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Photo editing has changed for good!

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Maybe it's through years of watching apocalyptic movies, but there's something about the term 'artificial intelligence' that sends shivers down the spine. But when it comes to editing photos, Al is an exciting new direction (barring a few caveats). Find out about the top Photoshop Al tools here.

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HIGHLIGHTS: WHAT'S INSIDE...

THE EXCITING RISE OF AI

■ How is artificial intelligence changing Photoshop?

MASTER THE COLOR MIXER

■ Get to grips with powerful raw color mixing tools

MAKE LOCAL Landscape edits

Learn how to selectively boost your outdoor photos

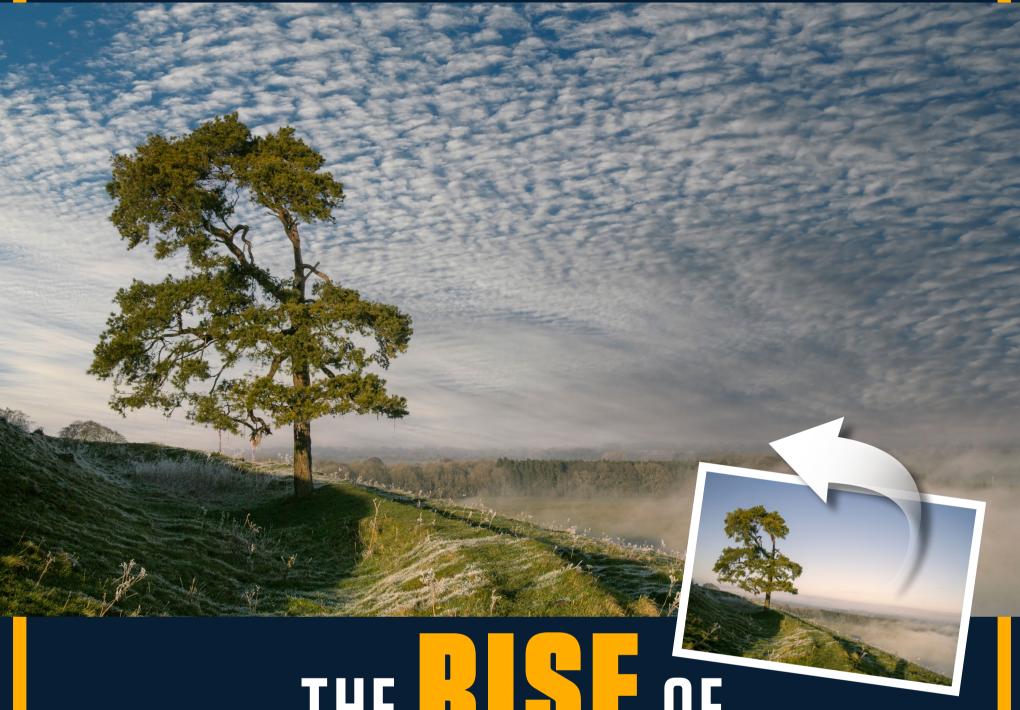
CREATE THE COVER IMAGE

■ Make impossible bouquets in this issue's big project

LIGHTROOM SKILLS

■ Tone your videos in Lightroom with simple controls





THE RISE OF ARTIFICAL INTELLIGENCE

With Photoshop updates now regularly featuring new Al tools, has image editing changed for the better, or should we be concerned?





The new Sky Replacement feature in Photoshop is sure to delight and infuriate in equal measures. Employing Sensei – Adobe's artificial intelligence technology – Photoshop will analyze the image, figure out where the sky is, and replace it for you.

Like any automated tool in Photoshop, Sky Replacement works brilliantly on some photos, but less so on others. The real question is not how well it works, though, but whether you think it's right that a landscape photo should be enhanced in this way.

We've already seen a similar automated sky replacement feature in Skylum's Luminar 4, and the newly released Luminar Al goes one further by letting

you drop distant scenery like mountains in the background of your photos. So whether we agree with it or not, Al is the new direction in image editing.

CHANGING SKIES

Sky replacement is something of a litmus test for Al editing. Digital manipulation has long been a bone of contention for landscape photographers. Replacing a sky may make a dull landscape look more appealing, but in a sense

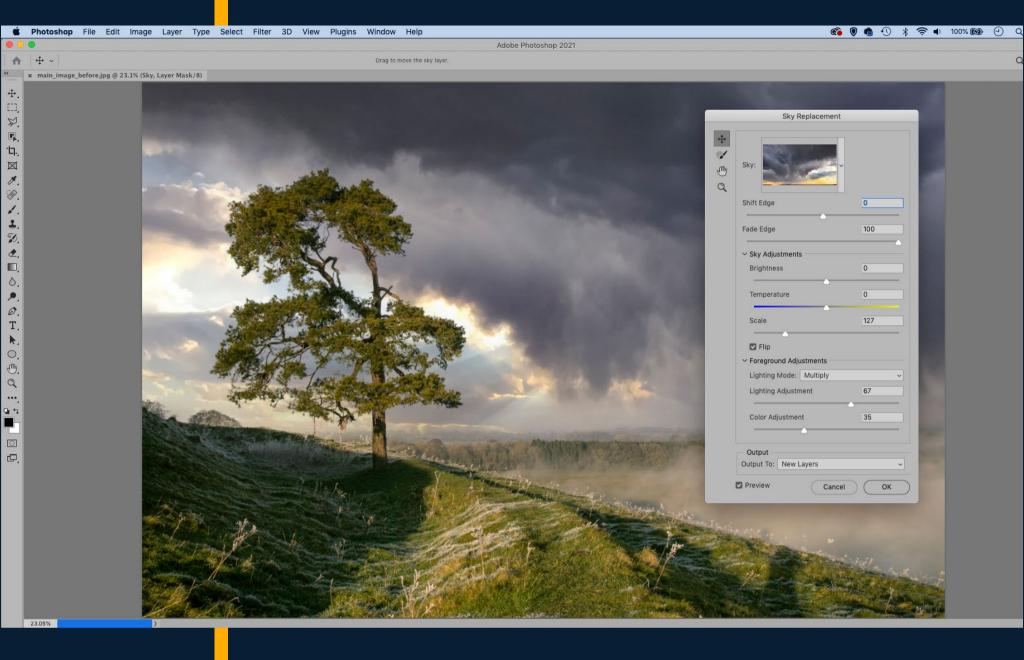
it also cheapens the image. Nothing can compare to capturing a glorious scene 'in

DIGITAL MANIPULATION
HAS LONG BEEN A BONE
OF CONTENTION

the moment'. But sky replacement isn't a new concept: we've had the tools to do so for years.

Luminar 4
was the first
image editor
to offer AI sky
replacement,
with Adobe
Photoshop
following
soon after.





The Sky
Replacement
tool in
Photoshop
lets you drop
in a new sky
in seconds choose from
the library of
skies or one
of your own
photos.

It's just that it now takes mere seconds, and you don't need to be a Photoshop whizz to do it. Now that it's easier and quicker than ever, it's inevitable that the technique will be used more.

On the other hand, the idea that 'things are easier than they used to be' has been a constant complaint from traditionalists ever since the Box Brownie. Why shouldn't amateurs be able to edit as effectively as professionals? In this sense, AI is a great leveller.

THERE'S A REAL DANGER
THAT AI IS CHANGING THE
ACT OF TAKING PHOTOS

A COUPLE OF CLICKS

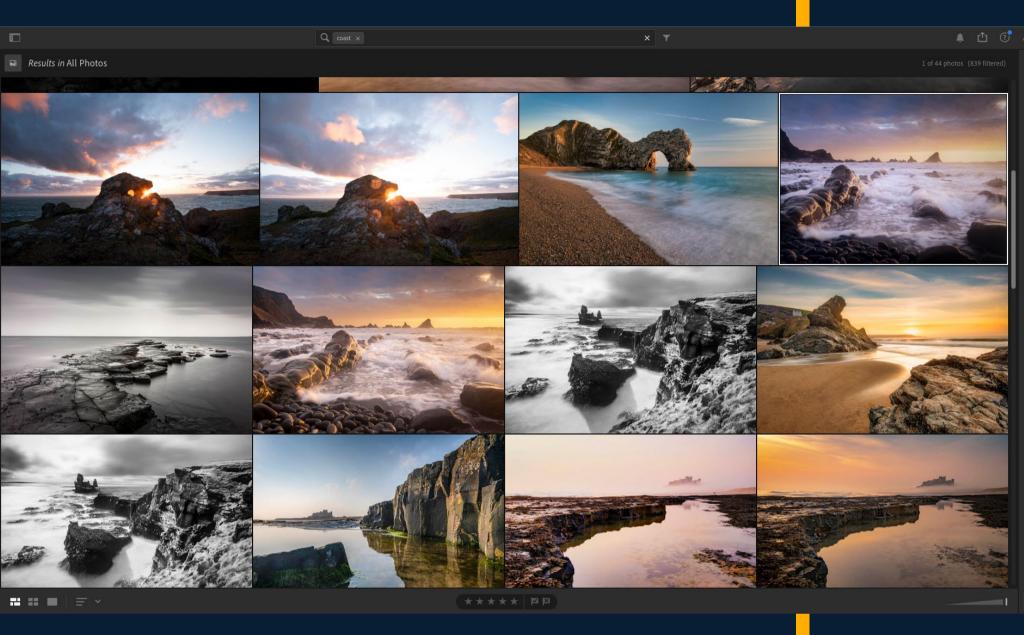
Perhaps the genuine landscape photo is a thing

of the past. Never again can you look at a gorgeous scene from someone's gallery without a nagging suspicion that it's a fake.

For a genre that is supposed to be a celebration of the great outdoors, it's a worrying direction. Think of all those dedicated photographers who've woken up early to catch the light, or traipsed back to the same spot time and again waiting for that perfect sky. More worryingly, this new tool might put off new photographers who are thinking of following the same path: why go to all that effort when you can get similar results with a couple of clicks?

In this sense, there's a real danger that AI is changing the





act of taking photos, and the essential joys of the craft. An Al feature in Lightroom's cloudbased app even selects 'your best photos' for you, based on photographic principles. Replacing a sky is one thing – but if you're letting a machine choose your keepers, you've arguably lost control of your photography.

GAME-CHANGING TOOLS

Aside from the moral debate, Al is powering some of the most exciting editing tools we've seen in recent years. Select Subject and the Object Selection Tool are both amazing time-savers, and the new Photoshop Neural filters look promising too. Then there's Lightroom CC's Sensei-powered

Search, which is a game-changer for lazy keyworders. And before we get too worked up about Sky Replacement, it's also worth thinking of those for whom it will be a godsend. For every landscape lover concerned about truth, there's a jobbing real-estate photographer who just wants to make a nice quick photo to help their client sell their house.

As things progress at such a pace, it's important to edit responsibly as well as

creatively. This means not passing off a composite as an unedited competition entry;

Lightroom CC's Search function lets you easily find types of images without any need for keywording files - like a search for 'coast' here.

AI IS POWERING SOME OF THE MOST EXCITING EDITING TOOLS WE'VE SEEN IN RECENT YEARS





Adobe's Content Authenticity Initiative can help to prove whether an image is real or fake.

not retouching portraits too heavily or reshaping a person's body unless they ask for it; and above all not manipulating documentary photos or any scene that purports to be genuine.

There's a fine line between fun fakery and outright deception, and it's not just artistic merit that's at stake. The whole concept of truth in modern media, press and events is constantly called into question, and fake images play a big part in this.

A BADGE OF AUTHENTICITY

With this in mind, Adobe has introduced another new feature. Sky Replacement may grab the headlines, but this addition might quietly become more significant. The new Attribution Tool is part of Adobe's Content Authenticity Initiative. It's like an aeroplane flight recorder for your photos, an image-editing black box. The

PHOTOGRAPHY IS NOT JUST ABOUT THE RESULTS, BUT ALSO THE JOURNEY

feature attaches a tamperproof history to a photo that shows exactly who created it.

what edits have been made and whether more than one image has been composited together.

Perhaps this will become proof of provenance for photographers. Short of handing over a raw file, before this it's been hard to show that an image has not been manipulated. But now we can demonstrate that we were there, in that moment, and we captured a real scene.

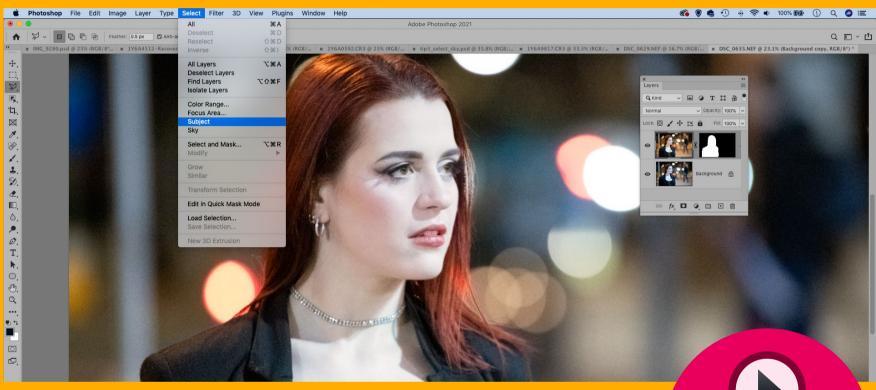
The signs are promising for this new badge of authenticity. Adobe has brought several big names on board to collaborate on the feature, like The New York Times, Twitter, Microsoft, CBC and the BBC. The Content Authenticity Initiative could become a powerful way to combat the fake photos. In an age where nothing can be seen to be believed, it might just claw back a little faith in the veracity of the digital image. As a photographer first and a Photoshopper second, this sounds like a good thing.

These are the most interesting times for image editing we've seen in years, with AI placing professional results in the hands of the masses. Monotonous tasks can be sped up, images can be enhanced in seconds and everyday scenes can be completely reworked.

But as we explore these wonderful new tools, we should ask: is it more important that we make an eye-catching image, or one that feels real? For many of us, photography is not just about the results, but also the journey, and the path of least resistance may not always be the most rewarding route. •

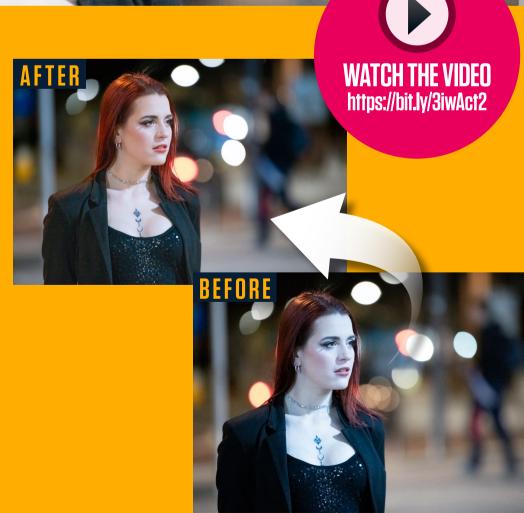
TOP 10 AL TOOLS IN PHOTOSHOP

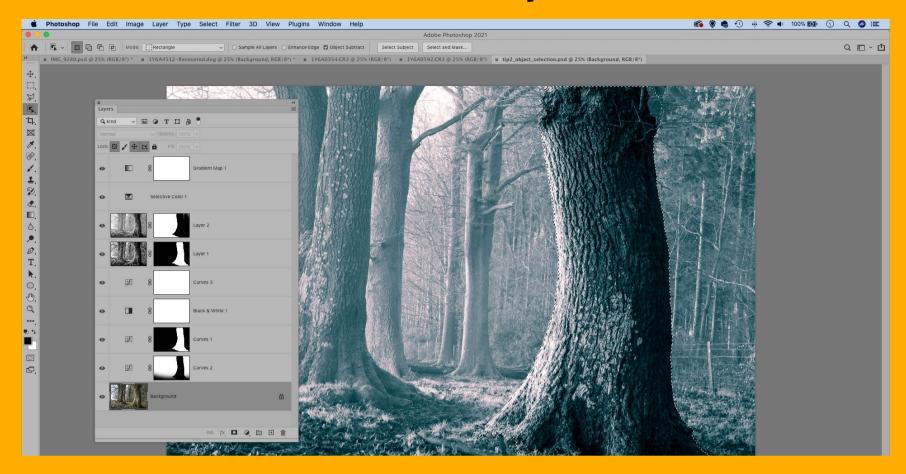
(AND 10 WE'D LIKE TO SEE NEXT)



This is without doubt our favorite of the AI tools in Photoshop. Simply go to Select > Subject (or click the button displayed at the top while using any selection tool): Photoshop will analyze your image and determine what the subject is, then make a selection for you. It's especially brilliant with portraits.

In this video we'll make use of Select Subject to quickly isolate the model, so we can fix the color temperature difference between the subject and the background.



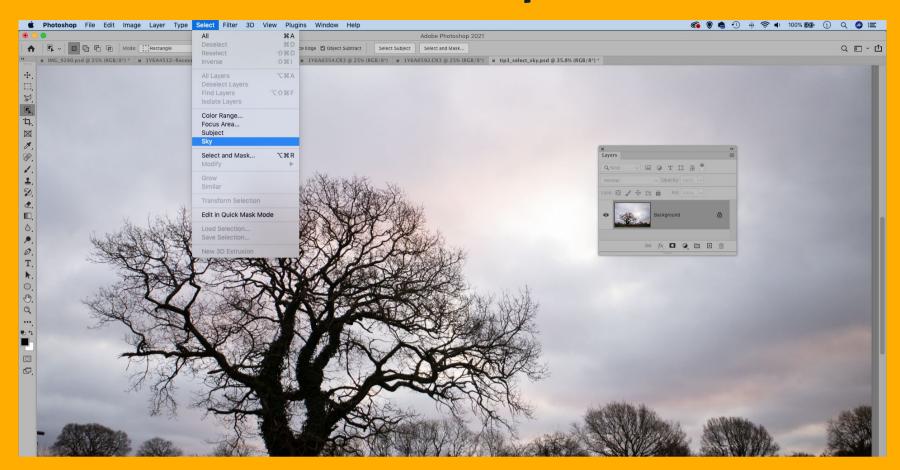


Object Selection allows you to draw a box over part of your image, then Photoshop will analyze the contents and select the object within the box. It's useful if your photo has more than one subject, or if you want to select an object other than your main subject. Watch the video to find out how we can use Object Selection to quickly isolate the foreground tree, then add a haze effect and a mono treatment.









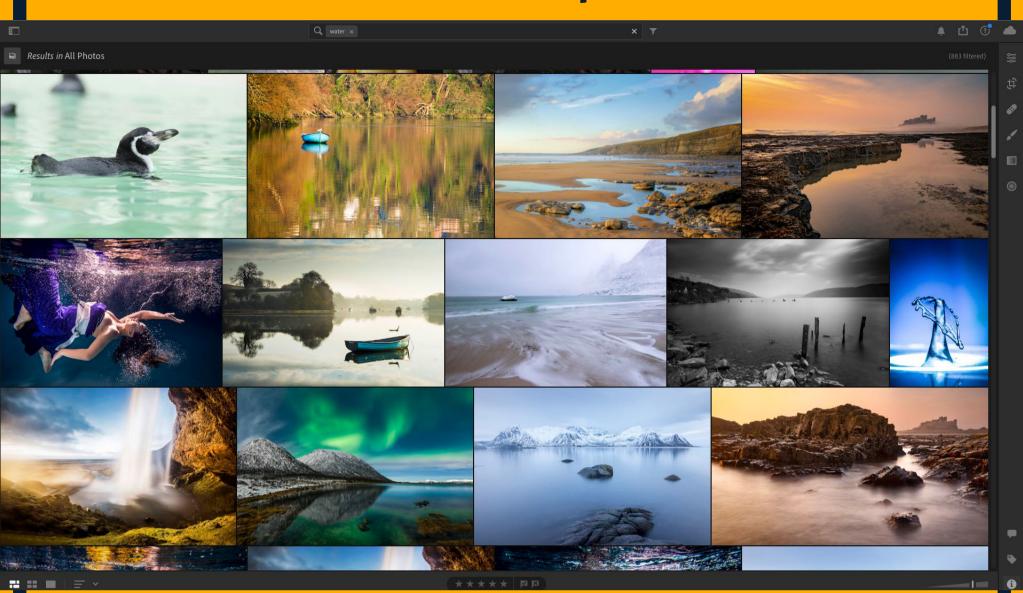
SELECT SKY
This automated selection tool uses AI to recognize the sky in outdoor photos and isolate the area. It's brilliant for balancing out skies with land below, as skies tend to be brighter.

Simply go to Select > Sky, then add a Curves or Level Adjustment Layer and use it to darken the area. In this video, we'll look at how the command helps us pull extra detail and color out of a seemingly blown-out sky.





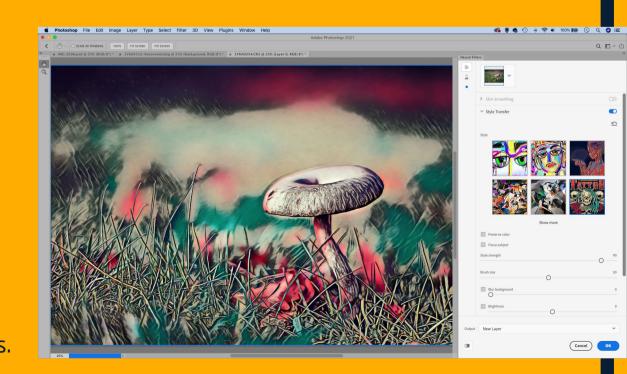


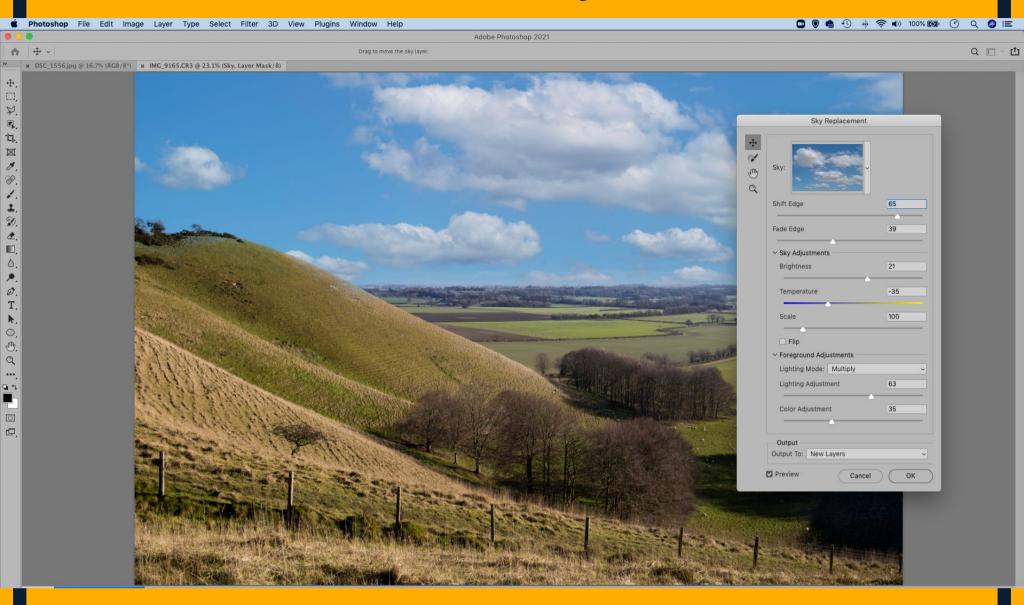


LIGHTROOM SENSEI SEARCH

This analyzes image content and recognizes the objects within, allowing you to search your entire image library for all kinds of things (like 'water' here). It's like a perfectly keyworded library without the need to keyword anything. For now it's only available in Lightroom CC, not Lightroom Classic.

O5 NEURAL FILTERS
Under Filter > Neural
Filters, this bold new feature
houses an array of Al-powered
filter effects and image-changing
edits, from the Style Transfer
filters here to the amazing
Colorize filter, which adds a handtinted color effect to black-andwhite photos. Adobe promises
there'll be regular updates and
treats as the technology develops.



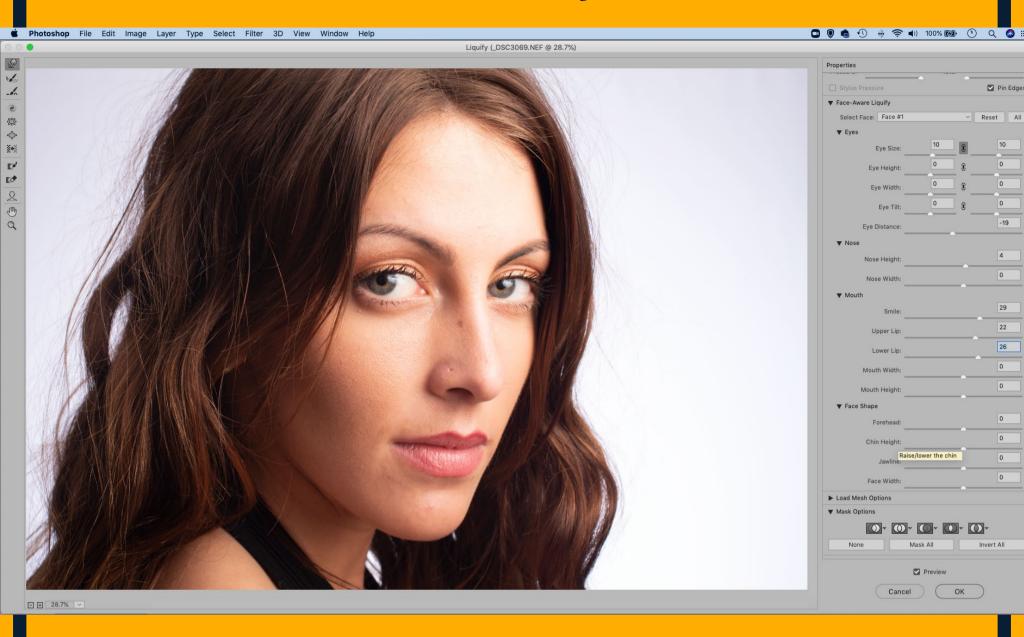


OG SKY REPLACEMENT This is similar.

This is similar to the Select Sky command, but not only does it isolate the sky, it also lets you drop in a new one (either from the default library of skies, or one of your own sky images). Simply go to Edit > Sky Replacement. It's very clever - it even adjusts the colors in the landscape to match the sky you choose.



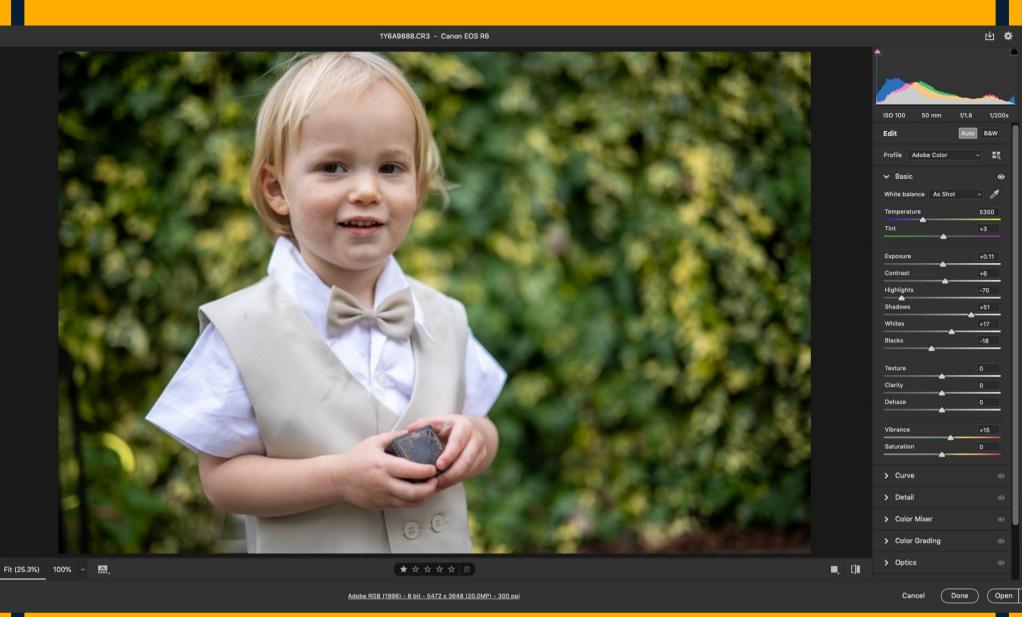
This has long been one of the best tools in Photoshop for removing objects from scenes. It does so by uses AI to analyze the image content around the area you want to fill, in order to match and rebuild the scenery. Sometimes the results can be slightly messy, but it usually just takes a few seconds of cloning to finish off.



18 FACE AWARE LIQUIFY Found within the Liquify command (Filter> Liquify) this feature automatically recognizes faces and allows you to make adjustments to the positioning of features. You can add a subtle smile, enlarge eyes or tweak the shape of the face using a range of intuitive sliders. The results can look unnatural, but it's fun for making caricatures.

19 ENHANCE DETAILS Something of a hidden feature, this tool analyzes your image and adds in extra detail for you. It can potentially crisp up details, improve color rendering and reduce artifacts. It's more effective on high-ISO images, but often the changes are barely perceptible. Simply right-click a raw image in Camera Raw or Lightroom and choose **Enhance Details.**





1 AUTO TONE

The Auto Tone feature in Lightroom and Camera Raw now uses AI while fixing tones automatically. As such, it can analyze image content, determine how different objects are supposed to look, and apply a more nuanced level of toning to enhance the areas.

10 AI FEATURES WE'D LIKE TO SEE NEXT...

AUTO SENSOR REMOVAL | AUTO STRAY HAIR TIDY | AUTO SUBJECT SHARPENING |
AUTO RE-CROP AND RE-FRAME | AUTO BACKGROUND BLUR | AUTO NOISE REDUCTION
| SENSEI SEARCH IN LIGHTROOM CLASSIC | AUTO BRACES REMOVAL FROM TEETH |
AUTO EYE ENHANCEMENT | AUTO MOTION BLUR FOR CLOUDS AND WATER

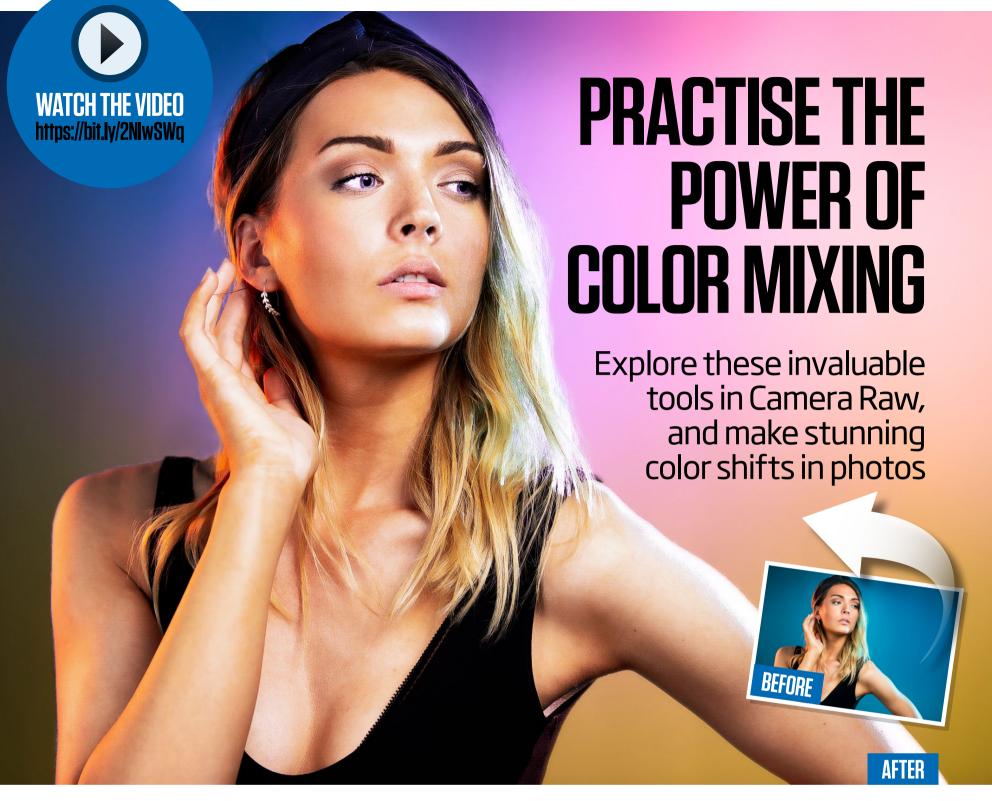


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Available in both Lightroom and Photoshop's Camera Raw filter, the Hue, Saturation and Luminosity tools within the Color Mixer box give you a fine degree of control over colors and tones in your images, giving you creative options whether you want to subtly alter a color or change it completely. Here we've made use of the Color

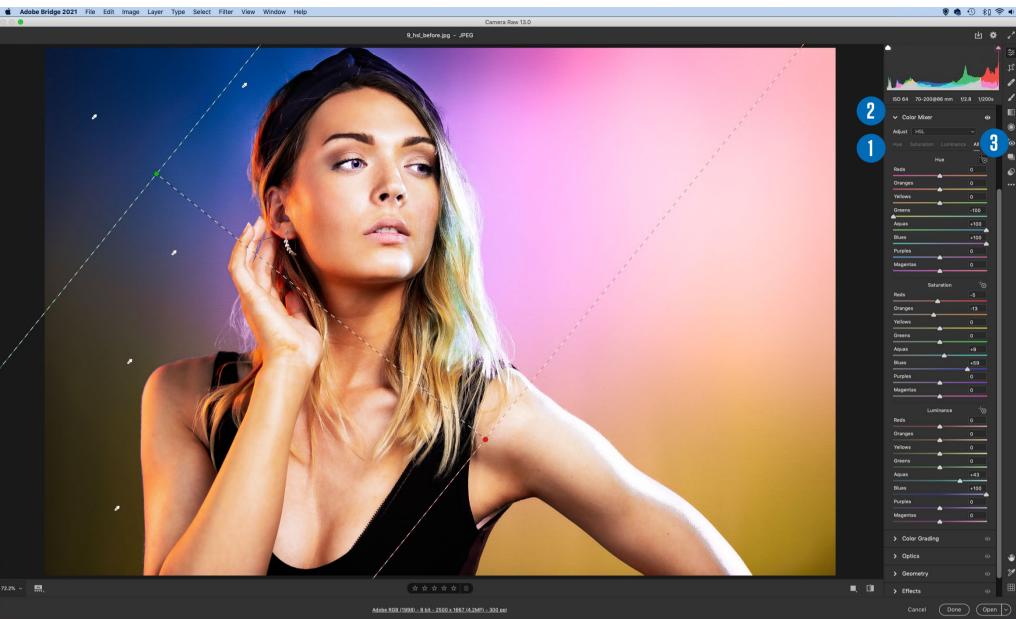
Mixer tools to re-color the backdrop without affecting the subject.

This task takes mere seconds with a targeted Hue adjustment, and doesn't require any complicated selections or cut-outs. You simply enable the Hue sampler, then drag over the backdrop to alter the color.

If you want to delve deeper into controlling

the hue, saturation and luminosity of colors in the image, you can experiment with Camera Raw and Lightroom's local adjustment tools, which enable you to change colors over a specific part of the image. We'll progress to using those tools here as we create a vibrant multicolored backdrop for a photoshoot portrait.







THE COLOR MIXER PANEL

This panel houses some of Photoshop's most useful color controls. Four tabs within the Color Mixer let you see the Hue, Saturation and Luminosity sliders, or all at once. Drag any slider to alter the different color ranges within the image in different ways. Hue affects the color itself, changing it to another; Saturation lets you make color ranges stronger or weaker; and Luminosity lets you make color ranges brighter or darker.



SET PANEL VIEWS

The dropdown at the top lets you switch between two views of color controls. Set it to HSL and you'll see eight color ranges you can alter. Switch to the Color view to see Hue, Saturation and Luminosity sliders plus eight color circles. HSL is usually better for sweeping changes, while Color is useful for working on a specific color range.

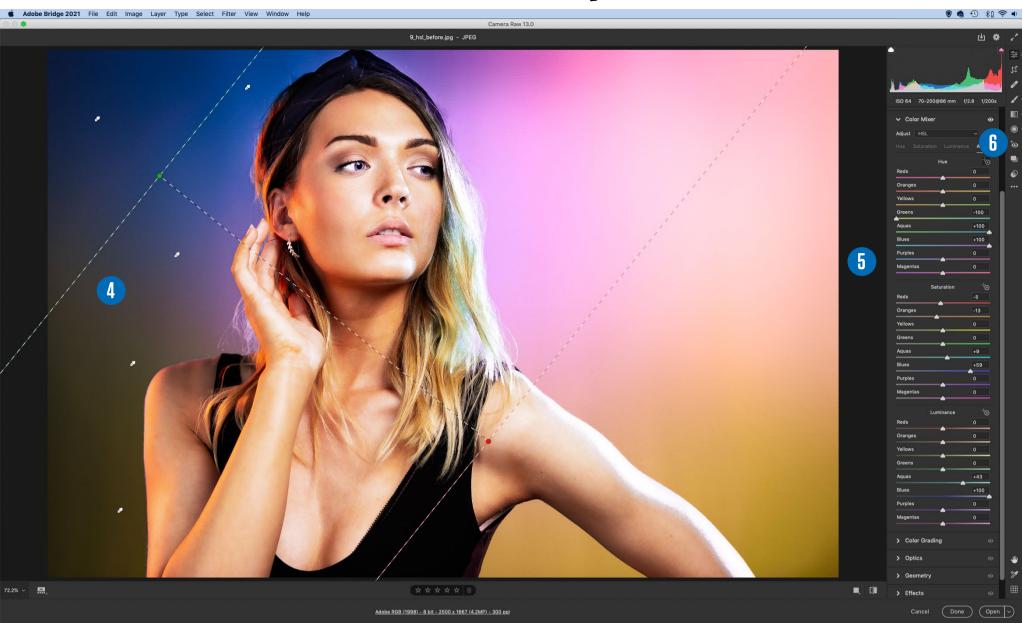




ON-IMAGE CONTROLS

When the target in the Color Mixer Panel is toggled on, you can drag over the image to adjust the color ranges within. Here, for example, we can drag over the backdrop and transform the blue colors to another hue of our choice. Using the on-image tool is usually more effective than manually tweaking the sliders on the right. Not only is it quicker, it also lets you affect more than one color range at a time.







TARGET COLORS WITH RANGE MASK

Whenever you use a local adjustment tool, begin by defining the area you want to affect. Here we've dragged in from the corner with the Graduated Filter Tool, then altered Hue to create a color transition. Next, use Range Mask to restrict the effect to the background so it doesn't affect the subject. Set Range Mask to Color then click to sample a color. (Hold Shift to select more than one color at a time.)



COLOR RANGES

The Color Mixer gives you control over eight different color ranges within the image. Here, altering Blues and Aquas lets us change the color of the background. This only works because there is no blue or aqua present in the subject, though. If the backdrop was orange or red, we wouldn't be able to alter the hue without affecting the skin as well as the backdrop. If altering a color range has unwanted side effects, try local adjustment tools.



MAKE LOCAL COLOR CHANGES

The local adjustment tools -Graduated Filter, Radial Filter and Adjustment Brush - give you the option to selectively alter the hue in different areas of the image. They also let you target local saturation as well as the usual exposure controls. Simply define an area of the image using the tool, then go to the Hue control and drag to choose another shade. Here it lets us shift colors in the backdrop for a multicolored



A LITTLE LOCAL KNOWLEDGE

James Paterson shows how to target areas of a landscape with Photoshop tools and make powerful local adjustments



One of the main challenges with landscapes is in balancing out bright skies with darker landscapes, especially if – like here – the foreground is in deep evening shade. Editing a landscape like this, where the contrast between land and sky is too great, many of us might simply lift the Shadows and drop the Highlights. It's a quick fix that may help to pull detail out of the lightest

and darkest portions of the frame, but can also lead to an image looking overprocessed, almost HDR-like. Sometimes it's better to take a targeted approach. By making local adjustments that are tailored to specific areas of the shot, the results can look more natural.

Here, we'll look at how to make a series of powerful local edits using Adjustment Layers in Photoshop. We'll isolate the sky (using the new Sky Selection Tool) and make it bolder, then select the land and perform a few edits to enhance the textures and boost contrast.

But it's not just land and sky that can pose a challenge. Here, with the foreground and midground in deep shade, the two blend into one another. By separating out the foreground and midground with selections, we can subtly adjust each.

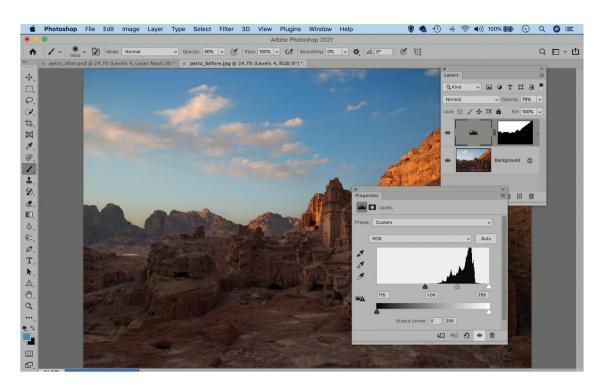


Open the shot and go to Select > Sky. In the Layers Panel (Window > Layers), click the Create Adjustment Layer icon and choose Levels from the resulting pop-up menu. The selection will convert to a mask, allowing you to make a local adjustment to the sky. Drag in the black point to darken the sky.

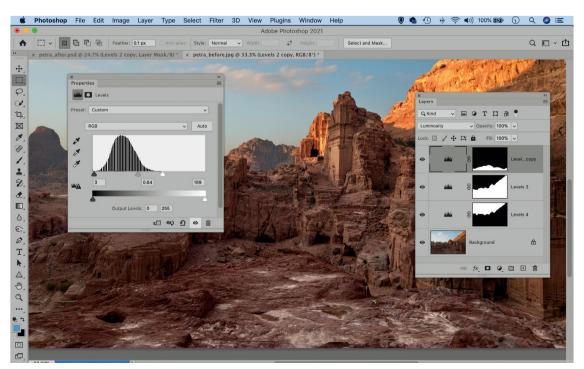
Poost The Land Hold Ctrl/Cmd and click the thumbnail of the mask to load the sky as a selection, then go to Select > Inverse. Now the land is selected. Add a Levels Adjustment Layer. Drag both the black and the white points inwards, as shown, to up contrast, and tweak the midpoint to control the brightness level.

03 ADJUST THE FOREGROUND

Highlight the Background layer, then grab the Quick Selection Tool. Paint over the foreground rocks to select them. (Hold Alt and paint to subtract from the selection if the process goes wrong.) Add another Levels Adjustment Layer; use it to darken and add contrast to the foreground, as shown.



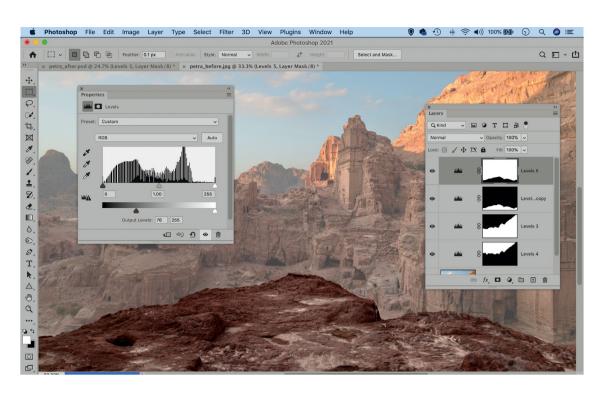


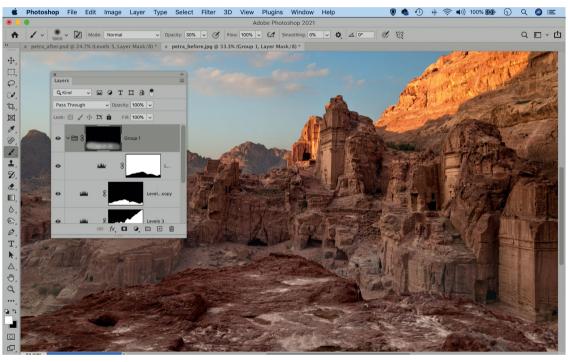


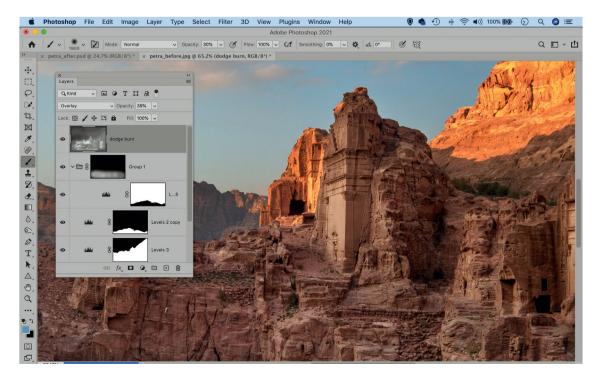
To differentiate the foreground from the midground, we'll add some haze. Hold Ctrl/Cmd as you click the mask thumbnail of the Levels layer to load a selection. Go to Select > Inverse. Add another Levels Adjustment Layer and drag the output black point in to make the image appear more hazy.

MASK THE GROUP
Press Ctrl/Cmd+G to
turn the Levels layer into
a group, then hold the Alt
key as you click the Add
Layer Mask icon to add a
black mask to it. Grab the
Brush Tool and paint with
white around the edges
of the foreground rock to
add a more subtle haziness
to the distant scenery of
your image.

DODGE AND BURN
Alt-click the New
Layer icon, set the Blending
Mode to Overlay and check
the 'Fill with...' box, then
paint with white or black
to dodge and burn areas of
the scene. Lighten the parts
you want to emphasize, like
the temples in this photo.
Make any other local tonal
adjustments you like to
finish off the image.







IMPOSSIBLE BOUQUETS

James Paterson takes inspiration from the Dutch masters to craft a towering flower arrangement



In 17th century Holland, a trend emerged for larger-thanlife still-life paintings of flowers. Galvanized by the fledgling disciplines of botany and horticulture at the time, Dutch artists like Jan Brueghel the Elder, Ambrosius Bosschaert and Roelandt Savery painted bulging bouquets brimming with allegory. Impossibly overblown arrangements full of tangling stems and masses of overlapping blooms were typical pieces of work for the time. These collections of luscious art would go on to influence both painting and flower arrangement for centuries to come.

We'll take inspiration from the Dutch Masters in this project to craft our own impossible flower arrangement. By holding our flowers in various positions over a series of frames, we can elevate the bouquet to a height that defies the laws of physics.

Of course, this also means we can re-use the same flowers over and over again

BEFORE in several places, so we don't necessarily have to spend hundreds of pounds at the florists to create our humongous bouquet. We can simply place the camera on a tripod then hold the flowers in place, firing off a series of shots until we have a variety of blooms to craft our arrangement. Once done, we bring our series of shots together in Photoshop. This is easier than it might look - we make selections of the flowers using the Magic Wand to knock out the backdrop, then combine our blooms piece by piece. We'll take you through every stage, showing you how to get set up then build your own incredible bouquets.



1 FLOWERS

The flowers we're using here are a mixture of real and fake. The fake flowers are sturdier, and we can bend the stems to create eye-catching curves. But the real flowers will look more natural, of course, so it's a good idea to use a creative mixture of the two.

4 EXTRA FLOWERS

To build up our bouquet, we hold our flowers above the vase and at various angles. This way we can construct our bouquet over a series of shots. Capture a range of flowers in lots of different positions, and try to visualize how they will look when combined later on.

2 VASE AND TABLE

In keeping with the look of the famous Dutch paintings of the 17th century, we used a large porcelain jug to hold the components of our impossible bouquet. A rustic wooden table complements the look. You may have items around the house that will work just as well.

5 CAMERA AND TRIPOD

We need to take a series of shots in perfect alignment, so a tripod is essential to keep the camera fixed throughout. We used a 50mm lens here, which gives a pleasing angle of view without overly distorting the flowers. After focusing, switch to manual focus.

3 LIGHTING

Our scene here is lit with two studio flashes from a home studio kit - one on the backdrop, the other on the flowers. (You'll find more details on the lighting on the next page.) If you don't have studio flash you can use window light. Just make sure the light stays consistent.

6 WIRELESS RELEASE

A wireless trigger lets you fire your off-camera flash. If you don't have one, you could set your flashgun to optical remote mode, then use your camera's pop-up flash to trigger it instead. Alternatively, use a flash that is wirelessly compatible with your camera.

STEP BY STEP: LIGHT THE FLOWERS





USE A DARK BACKDROP
Prepare a dark backdrop - we used
a grey roll of paper for ours here. Set up
a table in front of the background for
your flowers. Ideally you want to keep
a little distance between the table and
the background so that the light on the
foreground doesn't spill onto the backdrop.

12 LIGHT THE BACKDROPOur background flash here is fitted with a snoot, which channels the light into a point. This results in a subtle spotlight effect on the dark background, which helps to give the scene an extra sense of depth and will create a nice natural vignette in the corners of your image.





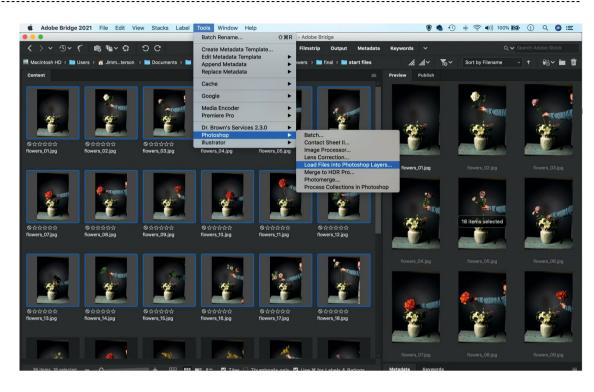
Our key light is a studio head fitted with a softbox. The softbox is positioned to the left and above the flowers, and angled so that the light is directed across the front of the flowers. We've placed a reflector next to the light to prevent it spilling on to our dark backdrop.

4 SET YOUR EXPOSURE
Our camera is set to Manual mode at
1/200 sec, ISO 100, aperture f/8. Set your
exposure first, then adjust the strength of
your lights to fit in with your exposure. You
can adjust the strength of a flash either by
altering the power output or simply moving
it closer or further away.

Photoshop®

STEP BY STEP: BUILD YOUR BOUQUET

Navigate to the photos you want to use in Bridge, then hold Ctrl/Cmd and click on each to highlight them. Next up, go to Tools > Photoshop > Load Files Into Photoshop Layers. This will load all the images you've selected into a single document, for you to construct your collection of flowers.



Choose one frame to act as a base for all the others, and drag it to the bottom of the stack. Think about how each flower will fit in, and drag the layers with the flowers you'd like to appear at the front of your bouquet to the top of the stack. Once done, hold Alt and click the eye icon of the lowest layer to hide the rest.

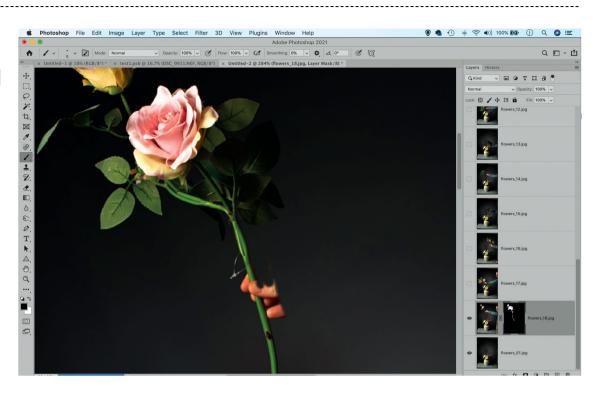


Highlight and reveal the layer above the bottom layer, then grab the Lasso Tool and drag around the extra flower to make a loose selection of it. Next, grab the Magic Wand and check Contiguous in the tool options. Hold Alt and click on the parts of the backdrop that are within your initial selection to exclude them.



STEP BY STEP: BUILD YOUR BOUQUET

PAINT ON THE MASK
Once you have isolated
the extra flower with a
selection, click the Add Layer
Mask icon. Next, highlight
the Layer Mask thumbnail,
zoom in, and paint black over
any parts you want to hide,
or paint with white to reveal
flowers in the shot. Make
sure you hide any fingers
(or tongs) holding the stems
of your flowers.



05 GO THROUGH THE LAYERS

Reveal the next layer up, then select and mask just as before. Continue in this way up through your layer stack to gradually build up your marvellous bouquet. If you need to, you can shift the positions of layers slightly to complement your composition of your final product.



Once all of your layers have been masked and combined as you want, make a new empty layer on top of everything. Grab the Clone Tool and set it to 'Sample All Layers' in the options, then use it to tidy any gaps or rough patches in your composite. Make any final tonal changes you like to complete the composite.





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ESSENITIALS

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



If you're relatively new to editing in Photoshop, or you just don't know where to begin, then this section is the best place to get started. Over the next 10 pages, you'll find an overview of the different versions of Photoshop available; a breakdown of the

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



CREATIVE CLOUD PLANS

CHOOSE THE PLAN WITH THE COMBINATION OF TOOLS AND STORAGE YOU NEED

| | Photography Plan • 20GB | Photography Plan • 1TB |
|--|--|--|
| Best for | Traditional desktop users | Cloud and desktop |
| Price per month | £9.98/\$9.99 | £19.97/\$19.99 |
| Photoshop CC | | |
| Lightroom CC | ✓ | ✓ |
| Lightroom Classic | | |
| Lightroom Mobile | ✓ | ✓ |
| Cloud storage | 20GB | 1TB |
| Notes | If you want Photoshop, you need the regular Photography Plan - you also get Lightroom Classic | The same as the Photography Plan, but with 1TB storage. Existing users are offered a discount for the first year |
| | | |
| | Lightroom CC Plan | Lightroom Mobile Premium |
| Best for | Lightroom CC Plan Cloud fans | Lightroom Mobile Premium Mobile-only users |
| Best for Price per month | | |
| | Cloud fans | Mobile-only users |
| Price per month | Cloud fans £9.98/\$9.99 | Mobile-only users £4.49/\$6.49 |
| Price per month Photoshop CC | Cloud fans £9.98/\$9.99 | Mobile-only users £4.49/\$6.49 ** |
| Price per month Photoshop CC Lightroom CC | Cloud fans £9.98/\$9.99 * | Mobile-only users £4.49/\$6.49 |
| Price per month Photoshop CC Lightroom CC Lightroom Classic | Cloud fans £9.98/\$9.99 * | Mobile-only users £4.49/\$6.49 |





PHOTOSHOP CC

FROM £9.98/\$9.99 PER MONTH WINDOWS, macOS



Photoshop is the software of choice for most professional and non-professional photographers. Beyond the standard photo-editing features, it boasts a vast array of more

creative tools and filters. Layers are one of the key differences between Photoshop and Lightroom. They enable you to mask out selected parts to build up increasingly sophisticated images.



ELEMENTS 15 £79.99/\$99.99 WINDOWS, macOS

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

LIGHTROOM CC

FROM £9.98/\$9.99 PER MONTH

WINDOWS, macOS



Lightroom CC combines professional imageprocessing tools with

asset organizing. It keeps all its images online in the Creative Cloud, with advanced image search capabilities.

LIGHTROOM CLASSIC

FROM £9.98/\$9.99 PER MONTH

WINDOWS, macOS



Lightroom Classic offers editing and organizing tools, but

you can only store images on your computer.

LIGHTROOM MOBILE

FREE (PREMIUM: £4.49/\$6.49 PER MONTH)

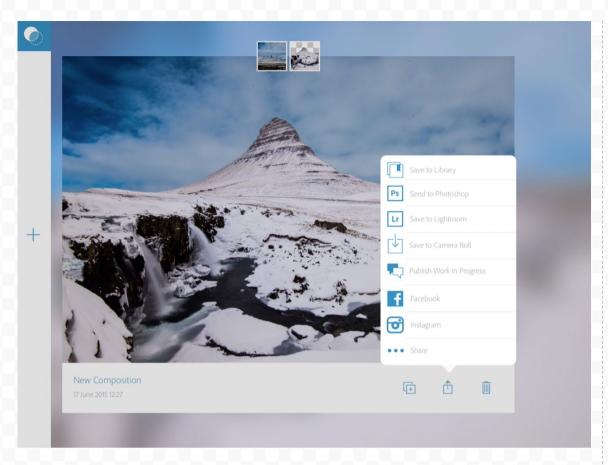
IPHONE, IPAD, ANDROID



Lightroom Mobile is the lightweight iPad, iPhone and Android

version of the application, integrated with Lightroom CC. You can use Lightroom Mobile on its own for free, or use the Premium In-App Purchase to access the Adobe Creative Cloud. This enables you to create a collection of photos on your desktop copy of Lightroom, and sync them via the Creative Cloud to Lightroom Mobile on your portable devices. You can also get Lightroom Mobile via any Photography Plan.

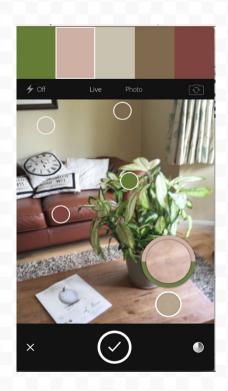




ADOBE PHOTOSHOP MIX

FREE IPAD. ANDROID

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



ADOBE COLOR FREE IPHONE, IPAD, ANDROID

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

If you ever need help

ADOBE SHAPE

FRFF

IPHONE, IPAD, ANDROID



Adobe Shape enables you to turn photos and sketches into beautiful

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

ADOBE BRUSH

FREE

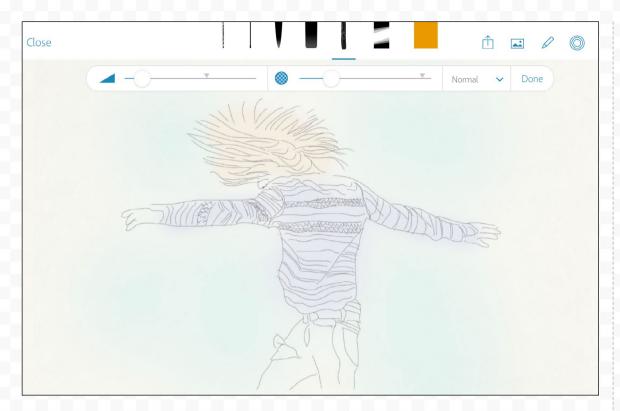
IPHONE, IPAD, ANDROID



Adobe Brush enables you to make your own custom brushes

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





ADOBE PHOTOSHOP SKETCH

FREE IPAD

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

PHOTOSHOP FIX

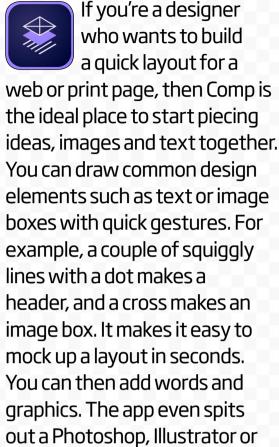
FRFF IPAD





ADOBE COMP CC

FREE IPAD



BEHANCE CREATIVE PORTFOLIO

FREE IPAD. IPHONE

InDesign document.

Bē

Behance is the online social space for creatives to share

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



THE IMAGE-EDITING WORKFLOW

Manage your photos from capture to output in three stages

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

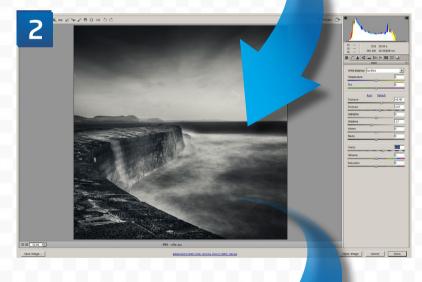
1 The first stage is to begin sifting through your pictures to discover which are the keepers. The image organizer that comes with Photoshop is ideal for this task. Adobe Bridge has controls for keywording, rating and filtering your images, and there are handy tools for batch renaming files, creating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

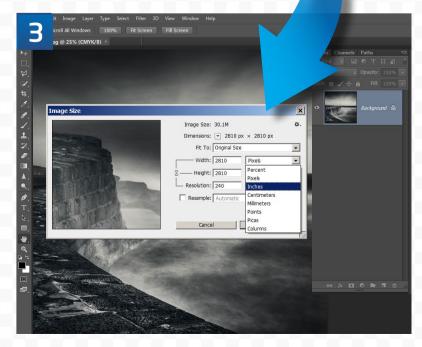
Launch Adobe Bridge and navigate to a folder containing new images. Use the cursor keys to quickly flick through the images and click below a thumbnail to add a star rating, or use the keyboard shortcut **Cmd/Ctrl+1-5**. You can then filter your photos by the star rating to group the ones you want to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

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

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









THE BASICS OF RAW PROCESSING

Discover how to process your raw files to perfection

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

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

THE BASIC PANEL IN ACR

TEMPERATURE

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

TINT

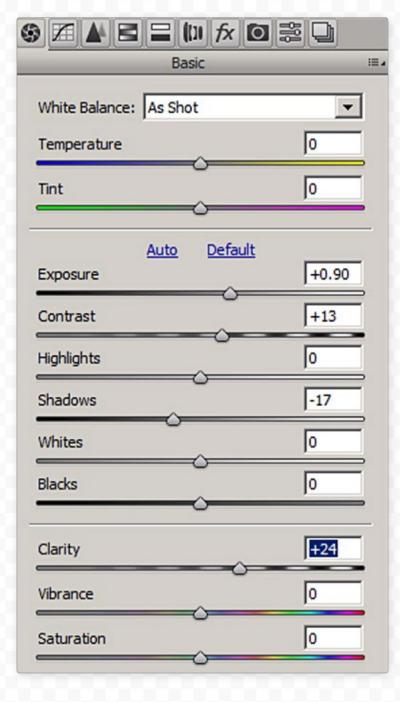
This slider enables you to correct a green or magenta cast, again, if the White Balance tool fails

EXPOSURE

Controls the overall brightness of the image

BLACKS

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



SATURATION

Controls the overall color intensity of the image

CONTRAST

Makes light pixels brighter and dark pixels darker

HIGHLIGHTS

Controls the brightness of the lightest pixels

SHADOWS

Controls the brightness of the darkest pixels

WHITES

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

CLARITY

Controls the amount of midtone contrast

VIBRANCE

Adjusts the intensity of the less-saturated colors



SIX ESSENTIAL LAYERS FOR PHOTOS

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

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

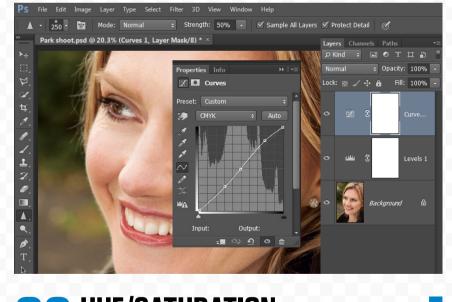
used may seem a little daunting for beginners, but once you've got to grips with them, you'll find they play a part in the creative process of almost every image you make.

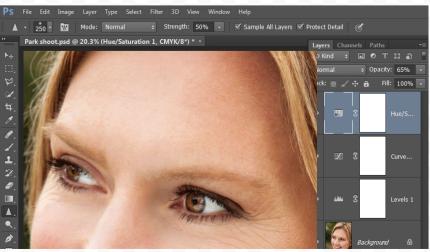


This should be the first layer you add to an image, because it fundamentally alters the tonal range of the entire image. Create a Levels Adjustment Layer, drag the Black point slider inwards until it touches the left-hand edge of the histogram, and drag the White point slider inwards to the right-hand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

make more of the available tonal range.

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

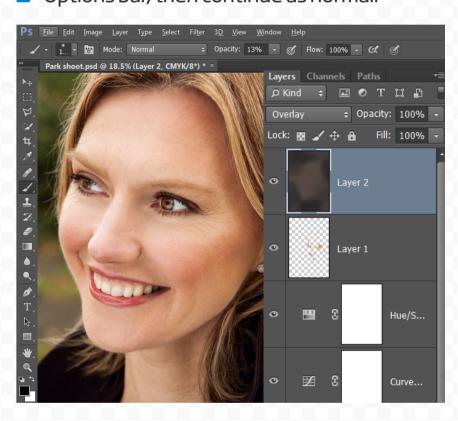




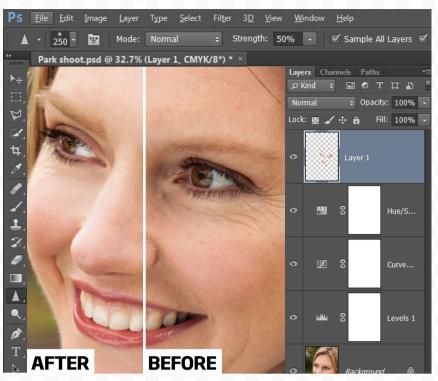
This adjustment layer is best used for altering the intensity and brightness of individual color channels in an image – greens and blues in landscapes, for instance. Create a Hue/Saturation Adjustment Layer, click the Master menu and choose the color channel you'd like to adjust. Small changes are usually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



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



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

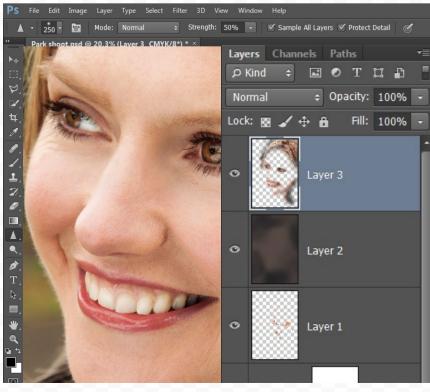


One of the best ways to enhance a photo is by lightening or darkening selected areas of the image. This can be done with the Dodge and Burn tools, but rather than use them directly on the image, a separate grey layer gives you greater control. To create a Dodge and Burn layer, hold down Alt and click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

Overlay-neutral color and click OK. Now use

the Dodge and Burn tools (with Range set to

Midtones) to work on the new layer.





14 ESSENTIAL KEYBOARD SHORTCUTS

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

D

Reset the foreground and background colors to black and white

ALT+[SCROLL WHEEL]

Zoom in or out of the image

CMD/CTRL+SHIFT+ALT+E

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

SPACE BAR

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

ALT+[EYE ICON]

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

CMD/CTRL+I

Invert the color of a layer mask to black

SHIFT+[LAYER MASK]

Disable the effects of a layer mask

X

Switch the foreground and background color swatches

[OR]

Resize the brush tip

SHIFT+[OR]

Cycle backwards or forwards through the layer blend modes

CMD/CTRL+Z

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

CMD/CTRL+[LAYER MASK]

Load the currently active layer mask as a new selection

CMD/CTRL+T

Activate the Free Transform tool

CMD/CTRL+J

Duplicate the current layer



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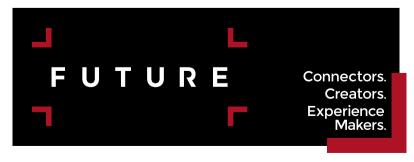
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