



These adjustments are being made very over the top so that you can see how the parts of the **Split Toning panel** work. I strongly suggest you study the black and white projects later in this book for a more in depth walk through on their use.

Using the Detail Panel

The **Detail panel** is very interesting because it deals with sharpness and noise.

What is Noise?

In the electronics world there are a number of definitions for noise, but in digital photography it is unwanted visual distortion. If you've looked at film photographs, it looks similar to film grain, but in the digital realm it looks kind of like rainbow or splotchy speckles and can make a photo unusable. It really rears its ugly head when shooting with insufficient light and when you have to crank up the ISO on your camera.

Let's look at our Malibu State Park image, go ahead and press **(I)** on your keyboard to pull up the photo information. You will see that I shot this photo at ISO 50, which is as low as my camera goes to keep noise low.



But sometimes when you are retouching photos it can bring noise back into the photo. When you zoom in on this photo to 100% you can start to see it, but there is almost no noise.



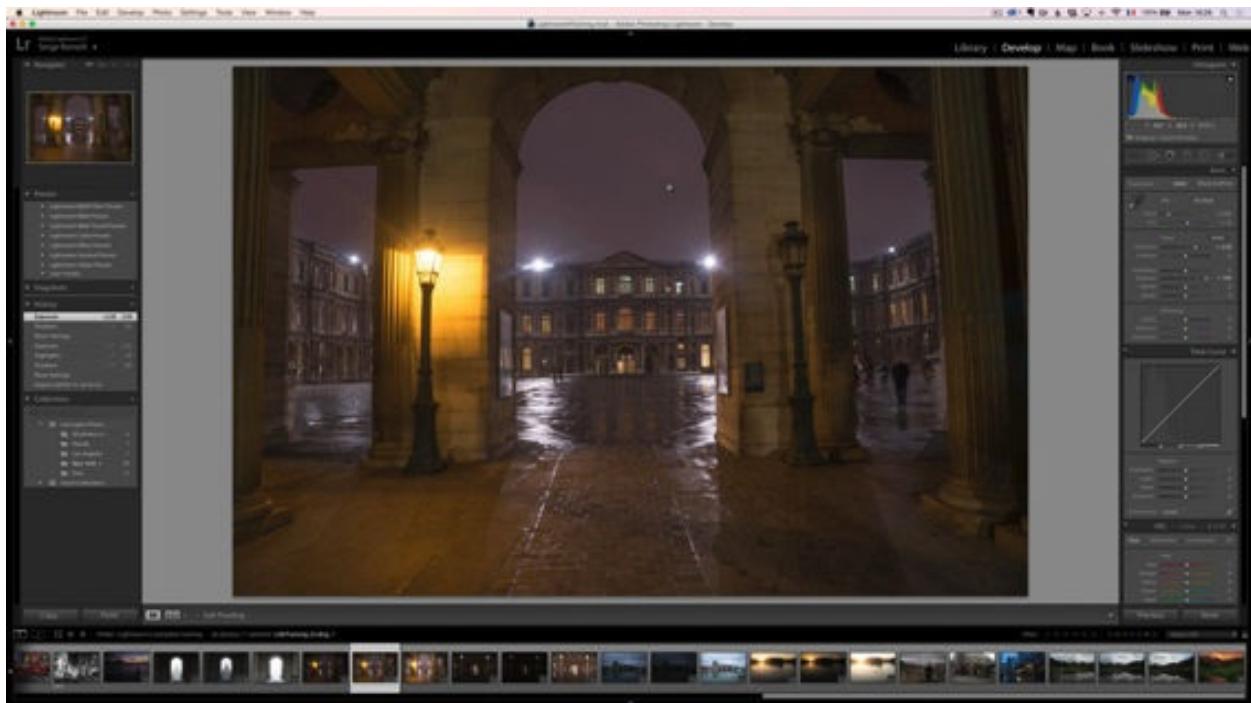
I doubt that you'll even be able to see it just looking at the image in the book.

So let's take a break from this photo for a second and look at another photo that I took to demonstrate what happens with noise. This was at night in Paris and as

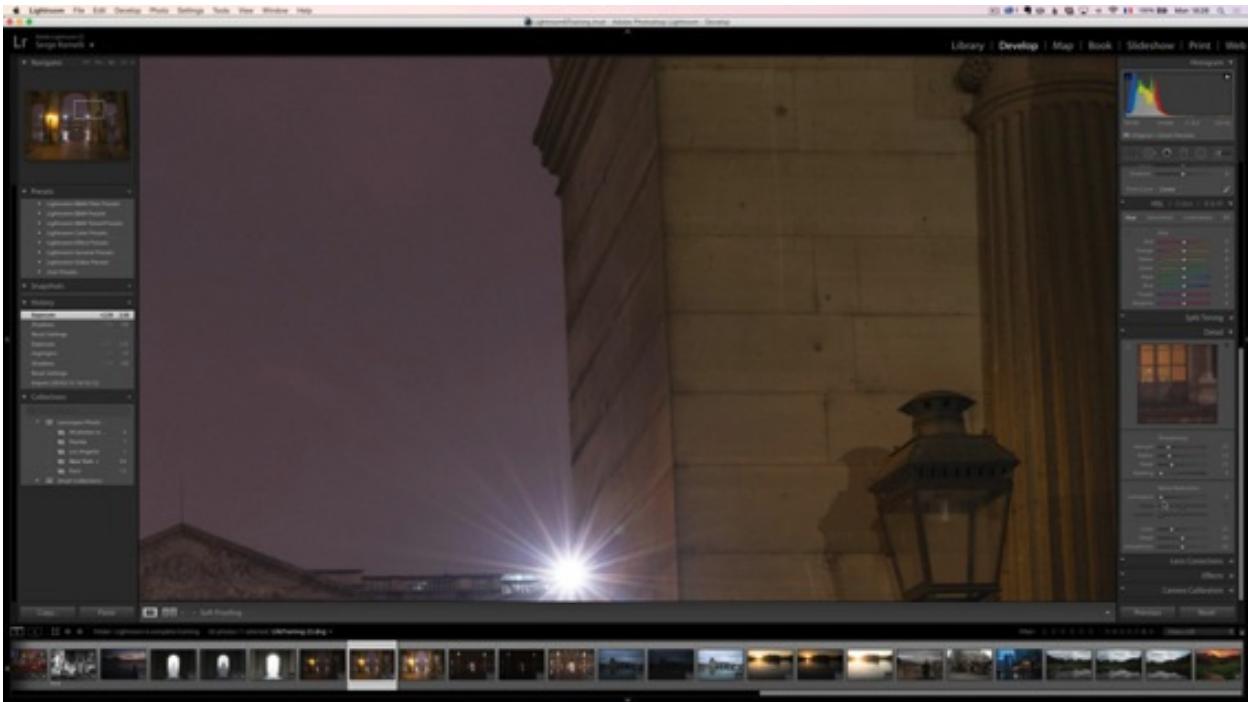
you can see it's really dark.



So I'm going to open up my **Shadows** to 100 and open up the **Exposure** to about 2.500. And now we can see what's happening here:



And now when you zoom in you will see noise in a big way.



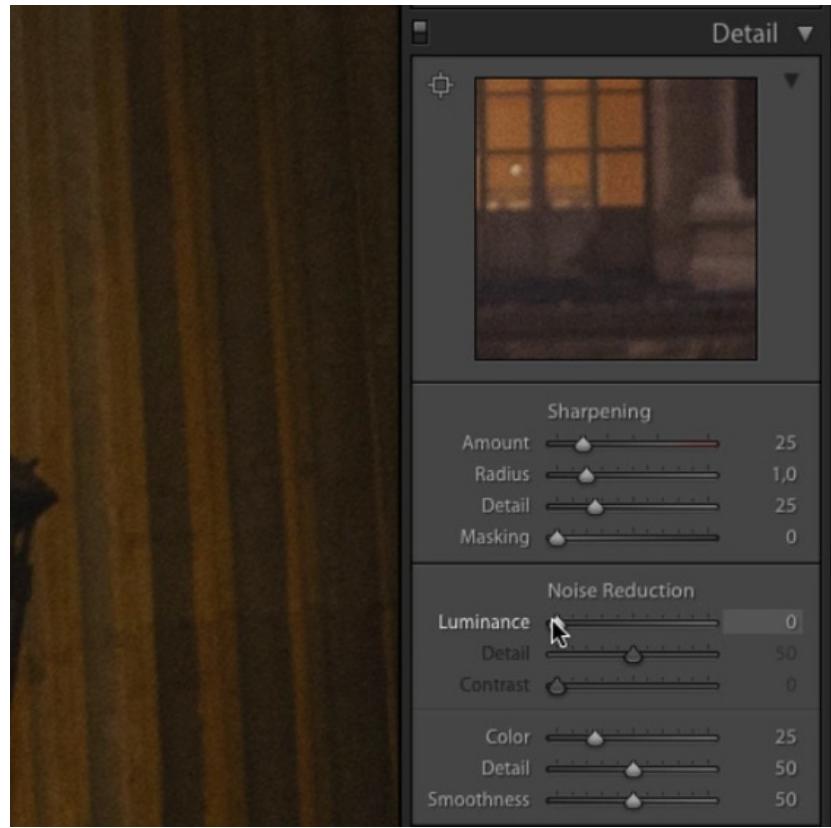
It's all those speckles which look black in some areas and odd red and green in other areas. That's digital noise and Lightroom can help you get rid of it to make a more pleasing photo.

It's true that some people like to stylize their photos by having a heavy amount of noise or grain, but that's an artistic choice. It's still always good to know how to get rid of it.

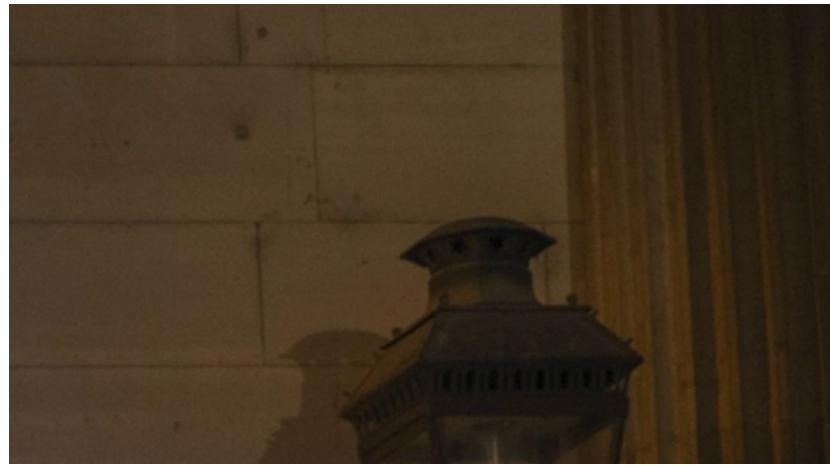
Removing Luminance Noise

Now to keep it simple, you have two types of noise that Lightroom processes: **Color** and **Luminance**. Luminance noise is just grayscale noise which often looks like grain and with no spots of color.

If you look over at your **Detail panel** you go to **Noise Reduction** and you will see that **Luminance** is at 0 which is its default value.



And now let's move the slider to **40** and you can see that it starts to get rid of a lot of that grain type noise. Here is what the noise looks like before we apply denoising:

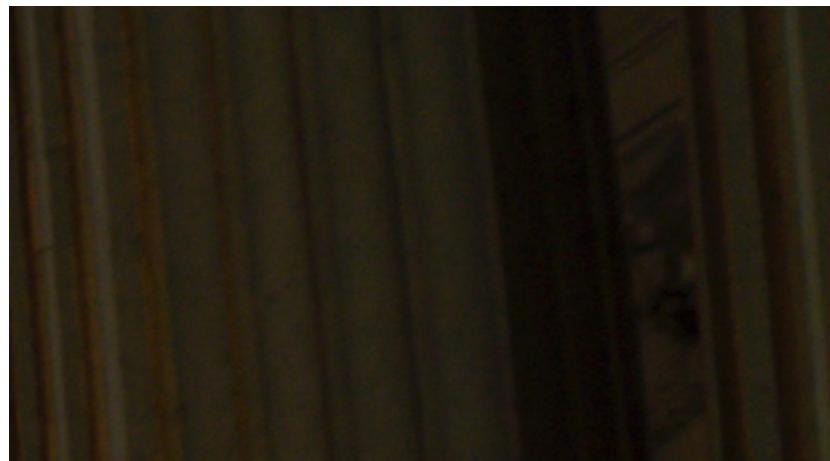


And after:



Removing Color Noise

Color noise shows up frequently in your very dark shadows and it usually has a reddish green tint to it. If you move the Color slider down to 0 it will make itself very apparent:



And when you move the slider up to 100 you will see a significant improvement:



I deliberately took a noisy photo for you to experiment on but usually I would expose my photo better to not have a drastic noise issue like this. Because when you do a lot of **Noise Reduction** it can have the tendency to soften your photo. But that's where the **Sharpening** option in **Detail** panel comes in very handy.

Using Lightroom Sharpening

So let's talk go back to the Malibu State park photo for a moment.

Sharpening is sort of the opposite of Noise Reduction which tends to soften the image a bit. Sharpening is going to make everything a bit crisper or as it says, sharper. The **Amount slider** increases edge definition and thus, sharper looking objects.

This image is with very little sharpening:



This is at 150 which is way too much



And this is about 80 which is about right.



Serge's Sharpening/Noise Reduction Recipe

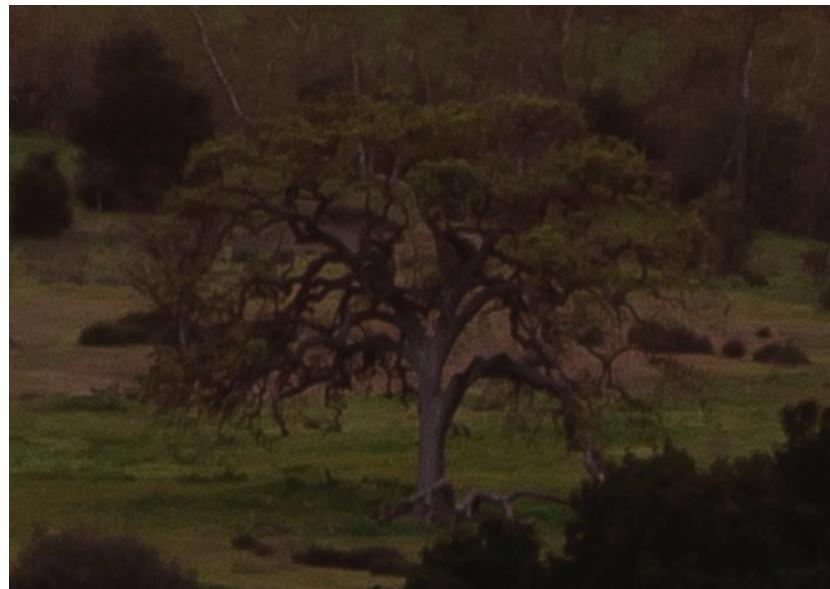
I have a little formula that I use on my landscape photography which is that my **Sharpening** and **Noise Reduction** don't go above a combined value of 100. Whatever the value is of Noise Reduction gets minused from 100. So on a photo that isn't too noisy **Luminance** is going to be 10 and **Sharpening** 90 and a noisy photo is going to be around 40/60.

I will usually set my **Sharpening** at about 85 and then my **Luminance Noise Reduction** at 15.

Have a look at this tree here to see it with the Sharpening off:



And then with Sharpening on:



It does make a difference. But you don't need to sharpen everything!

Using the Masking Tool in Sharpening

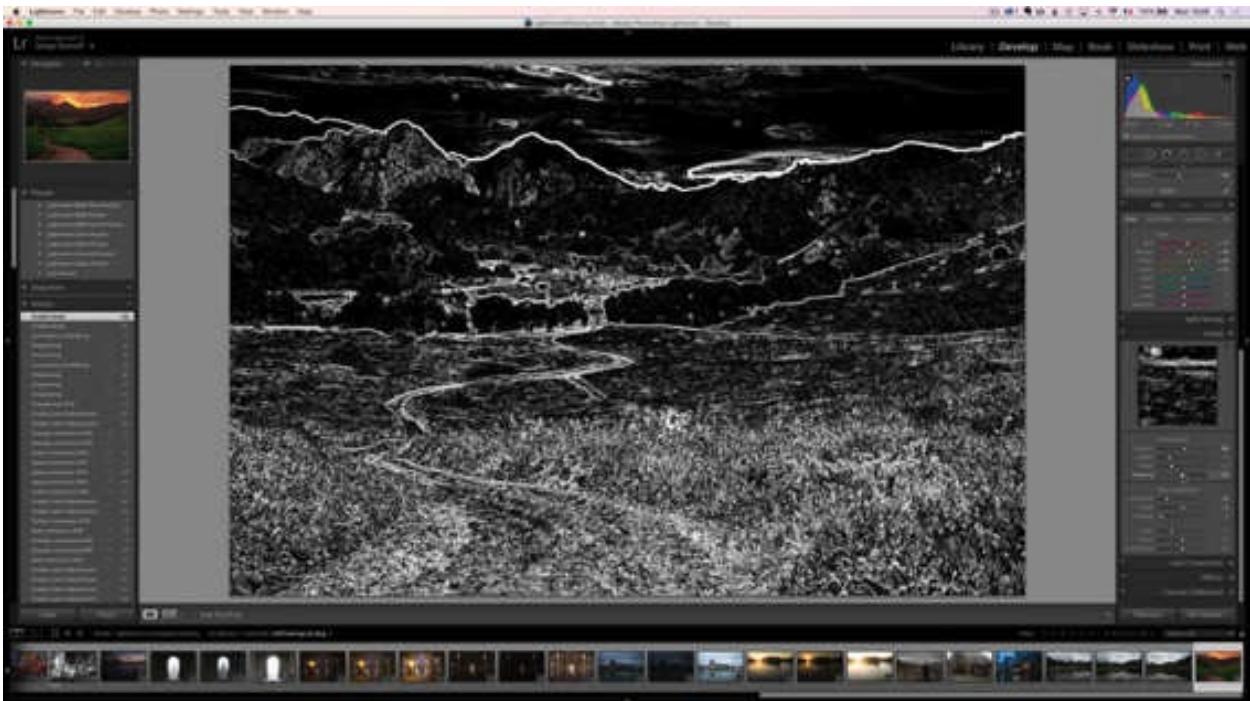
Often you don't want to apply **Sharpening** to everything in your photo, particularly when there are areas with very little to sharpen anyways, like the clouds in the sky.

If you hold down the **Alt key** and click on your **Masking slider** you will get a

white screen:



As you drag the slider to the right you will see the image start to gradually form up. Anything which is black is not going to get sharpened, anything which is white will. You will notice that the white is mostly restricted to the edges, which is where sharpening takes place!



And so now we have the sharpening in the grass, trees and mountain but not in

the sky which is good, because that will just add unnecessary grain into the sky.



Now there are a couple of other sliders in this panel that we haven't discussed yet.

Using the Other Sliders in the Noise Reduction Panel

Up until now I've only spoken to you about using the **Amount** and **Masking sliders** in **Sharpening** and **Luminance** and **Color sliders** in **Noise Reduction**. Because the differences are going to be so hard to see in a book, please just ensure you have the photo open on the computer so you can play around with these settings to see what differences they make.

Under the **Noise Reduction Luminance** subpanel you have **Detail** and **Contrast**.

Luminance Detail controls the luminance noise threshold meaning that a lower value would produce cleaner results but possibly remove details, and higher values would do the opposite. This can be helpful on very noisy photos but the truth is that I take care to expose photos properly so I very rarely use it and just leave it at its default value.

Luminance Contrast controls luminance contrast, that's a revelation right? A lower number would produce a smoother result but reduce contrast. Again, I

rarely move it off its defaults.

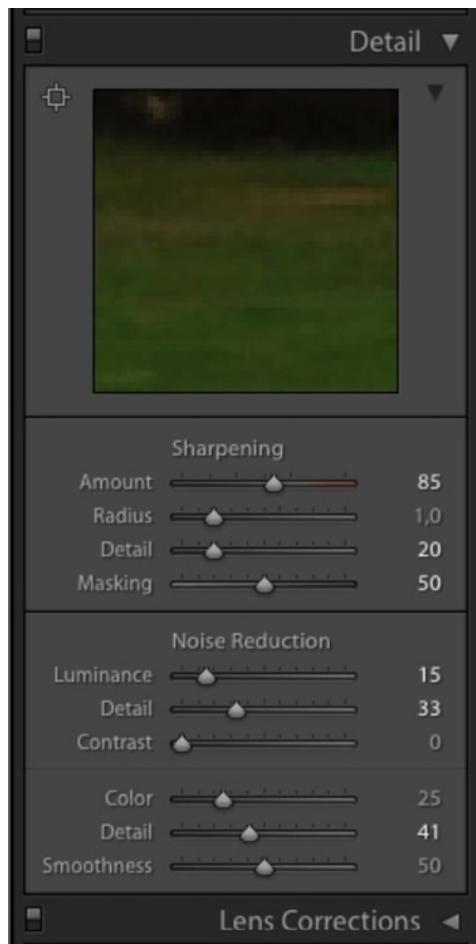
And under **Color Noise Reduction** you have **Detail** and **Smoothness**.

Color Detail controls the color noise threshold, so high values would protect thin, detailed color edges but might leave more color speckling. Lower values remove color speckles but could result in color bleeding because it blends the colors more. Again I rarely move these from their default values.

Color Smoothness will focus in on those green and magenta like noise colors and blend and desaturate them to provide a better overall representation of the image. As a warning, using too much tends to make it look a little washed out and blurry. Again, I rarely move these settings from their default values.

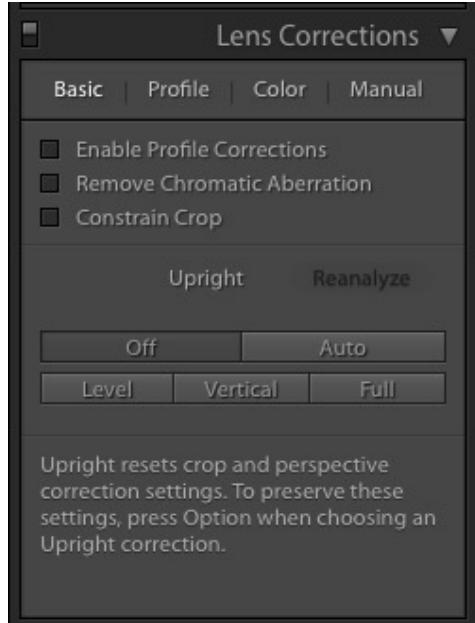
Taking the time to expose your images properly will save you a lot of pain in having to make sacrifices when doing Noise Reduction.

Tip: you can drag around in the detail zoom panel to move your zoomed in area or you can click on the little target box and then click somewhere on your photo to set the area:



Using the Lens Correction Panel

Lightroom has an amazing engine to correct image troubles that stem from optical problems typically caused by a camera lens such as vignetting, barrel distortion, pincushion distortion and chromatic aberration. The Lens Corrections panel can help deal with these issues:



There is the **Basic** subpanel where you do all the Lens Corrections automatically and **Profile**, **Color** and **Manual** are subpanels allow you to do the same fixes manually.

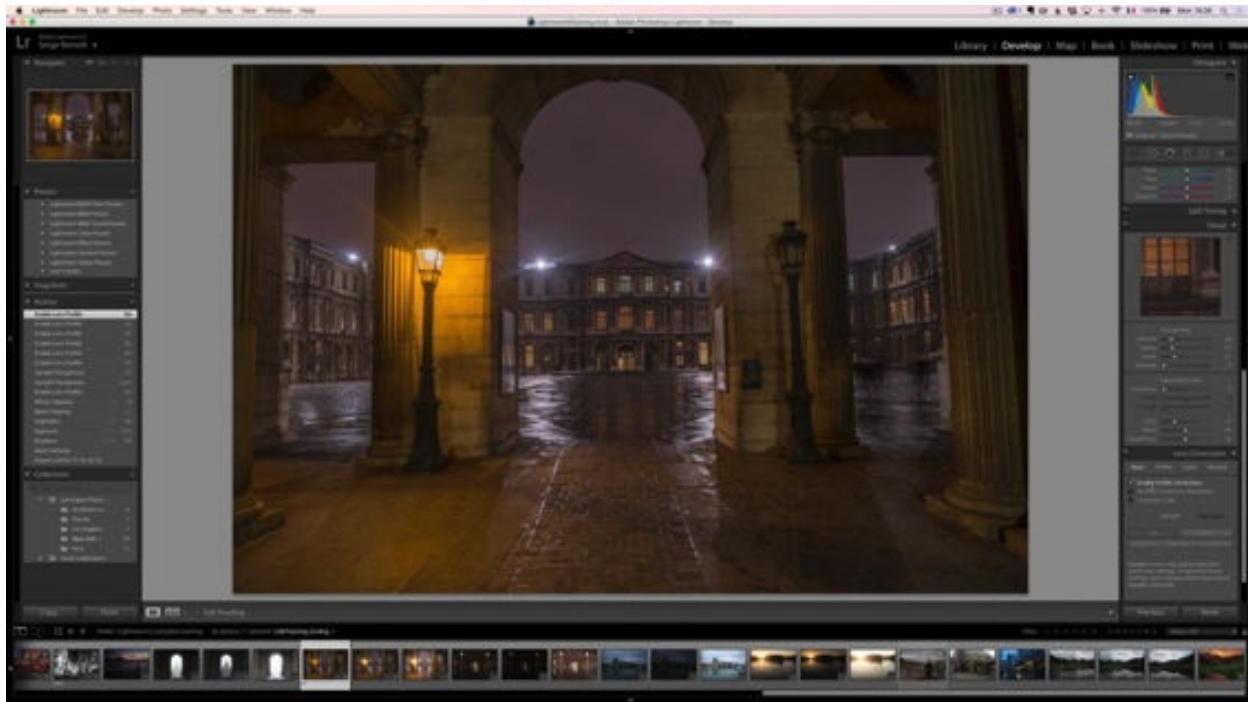
Have a look at this image from Paris and you can see it has quite a few problems. It's distorted with the lines bending inward (pincushion distortion), it's not level and it has chromatic aberration



Let's fix it up.

Enable Profile Corrections

The first step is to go ahead and click on **Enable Profile Corrections** and you will immediately see a bunch of subtle differences, especially if you click it on and off to see what changes it is making as it reduces some of the roundness and spherical distortion that comes from how the lens deals with light:



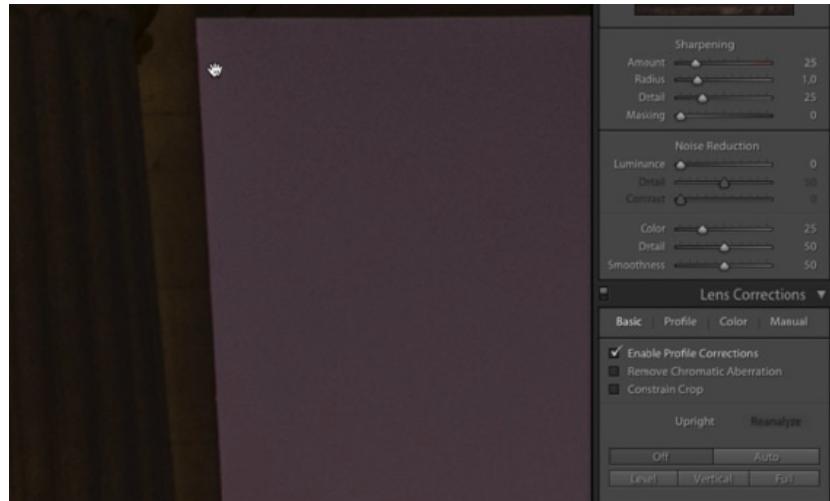
Images that have been acquired with modern cameras and lenses will automatically be recognized from the metadata that comes with the photo and Lightroom uses this information to apply the corrections automatically.

But it can also be done manually under the **Profile** subpanel for photos that don't have metadata with them or if you want to interject changes.

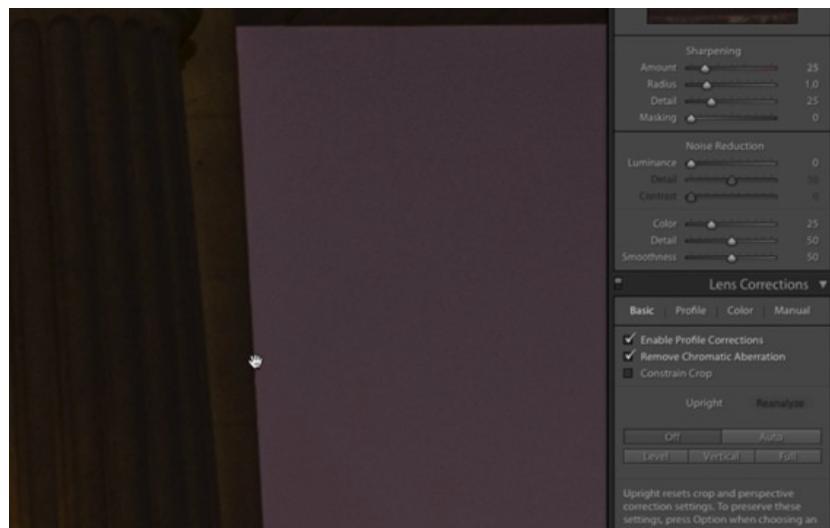
Remove Chromatic Aberration

Chromatic Aberration is the little fringe of red and green or magenta that you can get around the edges of objects in your photos. It's not such a big deal when photos are very small but when you blow them up or print them out, look out.

In this photo you can see a little bit of red chromatic aberration on the edge of this wall.



And now by selecting the check box to **Remove Chromatic Aberration** it desaturates that fringe slightly.



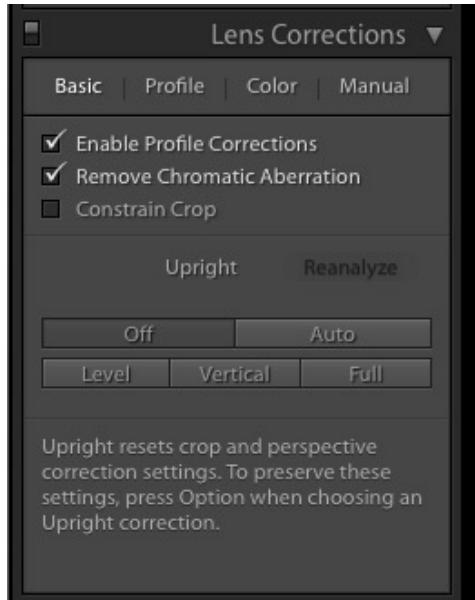
It's subtle, but as I said, when you print it at 100% you will really see it.

This is again using the automatic settings which tend to eliminate red-green and blue-yellow color shifts. You can go to the **Color subpanel** and tinker with it manually if you wish for getting purple and green fringes by selecting the fringe color.

The Upright Function

The **Upright** function was introduced in Lightroom 5 and this little button can really be magic for architectural photography because with one click of the button you can get all your verticals and horizontals beautifully straight. (It's recommended to ensure you have **Enable Profile Corrections** selected before

working the **Upright** function).

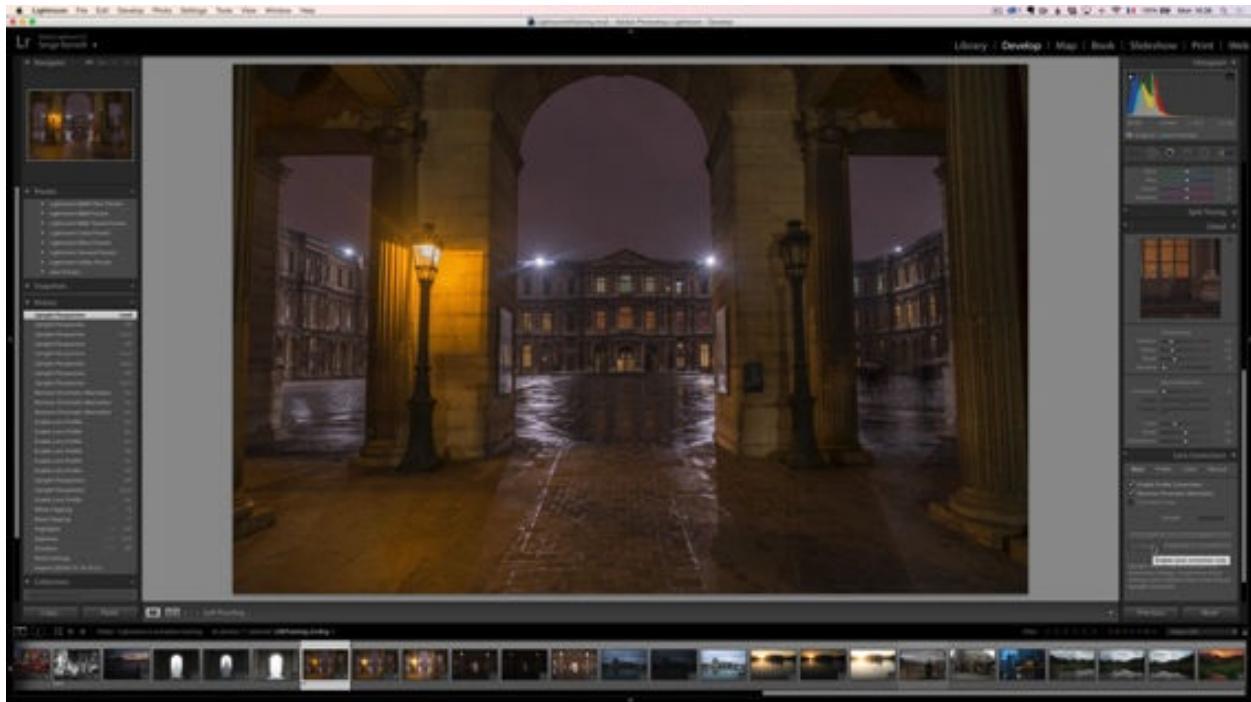


There are four Upright modes to choose from:

Auto: Does the best to correct perspective problems, make it level and preserve aspect ratio. Works great for most photos.



Level: Here Lightroom will fix problems with an emphasis on getting your horizon straight and level.



Vertical: It's going to correct my vertical lines to get them straight. You can really see it in this photo because I was tilted up to get the arch in the photo so the lines all bend inwards.

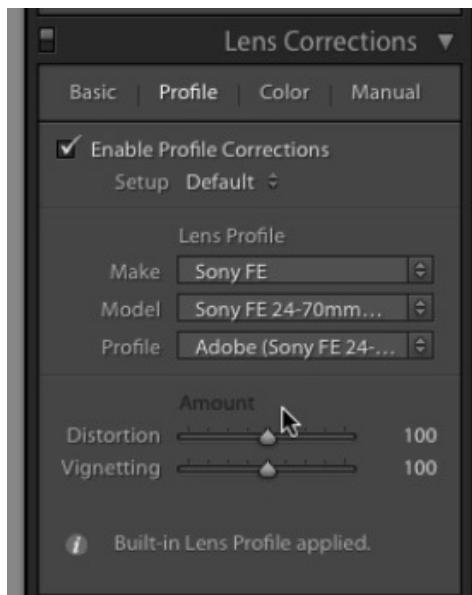


Full: Tries to do all of the above and I find that it often produces strange results, so just be aware when you use it.



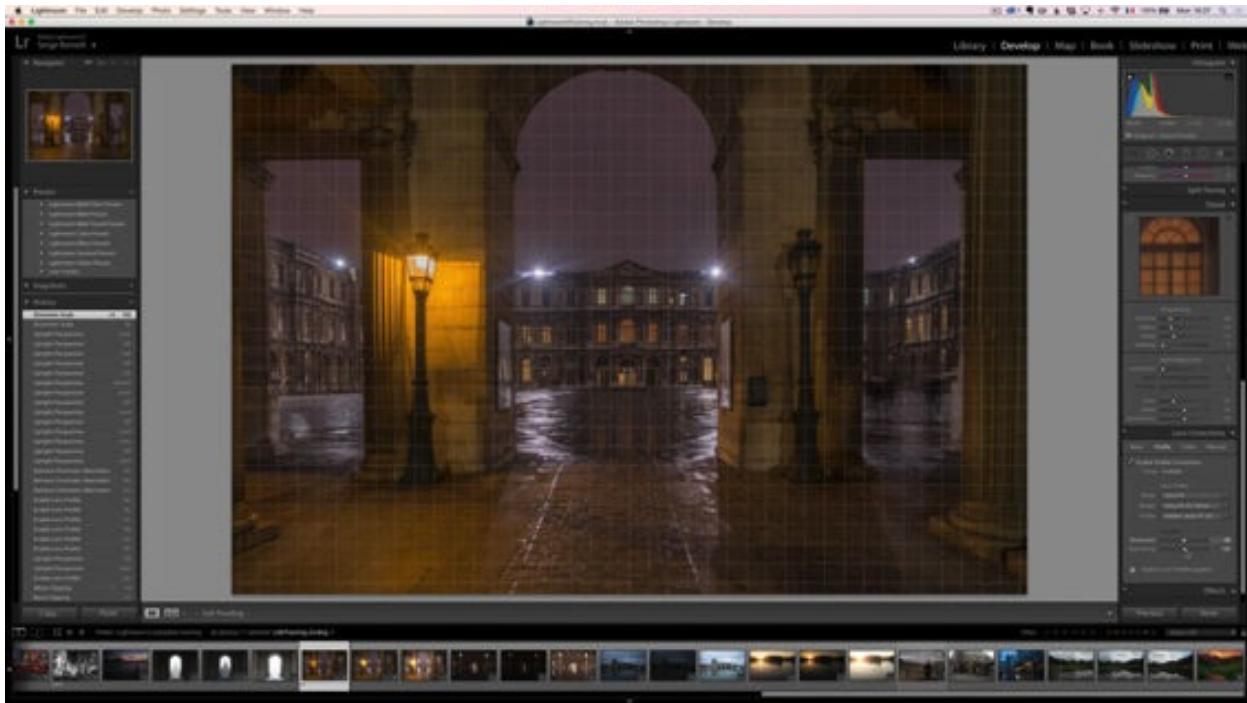
Manual Settings in the Profile Subpanel

Clicking on the **Profile subpanel** will take you to where you can manually enter in lens information and adjust the amount of correction that is performed:



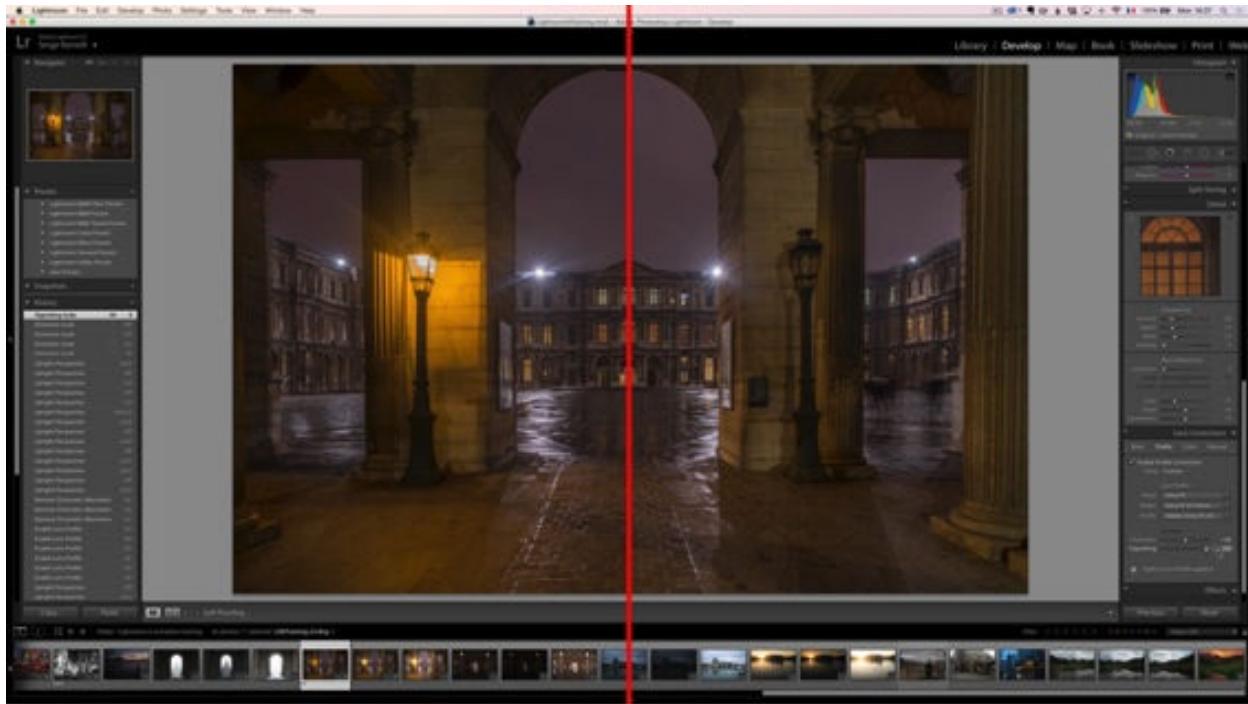
You can see that Lightroom has detected the camera and lens that I shot with, but clicking on any one of those boxes will allow you to change the selection. And then below this by using the slider you can correct the amount of distortion correction and vignetting correction.

If you slide the **Distortion slider** it puts more or less of the spherical correction into the image to get straight or curved lines with a grid overlay to check the lines against:



If you slide the **Vignetting slider** it adds or subtracts exposure towards the edges of the image to remove the vignette you can sometimes get when shooting on a larger sensor camera and a lens not rated for it.

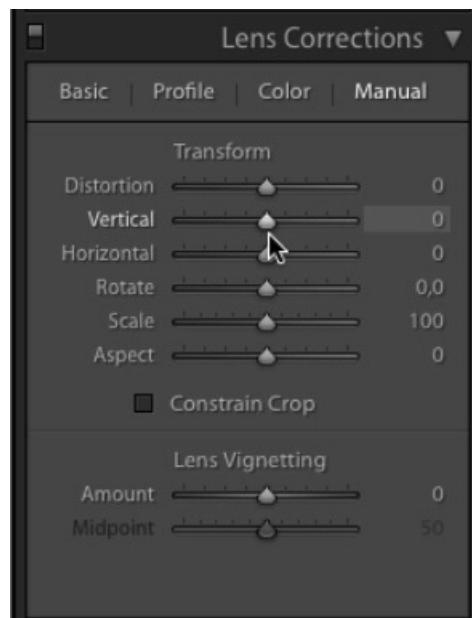
It's not a problem in this photo but here's what it looks like anyways, I've split it in half so on the left you can see the edges are darker than on the right where the vignetting correction is being applied:



I rarely mess with the manual options because I find that the automatic correction does a great job.

Manual Settings in the Manual Subpanel

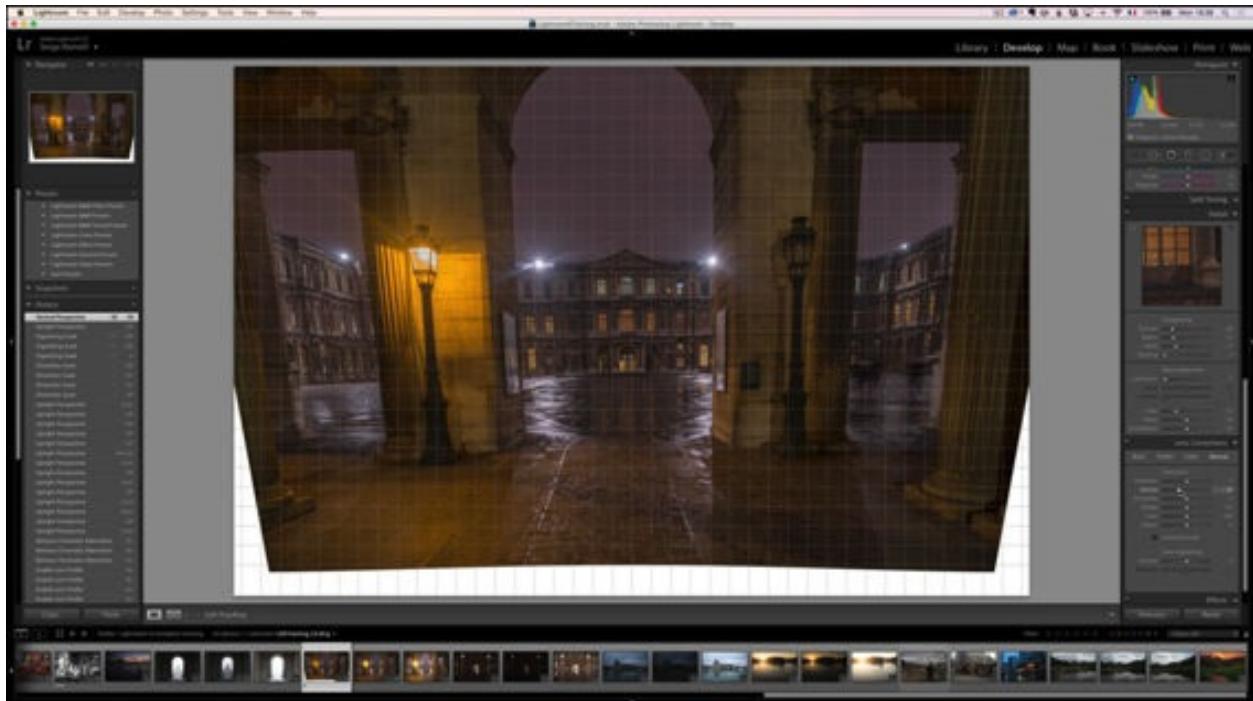
Clicking on the **Manual subpanel** will take you to where you can manually correct lens flaws and image perspective to get your verticals and horizontals perfect.



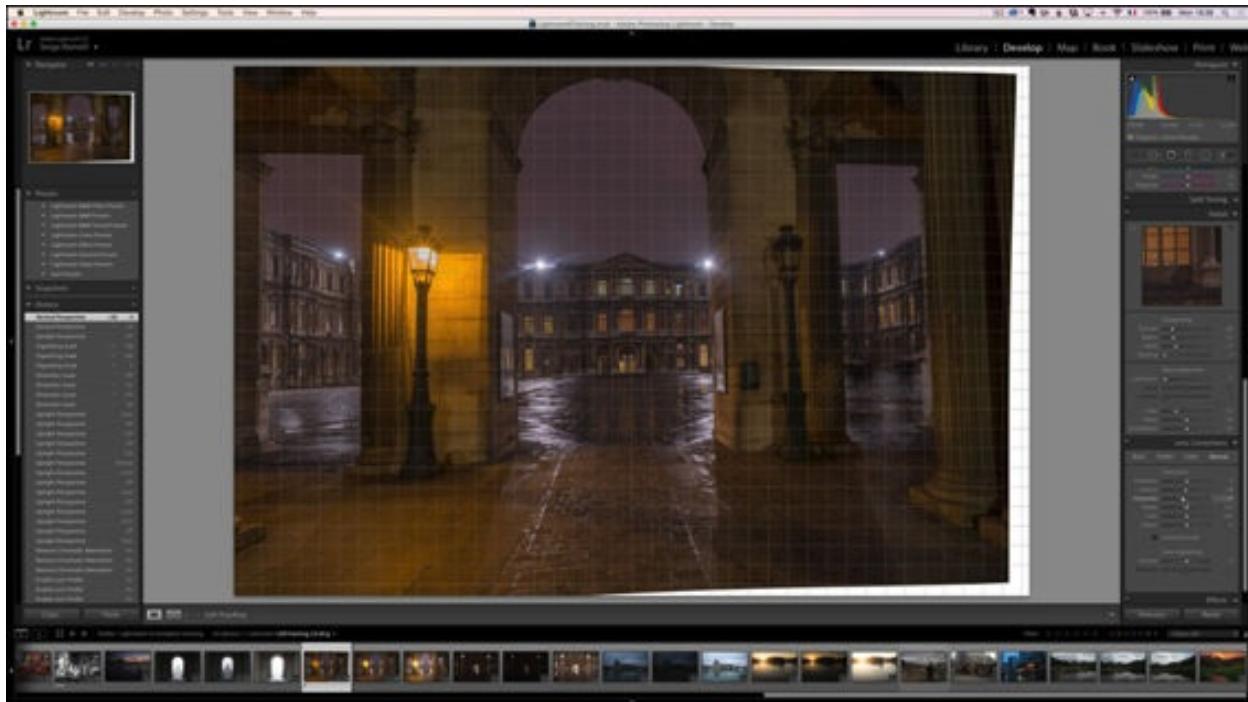
You can also apply your vignette fixes here as well. The sliders pretty much do exactly what their name describes.

Distortion when the slider is moved to the right will correct barrel distortion and straighten lines that are bending away from the center. Moving it to the left will correct pincushion distortion and fix lines that are bending towards the center.

Vertical fixes problems caused by tilting your camera up or down. This can help get vertical lines looking parallel.



Horizontal fixes problems caused by angling your camera to the right or the left when taking your photo. This slider works to make your horizontal lines parallel. As a note, I don't use this that often.



Rotate will turn your photo clockwise or counterclockwise.

Scale will zoom in or out of your photo and is helpful for filling the frame after you crop your photo.

Aspect will squeeze or stretch your image to a different aspect ratio. This might seem bizarre to have at first but occasionally when you have allowed **Upright** to do a full automatic adjustment the image can look stretched or squeezed and you can correct it with this.

Constrain Crop when selected just ensures that your photo is cropped as you make adjustments so that there are no empty areas in the frame. Here is the photo before and after it is applied, look how it ensures the image has no blank areas:

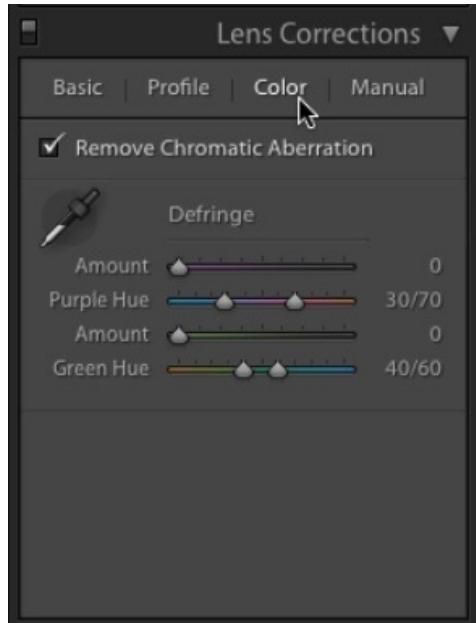


So I actually like the results gotten with **Upright Auto** for this photo so I am going to double click on each of the manual sliders to reset them and go back to the Basic subpanel and reselect **Upright Auto**.

Now you probably think that I forgot about that Color subpanel didn't you? But no! Read on!

Manual Settings in the Color Subpanel

Clicking on the **Color subpanel** will take you to where you can manually enter in how you want to correct chromatic aberration:



Let's go back to the Malibu State park photo and go ahead and [Enable Profile Corrections](#) and you will see it corrects the distortion and brightens the edges where a little bit of vignetting was happening.



Now go ahead and zoom in on the mountains where you can see I was shooting

Now go ahead and zoom in on the mountain where you can see I was shooting straight towards the sun. If you look closely you will see that there is a red fringe right on the edge.



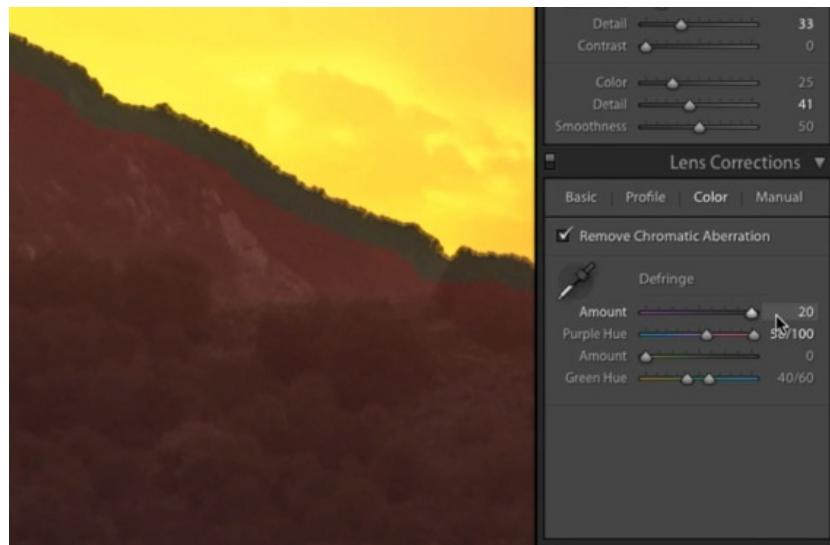
Go ahead and select **Remove Chromatic Aberration** and you will see it takes it down a notch. Probably almost impossible to see in the book, but if it's open on your Lightroom on the computer you'll see it right away.



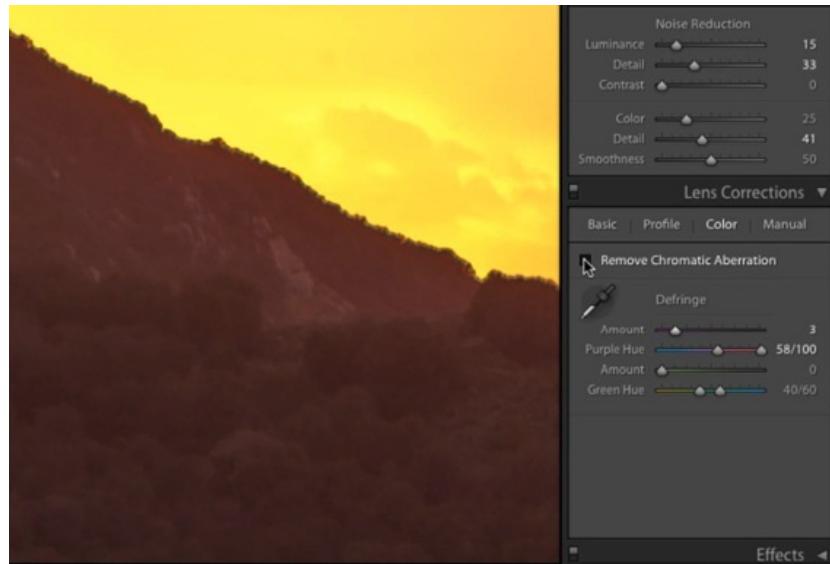
Opening up the **Color** panel (seen above) we can fix this fringe even better. Go to the **Purple Hue slider** and move the slider keys to have it concentrated in the warm part of the slider, around 58/100.



Now if you go to the **Amount slider** go ahead and put it way up to 20 and you will see that it really desaturates this edge. This is obviously ridiculous over what it should be here but I just want you to see what it does.

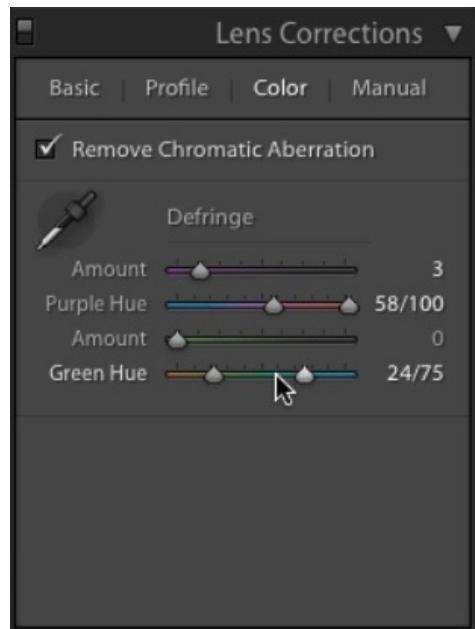


Go ahead and drop it to around 3 and that's about right.



Tip: holding down the Alt key will show you where the defringe is being applied to help you dial it in.

Now if it's a green type fringe you use the bottom sliders and repeat the process.



Or if you want you can use the **Eyedropper tool** to select the fringe you are trying to remove and it will adjust your sliders to match.



Tip: You can also zoom out from the selection pixel area of the eye dropper with your mouse's scroll wheel or Apple Magic Mouse by swiping up or down.

Auto Doesn't Always Work

Although many of us use the auto settings on Lens Correction very often, it's still good to understand these manual settings and how to manipulate them. In this Malibu photo, if you were to try and do the Upright Auto function you are going to get some unhappy results.



So what's the moral of the story: enjoy the automatic functions for when they work great, but know how to use the manual settings for when you need them.

Using the Effects Panel

In the **Effects panel** you can easily add in **Post-Crop Vignetting** and **Film Grain** to achieve artistic effects in how your photo looks. Vignettes are the slightly darkened edges you get around a picture when using a lens that isn't right for the sensor you are shooting on.

Applying a Post-Crop Vignette

First up in the **Effects Panel** is **Post-Crop Vignette**.



It's called a post-crop vignette because Lightroom is going to recognize any crop you have done and begin the vignette from there. It does this in two colors, black and white.





Why Use a Vignette?

Vignettes have become very common in photography in the digital age as a common stylistic choice but also because it helps “close” the photo so that the viewer’s attention is directed towards the main area of the photo you want them to look at. It shouldn’t be extreme, a subtle touch usually does the trick.

Adjusting Your Vignette

There are a number of options and sliders to help you get the exact vignette you want. First up is style.



Now I usually just leave the Style on **Highlight Priority** but here is what your options are:

Highlight Priority - This is the default option and is good for images with bright areas. It allows you to use the Highlights slider to recover highlights from the vignette but can cause unwanted color shifts if the vignette is applied to a photo with very dark edges.

Color Priority - This style is better for photos with very dark edges that are having a vignette applied over them.

Paint Overlay - This style usually makes for a “flatter” vignette.

Experiment with these three styles to see the difference between them.

The next up is the **Amount slider** which controls how much vignette is applied. Negative numbers darken the edges while positive numbers brighten them. This is -57 which gives me a dark vignette.



It's still a bit heavy but we can adjust further!

Next is the **Midpoint slider** and this is going to adjust how far your vignette is going to bleed into your photo from the corners. Lower numbers apply the vignette further away from the corners and higher numbers keep it tight to the corners. The default is 50 and if you drop this down to 0 you can see it becomes very, very heavy.



Now if you move the slider to the opposite side at 100 you can see that it is just barely touching the corners.



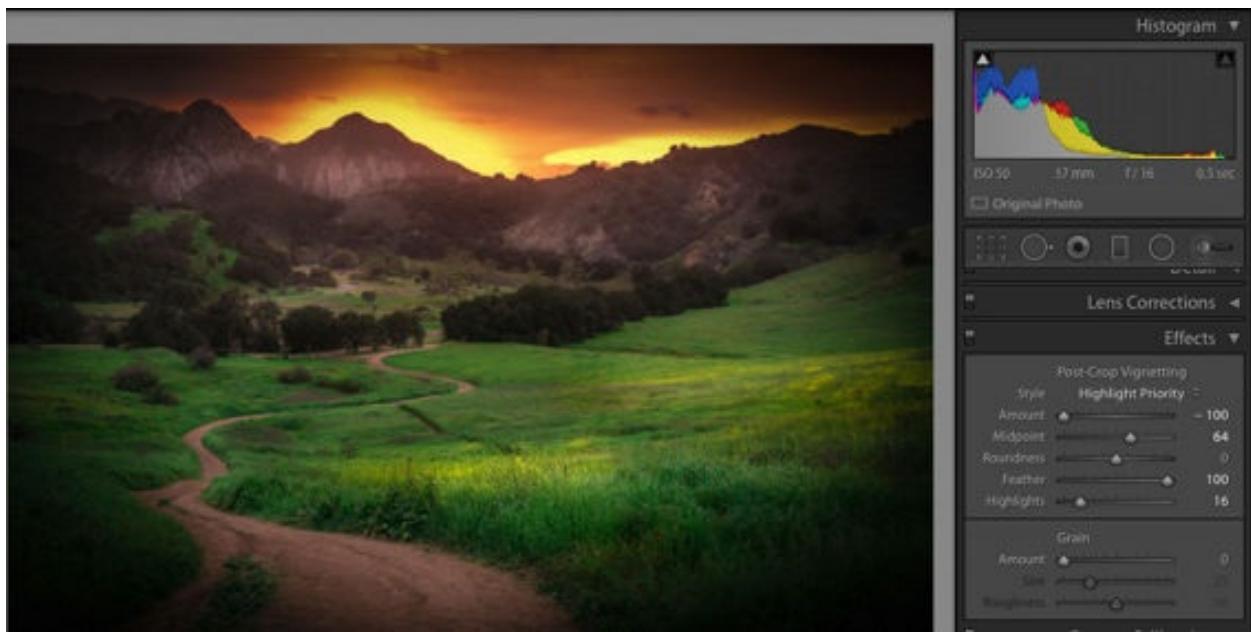
But really for this photo the vignette looks about right somewhere near -26 on the **Amount** and 64 on the **Midpoint**.



The **Roundness slider** affects the shape of the vignette going from more circular to more oval.

The **Feather slider** affects how soft the transition between vignette and photo is. Here you can see it at 0 with no feathering and then at 100 for maximum.





The **Highlights slider** only works with **Highlight Priority** and **Color Priority** styles. What this does is allow you to control how much of the highlights are preserved in the vignetted area.

I could fully preserve the sky if I wanted to by putting the slider at 100 meaning that only the dark tones would be affected by the vignette:



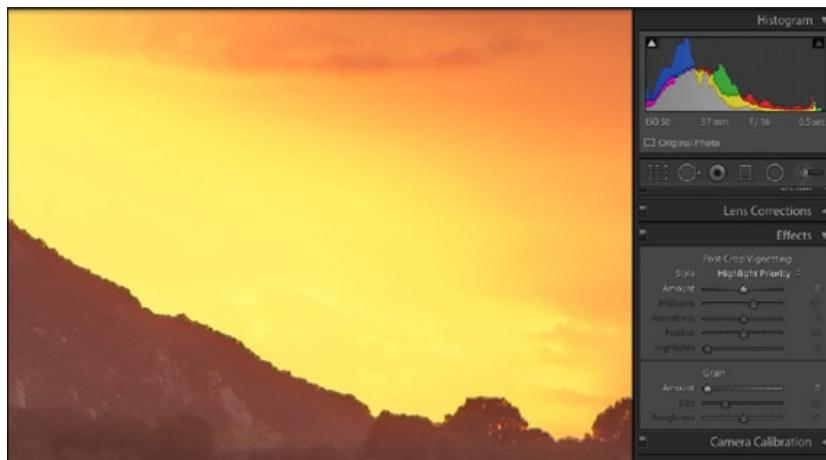
Personally I prefer it being darkened by the vignette as I showed above.

Applying Film Grain

Okay, your next option in the **Effects Panel** is **Grain**. Lightroom does a great job simulating film grain to help give photos that aesthetic for anyone interested in using it.

I almost exclusively use grain when doing black and white photos but the method is essentially the same for color. Your **Grain** settings have three sliders: **Amount**, **Size** and **Roughness**.

Amount - This controls how much grain gets added. In these photos you see the Amount at 0



And then close to 70.



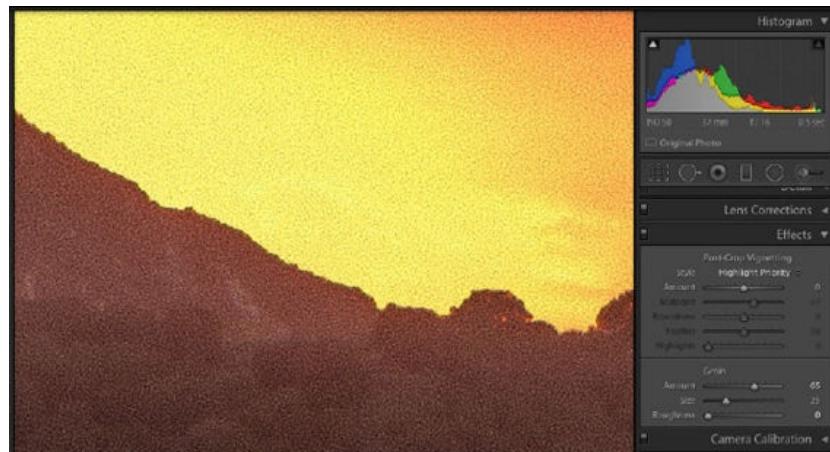
Size - This controls the size of the grain particles. The default is 25 and you can see what that looks like in the last photo. Here is what it looks like at 0:



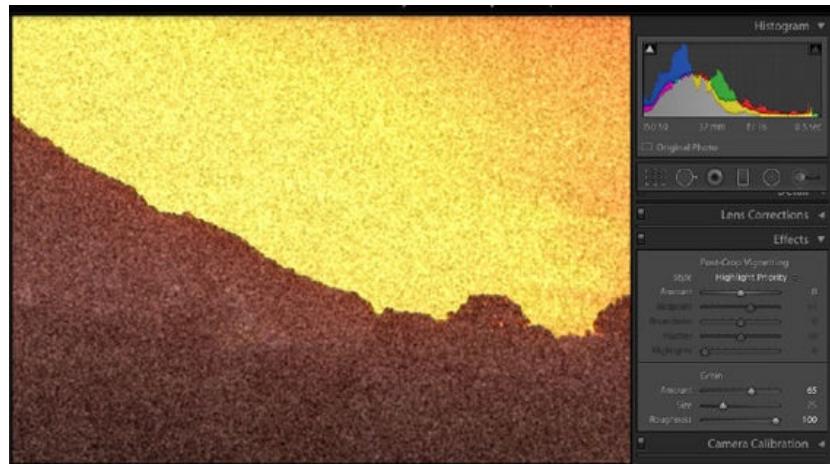
And 100.



Roughness - This slider will adjust the regularity of the grain. Lower numbers make it more consistent and higher numbers less consistent. The default is 50 but here you can see it at 0



And then also at 100.

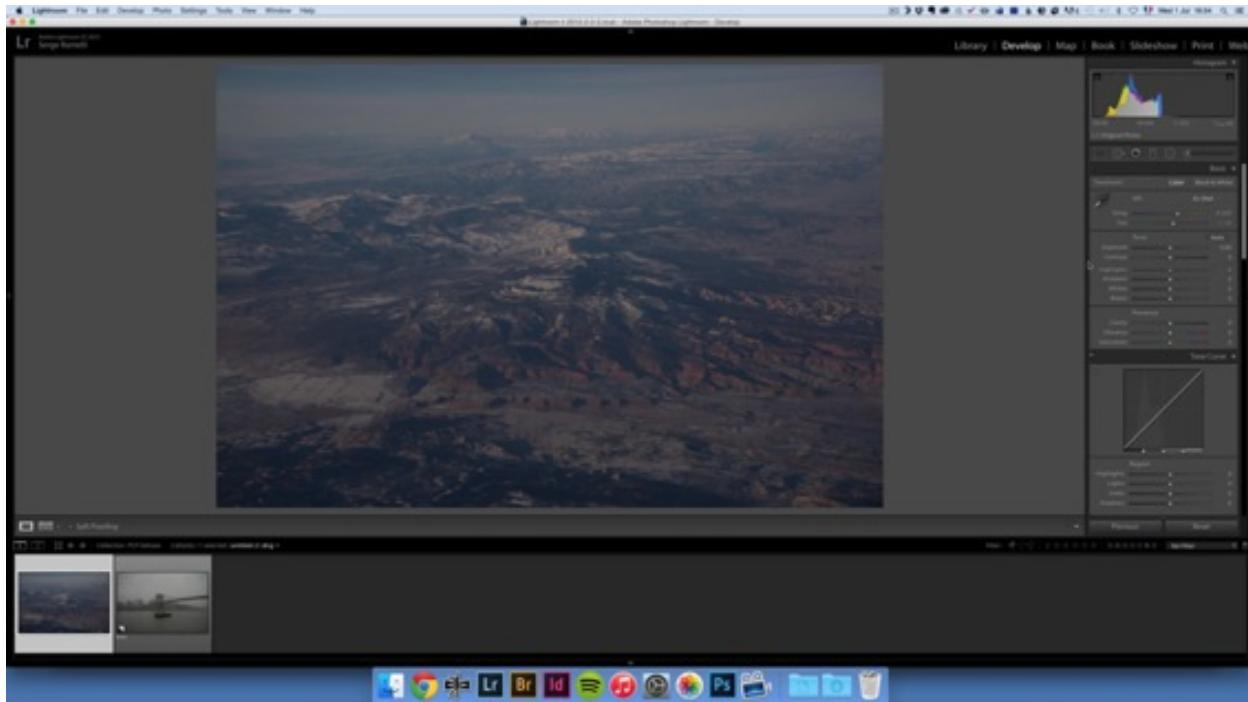


I don't use Grain often, and when I do it's for black and white but I do know that a lot of nice effects can be gotten playing around with the grain especially if you are going for an old photo look.

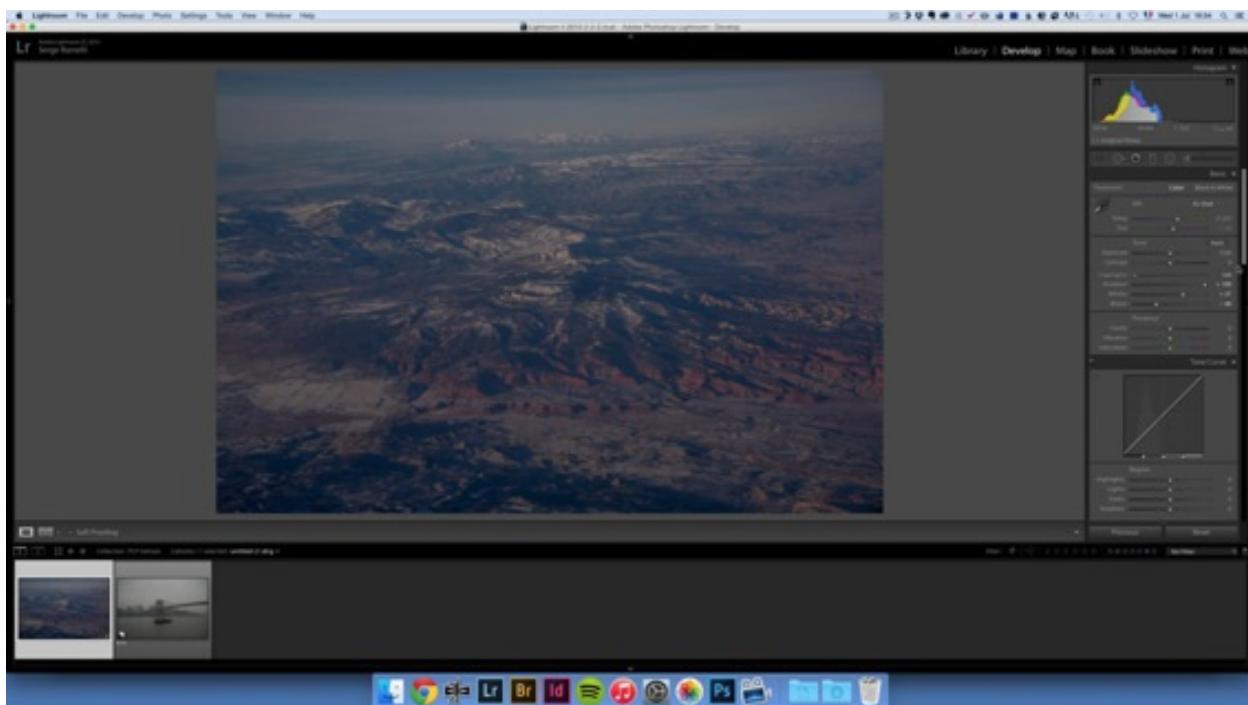
Using Dehaze

One of the newest additions to Lightroom is the **Dehaze effect** at the bottom of the **Effects panel**. And essentially what this allows you to do is to remove or add atmospheric haze to your image. Haze is that misty look or overcast look that you see in heavily polluted cities or where clouds or fog or rain or smoke have particles suspended in the air causing it to be less clear the further away you look.

We are going to jump off of the Malibu State park image and open up this photo that I took while flying in an airplane.

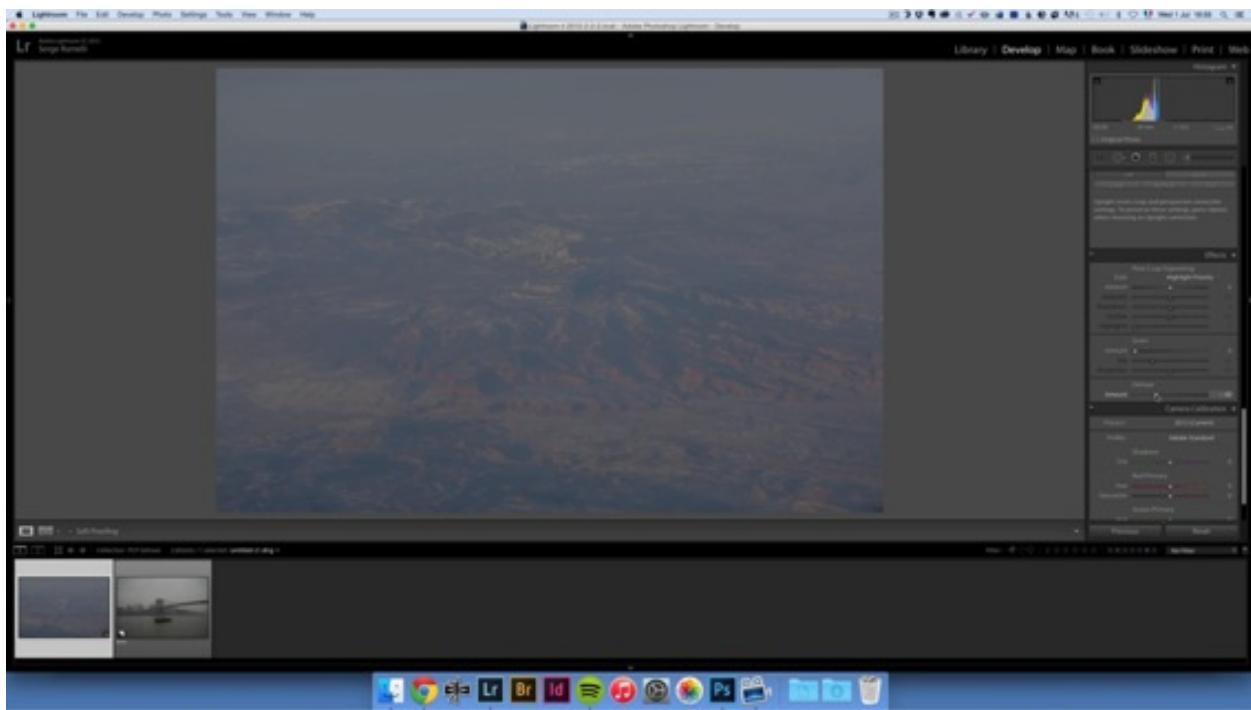


So go ahead and do the basic retouching on this in the **Basic panel** by moving the **Shadows** to +100, **Highlights** to -100, **Whites** to +37, and **Blacks** to -40.



Well as you can see, this takes care of some of the haze in the image but there is still quite a bit more haze present. So go ahead and drag the **Dehaze slider** to the left and you will see that it does a pretty okay job removing the haze in the image.

And you can also add haze into the image by pushing the slider to the right



Now I honestly thought that this Dehaze slider was pretty useless at first, but after some experimenting with it, I'll admit I was impressed. But I still had one complaint: Adobe should've made it possible to use in the local adjustment brush tools so that you can selectively apply it. I'm sure we will see that in a future update.

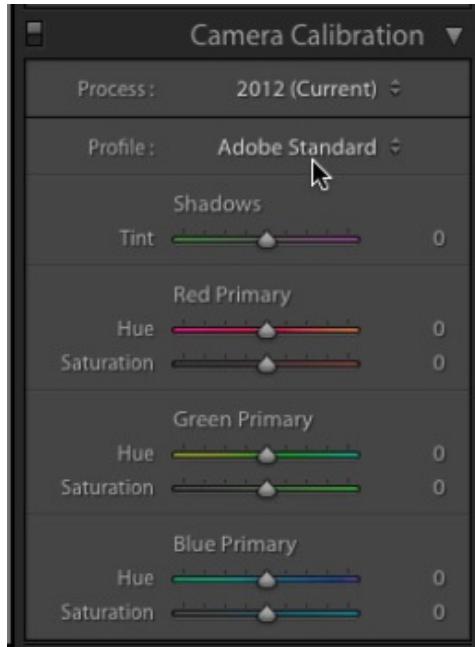
In the meantime, I went ahead and figured out how to do it with a Photoshop/Lightroom work around and you can find that YouTube video on my channel or in my Photoshop for Photographers course. That way you can take a photo which could be enhanced with haze and just put it where you want it so it looks real and not just globally painted on, here is a quick before and after so you see what I am talking about:



Anyways, that's the basics of the new **Dehaze** option in Lightroom. Let's head back over to our Malibu State park photo now.

Using the Camera Calibration Panel

The **Camera Calibration panel** tells Lightroom how to interpret the colors coming in from a RAW file on a particular camera.



It is important to note that it only works with RAW files so don't beat your head against the wall trying to understand why it's not working with your JPEG photos.

Choosing a Camera Calibration Profile

The first option is **Process**. This tells Lightroom what version of Camera RAW technology it should use to display your photos in the develop module. Leaving this on default or the most recent year gives you the most adjustment options later.

By default the Camera Calibration is set to **Adobe Standard** but there are many others to choose from and these will change depending on what type of camera you used to take the photo (Sony, Nikon, Canon, etc.).



Selecting a different profile will change the colors in your image either subtly or drastically. Here I will go from the **Adobe Standard** you see above to **Camera Landscape** and I can see that it gets darker with more saturated colors and way too vivid.



And **Camera Clear** is really bad:

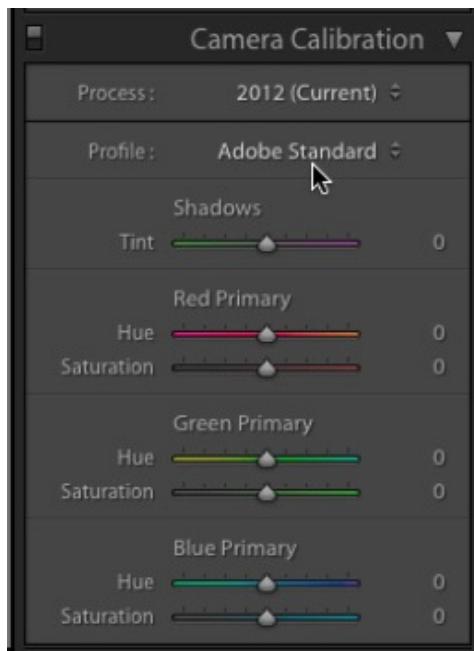


But the bottom line is to just choose a profile which looks best for your photo. Obviously this is partially a “chicken before the egg” problem because you’ve just color corrected your photo to whatever profile was selected, in this case **Adobe Standard**.

Here’s what is cool though is that you have yet another layer of color adjustment you can do to your photo with the sliders in this panel.

Adjusting a Camera Calibration Profile

Below your **Profile** selection you have **Shadows** and then 3 sets of sliders for **Red**, **Green** and **Blue**.



Shadows - This helps you correct for any green or magenta tint in the shadows of the photo. And while Lightroom has it primarily as a correction tool, I like to use it artistically to add yet another layer of color to my photos.

By pushing the slider to the left it gives you more of a green cast in your shadows:



And by pushing it to the right you get more magenta:



For this photo I'm going to leave it a little more green because I like how it boosts the foreground green.

Red, Green and Blue Primary - These adjust the red, green and blue in your image and work very similar to the HSL Sliders we already worked on but they affect the photo in a much stronger way. You want to adjust your **Hue** first and then experiment with **Saturation**.

Have a look at what moving the **Red** to the left does:



And then see what it does moving it to the right. (Tip: Remember that left movements on **Hue sliders** are counterclockwise on the color wheel and right movements clockwise)



And the **Saturation slider** will just add or subtract saturation into the image.



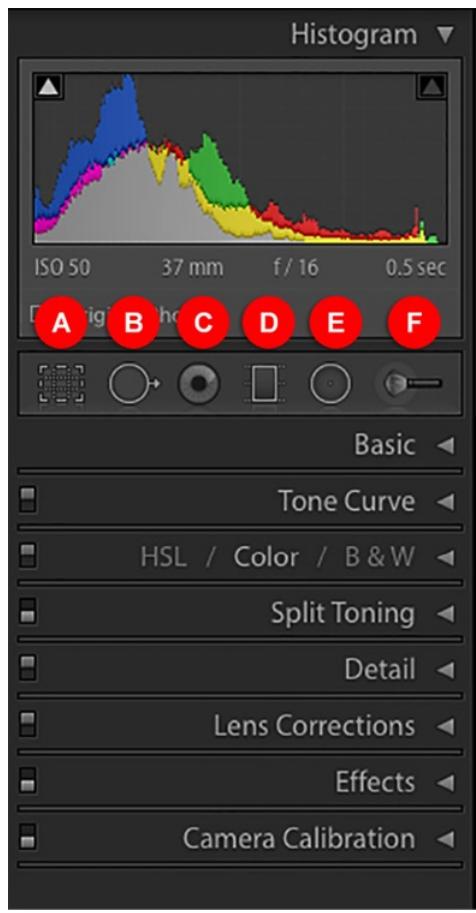
In general, adjust the hue first, and then adjust its saturation.

The **Green Primary** and **Blue Primary** do the same on those color channels and as with everything in Lightroom, the best thing is to play around with it for a bit, try different **Camera Profiles** and see if it helps you get a better image.

Applying Local Adjustments

Okay so we've discussed all the panels in the Develop Module and seen how to make global adjustments to tonal values and color settings.

Now it's time to take up the bread and butter of the Lightroom toolset and for me what make Lightroom such an invaluable piece of my photography work flow. These are the tools to make local adjustments found in the **Toolbar** below the **Histogram**.



These are:

- a. **The Cropping tool** - Allows you to crop, rotate and scale your photos.
- b. **The Spot Removal tool** - Allows you to remove small defects from your image by cloning or matching a different area in the photo.
- c. **The Red Eye Correction tool** - Allows you to rapidly and easily fix red eye and now pet eye in your photos.
- d. **The Graduated Filter tool** - Allows you to apply adjustments to the photo by painting them on going from stronger to lighter in a directional manner.
- e. **The Radial Filter tool** - Does the same thing as the Graduated Filter tool but using a circular mask shape instead.
- f. **The Adjustment Brush tool** - This allows you to paint on adjustments such as Exposure, Brightness, Clarity and others to precise areas of your photo.

The Graduated Filter Tool (M)

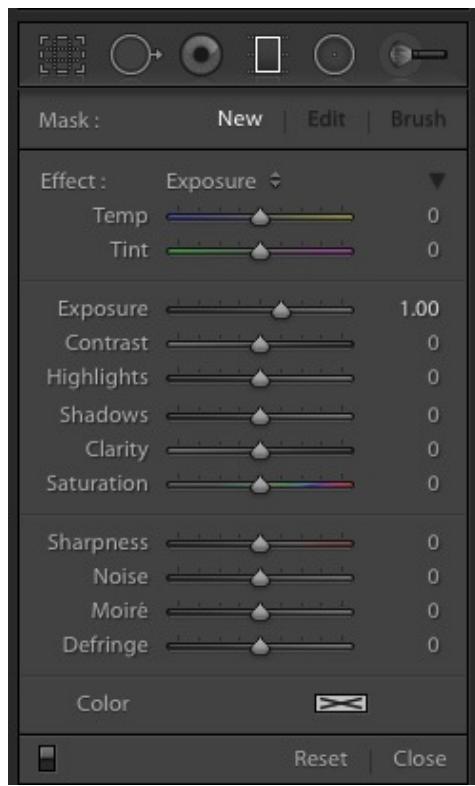
Okay so if we look at how our Malibu State park photo is, it's gotten a bit dark.

So let's say we want the overall **Exposure** boosted to .75 in the **Basic Panel**.

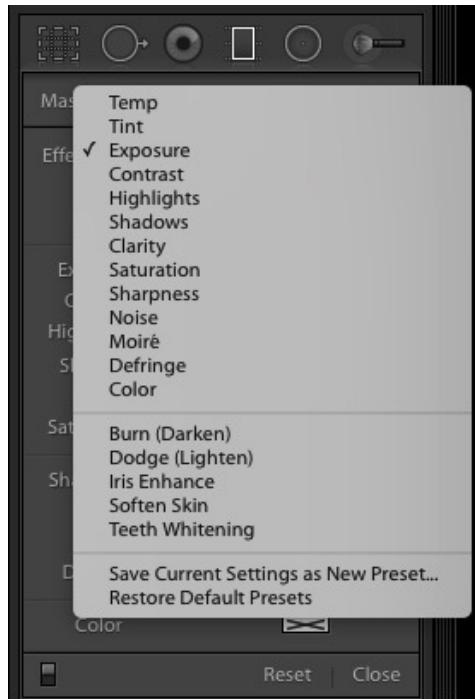


The grass and foreground looks good but the problem is that the sky should be darker! It looks too washed out now.

So go up to the **Toolbar** and select the **Graduated Filter** tool and you will see a subpanel open up below it with a lot of the same options in the Basic panel.



So next go ahead and click on the effect list opening up another drop down list and pick the main thing you are trying to fix to start, in our case **Exposure**.



This will zero out all the sliders except the effect chosen and I can easily lower this to -1.68 in the **Exposure slider**.

Go ahead and click at the top of the screen and drag down to just above the tree line and let go of the mouse button. Watch how just the sky darkens and the darkening gradually lessens to zero at the point that you let go of the mouse.



You will see that it drew a box with three lines. Above the box, Zone A, whatever the effect is will be applied at 100% strength up to the top line. Zone B, from the top line to the middle line where the **Edit Pin** (looks like a dot) is it will go from 100% to 50% strength. Zone C, from the middle line to the bottom line it will go from 50% to 0% strength.

You can now go to whatever slider you want in the subpanel and apply it and it will apply that effect in those areas, like if you were to apply an adjustment on **Color Temp** to warm it up, it would gradually apply that in the area of the filter and not the rest of the photo.



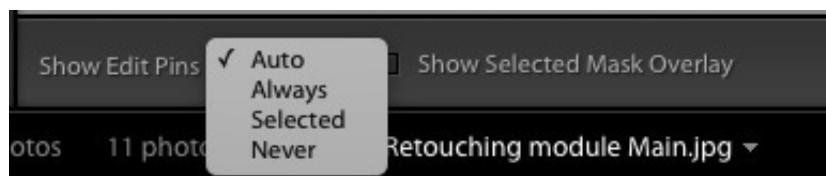
Now the problem is that it is applying it to the tops of the mountains too strong and here is where some new features for Lightroom CC 2015 really come in handy.

So go ahead and hover over the **Edit Pin** on your Grad Filter. You will see that it shows you what the mask looks like in a red tint so you can see how it's being applied. (A mask is a tool that restricts changes to a particular part of the image, it can be used to protect parts of your image or apply changes to them as you choose.)



Alternately, you can also select the check box in the Toolbar below the photo which says **Show Selected Mask Overlay**.

Tip: If you don't see that **Edit Pin** on your screen it might be because your mouse isn't over the photo area and the behavior is set to **Auto**. Again go to the toolbar at the bottom and you will see **Show Edit Pins: Auto, Always, Selected, Never**.



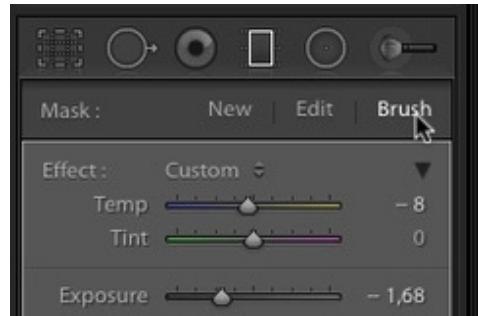
Auto has the Edit Pin show up whenever the mouse is in the Photo Display Area, **Always** means it is always on, **Selected** is when you click on that specific pin because you can have multiple pins, and **Never** means that it will never show the pins.

Using the selection mask we can see that it's hitting the top of those mountains really hard and this is why this new feature is so great because it allows you to apply **Brush Adjustments** inside a **Grad Filter**!

If you are new to Lightroom you might not get how big a deal that is, but pretend to be excited anyways!

Modifying a Graduated Filter with a Brush!

Go ahead and click on **Brush** from the Mask options and you can now start adding brush adjustments to this grad filter.



It inherits whatever values you have assigned for the grad filter so if you were just to randomly brush on the frame it would go much darker because of the exposure settings. You can see this in mask mode here:



And without the mask being shown here:



That obviously looks terrible but you get the idea right? So how do we get these mountains out of the grad filter area?

Go to the **Brush** options at the bottom of the Grad Filter panel and adjust your brush size to about 14 (or use the bracket keys on your keyboard **[** or **]**).



Now we are going to start on the edge of the mountains first, so click **Auto Mask** which will help preserve the edge so you don't wipe out a bunch of filtering in the sky either. Finally hold down the **Alt key** and you will see that the brush has a minus sign in the middle of it.

Now go ahead and paint the mountain edges out keeping the minus as close to the edge of the mountains as you can without going over it.



As soon as you've got the edge of the mountains, turn off the **Auto Mask** and then hold down the **Alt key** again and erase the rest of the mask on the lower part of the screen, this way only the sky will be affected by the Grad Filter.



And now let's shut off the **Show Mask** from the toolbar and you can see the result.



And it's a bit too strong, so go ahead and bring the exposure from 1.68 back up to around 1.04. Much better!

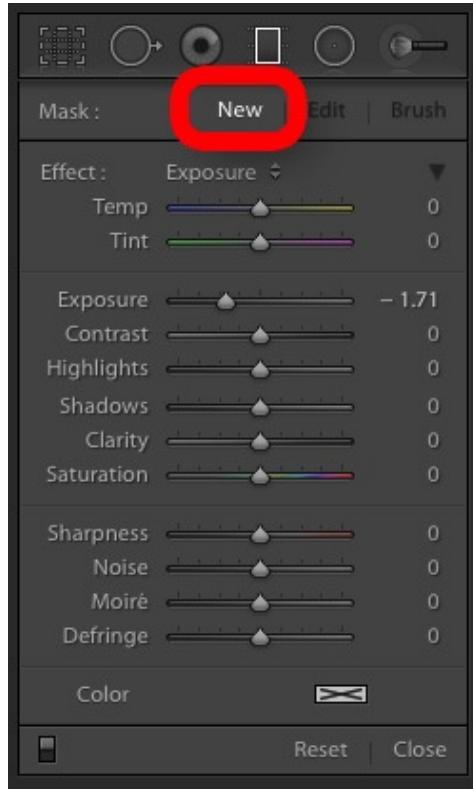


Adding Multiple Grad Filters

When I am applying filters to landscape photos, I usually add one on top and one on bottom to close the photo and focus the viewers eyes near the center of the

photo.

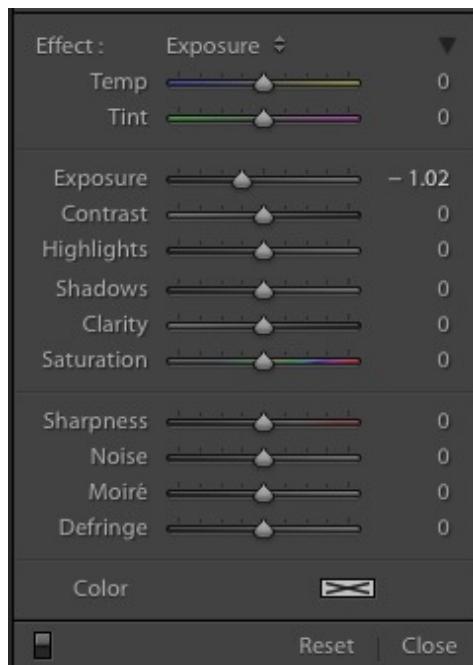
To add another Grad Filter just click on **New** from the Mask options bar.



And then click and drag from the bottom of the photo up about 1/3rd of the way into the photo, and as a tip I am holding down the Shift key to keep the Grad Filter perfectly straight.



Now it's obviously too dark at -1.68 exposure so I can either lower the value in the **Exposure slider** down to around -1.00:



Or I can click on the **Edit Pin** and drag it towards the bottom of the screen and it will lessen a lot the value of what is being applied:



Okay so let's have a look at the photo from before:



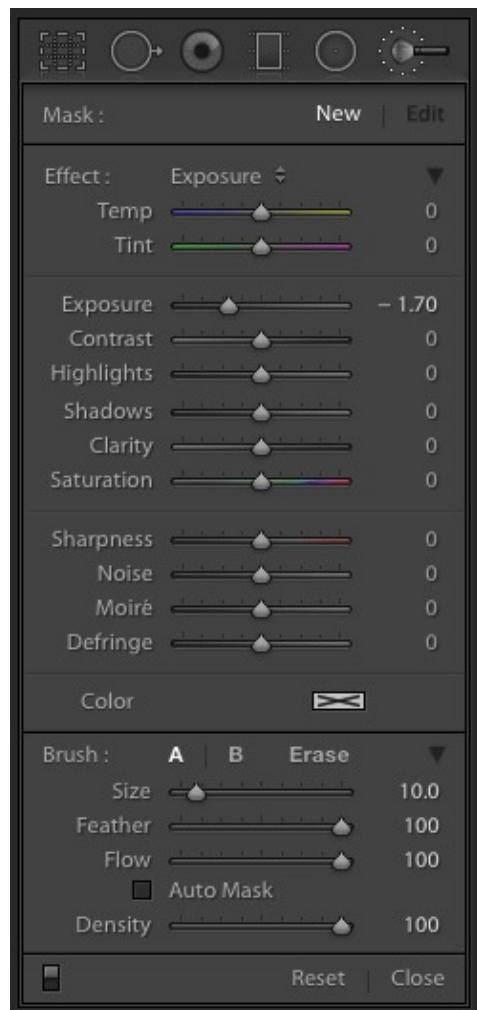
And now with the overall lightening we did on it and then graduated filters to keep a dramatic sky while also closing the photo at the top and bottom just by using the gradients. Good stuff!



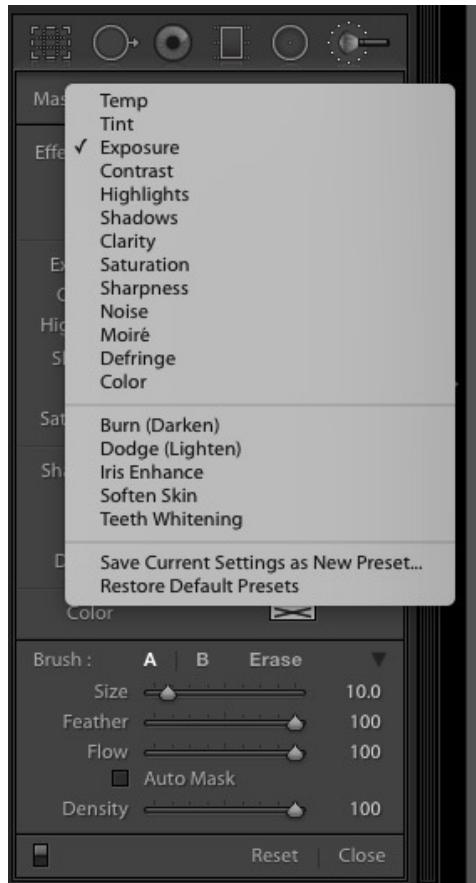
The Local Adjustment Brush Tool Settings (K)

This is absolutely my favorite tool in Lightroom and the one I not only use the most, but the one I recommend any photographer master to take their photos to the next level.

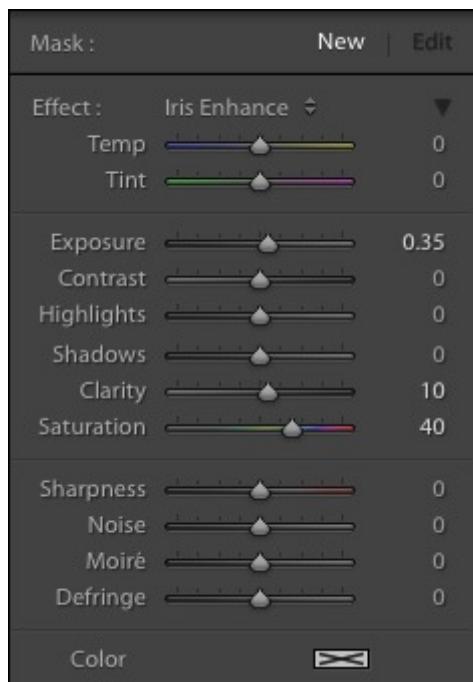
Looking at the **Brush panel** you once again see all the sliders that we've been talking about in this section of the book, but similar to the graduated filter, these only get applied where you use the brush. A local adjustment as opposed to a global one.



Just as with the Grad filter, choosing a value from the **Effect** drop down will set the sliders to be weighted towards the effect selected. So I've chosen **Exposure** and everything is zeroed out except exposure.



Where this gets interesting is when you select an effect like **Iris Enhance** and numerous sliders are adjusted to help you bring out details in a person's eyes. You can still go in and tweak the settings, and you should, but Lightroom provides a good starting point.



Just to provide a rapid recap of what the sliders do in the Brush panel (or the grad filter panel) for anyone skipping to this part of the book:



Temp - Adjust the color temperature warmer or cooler.

Tint - Adjust for green or magenta color cast.

Exposure - Changes area brightness and can be used to achieve dodge and burn effects.

Highlights - Adjusts the highlight area of your image and can be used to bring back details in overexposed areas.

Shadows - Adjusts the shadow area of your image and can be used to bring back details in underexposed areas.

Contrast - Adjusts contrast primarily affecting your midtones.

Saturation - Adjusts the vividness of your colors.

Clarity - Increases local contrast and helps add depth to areas of your photo.

Sharpness - Boosts or lessens edge definition to reveal details or blur details.

Noise - Helps remove luminance noise.

Moiré - Helps get rid of moiré artifacts.

Defringe - Helps get rid of fringe colors along edges.

Color - Allows you to tint an area you brush by selecting a hue from the color swatch and applying with the brush. Note: The Color effect is preserved if you convert the photo to black and white.

Now if you look at the bottom of the **Brush panel** you have **Size**, **Feather**, **Flow** and **Density**. These are the controls which regulate the behavior and pattern of the brush.

Size - Adjusts how big your brush will be. Using either the **Size** slider or **[[** bracket keys on your keyboard will increase or decrease this. The most convenient way is with your middle mouse wheel though. Lightroom will also show the brush size on the screen with a series of circles so you can see the area it will affect.





Feather - Adjusts the softness or smoothness of the transition between what you've brushed and what surrounds it. Looking at your brush on the screen you will see two circles, the distance between the inner and outer circle is the amount of feather. I've rarely used it at less than 100.

This is 0 feathering:



And this is 100 feathering:



Flow - Adjusts how fast or slow is the adjustment going to be applied. Sort of like how you control an airbrush.

Density - Adjusts the opacity of the brush strokes you make on the image.

Together **Flow** and **Density** really control the strength of the adjustment. Move your **Exposure slider** up to 1.70 and have **Size** 14.0, **Feather** 100, **Flow** 100 and **Density** 100 and draw a line across the image.



Now lower **Flow** and **Density** to about 80 and make another brush stroke below it.



It's more subtle.

Auto Mask - These keeps the brush strokes constrained to areas of similar color. Works really well to preserve edges but don't use this other than on edge areas

because it can give you some weird artifacts and odd results.

You apply brush strokes by clicking anywhere in the image and right where you start Lightroom will create an **Edit Pin** exactly the same as the **Grad Filter**. Hovering over it will show the area of the stroke and either right clicking on it and selecting delete or just pressing the delete key will remove the brush stroke and **Edit Pin**.



Using the Brush Tool for Artistic Effects (K)

OK so that's the theory of the nuts and bolts of the Brush tool. Now let's talk about the artistic side for a moment. If there is one thing I have learned from studying the work of the early masters of photography such as Ansel Adams, Henri Cartier Bresson and so many others, it's that they really spent a lot of time dodging and burning subtle parts of their photographs to direct the viewers attention and get the exact drama they wanted.

Looking at our Malibu photo here, it's nice. But to take it up a notch we need to start adding the subtle touches which will help make the image more interesting to the eye. This is what I call complexifying the light.



Go ahead and set your brush sliders to **Exposure** 1.16 and **Clarity** 40. Then let's add some subtle brush strokes in the foreground grass on the right:



Now that's way too strong so lower the exposure down around .88 to help it blend better.



Next go up to the top of the **Brush panel** and choose **New** to create a new brush. Now we are going to add some details into the mountains so go ahead and zoom into the mountains in the upper right. Ensure that your sliders are set around **Exposure .50**, **Clarity 60** and **Sharpness 15** and now start painting the face of the mountain.



And then once I've done this I will zoom out and I can see that it is way too

strong.



And I can drop the exposure down to about .05 to get a much more natural look.



And go ahead and just do a few more touches across the mountain.

Now we've applied two different brush strokes and by selecting the **Edit Pin** of either one, you can control how the effect is applied to that specific stroke, so

don't be afraid to create as many individual Brush masks as you want to give you greater control over the image.

Next create another new Brush mask and put **Exposure** to 1.16 and **Clarity** to -16. Now go ahead and paint over the dirt path to help make this pop a bit more. But let's say you paint too much off the edges of the path and it bleeds onto the grass. There is a way to fix this.



You can click on **Show Selected Mask Overlay** to make it very obvious where your mask has been applied by showing it in red.



And then you can make your brush smaller and hold down the **Alt** key to get the minus symbol and then start erasing out areas of the mask that have bled over onto the grass.



And if you don't find the red **Show Mask Overlay** to be helpful, you can simply uncheck it to turn it off and continue zooming in and erasing the masked areas to keep it just on the path.



And then when you've got it right, go ahead and tweak the exposure to get it more natural, say around 1.00.

Okay so let's look at the before:



And the after:



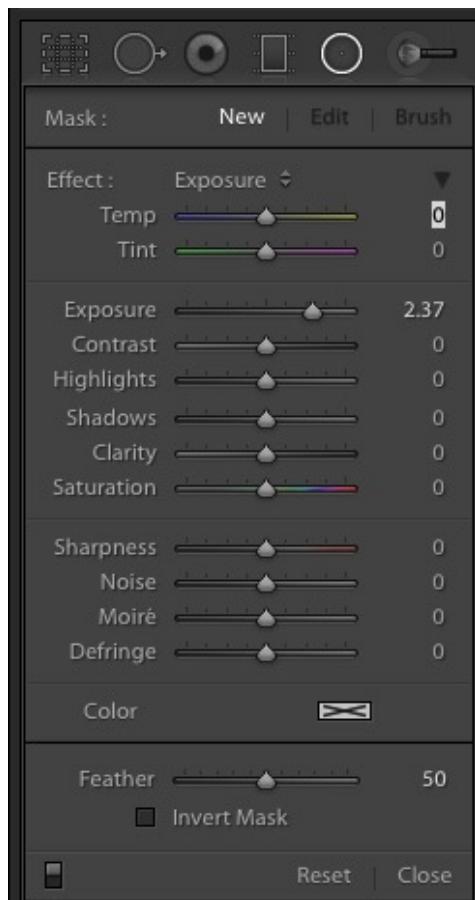
And you can see that these are subtle touches, but they make for a more interesting photo.

You really are being a painter and you might look at this and go, you know, I want to make the trees a bit darker. Well go ahead and create a new brush and lower the **Exposure** to perhaps -0.65 and paint over some of the tree areas on the mountains to help make them pop more and to create more contrast in the background. And voila!



Using the Radial Filter Tool (Shift + M)

The next local adjustment tool is the **Radial Filter tool**. It's a great tool that can be easier to use sometimes than the brush. It works very similarly to the **Grad Filter** and the **Local Adjustment Brush** tools and if you look at the controls, you will see that they are almost identical. So I won't rehash ground already covered in those sections.



Select the **Radial Filter tool** or use **Shift + M** and then click and drag to create an oval on the foreground right grass where the patch of yellow flowers are and then go ahead and pump up the exposure to about .50 to make the flowers pop.



Now if your whole scene brightened except for that small circle you want to go ahead and click on the **Invert Mask** option at the bottom of the **Radial Filter** panel and this will apply all the effects to the inside of your oval which is how I use it 90% of the time or more.



Another important control on this is the **Feathering slider** which works exactly the same as the Brush tool. Here you can see feathering at 0:



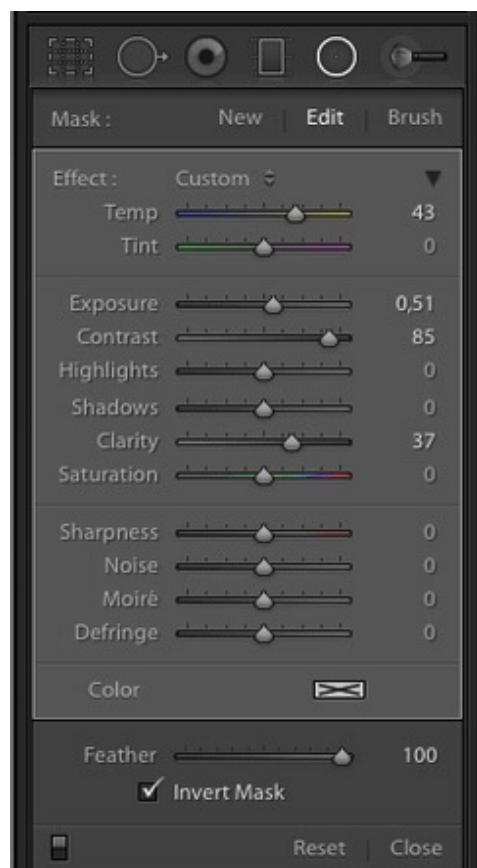
And here it is at 100:



Now I remember the flowers being very yellow so in the **Temp slider** I will push it towards yellow. I also want to add some **Contrast** as well as some **Clarity** and now those flowers are really popping.



And you can see the settings closer here



Now when you have a mask that has been set up how you like it, you can right

click on the **Edit Pin** and choose **Duplicate** from the menu and you will have another Radial mask ready to move wherever you want it with the same settings.



I'm now going to go ahead and place the duplicated Radial mask on that patch of yellow flowers just to the right of the foreground path to help make them pop as well.



Similar to Brush and Grad Filter you can hover over the Edit Pins and if you

wait a second, the mask will highlight in red to show you how it is being applied.



Modifying a Radial Filter with a Brush!

Just like with your Grad Filters, new in Lightroom CC 2015 you can modify your Radial Filters by applying a brush. The brush will take on the same characteristics that you have given the Radial sliders and you just start painting it on. For example I will extend the reach of the circle by brushing it on.



And I will also hover over it for a second so you can see the new additions to the mask shape very clearly.



And now if I make adjustments to the sliders, such as bringing down **Exposure** and **Clarity** to make the effect more subtle, it will affect both the Radial area and what I brushed on top of it.



Now let's create another **Radial Filter** by selecting **New** and then creating an oval shape at the base of the upper left mountains and then right click and **Duplicate** this and place it on the mountain to the right and another again to the right and then again! Four times on each of the exposed mountain faces. Here it is before:



And now after with the **Radial Filters** applied.



It's an interesting phenomena in photography that the more the object is partially lit, the more interesting it becomes. By that I mean that don't have a surface uniformly lit with no variation. This is boring. If you look at what the Radial Filters do to the mountains, it breaks up the even lighting that they have and creates variation and thereby increases interest.

But it has to be subtle. You don't want someone going "Oh you retouched that there!" It works best when the effect itself is invisible and just appears to be how it really was. Sometime you have to walk away from a photo for 15 minutes and come back to it to see what still stands out as unreal and then fix that.

This is again, as I like to say, complexifying the light. Master that and your photos will be at a whole new level.

Using the Spot Removal Tool (Q)

An important part of retouching is to get rid of sensor spots and other imperfections.

The **Spot Removal tool** allows you to get rid of dust, dirt and smaller defects on your photos easily and from within Lightroom. If you have larger amounts of cleanup to do, you'll still probably want to do that in Photoshop, but Adobe has really gone all out to help us photographers stay within Lightroom by expanding the capabilities of this tool in recent updates.

Let's have a look and see what makes this tool tick. If you click on the **Spot Removal tool** or press **Q** on your keyboard, a small panel will open up with two brush options and three sliders.



Clone - This will create a perfect duplicate of an area you select to put over the area you want to fix.

Heal - Using Heal will let Lightroom to do it's best to match the texture, lighting, and shading of an area you pick to the area you want to fix.

A lot of people get confused as to when to use either **Clone** or **Heal**. They do similar functions but the **Heal** tool actually tries to blend the pixels from the selected area and the **Heal** selection area so it isn't a straight copy which can help the patch feel more organic. Generally I would say try and do the fix with the **Heal** tool first.

Size - Adjusts the radius of the tool. Using either the Size slider or [] bracket keys on your keyboard will increase or decrease this. Again, the most convenient way is with your middle mouse wheel.

Feather - Adjusts the softness or smoothness of the transition between what you've fixed and what surrounds it.

Opacity - Adjusts the opacity of the corrections you make on the image.

These sliders function pretty similarly to what you found in your Grad/Radial Filters and your Brush.

Okay now let's see how this works in action. Go ahead and open up your photo in case you don't still have it open from the last section and select the **Heal** tool.



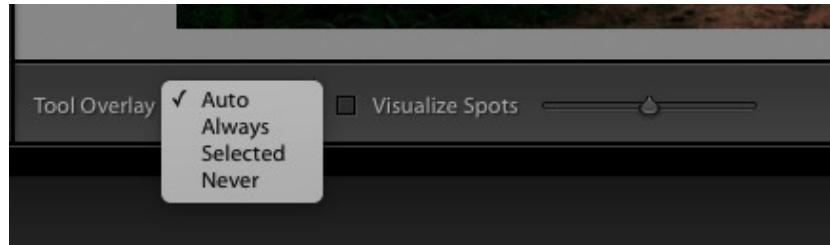
So here is how complicated it is, you ready? Find a dirt spot and click on it. Lightroom will try and find the best match to heal that spot automatically.



If you don't like the pick it made, you can click and drag the **Heal** selection (or **Clone**) to a new area and check the results.

As a tip remember to have the **Tool Overlay** on the Toolbar set to **Auto** so you

can move outside the Display Area and have the masks vanish and you can check and see if the spot you fixed is visible or not.



Using Visualize Spots

There is a check box option in the toolbar called **Visualize Spots** and selecting this is going to turn your photo into black and white showing edges to help you rapidly locate any spots that you may have missed in color.



Using the slider will increase the strength of this and can really help on darker photo areas.



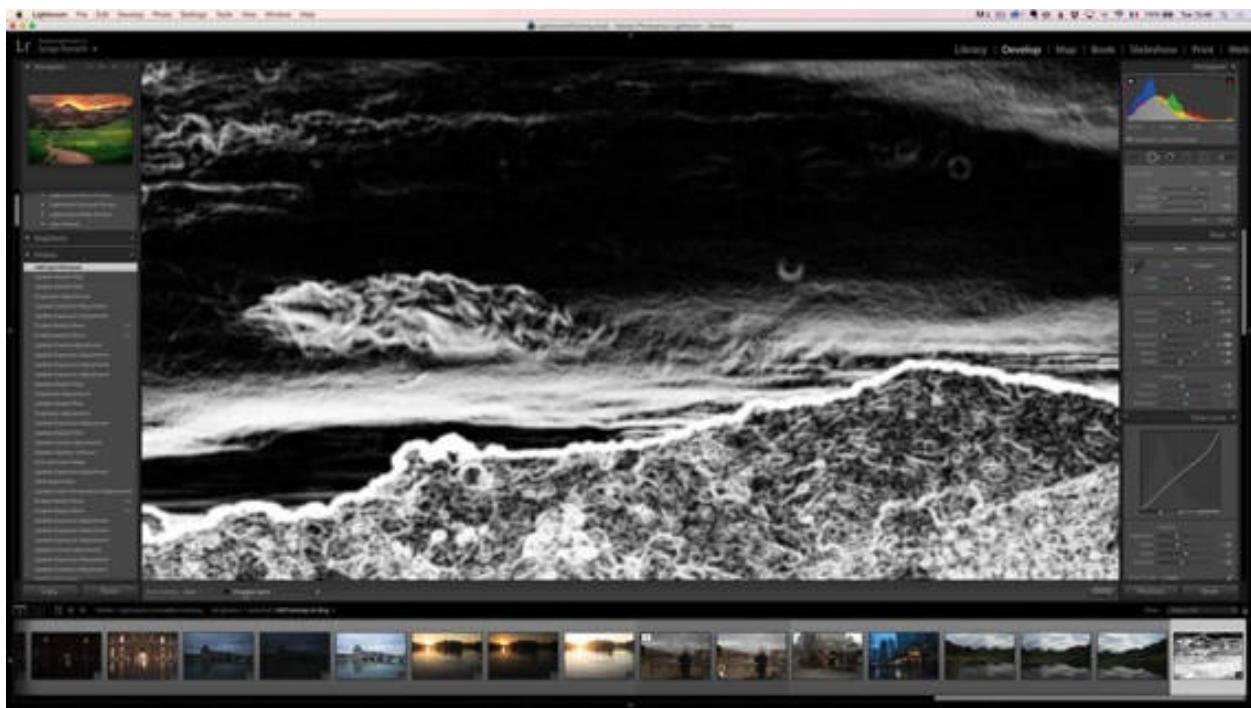
Trust me, if you are going to print your photos, always do a check with this option turned on.

Already I can see two spots I didn't notice and one I did.

Zoom into the upper right and try and find those two spots while working just in color.



And then with **Visualize Spots** on.



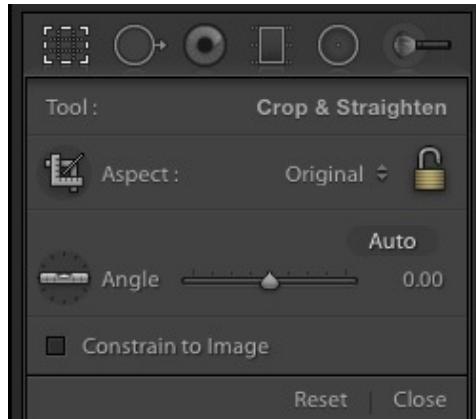
So fix those up and the two in the upper left (try and find them!).

Paint Over with Spot Removal for Larger Corrections

Now with recent enhancements to the **Spot Removal** tool, you can “paint over” areas that you want retouched such as removing telephone wires, or excess tourists, or or or and then select the **Clone** or **Heal** area just like a spot. But really, this is still something that Photoshop handles better. I recommend you play around with that and see if it does work for what you need, but for serious fine art prints and hi-res photos, do the larger retouching in Photoshop.

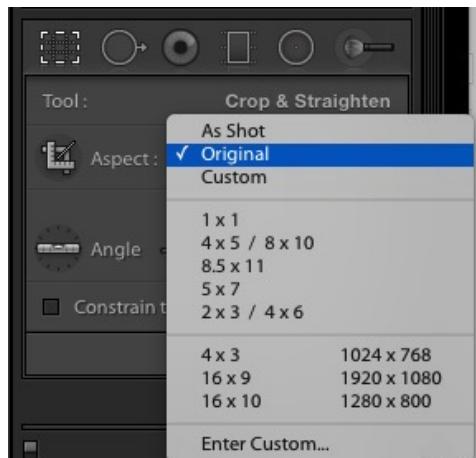
Using the Crop Tool (R)

And the final tool from the **Local Adjustments toolbar** (and probably the easiest to understand) is the **Crop tool**. It does exactly what it says it does: it lets you crop your photo; but it gives you a few options as to how to do it.



When you select the **Crop tool** it will show an overlay on your photo which has a grid representing the rule of thirds. You can scale the crop by dragging in the corners or edges. Pressing return will accept the crop and clicking reset will put the photo back to its original crop state.

Aspect - This lets you specify an overlay that you can crop to based off several different industry standards or if you want, a custom ratio of your specification. Pressing the lock key will ensure that your aspect ratio doesn't shift as you move or scale the crop overlay. (You can find out more about aspect ratio on my blog or youtube channel if you need to.)



Angle - This lets you rotate the photo to a specified angle from -45 degrees to +45 degrees. You can do this manually by hovering over an outside corner and waiting for the rotate icon to pop up and then click and drag in the direction you want. Moving the angle will change the overlay into a grid to help you align horizontals and verticals.



Now for this photo the only crop I would do on it is to make it slightly more panoramic and I can drag the overlay a little down from the top and up from the bottom:



And then when I hit return it will do the crop.



That's the simplicity of cropping.

Final View Options for Develop Module

Congratulations you've made it through the tools of the **Develop Module**. I know it's a lot to digest but I hope following along step by step with the photo project has helped you clearly understand the purpose of each tool so that you can use them to create amazing photos.

Now before jumping into the projects part of the book, I wanted to share with you a final step that I do on my photos so that I can appreciate the retouching and also ensure I haven't missed anything.

Hiding All Panels for Viewing (Shift+Tab)

Once I've finished my retouching, I will close all panels so I can focus purely on the photo with no distractions. And you can do this by pressing **Shift+Tab** on your keyboard.

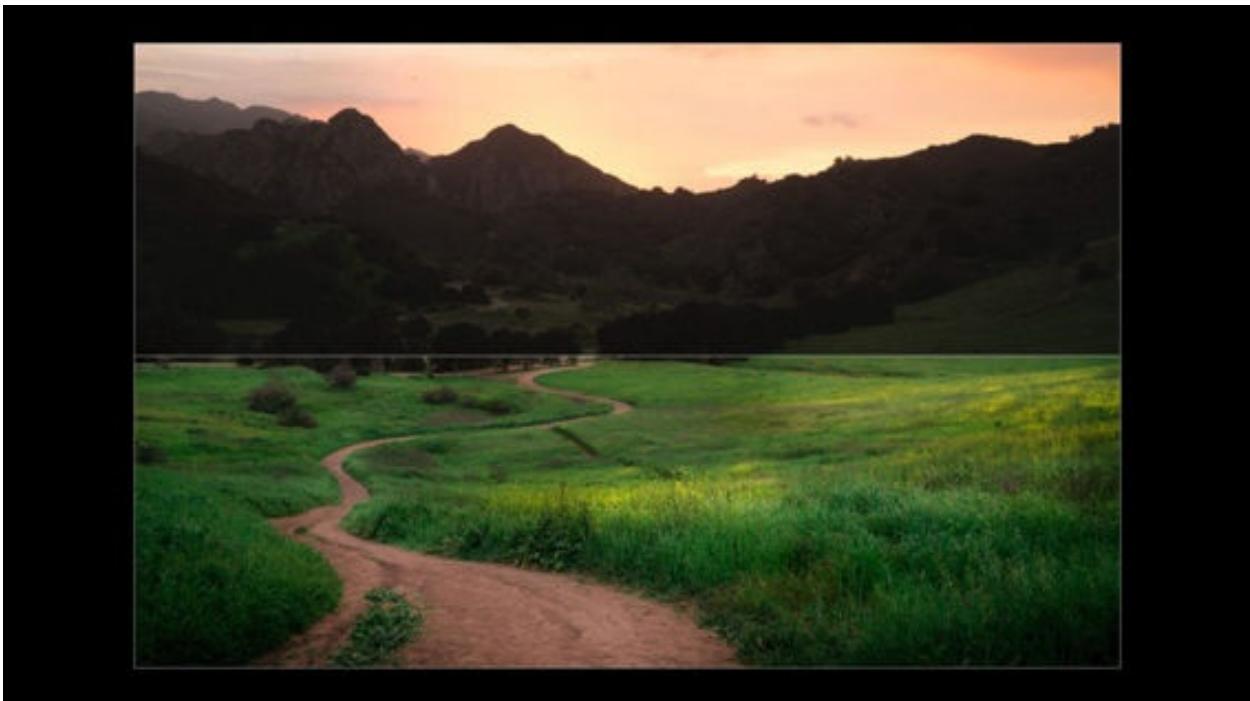
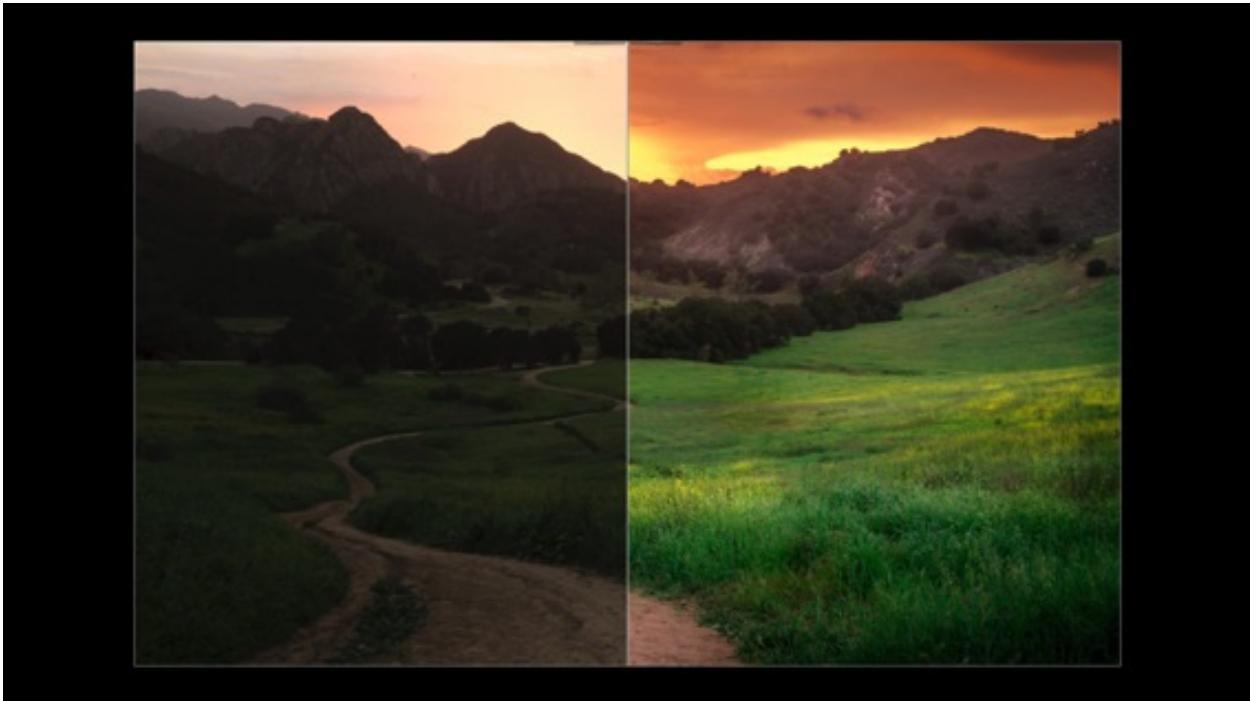


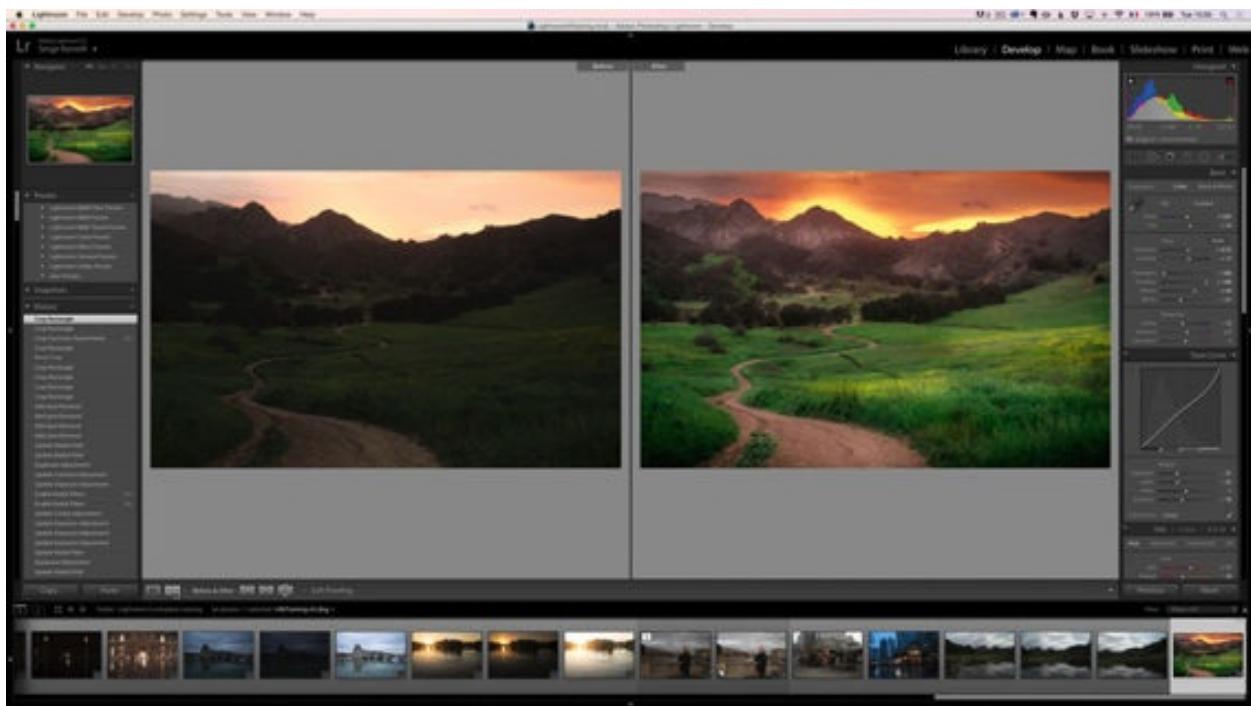
Also Lightroom allows you to dim the borders, it's called **Lights Out** in the **Window> Lights Out> Lights Off** in the drop down menu at the top of Lightroom but you can also just press **L** and it will go to **Lights Dim** and pressing again will go to **Lights Out**.



Now I can take a few minutes to just look at the uncluttered image to see if there is anything else I want to do with it and if so, make those changes.

Sometimes I will go ahead and cycle through the **Before/After modes** that I talked to you about at the beginning of this Develop module by looking in the **View> Before/After Drop Down** or by pressing **Y**, **Shift Y** or **Alt Y** to cycle you through Before/After modes and really get a good look at your photo!





Chapter Five

Practicing