

# 3 EASY STEPS TO UNDERSTANDING RAW

## AT A GLANCE

**YOU'LL LEARN** How RAW works  
**YOU'LL NEED** Photoshop or Elements  
**TIME REQUIRED** 5 minutes  
**DIFFICULTY LEVEL** Easy

## ON THE DISC



**VIDEO LESSONS** Watch Kingsley run through this introduction on your PC and show you how to get started.



RAW FORMAT IS SOMETHING MIRACULOUS. IT'S THE ONE THING THAT ALLOWS YOU TO **MAKE THE MOST OF EVERY PIC YOU TAKE**. HERE'S WHERE TO START

TECHNIQUE & PICS BY KINGSLEY SINGLETON

**I**F YOU WANT to know more about shooting and editing in RAW format and how it can improve your photography then you've come to the right place! On these pages you'll find out all about what RAW is and how it works, and after that we've got a series of creative

projects for you to try with your own RAW files or the example images from this month's cover CD.

Get comfortable with RAW and you'll rarely shoot in JPEG mode again – it's a real epiphany and you'll soon be thinking “why haven't I been shooting this way all along?”



> In a JPEG, 'clipped' highlight areas, like the sky in the top picture will lose the detail for good. But in a RAW file, which is much more flexible, they can be saved with detail, and colour returned later.

## 1 WHAT IS RAW?

RAW is an advanced file format, which gives you a greater level of control over important things like exposure and colour in your pictures. It's literally the raw unprocessed data from your camera's sensor, which is where it gets its name, and RAWs are very different from a JPEGs which have lots of processing and compression applied before saving to the card, and in which editing options are therefore much more limited.

RAW files allow much freer and more dramatic editing because they contain much more data than JPEGs, so image parameters are unlocked and easier to work with. This difference between RAWs and JPEGs is most pronounced when it comes to exposure because, while the data in a JPEG is 'fixed' and represents what the camera thinks the picture should look like, the information in a RAW file is left for you to process yourself. Yes, this takes longer, because RAWs need to be converted before you'll be able to print or display them online – but the extra time and effort is rewarded with better image quality.

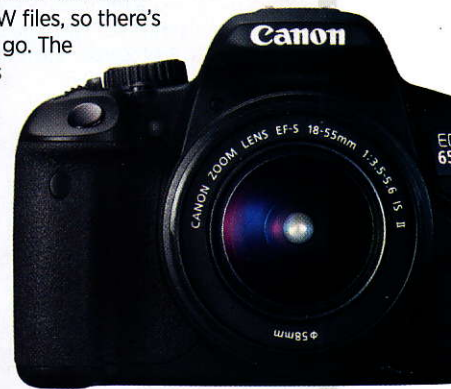
If you've ever taken a picture like the one on the left for instance, where tricky lighting makes exposure setting difficult, then the advantages of RAW will be very attractive. In a JPEG, nothing can be done to return detail to the white sky, but in a RAW it's easy to fix using simple tools like the Exposure slider. The same goes for shadow areas, too, so you can see what a valuable tool RAW is in getting the best from your pictures.

In the following tutorials, we'll go into all the detail you need to use RAW, so you can start getting better pics than ever before.

## 2 SHOOTING IN RAW

This is the easy bit! All you have to do to shoot RAW is switch your Image Quality to that setting (you can even choose to shoot JPEGs at the same time if you're not completely comfortable). All modern D-SLRs, CSCs and most creative compacts can save to RAW files, so there's really no excuse for not giving it a go. The only drawback in shooting RAW is that they're larger in file size than JPEGs, so you may not be able to shoot as fast, and they'll fill up your camera's card a little quicker. You'll also spend more time processing RAWs, but with all the benefits they bring, that's not something to worry about.

> RAWs are downloaded from your memory card in just the same way as JPEGs.



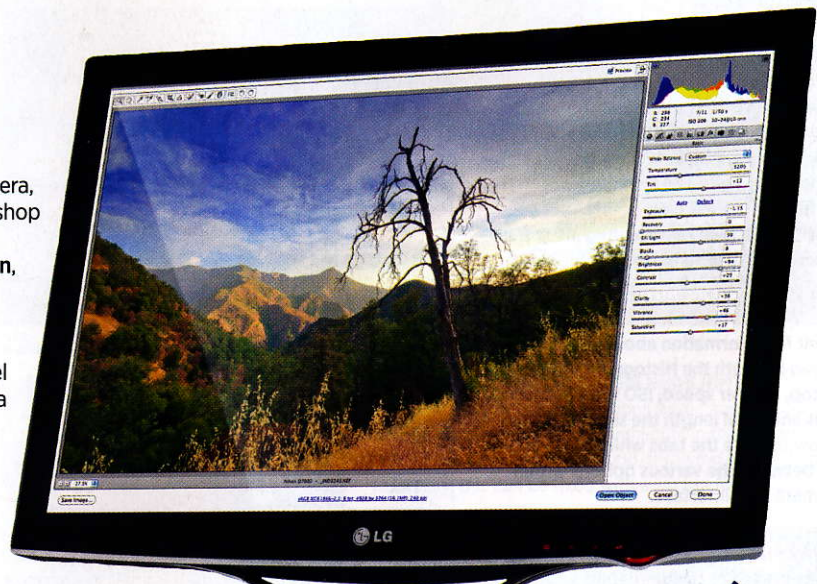
## 3 GET RAW WORKING

Once you've downloaded your RAWs from the camera, the next step is getting them to load up into Photoshop or Elements for conversion and enhancement. Hopefully this will be as easy as going to **File→Open**, and seeing the pic in the Camera Raw Interface.

However if you get an error message that reads "File not supported" or similar then don't give up! Because RAW files are specific to the camera model they're shot on, and need to be decoded by Camera Raw, it means that if your camera is more modern than your version of Photoshop or Elements, chances are your RAW files won't be able to be read. Fortunately Camera Raw can be updated just like any other piece of software, so the first step is to find out which version of Camera Raw supports your camera's files.

Modern versions of Photoshop and Elements can be updated via **Help→Updates...**, so give that a click first. For older versions that need a manual download, there's a guide on the CD to help you find the version of Camera Raw you need for your camera. A possible snag comes if the version of Camera Raw you need isn't supported by your version of Photoshop or Elements, but there's a solution to this, too – the Adobe DNG converter.

DNG is Adobe's own RAW format and because of this, DNGs will work in any version of Camera Raw. Just like the Camera Raw updates, the DNG converter can be downloaded for free from Adobe's website, and all you have to do then is run your RAWs through it, converting them into a format that you can open and edit.



**FREE!**  
**'GET RAW  
WORKING'  
CHART  
ON THE  
DISC**

> No matter which camera you use, there's a way of getting your RAWs to open in Photoshop and the benefits are well worth it.



**THAT'S ALL THERE IS TO IT!** ONCE YOU'VE GOT YOUR RAWS WORKING, LOAD UP ONE OF THE FOLLOWING VIDEO LESSONS AND YOU'LL SEE JUST HOW CREATIVE YOU CAN GET!

# GET TO GRIPS WITH BASIC RAW CONVERSIONS

## AT A GLANCE

**YOU'LL LEARN** Create a simple RAW conversion using the Basic tab sliders.

**YOU'LL NEED** Photoshop or Elements

**TIME REQUIRED** 15 minutes

**DIFFICULTY LEVEL** Easy

## ON THE DISC

### VIDEO LESSONS

Watch as Tom Calton explains how to use the Basic tab sliders in two video lessons.

**START IMAGES** Try out the tips yourself using the *Shoreline.dng* start image on the CD, or download it



THE **BASIC TAB** IS THE CENTRAL HUB FOR ALL CONVERSIONS WITHIN CAMERA RAW. DELVE INTO THESE OPTIONS & FIND OUT HOW TO MAKE THE BEST OF ANY IMAGE...

TECHNIQUE & PICTURES BY TOM CALTON

**T**O SOME, THE PROSPECT OF shooting in RAW may seem daunting; something only done by pro photographers. In reality, RAW is a feature that can benefit anyone.

Loading a RAW file into either Photoshop or Elements will open up the Camera Raw interface. At first glance the host of sliders may seem overwhelming,

but don't worry, it's really no different to any other palette in Photoshop. And, once you understand how each slider affects your work you'll soon find yourself navigating the interface like a true expert. We start with the sliders in Camera Raw 6, and there's more about Camera Raw 7 over the page. Let's see how each feature works...

## THE BASIC TAB

### CLIPPING WARNINGS

The upward arrows at the top of the Histogram are the black & white clipping warnings. Clicking these will overlay warning areas on the image - red areas showing where highlight areas have been clipped to pure white, and blue representing areas that have been lost to pure black.

### PHOTO INFORMATION & TAB OPTIONS

Relevant file information about your shot is displayed beneath the Histogram, including the f/stop, shutter speed, ISO sensitivity, and the lens and focal length the shot was taken at. Below that are the tabs which allow you to switch between the various options within the Camera Raw interface.

### RECOVERY & FILL LIGHT

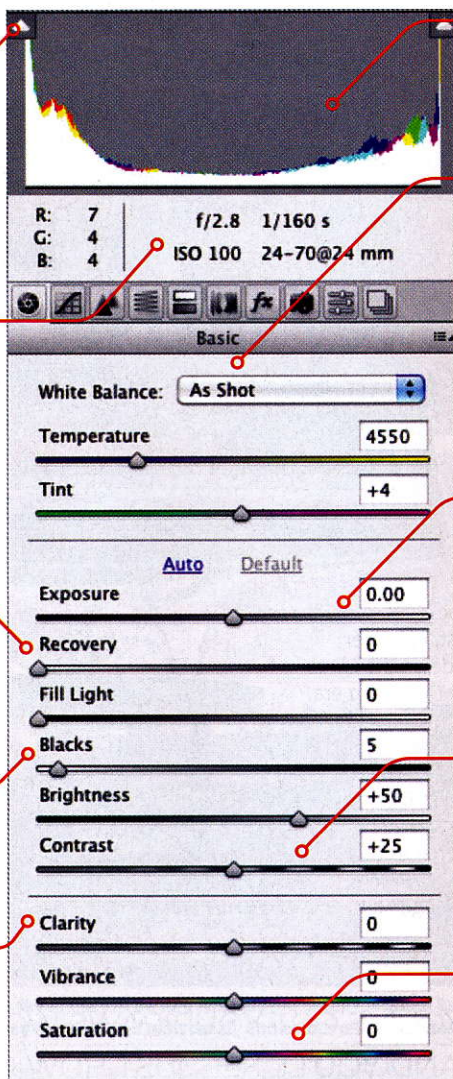
Recovery is used to restore details within the highlights of an image, with Fill Light doing the opposite and recovering detail from the shadows, while avoiding the very deepest shadows. Pushing either slider too far will tend to sap contrast, making the shot look flat, so it's best to use them sparingly.

### BLACKS

As the name suggests, the Blacks slider allows you to darken, or brighten, the deepest shadows in the shot. As with Exposure, holding Alt gives a preview.

### CLARITY

This slider adds definition by increasing the contrast around edges within your photo. Being too aggressive with the Clarity can cause unattractive haloes in areas of strong contrast, so be careful not to push it too hard.



### HISTOGRAM

The Histogram gives a visual representation of where tonal values are placed within the image. The black point is positioned on the furthest left and the white point on the right.

### WHITE BALANCE OPTIONS

These options work in a similar way to the White Balance controls on your camera and can be adjusted by either clicking on the drop-down menu and selecting one of the presets, or by manually moving the Temperature and Tint sliders. The Temperature slider adjusts the overall warmth of your image, whilst the Tint slider allows you to compensate for any green or magenta colour cast.

### EXPOSURE

The Exposure slider adjusts the overall brightness of the image, focusing predominantly on the highlights, with its value simulating stops of light. Holding Alt while moving this slider will reveal an on-screen representation of the highlights within your image, with white areas representing those that have been clipped.

### BRIGHTNESS & CONTRAST

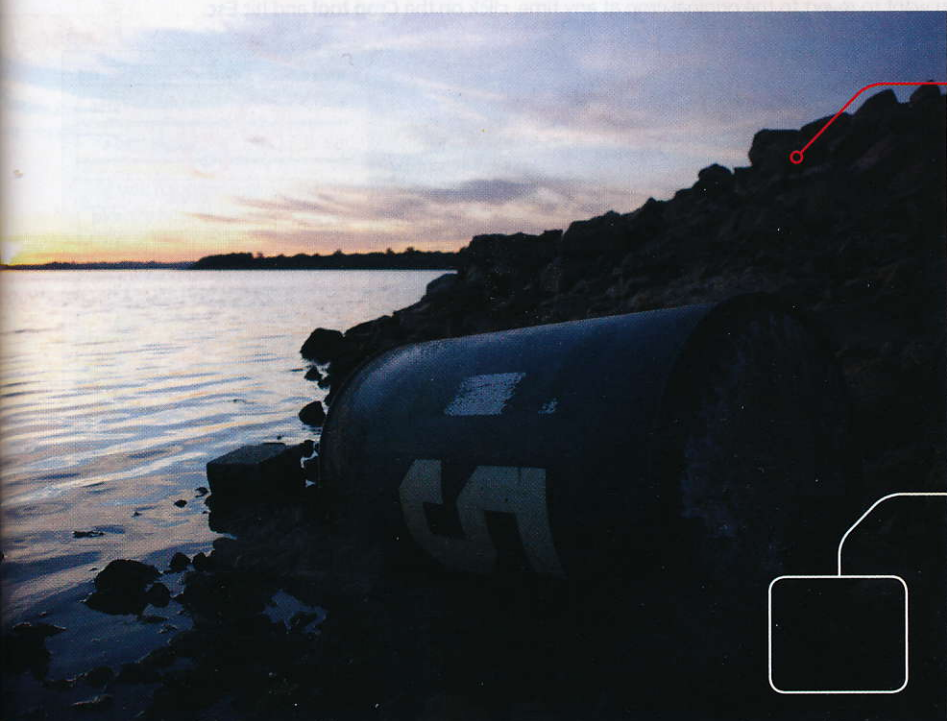
The Brightness slider lightens or darkens the entire tonal range of the image and is set to +50 by default. The Contrast slider works by making the mid-to-light tones brighter and the mid-to-dark tones darker, and is set to +25 upon first opening the interface.

### VIBRANCE & SATURATION

Vibrance adjusts the intensity of the least-saturated colours, having less of an effect on the more-saturated tones, while the Saturation slider effects all colours the same.

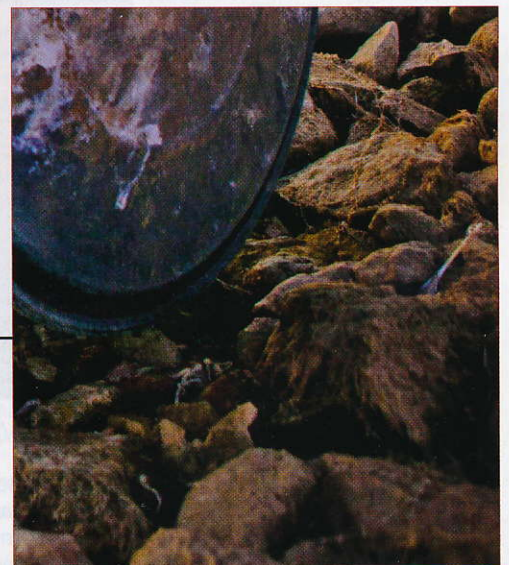


**> RETOUCHED IMAGE** Using the sliders within the Basic tab we're able to restore shadow and highlight details, as well as improving colour and contrast in the picture.



**START IMAGE DETAIL IN THE HIGHLIGHTS**

Some tricky lighting conditions have caused our camera to over-expose some of the highlights in the sky and under-expose the foreground, throwing it into shadow. Luckily, this can be fixed with a simple RAW conversion.



## DIGITAL PHOTO

### EXPERT ADVICE

Although RAW images offer a far greater amount of flexibility than JPEGs when it comes to editing, they aren't entirely foolproof and pushing the sliders too hard can create some unpleasant side effects.

### NOISE CREATED BY THE EXPOSURE SLIDER

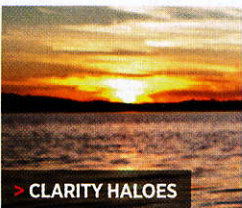
It's worth bearing in mind that the Exposure slider isn't a miracle cure for severely under- or over-exposed shots and pushing it too far either way will start to break up the image, creating a type of digital noise and reducing the image quality (see the image below). To play it safe, it's always best to try and get the exposure as spot on as you can in-camera rather than solely relying on the Exposure slider to fix the problem later.



> DIGITAL NOISE

### CLARITY HALOES

The Clarity slider works by increasing the contrast around edges within an image, which makes it great at emphasising fine details and textures. However, being too aggressive with this slider can often cause this added contrast to spill out onto the surrounding areas, creating the appearance of dark haloes. This displeasing side effect is most noticeable in areas of high contrast and can result in an image looking muddy and unnatural. To achieve the best results, it's always sensible to err on the side of caution when increasing the Clarity slider and to use it with restraint.

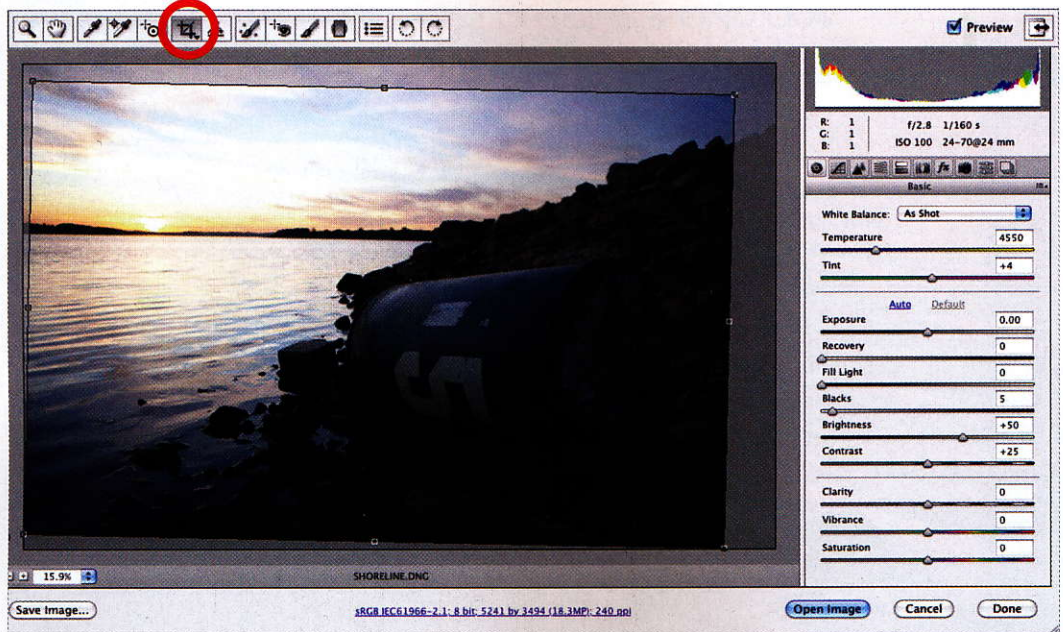


> CLARITY HALOES

## HOW TO USE THE BASIC TAB ADJUSTMENTS TO ENHANCE YOUR RAW IMAGES

Photoshop CS6 or Elements 11 users may have noticed that the sliders under the Basic tab look slightly different to ours shown here. This is because the latest versions of Photoshop feature Camera Raw 7, which operates in a slightly

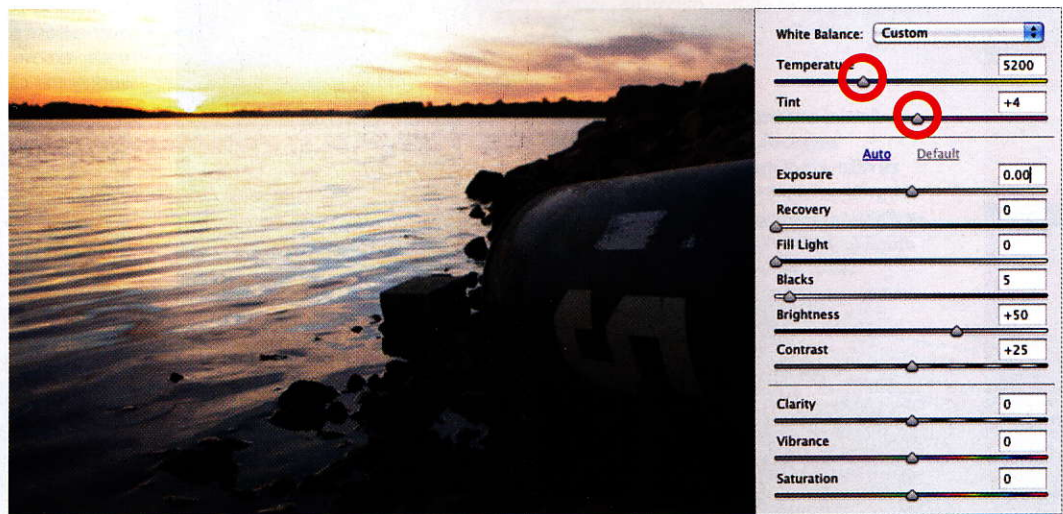
different way to Camera Raw 6 and older versions of the program. In order to follow along with our step-by-step, simply head up to the **Camera Calibration** tab and set the **Process** option to 2010 to gain access to the older sliders.



### STEP 1 STRAIGHTEN THE HORIZON & CROP THE IMAGE

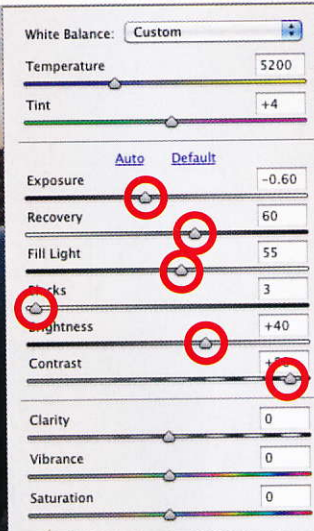


Before we start making any adjustments to our image, we're first going to level out the horizon. So start by grabbing the **Straighten tool** from the toolbar at the top, then, click and drag along the horizon line, releasing the mouse once you get to the end. Upon doing this, Camera Raw will automatically switch to the **Crop tool** and rotate the image using the line we've just drawn out as a reference. If you're happy with the composition of your image, simply hit **Enter** now to confirm the changes. Alternatively, you can also pull in on the corner tabs to alter the crop of the image. Holding **Shift** while doing this is an easy way of keeping the crop in proportion. If you want to revert to the original crop at any time, click on the **Crop tool** and hit **Esc**.



### STEP 2 WARM UP THE SHOT USING THE TEMPERATURE SLIDER

It's now time to head over to the **White Balance** controls. Aside from their powerful corrective uses, both the **Temperature** and **Tint** sliders can also be used creatively, allowing us to add a warm or cool tone to our image. We're going to warm our shot up slightly to intensify the sunset by moving the **Temperature** slider to the right to a value of **5200**. However, we don't want to alter the **Tint**, so we're going to leave it set to the original value of **+4**.



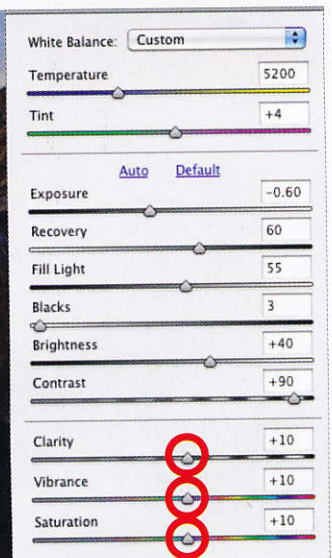
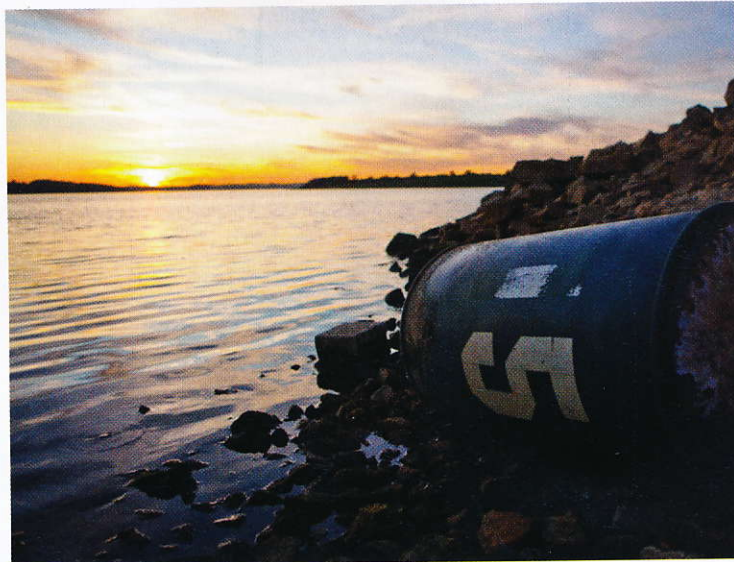
### STEP 3 BALANCE OUT THE SHOT USING THE EXPOSURE SLIDERS

The next step is to correct the exposure of our shot. Currently we have an over-exposed sky and an under-exposed foreground, so let's start by reducing the **Exposure** to **-0.60** followed by increasing the **Recovery** to **60** to help restore some of the lost highlights. Next, increase the **Fill Light** slider to **55** and decrease the **Blacks** to **3** - this will help brighten the dark foreground.

The next step is to reduce the **Brightness** from its default value to around **+40** to bring back further highlight detail. Using the **Fill Light** and **Recovery** sliders has sapped the contrast from the image, causing it to look a little flat and dull. Luckily, we can correct this now using the **Contrast** slider. Let's increase this to a value of **+90** to give our image some extra punch.

### STEP 4 INCREASE THE CLARITY & BOOST THE COLOUR INTENSITY

The final three sliders in the Basic tab are **Clarity**, **Vibrance** and **Saturation**. Starting with the first, increase the **Clarity** slider to add definition to your image and enhance textures and details. Be careful not to push this too hard though, as it can create unsightly haloes around areas of high contrast - about **+10** worked well for our shot. Finally, increase the **Vibrance** and **Saturation** sliders to boost the colours of the shot. Increasing them too much will start to over-cook your image, making it look unnatural, so we decided on a value of **+10** for both of these sliders.



## TAKE IT FURTHER USE THE NEW BASIC TAB SLIDERS IN CAMERA RAW 7

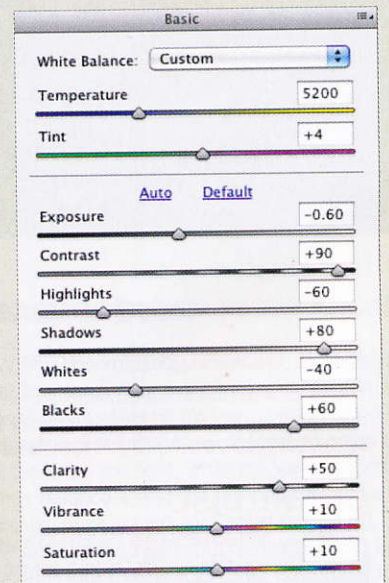
If you happen to own Photoshop CS6 or Elements 11, here's how to use the new sliders found within the **Basic** tab. The **White Balance**, **Temperature** and **Tint** options have all been left untouched and function in the same way as before, so let's set the **Temperature** to **5200** to warm up the image. The **Exposure** slider has also been left unchanged, so reduce this now to **-0.60**.

Other than the fact that **Contrast** is now located beneath **Exposure** and now has a default value of **0**, this slider functions just as it always has - so set it to a value of **+90**. **Highlights** is the first of three new sliders added to Camera Raw 7, and influences the highlights and brighter midtones.

Set this to a value of **-60** to bring back highlight detail. Next is the **Shadows** slider, which operates in a similar way to

the now removed **Fill Light** slider and allows you to adjust the darker tones within an image. Set this to a value of **+80** to brighten the dark foreground. The final new option is the **Whites** slider. This controls the very brightest tonal values within an image, allowing you to control where the white point is set - decrease this to **-40** to bring back some of the brighter highlights. The **Blacks** slider is in new and older versions of Camera Raw, but its direction of slide has been reversed. In Camera Raw 6, moving it to the left will lighten the shot, whereas in Camera Raw 7, moving it to the left will darken the image. Set **Blacks** to **+60** to reveal more detail in the shadows.

**Vibrance** and **Saturation** operate in the same way as before, so we can simply set these both to **+10** to gently perk up the colours. **Clarity**, on the other hand, has seen some significant improvements, and as a result we're now able to push it much harder than before without fear of creating those nasty haloes - move this to **+50** to really emphasise those fine details and add a degree of sharpness.



> Photoshop CS6 and Elements 11 users can access a newer version of the **Basic** tab.

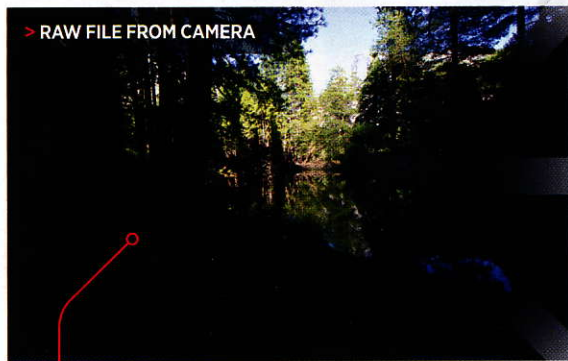


# STAY IN CONTROL WITH A SPLIT-RAW CONVERSION



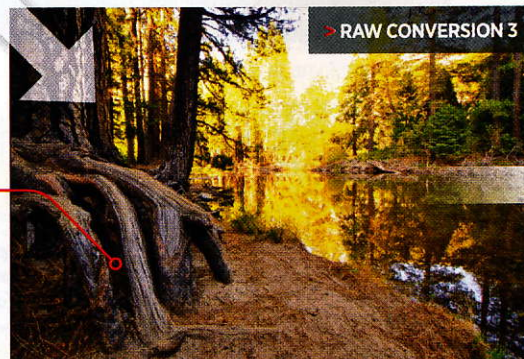
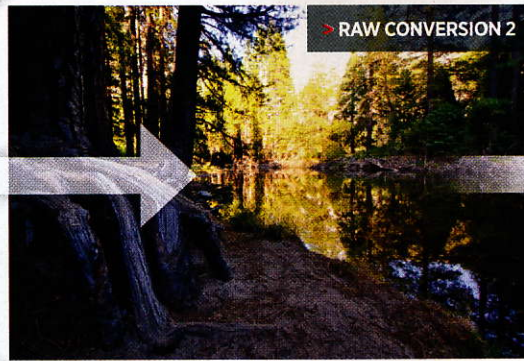
**LEARN HOW TO GET A PERFECT EXPOSURE OF ANY SCENE USING YOUR CAMERA'S RAW FILES - IT'S A TECHNIQUE GUARANTEED TO UNLOCK THE TRUE POTENTIAL OF YOUR IMAGES**

EXPERT TUTOR KINGSLEY SINGLETON



**START IMAGE YOSEMITE.DNG**  
This picture presents a classic problem for photographers – a scene with lots of contrast between the highlights and shadows, and it's more than your camera can expose for in one go. Fortunately by shooting in RAW, we can take control of important elements like the exposure setting, meaning that detail can be restored in very dark or light areas without too much trouble.

**RAW CONVERSIONS FROM THE START IMAGE**  
By making several conversions of the same RAW file, each time using different settings, we can make the most of each individual part of the image. The first conversion tackles the brightest parts in the distance, the second the middle, and the last the foreground. All that's left is to put them together in Photoshop.



**> FINAL IMAGE**  
By biasing the exposure of each conversion to a specific part of the image, beautiful well-lit results can be achieved.



## AT A GLANCE

**YOU'LL LEARN** How to blend multiple conversions from the same RAW **YOU'LL NEED** Photoshop or Elements  
**TIME REQUIRED** 20 minutes **DIFFICULTY LEVEL** Easy

## ON THE DISC



**VIDEO LESSONS** Watch as Kingsley guides you through this technique live on screen.  
**START IMAGES** Try it yourself with our start images *Yosemite.dng* which is on the disc.

**I T'S A COMMON PROBLEM:** you look at a picture you've taken and it's nothing like what you saw at the time. It's too light or too dark and full of harsh contrast. This is because your camera isn't capable of recording the same dynamic range as your eye and therefore needs to bias exposure towards highlights or shadows. Apart from using flash or filters, there's not a lot you can do about this when shooting, but RAW can help. A RAW file lets you fine-tune exposure during its

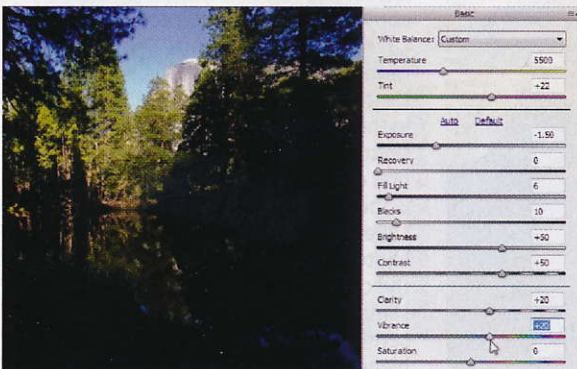
conversion, so you can take a single pic and make sure you get the best results in the highlights, the midtones and the shadows.

Even RAW can struggle to get everything right in one conversion, and while you can use settings like Fill Light to balance shadows with highlights it can end up looking washed out. The best bet is to make conversions for each part of the image, then blend them in Photoshop, which is exactly what you'll learn here!

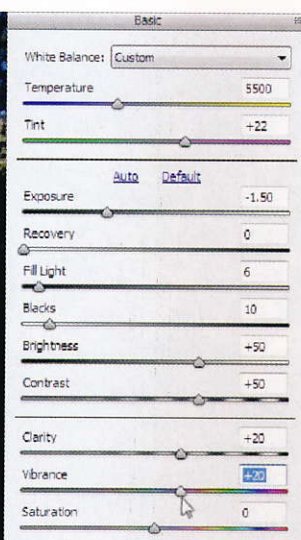


## STEP 1 CONVERT FOR THE BACKGROUND

To make the first conversion, load your RAW file (**Yosemite.dng** in our case) then use the **Straighten** or **Crop** tools if required (see p68 for more on these). It's important to crop now and not change this between conversions or your files won't line up when blending. With the composition sorted, it's time to make the first conversion, concentrating on the lightest areas in the distance. In the original these are too light, while the varied exposure has also played havoc with the picture's White Balance. Using the **Temperature** slider first, set this to **5500**, making the distant details warmer. Next set **Exposure** to **-1.50**, so they're better lit. The foreground will now be much too dark, but remember we'll be taking care of this in another conversion. Set **Fill Light** to **6**, **Blacks** to **10**, **Brightness** to **+50** and **Contrast** to **+50** and finally, move the **Clarity** and **Vibrance** sliders to **+20** each, but leave the **Saturation** at **0**. That's the first conversion done, so click on the **Open image** button, and then go to **File→Save As**, give it a name and save it as a JPEG. ▶







### STEP 2 CONVERT FOR THE MID-GROUND

Now reopen your RAW file, reset the values by clicking on the fly-out menu next to the **Basic** tab and choosing **Camera Raw Defaults**, then turn your attention to the middle of the picture. This area is darker than the distance so will need a different set of adjustments. As parts of the mid-ground are more shaded, this time set the **Temperature** slider to **6500** and the **Exposure** slider to **+0.50**. Next, set the **Fill Light** slider to **45**, **Blacks** to **10**, **Brightness** to **+80**, **Contrast** to **+40**, and **Clarity**, **Vibrance** and **Saturation** to **+20**. Click **Open Image** and save the picture with a new name as before.

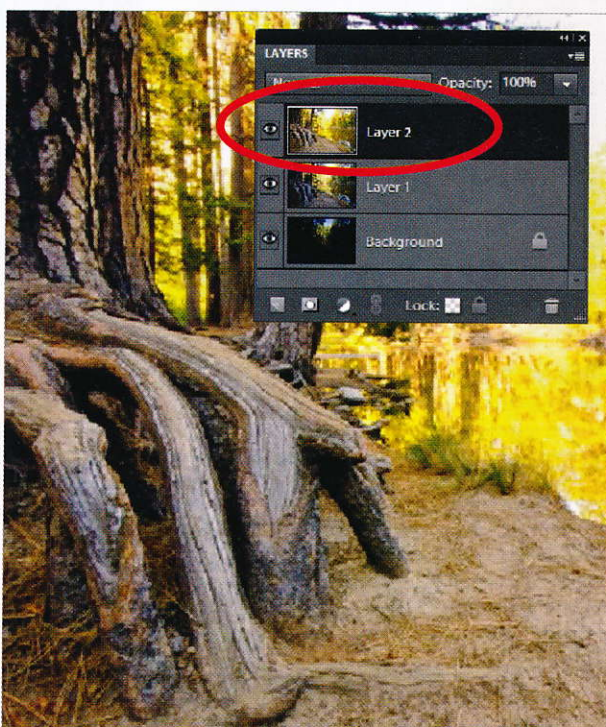
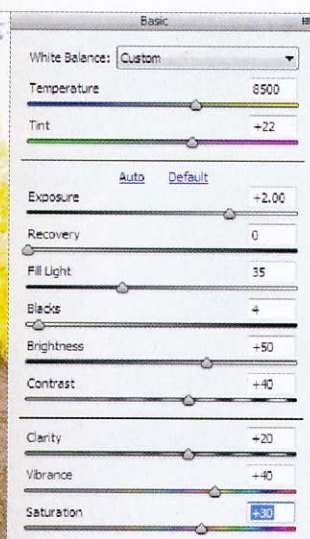
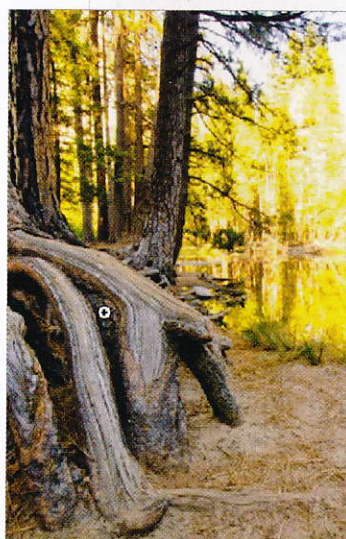
## DIGITAL PHOTO EXPERT ADVICE

Because this technique is all about making the best of each part of the image, accuracy is important and that's where using Camera Raw's clipping warnings comes in. These help you judge exactly where the pure highlights and shadows are creeping into your shot as you edit it, and can be turned on either above the Histogram, or by holding the **Alt** key as you move some of the sliders. Below for example, we can tell that just a few of the mountain's highlights are pure white, which is exactly as we want it.



### STEP 3 CONVERT FOR THE FOREGROUND

Finally reopen the RAW file one last time and make a conversion for the closest parts of the image. These are the darkest and coldest in the original, so set the **Temperature** to **8500** and **Exposure** to **+2.00**. **Fill Light** can be set to **35** and **Blacks** to **4** so very little shadow detail is lost. Set **Brightness** to **+50**, **Contrast** to **+40**, **Clarity** to **+20** and finally increase the **Vibrance** and **Saturation** to **+30** and **+40** respectively. Again you'll see that other parts of the picture, like the background, are looking pretty shocking, but the closest details are nicely exposed. Click **Open Image** to finish.



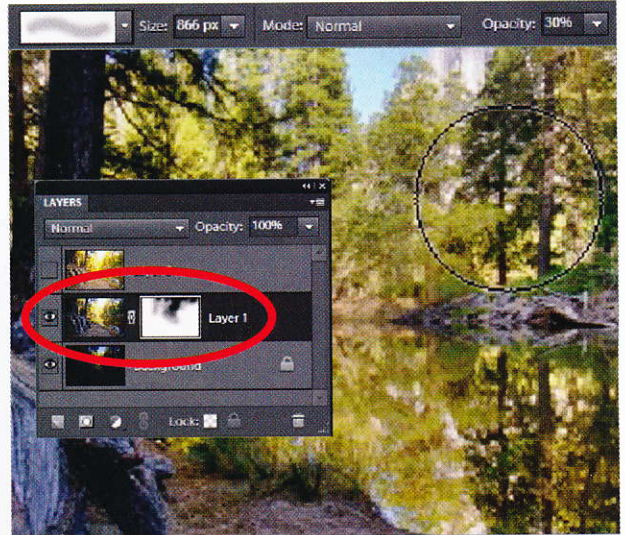
### STEP 4 STACK THE PICS INTO A LAYERED IMAGE

Now the blending part of the process begins, and for that we need to organize the separate conversions into Layers of the same file. To do it, pick your second conversion and go to **Select→All**, followed by **Edit→Copy**. You can then close it down. Back on the first conversion go to **Edit→Paste** and you'll drop the picture in over the first. Now repeat this with the last conversion, copying and pasting it into the first. Open your Layers palette (**Window→Layers**) and, although you can only see the top one, you'll now have three Layers in there: the **Background Layer** at the bottom of the palette, which was the first conversion made; **Layer 1**, which is the second conversion above it; and **Layer 2** at the top, which is the last, and lightest conversion we made. Because the conversions are all made from the same RAW file with the same cropping settings, they'll line up perfectly when blended in the next step.

**STEP 5** START BLENDING THE EXPOSURES

To combine each conversion into one well-exposed picture we're going to use Layer Masks, but you can do it with the **Eraser tool** if your version of Elements doesn't feature Layer Masks. First hide **Layer 2** in the palette by clicking its 'eye' icon off and the click on **Layer 1** so that it's highlighted. Now click the **Add Layer Mask** icon in the Layers palette and a white rectangle will appear next to Layer 1's thumbnail. Next, pick the **Brush tool** and, via the Options bar select a large, soft-edged tip of around **800px**, then set the **Opacity** to **100%**. Finally check that you have **Black** set as your foreground colour (press **D**, then **X** to confirm) and paint onto the distant parts of the scene. As you paint you'll see the darker areas from the first conversion start to show through so keep at it until you have the balance you want. If you paint too much, press **X** to swap to **White** and paint onto the picture again to correct any mistakes.

If you don't have Layer Masks, click on the **Eraser tool** and, using a similarly sized and soft brush, also at **100% Opacity**, paint over the same parts of the image you want to remove, letting the darker parts below show through. Mistakes with the **Eraser tool** can be corrected by pressing **Ctrl+Z** or by stepping back in the **Undo History**. With either tool, try lowering the **Opacity** to about **20%** or **30%** as you work, which will help achieve a more gradual and even effect.

**STEP 6** FINISH BLENDING & FLATTEN THE IMAGE

Now switch **Layer 2** back on by clicking in the box where the 'eye' icon should be and follow the same route as before, adding a Mask to the Layer and painting black into it to hide the parts you don't want in your image. So for this lightest conversion, paint (or erase) over the top part of the image which should be just as you want it from the previous step.

If you want a more even effect than you get with the Brush tool when Layer Masking, try using the **Gradient tool** set to **Black to White** and dragging out a gradient from where you want the effect to begin and end.

Once you've got a good blend, you're all done, so go to **Layer→Flatten Image** and save your finished image.

**TAKE IT FURTHER** WORKING WITH MORE COMPLEX SUBJECTS

The picture we've just made is a really good example of the kind of image that benefits from a split-RAW conversion, and it's easy to blend the conversions with just a few brush strokes or passes of the Eraser. But what if you have a picture that faces similar contrast problems, but also includes hard lines between the dark and light parts, such as rooftops or doorways where using a soft brush would make the blend too fuzzy? Well, we can still use the masking or erasing route, but we'll need to do it in conjunction with a Selection.

Running a Selection around part of the image before blending your conversions will create an invisible barrier allowing you to mask or erase right up to the edge of it without affecting pixels outside the Selection. So, in the example pic (left) we've used the **Polygonal Lasso tool** to protect the top of the boat before it's blended into the sky.



# 3 QUICK & EASY EFFECTS STRAIGHT FROM RAW



## PUSH THE BOUNDARIES OF CAMERA RAW FOR TOP CREATIVE RESULTS

TECHNIQUE & PICS BY DAN MOLD

### AT A GLANCE

**YOU'LL LEARN** Quick effects with RAW  
**YOU'LL NEED** Photoshop or Elements  
**TIME REQUIRED** 5 minutes per project  
**DIFFICULTY LEVEL** Easy

### ON THE DISC



**VIDEO LESSONS** Watch Dan run through these techniques on your PC, then try it using the *Portrait.dng* start image.

**R**AW GIVES EXTRA flexibility when editing pics, and used in the right way it can achieve striking results. We'll be using Adobe Camera Raw 6 here, but don't worry if you have ACR7 and different sliders – you can revert by clicking on the **Camera Calibration** tab and changing the **Process** box to 2010. You can also reset adjustments at any time, by clicking on the **Basic** tab menu and choosing **Camera Raw Defaults**.

#### ABOUT THE START IMAGE PORTRAIT.DNG

Editing a RAW file will allow us to push the boundaries but still maintain image quality, as well as revert to the original pic at any time. A quirky portrait helps our creative effects to stand out, too!



> Adjusting the Clarity and Temperature sliders gives a warm glow to this pic.

## IDEA 1 CREATE A WARM, HAZY GLOW WITH A RICH, RED TONE

This soft hazy look is great for portraits and the red toning gives rich, warm colours.

> Start by opening the pic in Photoshop or Elements – just go to **File**→**Open** and navigate your way to the Start Images folder on the cover disc or download. Double-click on *Portrait.dng* and instead of taking the image into the standard Photoshop interface,

you'll see the pic has been loaded in to Camera Raw, with our image on the left-hand side.

> To the right of the pic you'll see the sliders of the **Basic** tab, ranging from **Temperature** down to **Saturation**. We'll be playing with the colours by adjusting the **Temperature** and **Tint** sliders. **Temperature** is usually good for subtle tweaks, but we're going to break the rules and push it to the maximum value of **50,000** here for a big warm-up.

We're also going to drag the **Tint** slider all the way to **+150**, giving our image a strong magenta tint. With the reddish glow achieved now let's soften the effect.

> There's no need to adjust **Exposure**, **Recovery**, **Fill Light**, **Blacks** and **Brightness** on our image (though you can on your own) so these are left at their defaults. We do want to change **Contrast** though, so move this to a value of **-50** to flatten out the pic. Next, enhance the hazy look by pulling **Clarity** down until a misty effect is achieved – we settled for **-20**. Lastly, push **Vibrance** to **+60**, for richer tones. Finish by clicking **Open Image**, and you'll be taken into Photoshop where you can save the new-look pic.

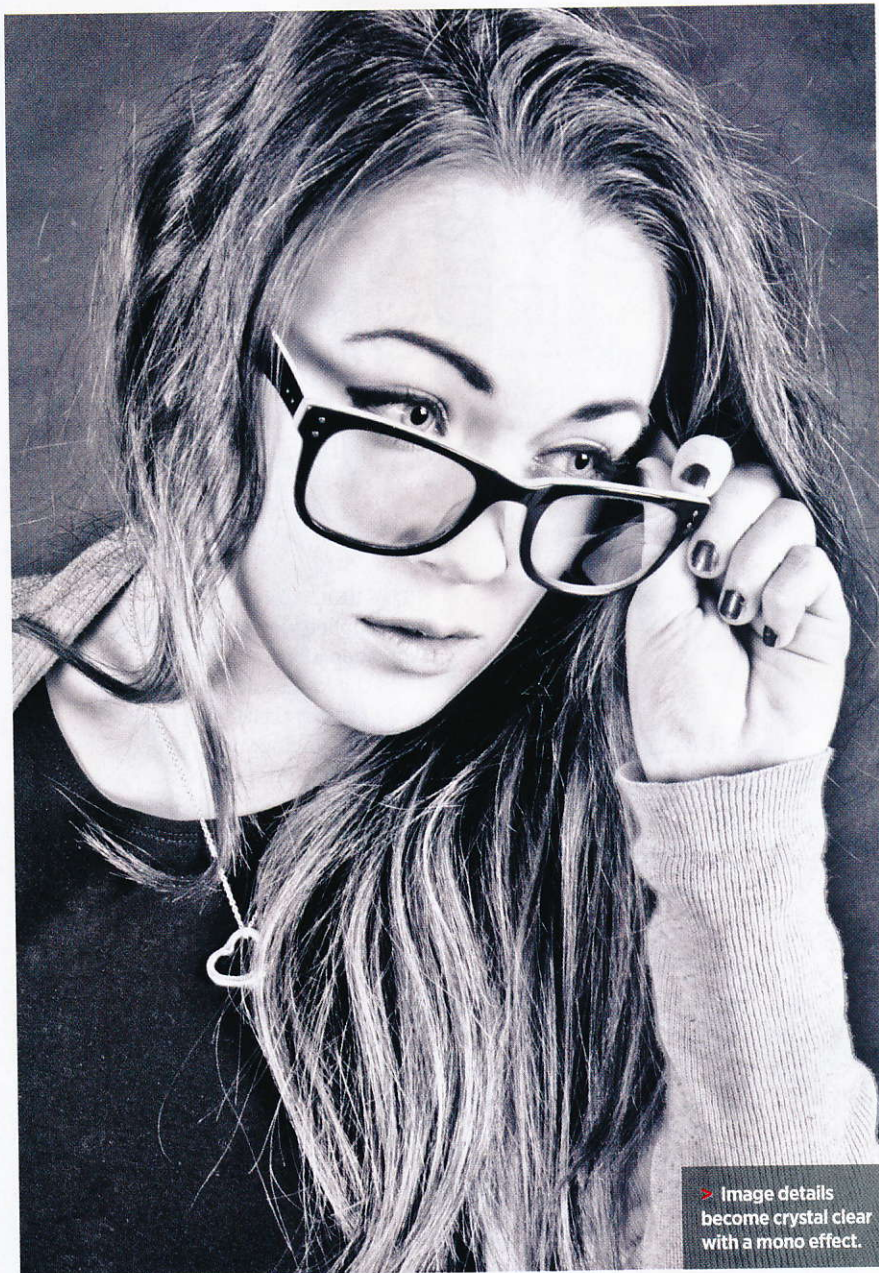


> Bleach out skin tones for a high-contrast portrait.

## IDEA 2 ADD A STRIKING HIGH-CONTRAST EFFECT

We can use a small amount of over-exposure and tweak the colour temperature of the pic, for a contemporary, cool-toned portrait.

- > Open *Portrait.dng* into Camera Raw and reset the sliders if required (as described in the intro). Now move the **Temperature** slider down to **2000** giving your picture a cool blue look. We're going to leave **Tint** at **+4**, but we'll ramp up **Exposure** to **+1.20**, brightening the image and bleaching out the highlight areas a little. Leave **Recovery** at **0** but push **Fill Light** to **+10** for even more light in the shadows. Leave **Blacks** at a value of **5**, then push **Brightness** to **+80** and **Contrast** to **+100** to inject even more punch. You'll see that adding this amount of contrast severely darkens some areas, and that's why we threw so much light in previously. Increasing **Clarity** to **+30** will make those details more pronounced.
- > At this point, the model's face is slightly overexposed (exactly as we want it) but the background is looking a bit gaudy in comparison. We're after a more subtle and clean transition between the two, and we can use the **Vibrance** and **Saturation** sliders to achieve it. Decrease the **Vibrance** slider to **-60** and the **Saturation** slider to **-60** as well, for more subtle hues.
- > When you're happy, click **Open Image** to load the converted RAW into Photoshop/Elements, and then go to **File**→**Save As** and save it under a new name.



> Image details become crystal clear with a mono effect.

## IDEA 3 CREATE A RICHLY DETAILED BLACK & WHITE PORTRAIT

Give your image a classic mono look, but add a twist by introducing masses of detail for a deeply textured finish! It's not only easy to do in Camera Raw, but it's really fast, too...

- > Double-click on our start image *Portrait.dng* to open it into Camera Raw and once again reset the sliders using the fly-out menu in the **Basic** tab and picking **Camera Raw Defaults**. Even though the final image is black & white, this technique makes great use of the **Temperature** and **Tint** sliders. However, we'll leave them for now, first increasing **Exposure** to **+0.25**, **Fill Light** to **100**, and leaving **Recovery** at **0**.
- > **Blacks** can be pushed up to a setting of **10**, restoring some of the darker tones that were washed out by ramping up the **Fill Light**. Now take **Brightness** to **+115** and **Contrast** all the way to **+100**. This will boost the difference between the highlights and shadows, adding lots of 'bite' which is vital to this technique.
- > Now, crank the **Clarity** slider to the maximum value of **+100**, and you'll create a great looking, ultra-sharp result. Drag **Saturation** all the way down to **-100** to drain the pic of any colour, and leave **Vibrance** at **0** as it has no control over the pic now that we've desaturated it.
- > We're now going to return to the **Temperature** and **Tint** sliders we bypassed earlier, because they have a surprising impact when mixing up a black & white version of a RAW file. Move them to and fro to see the difference they make, and settle for a look and tonality that appeals to you. We went for a **Temperature** of **4300** and a **Tint** slider of **+150** on our start image, but go for whatever works best with your own shots.
- > Once you're done, click on **Open Image**, and the save your pic with **File**→**Save As**.

ADVANCED PHOTOSHOP

# USE RAW FOR BLACK & WHITE CONVERSIONS



**RESCUE DIFFICULT EXPOSURES** BY  
**CONVERTING YOUR RAW FILES**  
**STRAIGHT TO MONO**

EXPERT TUTOR JON ADAMS

## AT A GLANCE

**YOU'LL LEARN** How RAW can be used to create mono versions of your pics, and how you can produce great images from underexposed files.

**YOU'LL NEED** Photoshop CS5 or above

**TIME REQUIRED** 20 minutes

**DIFFICULTY LEVEL** Advanced

## ON THE DISC

### VIDEO LESSONS

Watch as Jon Adams explains how to use Adobe Camera Raw to make mono images.

**START IMAGES** Try out the technique yourself using the start image *Street.dng* - you'll find it on the disc.

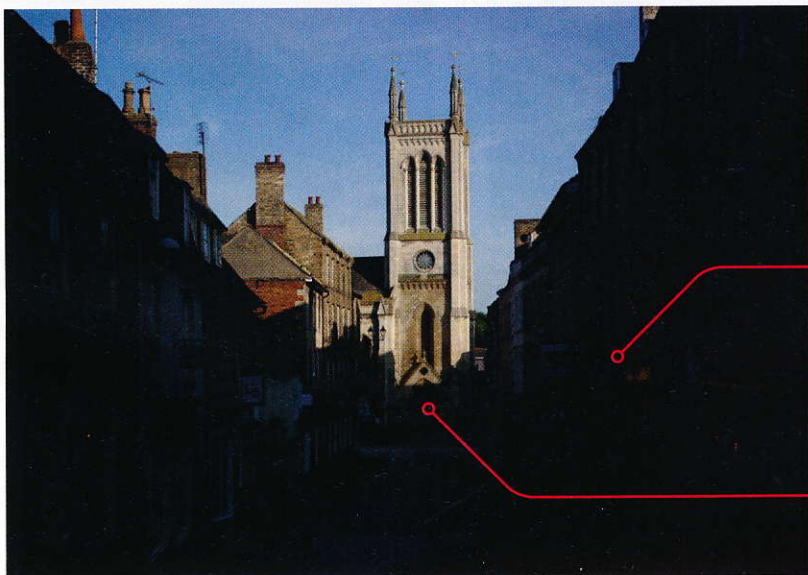


**I**N THE VERSION of Adobe Camera Raw supplied with the full version of Photoshop, there's a selection of additional tabs that offer stacks of extra control. One of them is the HSL/Grayscale tab, and as well as allowing you to alter the Hue, Saturation and Luminosity of the various colours in the scene, it also lets you create fantastic black & white conversions by turning any of the featured colours into different shades of grey. Just tick the Convert to Grayscale box and they appear. Used normally, it's very similar to the Black & White option from the Adjustment Layer menu. Once the palette is up on screen, all you have to do is push one of the sliders to the right to make its colour appear lightertoned in the black & white version, or pull it to the left to make that colour appear darker in the mono mix.

This is nice and straightforward to use, but the greyscale sliders can also be used in conjunction with the Basic tab to produce powerful mono images from pictures.



**> FINAL IMAGE**  
 Even though the starting point is challenging, great mono images are achievable with a little know-how.



### START IMAGE STREET.DNG

Though the church and sky are nicely exposed, the contrast range is too great for the camera to handle, and everything else is in deep shadow and badly underexposed. You could try rebalancing the contrast and restoring the detail in colour by whacking the Raw converter's Fill Light and Recovery sliders up to their maximum, but the results will give an image you'll want to bin rather than print!

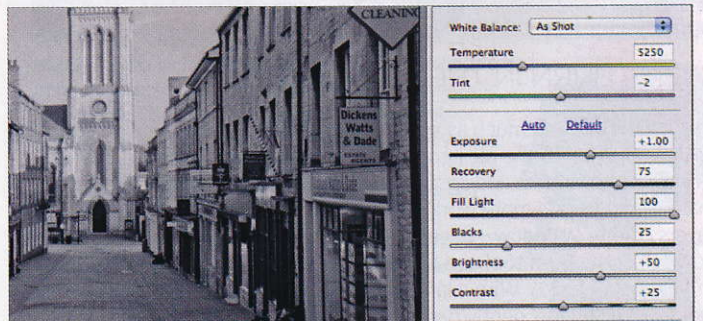
### GETTING YOUR FILE BACK TO SQUARE ONE

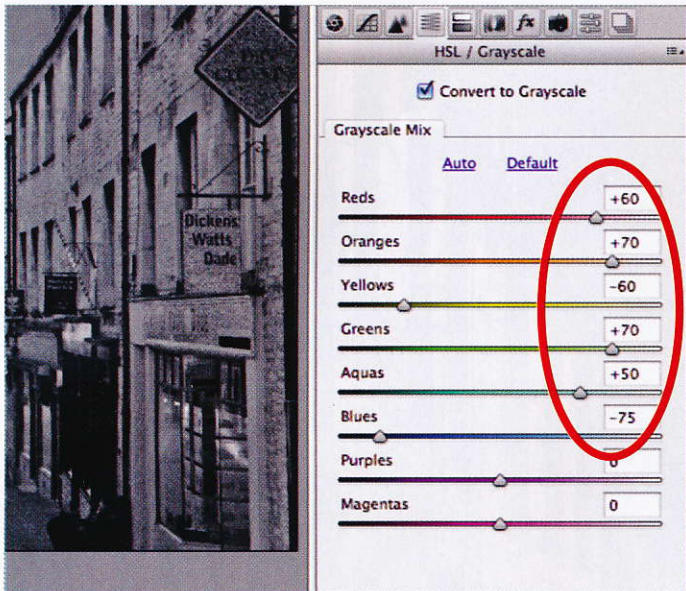
If you try the above route in colour, click on the flyout menu at the top right of the Basic tab and hit **Camera Raw Defaults** to get back to the starting point before starting the tutorial.



## STEP 1 CONVERT TO MONO IN RAW & SET UP THE BASIC TAB

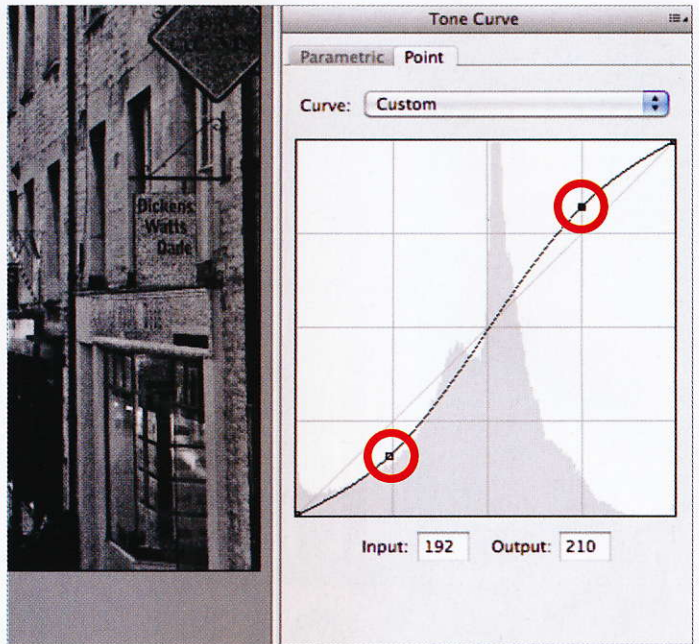
Open **Street.dng** from the *Start Images* folder and the Camera Raw interface will launch. Click on the **HSL/Grayscale** tab and tick the **Convert to Grayscale** box. You'll get an instant mono version, but it's not much good. Click on **Default** to zero all the sliders, and now go back to the **Basic** tab. To reduce the amount of contrast between the light and dark parts, crank **Fill Light** up to **100**, and set **Recovery** to **75**. To ensure we've got some Black tones in the image, set **Blacks** to **25**. Now move the **Exposure** slider up to about **+1.0** to increase the brightness. The pic looks very muddy and grey, but we've made a start on our rescue mission.





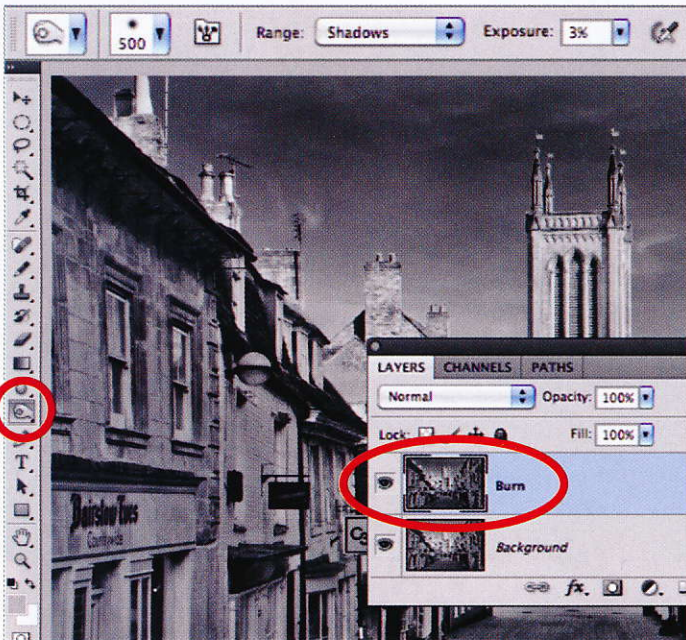
**STEP 2** MIX UP THE MONO SLIDERS IN THE HSL/GRAYSCALE TAB

Now go back to the HSL/Grayscale tab and we can start playing with the colour sliders to perk up our difficult image. Move the colour sliders right and left and see how the image changes in different areas. Some, like Purples and Magentas, will have no real effect, as the colours aren't in the example image, but others – especially Oranges, Yellows and Blues, have a massive impact depending on how they're set. Our mix with this pic was Reds +60, Oranges +70, Yellows -60, Greens +70, Aquas +50, Blues -75, Purples 0, Magentas 0, but every image will be different, so experiment with your own shots to find the best mix.



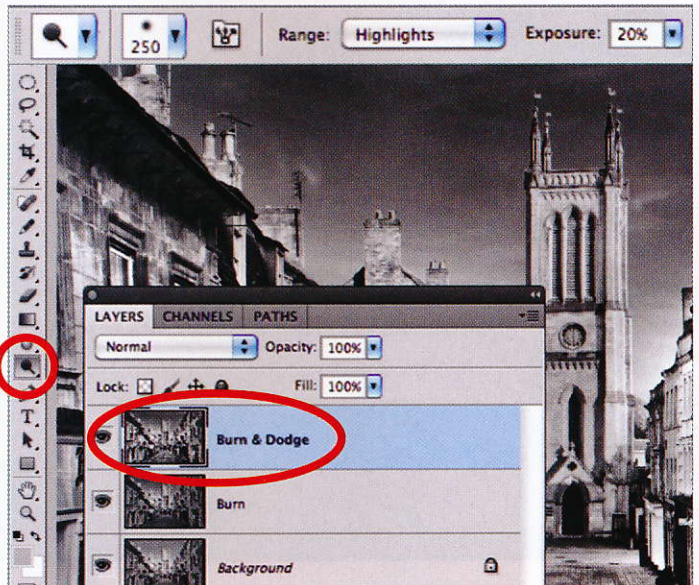
**STEP 3** BOOST THE CONTRAST WITH A CUSTOM MADE TONE CURVE

Quickly click on the Tone Curve tab and pick Linear from the presets to get a straight diagonal line. Click where the line crosses the first vertical line of the grid and pull the Curve down till you get an Input of around 64 and an Output of about 40. Now click where the curve crosses the third vertical line on the grid, and push it up to give an Input of 192 and an Output of 210. This S curve will beef up the contrast by making the quarter tones darker and the three-quarter tones brighter.



**STEP 4** BURN IN THE SHADOWS

You've now done as much as you need in the RAW converter, so click Open Image to get the pic into the regular Photoshop Interface. We've balanced the contrast and restored a lot of the detail that was lost in shadow, but there's more work to do to make this pic a winner. Open the Layers palette (Window→Layers) and hit Ctrl+J to make a copy Layer. Now select the Burn tool and in the Options bar, set Range to Shadows and Exposure to 3%. With a large brush of around 500px, play the Burn tool over the image, gently darkening the darker parts.

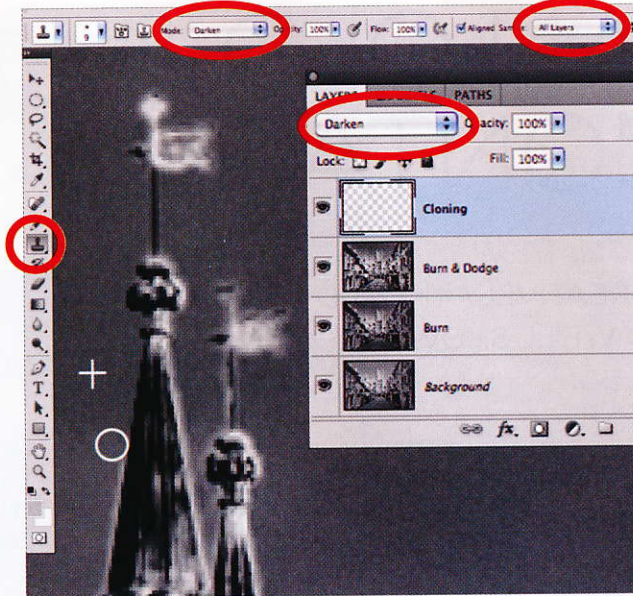


**STEP 5** BRIGHTEN THE HIGHLIGHT DETAIL WITH THE DODGE TOOL

Now hit Ctrl+J again to make a copy of the work you've just done, and select the Dodge tool. This time set Range to Highlights and Exposure to 3%, and with a 500px brush, work on the buildings either side of the street to lift them a little. Now reduce brush size with the left square bracket key and work on finer details. Take care not to blow them out though, as it's easily done. Once the buildings are looking good, increase Exposure to about 20% and with a 250px brush, run a few streaks along the cobbled street to force some highlight detail into the paving. Again take care with this, as it's really easy to overdo it.

**STEP 6 REPAIR THE HALOES AND FRINGEING ON THE CHURCH & ROOFTOPS**

The image is taking shape, but zoom in tight on the edges of the church and rooftops and you'll see some nasty fringeing, caused by pushing the pic so hard in the RAW conversion. To clean it up, hit **Ctrl+Shift+N** to create a new Layer, call it **Cloning**, and click **OK**. In the Layers palette, click on **Normal** and set this new Layer's Blending Mode to **Darken**. Now select the **Clone Stamp** tool, and in the Options bar, set the **Mode** to **Darken** as well, and ensure that **All Layers** is selected under **Sample**. Now with a small brush, **Alt**-click to sample a clean bit of sky, then release **Alt** and paint over the fringeing to lose it. It'll only take a few minutes to work around the affected areas and get rid of the unsightly haloes that have formed.

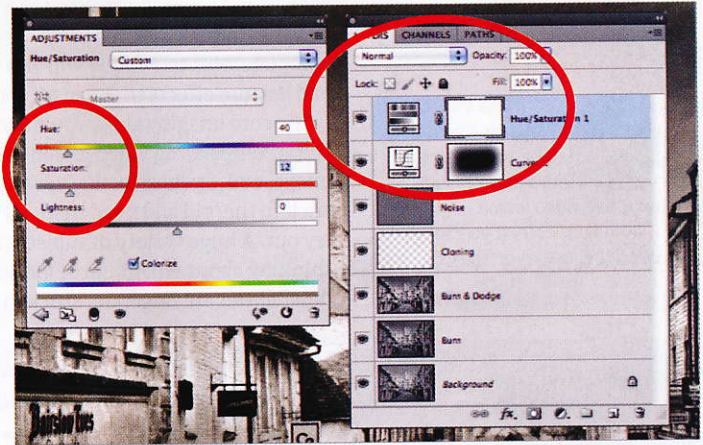
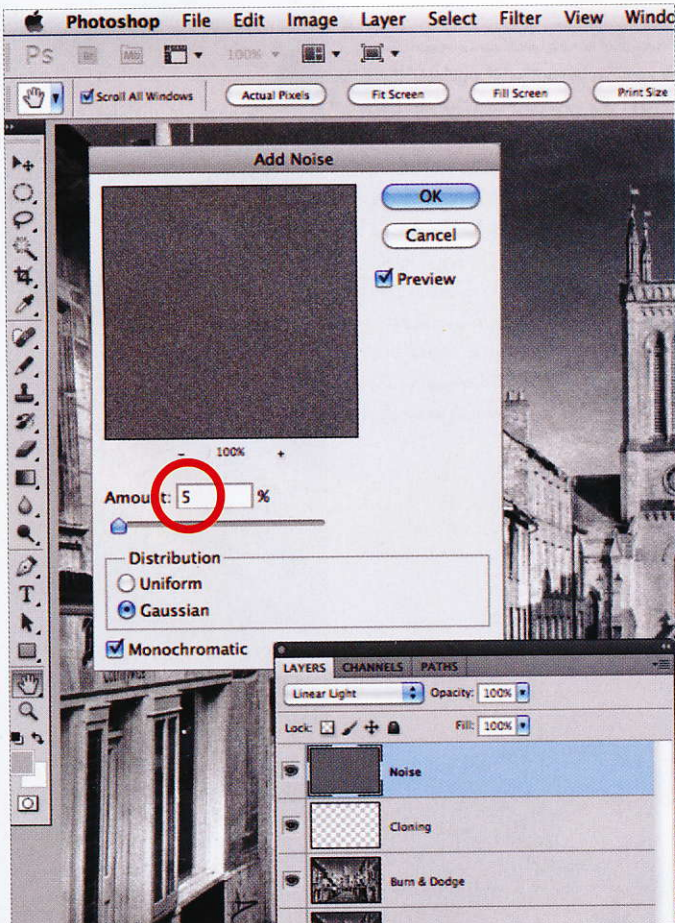


**DIGITAL PHOTO**  
**EXPERT ADVICE**

Blending Modes are commonly used to affect the way Layers interact with one another, but in this tutorial, we use a Blending Mode with the **Clone Stamp** tool to change the way it works. Because the **Darken** mode is used on the Cloning Layer and on the tool itself, we can Clone out lighter pixels without having any effect on the darker pixels nearby. This makes speedy work of cleaning up the unsightly fringeing in the picture.

**STEP 7 ADD SOME VIRTUAL FILM GRAIN FOR A TRADITIONAL, RETRO LOOK**

Now the exposure balance is sorted and the pic's looking good, a nice touch for a really traditional filmic look would be to add some grain. To do this, create a new Layer and then change its Blending Mode to **Linear Light**. Go to **Edit→Fill** and pick the **50% Gray** option from the Use box under Contents. Now go to **Filter→Noise→Add Noise**, and after ticking the **Monochromatic** box, go for an **Amount** of about **5%** and select the **Gaussian** option. This'll give a lovely film grain effect in keeping with the hand-printed look.



**STEP 8 ADD A VIGNETTE AND A TONED EFFECT**

To finish off the image, use the **Lasso** tool to make a rough, oval Selection around the print, so you leave a margin around the edge. Hit **Ctrl+Shift+I** to get the inverse of this Selection, then hit the **Refine Edge** button and set the **Feather** slider to **250px**. Click the **Adjustment Layer** icon in the Layers palette and select **Curves** from the list, then pull the Curve down to darken the edges, adding a vignette effect. Finally, create a **Hue/Saturation** Adjustment Layer, and for a classic warmtone look, tick the **Colorize** box and set the **Hue** to **40** and the **Saturation** to **12**. The result's a great mono image, and thanks to RAW, it has been rescued from a colour pic that seemed to offer no hope at all!

**NOW IT'S YOUR TURN TO RESCUE THOSE SHOTS!**

We all have images that didn't quite make the grade, and the beauty of this technique is you may be able to bring some of them back! Have a hunt through your hard drive and look for pics like our start image that showed lots of potential at the time of capture, but didn't float your boat once you'd opened them up. Once you've found a few, use our RAW-to-mono tips, and see if you can breathe new life into them.

I hope you've enjoyed the special RAW projects in this issue. Give them a go, and make sure you send in your results, because we want to see them!

