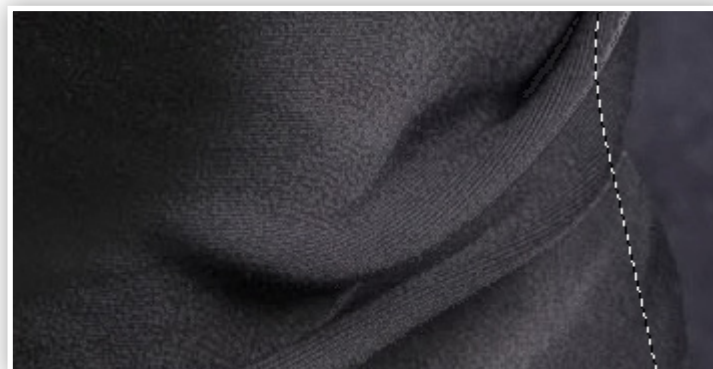
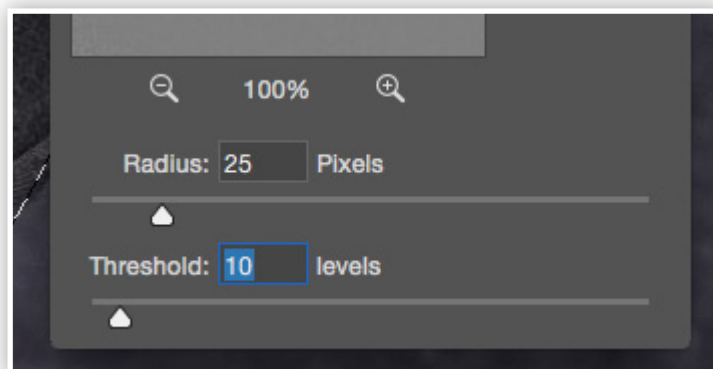
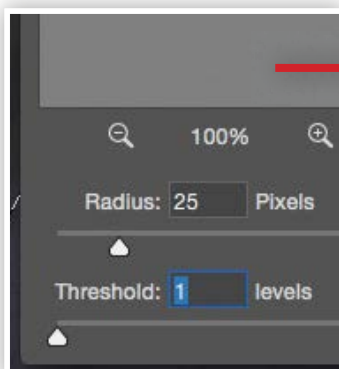
- 48 Click back on the 'detail' layer to make sure it is active. Go to your toolbar and choose the Lasso Tool (L). Then draw a selection that roughly encompasses the black material of her swimsuit.



49 With the selection active, go to Select > Modify > Feather (Shift + F6) and feather the selection by about 30 pixels. Click OK to proceed.

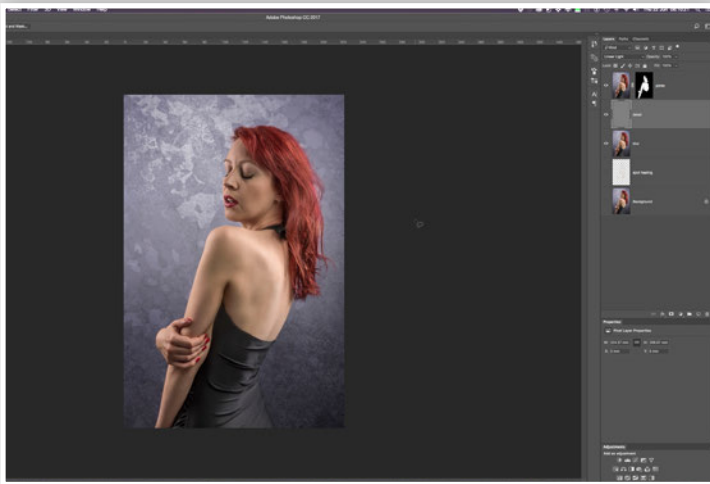


50 Now got to Filter > Noise > Dust & Scratches. From the dialog box that appears, you can dial in settings to eliminate the dust and fluff on her suit.



51 Make Radius about 25 pixels. If you set Threshold too low, the suit will be too blurred. If Threshold is too high, the dust isn't removed.

52 At about 10 Levels, the dust is magically removed without destroying the detail of the suit's fabric for a much cleaner look.



53 Your skin retouch is complete. You have great skin on your model and you've also removed the fluff from her swimsuit. That's a win as far as we are concerned.



How to achieve perfect skin

A powerful workflow process that can give stunning results!

Layer Styles



AFTER

BEFORE



This tutorial content is available for download

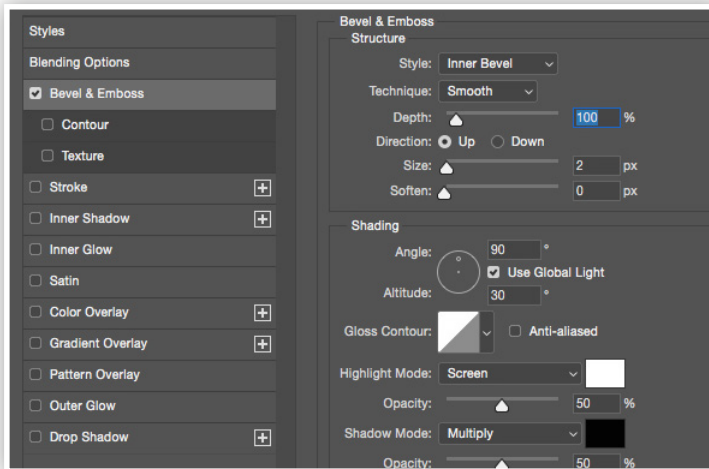
Add graphical and artistic effects to your layers

Sometimes you don't necessarily want your layers to blend seamlessly into the background. For instance, if you're adding a text caption to an image you'll want it to really stand out from the background so that it's easier to read. Fortunately Photoshop offers a wide range of effects that you can apply to your layers that can make them seem to leap off the page. You'll find the layer effects options in either the Layer menu under Layer Style, or at

the bottom of the layer palette. Click on the "Fx" button on the bottom of the layer palette and click on any of the icons in the Layer Style control panel. From this panel you can apply blending modes as well as any combination of layer effects.

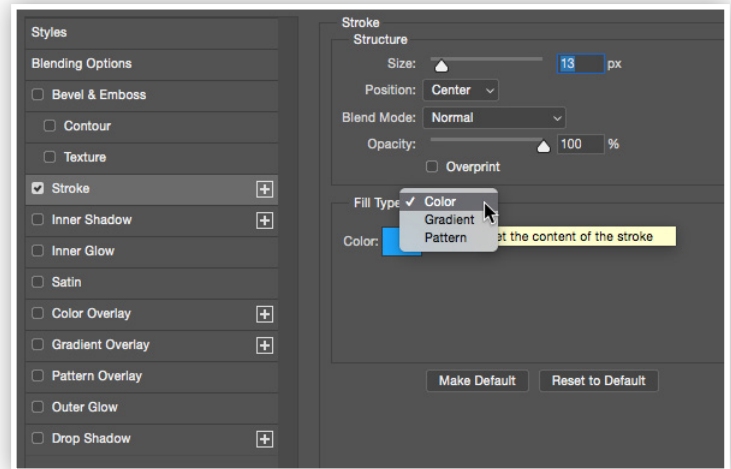


Bevel & Emboss



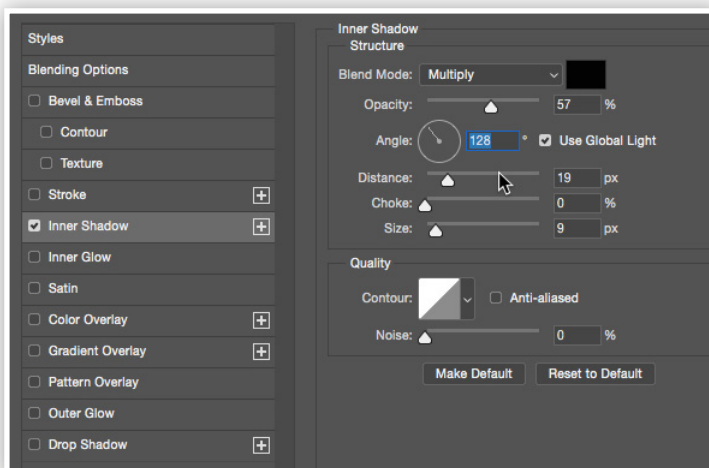
01 This produces a 3D effect as though the layer was a raised shape with bevelled edges. The various controls let you alter the lighting angle, the direction, height and sharpness of the bevel, and several other parameters.

Stroke



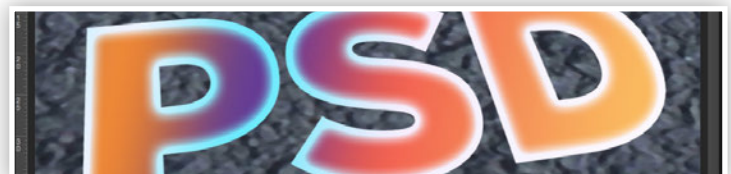
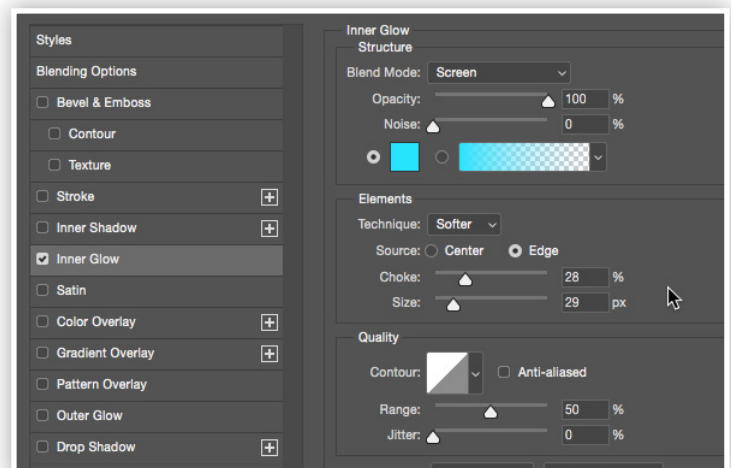
02 This is a nice simple one, it adds a solid line around your layer. You can control the colour, opacity and thickness of the line and whether it appears on the inside or outside of your layer.

Inner Shadow



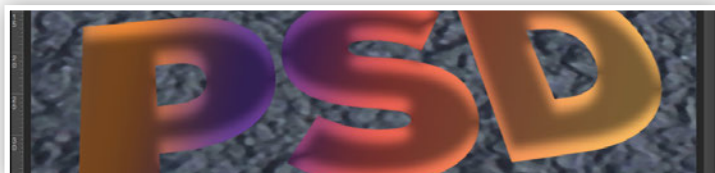
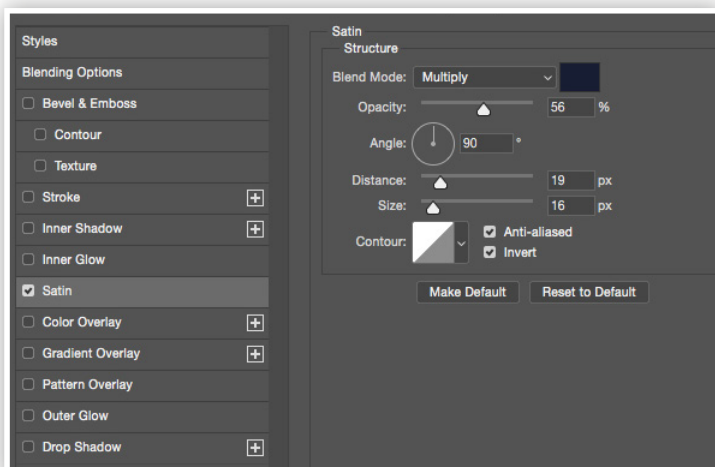
03 This is another favourite of website designers. It makes your layer look like it's actually a hole in the background, with a shadow to give it the illusion of 3D. You can adjust the depth, opacity and softness of the shadow, as well as the angle of the lighting effect.

Inner Glow



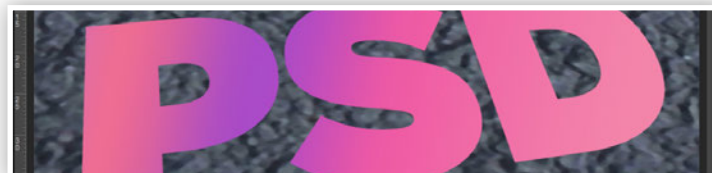
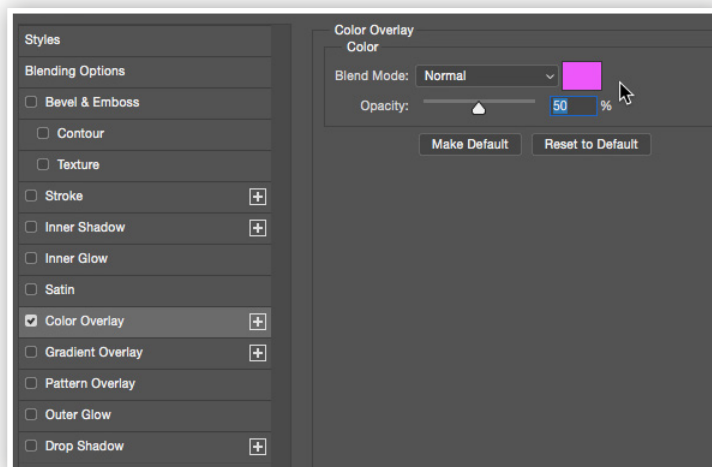
04 The opposite of Inner Shadow, this effect makes it look as though your layer is lit from the sides, with a diffuse glow around the edges. Again the size, softness, colour and contour of the effect can be adjusted.

Satin



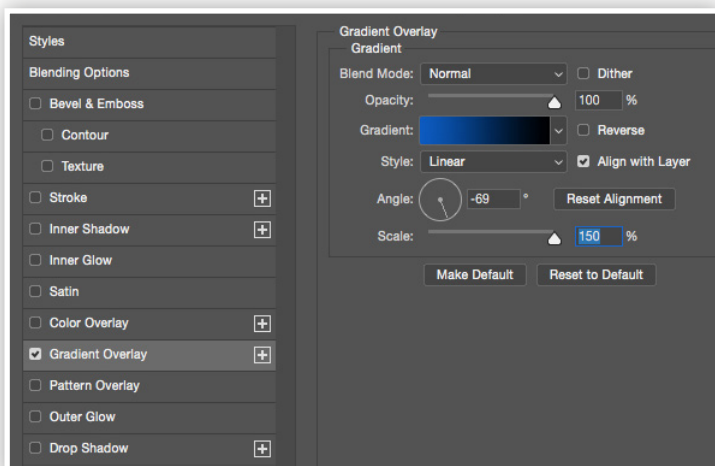
05 Although not as obvious on straight edged objects, on curved edges it adds a subtle glossy sheen to the surface, making it look as though your layer is wrapped in satin. It's a bit specialised perhaps, but useful for some graphic artists.

Colour Overlay



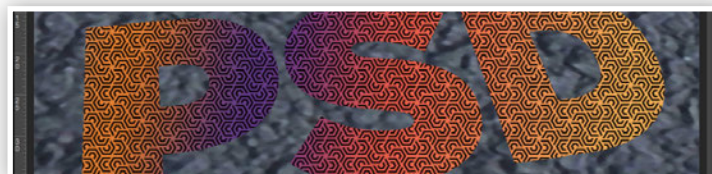
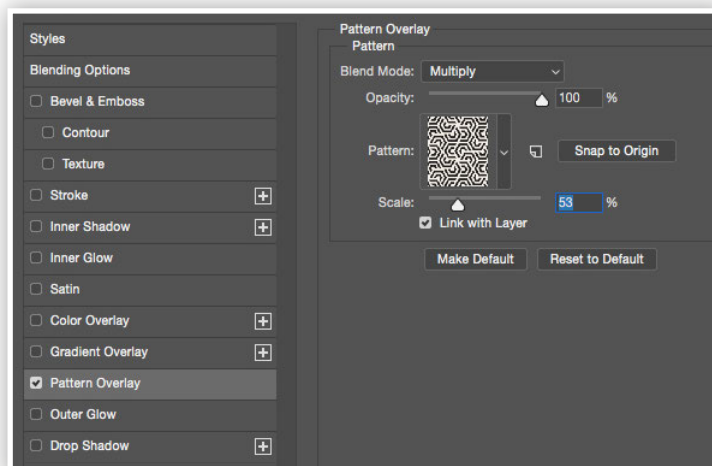
06 This is another simple effect, it just adds a plain colour over your layer. You can adjust the colour, opacity and blending mode.

Gradient Overlay



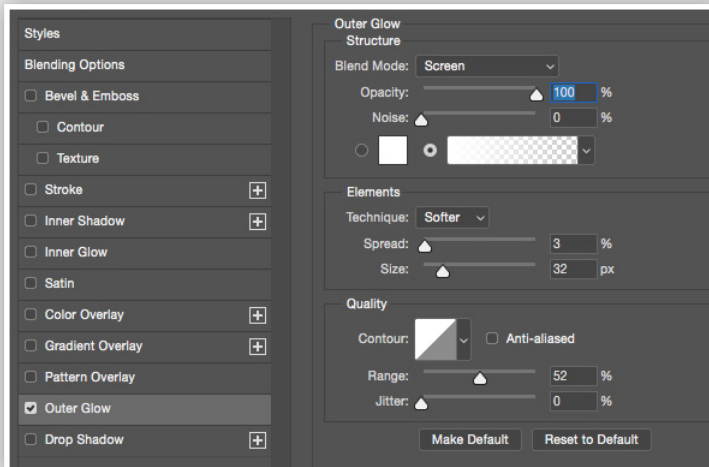
07 Another fairly straightforward effect, this is similar to Colour Overlay but adds a gradient effect. You can adjust the style, colour, angle, blend mode and opacity.

Pattern Overlay



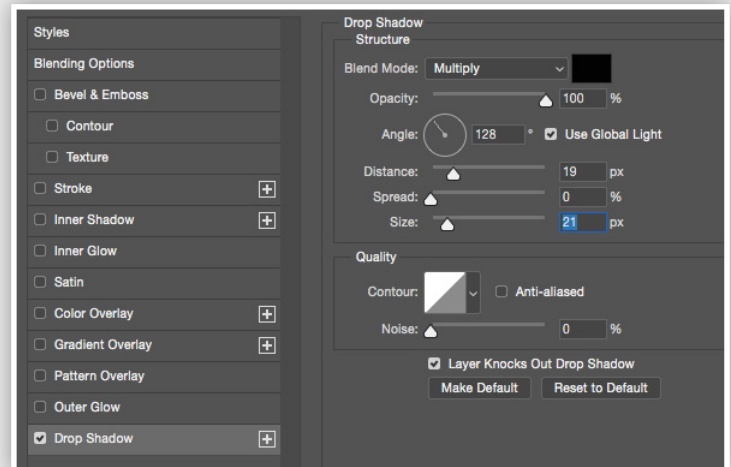
08 This one simply drops a pattern over your layer. There are many patterns to choose from and you can adjust the blend mode. Once again it's a bit specialised but useful if you want to add a texture to a surface.

Outer Glow



09 This is a great effect for making text pop out from the background. It adds a glow effect around the edge of your layer, making it look like it's lit from underneath. You can alter the colour, size, softness and contour of the effect, as well as several other parameters.

Drop Shadow



10 The classic way to make text stand out from a page, adding a drop shadow makes it look as though your layer is hovering above the background. You can adjust many parameters including the lighting angle, height, contour and opacity of the shadow.



Add some cool graphic effects

Layer Styles are your key to quickly making your work stand out.

How to Fix Dull Skies

AFTER

BEFORE

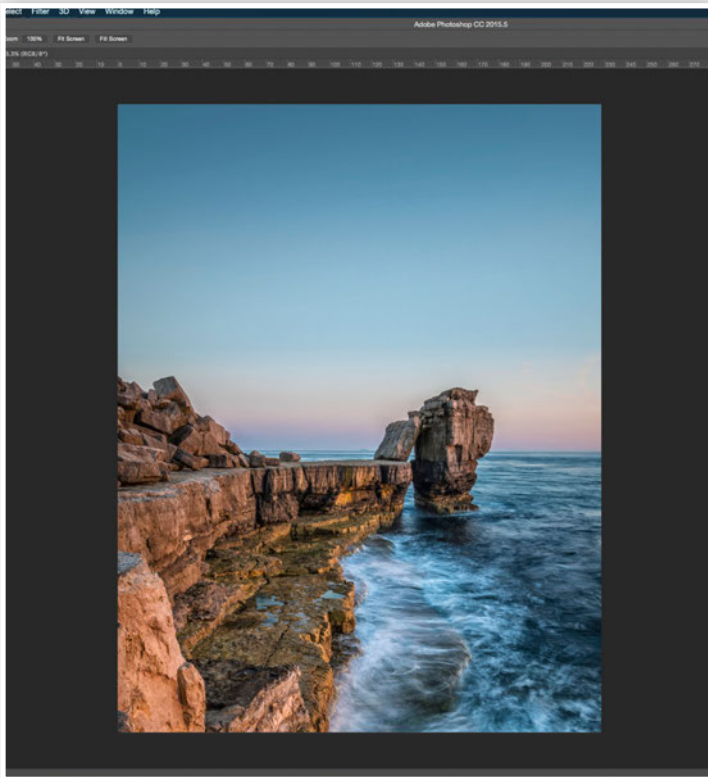


This tutorial
content is
available for
download

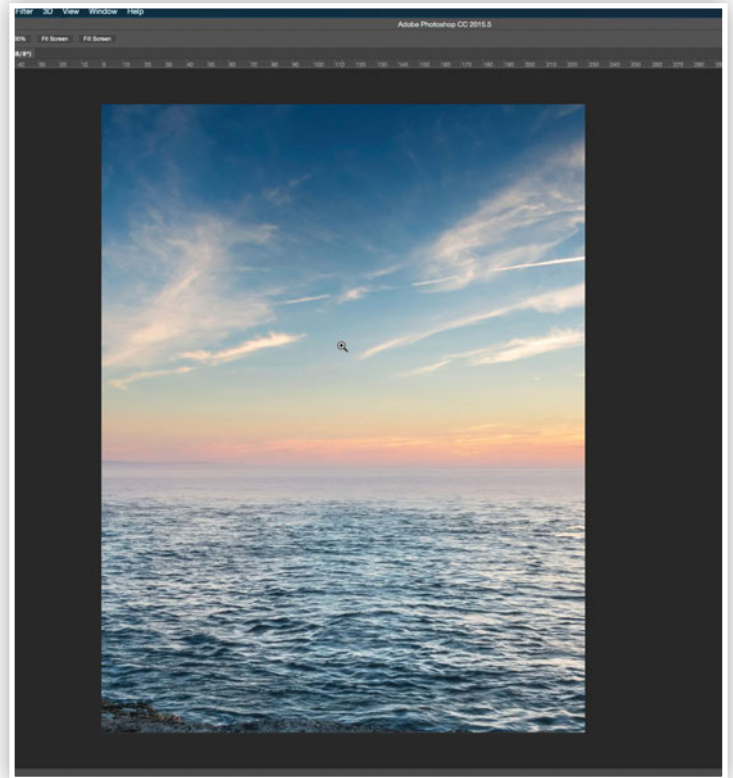
An easy and effective way to replace dull skies on a photo

Blue skies are wonderful. They mean we are having a lovely sunny day. This is particularly meaningful if you live in the UK, which is often the butt of jokes about its horrible weather. No better time then to get out and take some photographs. The only problem you may find if you're anything like us, is that landscapes shot on days like this can look a little dull. The light is great,

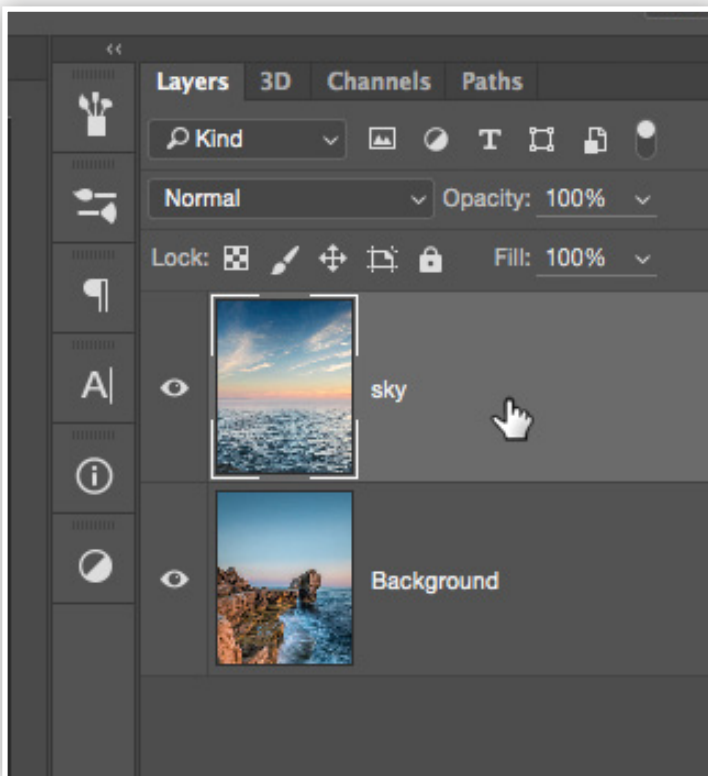
but the sky is lacking in any drama. It's just a big, blue, empty canvas. More damningly, sometimes the sky is lovely but it's in the wrong part of the sky in relation to the landscape you were trying to shoot. Well, once again, Photoshop has the answer to your woes with sky swapping. This is a great little trick that can virtually eliminate the need for tricky masking.



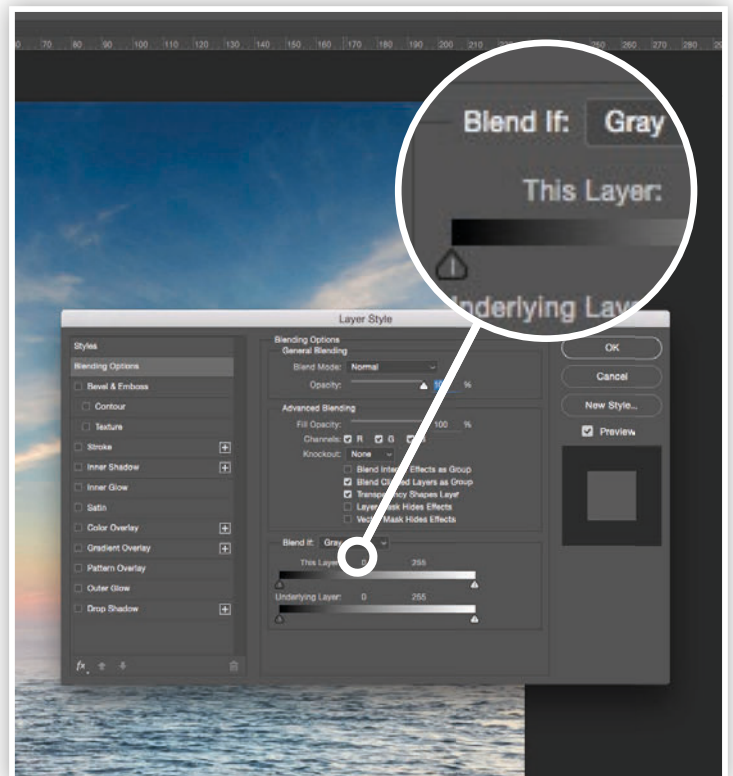
01 This shot, called 'portland ground.jpg', was taken at a place called Pulpit Rock near Weymouth. It's a great spot to take some lovely landscape images. The day these were taken the sky was a soft pale blue but lacking in any drama.



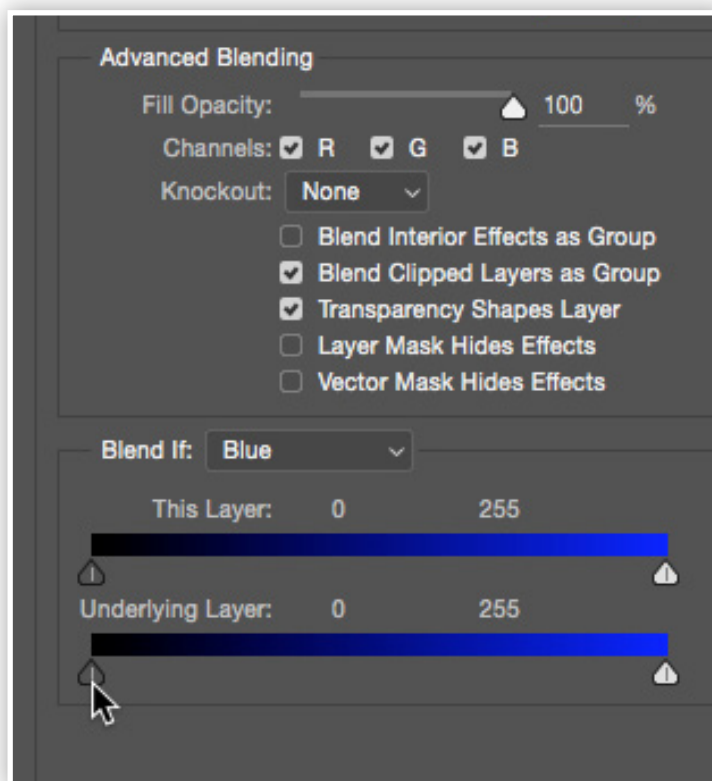
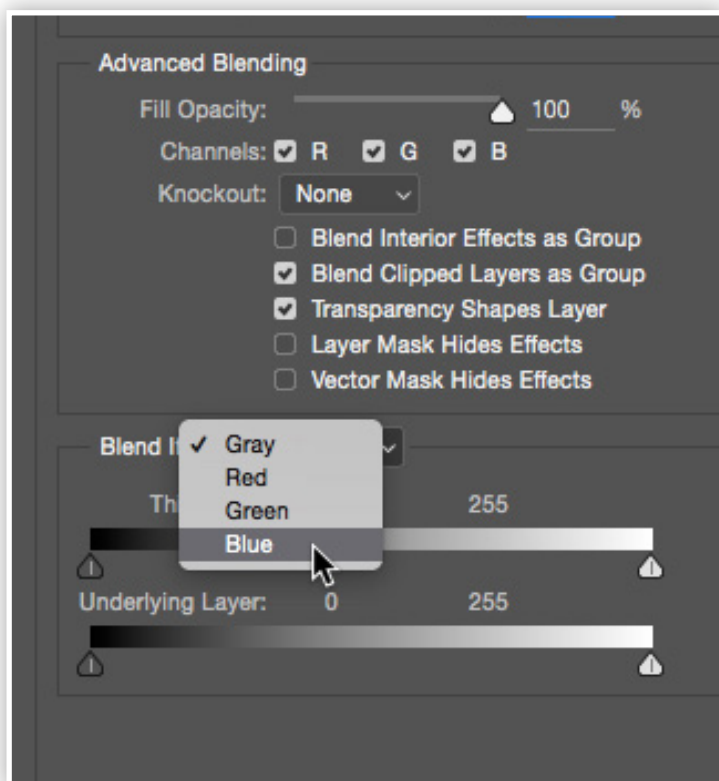
02 Luckily, just about 45° to the right of this composition, the sun was creating some nice lighting on a bank of clouds that were just out of the shot we wanted. The image 'portland sky.jpg' was taken to be used as a sky swap.



03 What you'll need to do is take the sky image and simply press **Cmd + A** to select the entire image, then **Cmd + C** to copy it. Go back to your main shot and press **Cmd + V** to paste it onto the document. Name this new layer 'sky'.

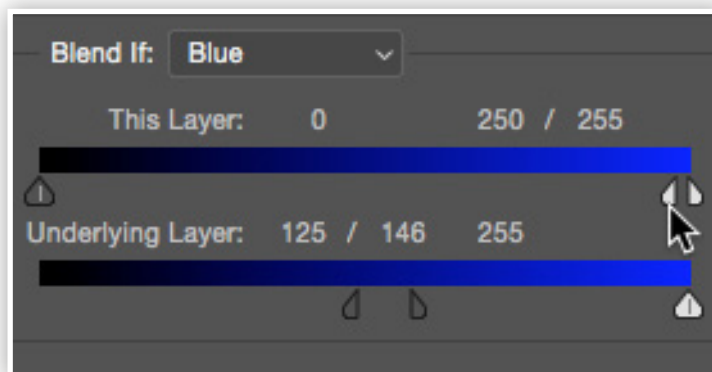
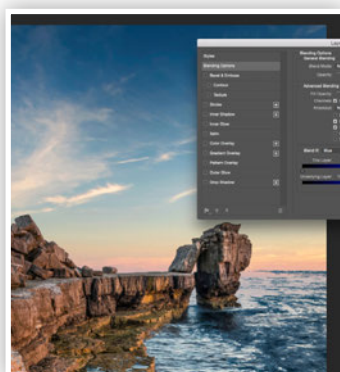
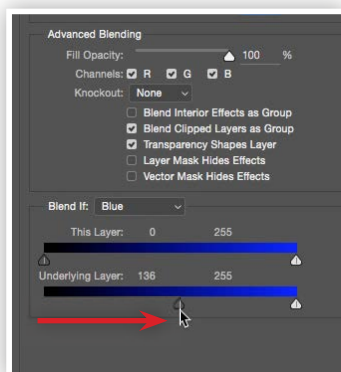
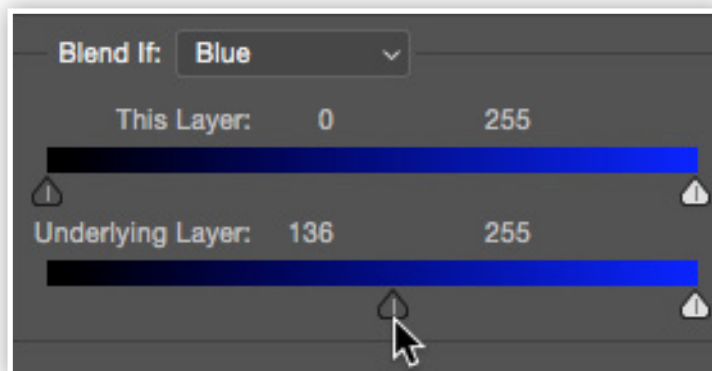
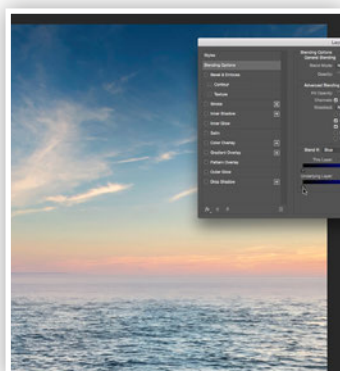
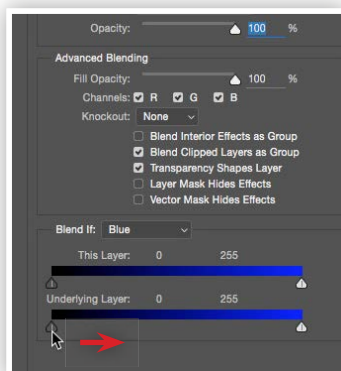


04 Now double-click on the 'sky' layer and you will call up the Layer Style panel. We are going to use the Blend If function to blend the top 'sky' layer into the main background image.



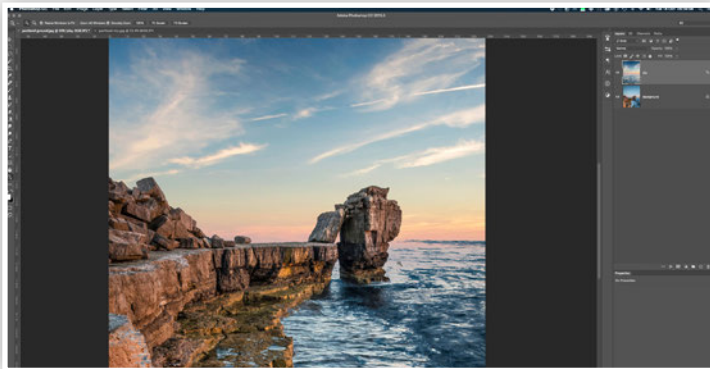
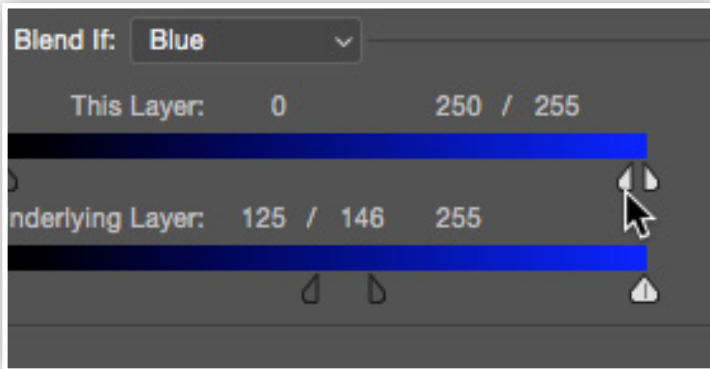
05 Because the original sky is mainly blue and the rocks are not, we can use a specific Blend If colour to help the blend work. Click on the Blend If tab and you will have the choice of Grey, Red, Green or Blue. In this case, choose Blue.

06 You have two sets of sliders. One is for This Layer (our 'sky' layer) and the other for the Underlying Layer (the 'Background' layer). Simply put, the two sets of sliders control how light and dark tones can interact between the two layers.

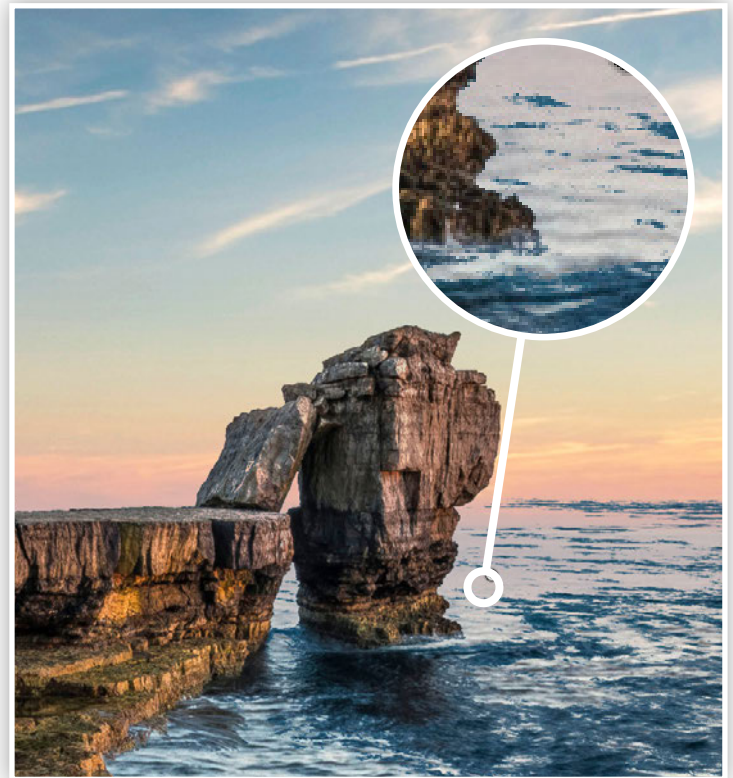


07 With the 'sky' layer active, begin to slide the leftmost Underlying Layer slider to the right. You will see the 'Background' layer's rocks start to appear. Keep sliding it right, then stop when the top part of the 'sky' layer starts to fade.

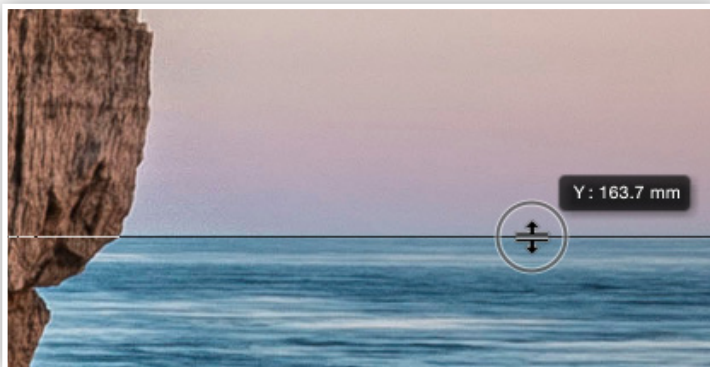
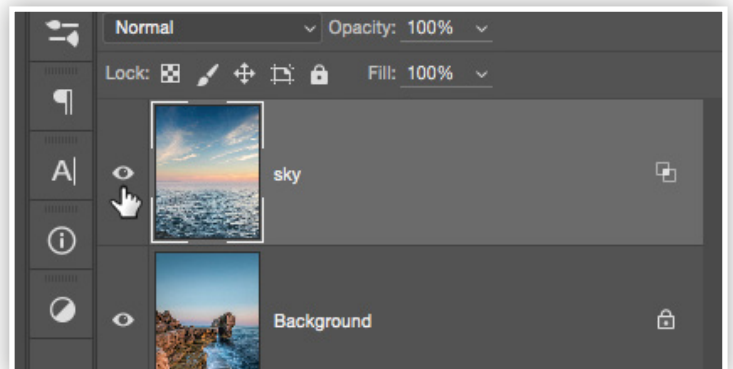
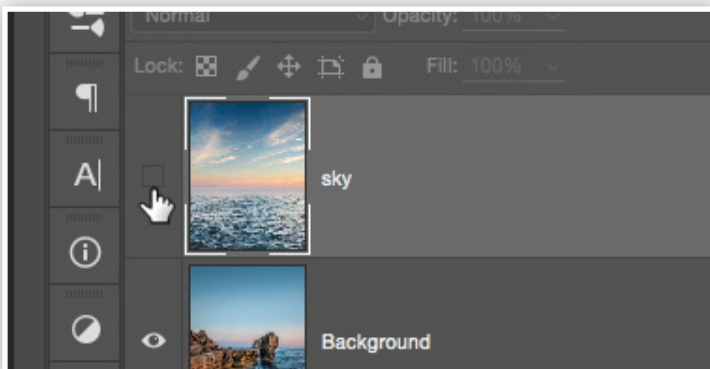
08 If you Alt + left-click on the slider, you can actually split it in half and move each half independently for much finer control of the blend. The slider values of 125/146 255 should be just about spot on.



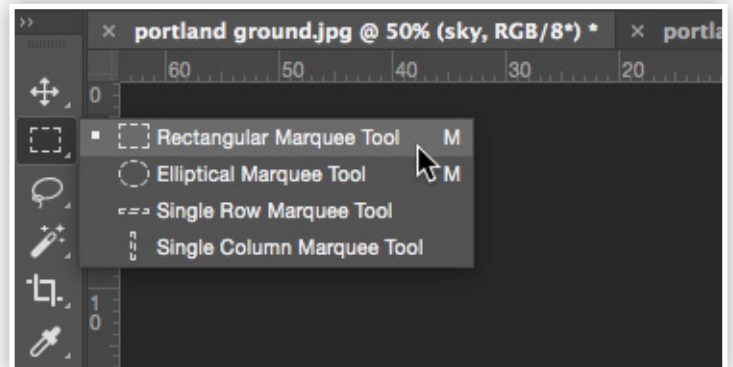
09 You can do the same with the This Layer sliders. Values of 0 250/255 will have the blend of the two images as good as they can be. The 'sky' layer is fully visible, and most of the rocks and sea of the 'Background' layer are visible.



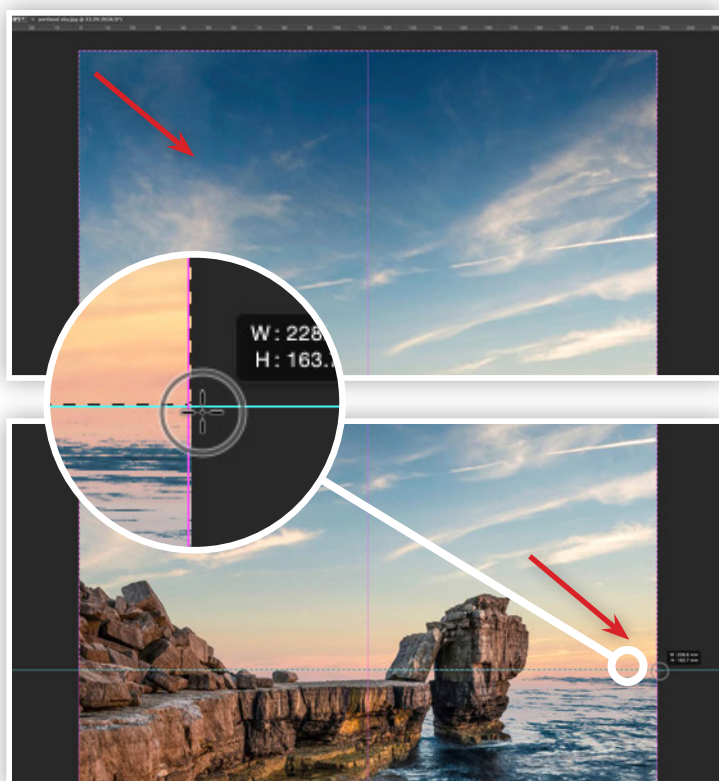
10 You will see that various parts of the 'Background' layer below the horizon are contaminated with blended areas from the 'sky' layer above. Some simple masking will remedy that next.



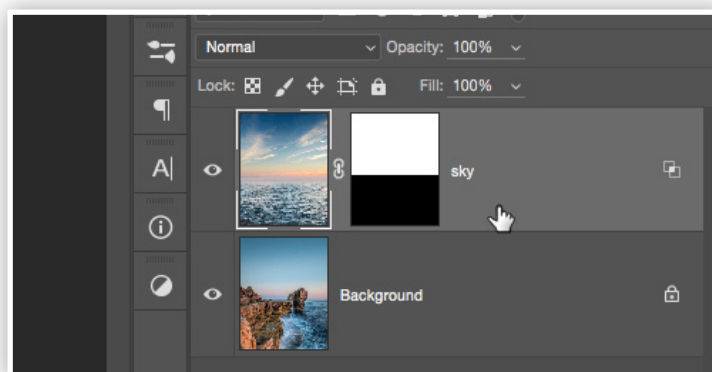
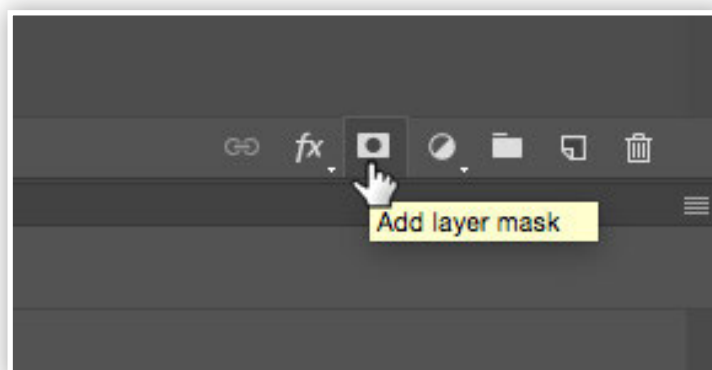
11 For the moment, click on the visibility icon of the 'sky' layer to make it invisible. Then click the top ruler and drag a horizontal ruler down so it sits directly over the horizon of your image.



12 Make your 'sky' layer visible again and keep it active. Go to the toolbar and choose the Rectangular Marquee Tool (M).



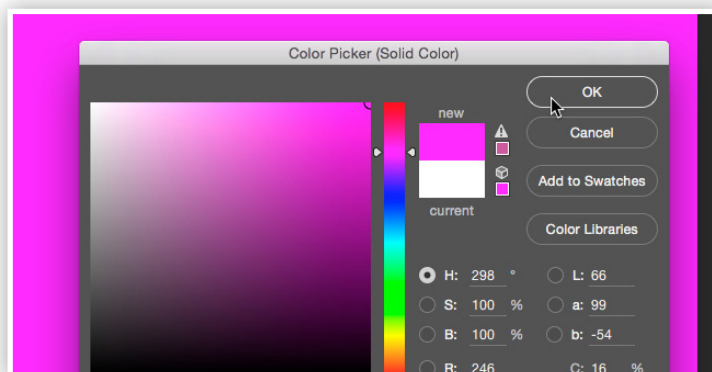
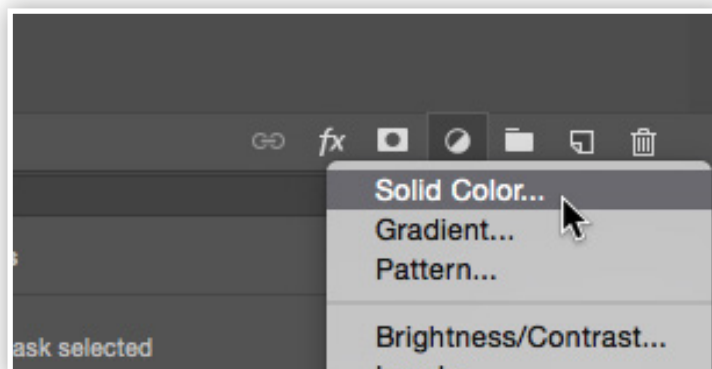
13 Starting in the top left of your image, left-click and drag a marquee down to the right side of the image where the horizon line is. When you let go of the mouse, you will see that you have a selection that is denoted by the 'marching ants'.



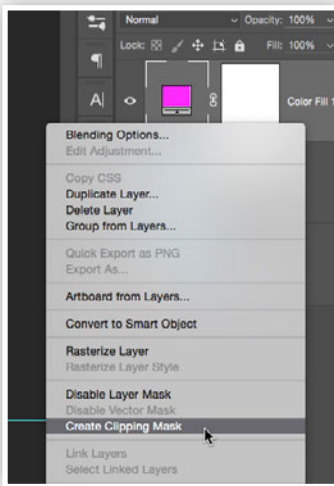
14 With this selection still active. Go to the Layer Option panel at the bottom of your Layers Palette and choose Add Layer Mask. A mask in the shape of the current selection will be created on your 'sky' layer.



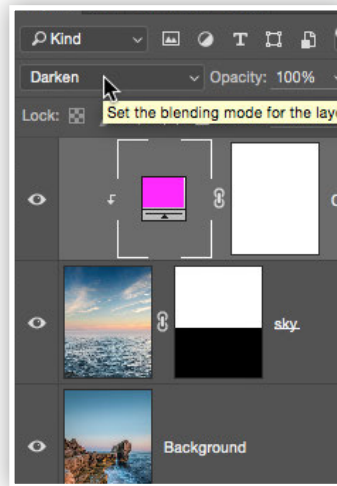
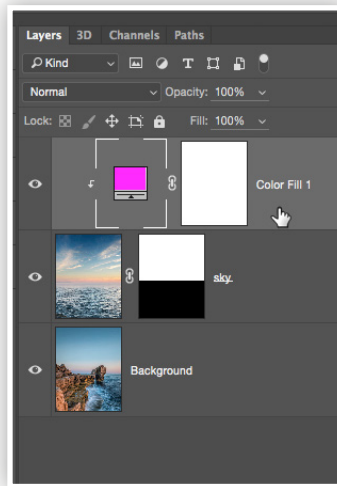
15 This has removed most of the Blend If artefacts but there is still a small amount remaining on the rocks above the horizon line. There is a handy tip for spotting these blend issues.



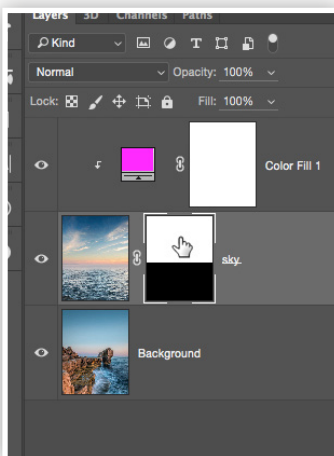
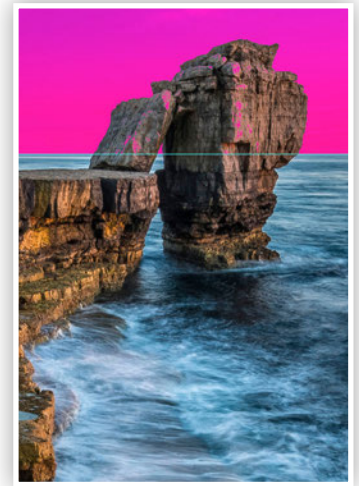
16 Keep the 'sky' layer active, then go to the Layer Option panel again and click the Create New Fill or Adjustment Layer button. Select Solid Colour from the menu and the Colour Picker panel will appear. Choose a very lurid colour such as pink.



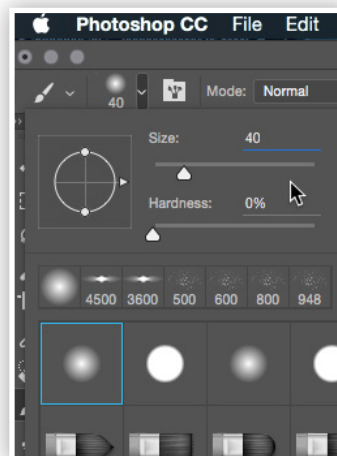
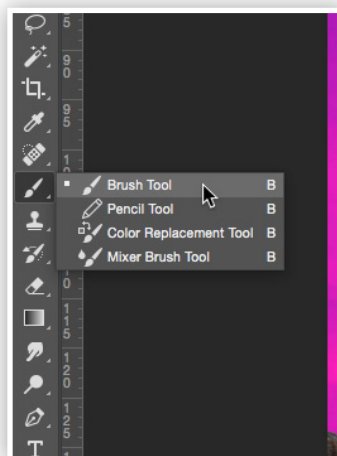
17 A new layer called 'Colour Fill 1' will be added to the top of your layer stack. Right-click this layer and choose Create Clipping Mask from the menu. This means the pink colour will only affect the 'sky' layer.



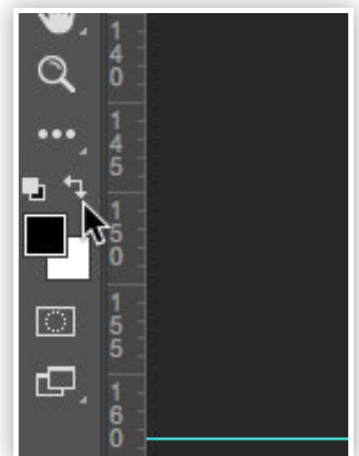
18 With the 'Colour Fill 1' layer active, go to the Blend Mode button and choose Darken from the blend mode menu. The vivid pink colour will be blended into the 'sky' layer and reveal pink areas covering the rocks on the 'Background' layer.



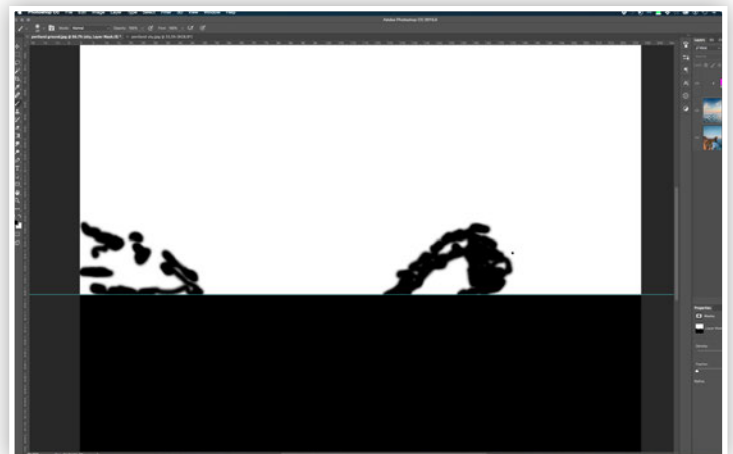
19 Click on the 'sky' layer mask's thumbnail to make sure it is the mask that is active (not the image itself) and go to your toolbar and then select the Brush Tool (B).



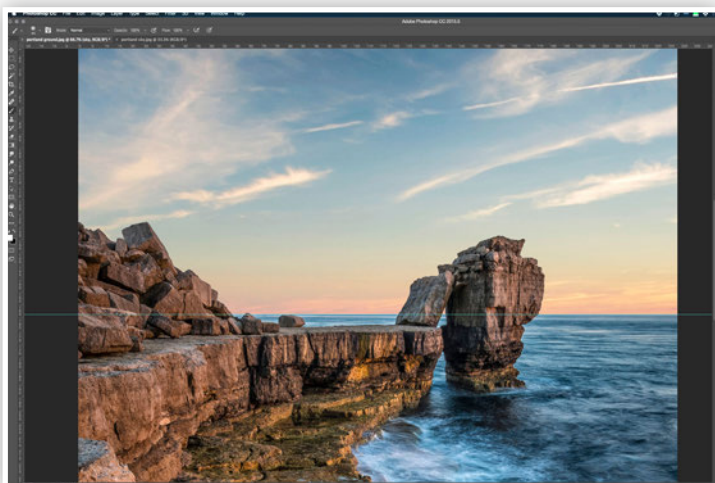
20 Choose a brush size of about 40 pixels and make sure Hardness is set to 0 per cent. Press D to default your colours to black as your Foreground Colour and white as your Background Colour. Your brush will now be ready to paint in black.



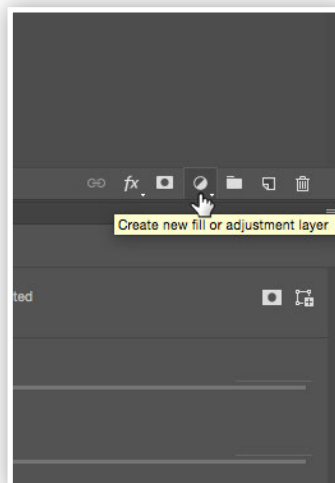
21 You can now start painting black with your small, soft black brush on the layer mask of your 'sky' layer. Paint over any areas of the rocks above the horizon line where you can see any of the vivid pink colour that shouldn't be there.



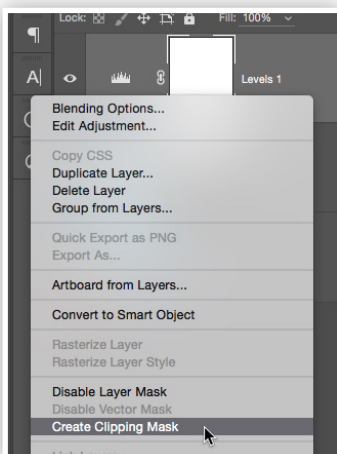
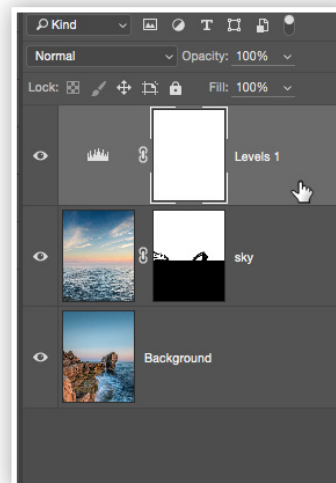
22 If you Alt + left-click the 'sky' layer mask thumbnail, you will be able to see the painted areas on the mask that have eliminated any remaining Blend If artefacts. Press Alt + left-click on the thumbnail again to return to normal view.



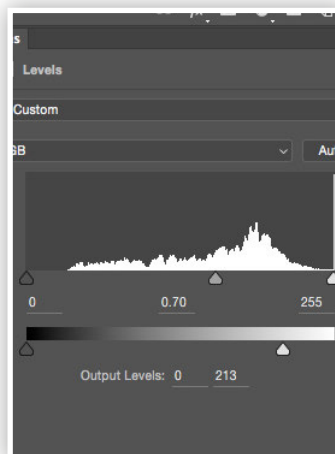
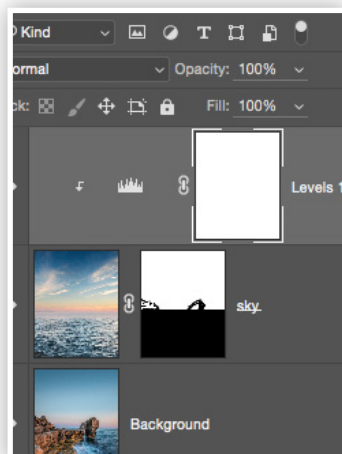
23 You now have a nice crisp blend of your new sky on top of the original scene with the dull sky and you've only had to do some simple clean up masking. At this point you can delete the 'Colour Fill 1' layer as it has served its purpose.



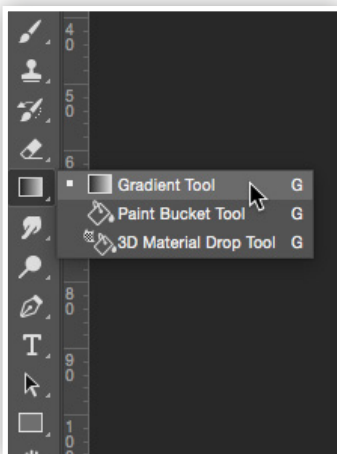
24 Now you can concentrate on optional adjustments to the image. Click on the Create New Fill or Adjustment Layer button and select Levels from the menu. A 'Levels 1' layer will appear at the top of the layer stack.



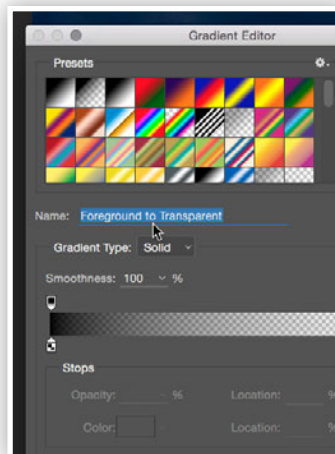
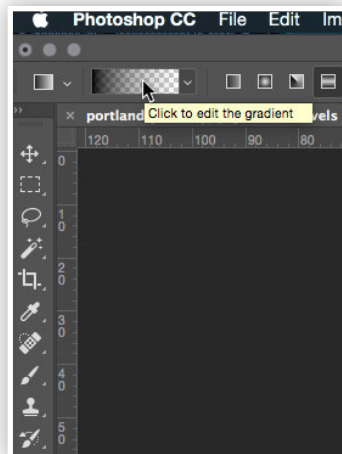
25 You want this particular adjustment to only affect the 'sky' layer below. So as you've done before, right-click the 'Levels 1' layer and choose Create Clipping Mask from the menu.



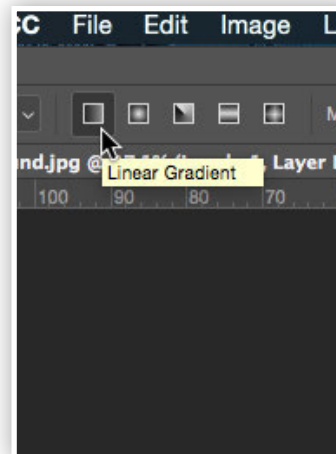
26 A simple mid-tone adjustment is made to make the 'sky' layer darker but it has made the horizon too dark and looks a little out of place. What you need is to only adjust the levels of the topmost part of the sky.

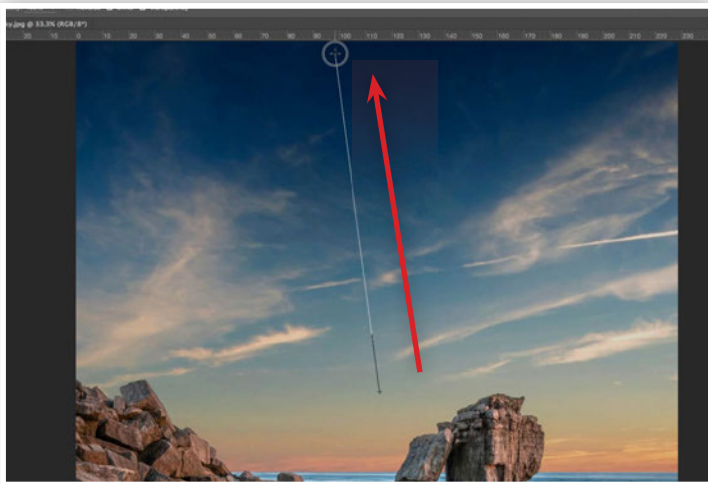


27 Make sure your 'Levels 1' adjustment layer is active, then go to your toolbar and select the Gradient Tool (G). Now click on the Gradient Editor in the top right of the Tool Option bar to open it.

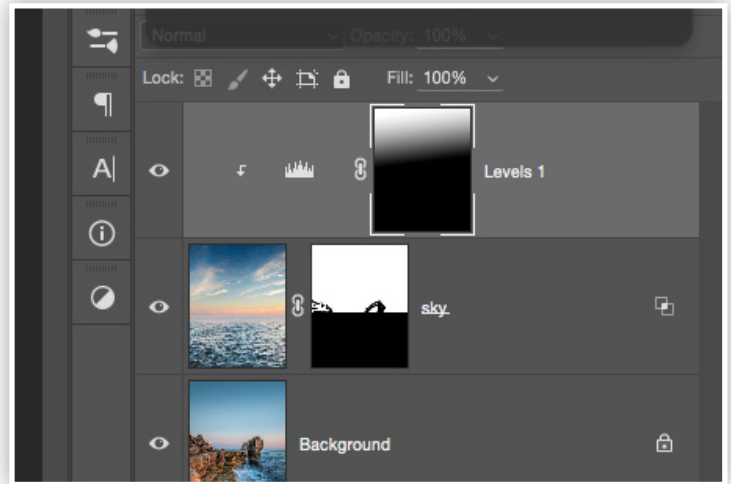


28 Select the preset Foreground to Transparent. Since you have the default colour set from step 20, the gradient should run from black to transparent. Click OK to continue. Then make sure you have Linear Gradient set as your gradient type.

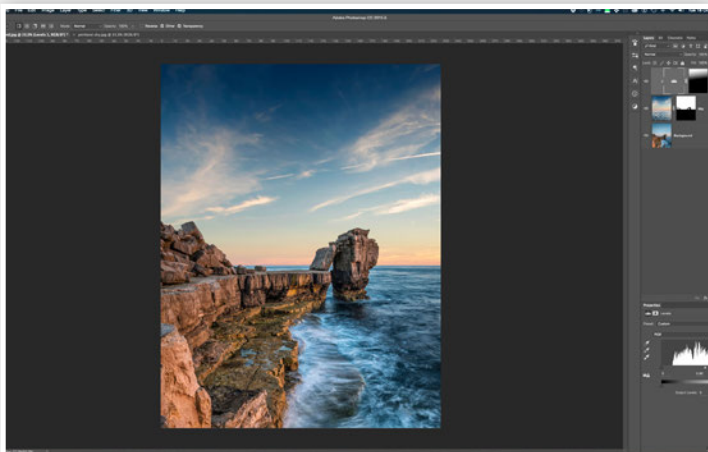




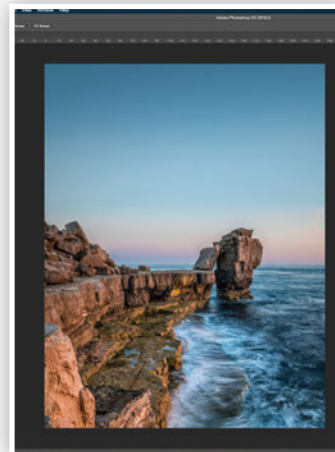
29 With the 'Levels 1' layer still active, click and drag your Gradient Tool from just above the horizon to just below the top of the image.



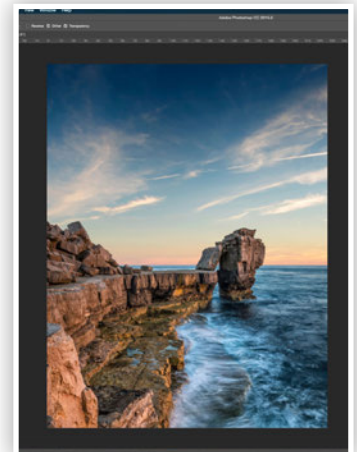
30 When you let go, a gradient will be added to the 'Levels 1' adjustment layer mask that starts black and then fades near the top, leaving it white. Your 'sky' layer's horizon will look correct again and the sky darker.



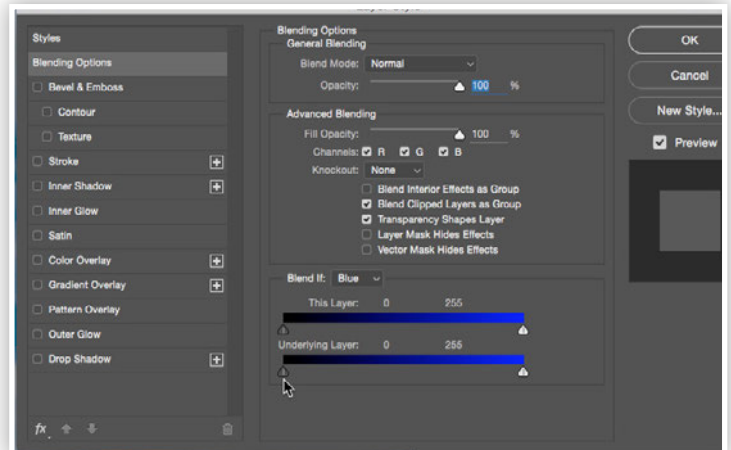
31 The black areas of the mask block any of the adjustments near the horizon but gradually allow them to show up as the mask gradient fades to white, where the adjustment is able to show through.



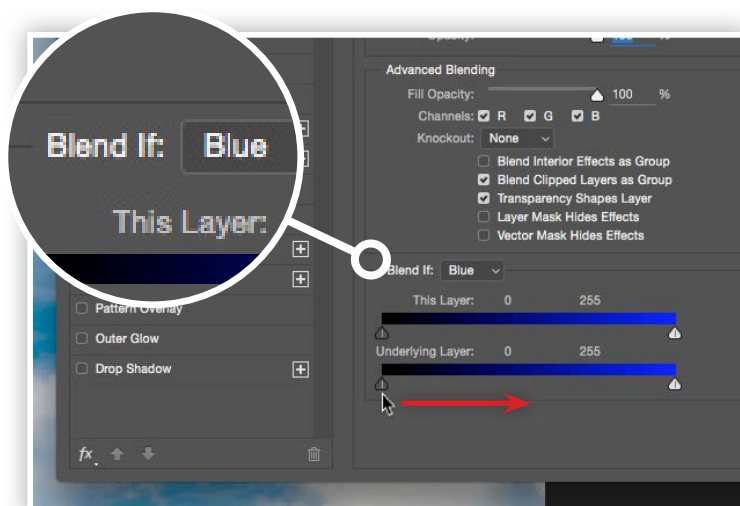
32 The sky swap is complete. You have combined two images using some clever, advanced blending techniques and some minimal masking. Now that you are familiar with this technique, we have something else to show you next that goes a step further.



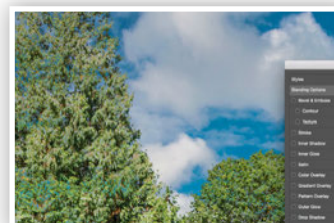
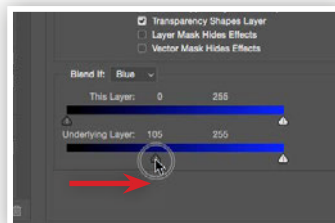
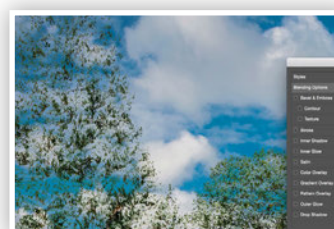
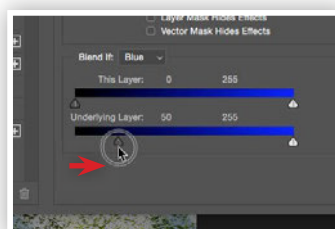
33 As an interesting addition to this tutorial, we have an image called 'ccc ground.jpg' and 'ccc sky.jpg'. This presents us with the often encountered issue of how you swap skies when the complex shapes of trees and leaves are involved.



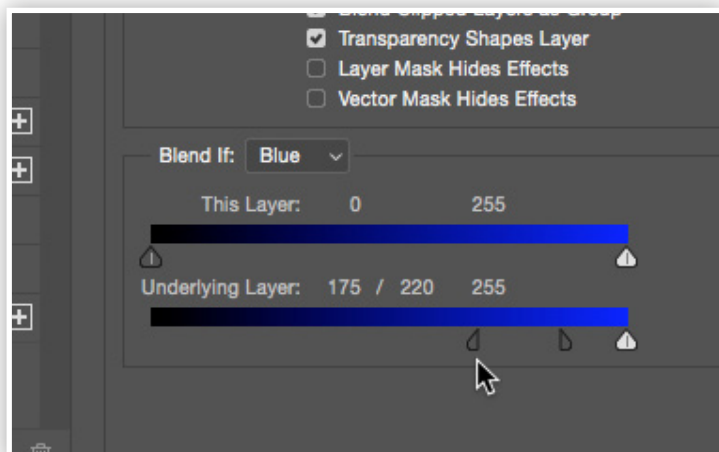
34 Add your sky layer on top of your original as you did in the first part of this tutorial. You can then double-click your 'sky' layer and call up the Layer Style panel once again.



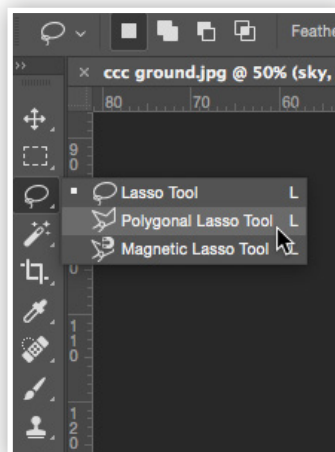
35 As before, set your Blend If colour to Blue and begin to drag the Underlying Layer's leftmost slider to the right.



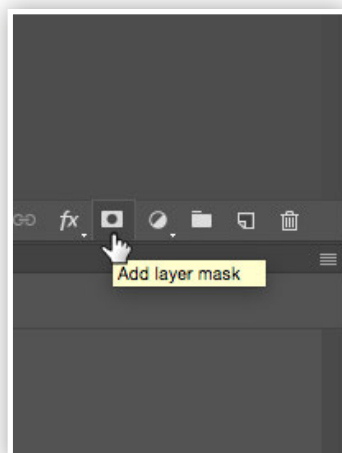
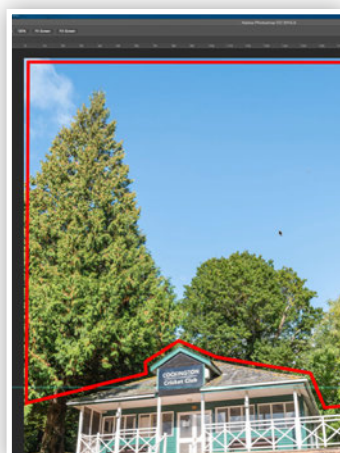
36 You will see the green of the trees start to appear and grow stronger as you move the slider to the right. Stop at the point the original sky starts to erode your new 'sky' layer away.



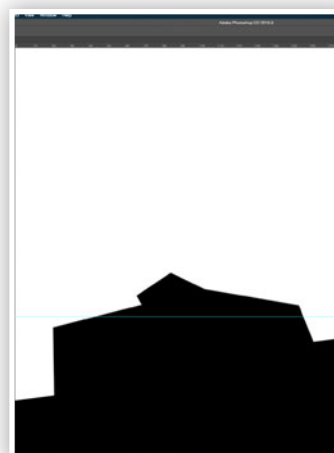
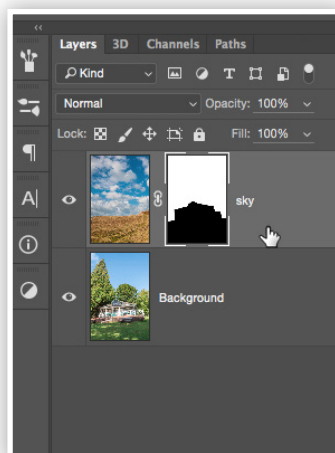
37 Then Alt + left-click the slider to split it in two and fine tune the blend as you did in the first part of the tutorial. Underlying Layer values of about 175/220 255 seem to work well.



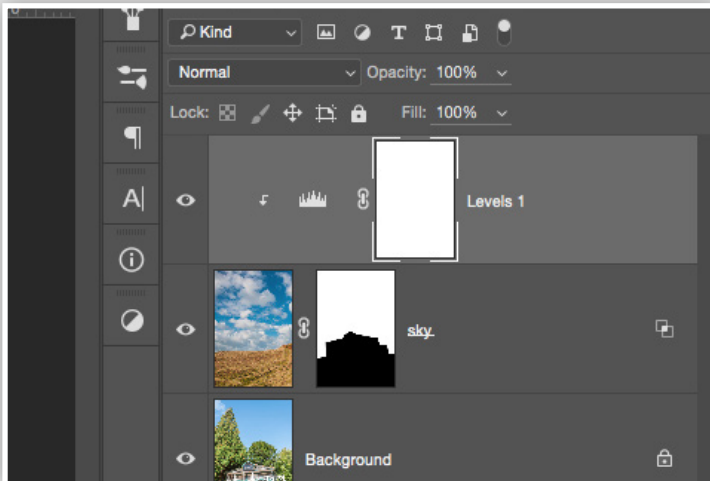
38 Keep the 'sky' layer active and go to the toolbar and select the Polygonal Lasso Tool (G). We need to mask the cricket pavilion so it is unaffected by the Blend If artefacts.



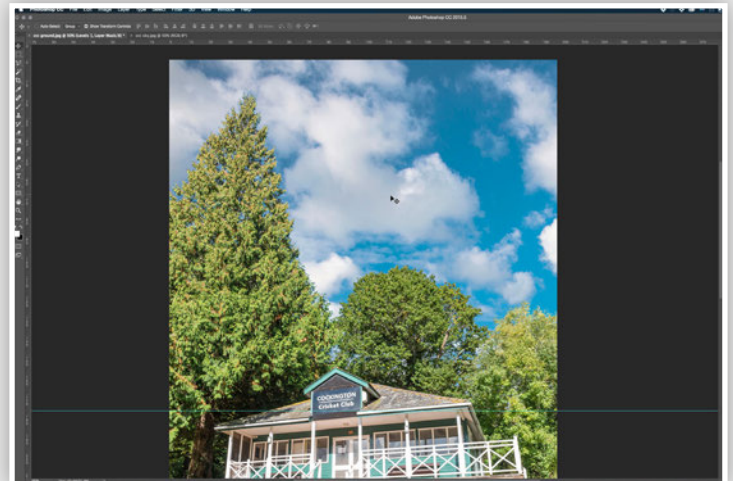
39 Make a selection that runs around the roof of the pavilion and up and around the top of the image. With the selection active, go to the Layer Options panel and choose Add Layer Mask.



40 A layer mask will be added to the 'sky' layer in the shape of the selection. The pavilion and the foreground will now be masked and unaffected by the Blend If artefacts.



41 All that remains is to add any preferred Levels adjustments to the 'sky' layer on its own, as shown previously, and you have swapped another sky without too much complex masking.



42 The blend works well. All the tiny gaps in the trees show the new sky and you haven't had to do any complex masking. When replacing skies, the Blend If tool is invaluable.



The sky is literally the limit

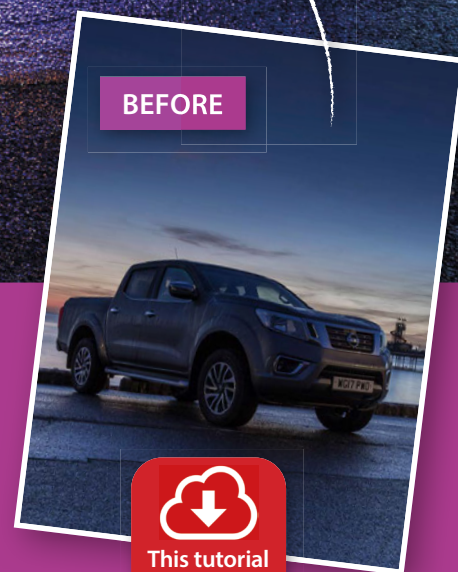
Blend modes make sky swapping so easy.

Exposure Stacking



AFTER

BEFORE



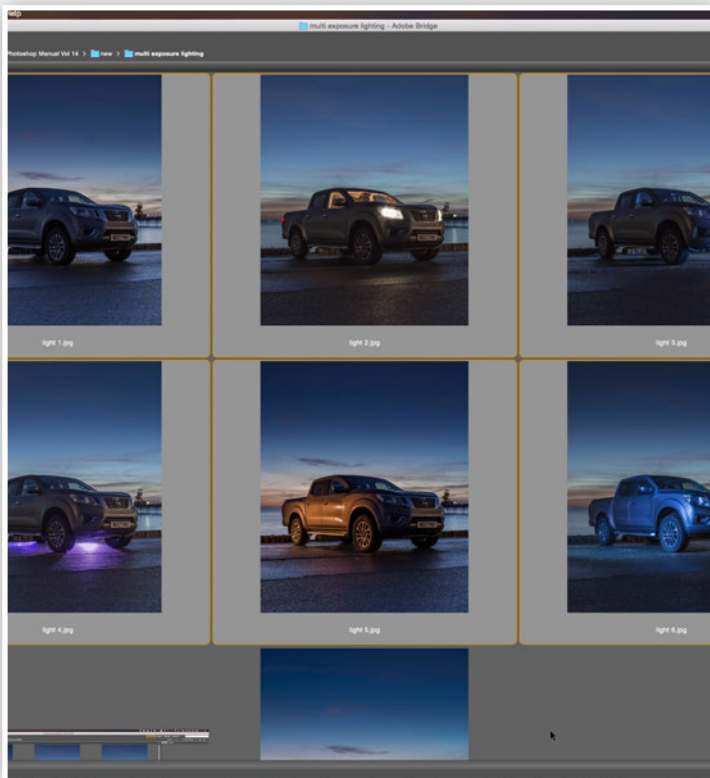
You don't need expensive lighting equipment when you have Photoshop

Light painting is a photographic technique in which a camera captures a scene lit by light sources such as a torch. We are going to be looking at a particular aspect called off camera light painting in this project. It is not necessary to have huge, complicated, flash setups to produce some amazingly lit images. Our

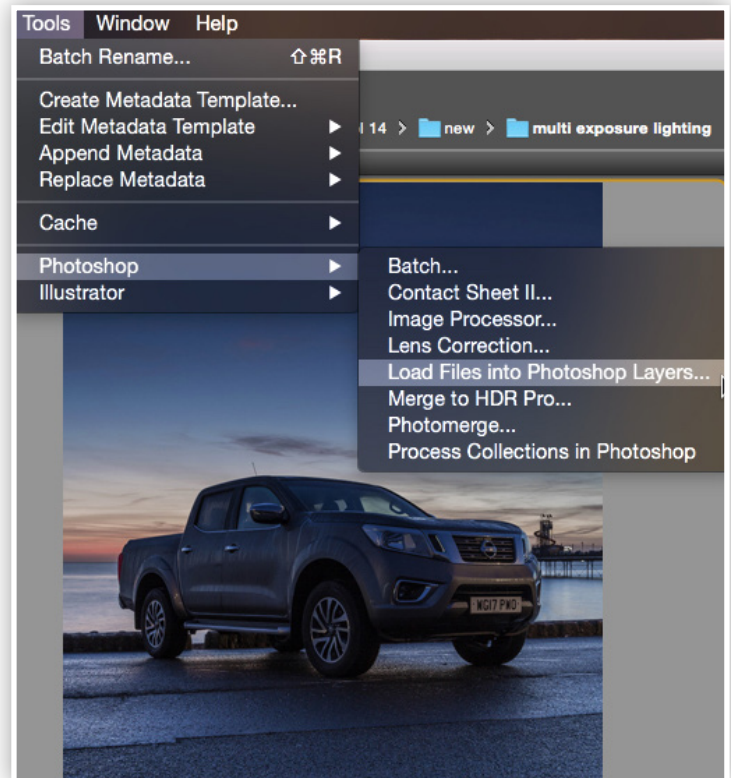
subject matter is a pickup truck, which was shot over a number of different exposures, lit only by a torch and a couple of coloured gels from various angles. We have chosen six favourite captures and now we can use Photoshop to combine them and create an image that looks as if it was taken with numerous lights in a single shot.



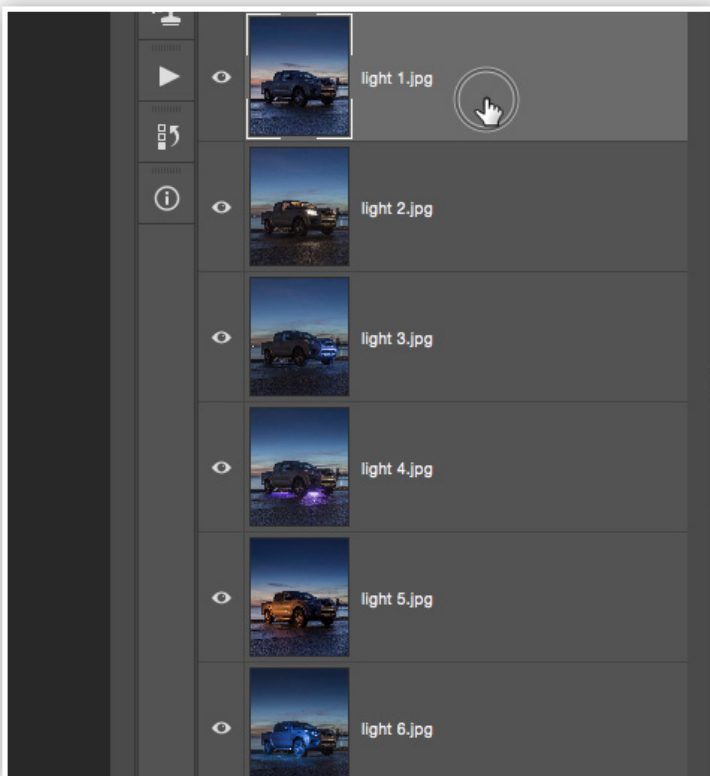
This tutorial content is available for download



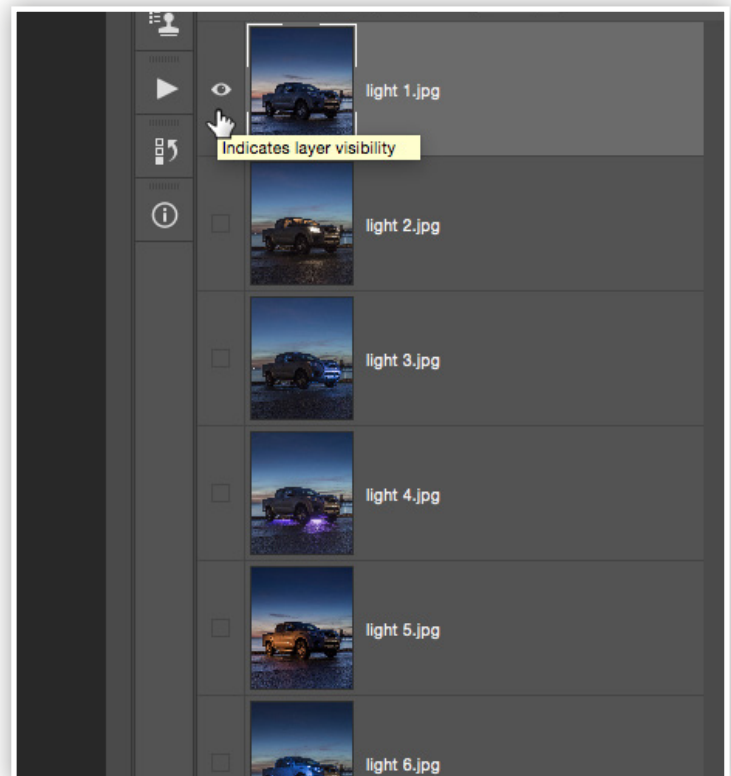
01 Using Adobe Bridge, we can select the six images that will be combined in Photoshop and turned into one final image. You can press Shift and multi select the images or just hit Cmd + A to select all.



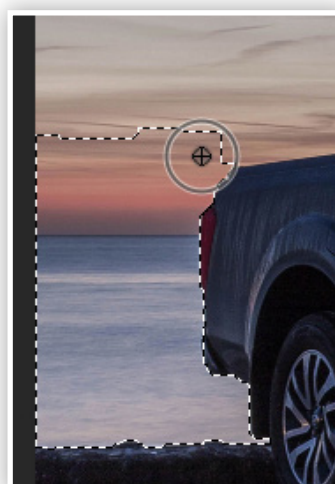
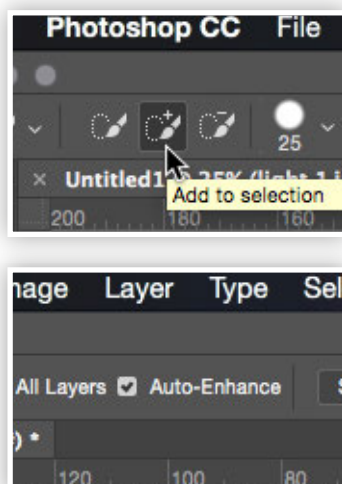
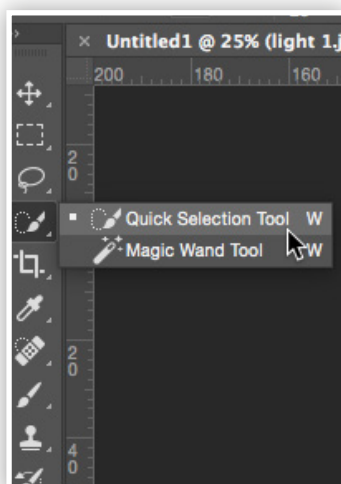
02 Rather than loading up the images separately, you can go to Tools > Photoshop > Load Files into Photoshop Layers. This will open a Photoshop document and add all six images together in separate layers.



03 Once loaded, you will see the images in the layer palette with the first image 'light 1' at the top of the stack and 'light 6' at the bottom.

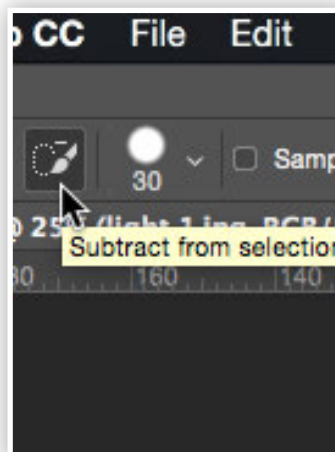
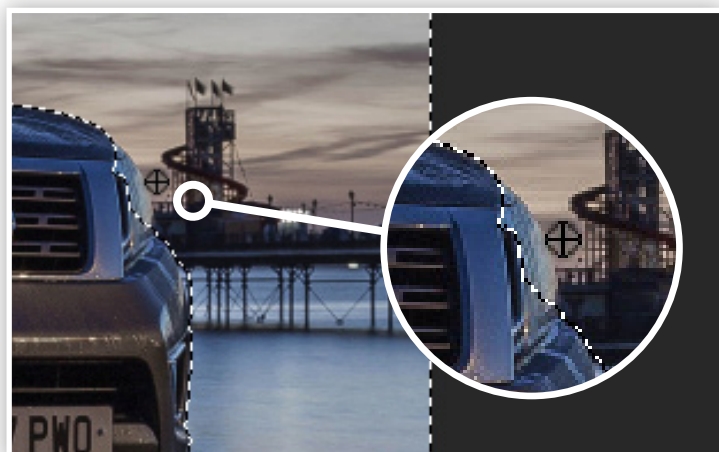


04 For the moment, turn off the visibility of all layers except 'light 1'. The top layer is going to be used to keep one consistent sky that stays above the other layers as they are turned back on.



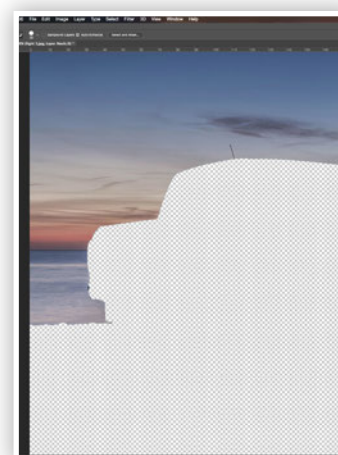
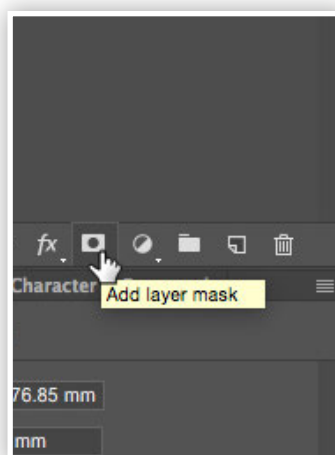
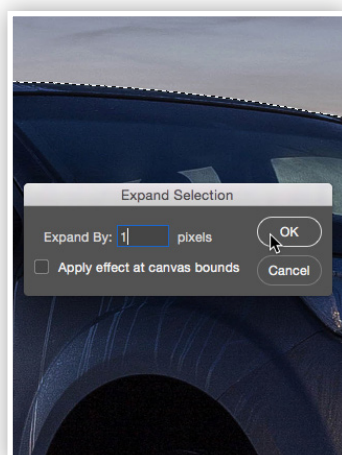
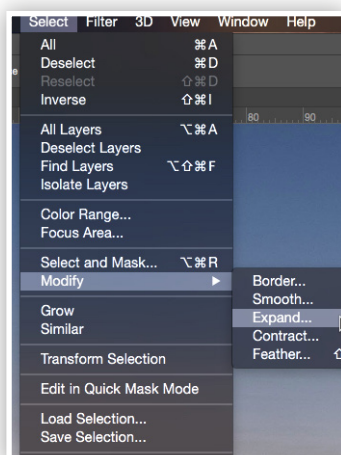
05 We need to mask out everything except the sky and sea. Go to your toolbar and choose the Quick Selection Tool (W). Make sure that the Add To Selection button is active and Auto-Enhance is checked.

06 With a small brush size of about 30 pixels, begin to drag across the sea, sky, and across to the other side. The selection will be added as you drag the tool. The 'marching ants' will show what is selected.



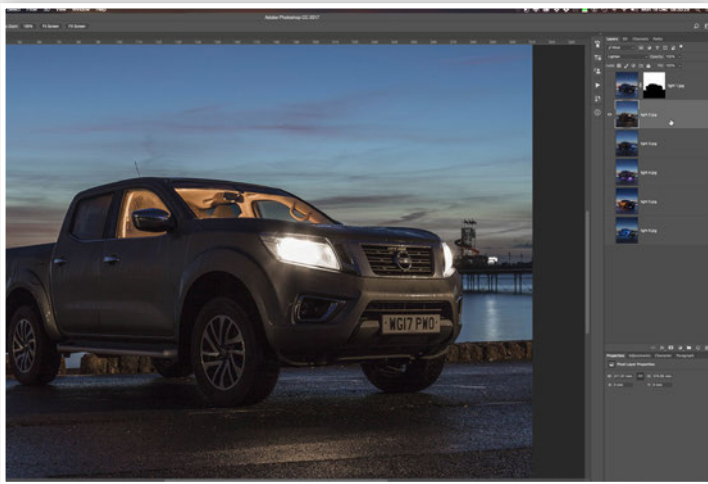
07 We just want the background sea and sky selected. A part of the headlight lens on the right of the car has also been included in the selection. If you wish, you can remove that area.

08 Click on the Subtract From Selection button and draw your cursor across the headlight. As you draw across, the headlight will be removed from the selection. You can use the [and] keys to change the size of the brush for more control of the selection.

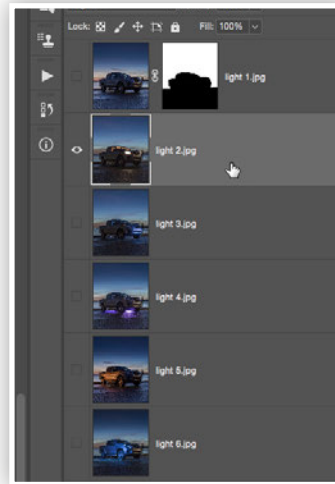


09 Go to Select > Modify > Expand and make the Expand By value 1 pixel. Click OK to increase the selection area by one pixel to help avoid a bright line around the truck when a mask is applied.

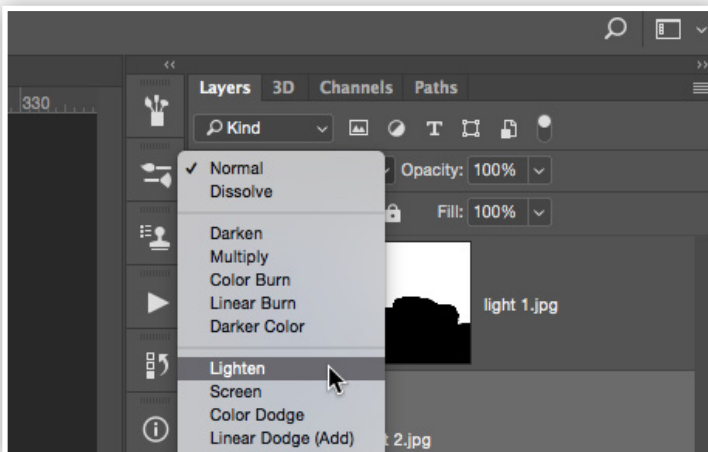
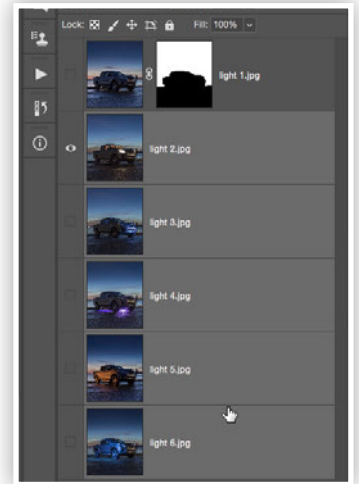
10 With the 'light 1' layer sky selection active, click the Add Layer Mask button and a mask will be added in the shape of the active selection. The truck and the foreground will disappear, leaving just the sky and sea.



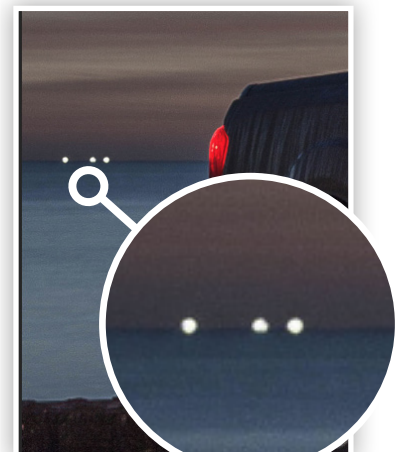
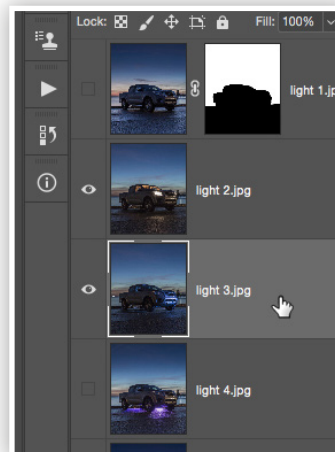
11 For the moment, turn off the 'light 1' layer and turn on 'light 2'. We can now begin the process of combining our group of individual light painting shots into one final image.



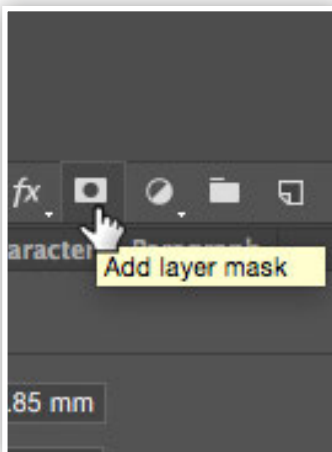
12 Click on the 'light 2' layer, hold Shift and then click on 'light 6'. The five layers from 2 to 6 should all be selected and highlighted, even though only the 'light 2' layer is currently visible.



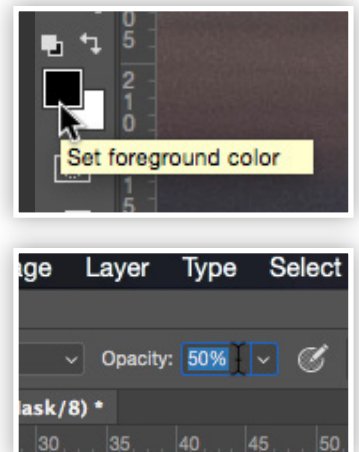
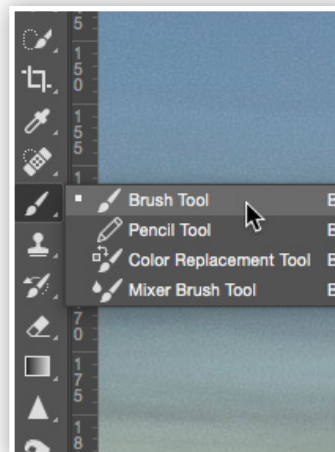
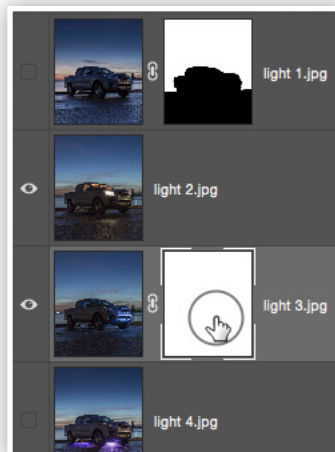
13 Go to the top of the layers palette and choose Lighten as your blend mode from the drop down list. The Lighten blend mode will be assigned to all five selected layers.



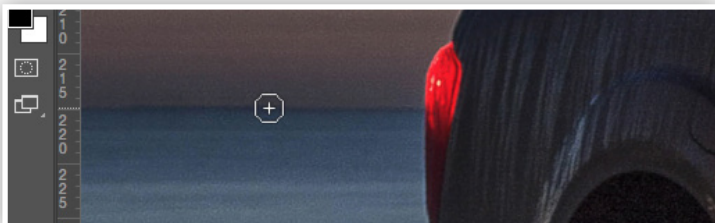
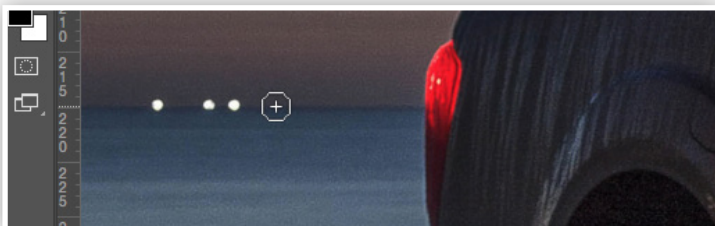
14 Make 'light 3' visible and its brightness will be combined with 'light 2'. Off in the distance are a few boat navigation lights that can easily be removed from the active 'light 3' layer.



15 Go to the bottom of the layer palette and click the Add Layer Mask button. A mask will be added to the 'light 3' layer. Make sure the mask itself is active, not the image.



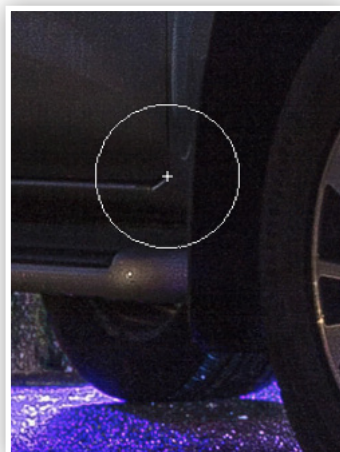
16 Go to your toolbar and choose your Brush Tool (B) and pick a small, soft brush. Make sure the foreground colour is black and the Opacity is about 50 per cent.



17 With the soft black brush, begin to paint on the mask over the areas where you can see the boat's navigation lights. As you do, the mask will prevent that area of the 'light 3' layer being seen.



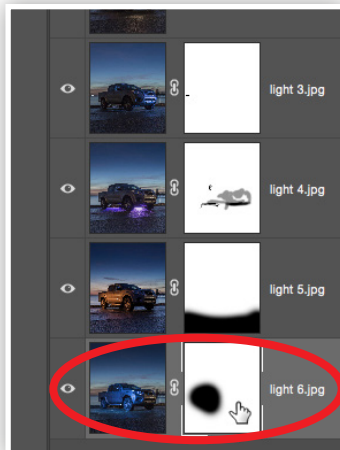
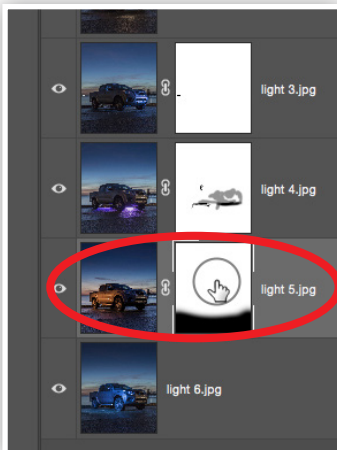
18 Brush the offending areas out. If you Alt + left-click on the mask, you will see the black brush strokes that have removed the unwanted areas. Alt + left-click the mask again to return to normal view.



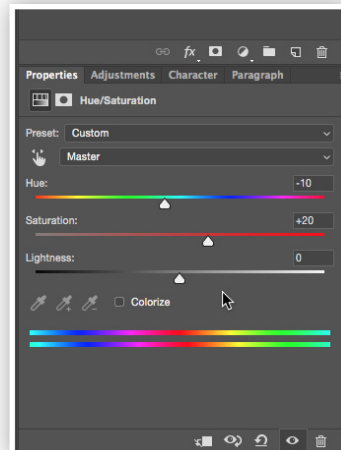
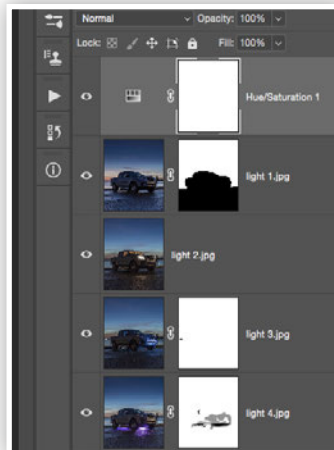
19 Make 'light 4' visible and active. There are some unwanted purple highlights on the door sill and mud flap that can be removed. As you did in step 15, add a mask and paint out the purple highlights to remove anything that you feel is a visual distraction.



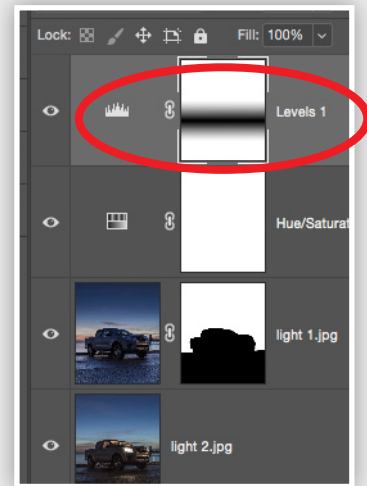
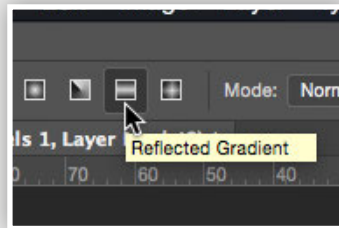
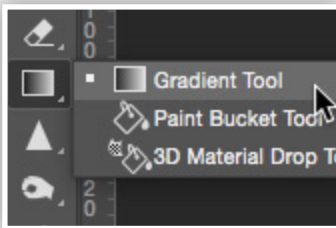
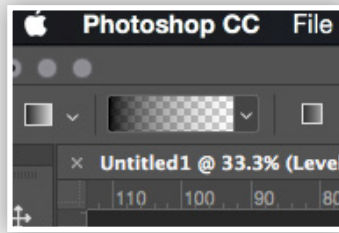
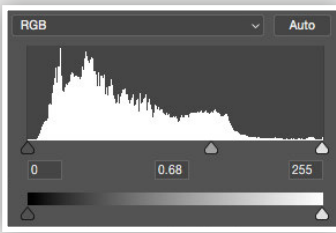
20 Now you need to make both 'light 5' and 'light 6' visible to finally see all five layers combined. Now go to 'light 1' and make it visible to reveal the masked sky we first worked on.



21 You can happily make further masking tweaks. For instance, we masked out some of the light spilling into the bottom edge of the shot. We also reduced the amount of blue light on the side of the truck in the 'light 6' layer.



22 For a couple of additional cosmetic enhancements, we added a Hue/ Saturation layer at the top of layer stack to enrich the colours a little and altered the Hue value a touch to make the sky more blue.



23 We added a Levels adjustment layer to the top of the layer stack that added deeper tones to the image. We went to the Gradient Tool (G) and selected Foreground to Transparent and the gradient type was Reflected Gradient.

24 With the 'Levels 1' layer mask active, we made a grad that started solid black in the middle of the truck, fading to transparent just above and below the truck. This area, seen as white on the mask, is the only area that will be affected by the Levels adjustment.



25 With that adjustment made, the combination of five images plus the base sky layer above, means that our light painting is complete.



Bright ideas for a great effect

Now you have complete control of light.



Blend Modes



There are many ways that layers can interact with each other

When you put one layer on top of another, the pixels of that layer are added to the pixels of the layer below. Normally, they cover them completely so that only the topmost layer is visible but it doesn't have to be that way. By using layer blending modes we can change the ways that the pixels interact in a number of ways to produce different effects. You'll find blending mode options in either the Layer menu under Layer Style or as a drop-down menu in

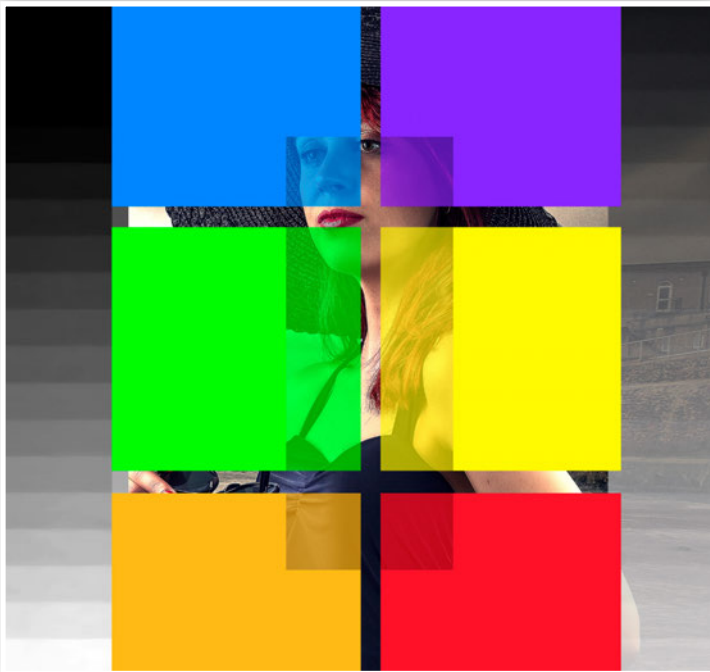
the layer palette. Most of the blend modes are very specialised but a few are very common and are used in many of your creative projects. We have a colour overlay and a base image to show you how the basic blend modes affect your image.



This tutorial content is available for download

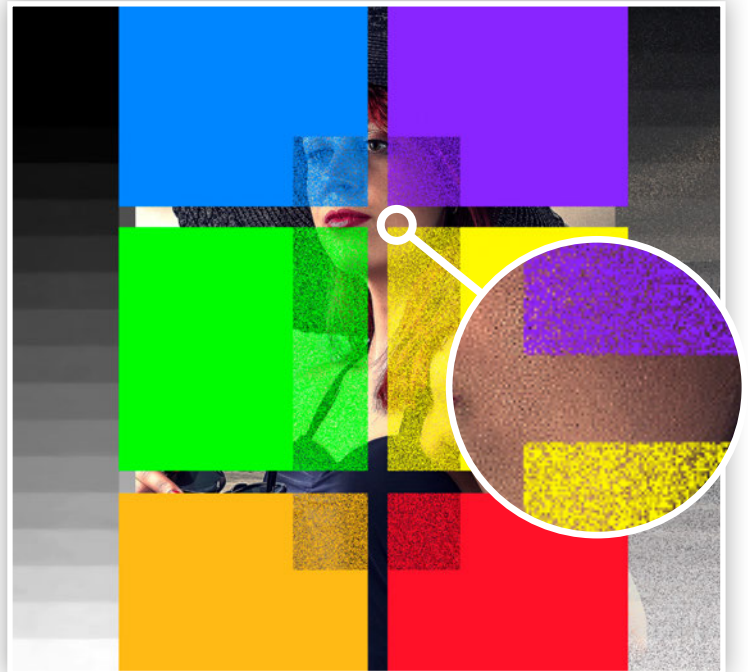


Normal



- 01** Applies each pixel of the new layer to make it the result colour. This is the default blending mode. No blends are applied in Normal mode.

Dissolve



- 02** Essentially the same as Normal but the result colour is a random replacement of the pixels with the base colour or the new layer colour, depending on the opacity at any pixel location, producing a pixelated airbrushed effect.

Darken



- 03** Takes the colour information in each channel and selects either the base or layer colour, whichever is darker, as the result colour. Pixels lighter than the blend colour are replaced and pixels darker than the blended colour do not change.

Multiply



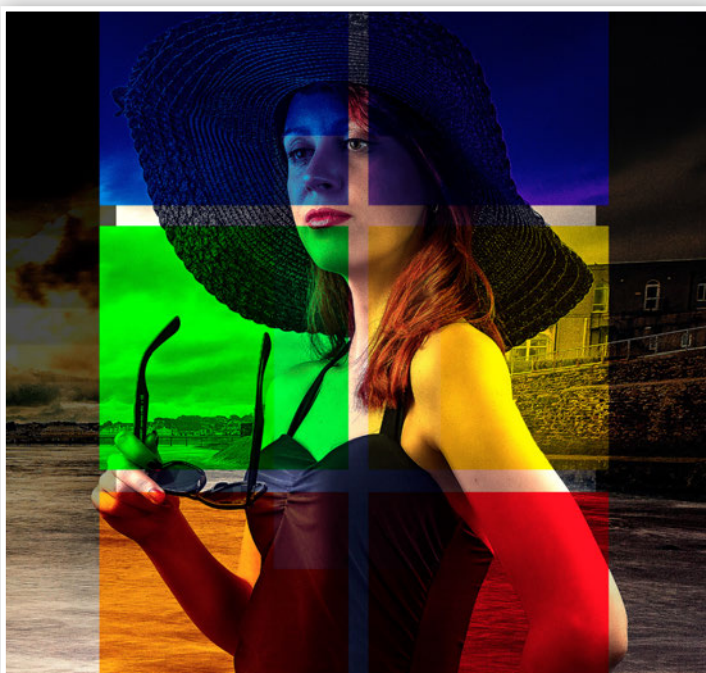
- 04** Takes the colour information in each channel and multiplies the base colour by the layer colour. The result is always a darker colour when adding a colour other than black or white.

Color Burn



- 05** Takes the colour information in each channel and darkens the base colour to reflect the layer colour by increasing the contrast between the two. Blending with white produces no change.

Linear Burn



- 06** Takes the colour information in each channel and darkens the base colour to reflect the layer colour by decreasing the brightness. Blending with white produces no change.

Darker Color



- 07** Compares the total of all channel values for the blend and base colour and displays the lower value colour. Darker Colour does not produce a third colour from the Darken blend, because it chooses the lowest channel values from both the base and the blend colour to create the result colour.

Lighten



- 08** Takes the colour information in each channel and selects the base or blend colour, whichever is lighter, as the result colour. Pixels darker than the layer colour are replaced and pixels lighter than the layer colour do not change.

Screen



- 09** Takes each channel's colour information and multiplies the inverse of the layer and base colours. The result colour is always a lighter colour. Screening with black leaves the colour unchanged. Screening with white produces white. Similar to projecting multiple photographic slides together.

Color Dodge



- 10** Takes the colour information in each channel and brightens the base colour to reflect the layer colour by decreasing contrast between the two. Blending with black produces no change.

Linear Dodge (Add)



- 11** Takes the colour information in each channel and brightens the base colour to reflect the layer colour by increasing the brightness. Blending with black produces no change.

Lighter Color



- 12** Compares the total of all channel values for the blend and base colour and displays the higher value colour. It does not produce a third colour, which can result from the Lighten blend, because it chooses the highest channel values from both the base and blend colour to create the result colour.

Overlay



13 Multiplies or screens the colours, depending on base colour. Patterns or colours overlay the existing pixels whilst preserving the highlights and shadows of the base colour. The base colour is not replaced but mixed with the blend colour to reflect the lightness or darkness of the original colour.

Soft Light



14 Darkens or lightens the colours, depending on the blend colour. If the blend colour is lighter than 50 per cent grey, the image is lightened. If the blend colour is darker than 50 per cent grey, the image is darkened. Painting with pure black or white produces a distinctly darker or lighter area.

Hard Light



15 If the blend colour is lighter than 50 per cent grey, the image is lightened. If the blend colour is darker than 50 per cent grey, the image is darkened. This is useful for adding shadows to an image. Painting with pure black or white results in pure black or white.

Linear Light



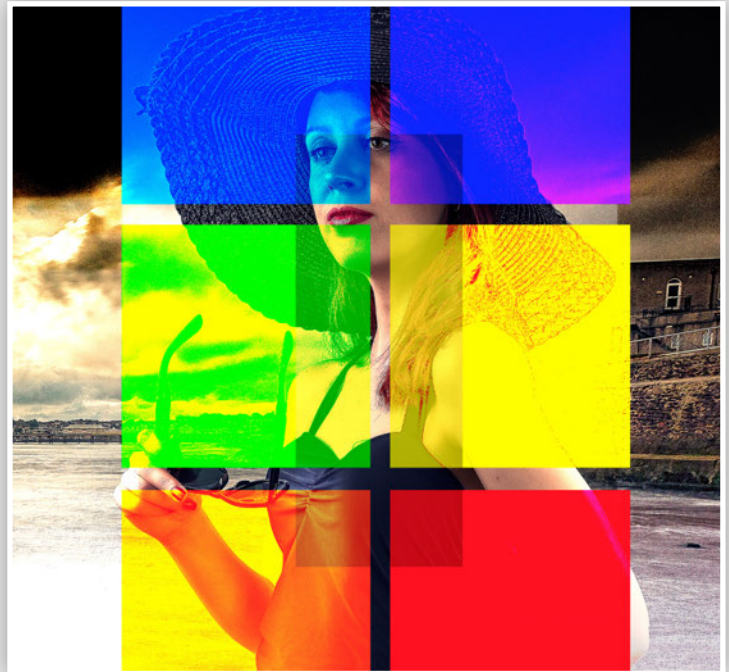
16 Burns or dodges the colours by decreasing or increasing the brightness. If the blend colour is lighter than 50 per cent grey, the image is lightened by increasing the brightness. If the blend colour is darker than 50 per cent grey, the image is darkened by decreasing the brightness.

Pin Light



17 If the blend colour is lighter than 50 per cent grey, only pixels darker than the blend colour are replaced. If the blend colour is darker than 50 per cent grey, only pixels lighter than the blend colour are replaced. This is useful for adding special effects to an image.

Vivid Light



18 Burns or dodges the colours depending on the blend colour. If the blend colour (light source) is lighter than 50 per cent grey, the image is lightened by decreasing the contrast. If the blend colour is darker than 50 per cent grey, the image is darkened by increasing the contrast.



It's all in the blend

Explore your creative side and get your pixels interacting.

Landscape Processing Tips

A few simple adjustments can make all the difference

Have you ever been out with your camera, taking shots of some beautiful scene? It's sunrise down by the water's edge. The light is amazing, the clouds are well defined and lit by the rising sun, there is a glow along the horizon and some cool reflections in the wet sand at your feet. You compose a strong yet simple shot and click off a few frames. When you get home and download them to your computer, you open them up and are surprised how different the images look to how it

was in real life. The images are a bit washed out, the colours seem a little weak. Did you get your camera settings wrong? There's every chance you didn't. Sometimes what you see with your own eyes is not how the camera will interpret it. Your eyes have greater dynamic range than any sensor and they see more tonal variations. Don't worry though, with a few simple steps, you can take that image and enhance to not only match, but surpass, the conditions present when you took the shot. Adding more detail, contrast and saturation is referred to as making them 'pop'. Here's how you can make your own images 'pop'.

AFTER

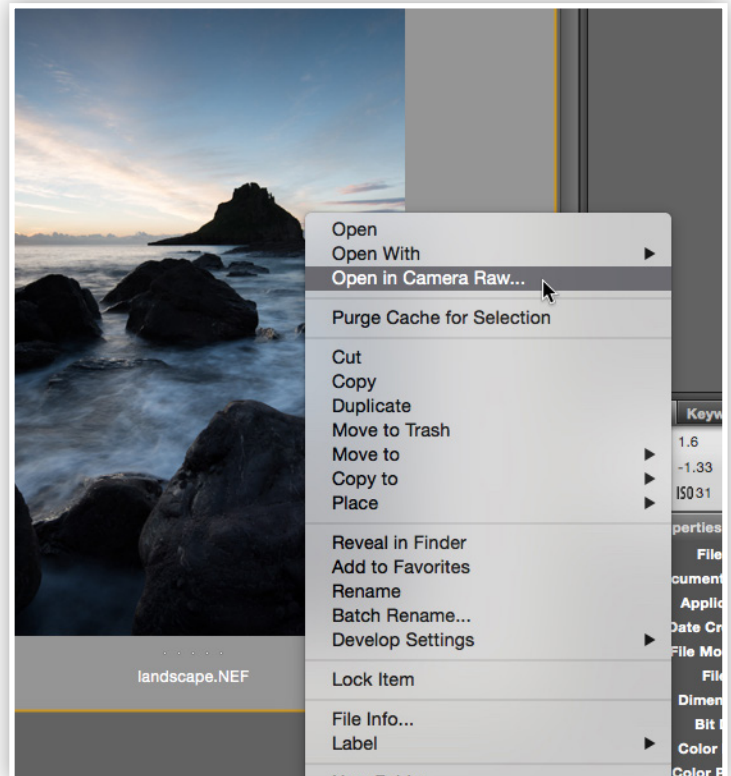
BEFORE



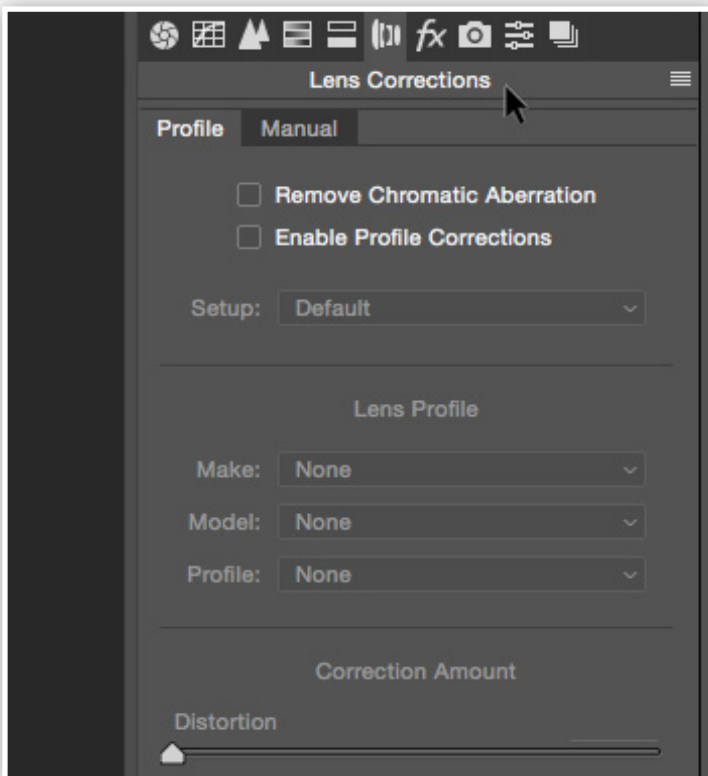
This tutorial content is available for download



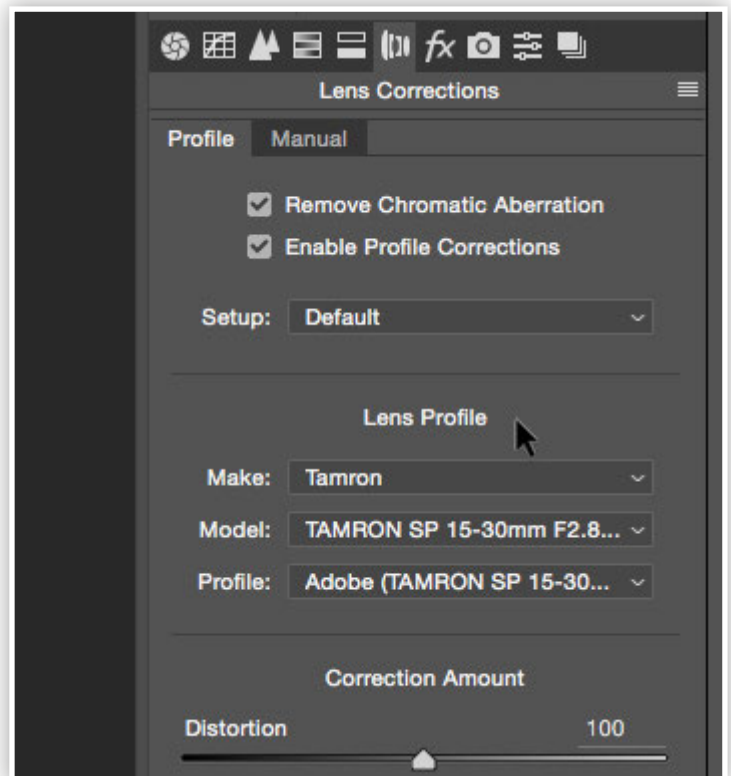
01 The image we are using for this tutorial is a seascape at sunrise. Although the exposure is a little off, it should be quite recoverable. The sky is a little bit overexposed but you'll be surprised what you can do with it.



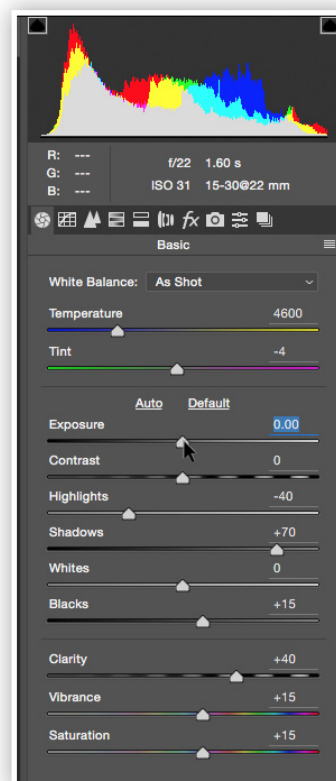
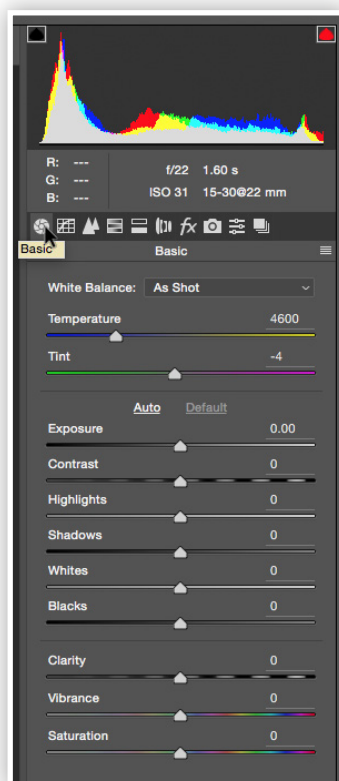
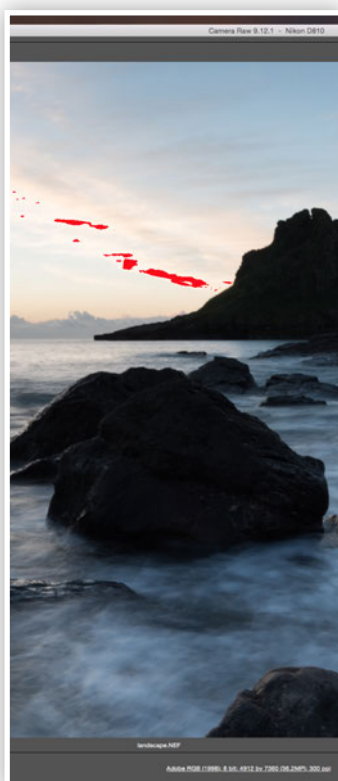
02 Our example is shown here in Adobe Bridge. Since this is a raw file, we can go ahead and open it up in Adobe Camera Raw (ACR), by right-clicking on it and choosing Open In Camera Raw.



03 The image will open in ACR, ready for editing. One of the first things to do is to click on the Lens Corrections tab on the right and under the Profile tab tick the buttons for Remove Chromatic Aberration and Enable Profile Corrections.

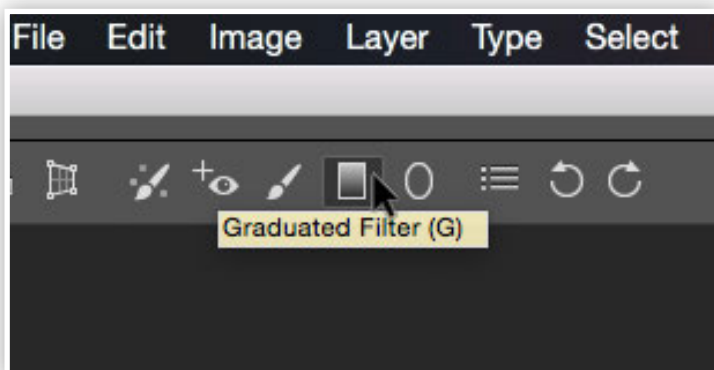
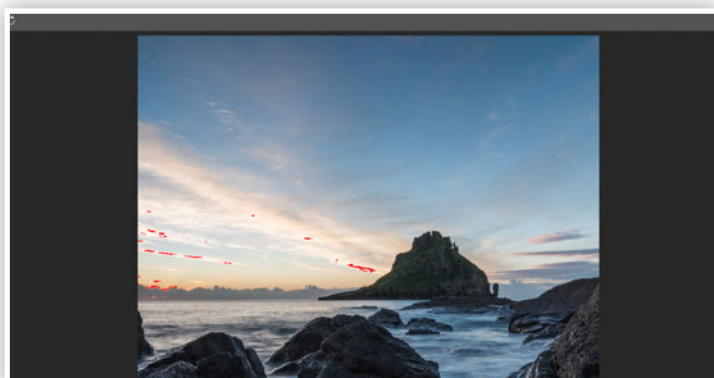


04 This removes any lens distortion from the Tamron SP 15-30mm lens that was used as well as any purple/green fringing that lenses can sometimes produce.

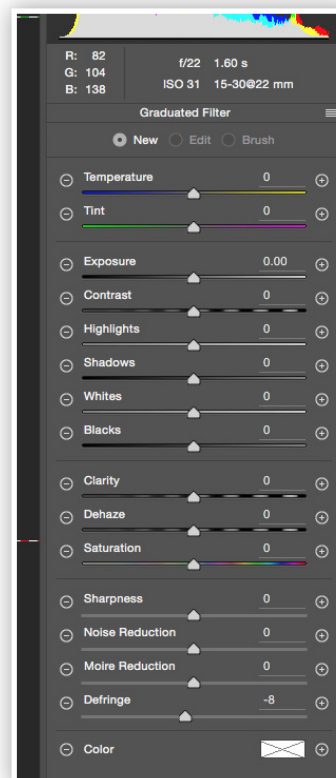
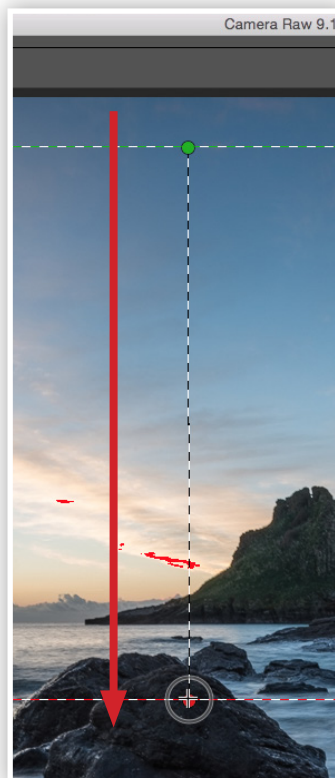


05 Next, click on the Basic tab. This is where the majority of the adjustments can be made to your image. Things like Temperature, Exposure, Contrast, Saturation and Highlights and Shadows can be altered here.

06 We've made some simple changes to the picture. The Highlights and Whites have been reduced to keep detail in the bright areas of the clouds and the Shadows and Blacks have been lightened. Clarity and Saturation have been increased.



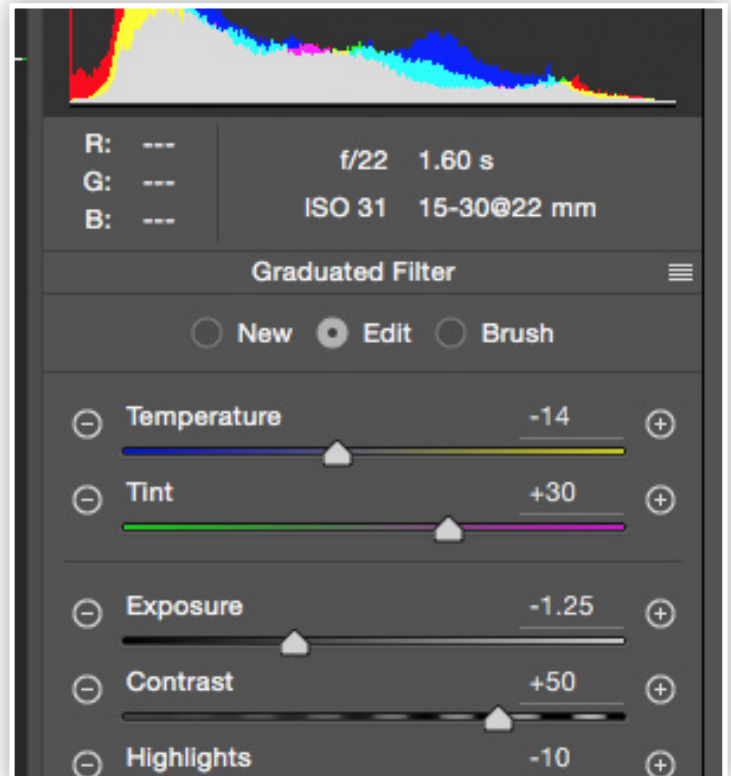
07 The next thing that would be good is to make the sky stronger. Go to the top menu bar and choose the Graduated Filter (G). This can simulate the use of a real grad filter.



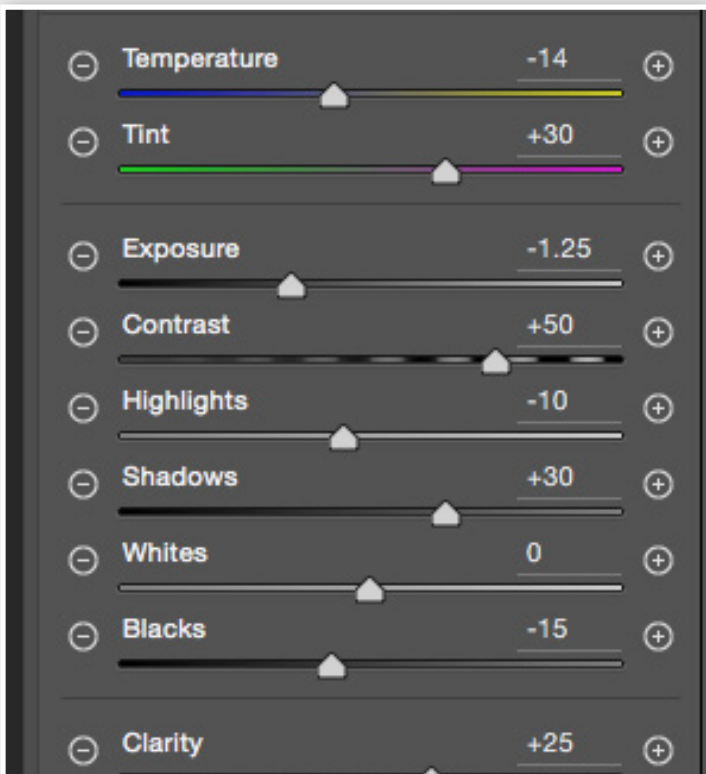
08 With the Graduated Filter chosen, click and drag from the top of the picture to a point just below the horizon. We deliberately zeroed out the values for the filter so there is no apparent change, this is so we can demonstrate the adjustments.



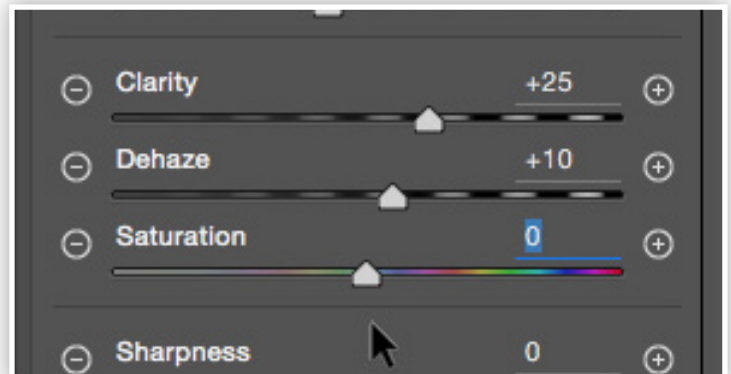
09 When using the Graduated Filter, the start point in green will display the effect at its strongest, fading to zero at the end point in red.



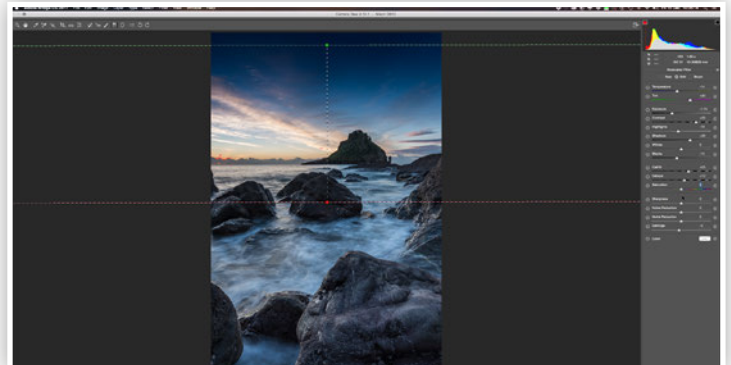
10 When you use the grad filter, its properties will be displayed on the right of the screen. We started by altering the Temperature slider to -14 to add more blue to the sky and Tint was changed to +30 to push it away from looking too green.

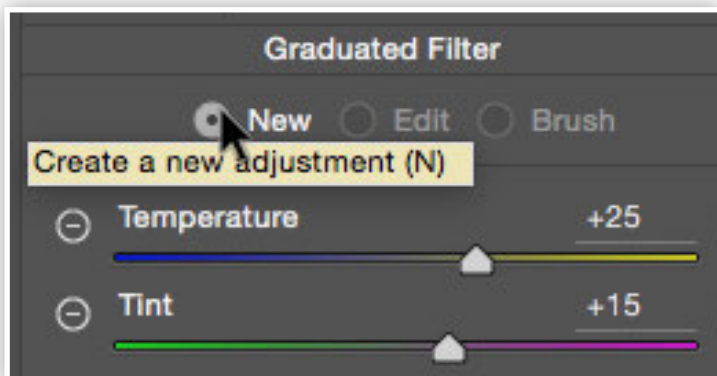


11 We dropped Exposure to -1.25. Contrast was increased to +50 and Highlights reduced to -10. Shadows were boosted to +30. Whites remained at zero and Blacks -15.

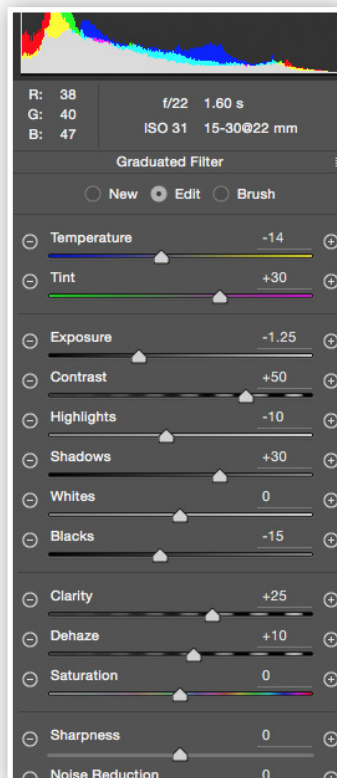


12 Clarity was also been boosted to +25 to add midtone contrast to the clouds and Dehaze is +10. Now you can see that the sky is darker now, and the clouds have more definition and contrast.

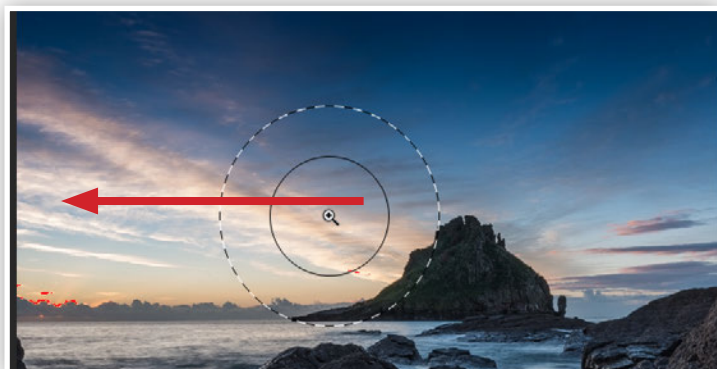
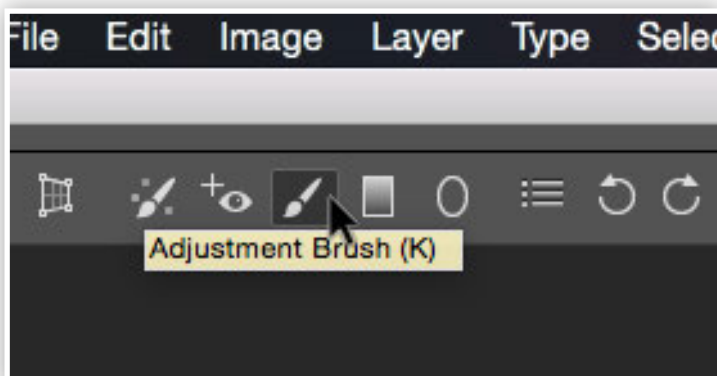




13 You can add more graduated effect by clicking on the New button and dragging a new grad with the same properties from the bottom of the screen up just past the horizon. The current properties are too dark but you can alter them.



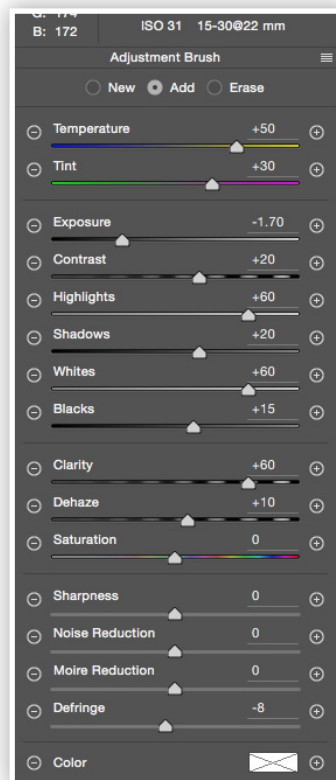
14 With the new grad active, you can alter all the settings until you have something you like. We've altered Exposure and Shadows to darken the foreground a little as well as increasing Contrast. We also altered Clarity and Dehaze.



15 You can also make more targeted adjustments using the Adjustment Brush (K). The last settings used for the second grad can be applied using the brush only where you want it. You can alter the size and softness of the brush in the properties panel.



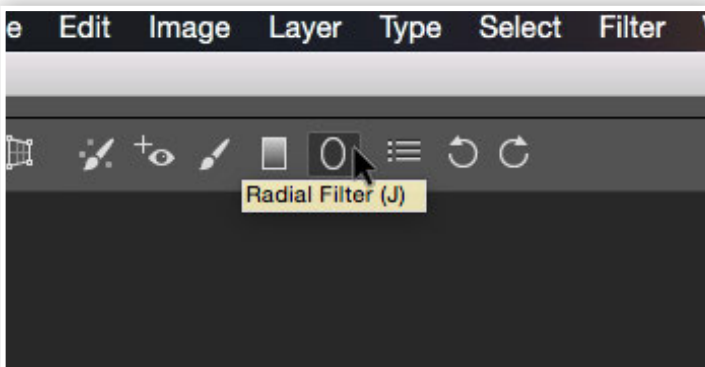
16 With the adjustment brush applied to the clouds, you can set about altering the properties if you wish. We've made the clouds warmer and Boosted the Whites to bring out the lights tones in the clouds.





17 Each Graduated Filter or Adjustment Brush you add can be clicked on and the values tweaked at any time. We went back to the Graduated Filter tool (G) and clicked on the top grad and increased the Exposure value a little more and boosted the warm tones.

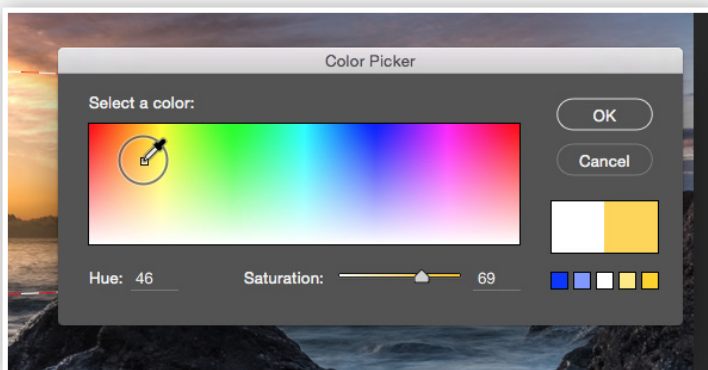
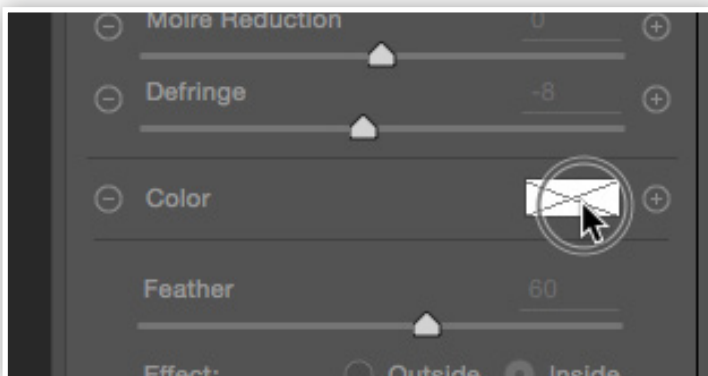
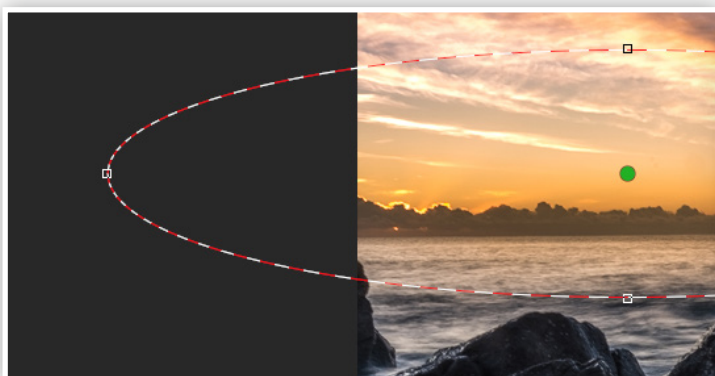
18 The edits are coming along nicely. The image is more tonally balanced with no detail lost in shadows or highlights. The colour temperature has been increased for warmer tones and the clouds have more detail and contrast.



19 Next, you are going to boost the colours of the horizon using the Radial Filter (J). This is a relatively new feature and behaves like the Graduated Filter, but its effect is circular/elliptical rather than linear.

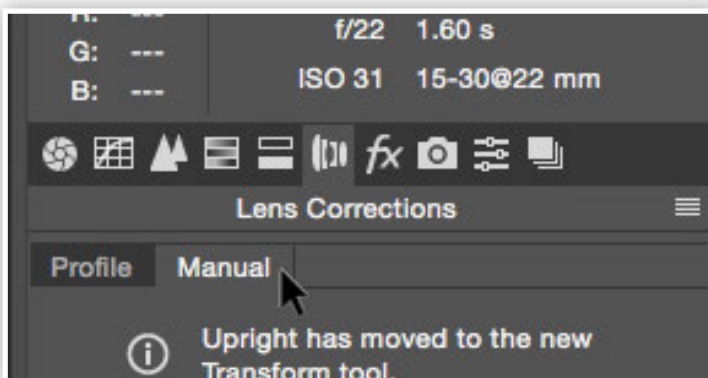
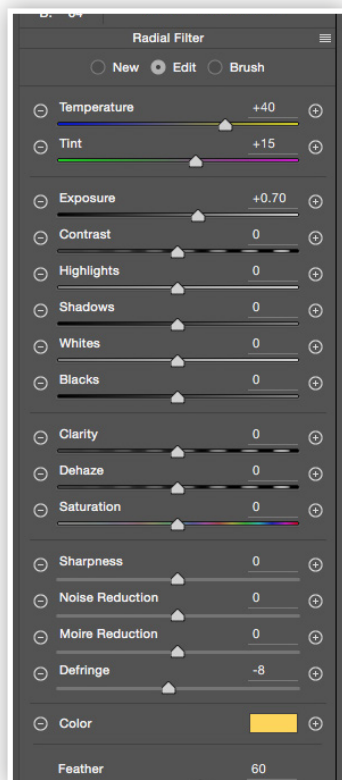
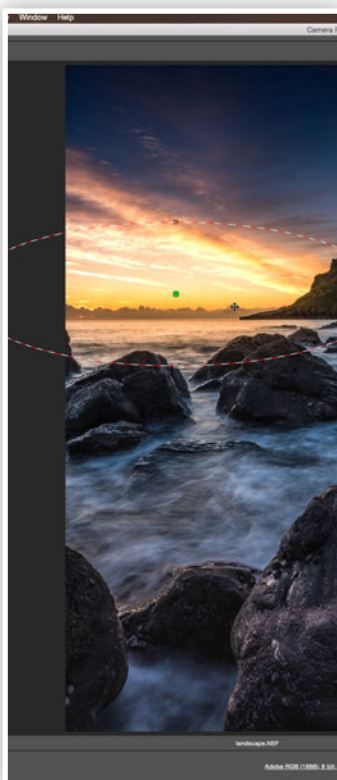


20 With the Radial Filter selected, click and drag out an ellipse along the left part of the horizon. We have zeroed the properties for this again to be able to demonstrate the changes.



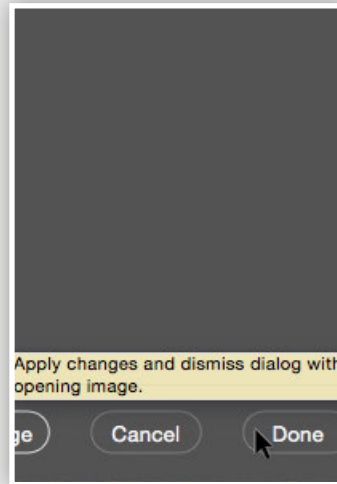
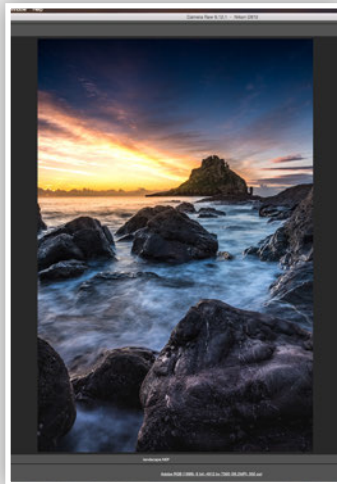
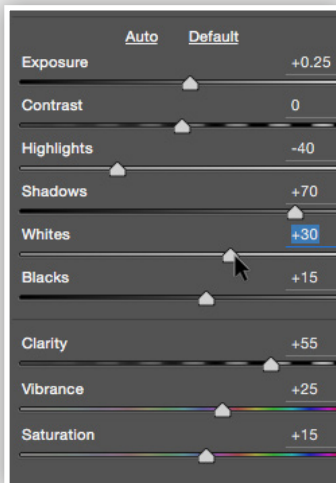
21 If you wish, you can click on the centre pin of the filter and move it around to any part of the picture. We've just positioned it at the horizon.

22 We want to warm up the horizon. You can actually colour the filter by clicking on the Colour Picker from the Radial Filter properties on the right of the screen and selecting a tint.



23 You can also alter the filter's other properties to your taste. We've boosted Exposure to +0.70, Temperature to +40 and Tint to +15 to get a strong sunny glow on the horizon.

24 One final and optional adjustment is to add a small amount of vignette to the picture. If you go to the Lens Corrections section and click on the Manual tab, you can add Vignetting. We've made the Amount -20 and Midpoint 20.



25 Back in the Basic panel, we've made some final edits to the image, boosting Exposure a little and increasing the strength of the Whites in the shot. Our adjustments are complete.

26 You can just click on the Done button and apply all the adjustments you made non-destructively to the file. When you do, the image will show the changes made along with a small icon in the top right of the thumbnail to indicate it has edits attached.



Improve your landscapes

Great images created in mere minutes!

Selective Colour

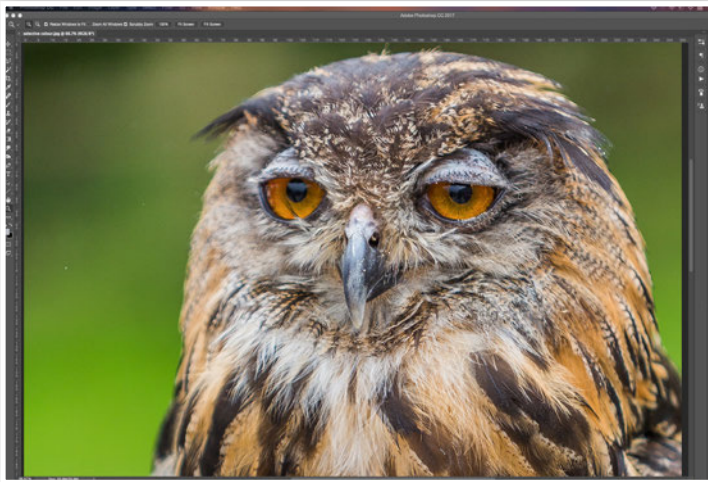
Converting to black and white but keeping a little splash of colour

It is quite popular to convert your images to black and white, but then to return part of the image to its original colour. This is done to create a small splash of colour that is instantly picked out of its surroundings to draw the eye to that point. It is a simple and fun way to enhance your black and white images. We show you how it's done in this simple tutorial.

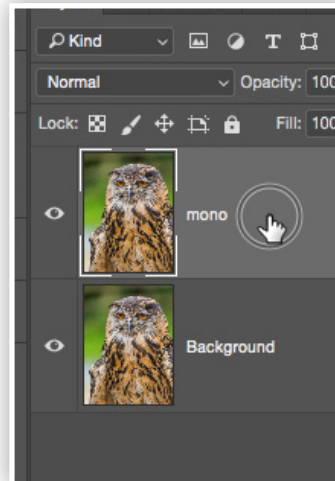


This tutorial content is available for download

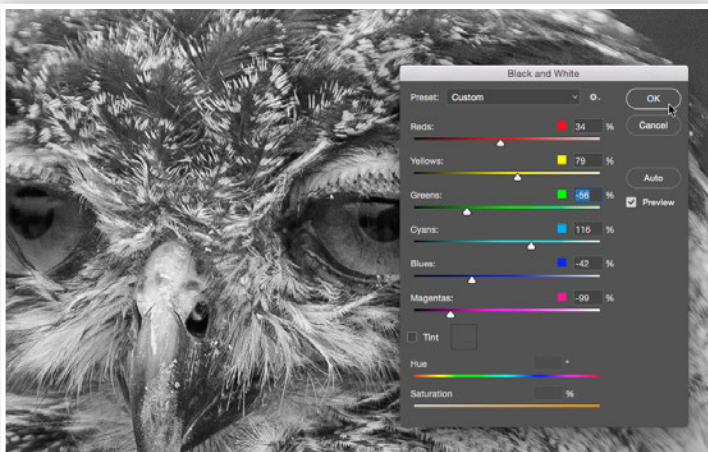
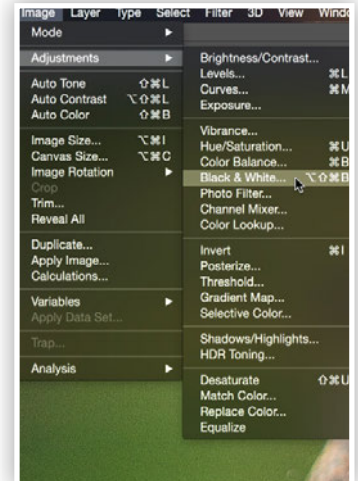




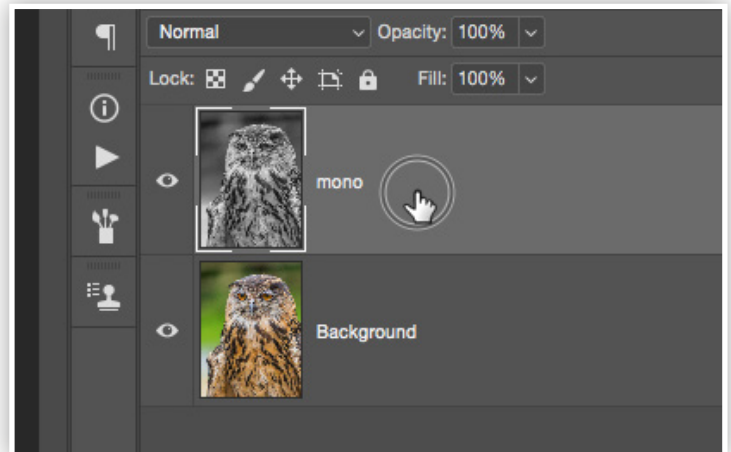
01 First of all, you will need a colour original. We have used a shot of a lovely eagle owl with a green background. We have a great display of colours that should convert to black and white with no issue.



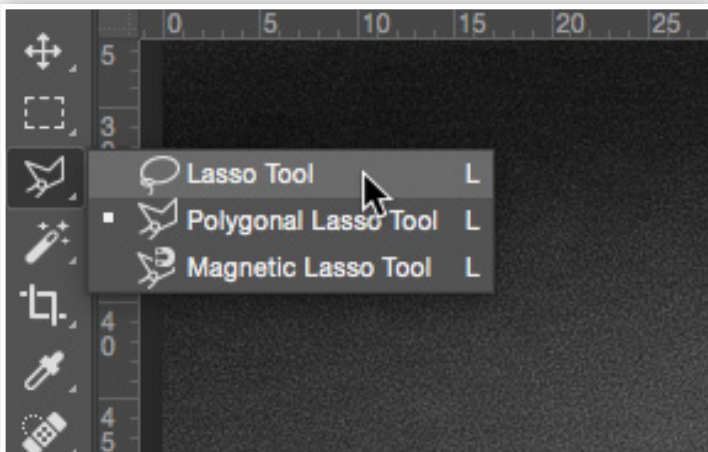
02 Create a duplicate image by pressing Cmd + J and name it 'mono'. Select that duplicate and go to Image > Adjustments > Black & White.



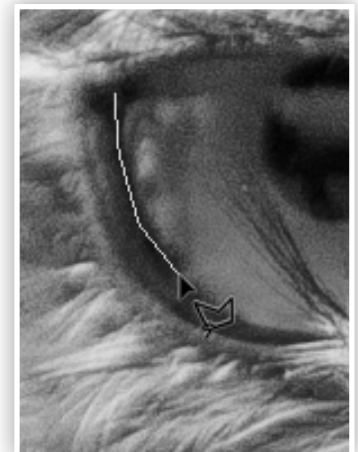
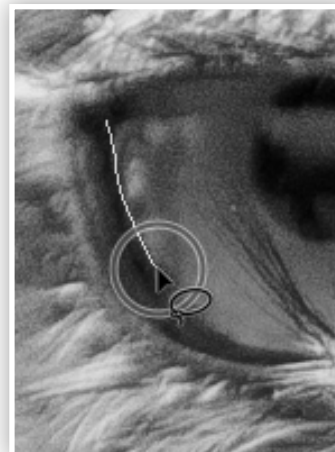
03 We have now completed our conversion to mono. We've brought out a lot of mid-tone detail and added some contrast to make the image quite punchy, but keeping a good range of tones.



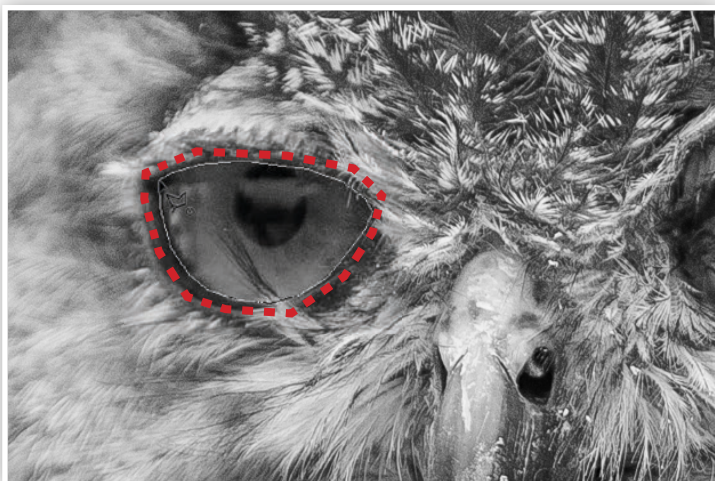
04 You now have the newly created black and white copy 'mono' as your top layer, and your colour original on the layer below.



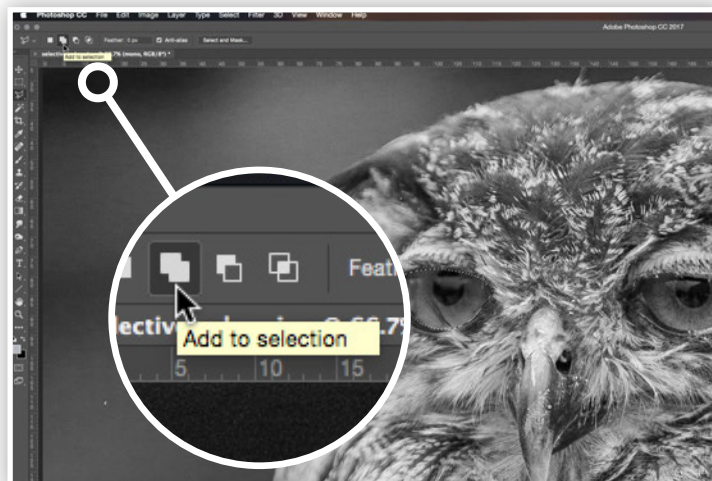
05 Make sure the 'mono' layer is active and go to the toolbar and choose the Lasso Tool (L). We will be using this tool to define an area of the image that will reappear in colour.



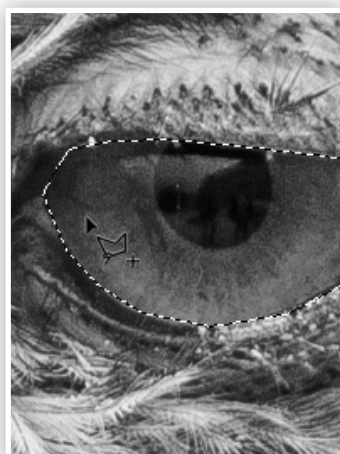
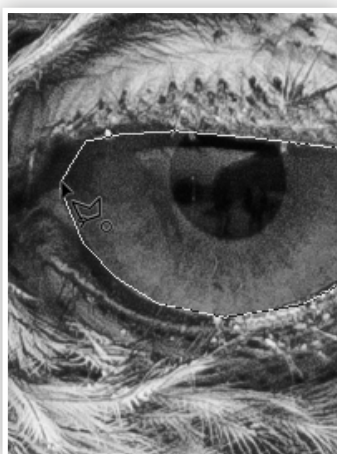
06 You can draw in a free form fashion using the Lasso Tool as if you were drawing with a pencil. If you prefer, you can use the Polygonal Lasso Tool which draws in a series of connected straight lines by clicking on the image on a point-to-point basis.



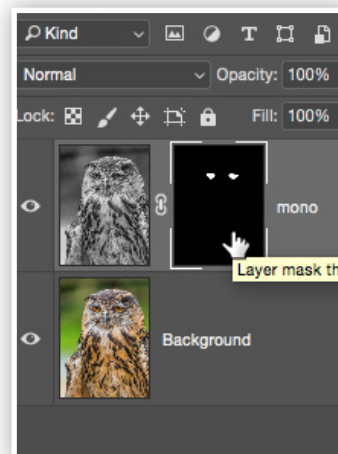
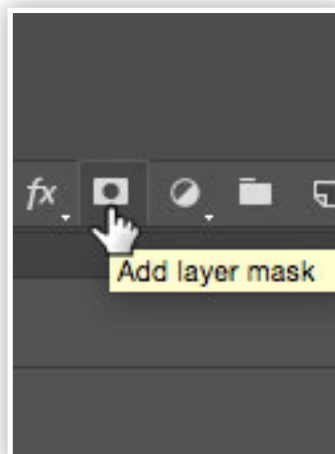
07 Whatever your preferred selection method, select the main area of one of the owl's eyes. When you have drawn around that area and joined up the selection, you will see the marching ants appear.



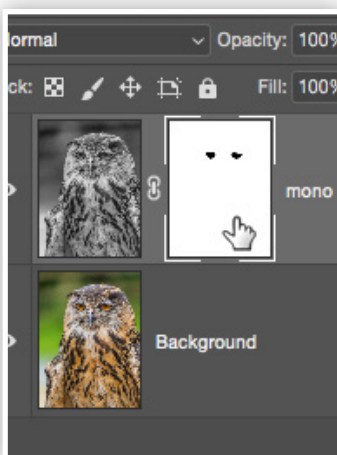
08 Now, Go to the content menu at the top left of the screen and choose Add to selection. Your cursor will now have a small + symbol, indicating it will now be able to add another selection to the one you have already.



09 Using the method from step 6, add the pencil tip to the selection. Again, when you join up the tip selection, marching ants will show you now have the pencil body and tip selected.



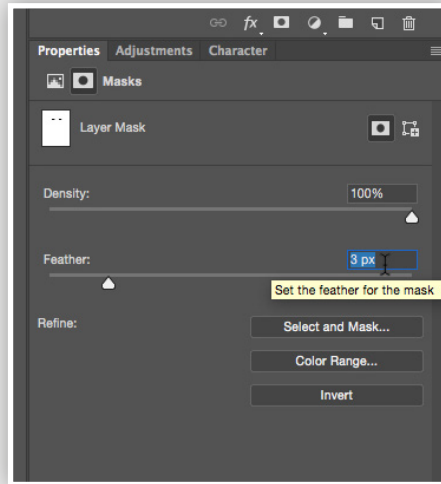
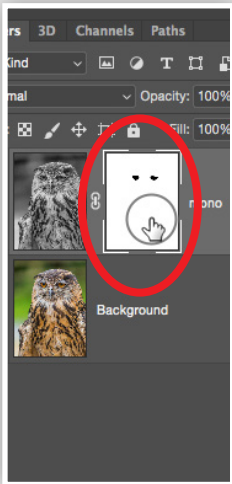
10 Now we can create a mask. With the 'mono' layer active, go to the bottom of your layers palette and click on the Add layer mask button. A layer mask will be added to the 'mono' layer in the shape of your selection.



11 The mask needs to be white, with the actual selection filled in black. If it is the other way around, just press Cmd + I to invert the colours of the mask. The mask on the 'mono' layer is allowing part of the coloured original to show through.



12 If you Alt + left-click on the layer mask, you can view the mask in isolation. Press Alt + left-click on the mask thumbnail again to go back to your main view.



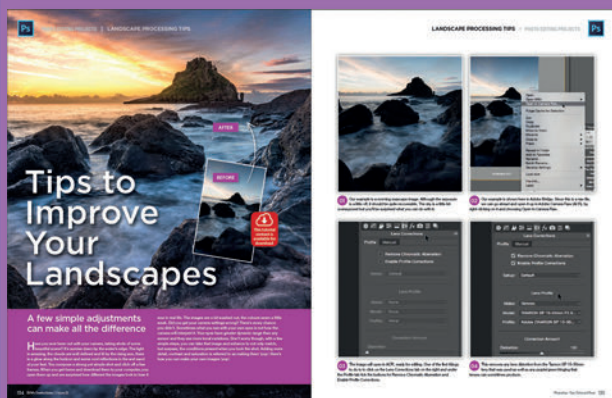
13 Click on the layer mask thumbnail to make sure it is active and then click on the properties panel and add a small amount of feather to the mask. About 2-3 pixels is enough to soften the hard edges of the mask.

14 There is your black and white image with a splash of colour. Now you know how to do it. How about converting more favourite images to mono and finding a colourful point of interest to 'pop' out of your shot.



A great way to make colour stand out

Black and white with a cool splash of colour.



Photoshop

Tricks, Tips & Fixes

Photoshop has been around for over 25 years and in that time it has become the world's leading image editing application. Whether you need to make the simplest edits to your photos or create brand new works of art, Photoshop is your one-stop destination. Simply put, if you can imagine it, then Photoshop has the tools for you to make it a reality. If you were to list every feature, function and tool contained within it, you would be left in no doubt why it is as popular amongst photographers and graphic professionals as it is.

Powerful digital editing

If you are relatively new to Photoshop, all of its features, tools and associated jargon may appear quite complex and off-putting. The aim of this guide is to help you discover just how powerful Photoshop is and show you that it is not as daunting as you might imagine. More and more people are learning how to develop their photo editing skills and you can be one of them.

How it all works

Inside this book we show you the fundamental tools and techniques that will get you up and running in Photoshop, with simple guides to the main principles of using layer-based photo editing and digital manipulation. Through a series of introductory tutorials that hone your techniques with the basic menu system, keyboard short-cuts and core features, you will become familiar with how Photoshop works.

Jump-start your creativity

Once you are comfortable with the main tools and techniques, you can try your hand at a selection of creative projects that will take what you have learnt and develop it further. With our easy to follow guides, you can learn how to sharpen your photographs using multiple techniques, add lighting and atmospheric effects and hopefully learn a few new tricks along the way. What's more, you can even download the images used in our tutorials and follow along at your own pace. You will be producing professional looking results in no time at all.