

# SECRETS TO MASTERING HDR PHOTOGRAPHY

by Captain *KMO*

STEP-BY-STEP GUIDE TO POST PROCESSING





*In memory of Sam.*



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INTRODUCTION

# Mastering HDR

Becoming a Master



# INTRODUCTION

There are many different techniques that I've used to achieve my results, but I often forget how I got to the final product. This book allowed me to document my procedures thus engraving the steps into my subconsciousness.

Writing this book has taught me more about HDR photography than reading any book or watching any video. The old saying, the best way to learn is to teach, is more true than I could have imagined.

All the techniques presented in this book are compiled from years of post processing. I've used each process a number of times resulting in breathtaking HDR photos that have gotten high praise from the photography community.

However my techniques alone won't make you a better photographer or artist. To become a great photographer you must practice. Knowing a technique is not enough to become a master.

Learning to apply these techniques properly so that every element in your photograph becomes balanced is the key to becoming a true master. This can only be achieved through many hours of practice.

I've read somewhere that it takes 10,000 hours to become an expert in your craft. Sounds right to me... that's

about how much time I spent digitally processing images, professionally as a graphic artist.

That's why this book is all about post processing, as I feel more qualified to teach as a digital artist than a photographer. So until I put in another 5K hours using the camera, the majority of this book is all about post processing.

Nevertheless, my e-book provides great tips on using your camera and gear, especially when it comes to HDR photography. Great HDR images all start from getting the right exposures, and I'll show you my methods.

I hope this e-book gives you the information you've been looking for. But if anything, I hope this book inspires you to practice and become a true master of HDR Photography.

Just remember, the key is 10,000 hours ;-)

Cheers,

*Kim Y. Seng*  
a.k.a. Captain Kimo



A stylized, handwritten signature of Kim Y. Seng, also known as Captain Kimo. The signature is written in black ink with a white outline, giving it a 3D effect.

## CHAPTER 1

# Photomatix Lesson

### Step-by-step Guide to Photomatix



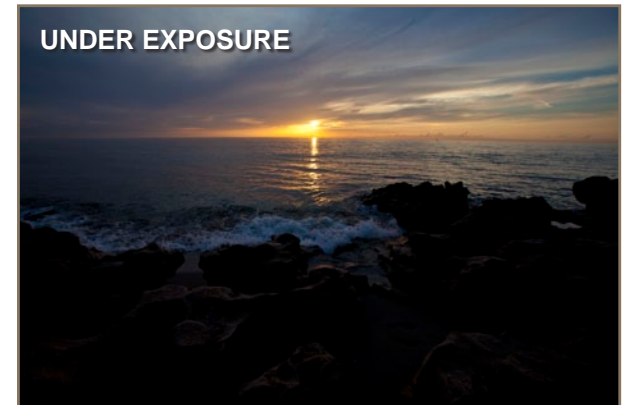
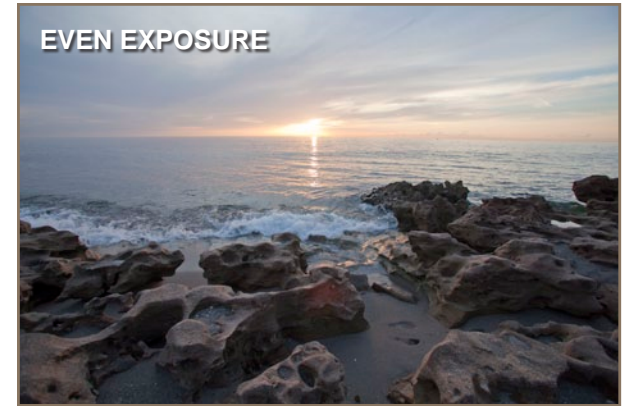
# Getting Started

Before we begin the Photomatix lesson, let's quickly go over how I took the exposures which we'll be using to create our HDR image below.



To get the proper exposure, I pointed my camera somewhere bright using program mode. Then I slightly press the trigger to meter for my exposure. Doing this lets the camera calculate the correct aperture and shutter speed. I then switch my camera to manual mode and set my aperture and shutter speed according to the settings from program mode. When everything is set, I begin shooting multiple exposures until I captured a nice wave for my composition. This wave can be seen in the over exposed image.

**NOTE:** More information about camera settings and gear can be found in Chapter 6 (Getting Better Exposures), but from here we're going straight into Photomatix.



# Loading Exposures

Now that you understand how I got the exposures let's jump right into Photomatix and start creating our HDR image. Don't worry there's more camera stuff in Chapter 6, but for now, let's get moving on the software side of things, because as you know that's my expertise.

For this tutorial I'll be using Photomatix Pro 4.0 Beta so things might be different in the final release. However, if you're using Photomatix 3.x, the interface has changed, but not enough to affect this tutorial. To begin the Photomatix lesson, follow the steps below.

**STEP 1:** Click the “**Load Bracketed Photos**” button.

**STEP 2:** Click the “**Browse...**” button.

**STEP 3:** Select all exposures and click the “**Open**” button.

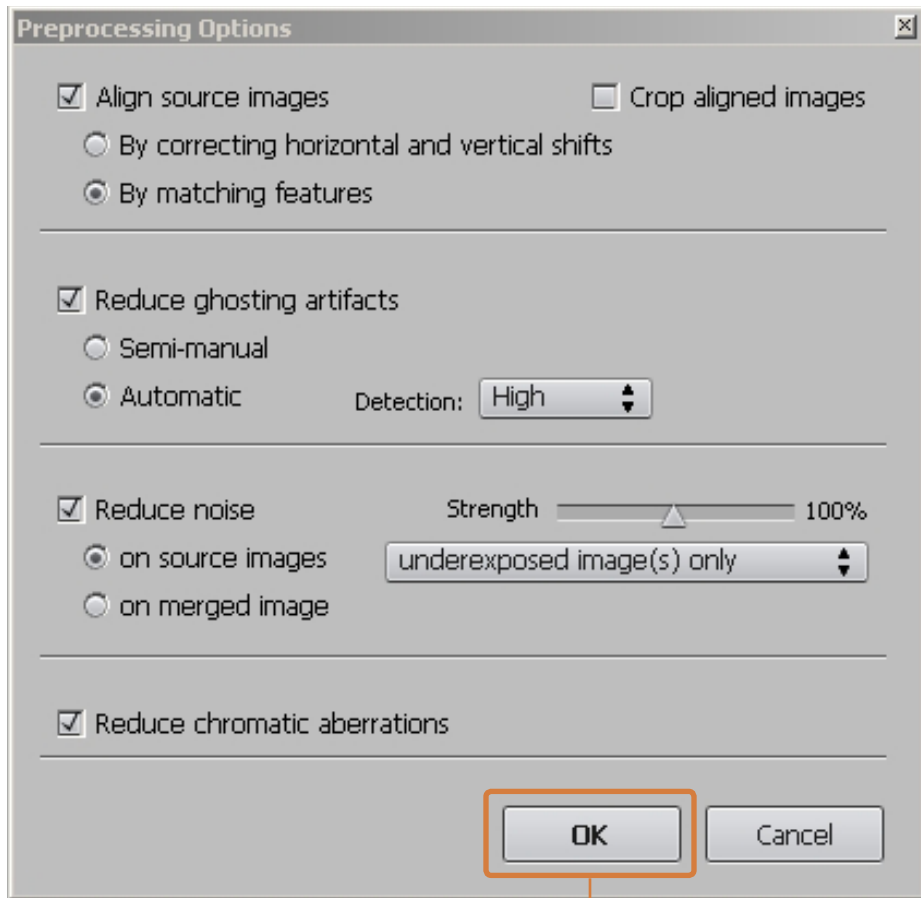
**STEP 4:** Once all exposures are listed click the “**OK**” button.

The image shows the Photomatix Pro 4.0 Beta 7 (64 bits) application window. On the left is a 'Workflow Shortcuts' panel with buttons for 'Load Bracketed Photos', 'Tone Mapping', 'Save Settings', 'View Settings', 'Batch Bracketed Photos', 'Batch Single Photos', and 'Tutorial'. The 'Load Bracketed Photos' button is highlighted with an orange box. To the right, an 'Open' file dialog is shown with the 'Look in' field set to 'Merge to HDR'. It displays three TIFF files: 'even.tif', 'over.tif', and 'under.tif'. The 'Open' button is highlighted with an orange box. Below these, two 'Generate HDR - Selecting source images' dialog boxes are shown. The first dialog has the 'Browse...' button highlighted with an orange box. The second dialog shows the three TIFF files listed in the file list, and the 'OK' button is highlighted with an orange box.



# Preprocessing Options

Before we can start tone mapping our HDR image we need to select a few options. These options are not necessary but they are helpful.



Click the “OK” button once you’ve checked the necessary options. This will take you to the tone mapping window.

## • ALIGN SOURCE IMAGES

If checked this option will allow Photomatix to automatically align your exposures. You have the option to align by horizontal and vertical shift, or by matching features. I use matching features since this option tends to produce the best results. I always have this feature checked in case of any movement in my exposures.

## • REDUCE GHOSTING ARTIFACTS

Ghosting occurs when an object moves while you are photographing your image. By checking this you allow Photomatix to limit any ghosting that might occur. As a default I always have this feature checked as well.

## • REDUCE NOISE

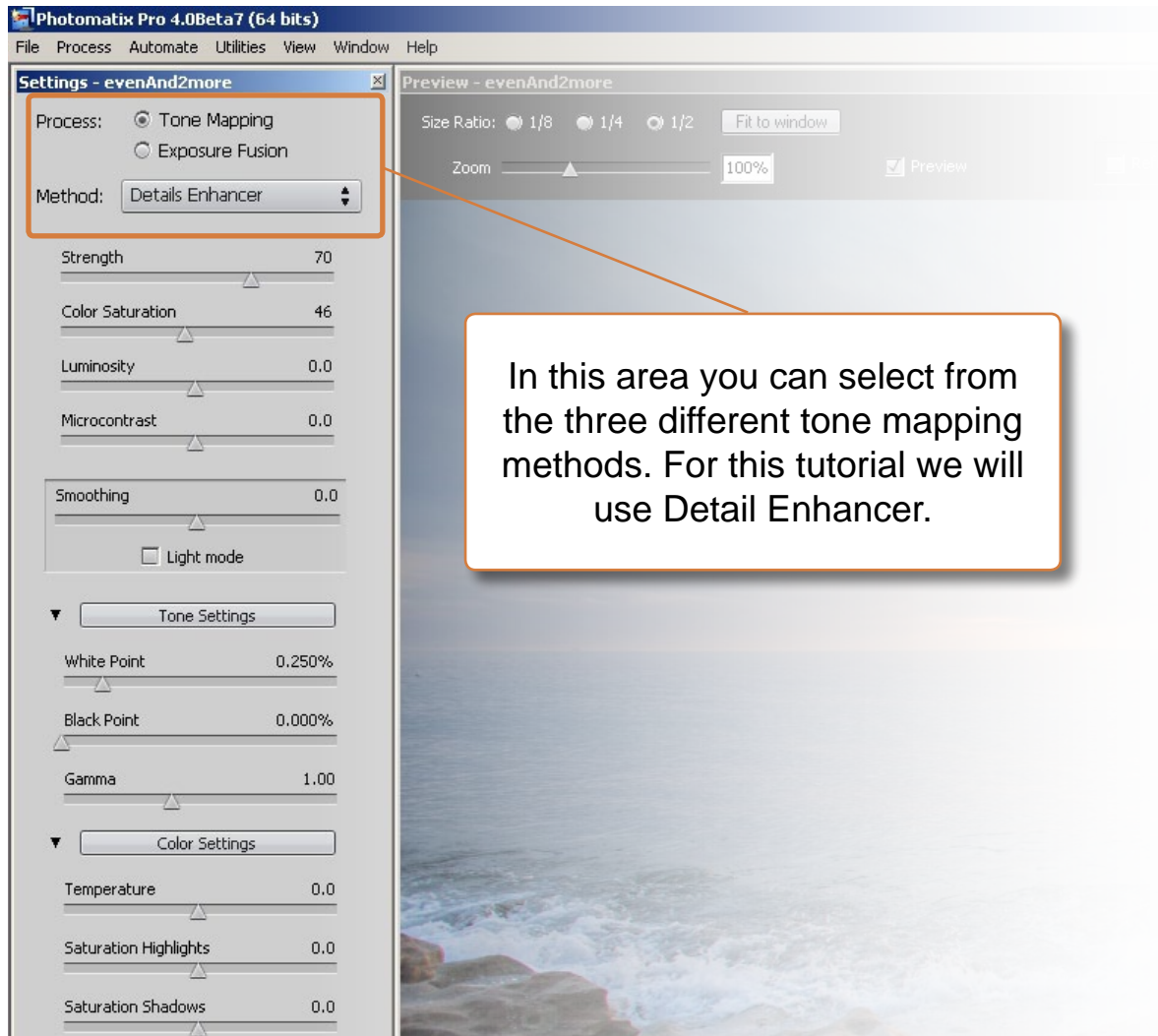
Noise usually happens while photographing during low light conditions. It is also the result of using high ISO in your camera setting. Checking this option will allow Photomatix to reduce noise in your HDR image. I use this option with my night photos or high ISO exposures.

## • REDUCE CHROMATIC ABERRATION

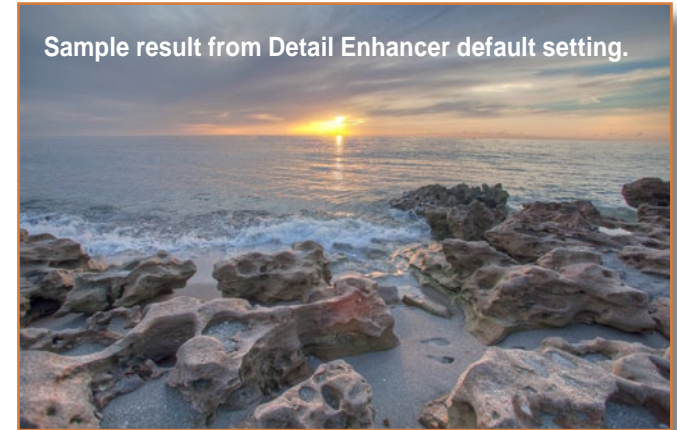
Chromatic aberration is a failure of the lens to focus all colors together causing a blurry image and color glow around the edges of objects. Checking this option will let Photomatix reduce this effect. I leave this unchecked unless I see any chromatic aberration in my merged HDR image.

# Tone Mapping Methods

Photomatix has three different tone mapping methods for creating HDR photos. These methods are Detail Enhancer, Tone Compressor and Exposure Fusion. Each method has its pros and cons, but Detail Enhancer has the most versatility when it comes to controlling detail and contrast.



Sample result from Detail Enhancer default setting.



Sample result from Tone Compressor default setting.



Sample result from Exposure Fusion default setting.





# Detail Enhancer

Before we start tone mapping our HDR image, let me explain the sliders by grouping them into three main functions to make it easier for you to understand.

We can control 3 things when tone mapping HDR photos in Photomatix. These 3 controls will allow us to adjust our detail, light and color. By grouping them in this fashion we can get the results we want faster, and the tone mapping window won't be so overwhelming.

**Detail** will allow us to make our image very dynamic or real. Use these controls to make your photos real or dynamic.

**Light** will let us adjust the highlights and shadows of our photo. Use these controls to adjust brightness and contrast of your photo.

**Color** will allow us to control the color of our image. With these controls you can use color to set the mood of your image.

**NOTE:** We will begin tone mapping our HDR image in the following pages. In this lesson I tone map from top to bottom, starting from Strength and moving down through the controls until we reach the final processing button. I'm doing it in this fashion for the sake of simplicity. On page 40 I go over my normal tone mapping workflow using Photomatix.

## Detail Controls:

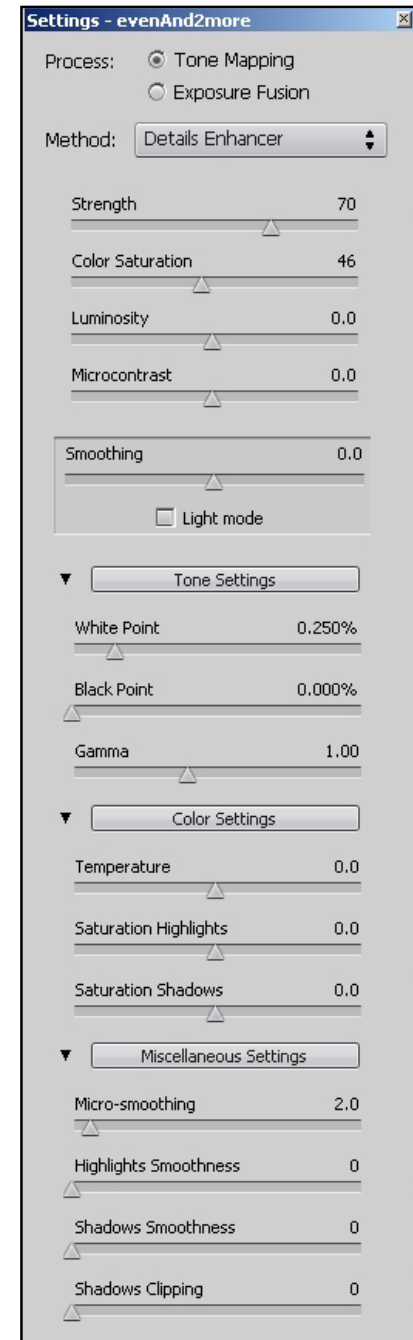
- *Strength*
- *Smoothing*
- *Micro-smoothing*
- *Luminosity*
- *Microcontrast*

## Light Controls:

- *White Point*
- *Black Point*
- *Gamma*
- *Highlights Smoothness*
- *Shadows Smoothness*
- *Shadows Clipping*

## Color Controls:

- *Color Saturation*
- *Temperature*
- *Saturation Highlights*
- *Saturation Shadows*

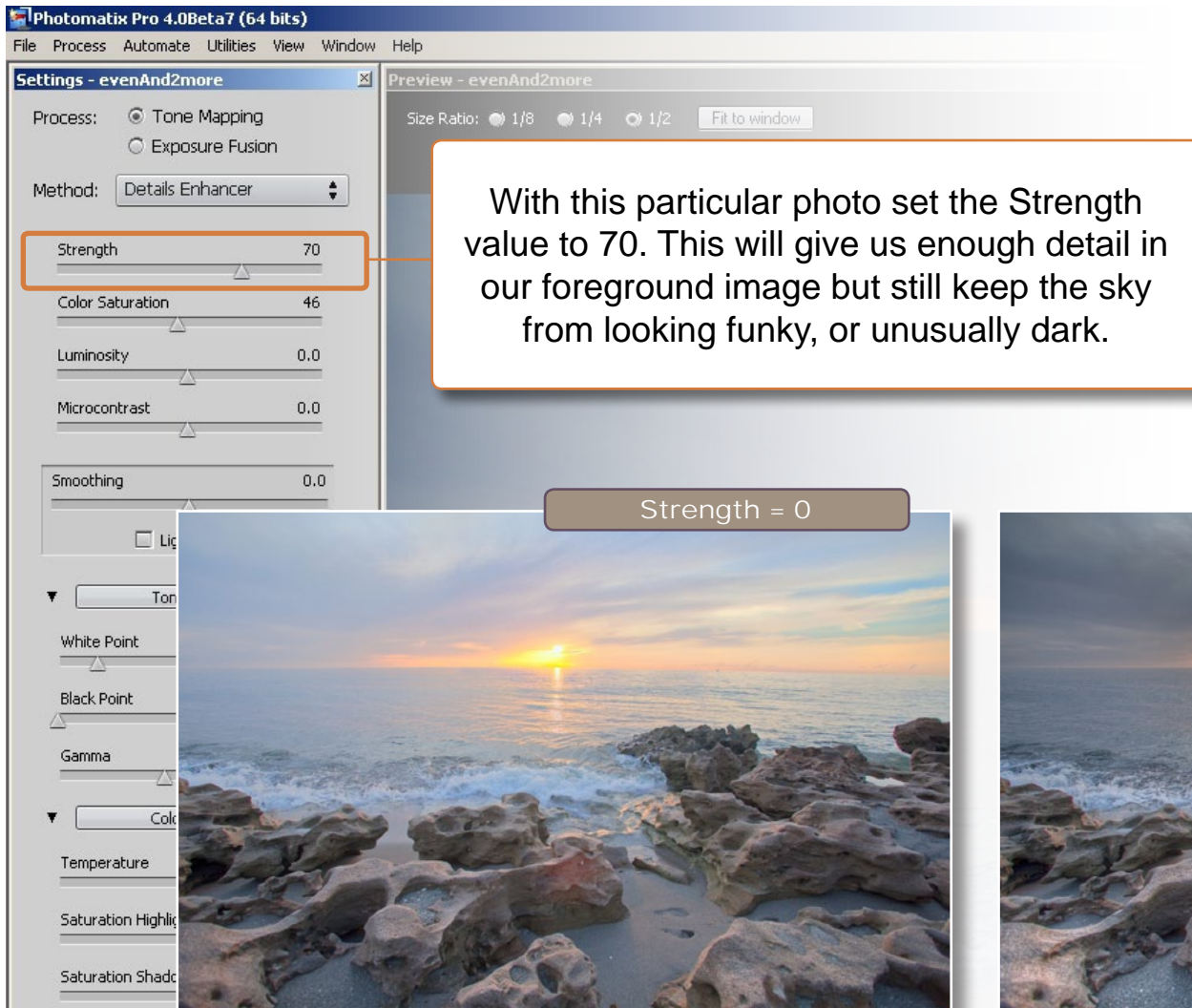




# 1. Strength

This function controls the amount of detail in your photo. It does this by redefining the light in the shadows and highlights. A value of zero creates an HDR image with very little detail. Increasing this value to 100 will bring out all the detail in both shadows and highlights.

**TIP:** I usually keep my strength value around 50-75. Some people love cranking this value up and leaving it at 100. The problem with this is it makes your sky unusually darker than the foreground. By keeping the Strength value to a minimum, the sky will always be brighter than the foreground, maintaining a more natural look.







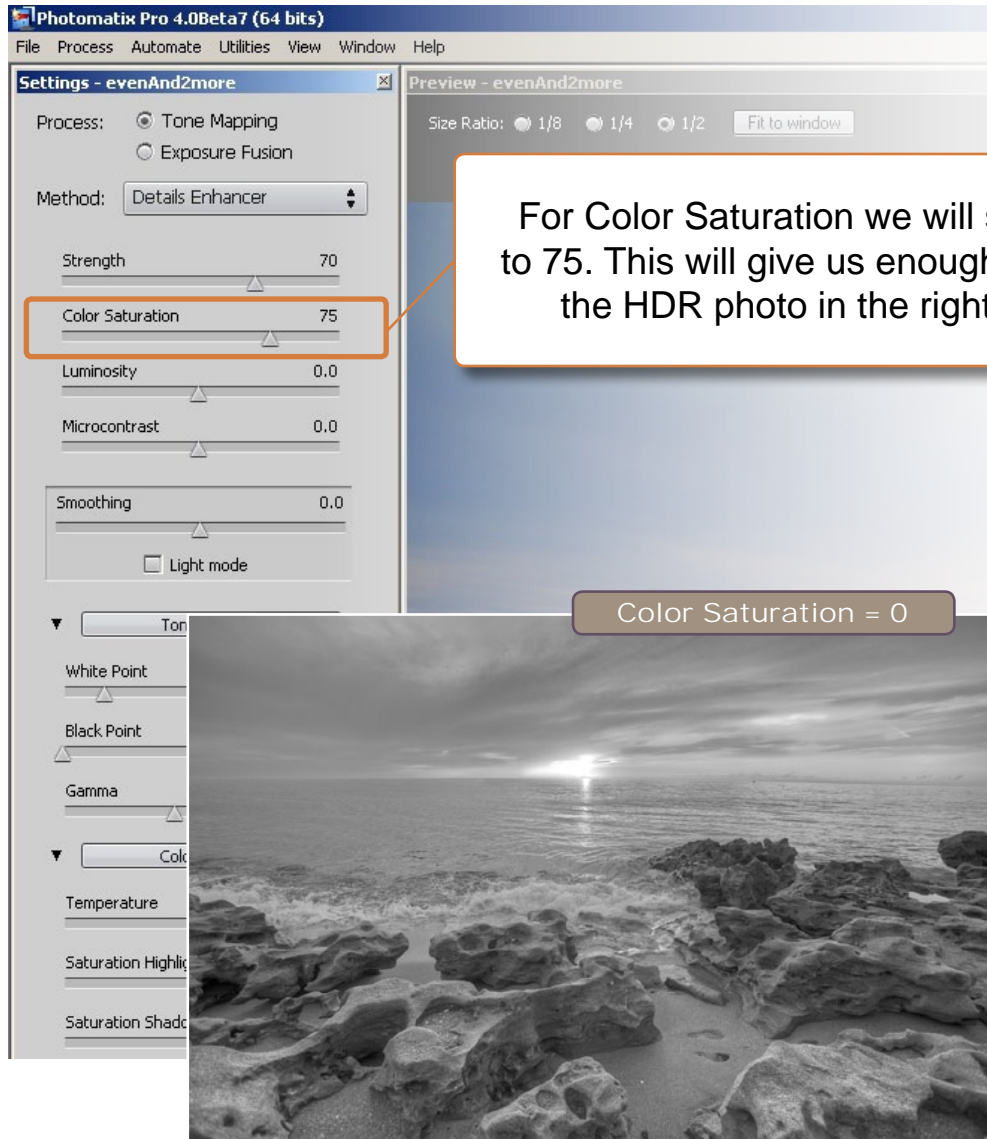
1. AFTER STRENGTH ADJUSTMENT



## 2. Color Saturation

This slider lets you control the color intensity of your photo. Setting this value to zero will reduce all your colors making the image black and white. Increasing your value to 100 will over saturate the photo with color.

**TIP:** I'm very modest with Color Saturation, keeping it around 50-75 depending on the image. My goal with color when tone mapping is to get the colors heading in the right direction. All my color adjustment is done in Photoshop, so I don't waste time playing around with color in Photomatix.







2. AFTER COLOR SATURATION ADJUSTMENT



# 3. Luminosity

This control will bring out the details in the shadows of your photo. Luminosity has a value range of -10 to +10. If you set the value to +10 you will be able to show more details in the dark areas of your image.

**TIP:** I almost always have my Luminosity set to max so the shadows in my image have plenty of detail. The exception to this would be a nighttime photo, where I would prefer to keep dark areas so it looks more like a nighttime shot.

Photomatix Pro 4.0Beta7 (64 bits)

File Process Automate Utilities View Window Help

Settings - evenAnd2more

Process: ☒ Tone Mapping  
☐ Exposure Fusion

Method: Details Enhancer

Strength 70

Color Saturation 75

Luminosity 10.0

Microcontrast 0.0

Smoothing 0.0

☐ Light mode

Preview - evenAnd2more

Size Ratio: ☐ 1/8 ☐ 1/4 ☐ 1/2

Zoom  100%

With this particular photo, we'll set the value to +10. Doing this will bring out all the detail in the rocks where our shadows are.

Luminosity = -10

Luminosity = 10





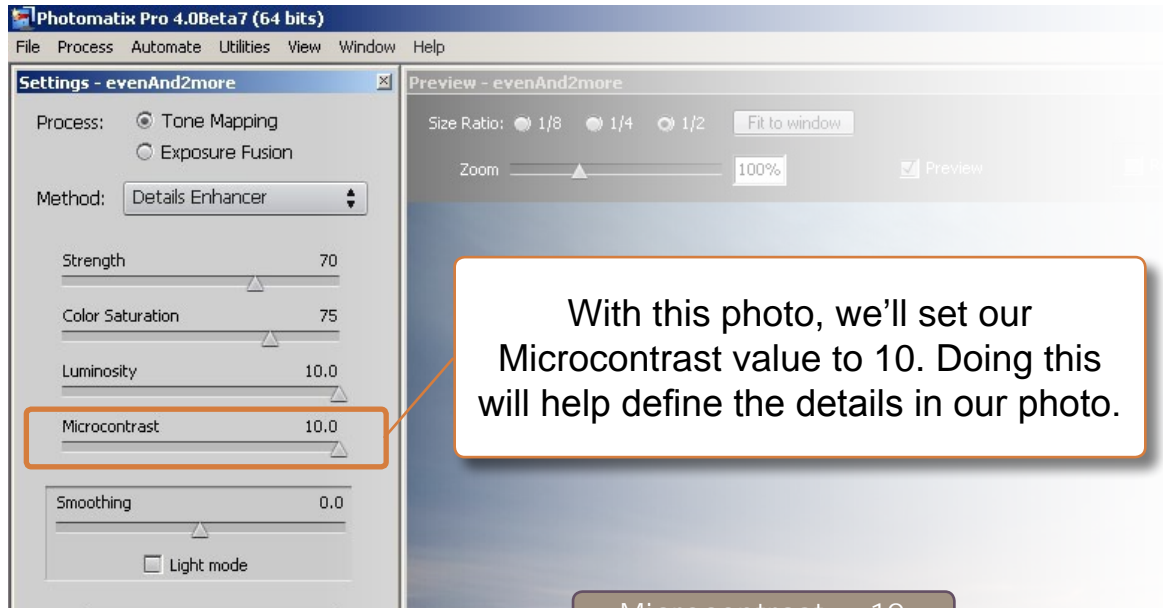
3. AFTER LUMINOSITY ADJUSTMENT



# 4. Microcontrast

This control affects the image contrast. Decreasing this value will produce less contrast. Increasing it will result in a photo with more contrast.

**TIP:** I usually keep this value side-by-side with Luminosity. Since Luminosity controls the details in my shadows, I'll use Microcontrast to define those details.





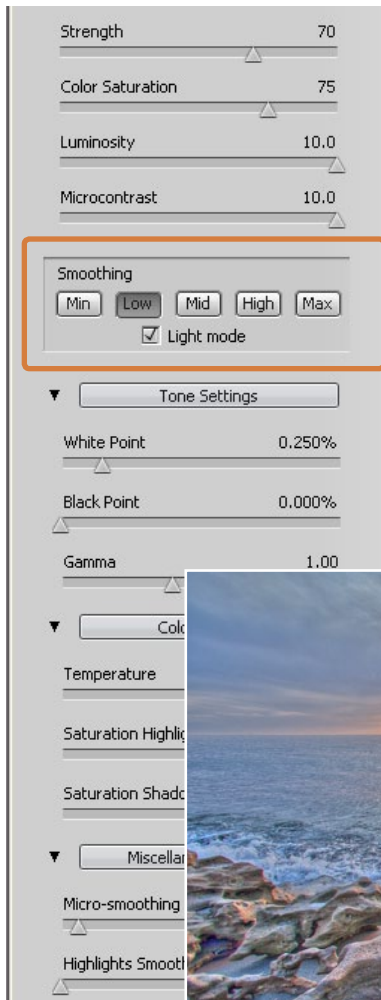


4. AFTER MICROCONTRAST ADJUSTMENT



# 5. Smoothing

This slider affects the intensity of the details. There are two options available for setting the Smoothing value; Light mode checked and Light mode unchecked. Light mode unchecked gives a slider with the ability to input a value. Light mode checked will only give you five values.



For Smoothing, check the light mode box and set the value to Low. This will give us the right amount of detail without making it look cartoonish.

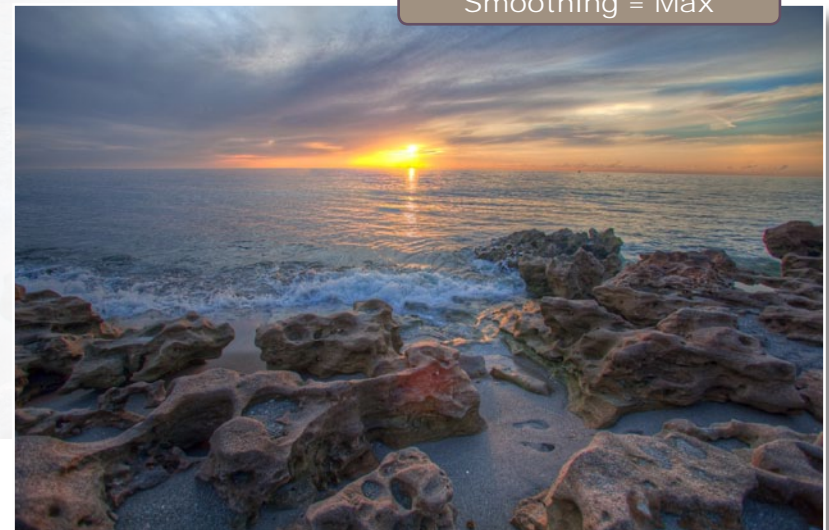
**TIP:** I keep Smoothing set to Low with light mode checked for most of my photos. This control is mostly subjective so adjust it to your taste. However I caution that too much detail will make your image flat. This is because it lights up the shadows to boost detail in the dark areas. Without shadows your image loses contrast making the image flat.

**NOTE:** Using Smoothing with Light mode checked limits you to only 5 options. With light mode unchecked you get a slider with the ability to fine tune the values.

Smoothing = Min



Smoothing = Max







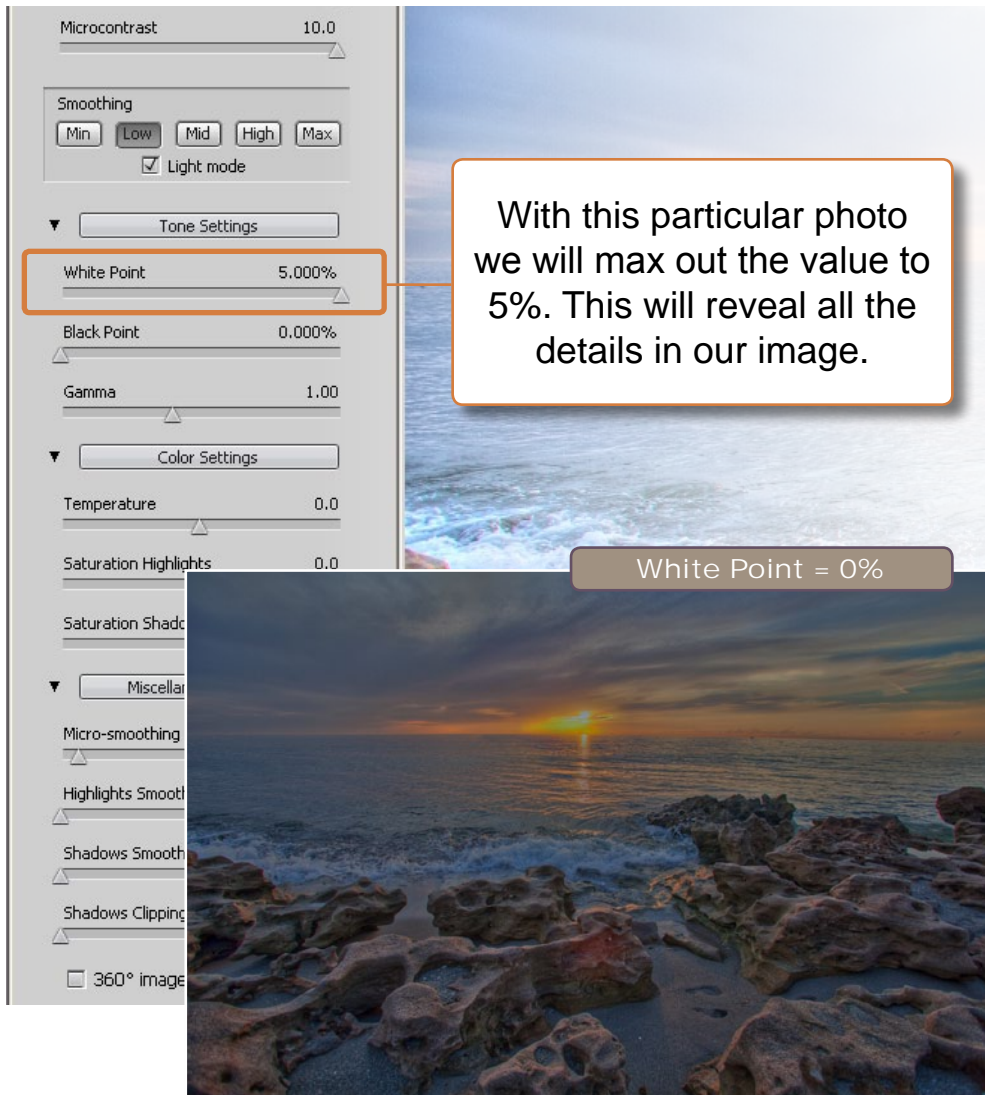
5. AFTER SMOOTHING ADJUSTMENT



## 6. White Point

This slider increases or decreases the overall brightness of the white areas. Increasing this slider to the right will make the white areas brighter which will also brighten the overall image. On the other hand decreasing this value will make the entire image darker.

**TIP:** I find that maxing out my white point works best because doing so brings out all the details in my image. I compensate the brightness of the image by adding some Black Point, which makes the image darker. Doing this also helps define the details.







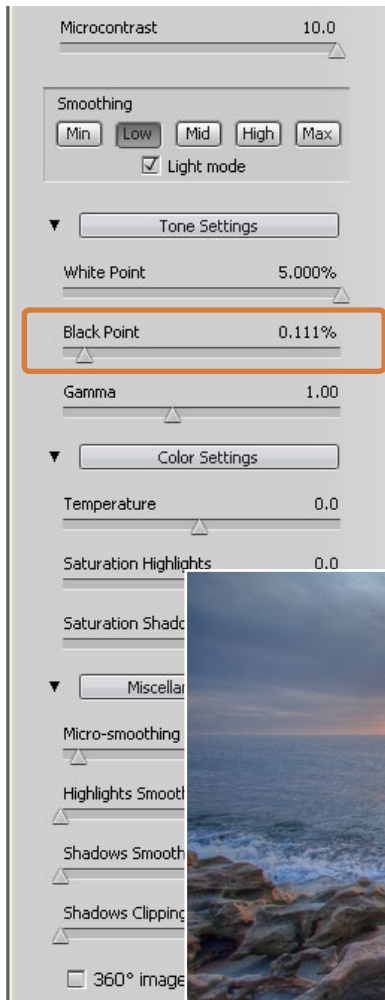
6. AFTER WHITE POINT ADJUSTMENT



# 7. Black Point

This slider increases or decreases the overall darkness of the shadows. Increasing this slider to the right will make the shadows darker which will also darken the overall image.

**TIP:** Black Point is a very important part of any HDR photo. This is because high dynamic range always make your image washed out and flat. Without Black Point you lose a lot of contrast, especially when you're trying to pull out as much detail as possible from your photo. I increase detail by maxing my White Point, and to balance out the image I increase my Black Point.



With this photo, we will set the value to 0.111%. This will darken our shadows enough to add the right amount of contrast to our image. This compensates for maxing the White Point.

Black Point = 0%



Black Point = 5%







7. AFTER BLACK POINT ADJUSTMENT

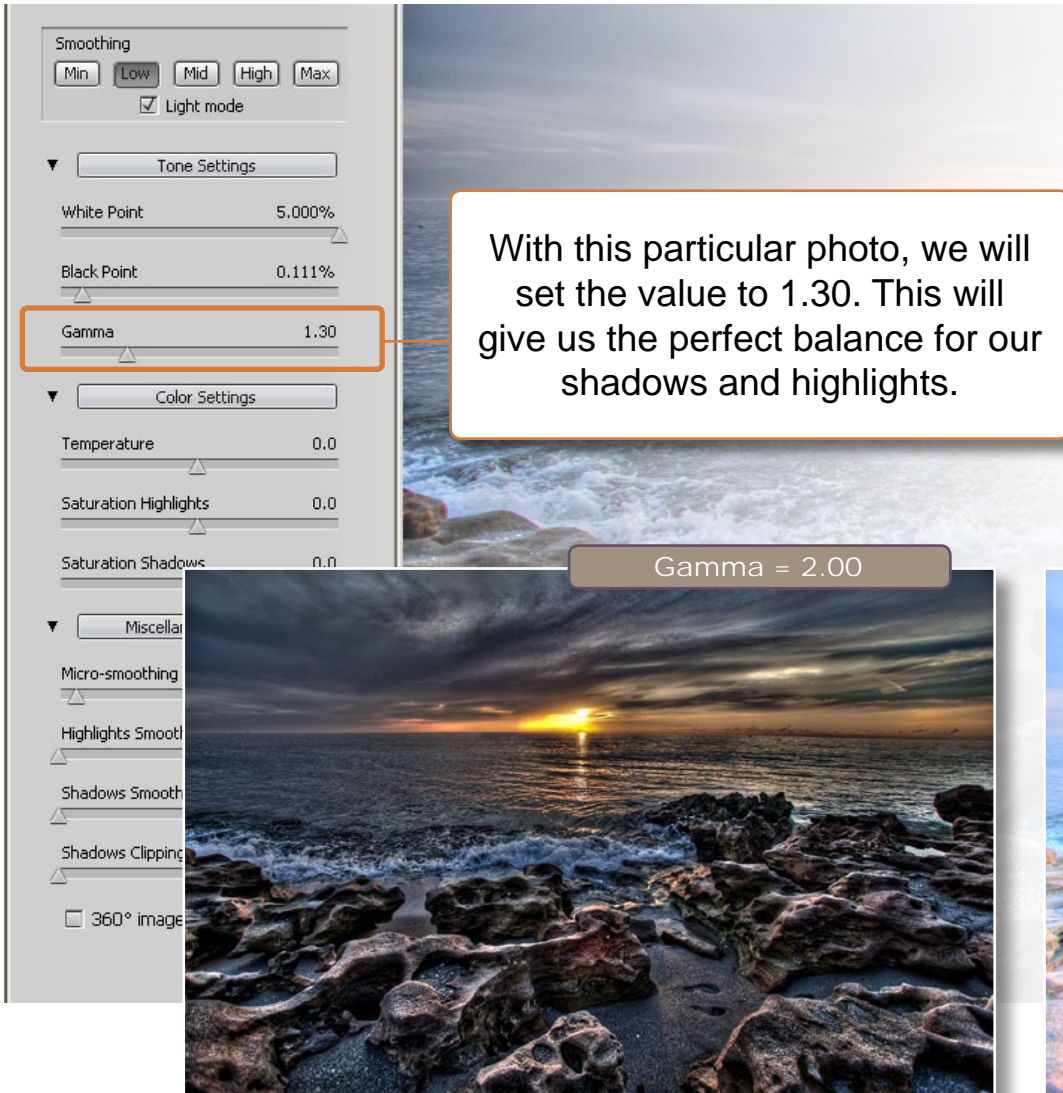


# 8. Gamma

Gamma controls the overall brightness and darkness of the image. Reducing this value will remove the white point from the photo. Increasing the value will remove all the black points.

**TIP:** My Gamma value is also somewhere next to the Black Point slider. This is because my White Point is usually always maxed so by keeping my Gamma value close to my Black Point I maintain a well balanced image in regards to shadows and highlights.

**NOTE:** The Black Point and White Point values directly affects the Gamma results. I use Gamma to control the contrast between white and black areas while adjusting the black and white points to set midpoint values.



Smoothing  
      
☒ Light mode

▼ Tone Settings

White Point 5.000%  
 Black Point 0.111%  
**Gamma 1.30**

▼ Color Settings

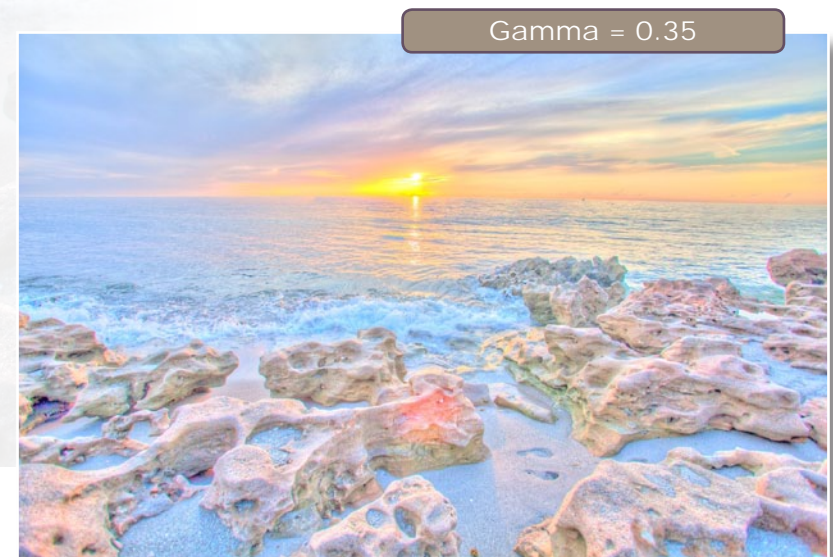
Temperature 0.0  
 Saturation Highlights 0.0  
 Saturation Shadows 0.0

▼ Miscell...

Micro-smoothing  
 Highlights Smooth  
 Shadows Smooth  
 Shadows Clipping  
☐ 360° image

With this particular photo, we will set the value to 1.30. This will give us the perfect balance for our shadows and highlights.

Gamma = 2.00







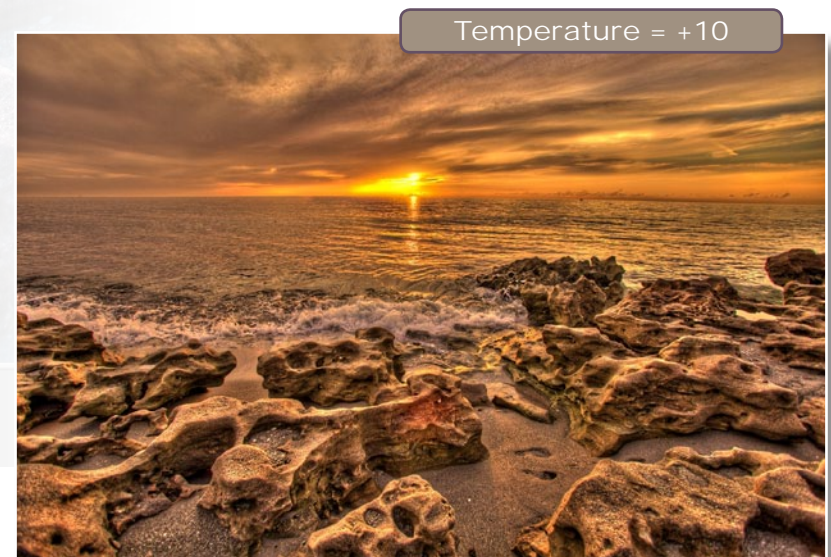
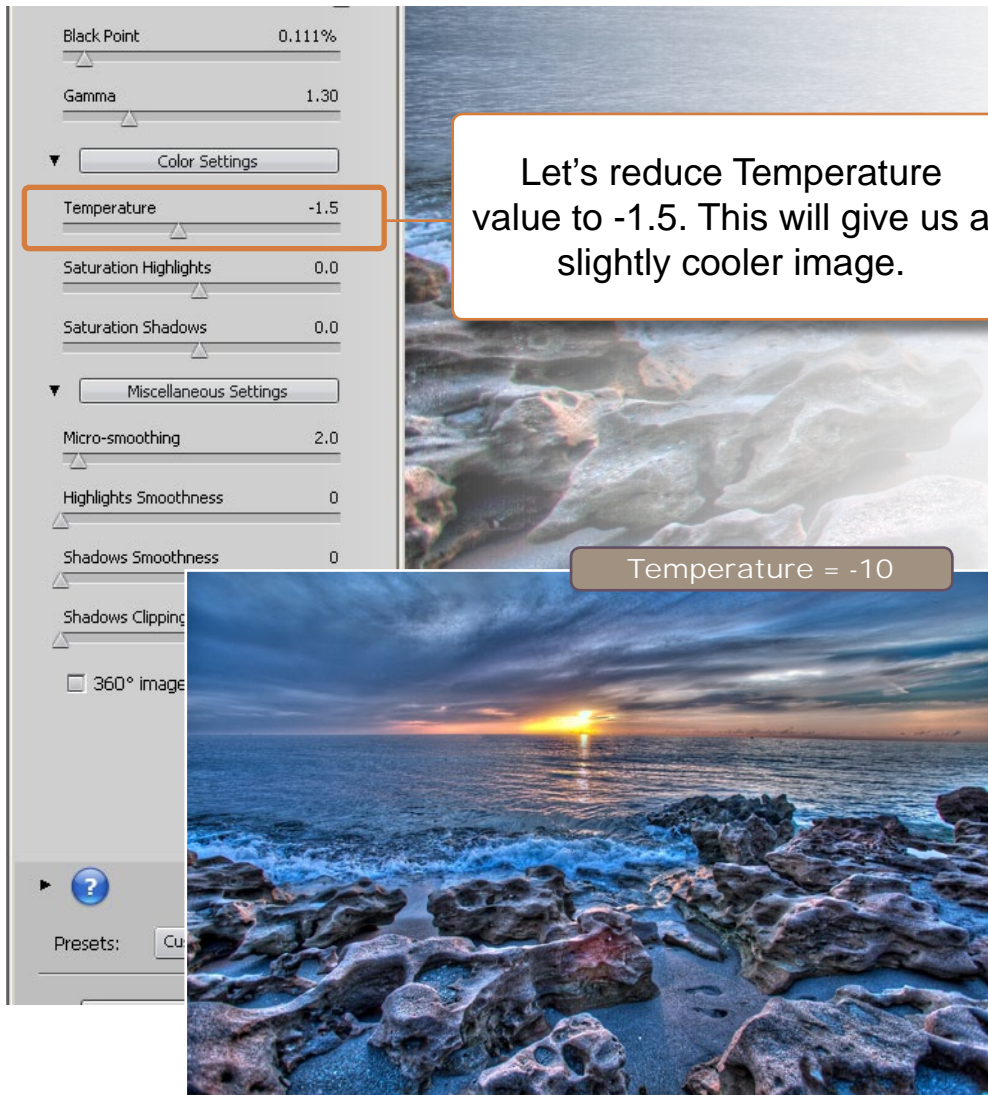
8. AFTER GAMMA ADJUSTMENT



# 9. Temperature

This slider controls the temperature of the photo. Moving the slider to the left will make the image cooler while moving the slider to the right makes the image warmer.

**TIP:** I usually prefer my Temperature to be a bit cooler than warmer, but than again, it really depends on the image and what I want from it. If I want my image to appear colder I will bring down the Temperature. But if I want my photo to look hotter, I will bring the Temperature up.





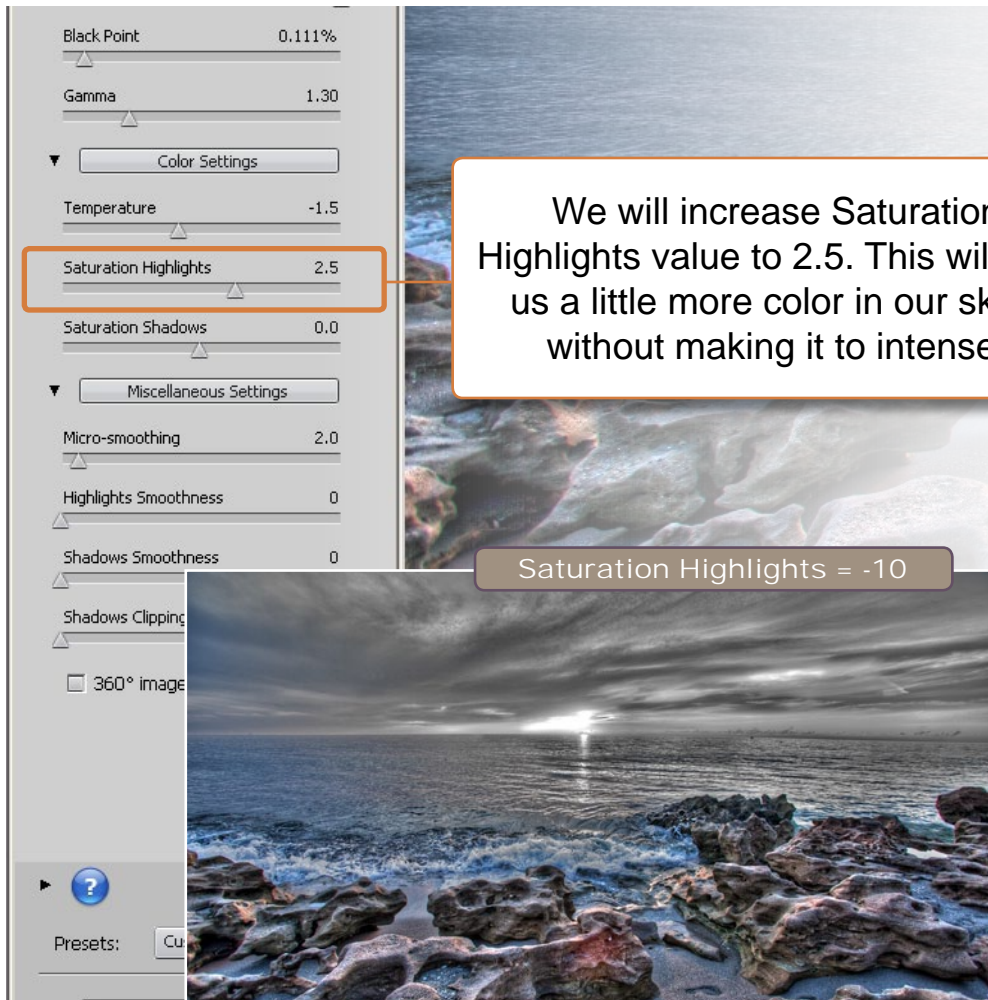




# 10. Saturation Highlights

This slider will increase or reduce color in the highlights. Moving the slider to the left will reduce color from the highlights. Moving the slider to the right will increase the color intensity in highlight areas.

**TIP:** For most of my landscape photos I like increasing my Saturation Highlights value. This gives my landscape that extra color making each photo more captivating. Using Saturation Highlights is a good way to increase color intensity in the sky without affecting the entire image.



We will increase Saturation Highlights value to 2.5. This will give us a little more color in our skies without making it to intense.

Saturation Highlights = -10

Saturation Highlights = +10







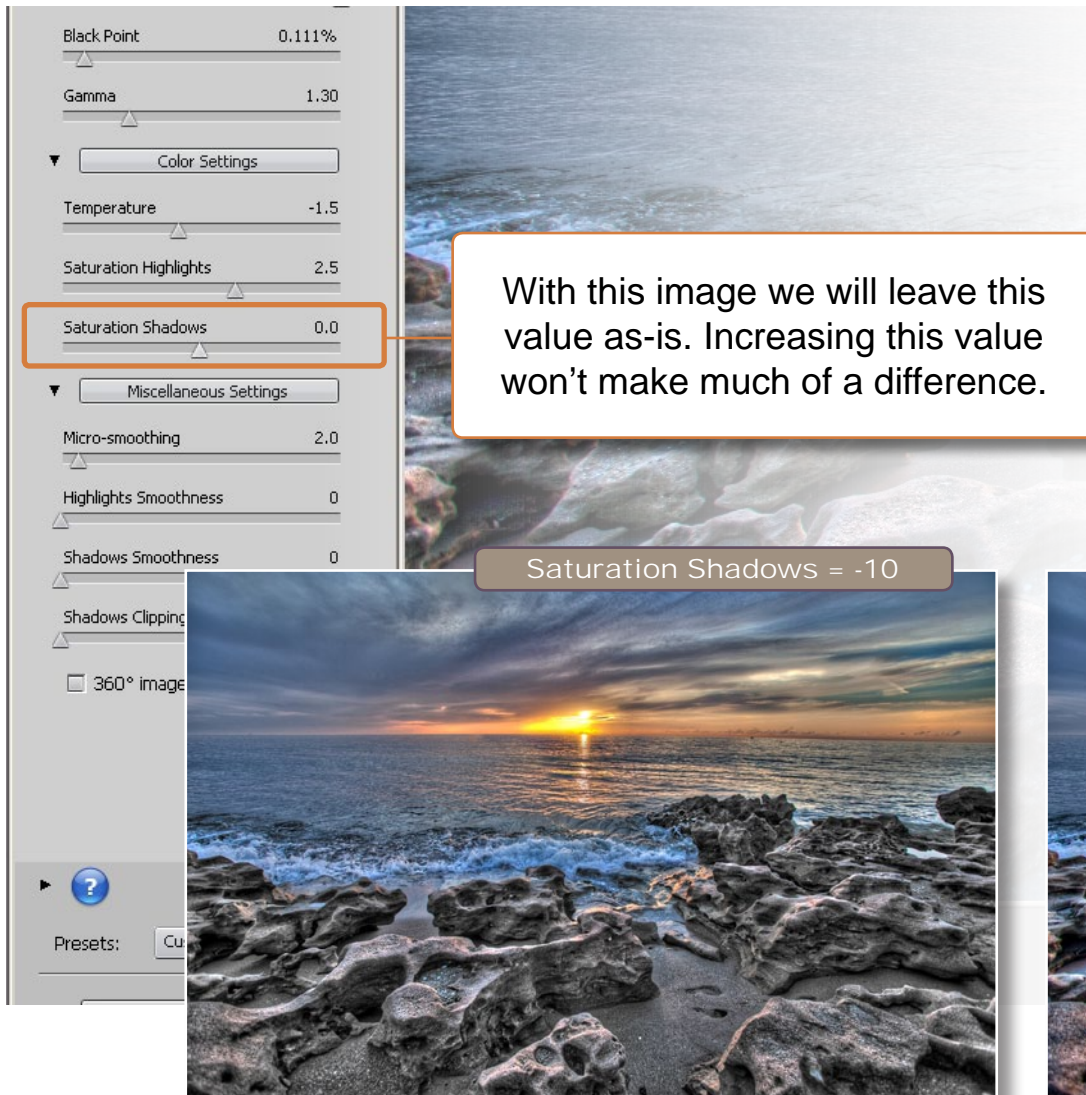
10. AFTER SATURATION HIGHLIGHTS ADJUSTMENT



# 11. Saturation Shadows

This slider controls the color intensity in the image shadows. Moving the slider to the left will reduce color from the shadows. Moving the slider to the right will increase the color intensity in dark areas.

**TIP:** I always leave this value at zero. I avoid adding any value to this control because most times it does more harm than good. However, you can get some pretty cool effects by reducing the Saturation Shadows.







11. AFTER SATURATION SHADOWS ADJUSTMENT



# 12. Micro-smoothing

This slider will increase or reduce the smoothness of the image. Moving the slider to the right will increase the smoothness of the photo, removing grain and noise. Moving this slider to the left will make the image more dynamic and grungy, but doing so will also increase grain and noise.

**TIP:** I use Micro-smoothing to reduce unwanted grain and noise in my image. However that will always make the image less dynamic, but that can be adjusted using Photoshop. Keep in mind, creating an HDR image with too much noise or grain will end up very muddy or blotchy when you try to remove it in Photoshop. So it's best to make your image smooth in Photomatix and increase the dynamics in Photoshop.

The image shows the Photomatix Pro interface. On the left, the 'Miscellaneous Settings' panel is visible, with the 'Micro-smoothing' slider set to 10.0. A text box points to this slider, stating: 'With this photo we will set the Micro-smoothing value to 10. This will give us a smoother image while maintaining contrast in the photo.' Below the interface, two side-by-side images of a rocky coastline at sunset are shown. The left image is labeled 'Micro-smoothing = 0' and shows a more grainy, textured appearance. The right image is labeled 'Micro-smoothing = 30' and shows a smoother, more refined appearance with reduced grain and noise.

Color Settings

Temperature -1.5

Saturation Highlights 2.5

Saturation Shadows 0.0

Miscellaneous Settings

Micro-smoothing 10.0

Highlights Smoothness 0

Shadows Smoothness 0

Shadows Clipping 0

☐ 360° image

Presets: Cu

2800x1867 (1280x853) 3

Micro-smoothing = 0

Micro-smoothing = 30





12. AFTER SATURATION HIGHLIGHTS ADJUSTMENT

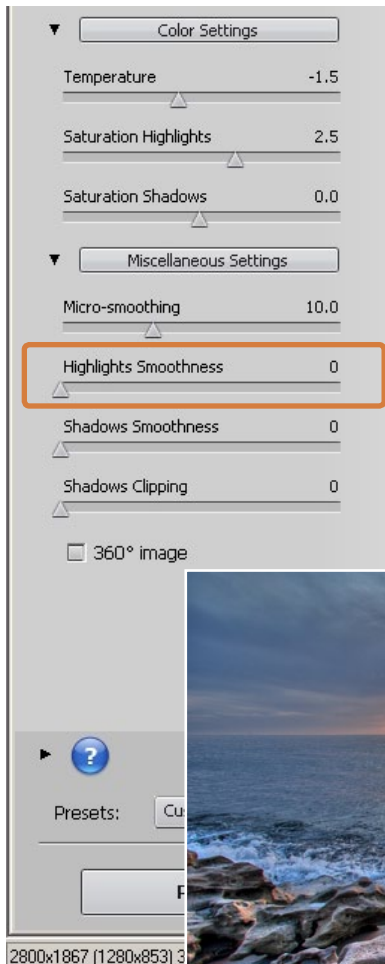


# 13. Highlights Smoothness

This slider increases the smoothness of the image highlights. Moving the slider to the right will smoothen out the highlights which will also brighten the highlights in the image.

**TIP:** Adding Highlights Smoothness makes my highlights brighter, doing this ensures the highlights are lighter than the foreground. If you prefer to have pixels in your highlights then keeping this value at 0 will ensure color in your highlight areas.

**TIP:** Use Highlights Smoothness as a way of blending in the brightest point of your overexposed image.



With this particular photo, we will increase this value to 3. This will make our sky a little more natural looking to the eye.

Highlights Smoothness = 0



Highlights Smoothness = 100







13. AFTER HIGHLIGHTS SMOOTHNESS ADJUSTMENT

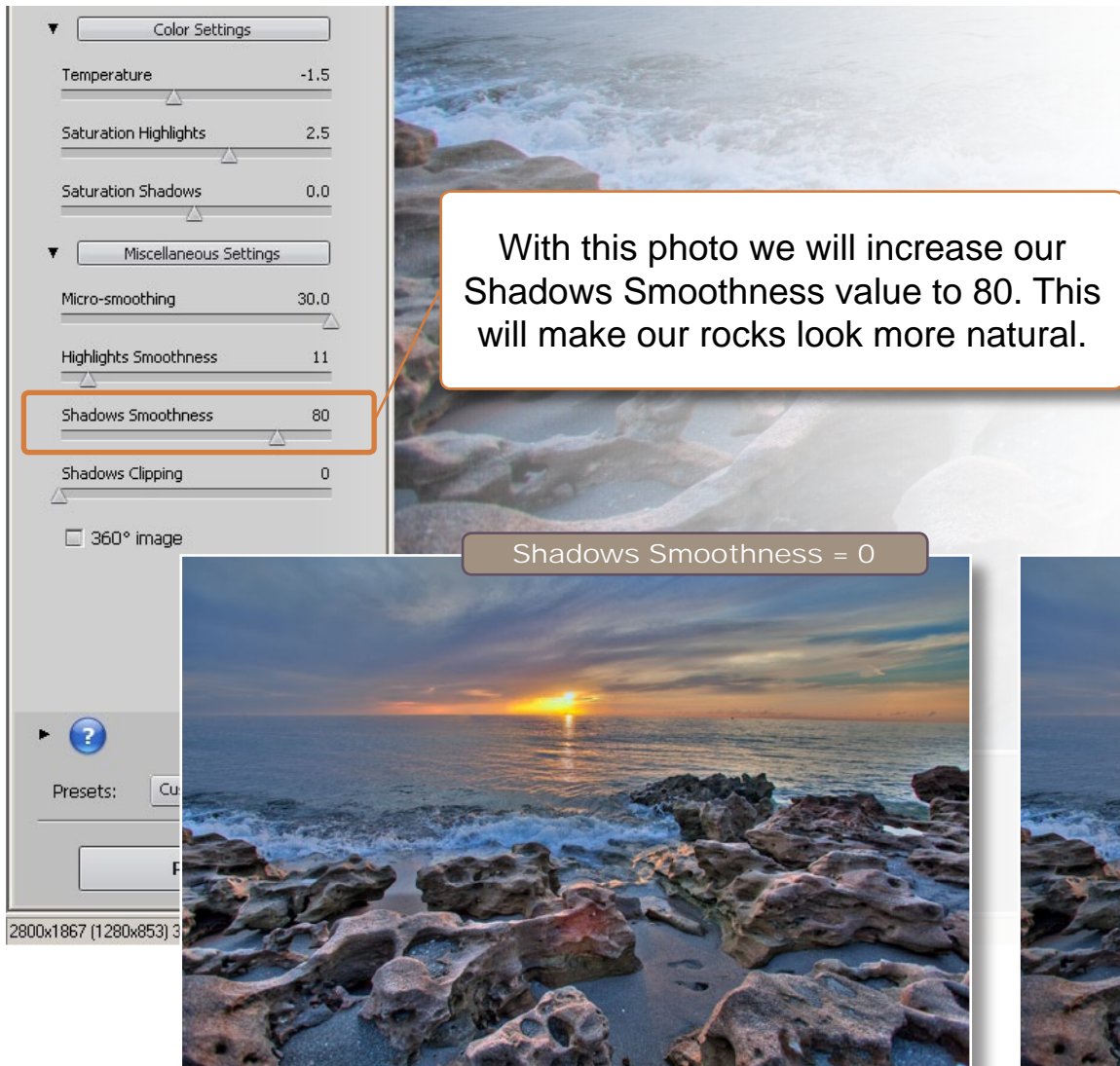


# 14. Shadows Smoothness

This slider increases the smoothness of the shadows in our photo. Moving the slider to the right will smoothen out the shadows which will also darken the shadows in the image.

**TIP:** I use Shadow Smoothness as a way of darkening the shadows of my image. This is a good way for me to darken my foreground without affecting the entire photo. This will also make my image look more natural by bringing back the dark areas in my shadows.

**TIP:** Think of Shadows Smoothness as a way of bringing back the darkest points of your under exposed image.







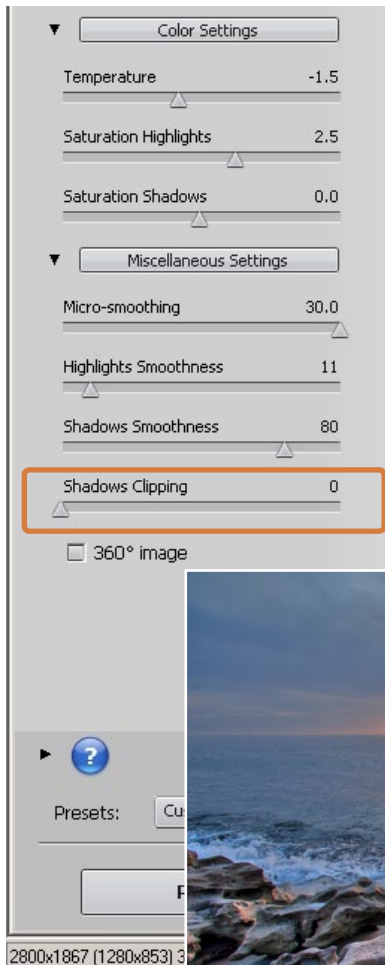
14. AFTER SHADOWS SMOOTHNESS ADJUSTMENT



# 15. Shadows Clipping

This slider increases the dark edges of the shadows. Moving the slider to the right will increase the darkest areas of the shadows.

**TIP:** You don't need to worry too much about this slider since I almost never use it. But on rare occasions I've used Shadows Clipping to darken the edges of my shadows.



We're going to leave this setting alone. Any effect Shadow Clipping will give us won't look good for this photo.

Shadows Clipping = 0



Shadows Clipping = 100





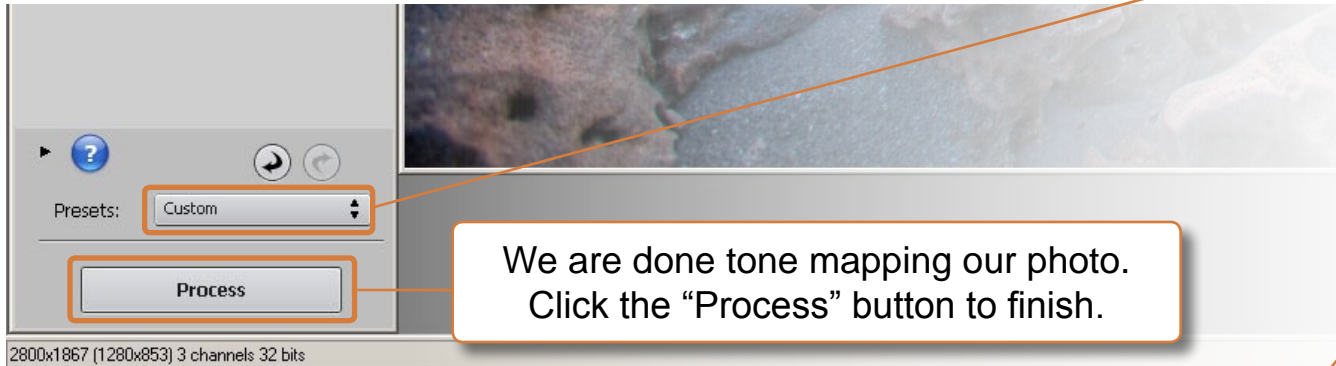


15. AFTER SHADOWS CLIPPING ADJUSTMENT



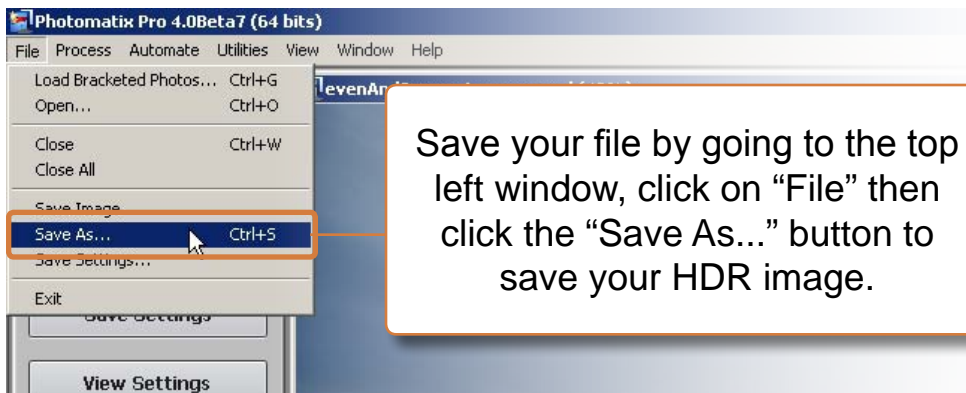
# 16. Process & Save

At this point we're done tone mapping our HDR photo. Go ahead and click the "Process" button to render the final HDR image.



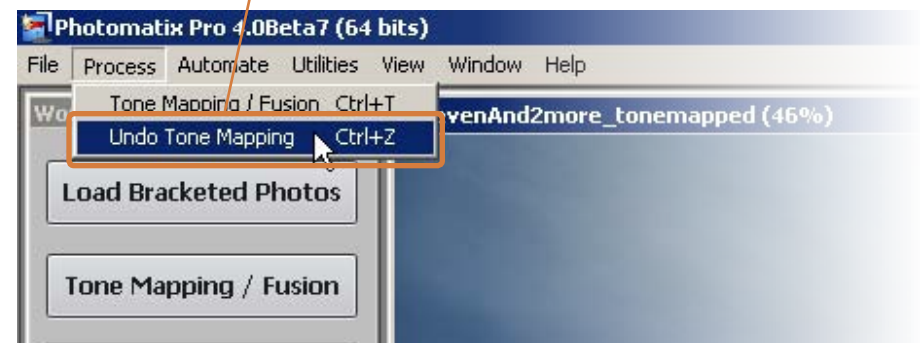
**TIP:** I save my tone map settings before I click the process button, just in case I might want to use it for another photo.

**TIP:** You'll be given an option to save as a 16 bit or 8 bit image. I always save my HDR images as a 16 bit tif file to retain the most information possible.



**TIP:** What's seen in the tone mapping window isn't always the same as the final rendered image. I always look closely at the final image before I save my HDR photo. If something looks off, I can easily refine my image by undoing the tone mapping and clicking the "Tone Mapping/Fusion" button to fine tune the image.

Once Photomatix is done rendering our HDR image we can do a final evaluation on the colors, tonal range and detail. If everything looks good you can save your file. However if something doesn't look right you can always undo the tone mapping and fine tune it in the tone mapping window.





## CHAPTER 2

# Photomatix Tips

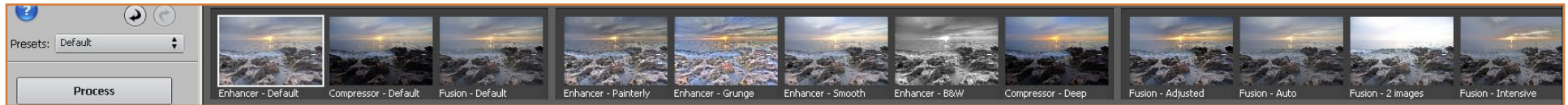
## 10 Tone Mapping Tips



# 1. Captain Kimo's Tone Mapping Process

As I mentioned earlier, my tone mapping process doesn't start from top to bottom like presented. The lesson was written in a manner to make it easier to understand for those new to Photomatix.

My real process starts from presets. I've created a number of handmade presets as starting points. These are the same presets included with this e-book. Each preset produces different results for a different look. By doing this I can easily see what a photo looks like using a specific setting.



**Using the preset, my tone mapping process goes as described.**

1. Click on each preset to preview the result.
2. Make a mental note for each preset in regards to; color, temperature, detail, contrast and brightness.
3. Select the best preset that represents the HDR image.
4. Adjust the settings to match those noted from step 2.
5. Then I apply finishing touches by adjusting each setting to my taste.



I try not to spend much time tone mapping my images, five minutes max for any given photo. I prefer to fine tune everything in post processing using Photoshop. Most of the editing I do in Photoshop accentuates the color, contrast and detail, so there's no need to worry about these things in Photomatix. Getting the HDR image close to the final product is my goal.



## 2. The Three Main Tone Mapping Controls

If you're overwhelmed with all the sliders, then focusing on these three controls will make tone mapping much easier; Strength, Smoothing and Micro-smoothing. These three sliders affect the dynamics of your image by intensifying the detail and contrast.

**Strength** - brings out detail. ●

Increasing this slider will darken your highlights thus increasing detail in those areas. It will also brighten your shadows which will bring out detail in all the dark portions of your image.

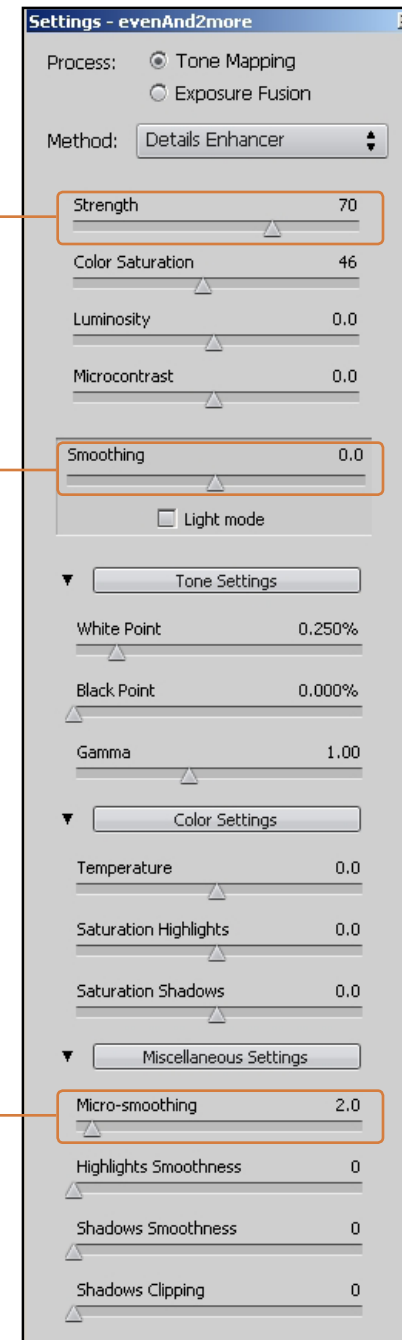
**Smoothing** - controls detail and contrast. ●

This function uses light to control how it affects the detail and contrast of your image. Moving the slider to the left intensify your image while moving it to the right decreases the dynamics, making your image more real.

**Micro-smoothing** - affects contrast. ●

Increasing this slider will affect the smoothness of your image by blending in all your pixels. By not applying any Micro-smoothing you'll create a very intense image with very high contrast.

All three functions play a very important role in the creation of your HDR image. Each slider has a direct affect on whether your image is realistic or dynamic. By focusing on these three controls, and using the rest of the sliders to control your color and light, you can easily produce great looking HDR images with less frustration.





### 3. Understanding Light & Detail and How it Affects Your Image

Lots of people make the mistake of aggressively processing their image to try and get as much detail as possible from their HDR photo. In some cases, depending on the photo, it works. But with most images, what ends up happening is the photo becomes flat.

This happens because getting all that detail requires you to illuminate the entire photo including the shadows.

It's kind of like using a flash with the light directed straight at the subject. What happens is the subject becomes completely illuminated causing the photo to lose depth.

That's why photographers who use flash prefer to bounce the light off the wall or ceiling. Having the light come from a different direction gives the subject more depth and contrast.

The same thing happens with HDR images when you tone map your photos too intensively, especially when you're trying to bring out all the detail in the image. The HDR image loses depth and becomes flat because everything is being illuminated.

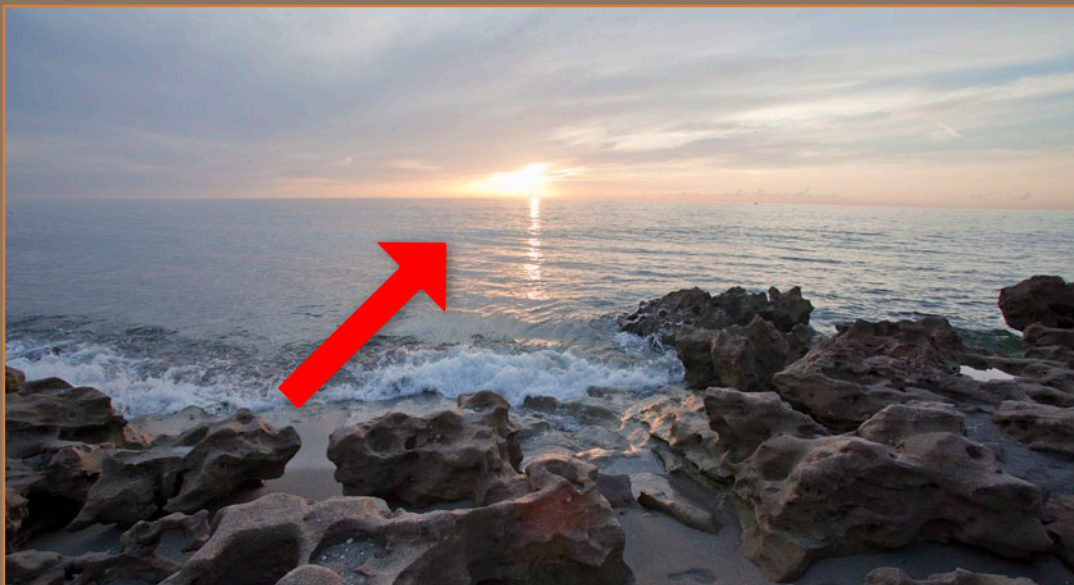


**This is a highly detailed HDR image, the type of photo you'll see from those new to Photomatix.**

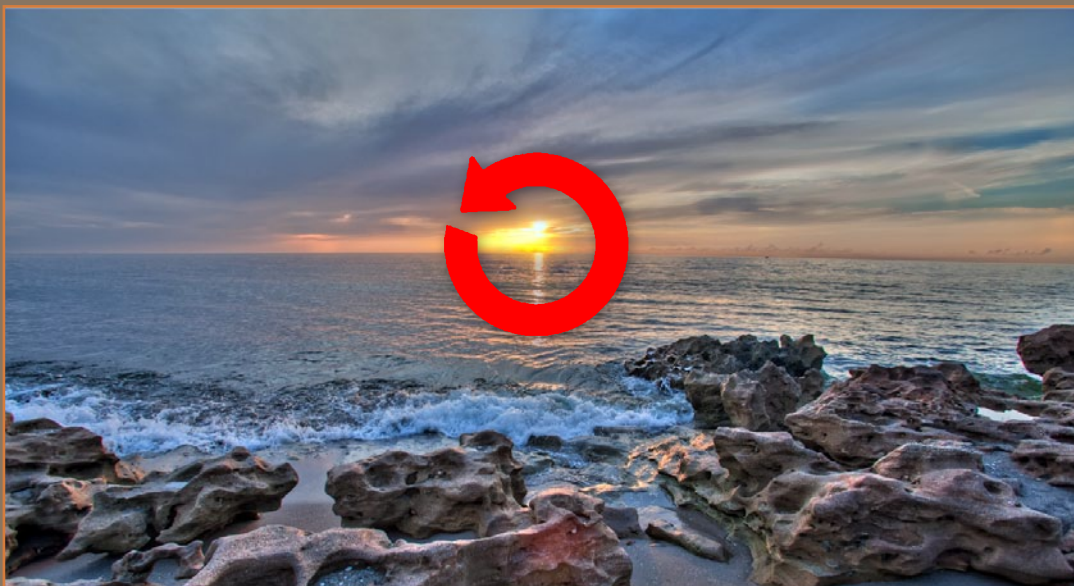


**Our final HDR image tone mapped with less detail, more detail doesn't necessarily mean it'll look better.**





This is our evenly exposed photo. It has less detail than our HDR image, but this photo has more depth. In this photo the eye is being led towards the sun.



In our HDR image, we have more detail in the shadow and highlights. But because of this, we lose contrast, so the eye travels around the whole image.

To better understand what I mean, view any of your original exposures, preferably the evenly exposed image, and see where your highlights and shadows are.

Note how your eye is directed while viewing that photo. Then switch back and forth between the original exposure and the HDR image. Notice that the HDR image has no light or shadow to direct the eye, so the eye has nowhere to go. Sure the HDR photos has lots of detail, but without direction you lose the interest of the viewer.

The human eye was design to lead us somewhere... keep this in mind. Without direction the eye loses its purpose.

Create photos that have a good balance of light and shadow that leads the viewer's eye. By doing this you'll produce better HDR photos and give a reason for the viewer to look at your photo.

This can be done using Photoshop. Go to page 109 to learn more about this technique.



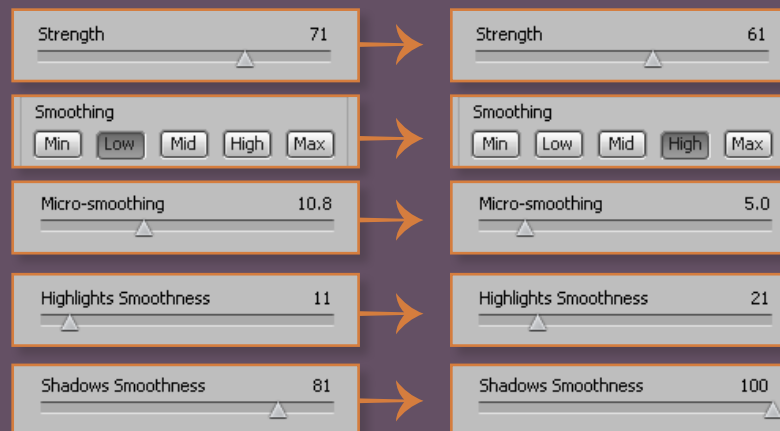
# Adding Depth in Photomatix

I prefer using Photoshop to add depth, but creating depth in Photomatix is pretty easy. All you need to do is adjust your Strength, Smoothing, Micro-smoothing, Highlights Smoothness and Shadows Smoothness. These are the main controls to use if you want to add more depth to your photo. However by doing this in Photomatix you will lose detail and tonal range. This is why I prefer to use Photoshop because I can maintain both detail and tonal range while adding depth to the photo.



## BEFORE

This is our final HDR image that we created from the Photomatix lesson. This photo has more detail and tonal range but less depth. This is because there is little difference between our highlights and shadows. Depth can be added by adjusting these controls in Photomatix.



## AFTER

After adjusting the controls, I was able to add more depth to this HDR image. Notice how the sky is lighter than the rocks in the foreground. By doing this we draw the viewers eye from the rocks to sunrise. Unfortunately by doing this in Photomatix we lose detail.



## 4. How to Reduce Halos

Halos are an obvious side affect of tone mapping HDR photos. It can be spotted around foreground subject with an unusual glow surrounding the edges. In most cases it sticks out like a sore thumb.

But not all halos are bad, it really depends on the look you're going for. If you're going for more of a dynamic image, then halos might give you that extra stylized feel. However if you're going for a realistic photo then the halo affect is your worst enemy.

The best way to reduce the halo affect is to simply not overdo your tone mapping. By keeping your settings to a minimum your HDR photos will look more natural with less noticeable halos.

But if you're like me, trying to get the most out of your HDR photo, then there's no way to avoid them, so what I usually do when tone mapping my exposure is ignore them, at first. Then when I'm satisfied with my result, I use the following list on the right to reduce any halos created. This method lets me see the trade off when I go to adjust my settings to reduce the halos.

Alternatively we can use Photoshop to reduce or even remove halos altogether. It's a little more work, but it's worth it if those halos are painfully distracting. Read more about this technique on page 120.



Here's an example of a noticeable halo around a train. Most halos appear around foreground subjects, where the highlights behind the subject, like the sky, are very intense.

### REDUCE HALO CHECK-LIST

#### STRENGTH

Decrease value to reduce Halo.

#### LUMINOSITY

Increase value to reduce Halo.

#### MICROCONTRAST

Decrease value to reduce Halo.

#### SMOOTHING

Unchecked - increase to reduce halo.  
Checked - set to Max for reducing halo.

#### WHITE POINT

Keep this value low to reduce Halo.

#### BLACK POINT

Keep this value low to reduce Halo.

#### GAMMA

You need to play around with this setting to find the best value. The result of this slider is based on the values of your White Point and Black Point.

#### MICRO-SMOOTHING

Increase value to reduce Halo.

#### HIGHLIGHTS SMOOTHNESS

Increase value to reduce Halo.

#### SHADOWS SMOOTHNESS

Increase value to reduce Halo.



# 5. How to Reduce Noise

Noise is any unwanted grain particle large enough to be seen in photos at 100% view. HDR images are very susceptible to noise because of the tone mapping process. Like halos, the best way to keep noise from being visible is to keep the tone mapping to a minimum. There are also many other ways to reduce noise using Photomatix and Photoshop. However be careful not to remove too much noise, or else your image starts to look synthetic. I'm guilty of that myself ;-)

**Here's a list to help keep noise to a minimum;**

- **Micro-smoothing**

This slider plays the biggest role in reducing noise in your HDR image. But increasing this slider too much will reduce the clarity and contrast of your photo.

- **Shadow Saturation**

Most noise can be seen in the darkest area of the image, and noise in dark areas tends to be very bright. Reducing this will reduce the color and blend it into the shadows.

- **Shadows Smoothness**

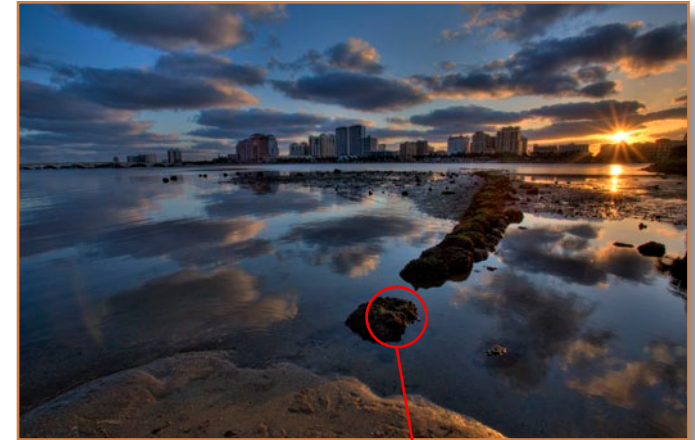
As stated earlier, noise is most often seen in shadows, and by increasing Shadows Smoothness you make your shadows smoother, as well as darker, which reduces most noise in your shadows.

- **More Exposures**

Merging more exposures, especially photos taken during low light or with high ISO. For example an HDR photo merged using 9 exposures will have less noise than 3.

- **Topaz Denoise**

Topaz Denoise is an amazing Photoshop plug-in that's able to reduce noise while maintaining image clarity. Before Topaz Denoise I used Photoshop's de-noise filter, which works well, but I definitely prefer the result from Topaz over Photoshop any day.



Noise from HDR Photo



After Topaz Denoise



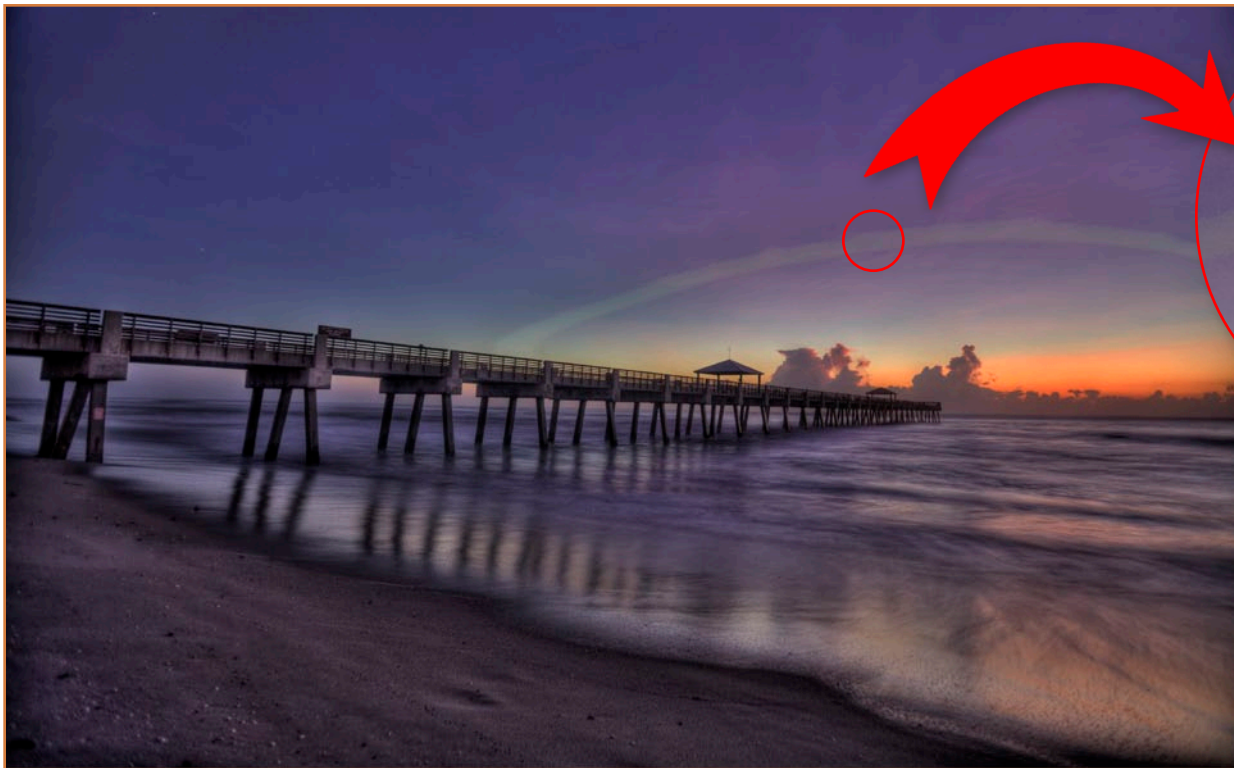
## 6. Watch out for Color Banding

Color banding is a noticeable strip of solid color that appears mostly in skies. They're caused by an extreme shift in color from one point to the other. You'll occasionally come across color banding the more you work with HDR images. From my experience, there's no way to eliminate them without using Photoshop. It's possible to reduce the intensity, but that won't do any good, because once you start post processing them in Photoshop, you'll increase its visibility.

My recommendation is simply not to worry about them, and tone map your HDR image to your liking. Once you finish, follow my steps in on page 120 to learn how to remove the them in Photoshop, which is usually a pretty easy fix.

**TIP:** If you want to try and remove color banding using Photomatix you can do this by adjusting the following sliders.

- **Micro-smoothness**
- **Highlights Smoothness**
- **Shadows Smoothness**



This is an example of color banding that can occur in your HDR image. Color banding like this is impossible to remove without making your HDR image look bland. Alternatively you can follow the steps on page 120 to remove them with Photoshop.



## 7. Low Black Point

Some HDR photos look bad because of low Black Point value. The reason for this is because those new to HDR want to tone map their images with as much detail as possible. To get the most detail means you need to illuminate everything, even shadows. The problem with this is that dark areas and shadows are needed to create good contrast.



This is an example of the type of photos that have low Black Point. In fact this particular image has none. For some of you it looks fine, that's because you're still new to HDR and your eye has yet to be developed. Continue to the next page to see a comparison with a little extra boost in the Black Point value.

# Adding Black Point



## BEFORE

This is the original HDR photo presented on the previous page. Take a look at the comparison image on the right.



## AFTER

By adding some Black Point value and adjusting the Gamma I was able to add contrast to this photo.

See what a little Black Point can do for your HDR photo? It adds contrast, and a little contrast can go a long way with any HDR photo. Contrast makes your image look sharper. With HDR images, the sharper the photo, the better the result.



## 8. Merging to HDR in Photoshop

Here's a trick I've learned that can give you some interesting results. Use Photoshop's Merge to HDR feature to combine your exposure as a 32bit file. Save the 32bit image as a (.hdr) or (.psd) file format and open that file using Photomatix. Once you have it opened in Photomatix you can tone map the image using

Detail Enhancer. The result will be completely different compared to processing it entirely with Photomatix. For those wanting to create more realistic HDR photos, I recommend trying this method as the result are more suitable for these types of images.

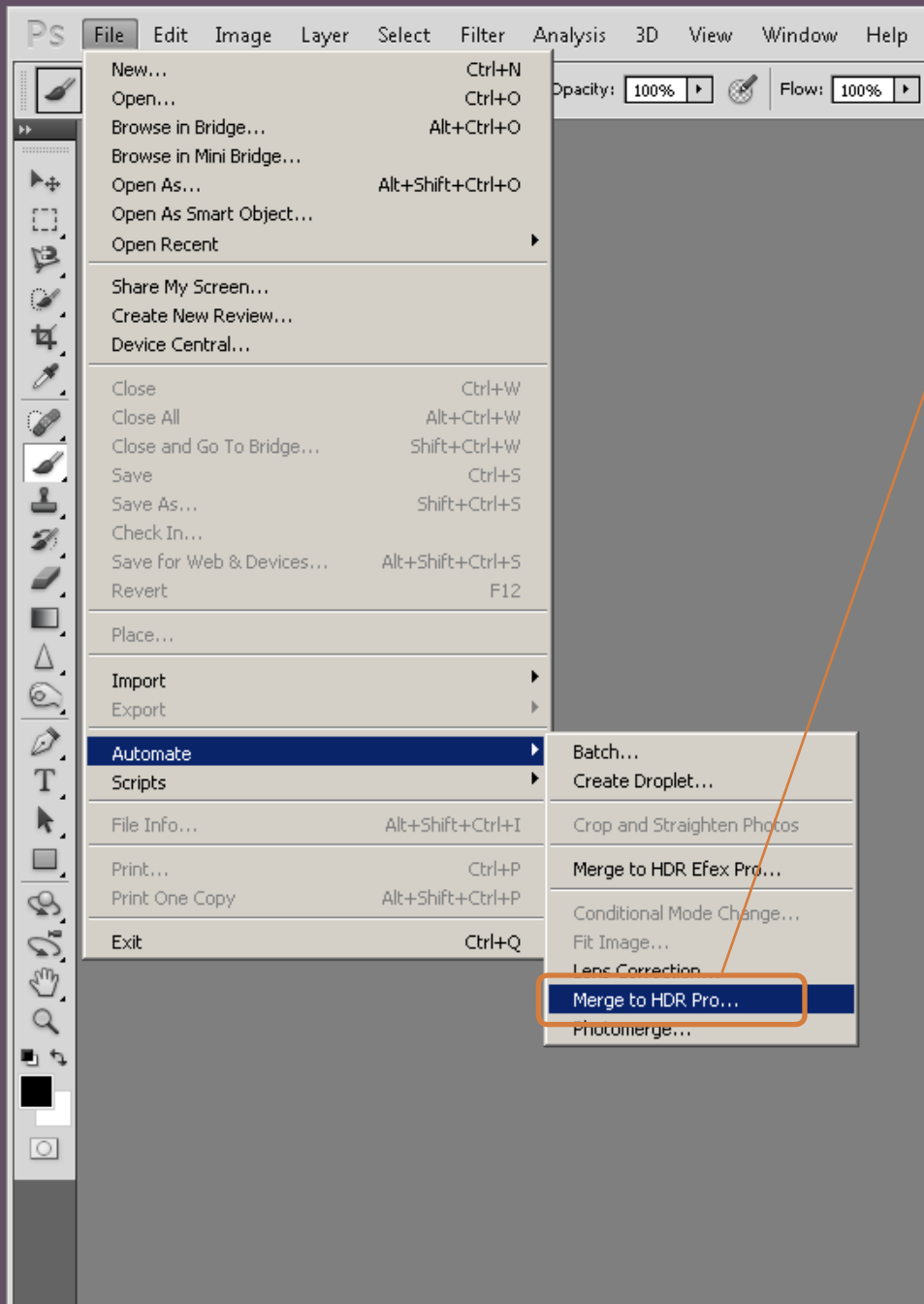
Photomatix Version



Photoshop Version

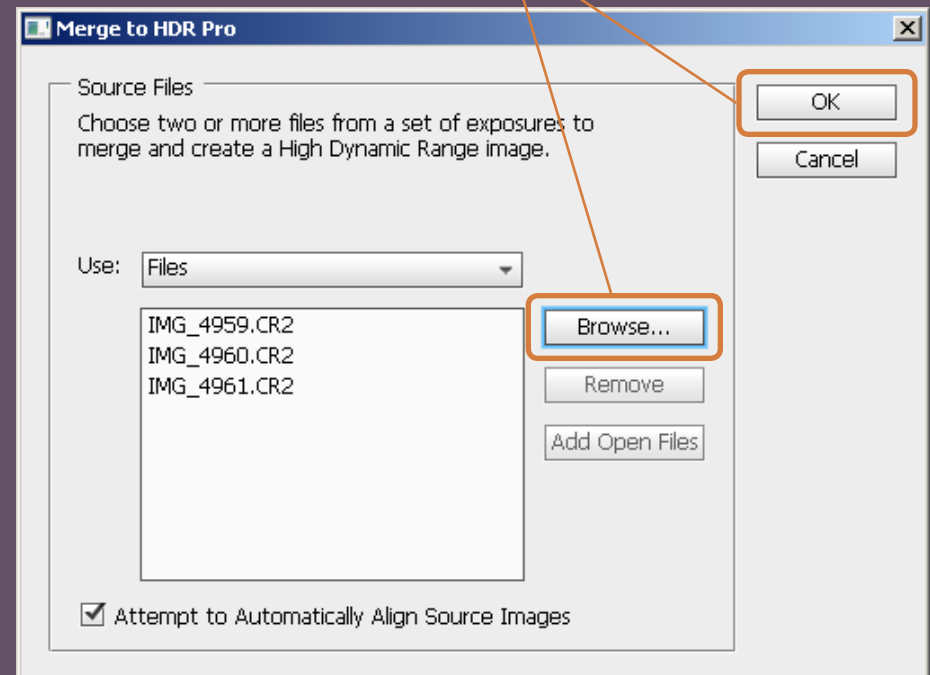


The difference in clarity can be seen when zoomed in. The Photoshop version is cleaner with more clarity.



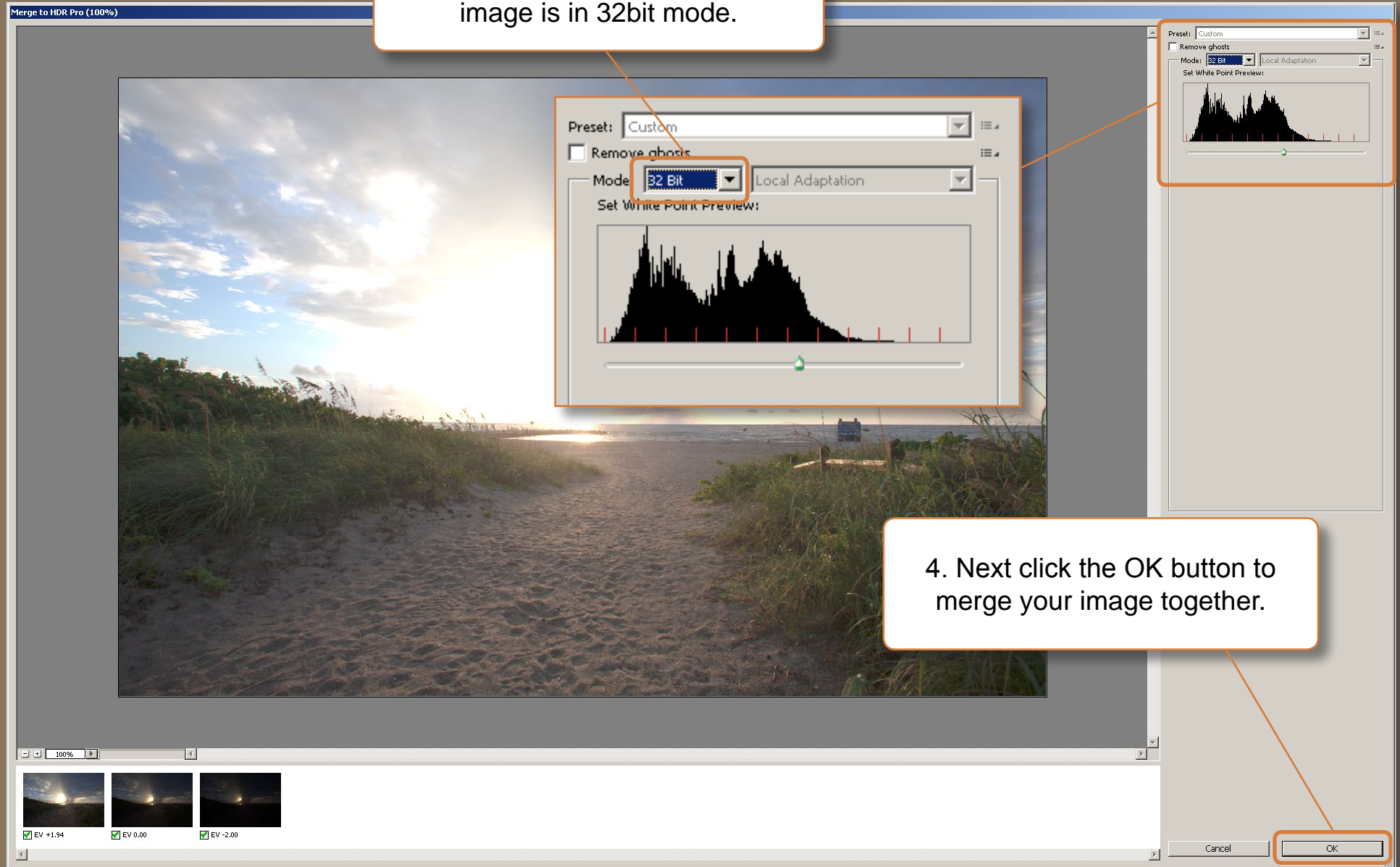
1. To create a merged HDR image in Photoshop, go to File / Automate / Merge to HDR Pro...

2. Click Browse to select the exposures that you want to merge together. Then Click the OK button.





3. When Photoshop is done merging your file, make sure your image is in 32bit mode.



4. Next click the OK button to merge your image together.

5. Once your image is created, Save the file as a (.PSD) or (.HDR) file format.

6. Open the file you just created in Photomatix.

7. Once your image is open click on Tone Mapping to begin tone mapping your photo.

The image is a composite of three screenshots from Adobe Photoshop and Photomatix Pro. The top screenshot shows the Photoshop 'File' menu with 'Save As...' highlighted. The middle screenshot shows the Photomatix Pro 'File' menu with 'Open...' highlighted. The bottom screenshot shows the Photomatix Pro 'HDR Viewer' window with the 'Tone Mapping...' button highlighted. The background of the composite is a landscape photo of a sunset over a field.



## 9. Aligning with Photoshop

Photomatix does a great job aligning exposures for HDR. It's auto alignment feature is pretty much spot on 99% of the time. But let's say for some reason, you need to manually align your photos, Photomatix doesn't have any manual alignment option. Not to worry, manual alignment can be done using Photoshop. Combine this with Photoshop's Auto Alignment tool and you'll get perfect aligned images every time. I used this trick often with Photomatix 3.x, but with the new 4.x release, the auto alignment option is flawless. But I'm going to share this tip anyway, for those who are still using 3.x, plus this tip is very useful in other situations.

Photomatix No Alignment



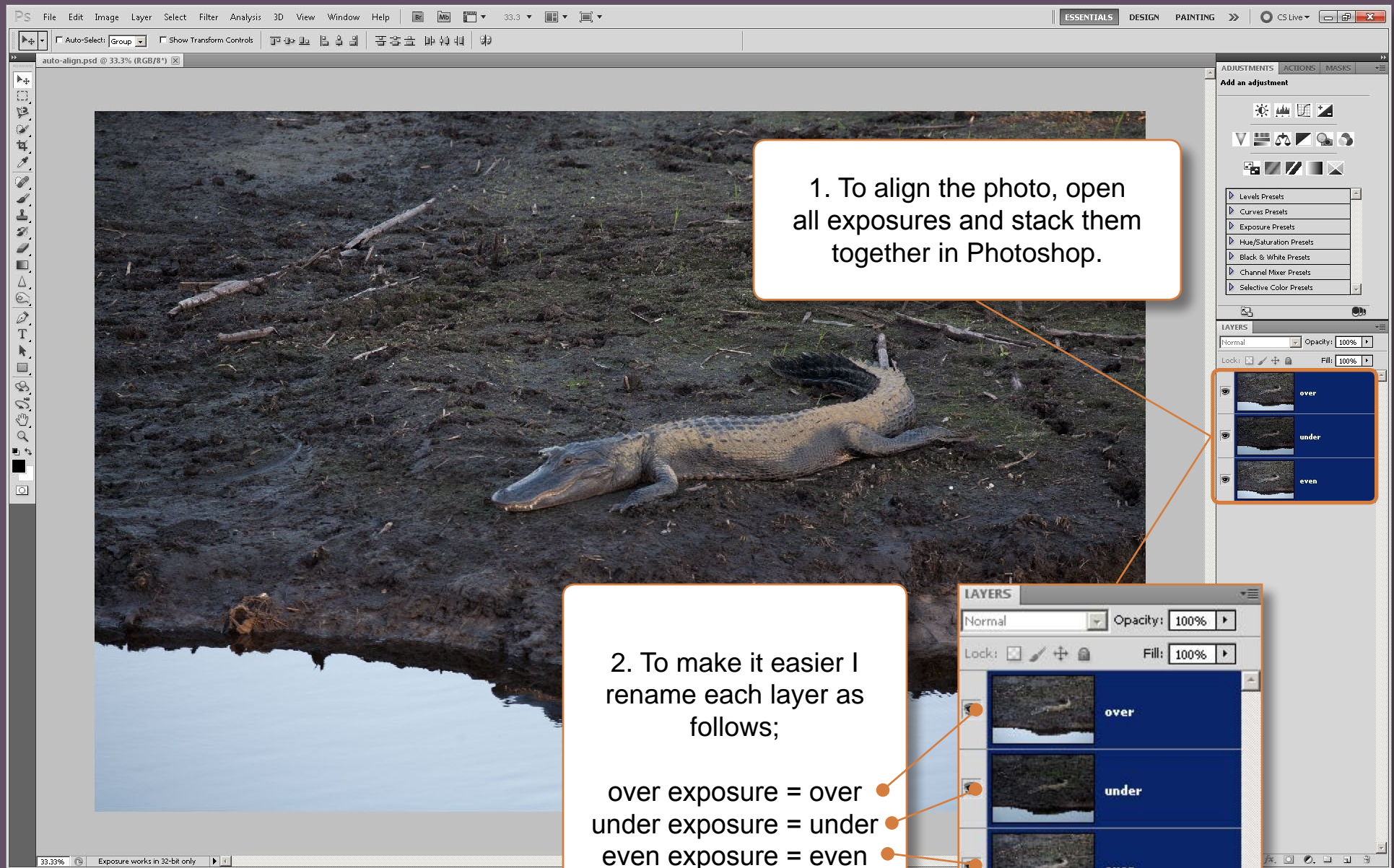
Final HDR output, merged in Photomatix with no alignment. This image shows the misalignment of the exposures.

Photoshop Alignment

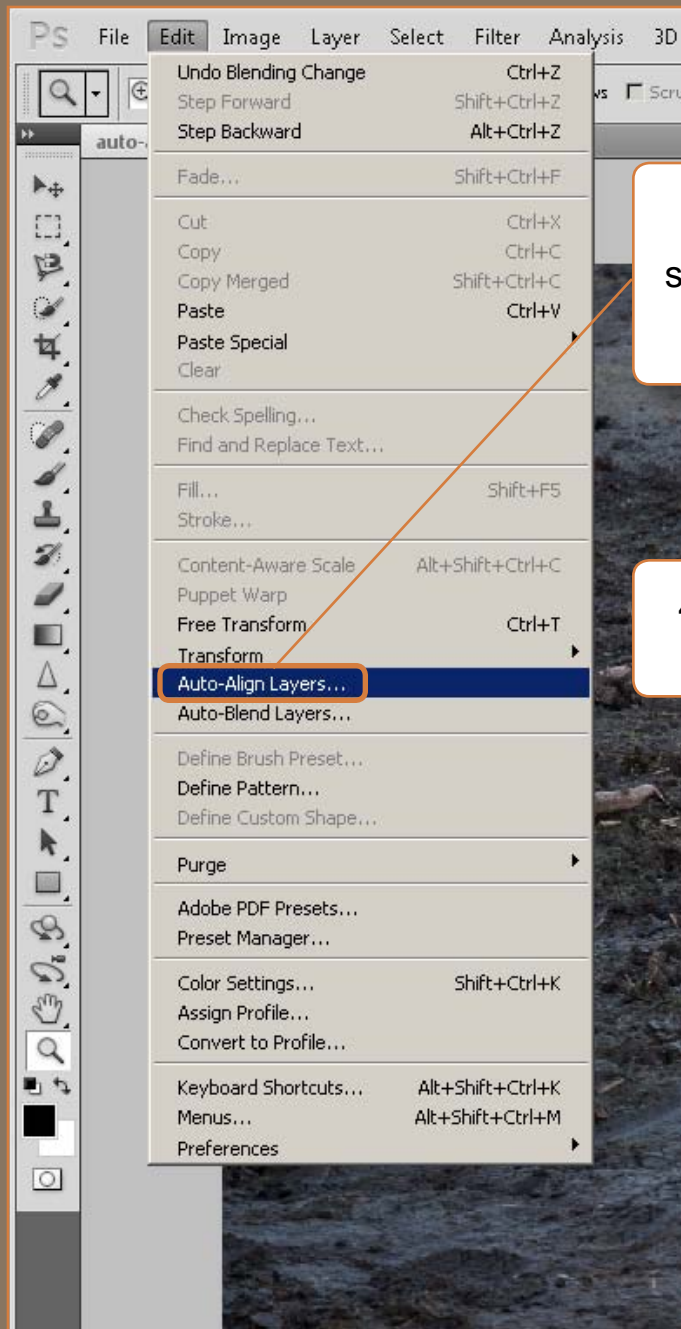


This HDR image was aligned using Photoshop and then merged in Photomatix with alignment off.



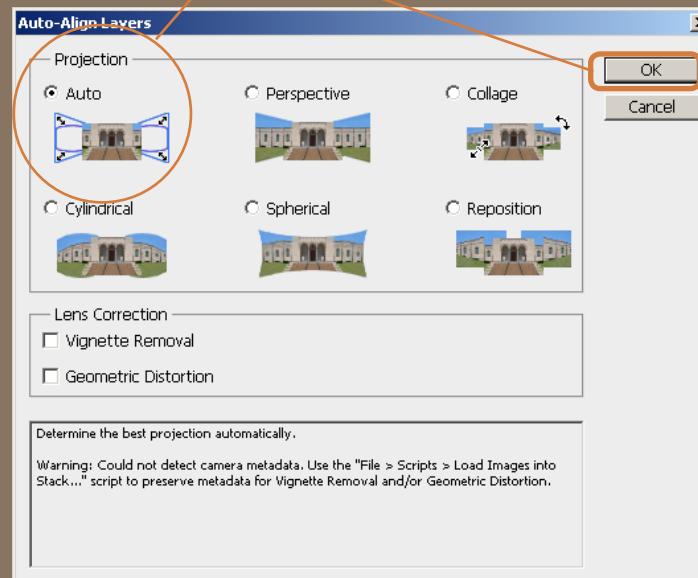
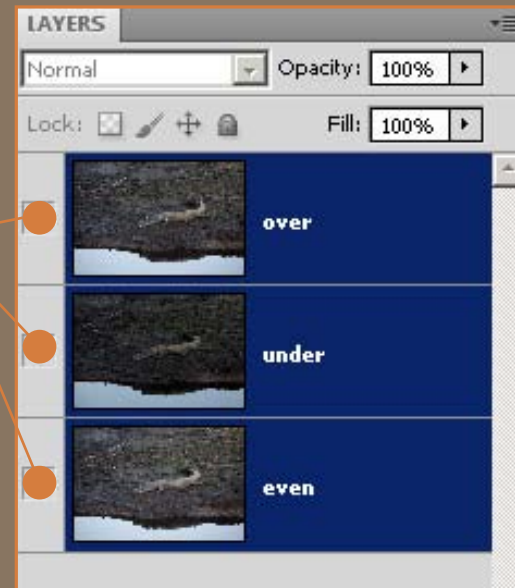






3. With all three layers selected go to Edit / Auto Align Layers...

4. Select Auto and click the OK button.



5. All three layers should now be aligned. You can now manually fine tune the alignment by using the move tool. I change the layer mode to Difference to get a better view of the alignment. When you finish aligning, save all three layers as separate images. Use these files to create your HDR photo.

# 10. Adjusting Exposures in Photoshop

Sometimes I adjust my exposures slightly with Photoshop, to get the results I'm looking for. I do this with JPEG files when my exposure looks a little dark or bright. Normally I shoot in RAW, but every now and then I'll shoot JPEG. You can read more about this on page 152. If you're having problems with your JPEG exposures, you can try adjusting them in Photoshop before tone mapping them in Photomatix. I've used this technique successfully for a bunch of my HDR images.

Without Adjustment



In this photo the pier is completely blacked out. There is also a very unnatural color shifting in the water. This is due to the JPEG image being too dark.

Exposure Adjusted with Photoshop



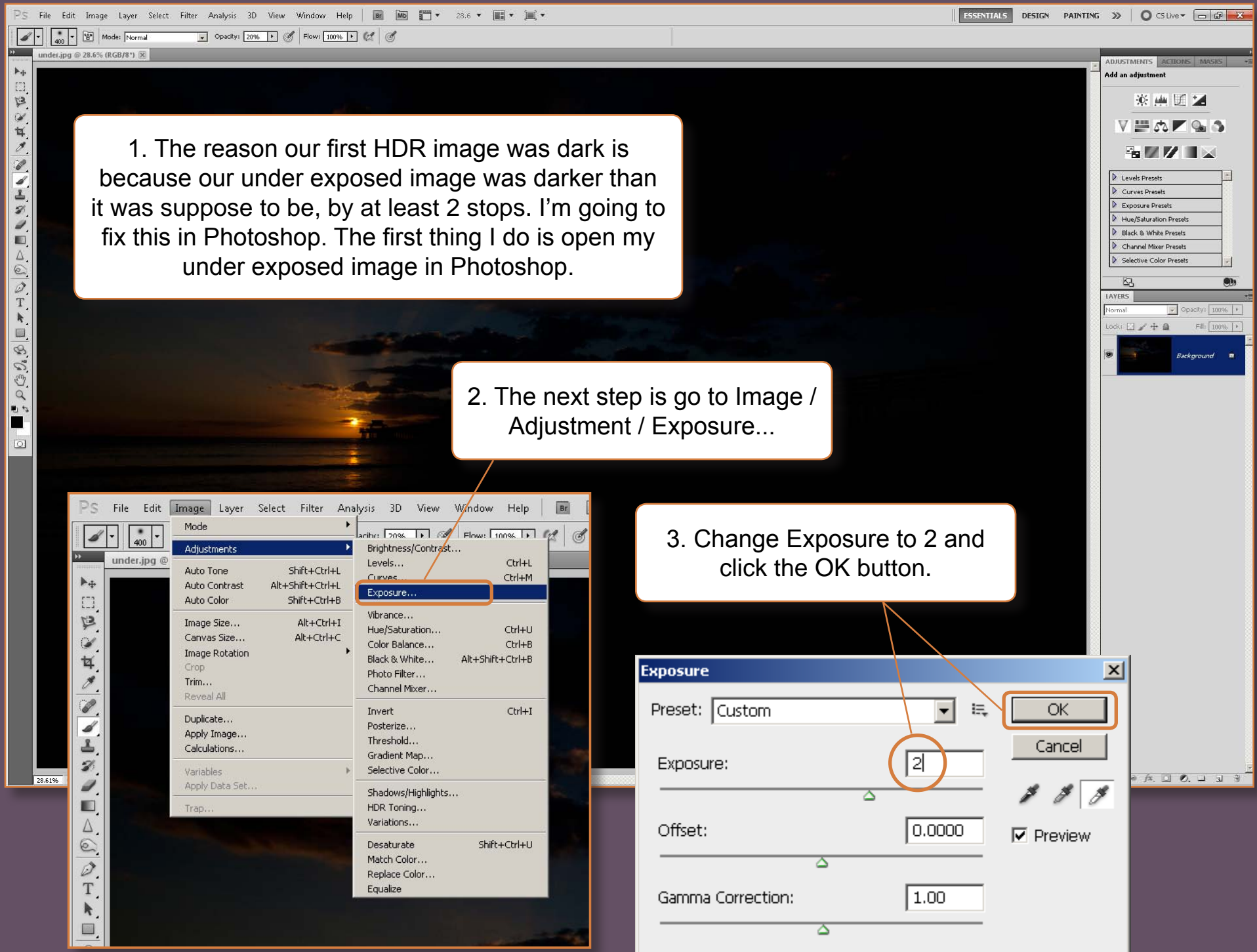
By adjusting the exposures, I've produced a more natural HDR image. In this image our pier can be seen with more detail and our foreground looks much cleaner.



1. The reason our first HDR image was dark is because our under exposed image was darker than it was suppose to be, by at least 2 stops. I'm going to fix this in Photoshop. The first thing I do is open my under exposed image in Photoshop.

2. The next step is go to Image / Adjustment / Exposure...

3. Change Exposure to 2 and click the OK button.



## BEFORE



4. Now I save this newly adjusted image and use it to create my HDR image along with the other 2 exposures.

## AFTER





## CHAPTER 3

# Layer Masking 101

## Basic Photoshop Tutorial

*Advanced Photoshop users skip to page 67.*

# 1. Add Layer Mask

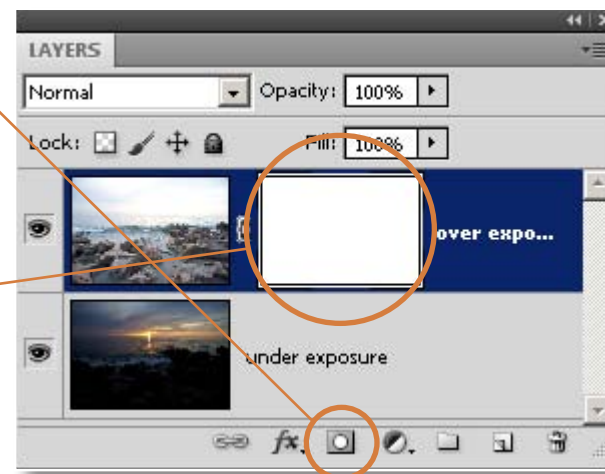
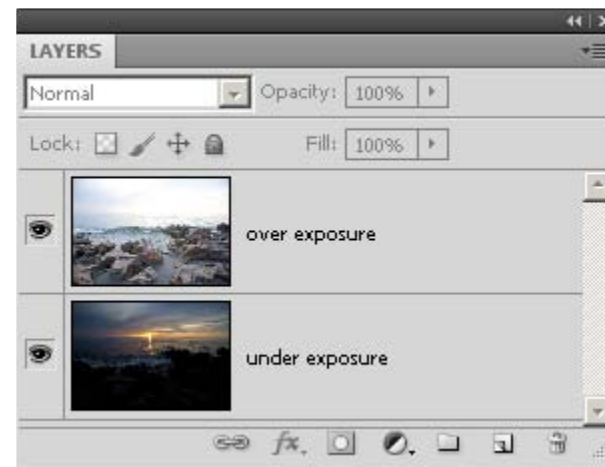
Before getting started with the Photoshop lesson, I want to briefly cover the basics of Layer Masking. This is a simple crash course on how to add and work with layer masks. I use layer masking a lot in my Photoshop workflow and I feel it necessary to cover the basics for those who are new or unfamiliar with layer masks.

So what is layer masking? Layer masking is a way to superimpose an image onto another image. You can use layer masking to blend images together. This is how I created HDR images before I started using Photomatix. This tutorial will teach you layer masking by showing you how to blend an HDR image together.

The image on the right is the Layers window. I've opened the under exposed photo and placed the over exposed photo on top. What we're going to do is add a layer mask and digitally blend the photos together to create a semi-HDR photo.

To add a layer mask to a specific layer, in this case, we will add a layer mask to the **"over exposure"** layer, so select that layer and click the **"Add layer mask"** button here.

This is the layer mask that will be created for our **"over exposure"** layer.

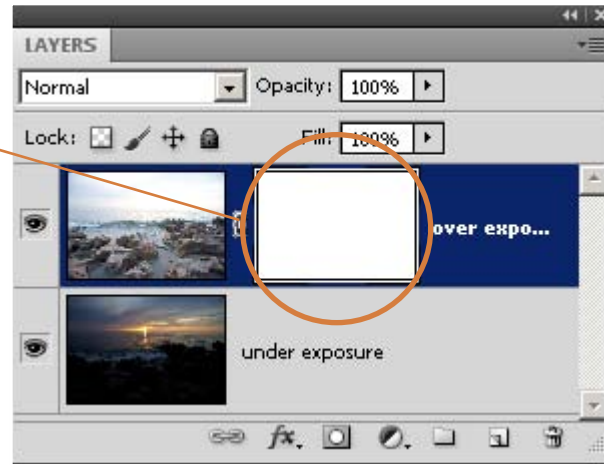




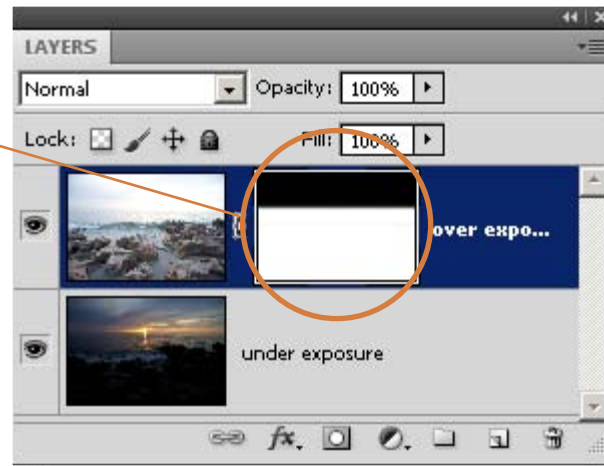
## 2. Painting with Black

We can adjust our layer mask by using the paint brush tool. The two main colors we will use to paint our layer mask is white and black. By painting the layer black, we will reveal the layer below. In this case, the “**under exposure**” layer will be revealed.

Before you begin painting be sure to select the layer mask by clicking on the layer mask here.



Once you've selected the layer mask. Click on your paint brush tool and make sure your brush color is black. Begin painting black around the area of the sky to reveal the “**under exposure**” layer below. The layer mask should look something like this.



BEFORE



AFTER



### 3. Fine Tuning Mask

In this section we will learn how to fine tune our layer mask by changing the opacity of the brush color.

Ps File Edit Image Layer Select Filter Analysis 3D View Window Help | Br Mb 50% ▾

Mode: Normal Opacity: 50% ▾ Flow: 100% ▾

under.psd @ 50% (over exposure, Layer Mask/8) x

Change the opacity of your brush here to 50% then begin painting in the ocean. Adjust the opacity to fine tune your blending. You can also reveal more of the under exposed image by painting over the same area multiple times.

BEFORE

AFTER

Your layer mask should now look something like this.

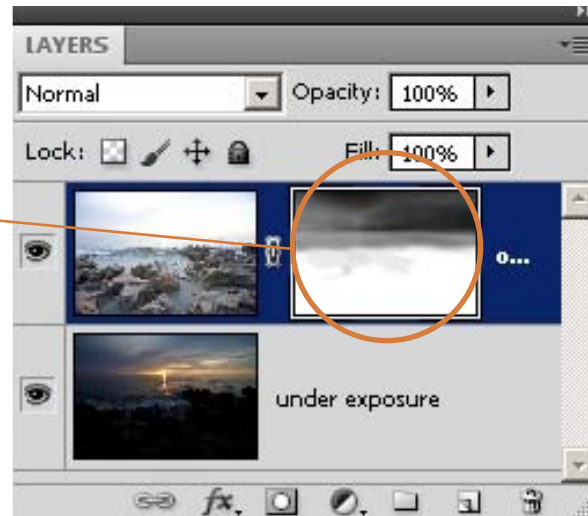


## 4. Painting with White

This digitally blended HDR photo is looking pretty good, but the sky is a little dark. In this section you'll learn to use the color white to paint back in the over exposed image. By doing this we will make the sky lighter, thus making our image more seamless.

Change your brush color to White and change the opacity to 2%, adjust opacity for better control if needed.

Your layer mask should now look something like this.



BEFORE



AFTER



Layer masking is a very important part of my work flow as you will see in the Photoshop lesson. Now that you have a basic understanding of layer masking, I encourage you to learn more, but as far as this tutorial goes, this is all you'll need to know. I'll show you how to superimpose an image in the next chapter.



Final image after using the Photoshop techniques covered in the next chapter.



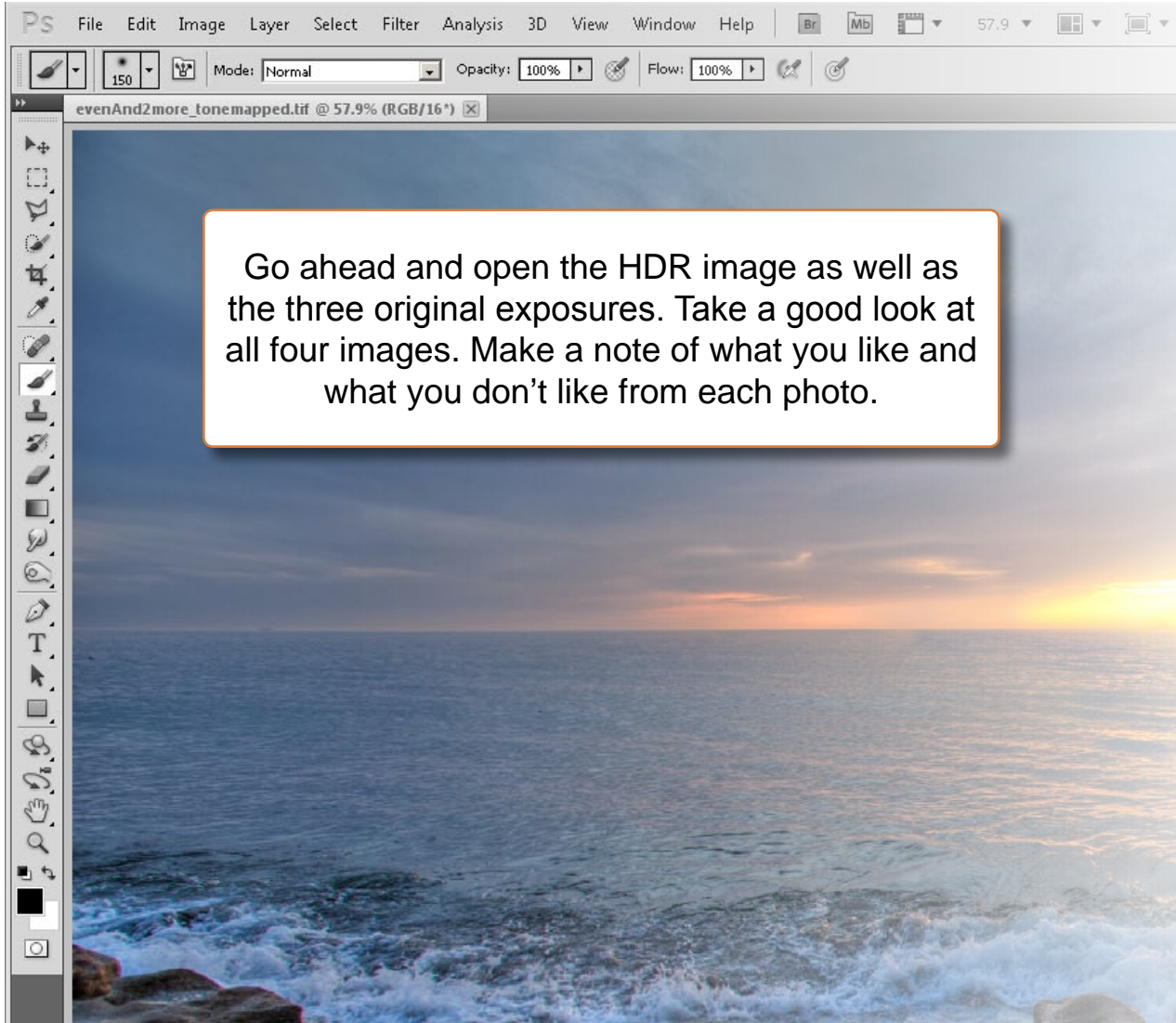
## CHAPTER 4

# Photoshop Lesson

### Step-by-step Guide to Photoshop

# Getting Started

The first thing we're going to do is take a good look at our HDR image in Photoshop, see what we like and what we don't. This is where we begin to visualize what we need to do to make our photo even more spectacular. At this stage, I also open all of my original exposures as well.

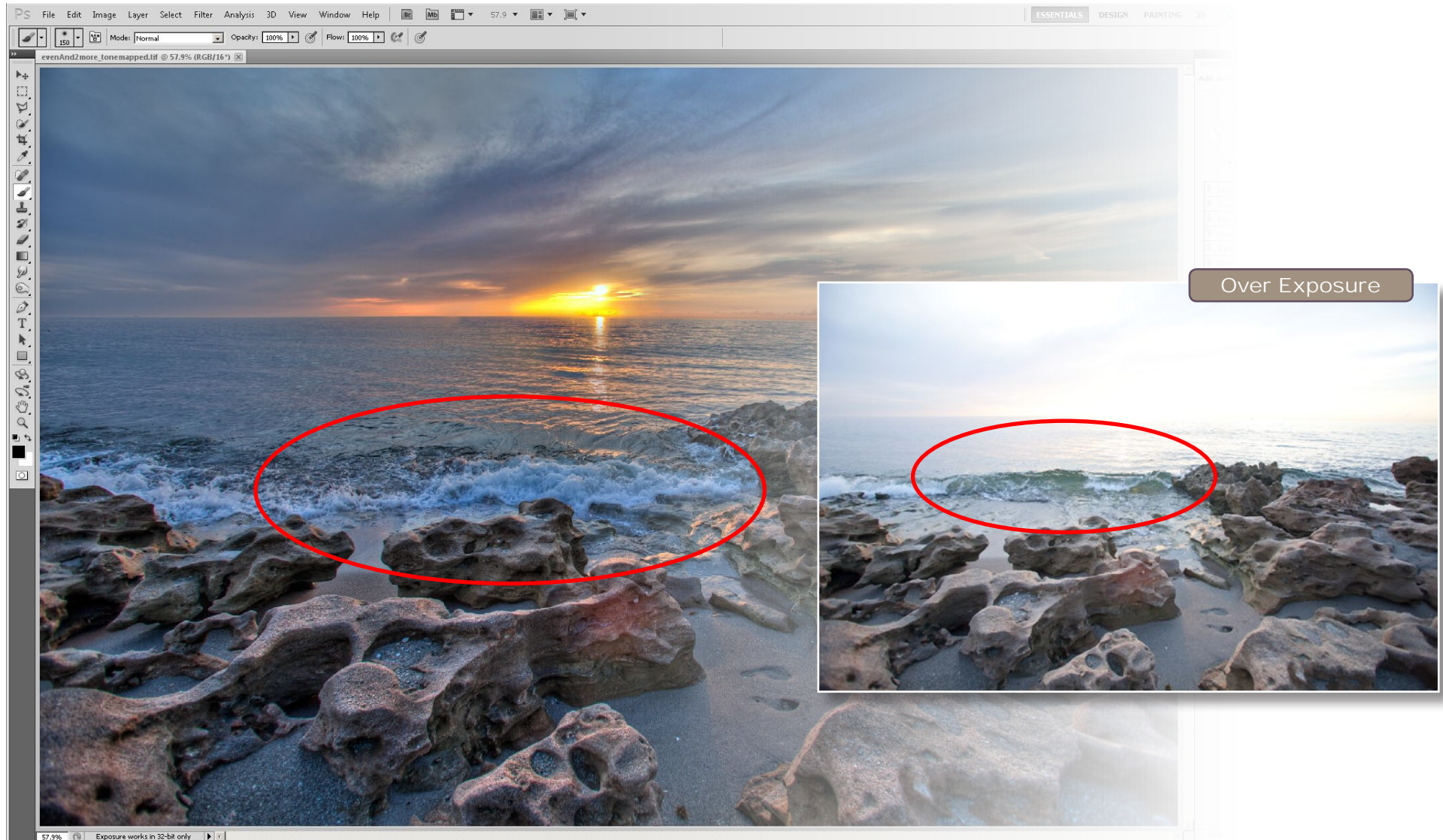




# The Missing Wave

After reviewing all the images I see that our wave from the HDR photo is missing. This happened during the merging process in Photomatix. Since water doesn't stay still, Photomatix picks an exposure and uses that

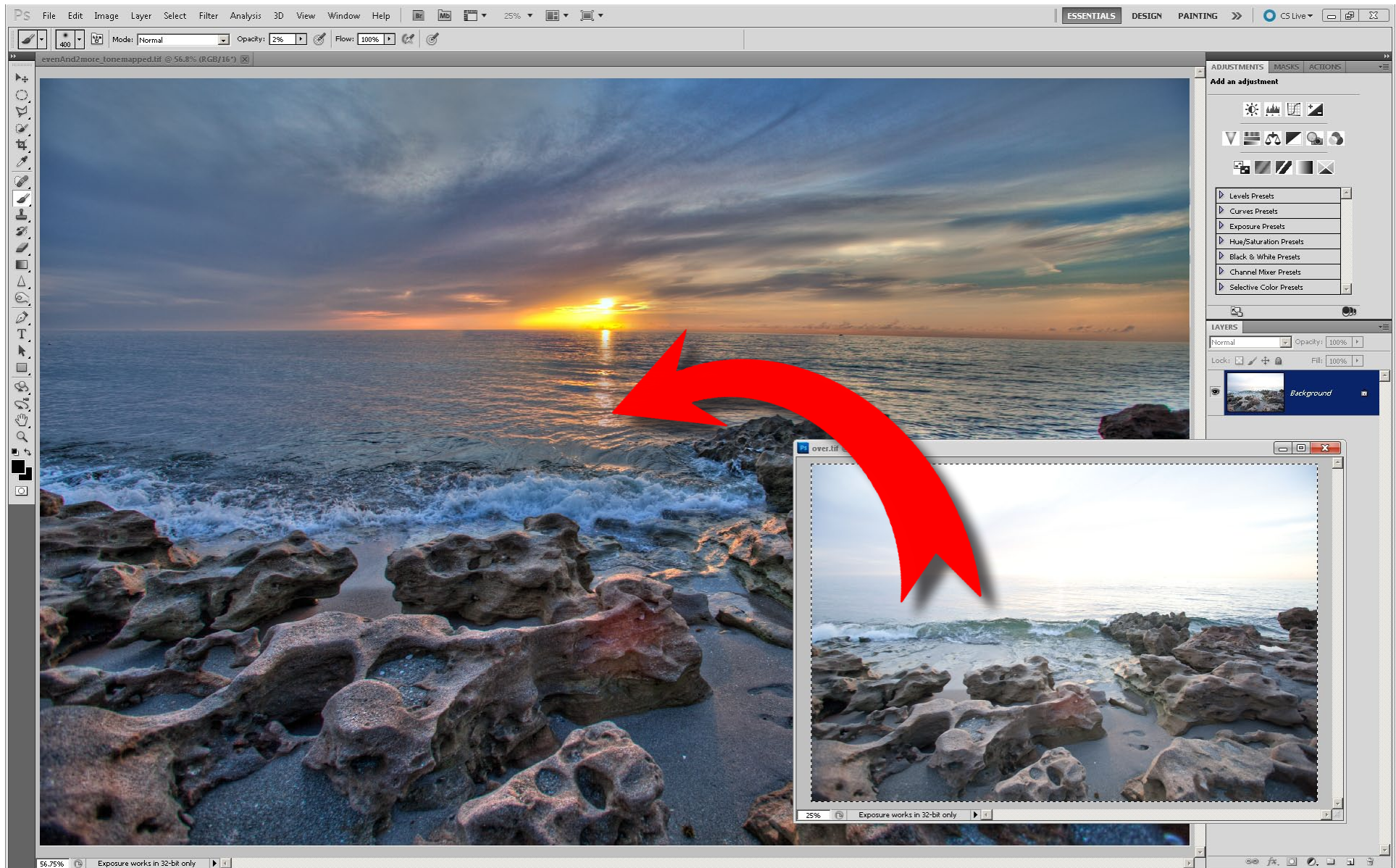
for the HDR image, and usually it's the evenly exposed photo. To correct this we will super impose the over exposed image onto our HDR photo. This is where understanding layer masking comes in handy.



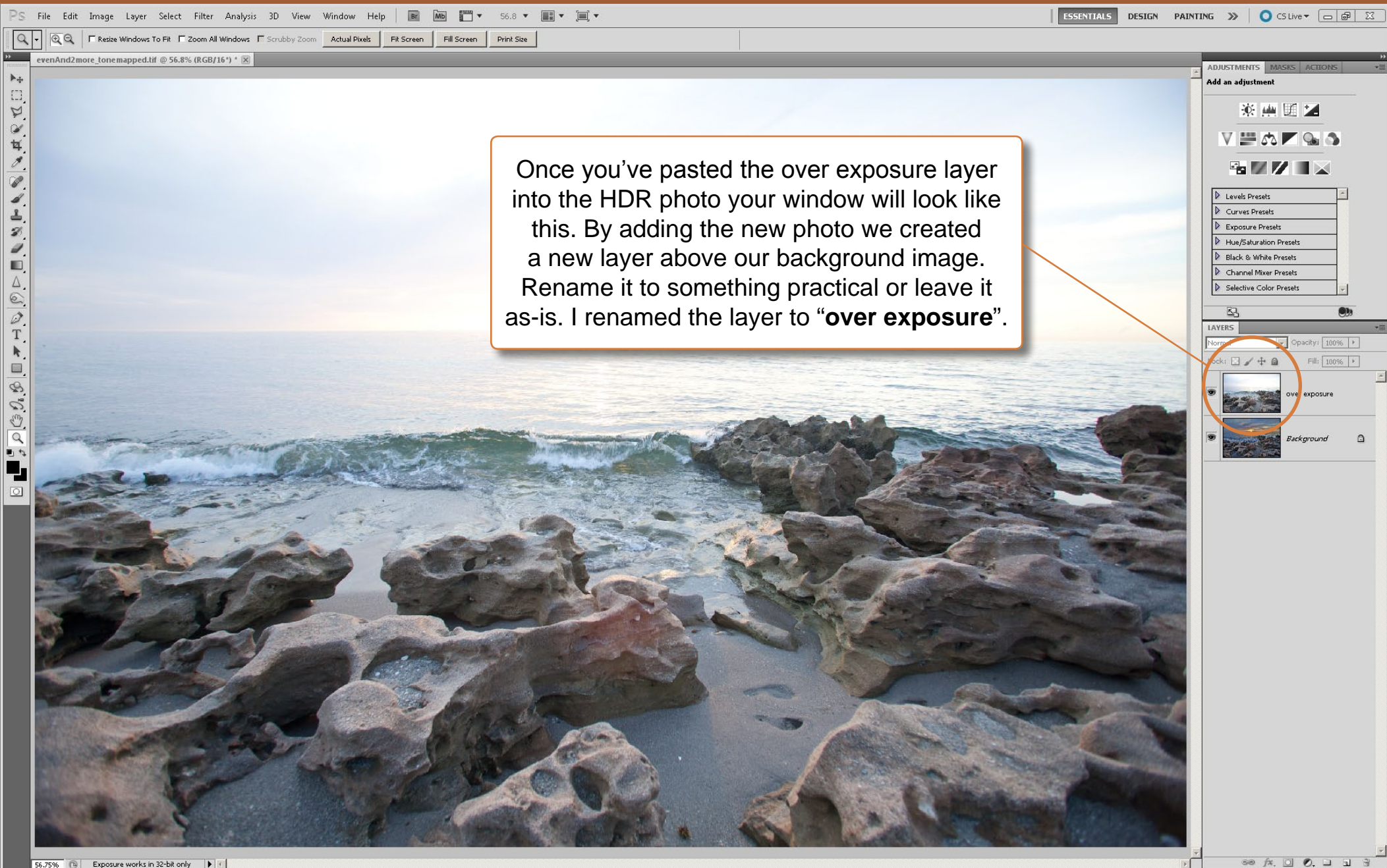


# 1. Adding the Wave

Adding the over exposure image to our HDR photo is easy. Simply copy and paste the over exposed image into the HDR photo, or drag and drop it using the move tool.



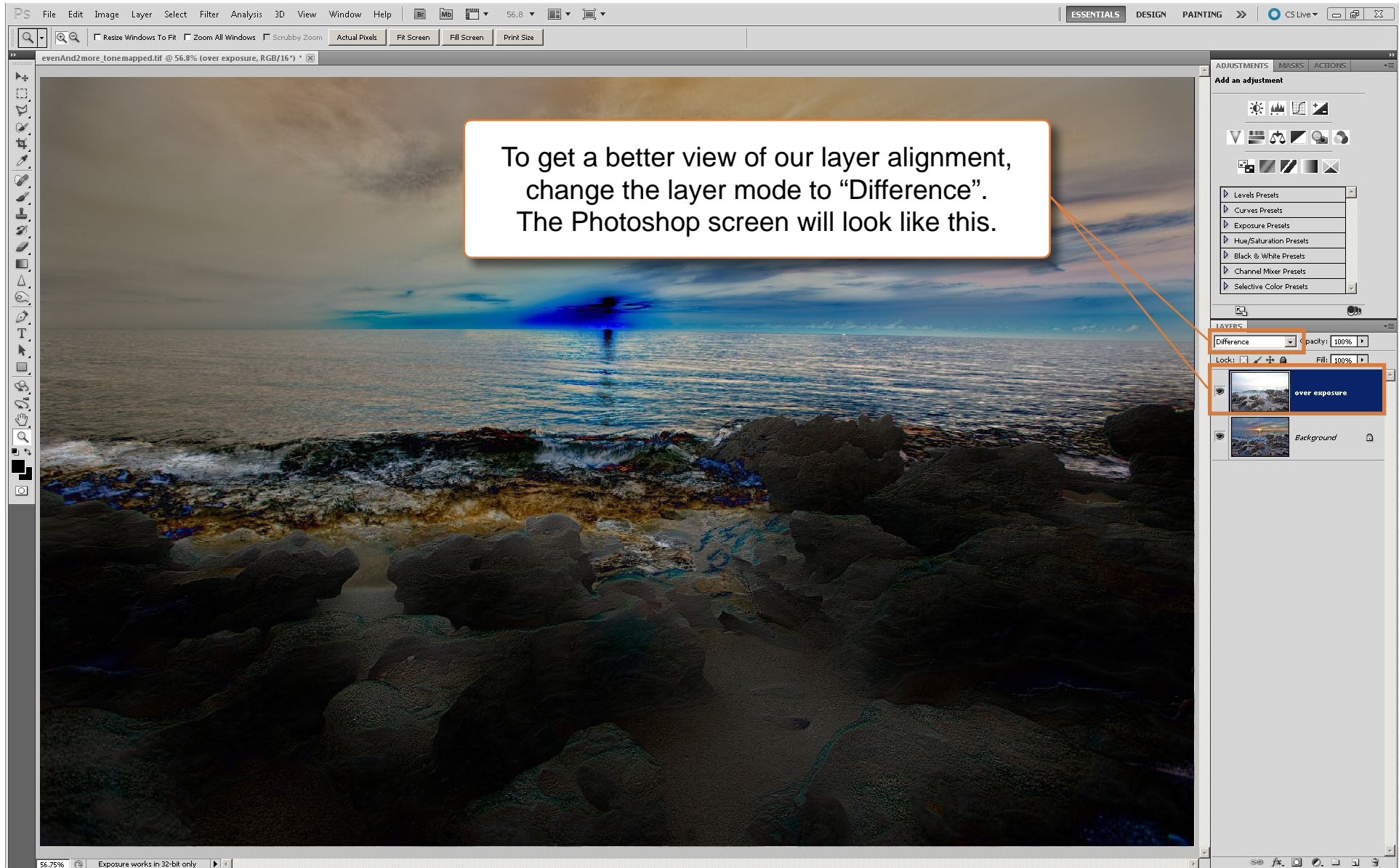




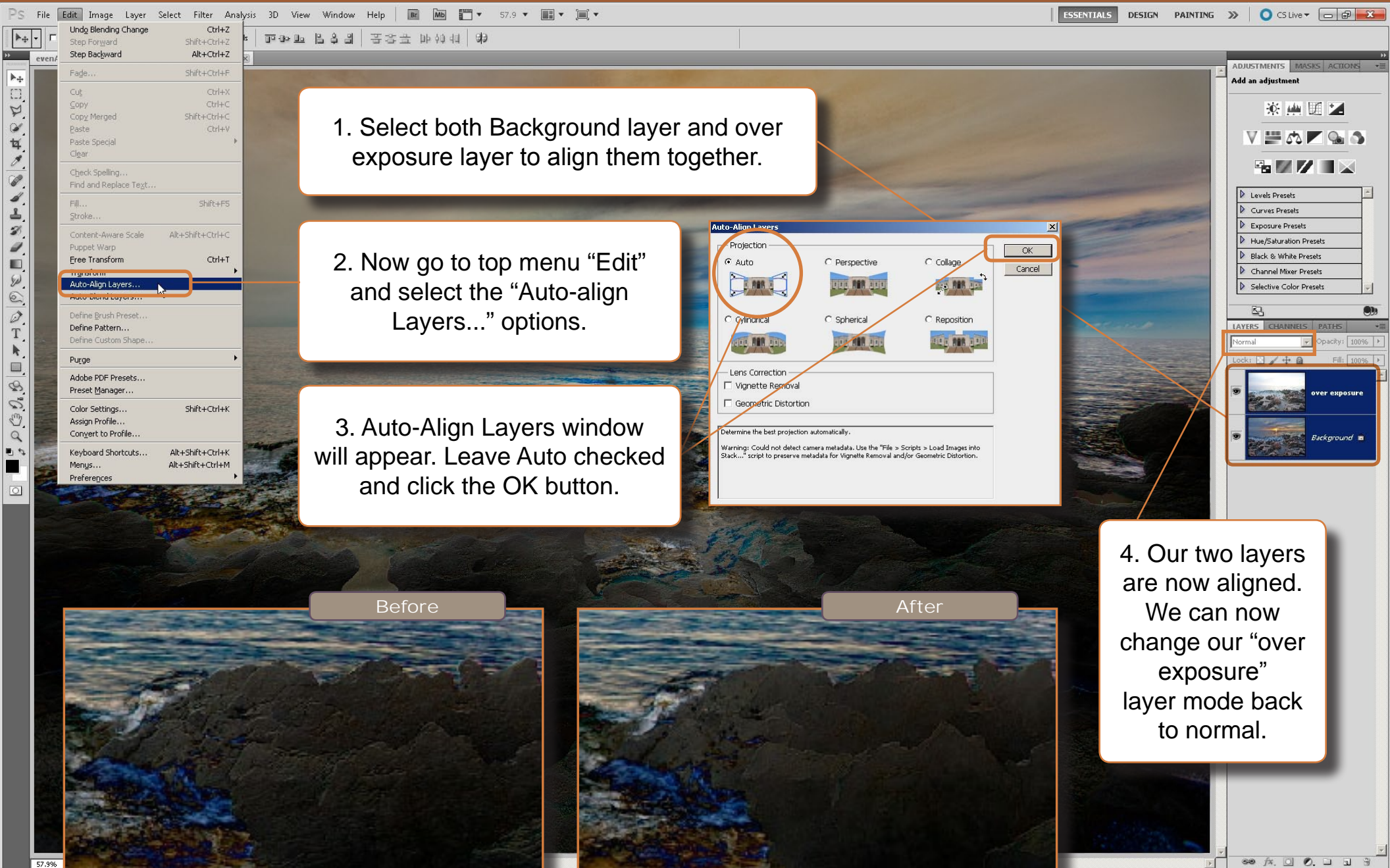


## 2. Aligning the Images

We will now need to align our over exposure layer with our background layer. Doing this will help make our image flawless. This is the same technique used on page 54.







1. Select both Background layer and over exposure layer to align them together.

2. Now go to top menu “Edit” and select the “Auto-align Layers...” options.

3. Auto-Align Layers window will appear. Leave Auto checked and click the OK button.

4. Our two layers are now aligned. We can now change our “over exposure” layer mode back to normal.

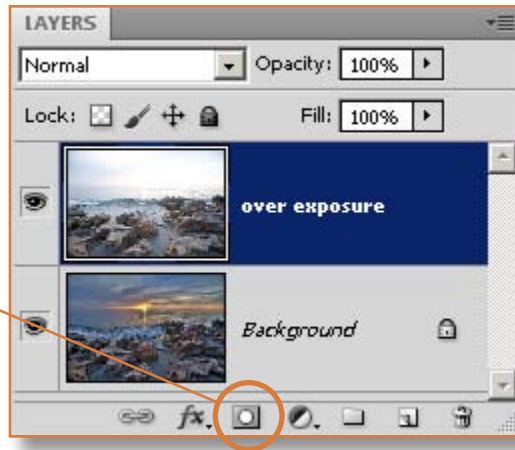
Before

After

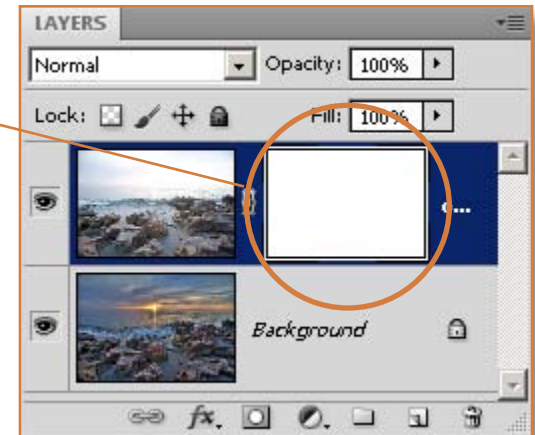
# 3. Adding Layer Mask

Now we are going to add a layer mask to our over exposure layer so we can superimpose the wave onto our HDR image.

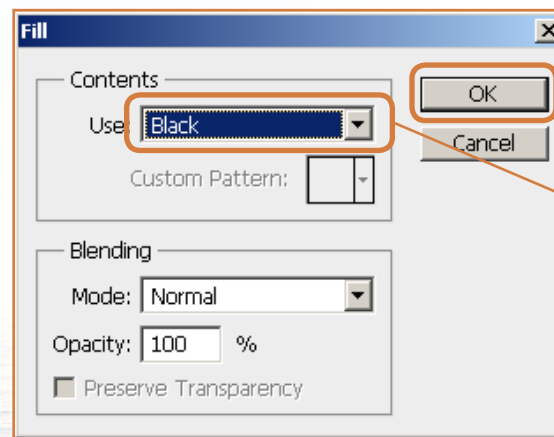
1. Lets begin by adding a layer mask to our over exposure layer. Click here to add a layer mask.



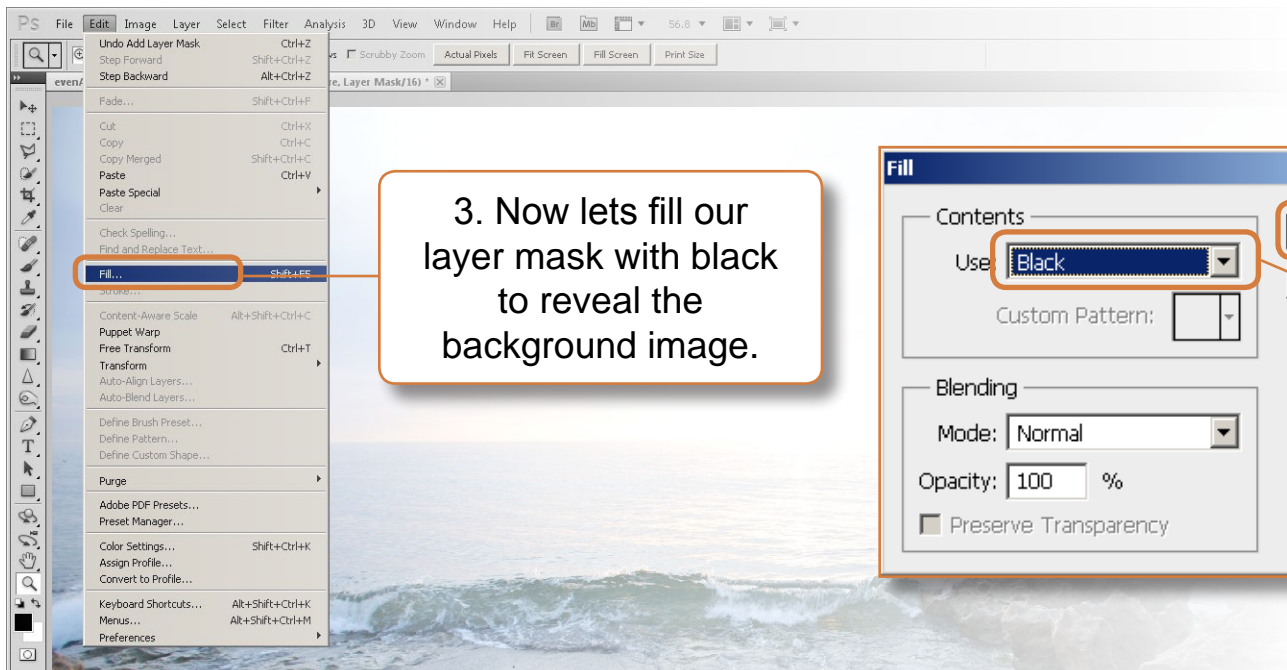
2. Click on the new layer mask to select it.



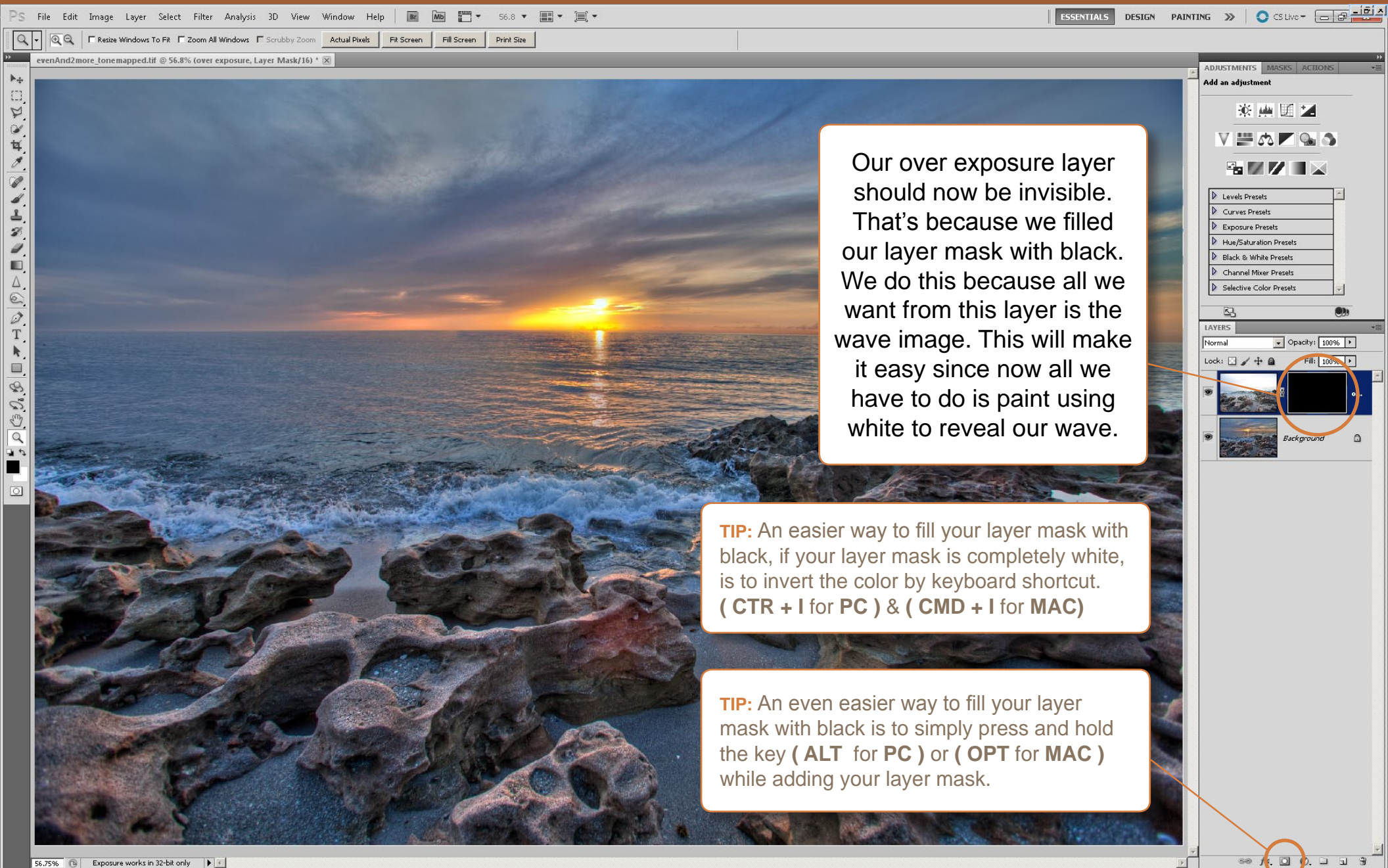
3. Now lets fill our layer mask with black to reveal the background image.



4. Change Foreground Color to Black and click the OK button.







Our over exposure layer should now be invisible. That's because we filled our layer mask with black. We do this because all we want from this layer is the wave image. This will make it easy since now all we have to do is paint using white to reveal our wave.

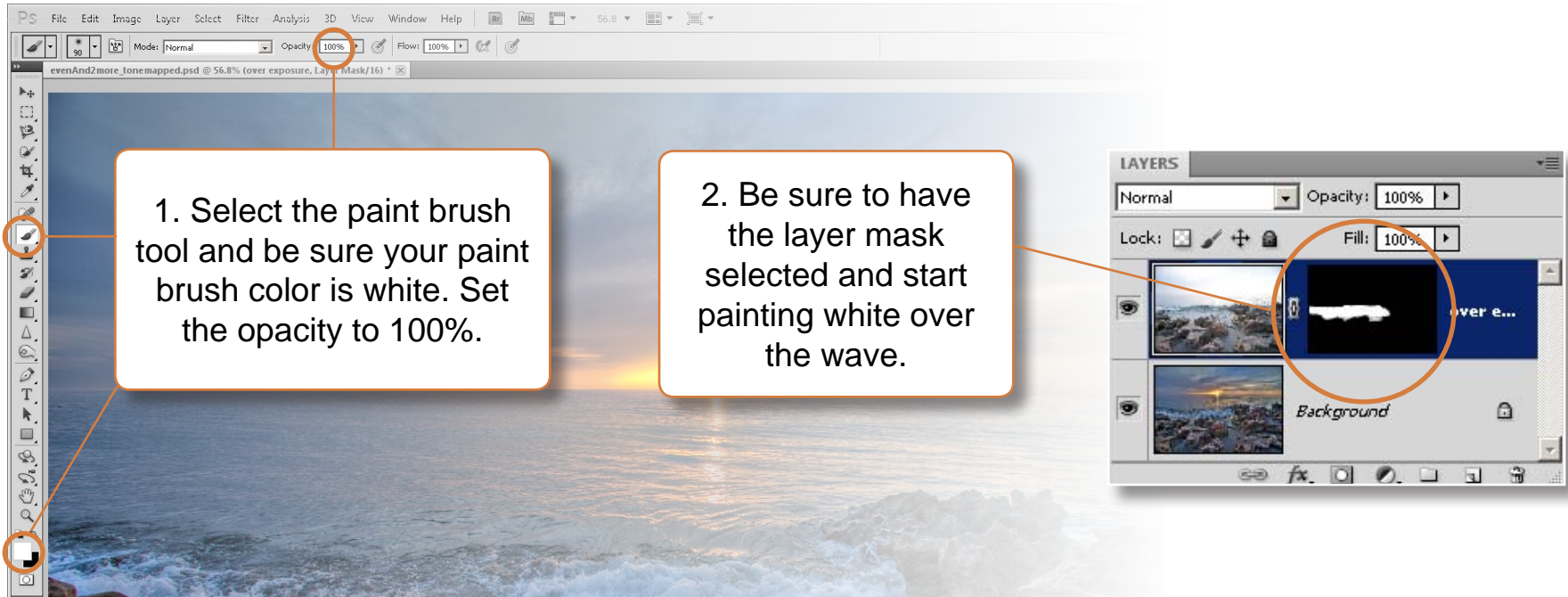
**TIP:** An easier way to fill your layer mask with black, if your layer mask is completely white, is to invert the color by keyboard shortcut. ( **CTR + I** for **PC** ) & ( **CMD + I** for **MAC** )

**TIP:** An even easier way to fill your layer mask with black is to simply press and hold the key ( **ALT** for **PC** ) or ( **OPT** for **MAC** ) while adding your layer mask.

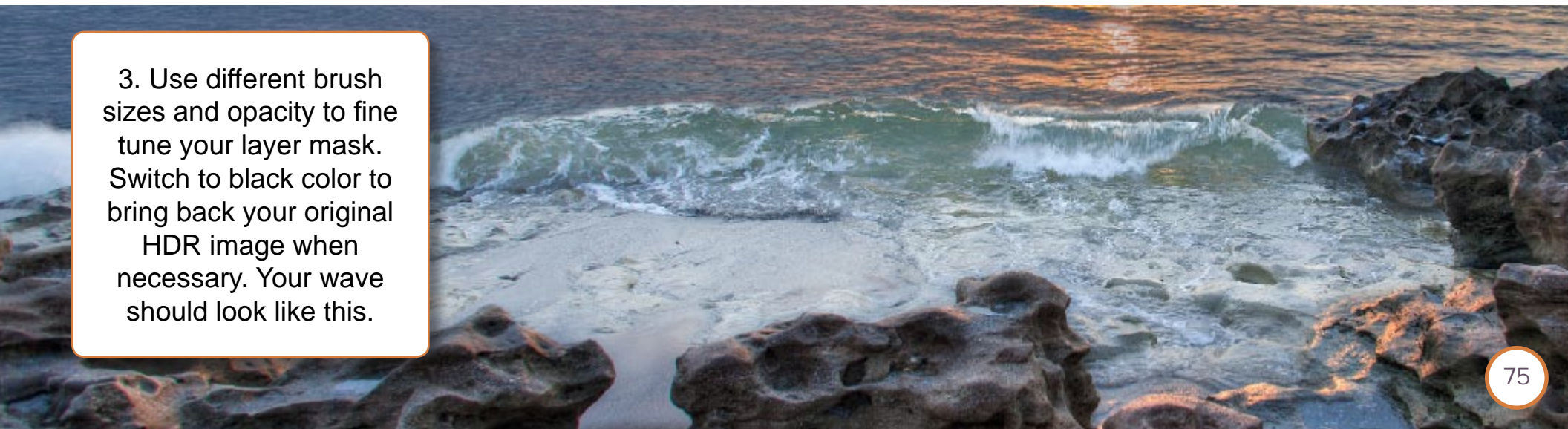


## 4. Blending the Wave

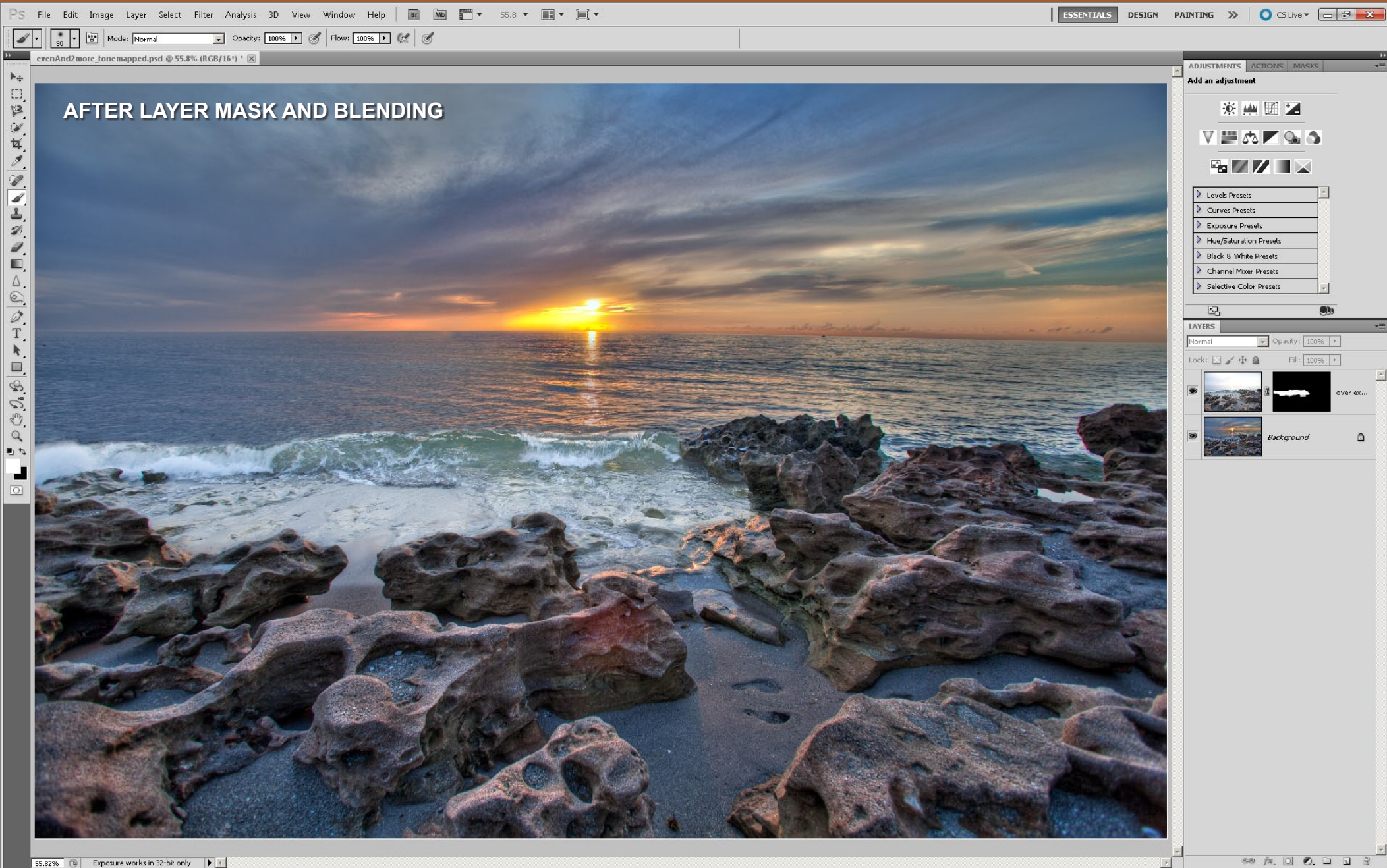
This is where all your layer masking skills come to play. In this part of our lesson we will paint the layer mask with white to reveal only the wave.



3. Use different brush sizes and opacity to fine tune your layer mask. Switch to black color to bring back your original HDR image when necessary. Your wave should look like this.



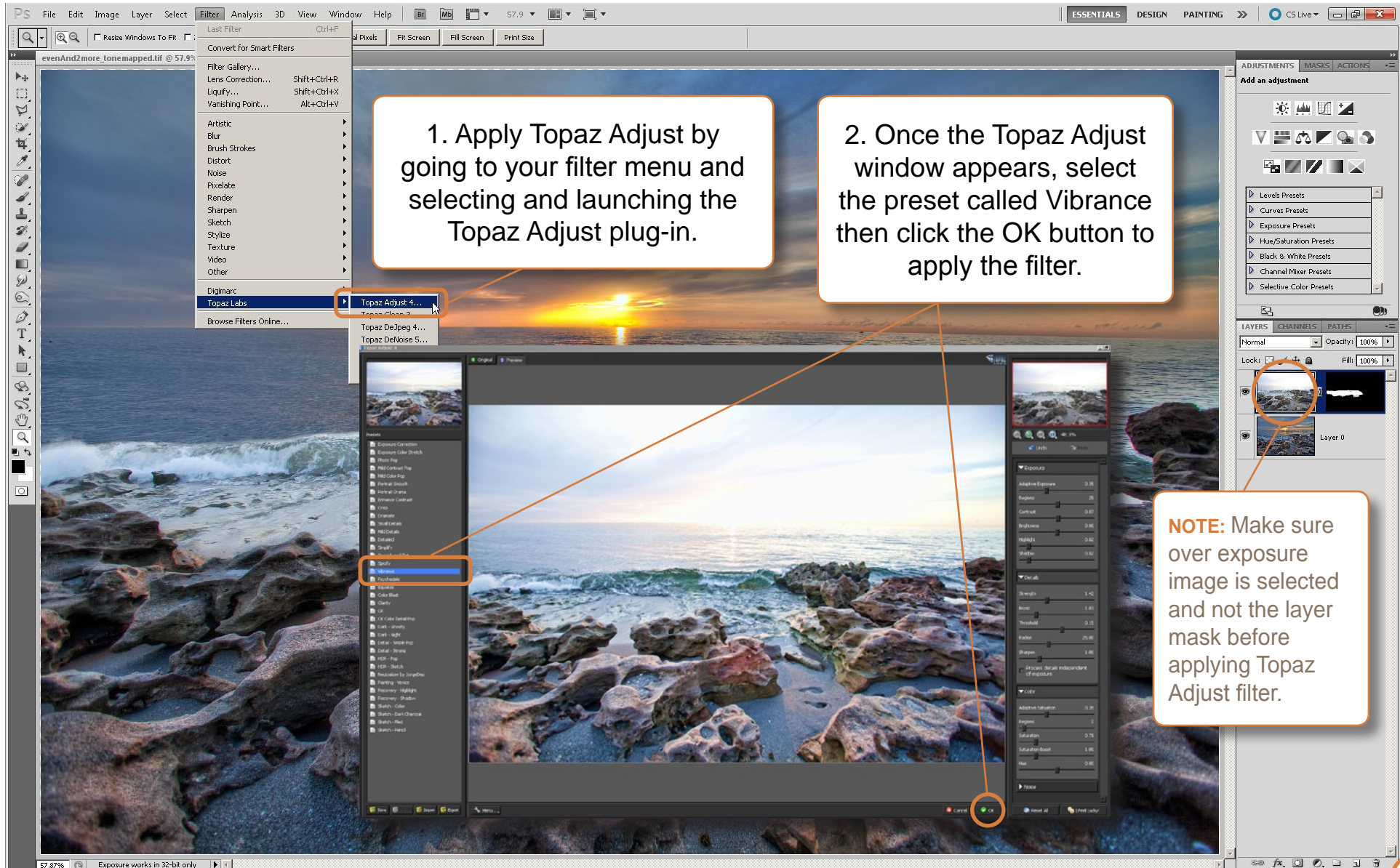




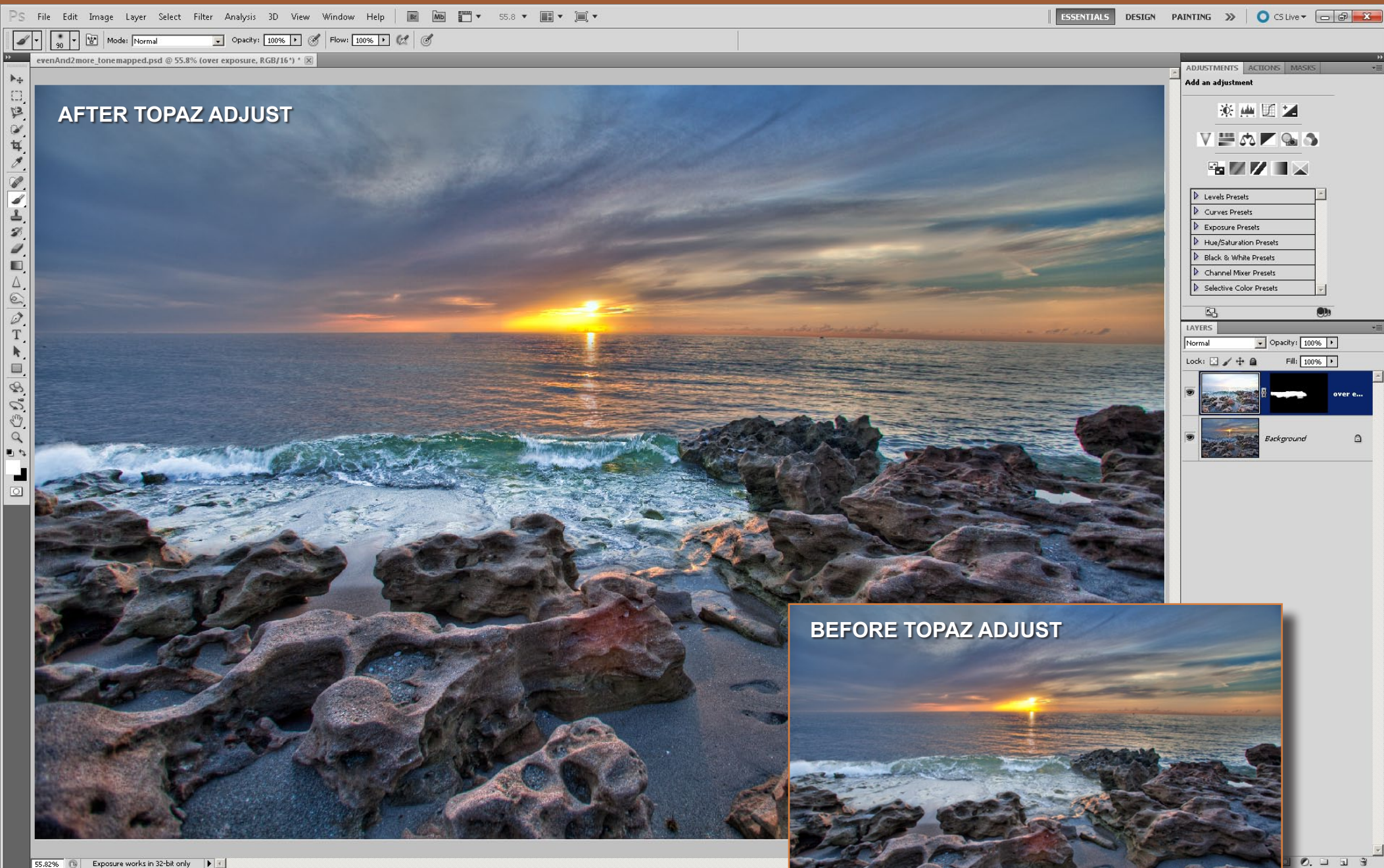


# 5. Applying Topaz Adjust

Currently our wave doesn't match our HDR image, so we're going to use Topaz Adjust to make our over exposure layer look more similar to the HDR photo. Topaz Adjust will do this by making our image look more dynamic.



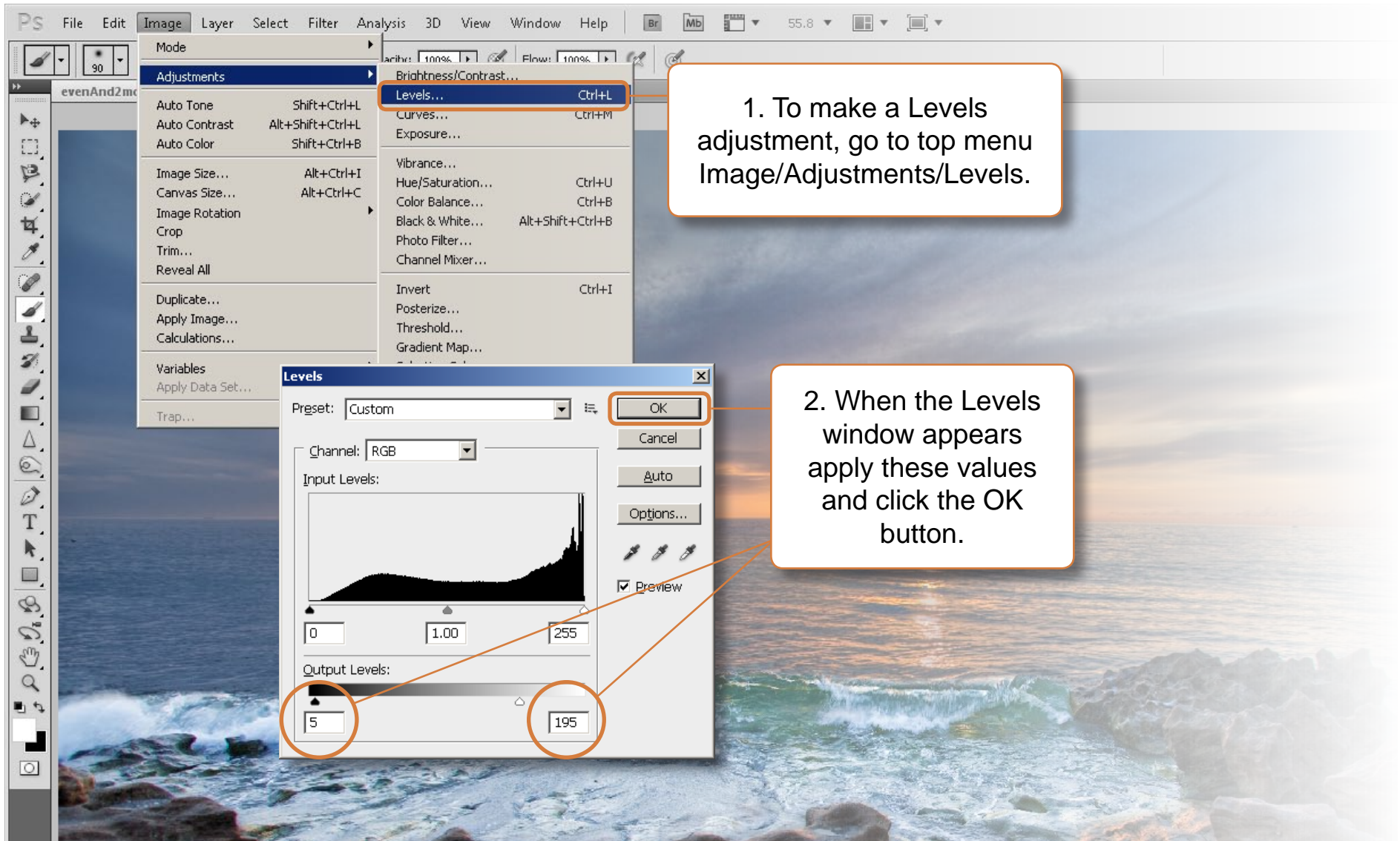




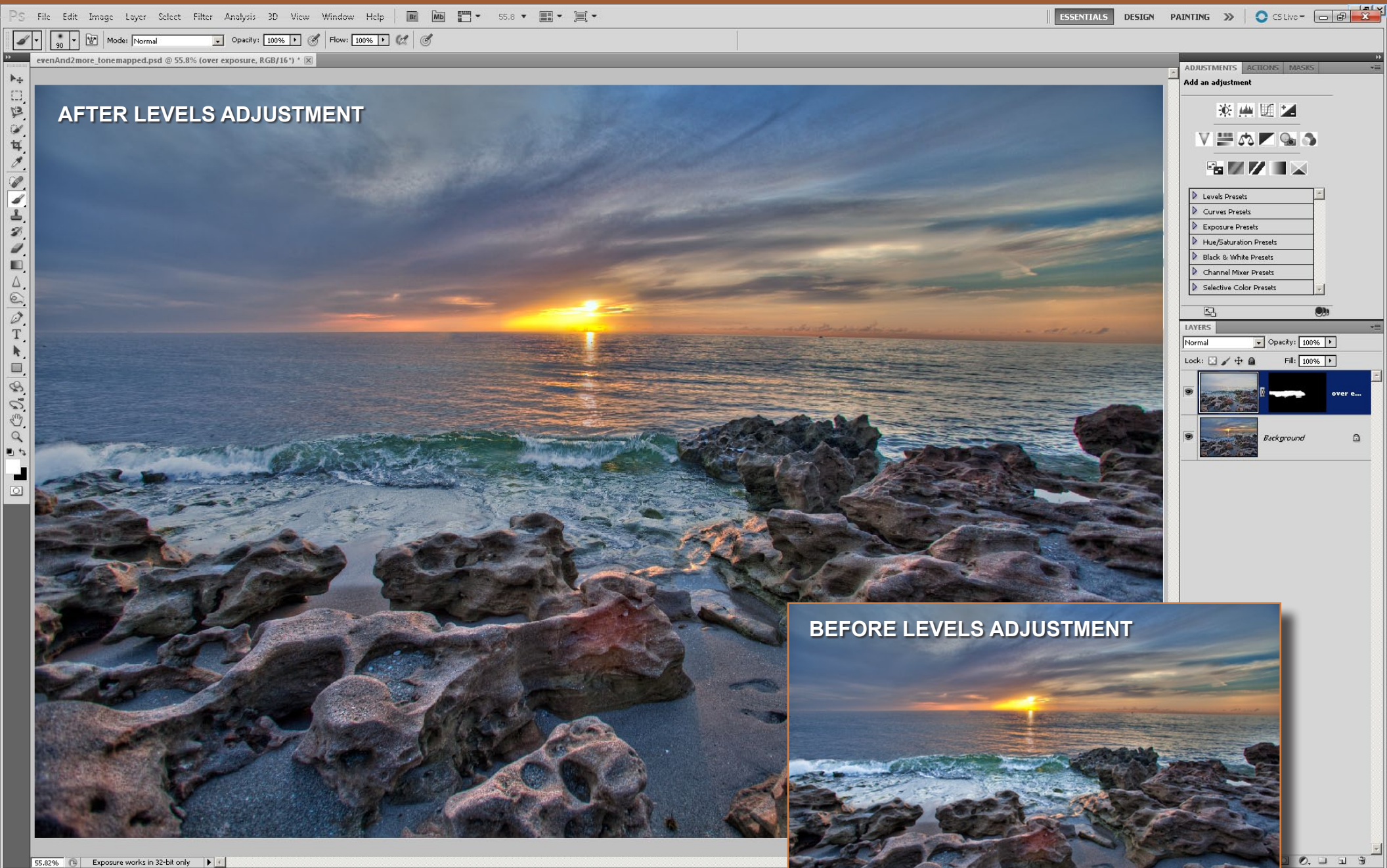


## 6. Levels Adjustment

The wave is starting to look pretty good but right now it's a little bright so we're going to apply a Levels adjustment to our wave image. Make sure to select the wave image and not the layer mask before you apply the adjustment.



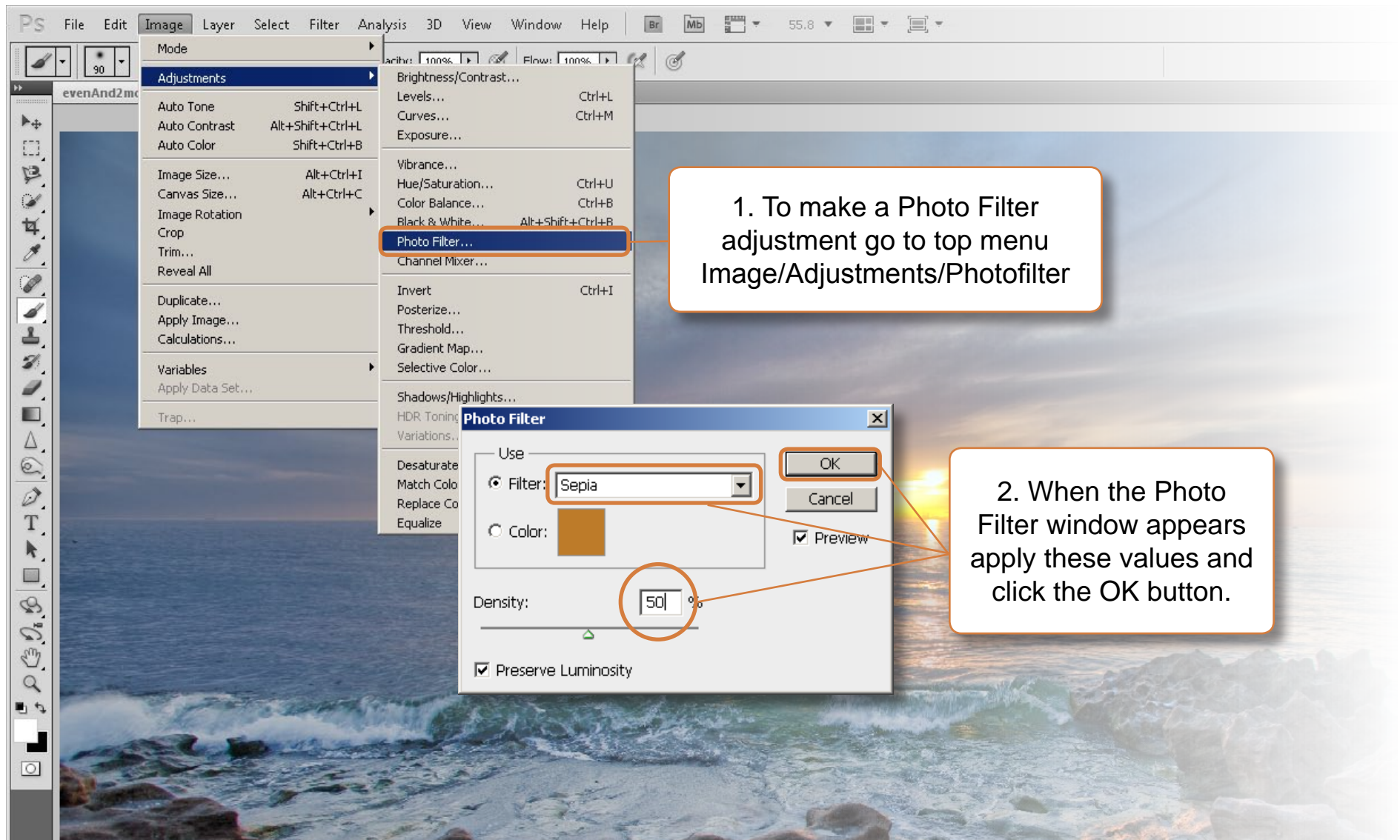




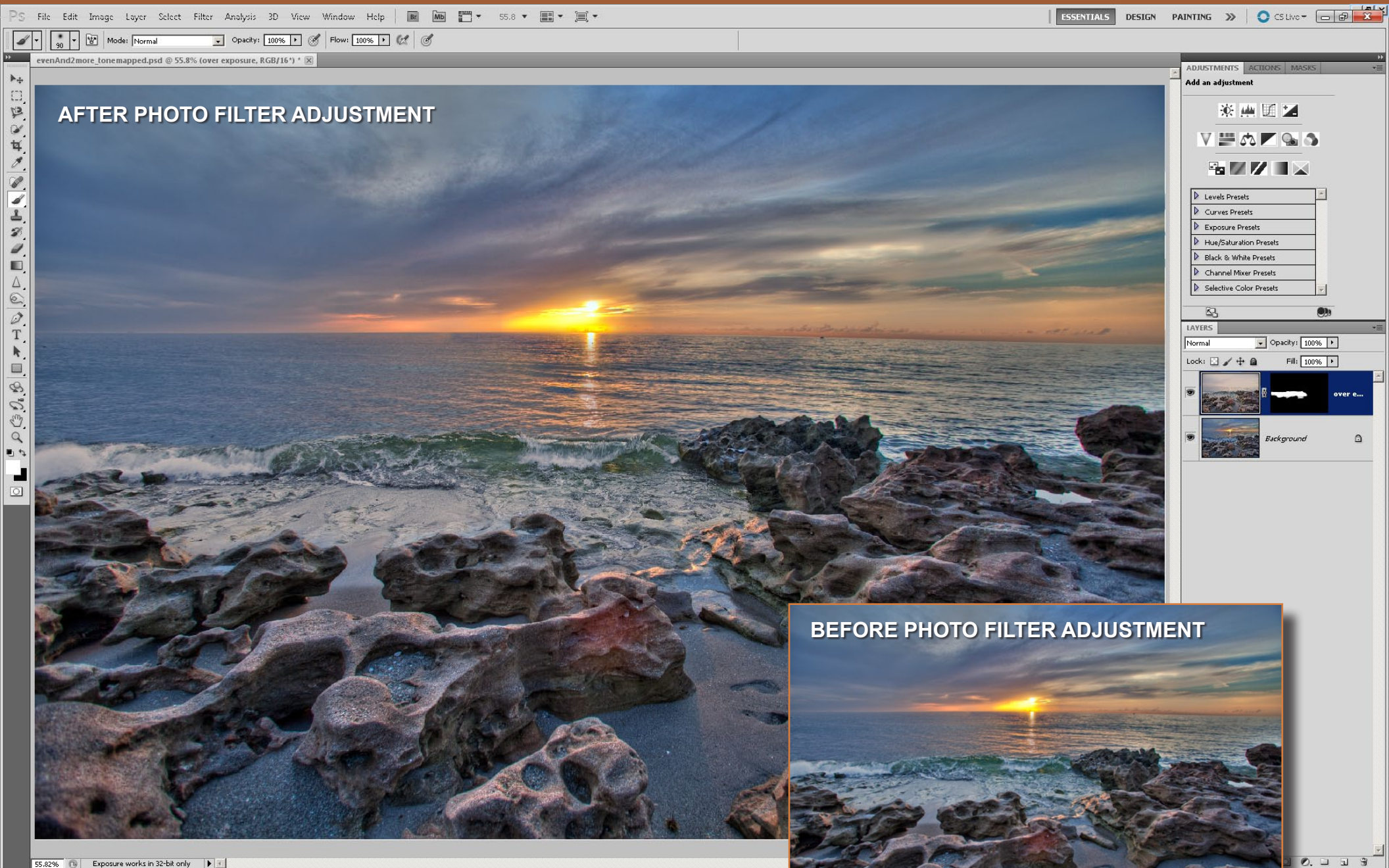


# 7. Photo Filter Adjustment

This is the final step to making our wave match the HDR image. At the moment our wave is cooler than our HDR image, so we use Photo Filter to add a little warmth to our over exposure layer.



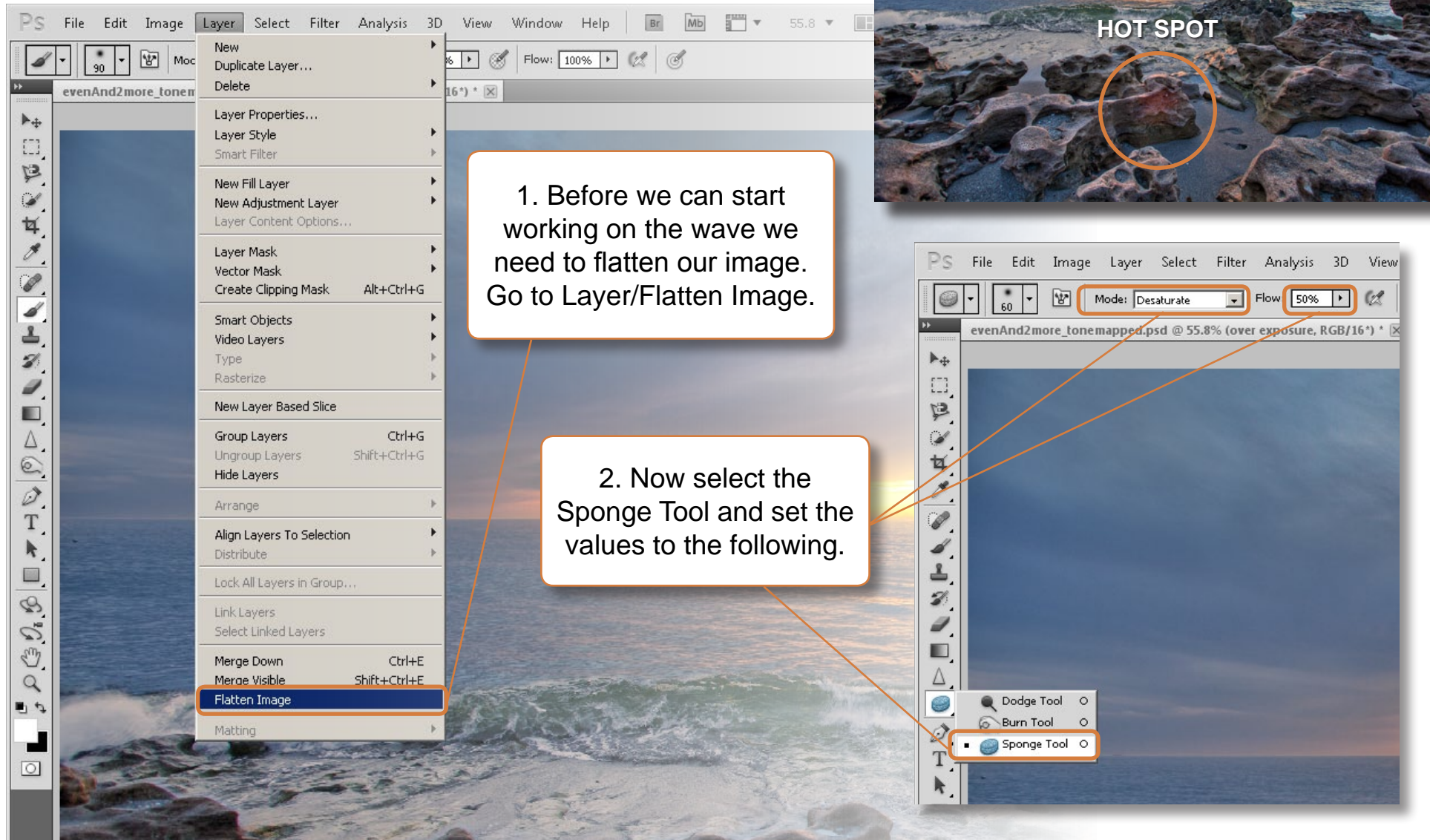






# 8. Removing Hot Spot

Now that our HDR image looks pretty good, we can flatten the image and proceed with editing the photo. The first thing we will do is remove the hot spot by using the Sponge Tool.



The image shows a Photoshop interface with the 'Layer' menu open. The 'Flatten Image' option is highlighted. To the right, a separate image of a sunset over rocks has a 'HOT SPOT' circled in orange. Below the main interface, a smaller screenshot shows the 'Sponge Tool' selected in the toolbar, with its settings set to 'Desaturate' and '50%'.

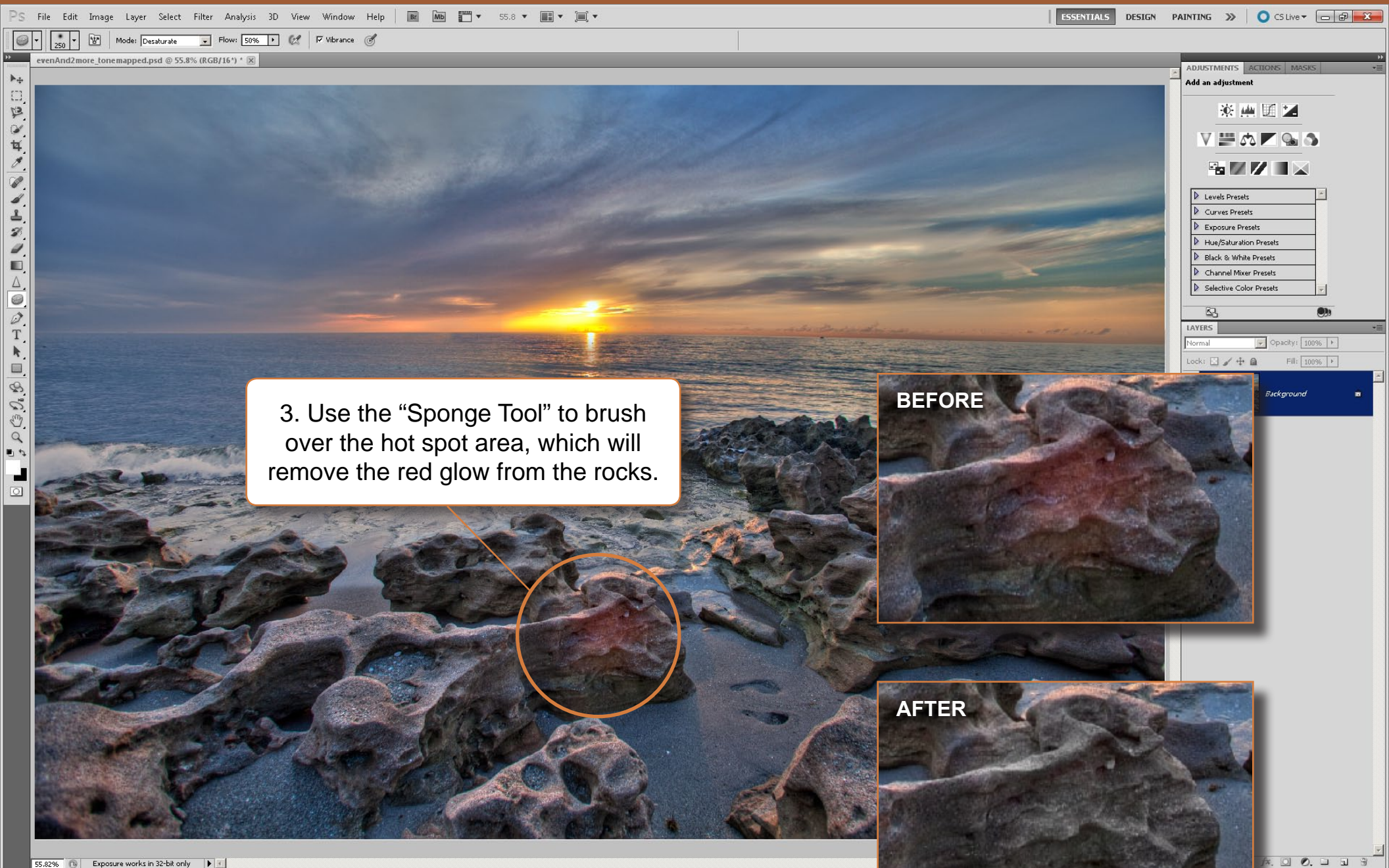
1. Before we can start working on the wave we need to flatten our image. Go to Layer/Flatten Image.

2. Now select the Sponge Tool and set the values to the following.

Mode: Desaturate  
Flow: 50%

Sponge Tool



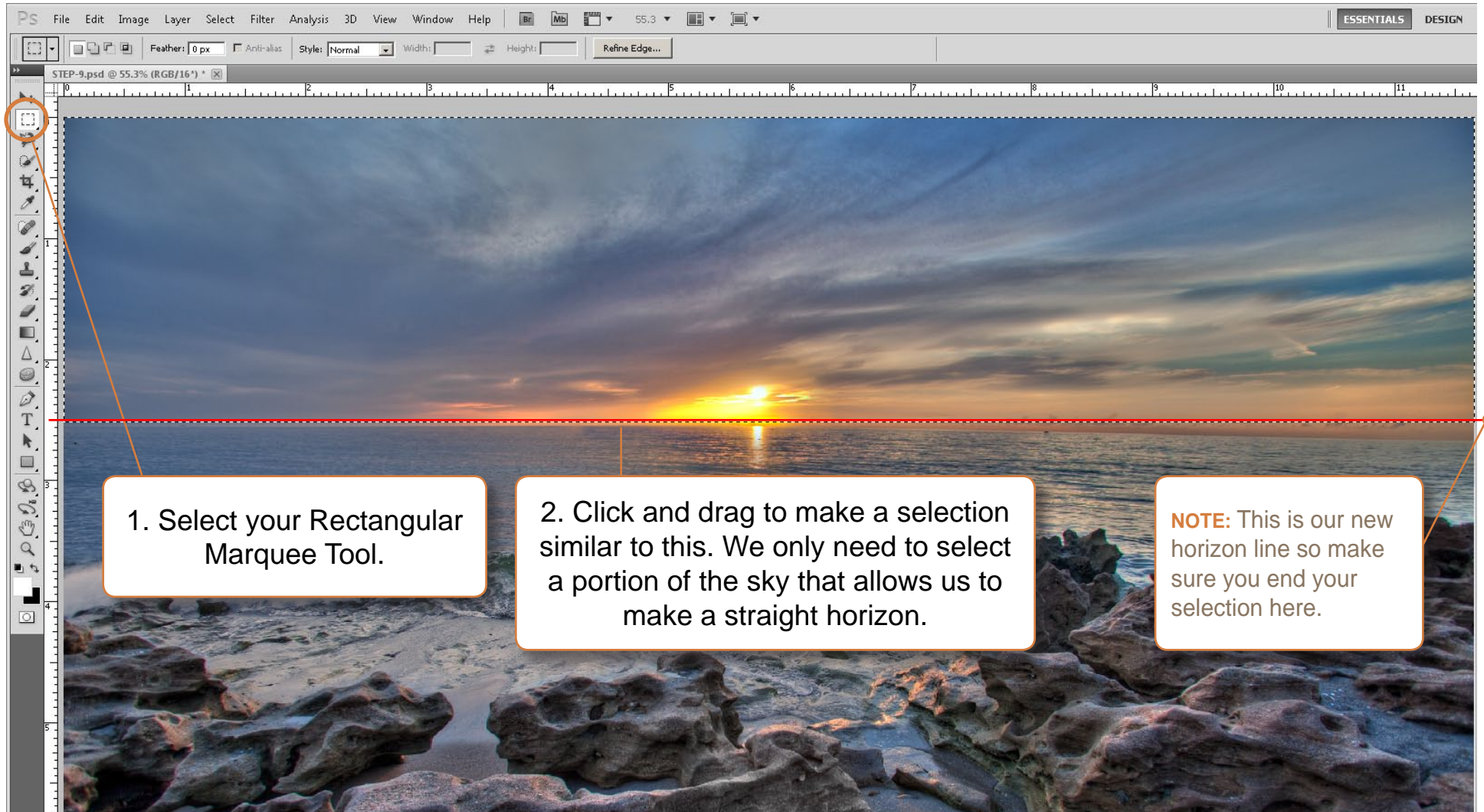




# 9. Straighten Horizon Line

The next thing we're going to fix is the horizon. I shot this photo with at 17mm so there's a little distortion at the horizon line. I also photographed the image a little crooked so that didn't help either.

There are many ways to straighten out the horizon. I have a few of my own, but we'll be fixing it the easy way. This technique is kind of cheap, you might think of my photos a little differently after this ;-)

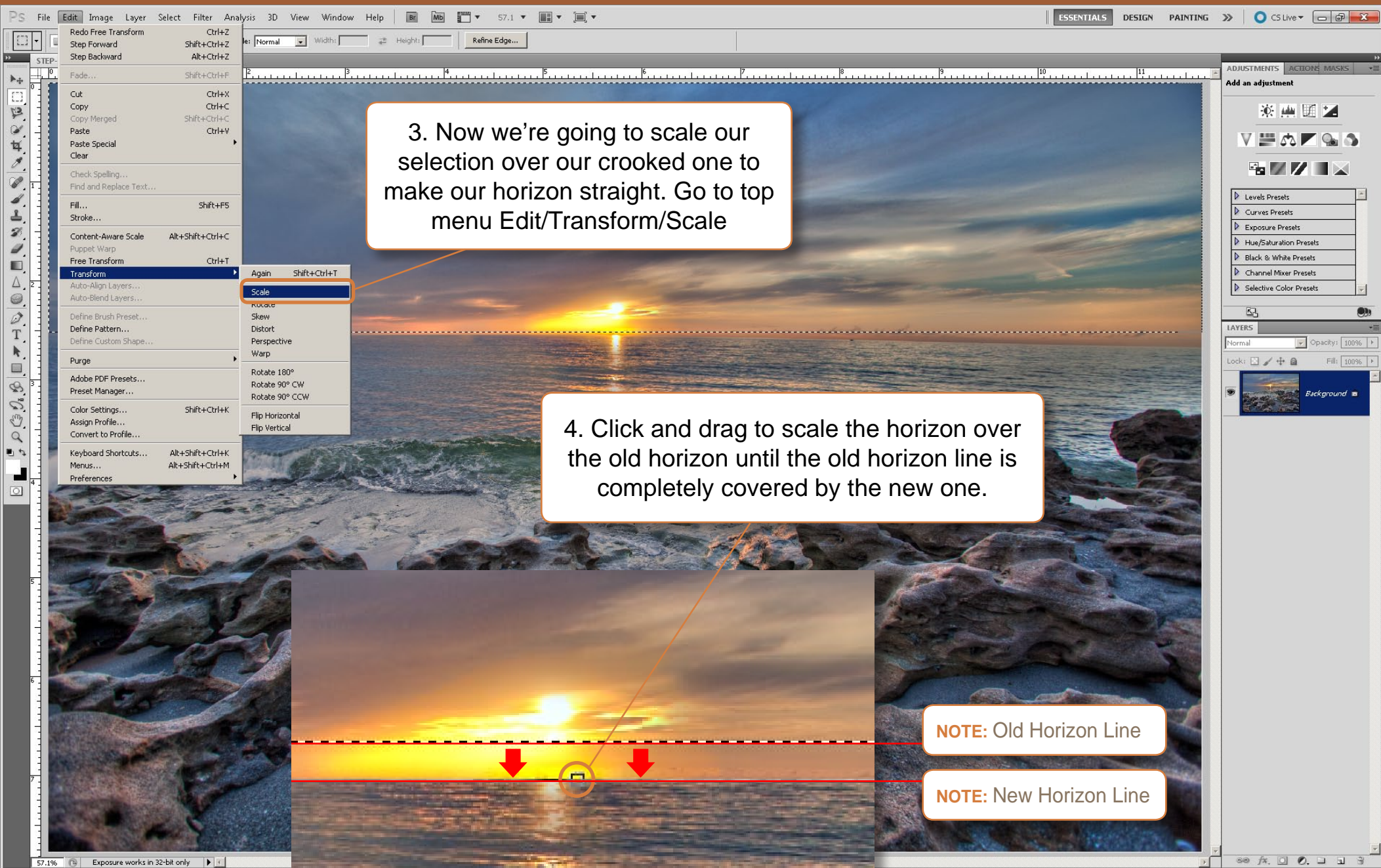


1. Select your Rectangular Marquee Tool.

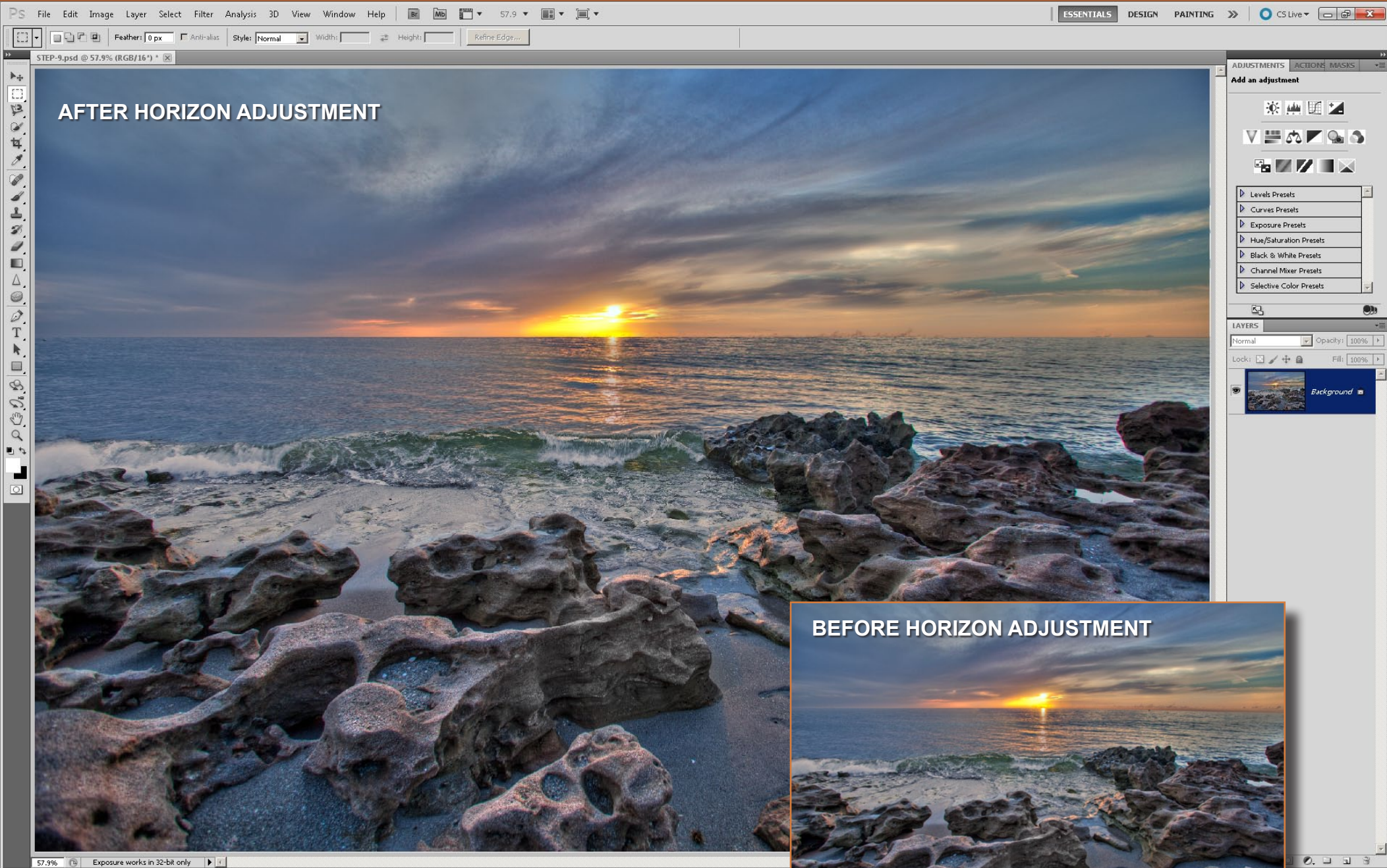
2. Click and drag to make a selection similar to this. We only need to select a portion of the sky that allows us to make a straight horizon.

**NOTE:** This is our new horizon line so make sure you end your selection here.











# 10. Captain Kimo Action – Sharpen Detail

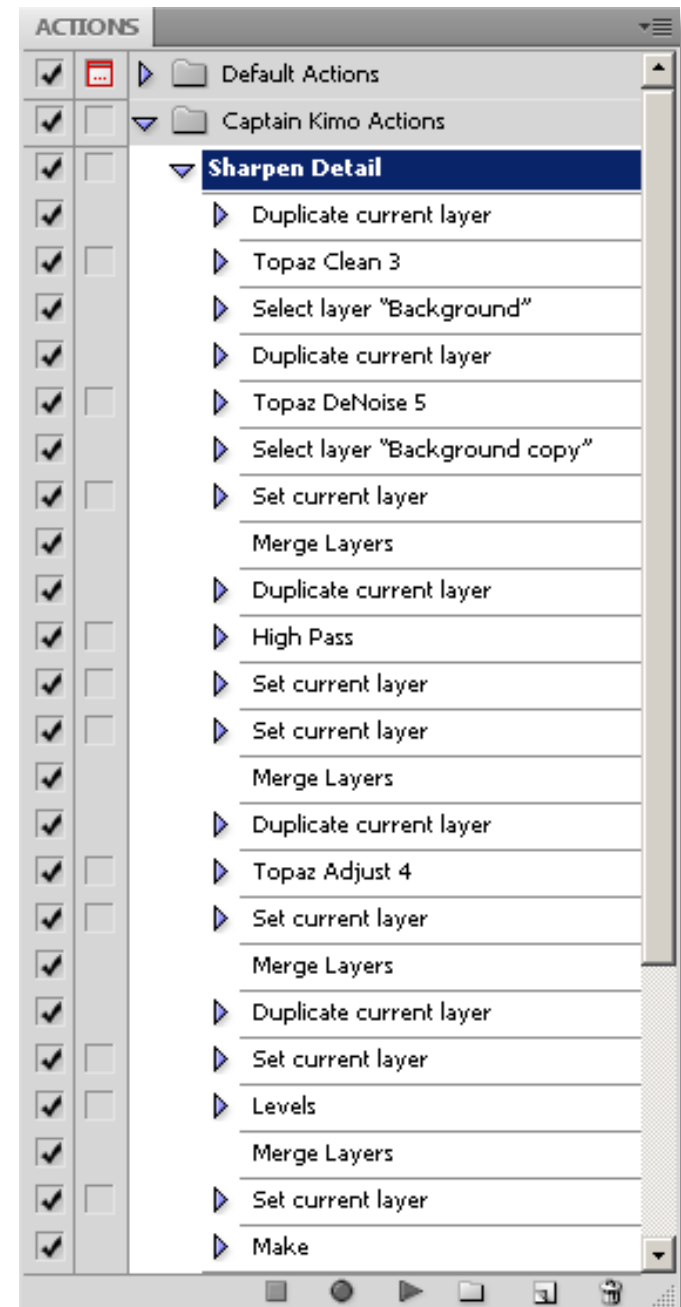
This action was created from all of the most commonly used steps that I go through while processing my photos. This action does three things: smooths, sharpens and cleans out the pixels in any image that it's applied to.

The action does this by going through many steps. The image to the right outlines those steps. As you can see part of the process uses Topaz Adjust, Topaz Clean and Topaz De-noise to produce the results.

This action might be a little aggressive in some images. That's why I designed this action to create the results on a new layer with a layer mask. This will make it easy for you to blend the results to the original image.

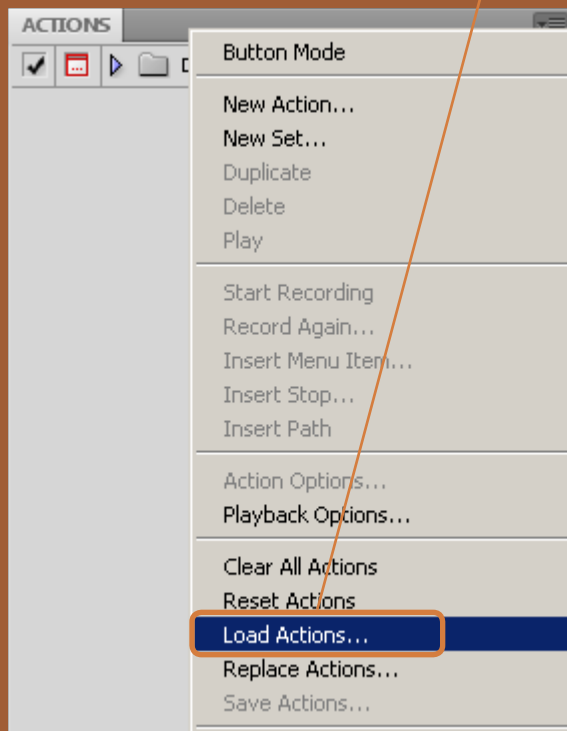
The Captain Kimo action works well with plants and buildings, making them very smooth, sharp and clean. But for things like sand and rock textures, it doesn't do it justice. I recommend masking those areas back to the original image using the layer mask.

Before running this action, your image must be completely flattened. So if you're running this action on a file with many layers, I recommend saving that version and creating a new flatten version of that image to apply this action to.

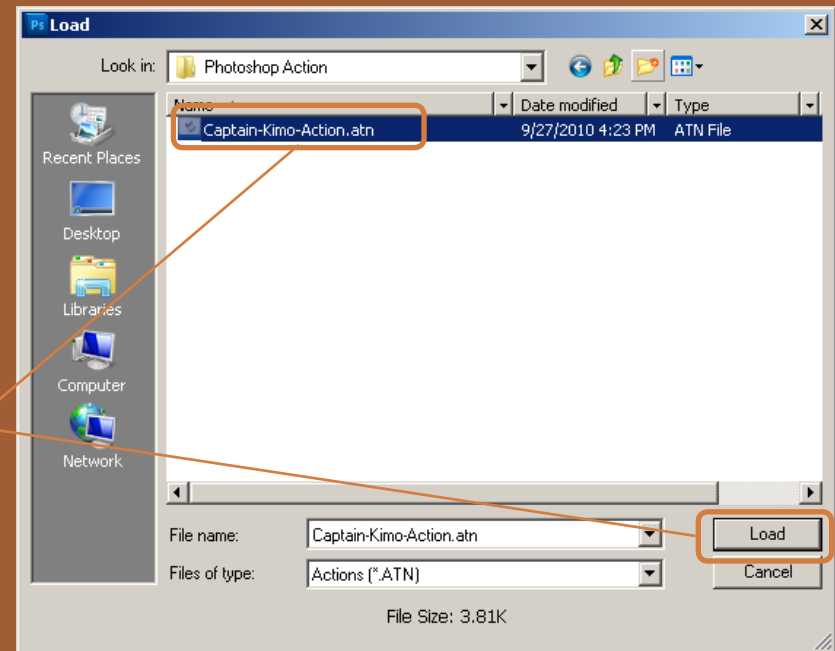


# Loading & Running Action

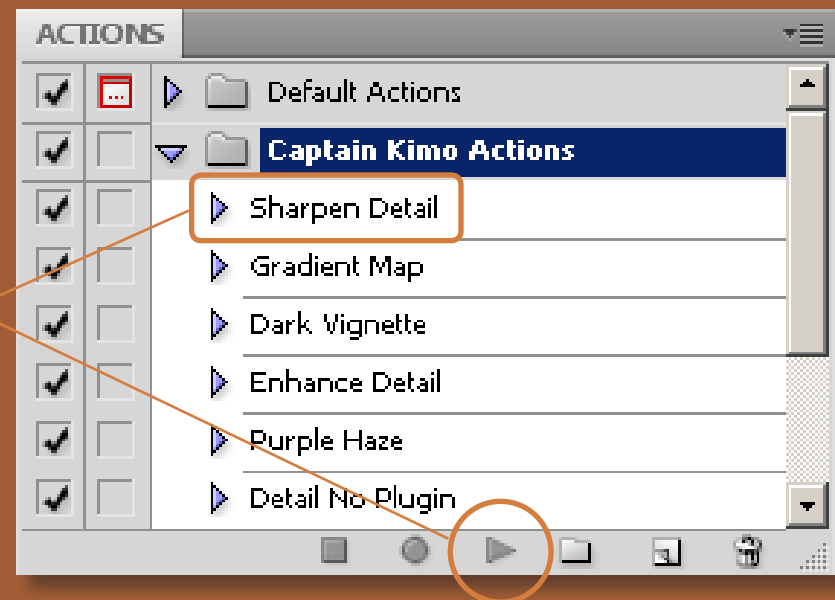
1. To load the Captain Kimo Action, all you need to do is open your Action Menu Window and click on Load Actions...



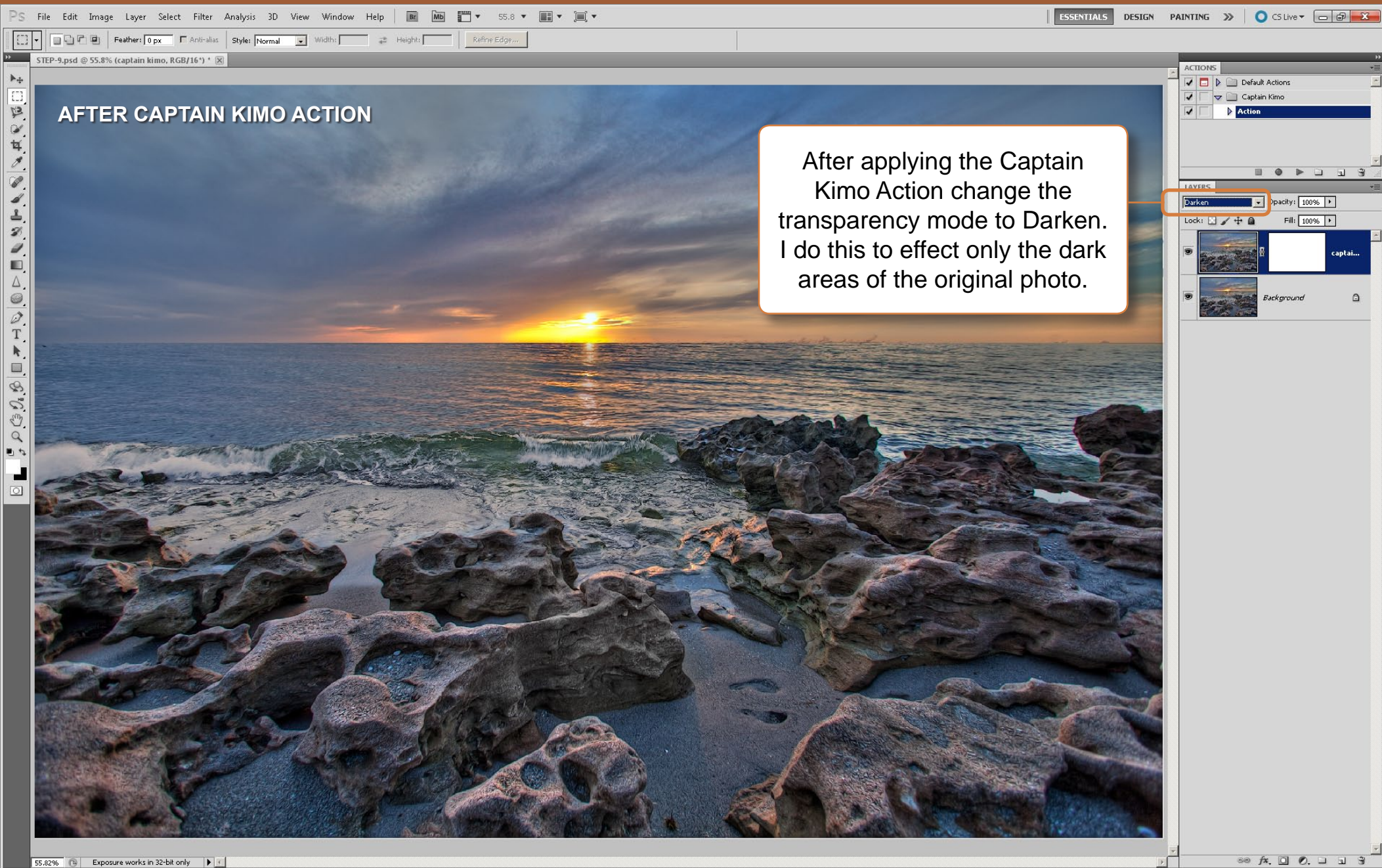
2. Browse to the directory where you have the Captain-Kimo-Action.stn file stored. Select the file and click load. The action should now appear in the action window.



3. To run the action, simply select Sharpen Detail and click the Play button.









# 11. Selective Color Adjustment

Selective Color is my tool of choice for adjusting colors in my photos. I use selective color because it allows me to effect only certain areas of my color range. This helps me to isolate the intensity of each color to that particular part.

1. To add a Selective Color Adjustment Layer simply go to the Layers window and click the Create new fill or Layer Adjustment button. Then select the Selective color option.

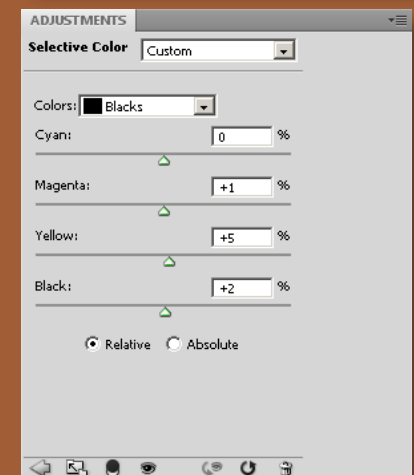
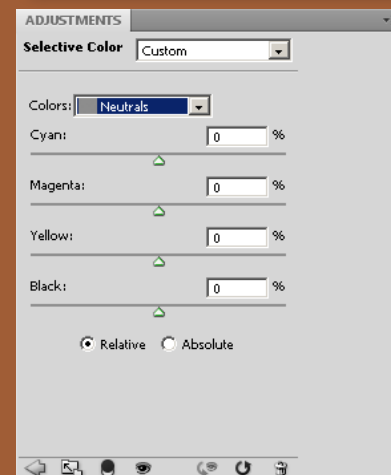
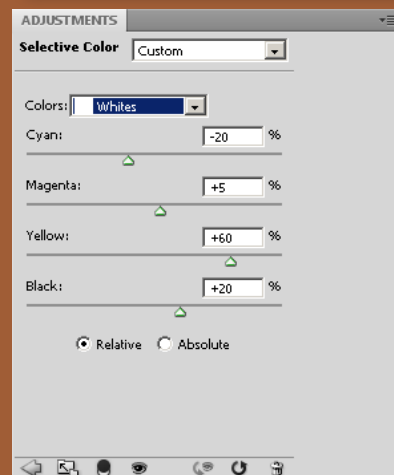
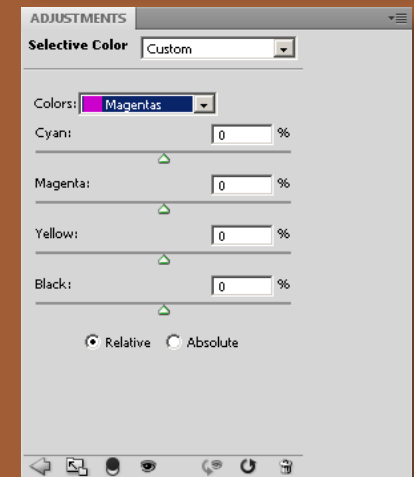
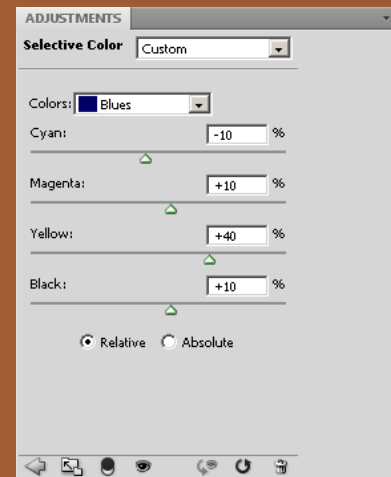
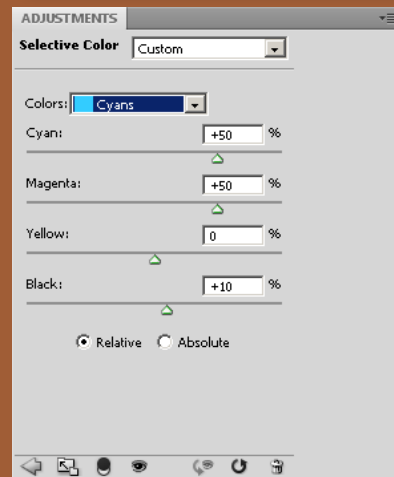
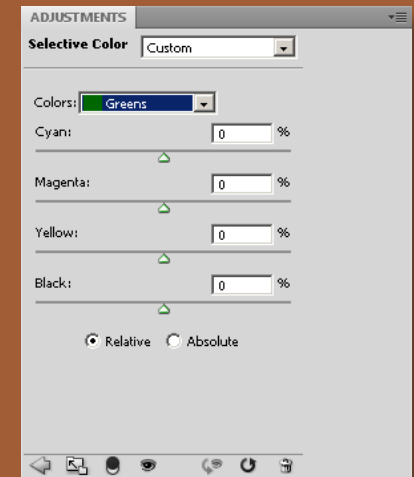
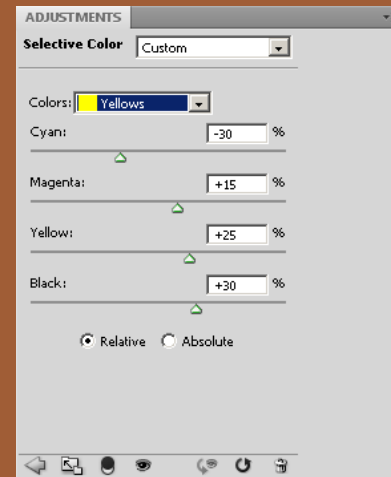
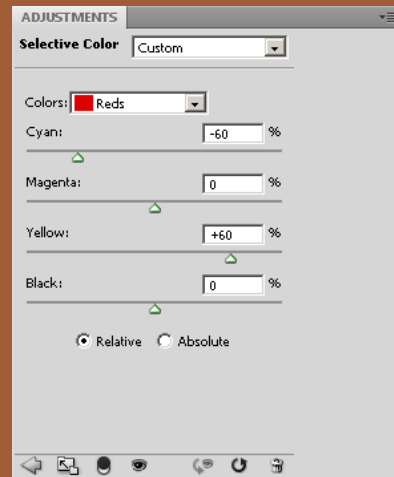
2. New Selective Layer Adjustment will be added here. Layer Adjustments also comes included with it's own layer mask.

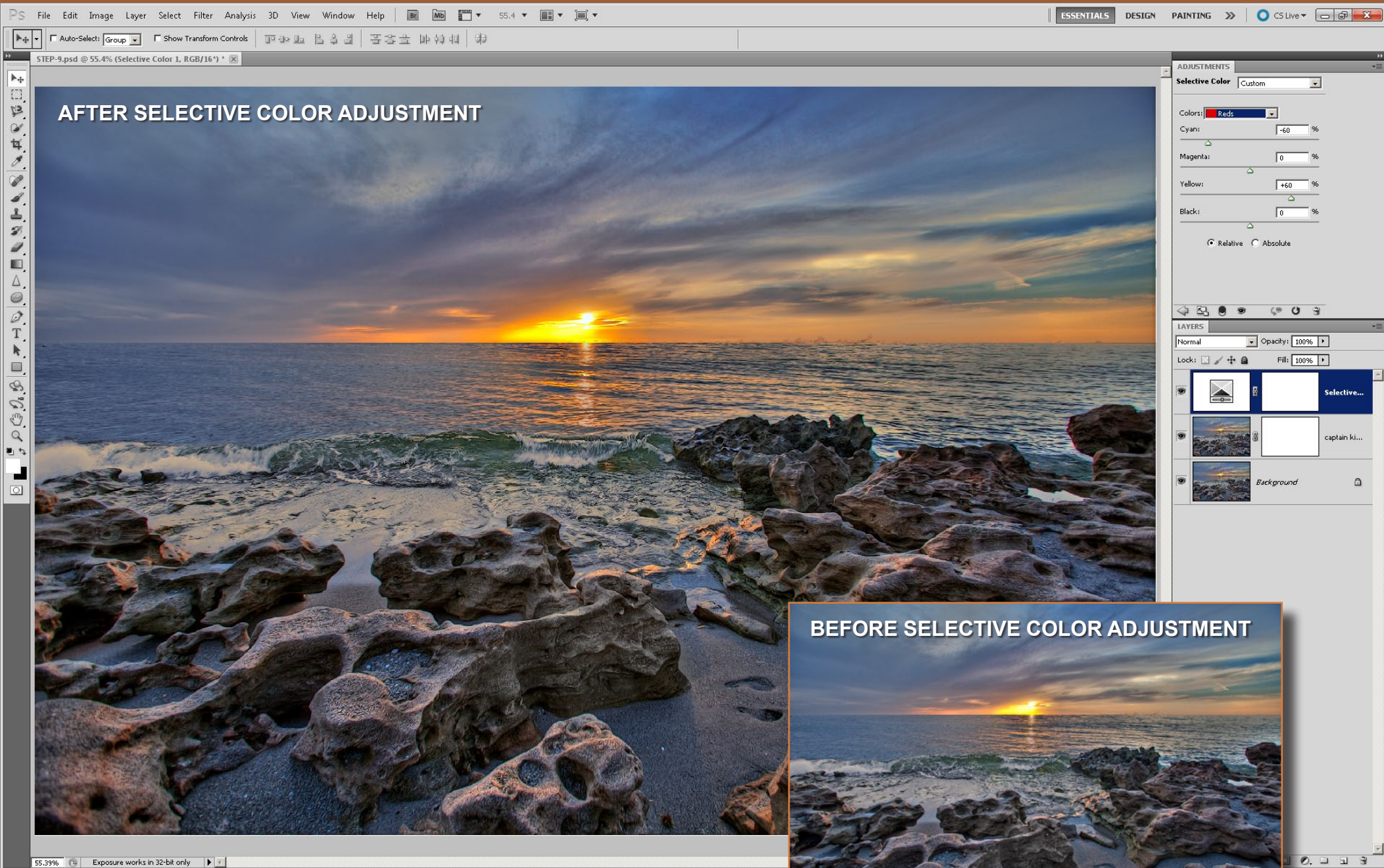
3. You can set the value of your Selective Color Layer with the Adjustment window. Enter the values on the next page here.

**NOTE:** This is the Create new fill or Layer Adjustment button.



4. Enter the values for each color into your Selective Layer Adjustment window.







# 12. Photo Filter Adjustment

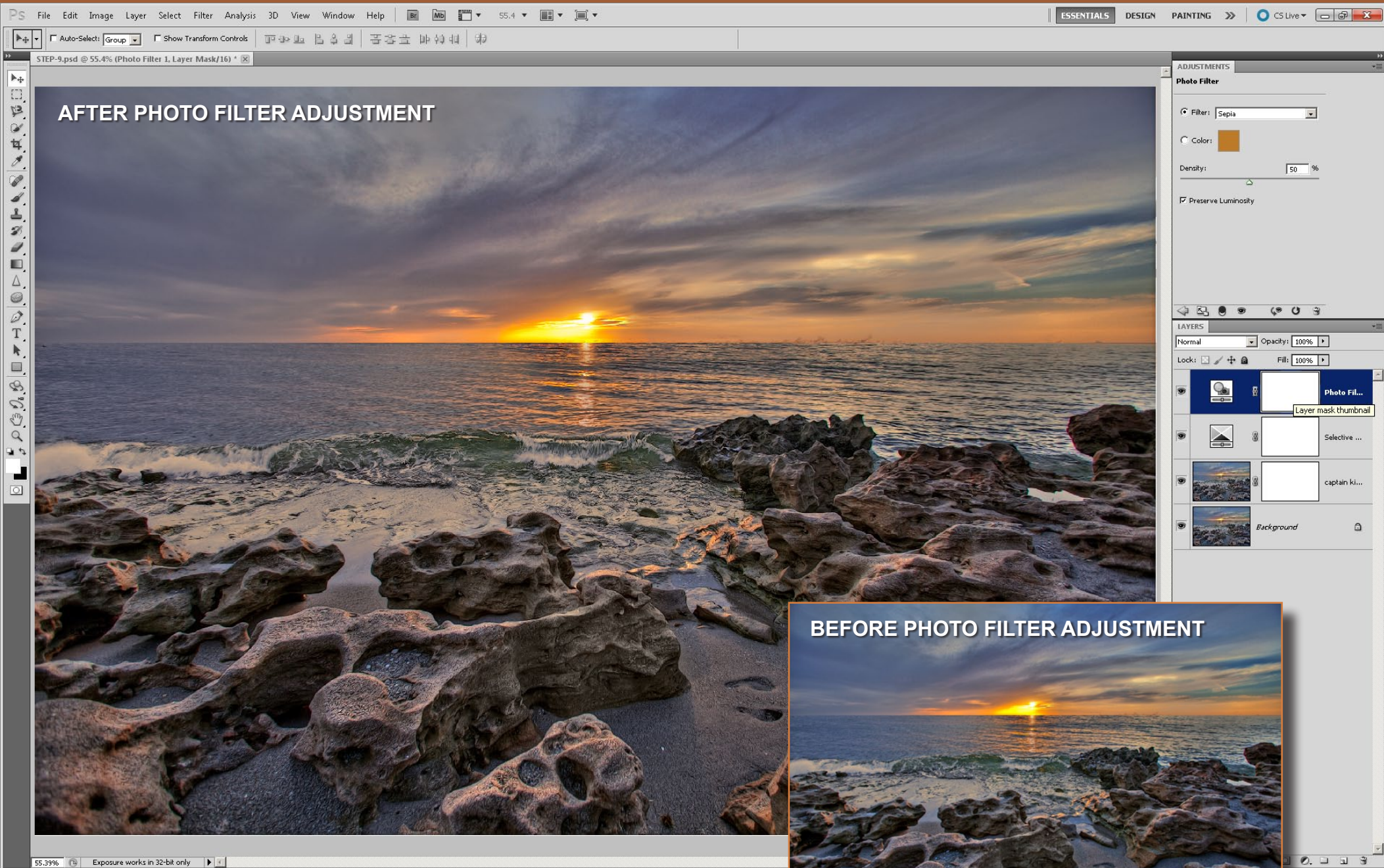
In this step we will add a Photo Filter adjustment layer to give some warmth to the entire scene. Adding a Photo Filter adjustment layer also helps to blend the entire scene together.

1. To add a Photo Filter Adjustment Layer simply go to the Layers window and click the Create new fill or Layer Adjustment button. Then select the Photo Filter option.

2. The new Photo Filter Layer Adjustment will be added here. Layer Adjustments also comes included with it's own layer mask.

3. In the Adjustment window, change the Filter to Sepia and the Density to 50%.







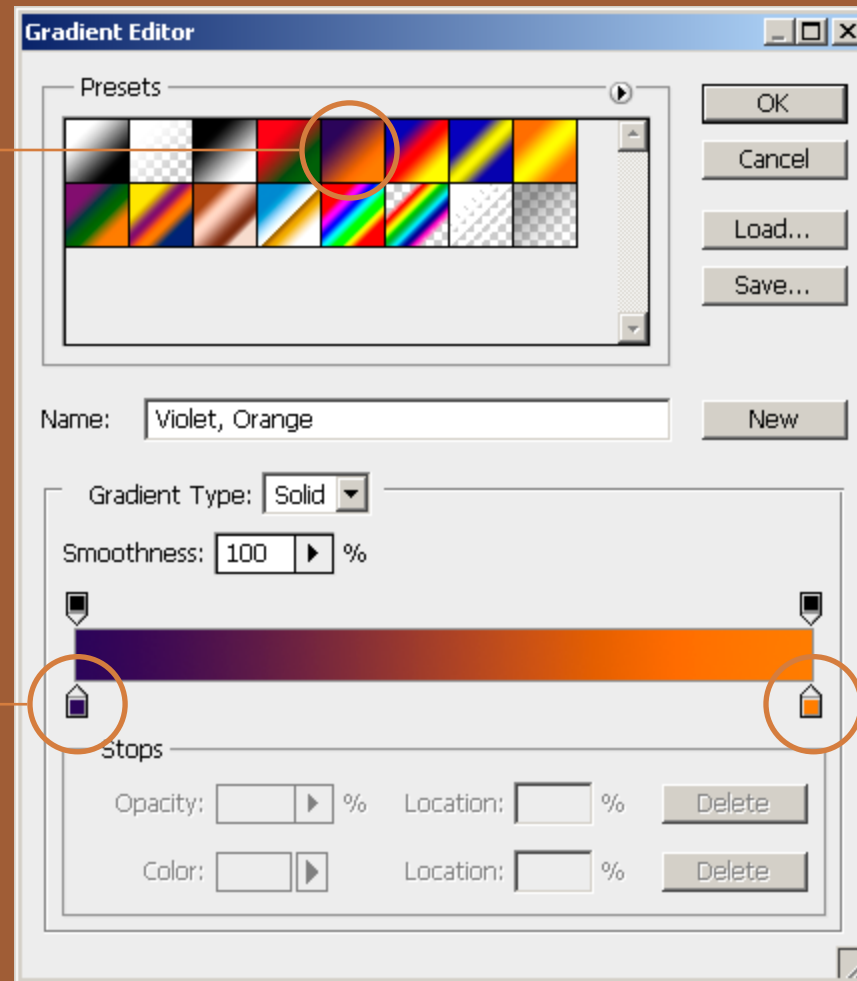
# 13. Gradient Map Adjustment

If you've ever wondered how I get some of my dramatic color tones, Gradient Map is the secret, and in this step I'm going to show you exactly how to get those beautiful tones.

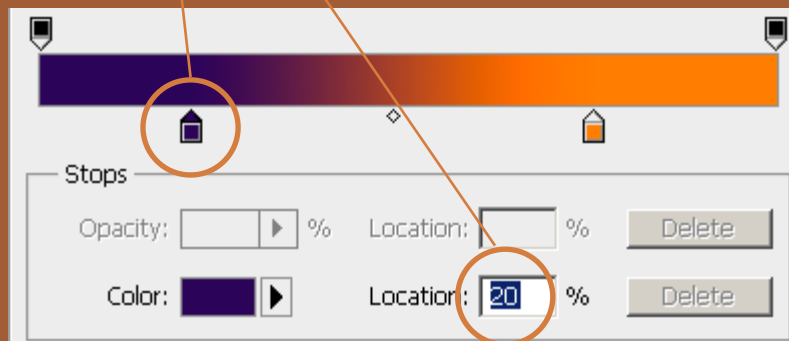
The screenshot shows the Adobe Photoshop interface with a landscape image. The 'LAYERS' panel on the left shows a stack of layers: 'Photo Fil...', 'Selective ...', 'captain ki...', and 'Background'. The 'Gradient Map...' option is highlighted in the 'Layer' menu. The 'ADJUSTMENTS' panel on the right shows the 'Gradient Map' adjustment layer selected, with a gradient bar visible. Three callout boxes provide instructions:

1. To add a Gradient Map Adjustment Layer simply go to the Layer's window and click the Create new fill or Layer Adjustment button. Then select the Gradient Map... option.
2. New Gradient Map Layer Adjustment will be added here. Layer Adjustments also comes with it's own layer mask.
3. In the Adjustment window, click the gradient to open the Gradient Map Window. Go to the next page to set the values.

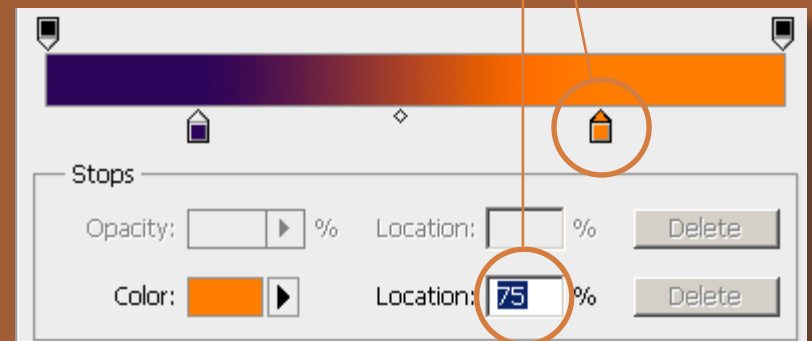
4. Click on the Purple and Orange colored Gradient Map.



5. Move the Purple slider to location 20%.



6. Move the Orange slider to location 75%. Then click the OK button.







# 14. Dodge & Burn Adjustment

This is the last and final step, and I usually always do this last. In this step I use Dodge and Burn to add the finishing touches to my image.

Dodge and Burn is a way to darken and brighten areas of the image. There are many ways to go about doing this. I have a specific method that I use which allows more control for darkening and brightening my images compared to other methods.

Before we begin dodging and burning we will need to create a new composite layer, or in other words create one layer from these five layers. ●

We do this by keyboard shortcut:

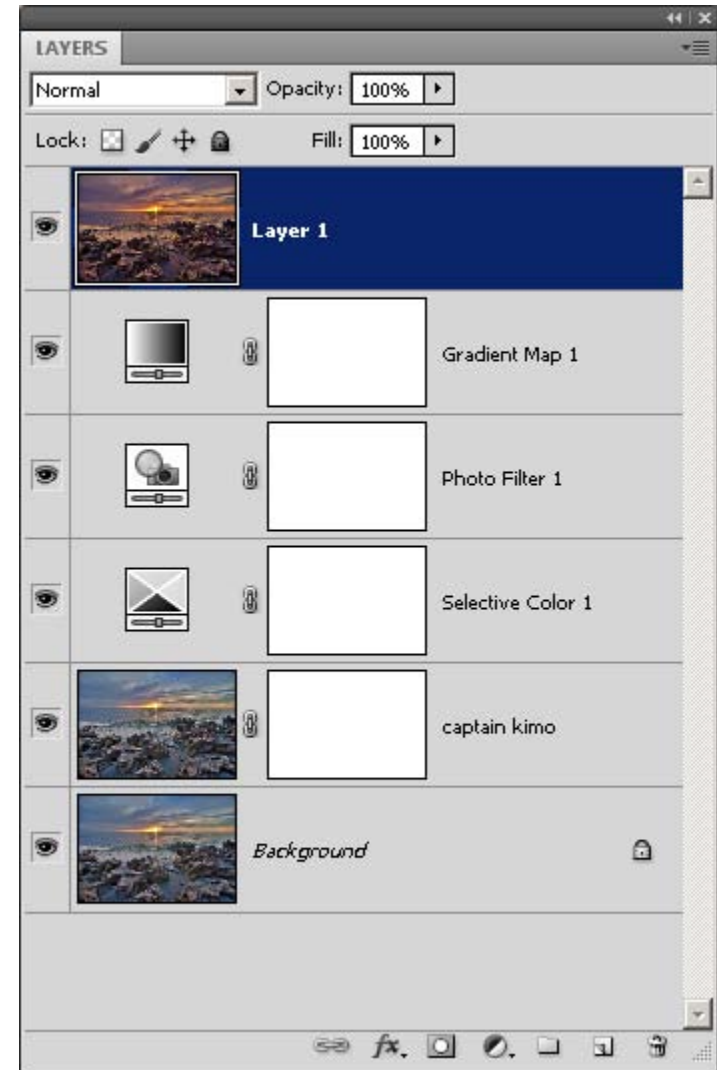
**PC = SHIFT + CTR + ALT + E**

**MAC = SHIFT + CMD + OPT + E**

After pressing all the keys at once you will get a single image of the five layers. ●

I recommend memorizing this keyboard sequence as it will become invaluable the more you use it.

Proceed to the next page to get started with the Dodge and Burn process.







The Dodge and Burn tools can be found in your toolbar. The Dodge tool is used to brighten areas of your image, and the Burn tool is used to darken areas.

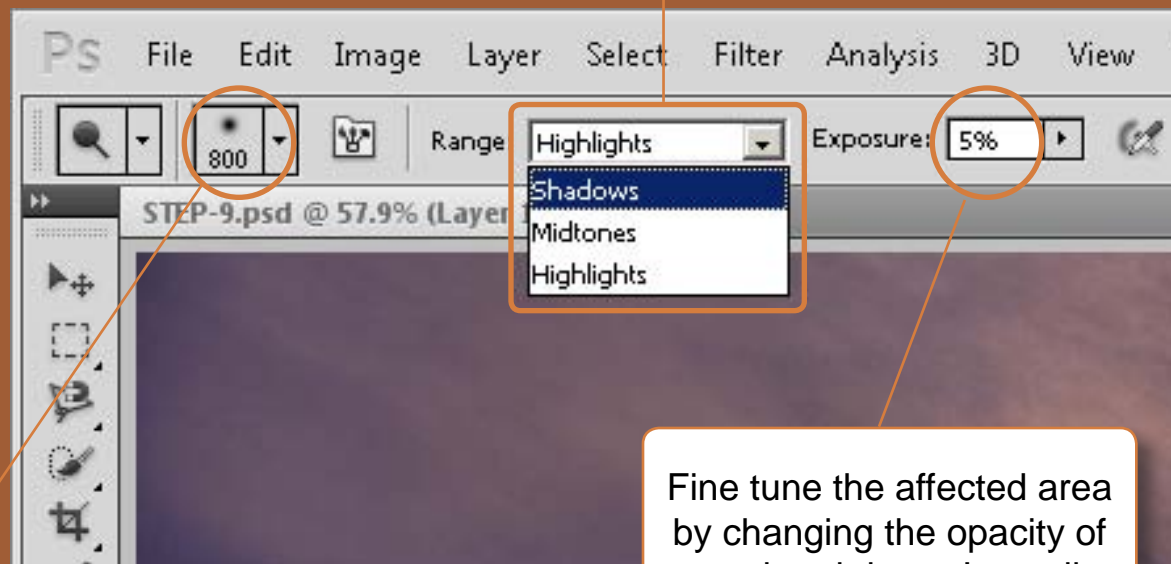
The reason I use Dodge and Burn, instead of other methods, is so I can isolate the affected areas to just Shadows, Highlights and Midtones.

Usually when I Dodge, I set my range to Highlights. When I Burn my range is set to Shadows. Doing this helps to create better contrast in my image.

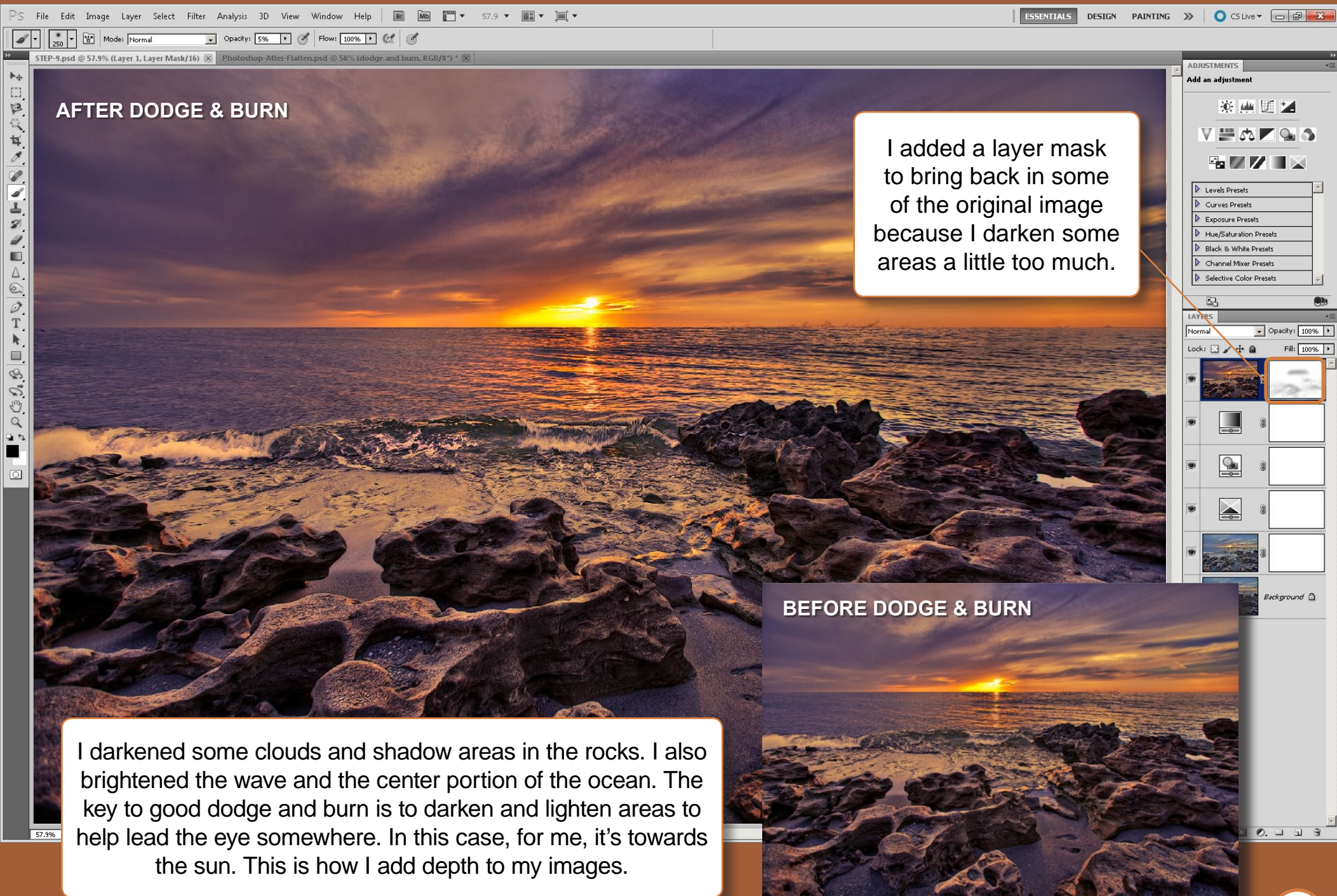
Also the reason I Dodge and Burn with a composite layer is so I can blend back the original image using layer mask if I get a little carried away.

The Sponge tool, which we used earlier, is for decreasing or boosting the color intensity of an area in the image. We won't need to use it here.

You can change the size of your brush by clicking here.



Fine tune the affected area by changing the opacity of your brush here. I usually keep mine around 5%.







## CHAPTER 5

# Photoshop Techniques

## 10 Post Processing Techniques



# 1. Detail Enhancement with Topaz Adjust

Topaz Adjust is a great plug-in for Photoshop to use in conjunction with your HDR image. Since HDR tends to make photos some what soft and dreamy, I use Topaz to sharpen up the details by adding contrast. Using Topaz Adjust is very simple, but I have my own method

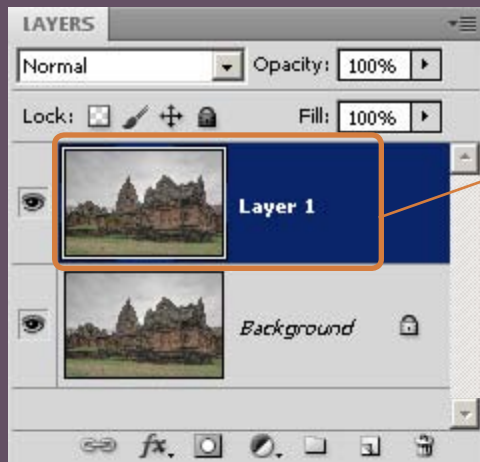
of applying it to my images. This technique increases detail and maintains image integrity. That's why it's not necessary to overdo your tone mapping in Photomatix to get high dynamic details in your photo, which usually causes halos, noise and color banding.



BEFORE



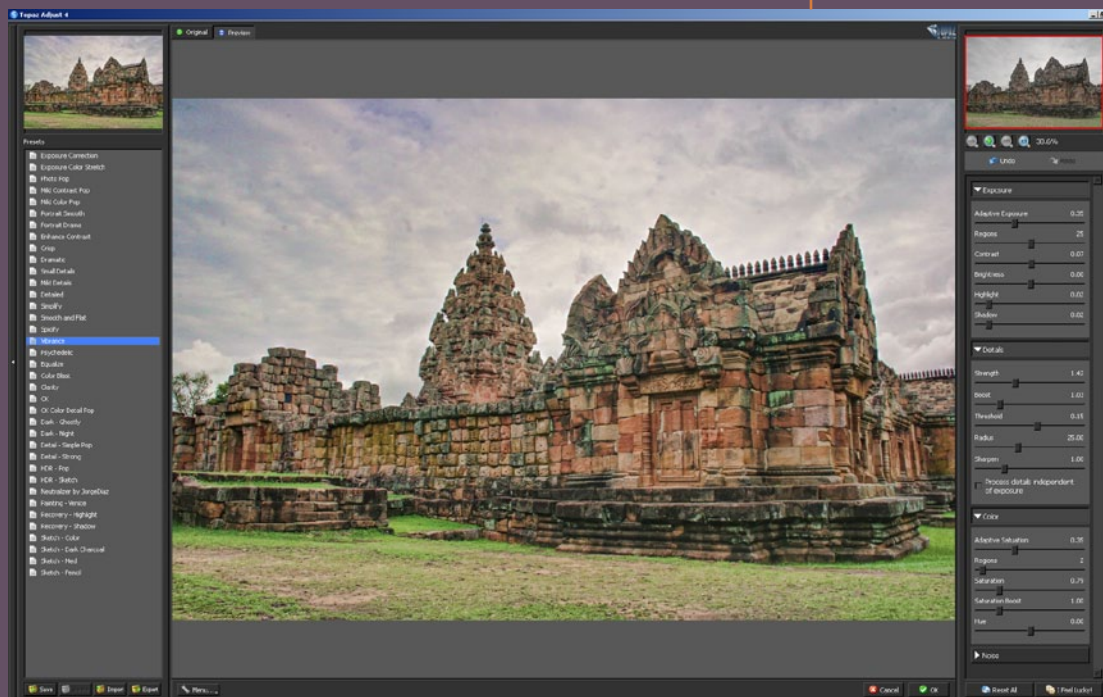
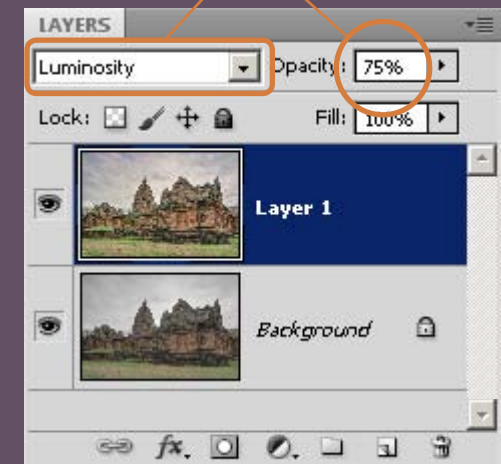
AFTER



1. I always apply Topaz Adjust on a duplicate image. You can create a duplicate image by keyboard shortcut.  
( PC = CTR + J ) & ( MAC = CMD + J )

2. When I apply Topaz Adjust I use a very intense preset, like; Spicify, Dramatic, Psychedelic... etc. for this image I use Vibrance.

3. Once Topaz Adjust is applied I change my layer mode to Luminosity and my opacity to 75%.



I use the Topaz Adjust layer to add contrast to my image. By setting the mode to Luminosity I maintain the photo's natural color. I reduce the opacity to bring back the original image and lessen the Topaz Adjust affect.



## 2. Smooth Water

No matter how smooth water is, it's never smooth enough. I'm going to show you two methods for creating even smoother water. One is creating smooth still water and the other is for smooth flowing water.



**BEFORE - Smooth Still Water**



**AFTER - Smooth Still Water**

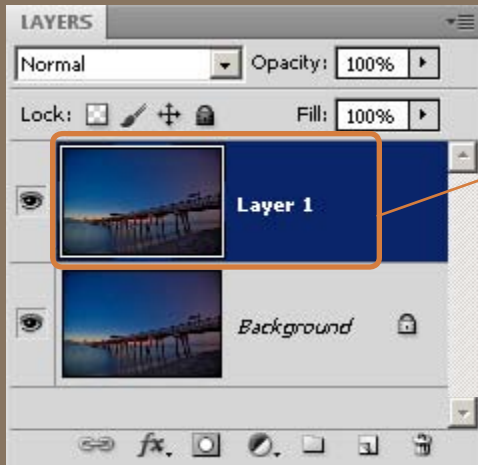


**BEFORE - Smooth Flowing Water**



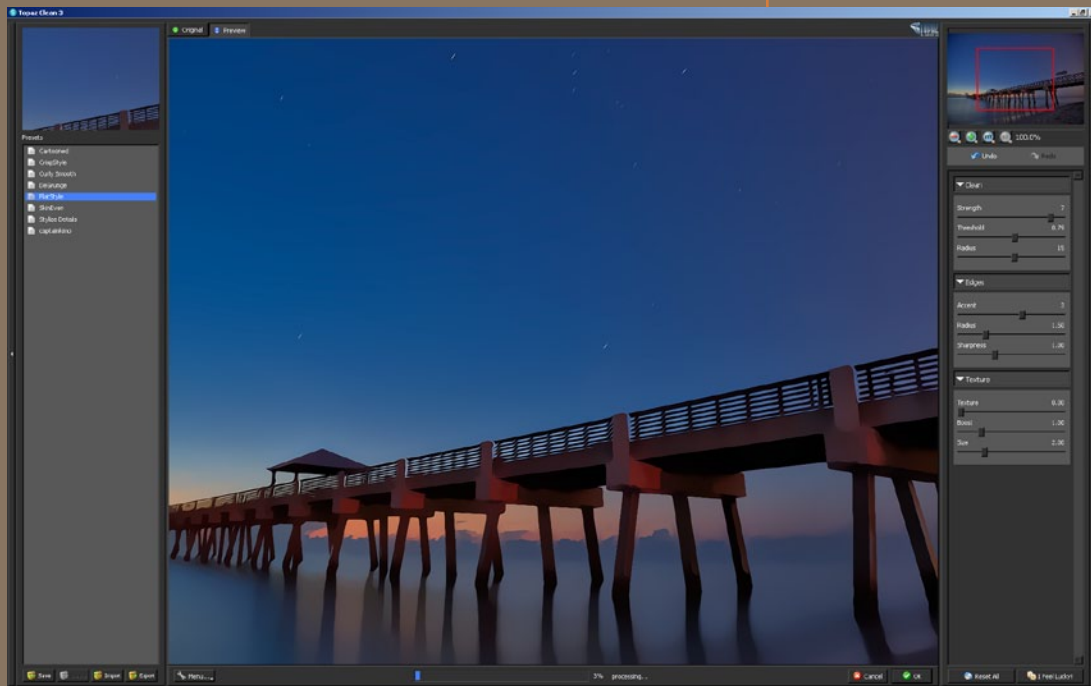
**AFTER - Smooth Flowing Water**

# Creating Smooth Still Water

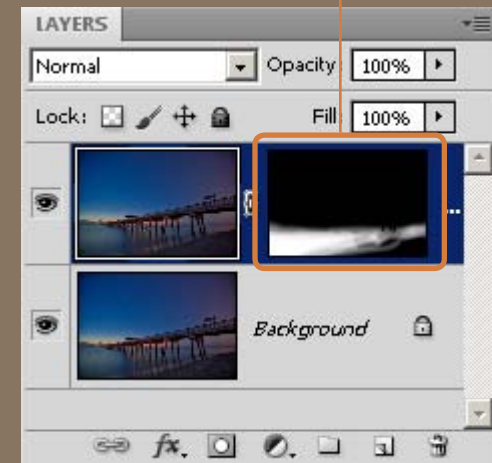


1. The first thing I do to create Smooth Still Water is make a duplicate layer.  
( PC = CTR + J ) & ( MAC = CMD + J )

2. Then I apply Topaz Clean on the duplicate layer. I use the preset FlatStyle for this image.

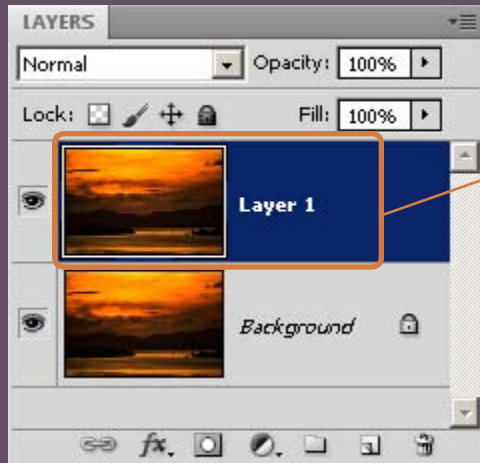


3. Once Topaz Clean is applied, I add a layer mask to the duplicate layer and begin masking out everything but the water.





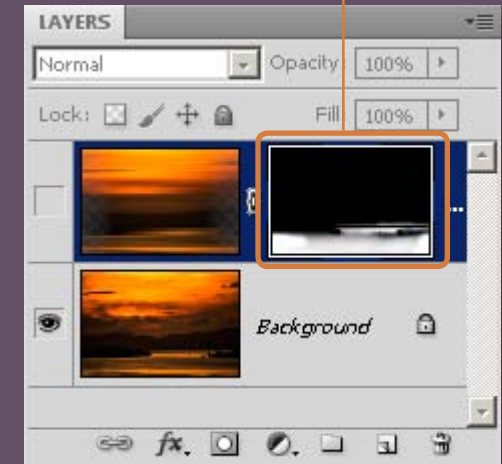
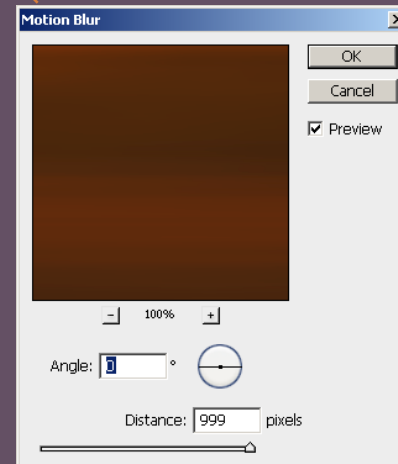
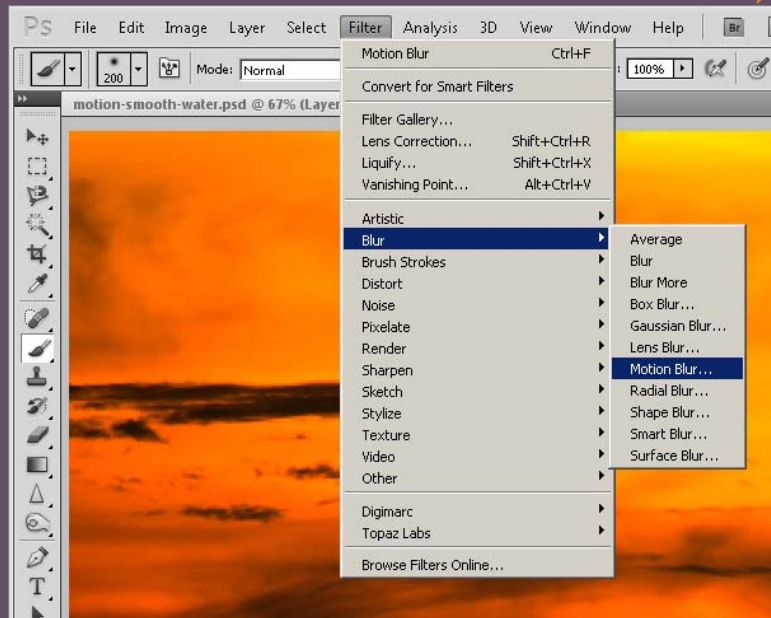
# Creating Smooth Flowing Water



1. The first thing I do to create Smooth Flowing Water is make a duplicate layer.  
( PC = CTR + J ) & ( MAC = CMD + J )

2. Then I go to Filters and apply a Motion Blur to the duplicate image. Set the Angle value to 1 and the Distance to 999 pixels. Then click the OK button.

3. Once Motion Blur is applied, I add a layer mask to the duplicate layer and begin masking out everything but the water.



### 3. Light Rendering Technique

This technique is a quick way to draw the viewers eye towards a certain location. When it comes to HDR, especially the ones with lots of detail, they all come out flat. Meaning there's no depth like in a standard photograph. So by using this technique you can create that depth and draw the eye towards a specific location.

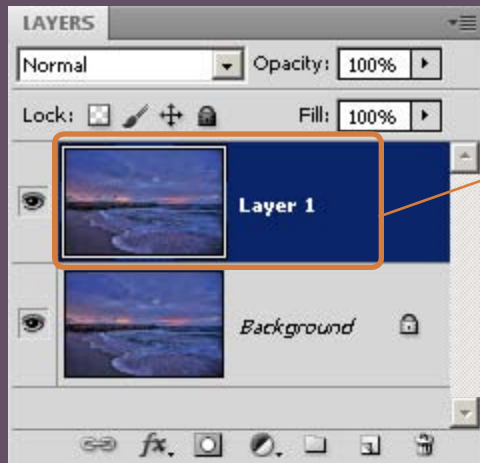


BEFORE



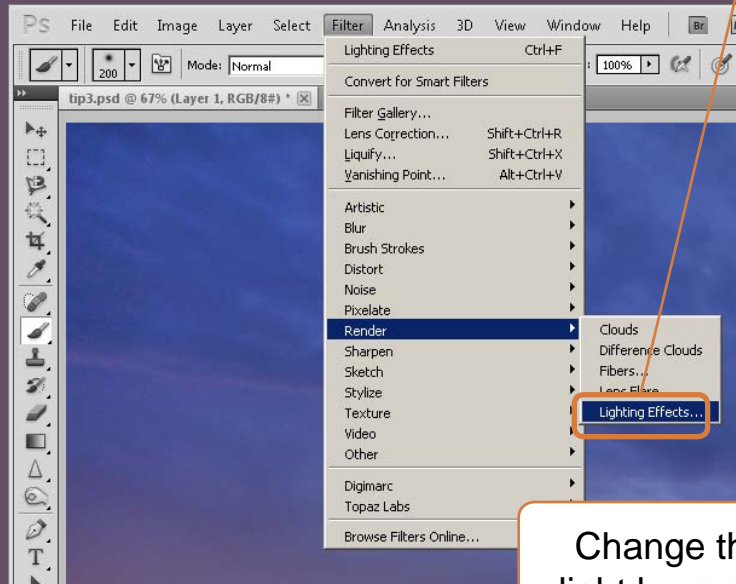
AFTER



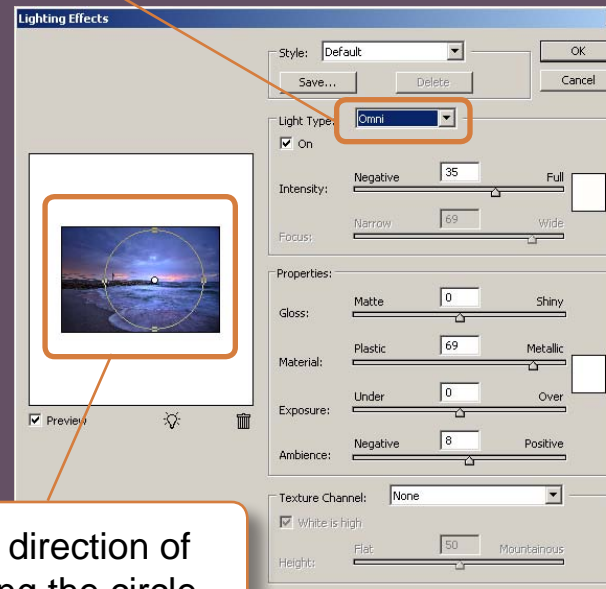


1. Before adding a Lighting Effect we need to make a duplicate image. To do this use keyboard shortcut.  
( PC = CTR + J ) & ( MAC = CMD + J )

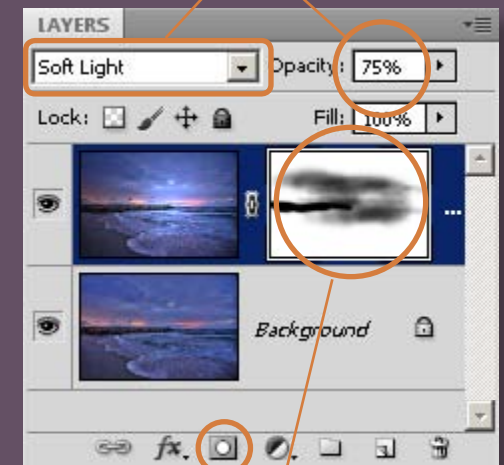
2. Now go to top menu Filters/Render/Lighting Effects...  
Choose Omni and change your lighting values to your liking.



Change the direction of light by moving the circle.



3. Once the Filter is applied I change my layer mode to Soft Light and my Opacity to 75%.



4. I also add a layer mask to fine tune my lighting effect by blending and masking away areas.

## 4. Easy Layer Masking

Layer masking is a very handy tool when working with HDR photos. Especially in instances when you'll need to blend back in one of the original images. However it can be a real pain if you only want to blend in parts of a photo. Complex layer masking like the photo below can be a time consuming task. The technique I'll show you will make a fast but complex layer mask of the trees to bring in the sky from another exposure.



BEFORE

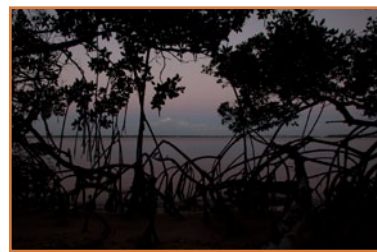


AFTER



OVER EXPOSURE

+



UNDER EXPOSURE

+



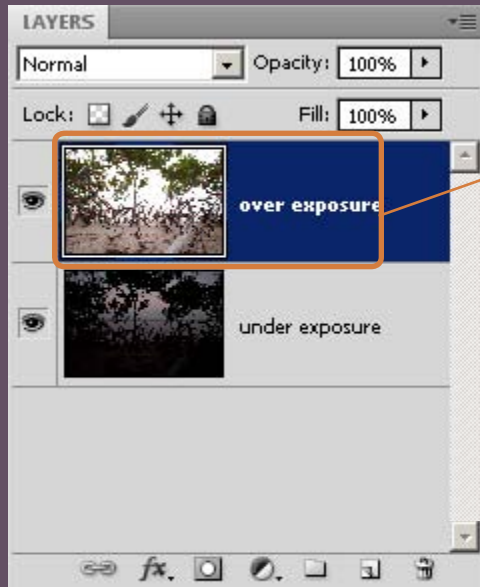
COMPLEX LAYER MASK

=

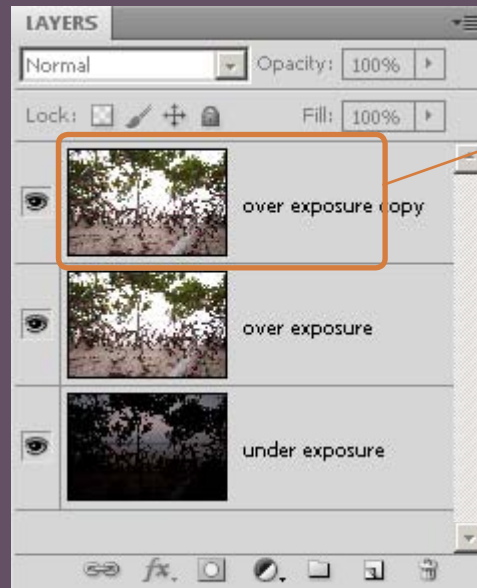


FINAL IMAGE





1. I open both exposure the under and over exposure. I stack the over exposure layer on top.



2. Then I duplicate the over exposure layer. To do this use keyboard shortcut.

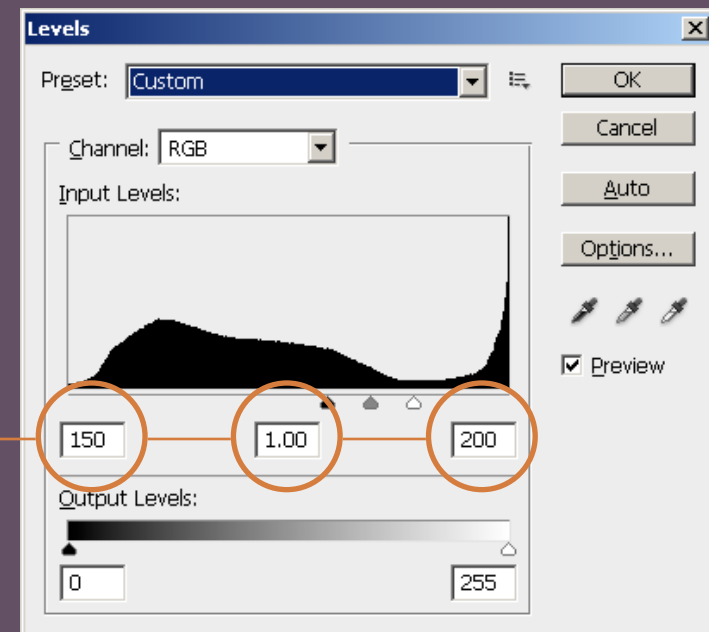
( PC = CTR + J ) & ( MAC = CMD + J )

Note: This layer will be used to create the layer mask.

3. With the duplicate over exposure layer selected, I do a Level adjustment on that layer by keyboard shortcut.

( PC = CTR + L ) & ( MAC = CMD + L )

I apply these values.

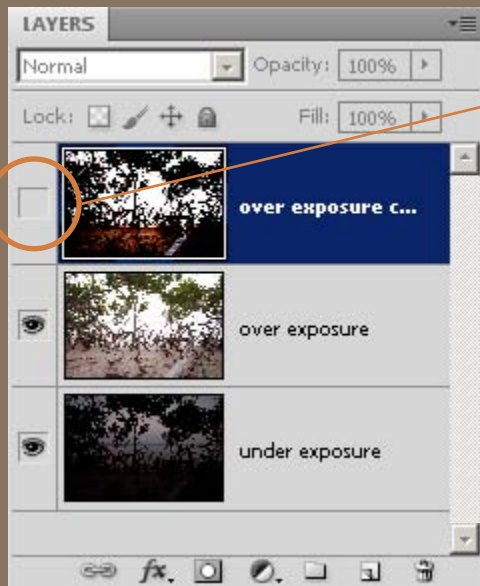
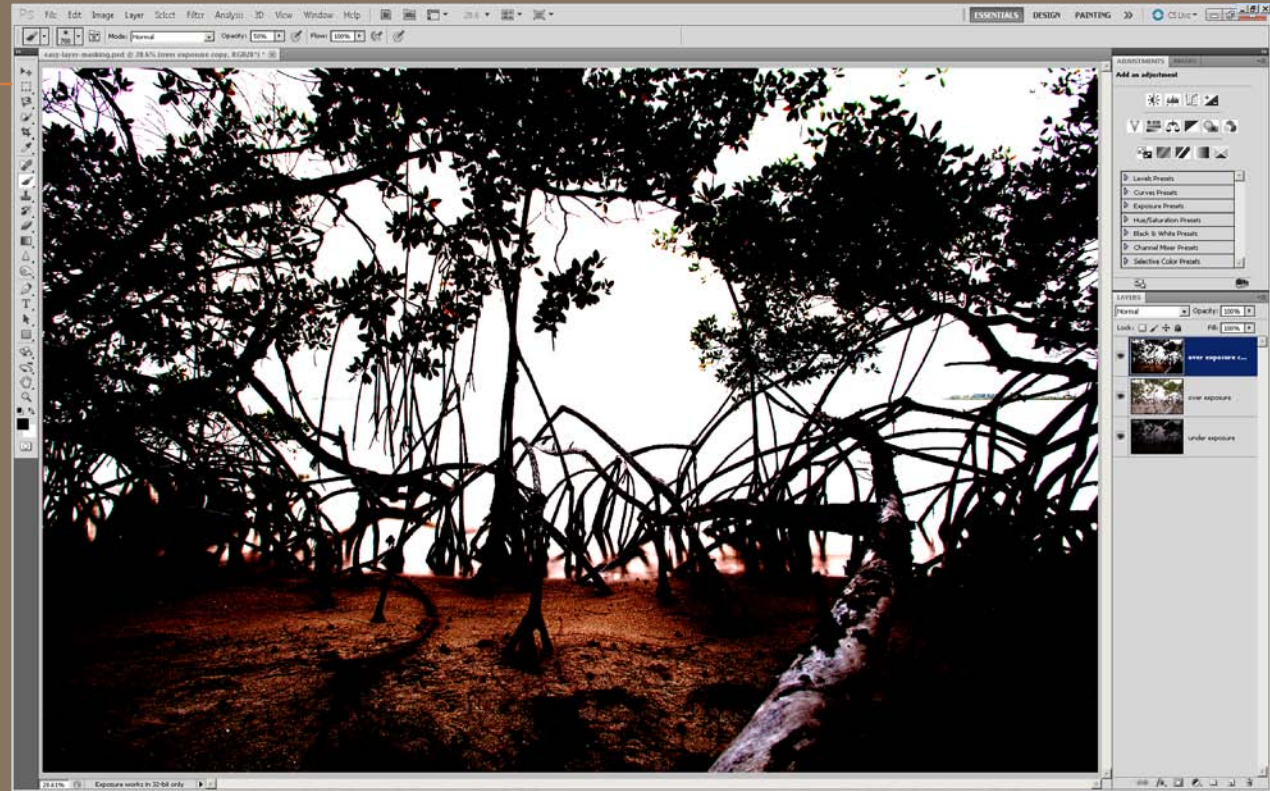


3. Your Photoshop window should look like this.

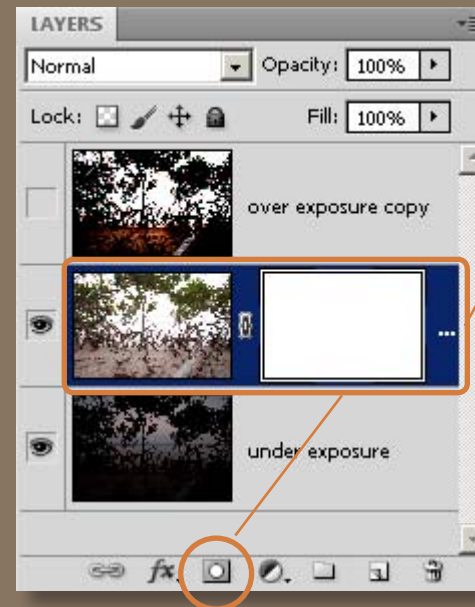
4. Now do a Select All of this image. I use the keyboard shortcut.

( PC = **CTR + A** )  
&  
( MAC = **CMD + A** )

5. Once everything is selected copy the image.

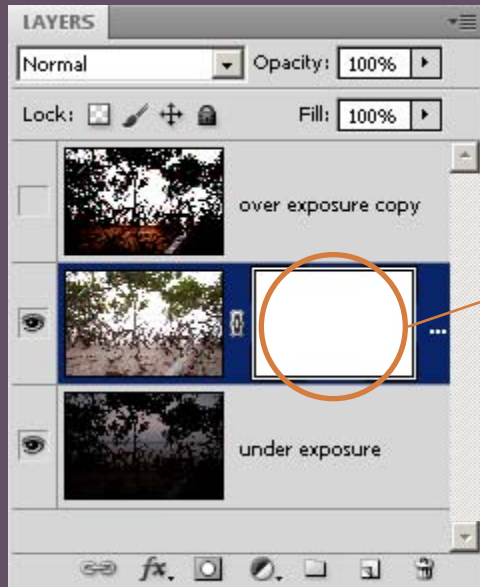


6. After you copy paste, you can hide this layer by clicking the eyeball.

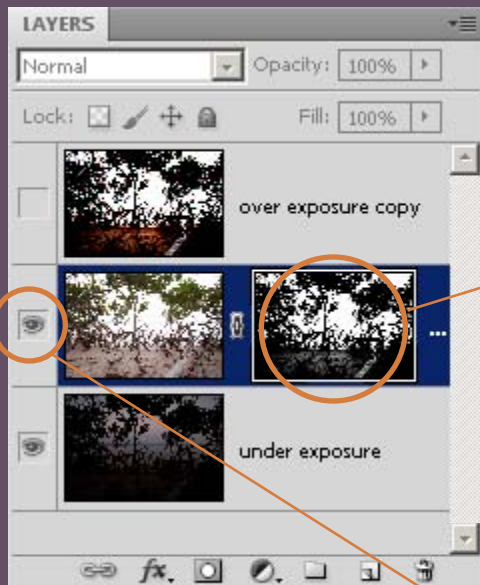
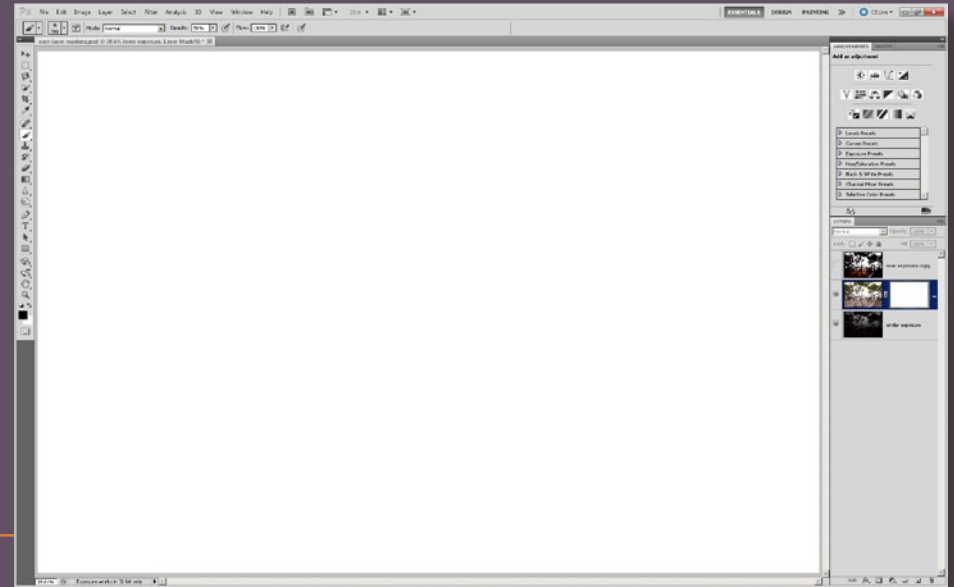


7. Now click on the original over exposed layer and add a layer mask.





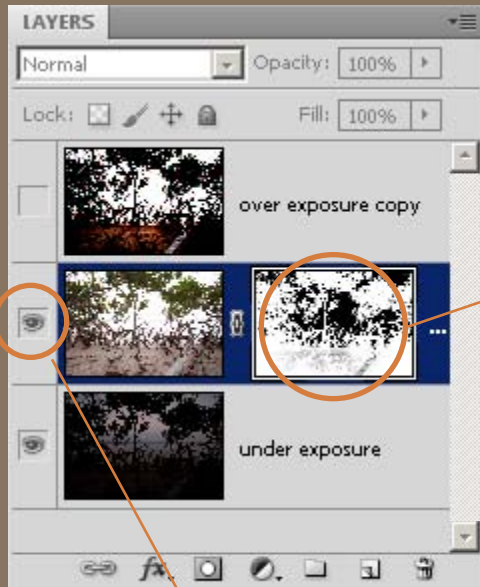
8. Once your layer mask is added press and hold ALT(PC) or OPT(MAC) key while right clicking on the layer mask. This will reveal your layer mask in the Photoshop window, and it should be blank similar to the image on the right.



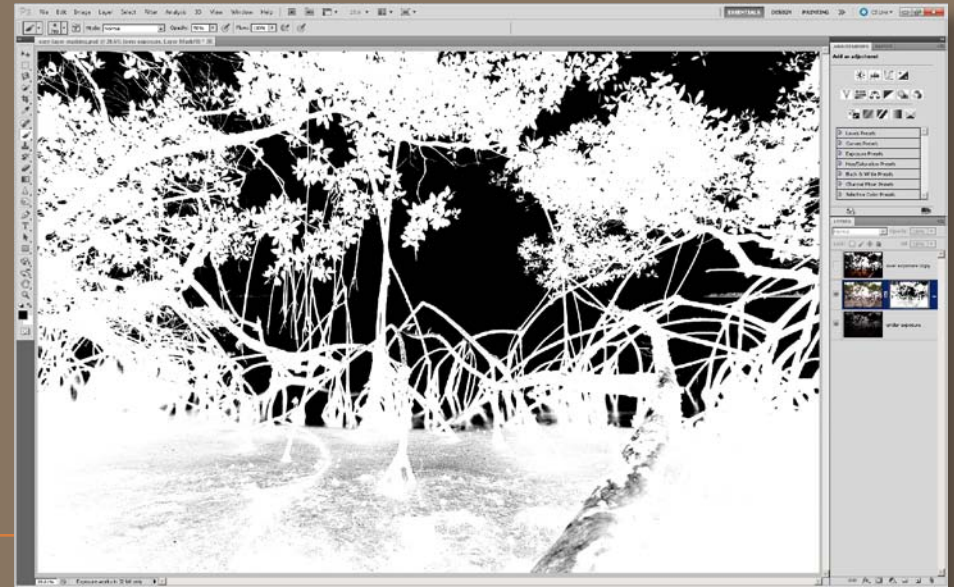
9. Now you can paste the image that you copied into this window.

**NOTE:** The eye ball here is grayed out because you're in layer mask editing mode. This mode allows you to edit your layer mask in the Photoshop window.

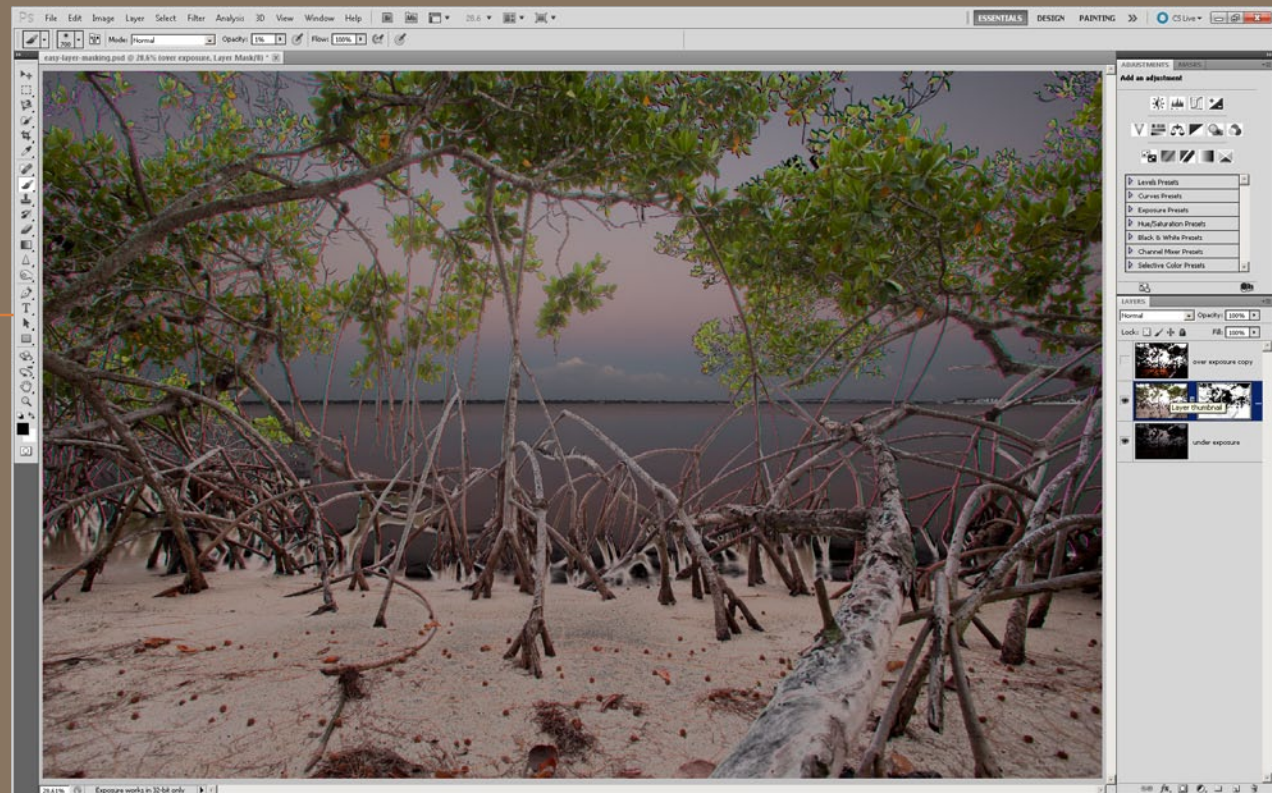




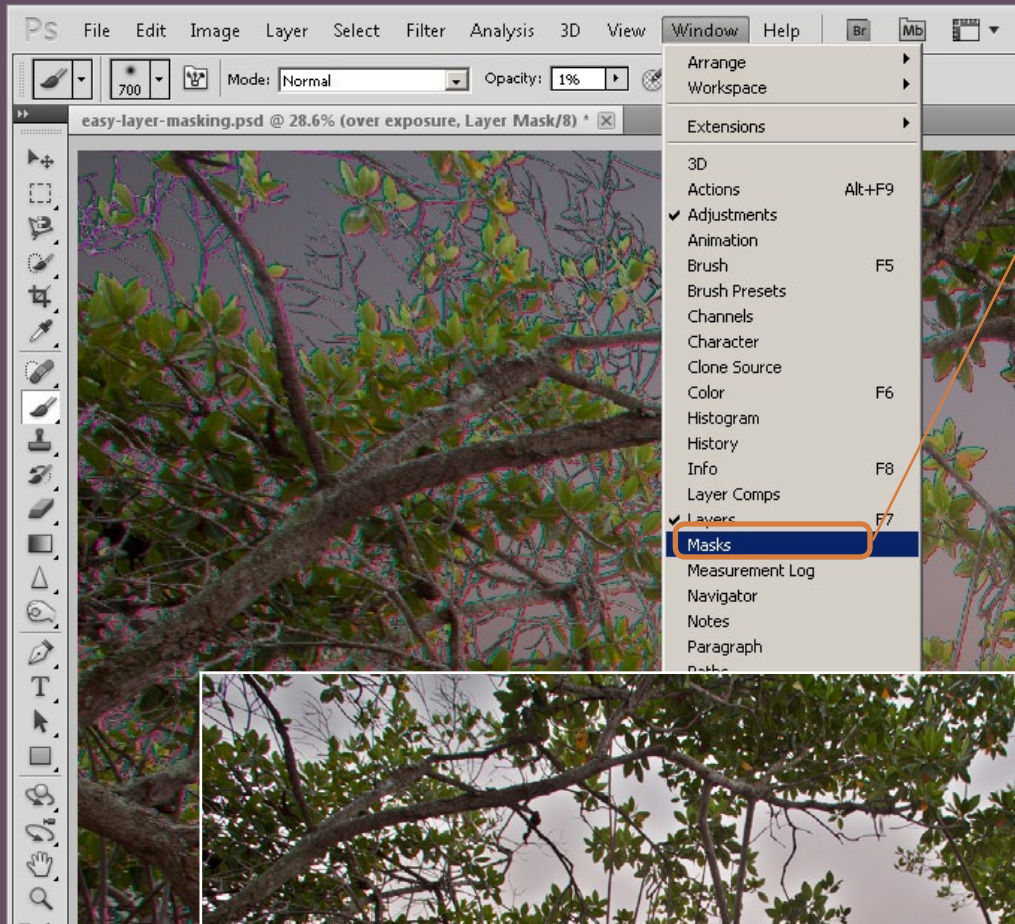
10. Currently our mask is masking out the trees and leaves which is the complete opposite of what we want, so click CTR I (PC) or CMD I (MAC) to invert our mask. This mask will mask out the over exposed sky and show the under exposed layer or sky beneath.



11. Click on the eye ball here to get out of layer mask editing mode. Our window should look like this. The layer mask is far from perfect so we need to fine tune it using the Masks options.

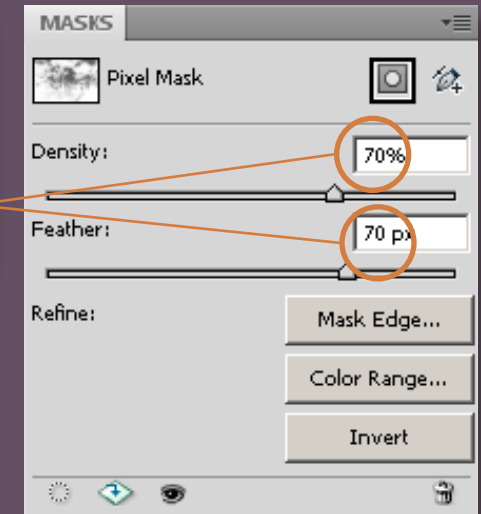






12. To fine tune the layer mask go to Window and click on Masks to show our masking options.

13. Set the following values; Density 70% and Feather 70px.



Congratulations you just created a highly complex layer mask in just a few minutes. This would normally take an expert hours to build.



## 5. Creating Similar Colors

Every now and then you'll need to create similar colors to make your photo postcard perfect. Large areas like sky, water, land or grass can be a real eyesore if they are not one uniform color. In this lesson I'll show you an easy way to make perfect solid colors.

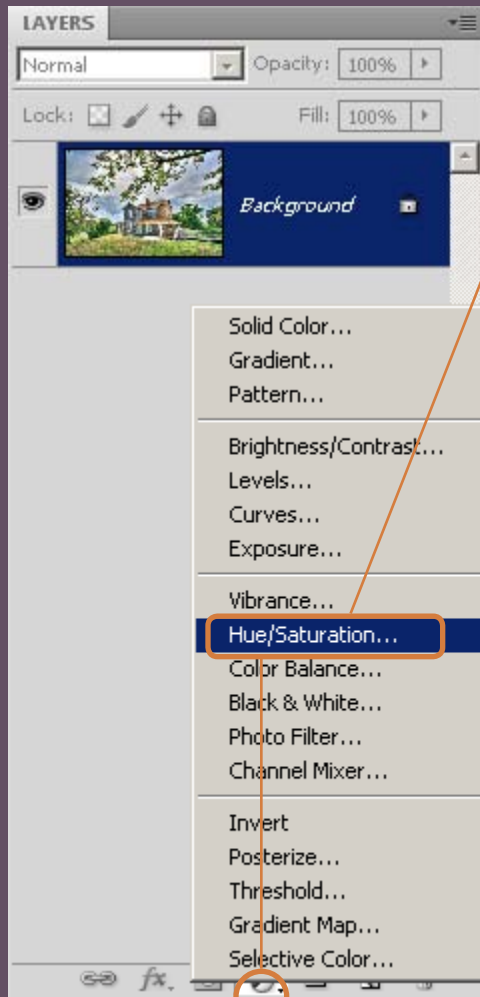


BEFORE

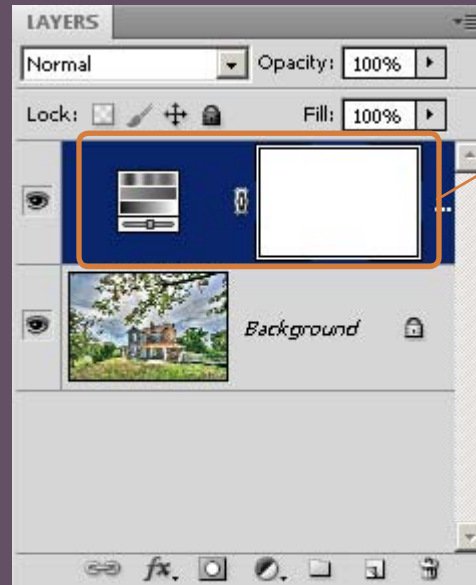


AFTER

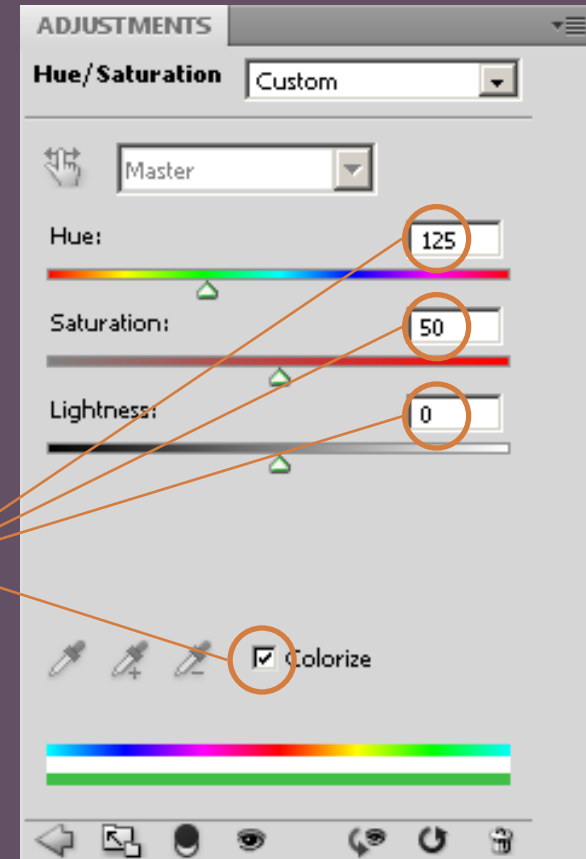




1. The first thing we need to do is add a Hue Saturation... layer adjustment.



2. You will now get a new layer adjustment window here.

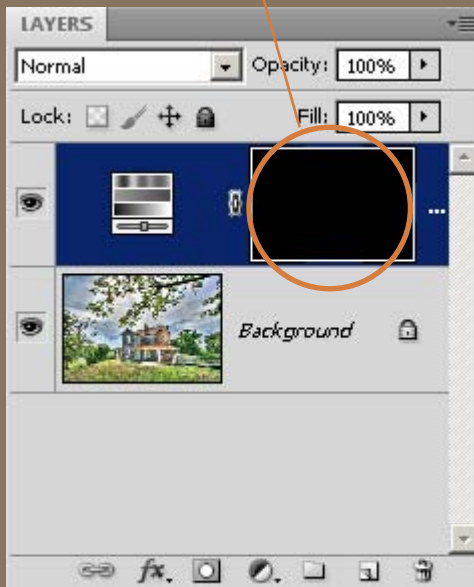
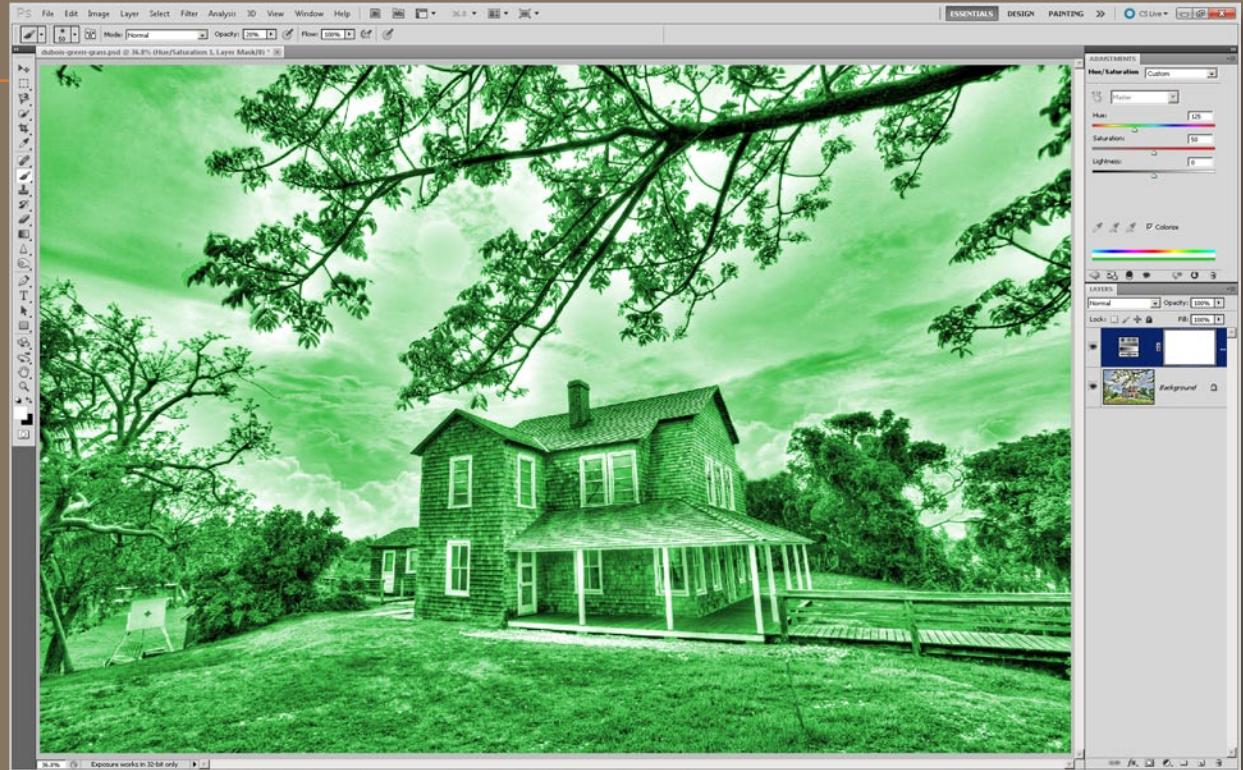


3. Adjust your Hue and Saturation settings to the values shown in the window. Make sure you have colorize checked.

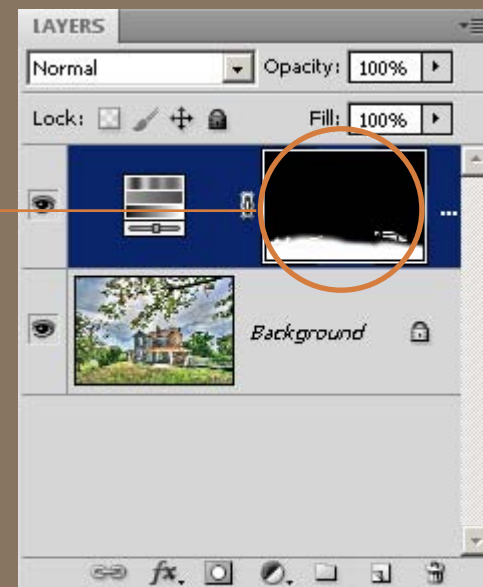
4. Your Photoshop window should look like this.

5. Now let's invert our Hue Saturation layer mask. Do this by keyboard shortcut

**CRT I (PC) & CMD I (MAC)**



6. Using your paint brush tool with the paint color set to white, you can now paint back in the Hue Saturation adjustment. Paint only the areas you want green, like the grass and leaves.





## 6. Removing Halos & Color Banding

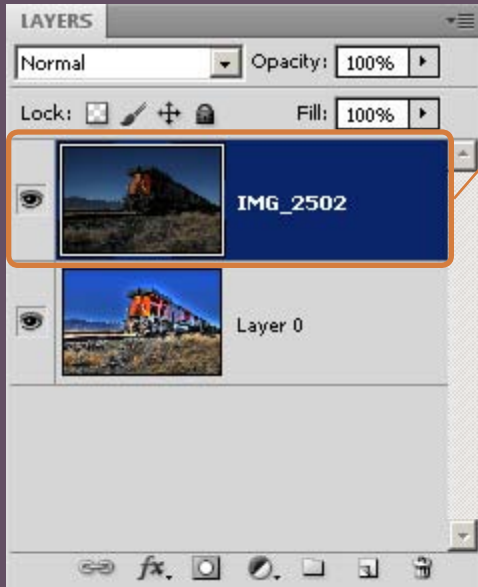
In this step you'll learn to remove halos and color banding by blending back in one of the original layers. The photo below has a obvious halo around the train. There is some color banding but it's not noticeable in this photo. But if there was, this technique would also remove it, since both problem areas usually appear only in the sky.



BEFORE



AFTER



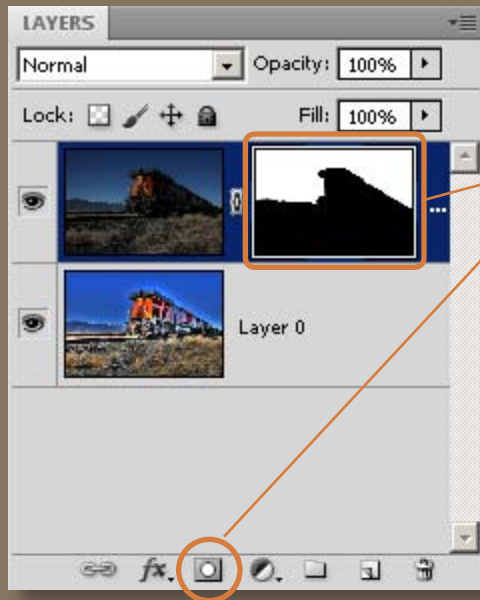
1. To fix the horizon and remove the halo so that it looks natural we will need to bring in the under exposed image into our scene. Add that exposure to the top of the layer. Don't forget to align your image. We covered aligning layers on page 54.



2. Now we need to make a selection around the sky. Do this however you wish, I use the quick selection tool to make a selection of the sky. The selection doesn't need to be perfect we can fine tune it later.





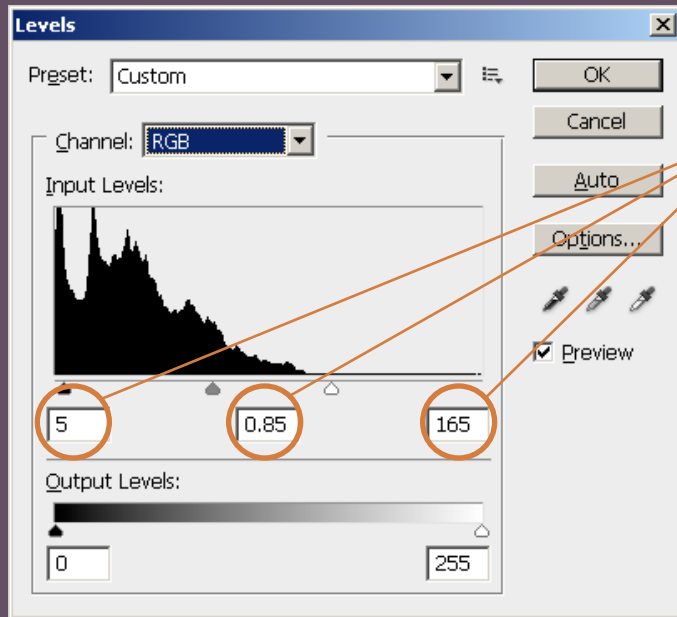


3. Once you've made a selection you can now add a layer mask. Notice the mask created along with the layer mask. This is because we made a selection before adding the layer mask. This selection tells Photoshop what areas we want to keep visible and what areas to hide.

4. Our photo should now look like this in the Photoshop window. The sky is a little dark but we will adjust that using Levels. Be sure to select your under exposure image so you can properly apply the Levels adjustment to that image.







5. Use keyboard shortcut to access your Levels adjustment window.

CTR L (PC) & CMD L (MAC)

Adjust the Levels settings to the following values.





## 7. Fixing Blown Out Highlights

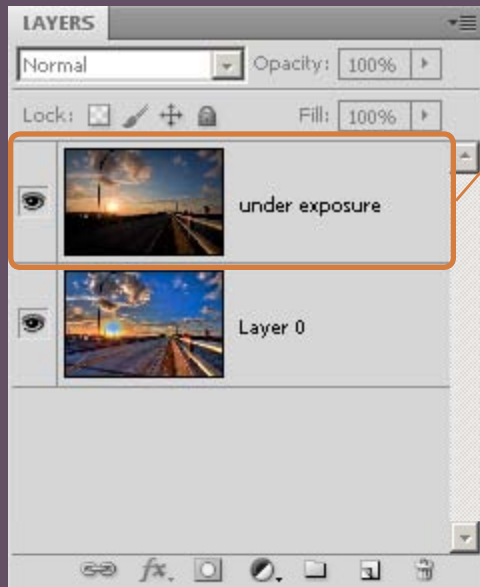
The concept of fixing blown out highlights is similar to that of the previous step where we fix halo and color banding, but in this tip I'll show you a different approach to obtaining your layer mask. This works very well for blown out areas around the sun.



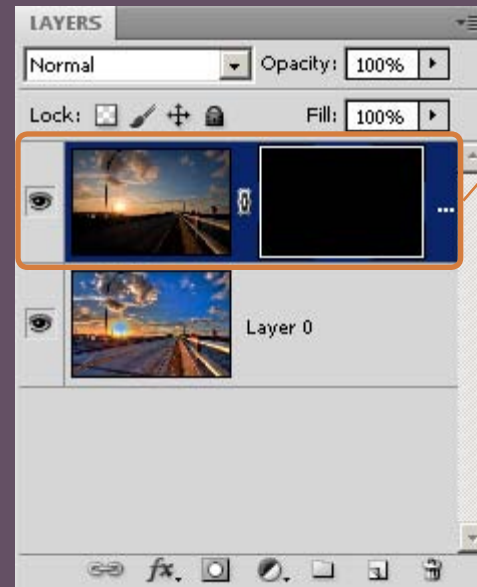
BEFORE



AFTER



1. To start, we add our under exposed photo into our HDR image.



2. Now add a layer mask to the under exposure layer. I do this by right clicking while holding the ALT key (PC) or OPT key (MAC). Doing this while adding a layer mask will create a black filled mask that will hide everything in our under exposure layer.



3. Your Photoshop window should now look like this. Go to the next step to learn a new masking technique.



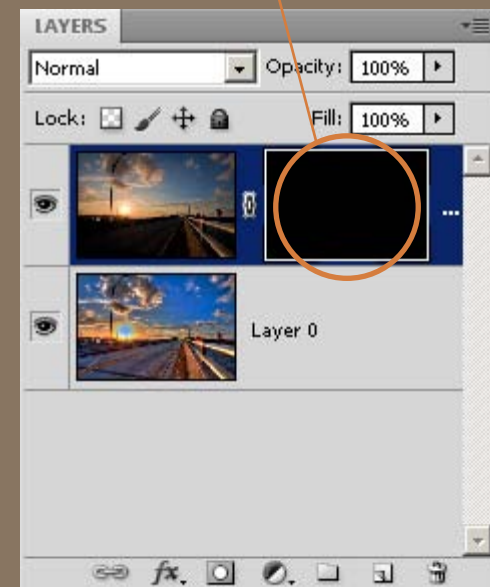
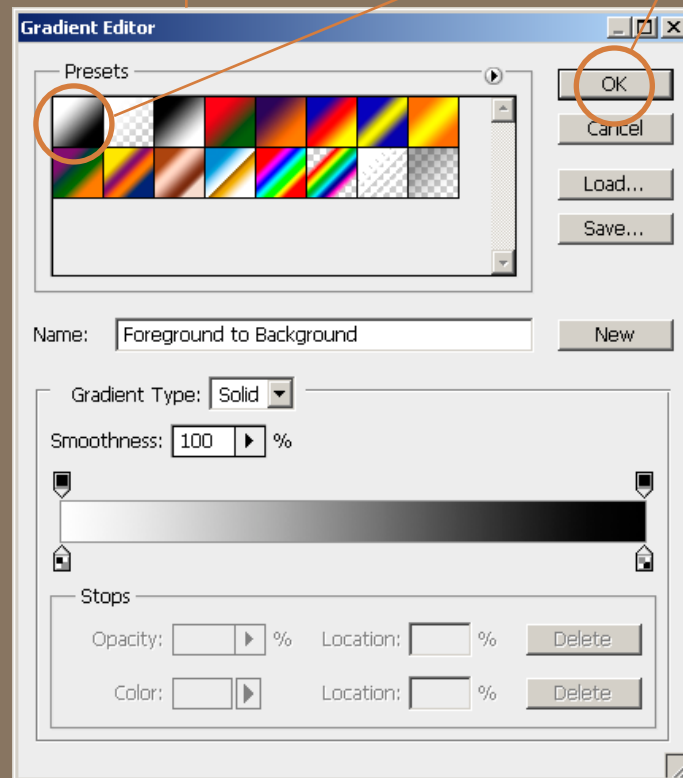
4. Select the Gradient Tool.

5. Click on top menu to open Gradient Editor.

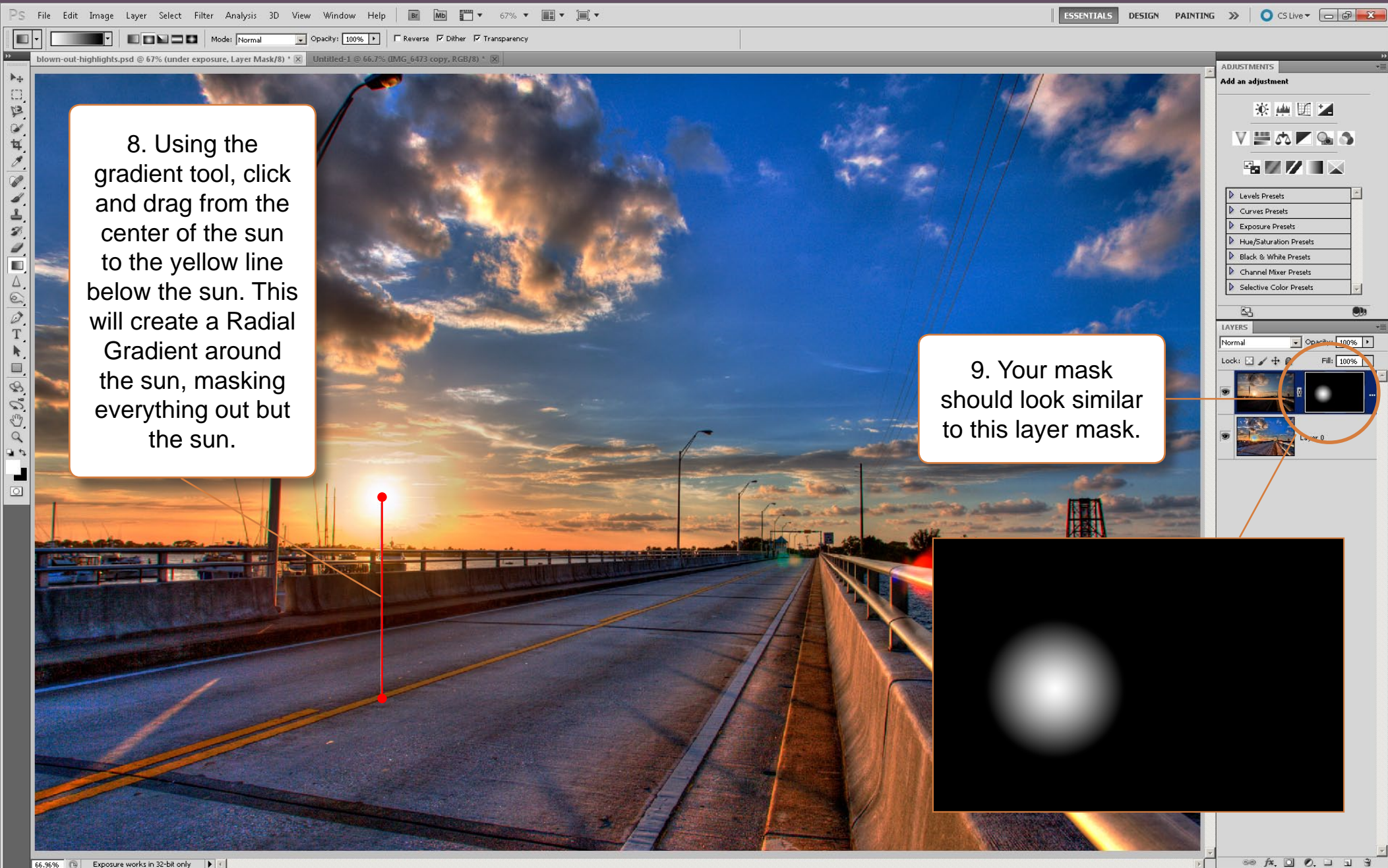
6. Select the first preset colors and click the OK button.

7. Select the Radial Gradient option.

8. Be sure your layer mask is selected. If not, click on it to select the layer mask.



## IMAGE AFTER GRADIENT APPLIED





## 8. How to Fix Ghosting

We can't always rely on Photomatix to remove ghosting, especially when there's a tremendous difference between two exposures. In this technique I'll show you how to create ghost free exposures in Photoshop before merging and tone mapping them in Photomatix.

The ghosting in the photo below can be seen in the clouds. The clouds were moving fast that morning so I was unable to get similar exposures.



BEFORE



AFTER

## EVEN EXPOSURE



The even exposure will be the image we will be editing in Photoshop to fix the ghosting.

## UNDER EXPOSURE

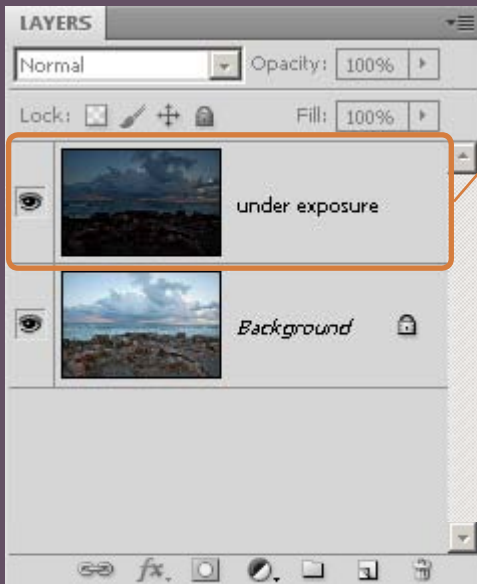


We will use the clouds in this photo to superimpose over the clouds in our even exposure.

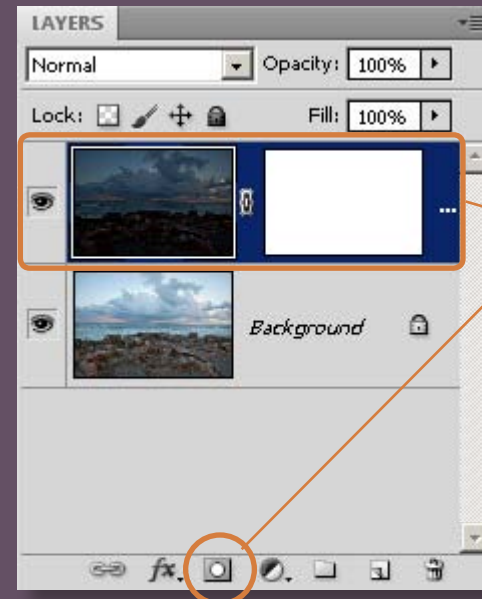
## OVER EXPOSURE



We don't need to worry about this exposure because the clouds are not visible.



1. Open the under exposure in Photoshop and add the under exposure on top.



2. Next add a layer mask in the under exposure layer.



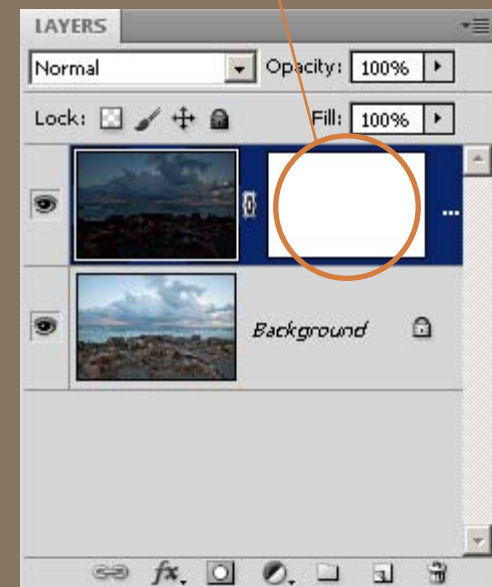
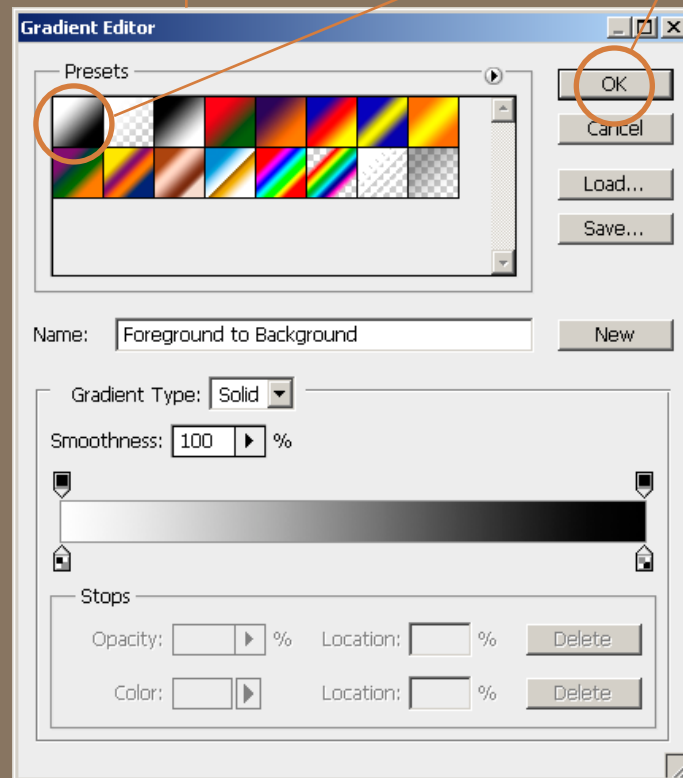
3. Select the Gradient Tool.

4. Click on top menu to open Gradient Editor.

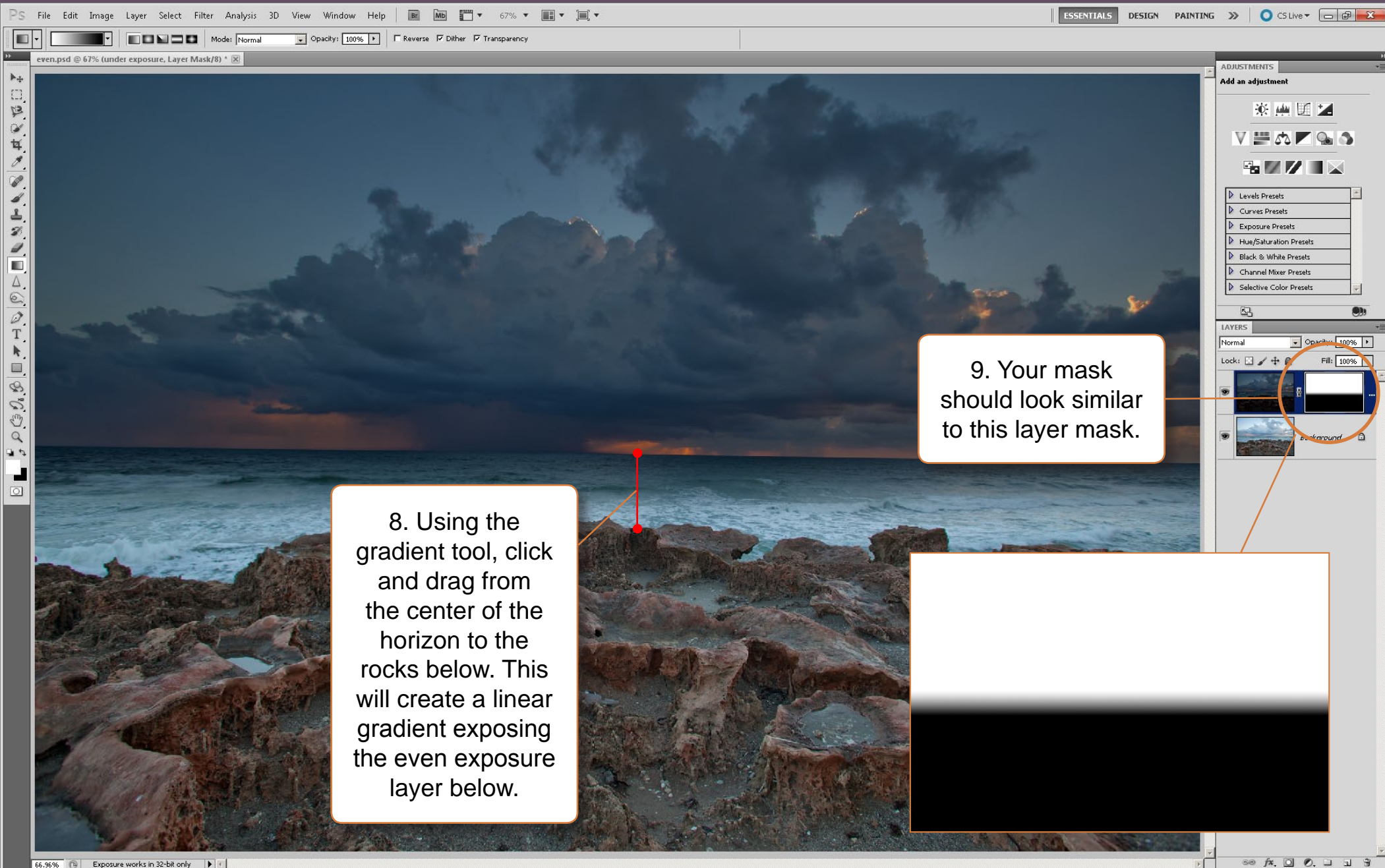
5. Select the first preset colors and click the OK button.

6. Select the Linear Gradient option.

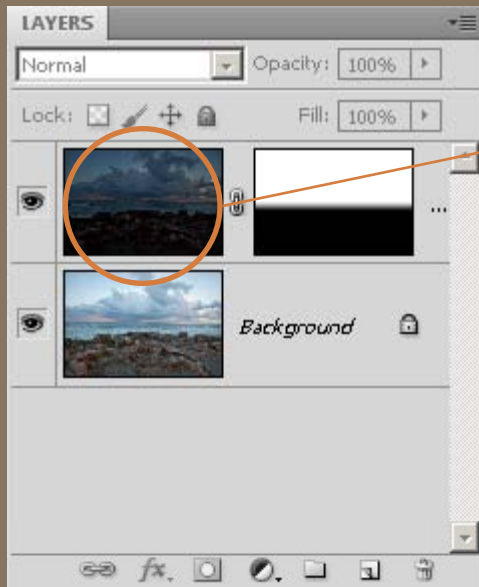
7. Be sure your layer mask is selected. If not, click on it to select the layer mask.



## IMAGE AFTER GRADIENT APPLIED





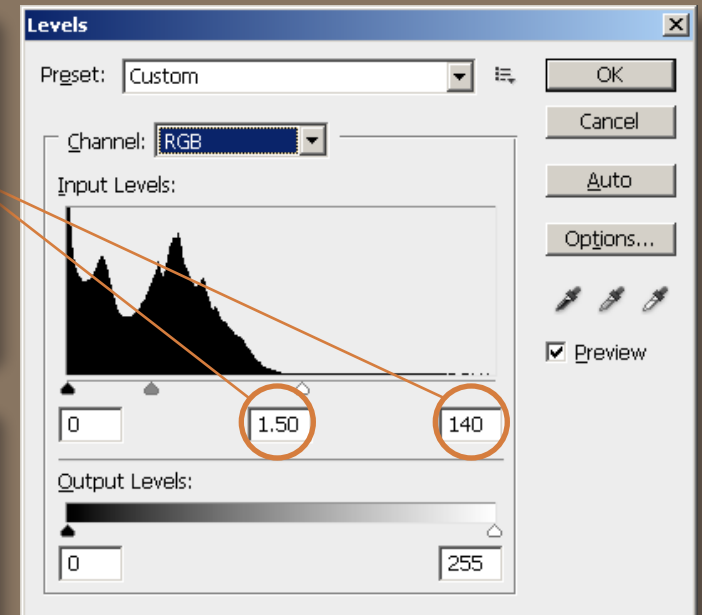


10. Click your under exposure image and apply a levels adjustment on it.

**CTR L (PC) & CMD L (MAC)**

Adjust the Levels settings to the following values.

11. Your final ghost free exposure is complete. All you have to do now is flatten the image, save it, and use this image along with the other 2 exposures to create a ghost free HDR photo.



ORIGINAL EXPOSURE BEFORE EDITING



FINAL GHOST FREE EXPOSURE

## 9. Photoshop Tools for HDR

In this tutorial I'll show you how to use Photoshop to produce HDR images without using the Merge to HDR feature. This process doesn't compare to Photomatix but it's a useful technique for instances where you don't have the original three exposures, or just too lazy to bother with Photomatix. I was able to produce the pseudo HDR image below by simply using Photoshop tools and applying them to a single photo.

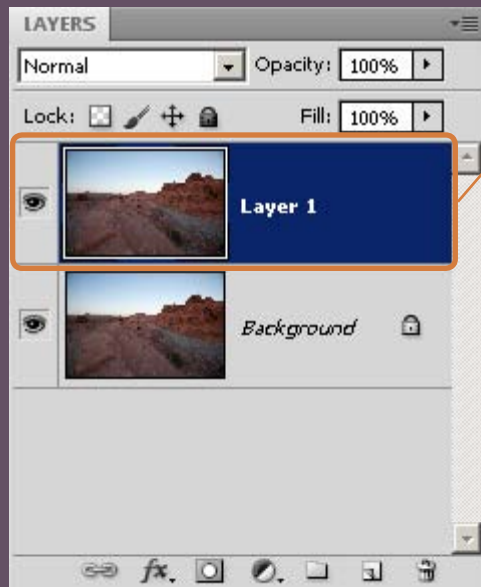


BEFORE



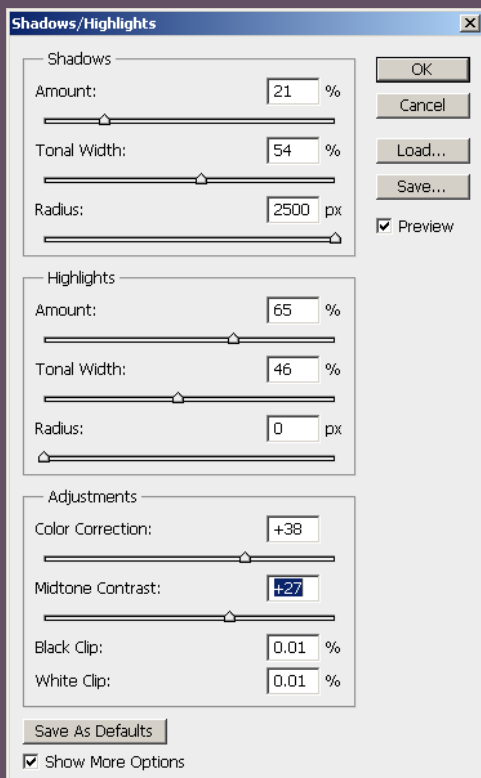
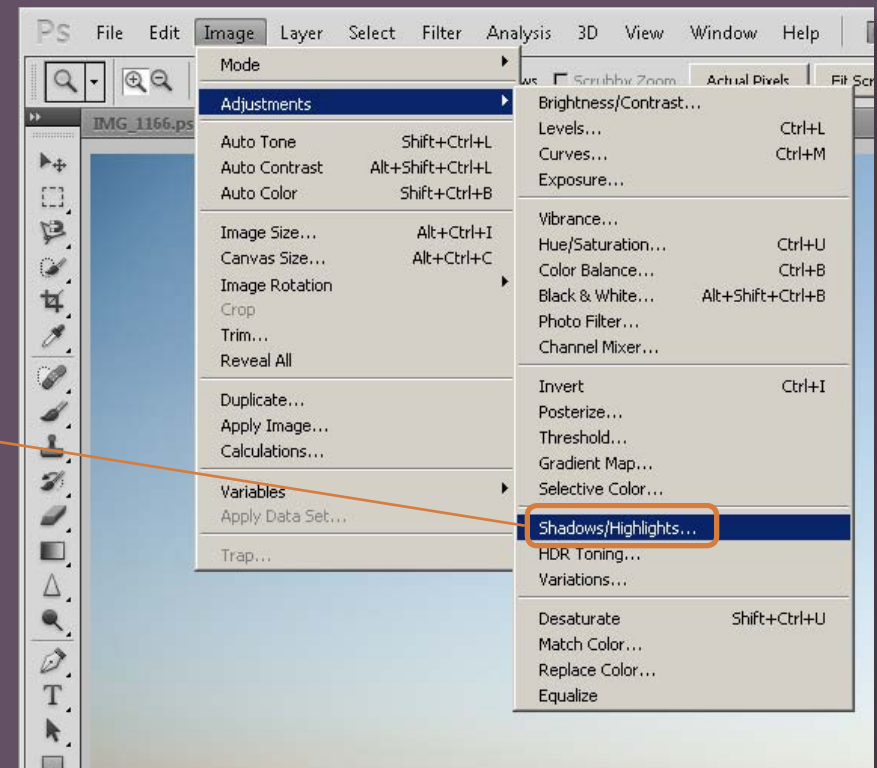
AFTER





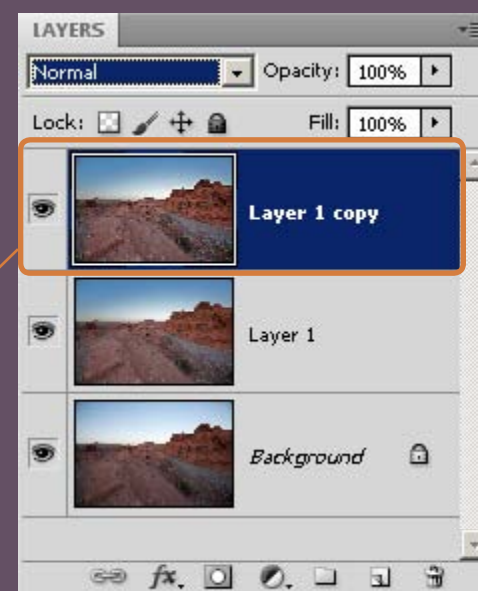
1. Duplicate the background layer.

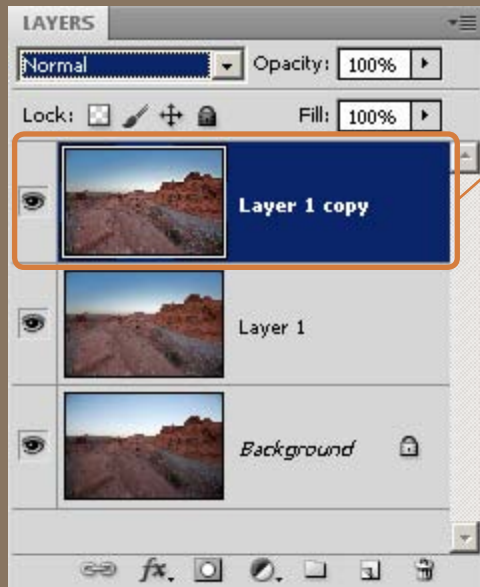
2. Apply Shadow/Highlights to the duplicate layer.



3. Set values for Shadow/Highlights to the following settings and click the OK button.

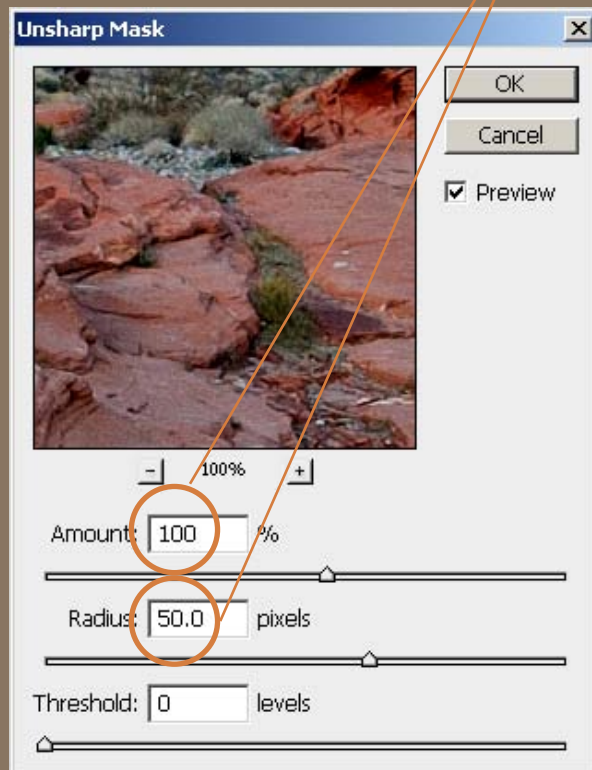
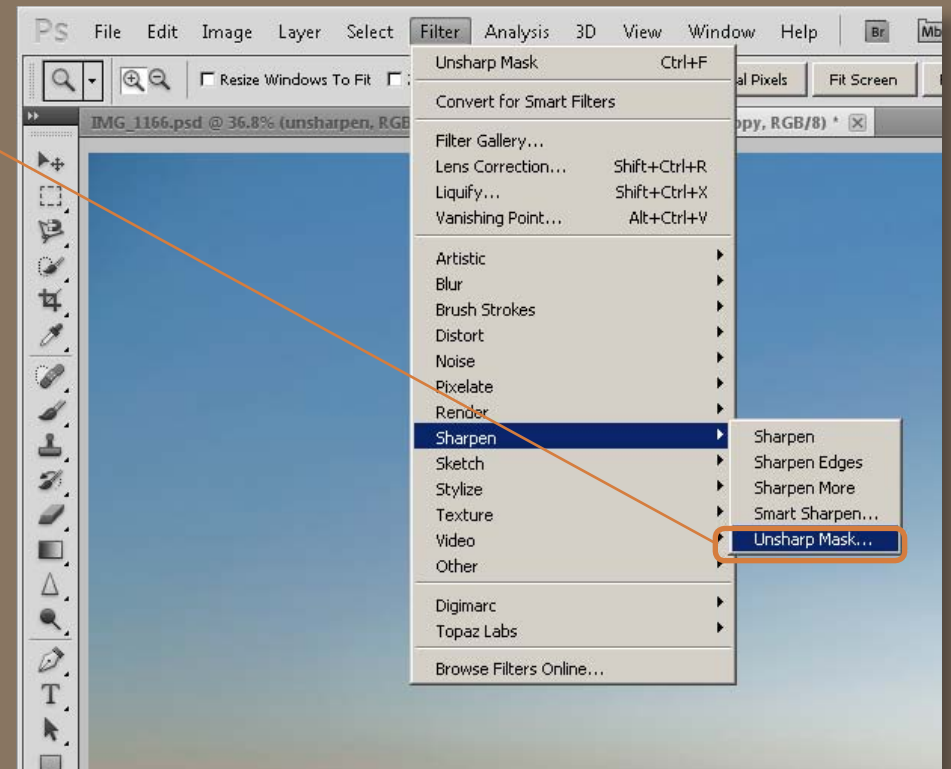
4. Duplicate the layer that we just applied Shadow/Highlights to.



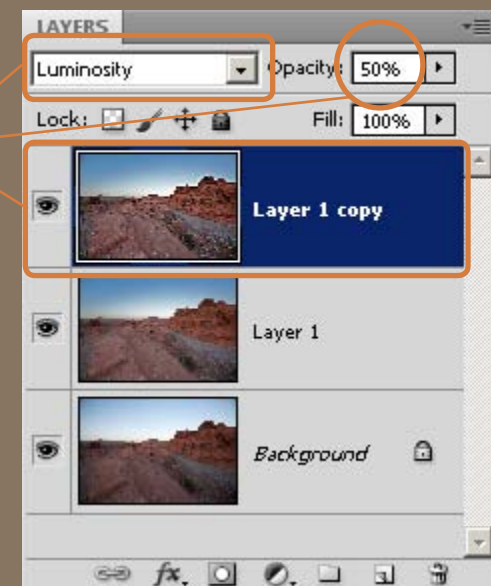


5. Apply Unsharp Mask filter to that new layer.

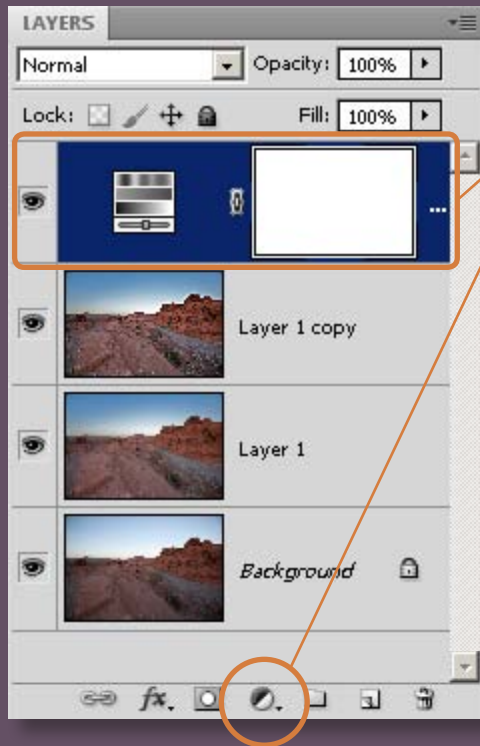
6. Apply the Unsharp Mask settings from below and click the OK button.



7. Set the layer that we just applied Unsharp Mask to Luminosity and Opacity to 50%.

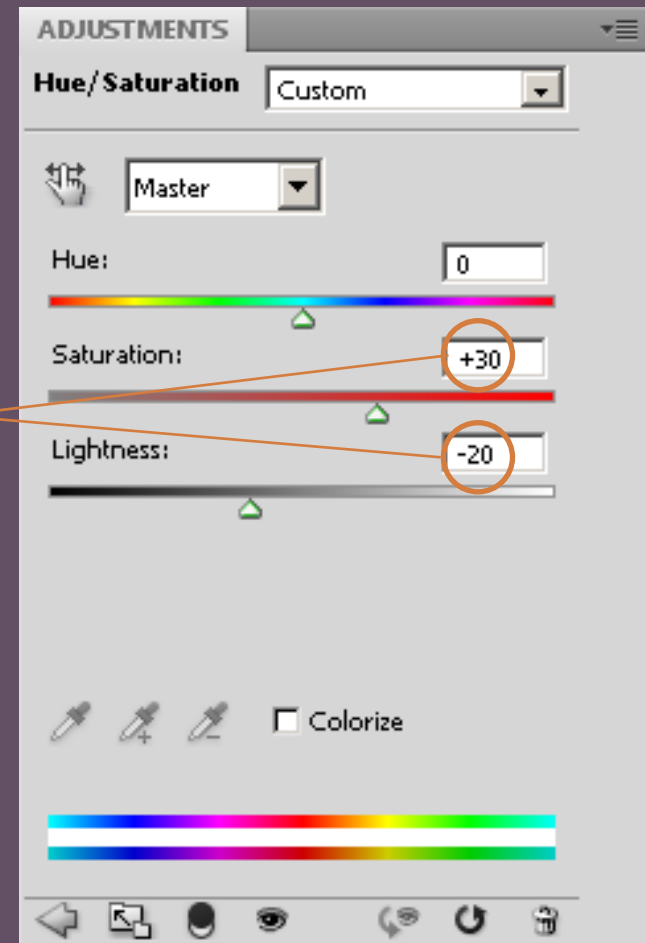




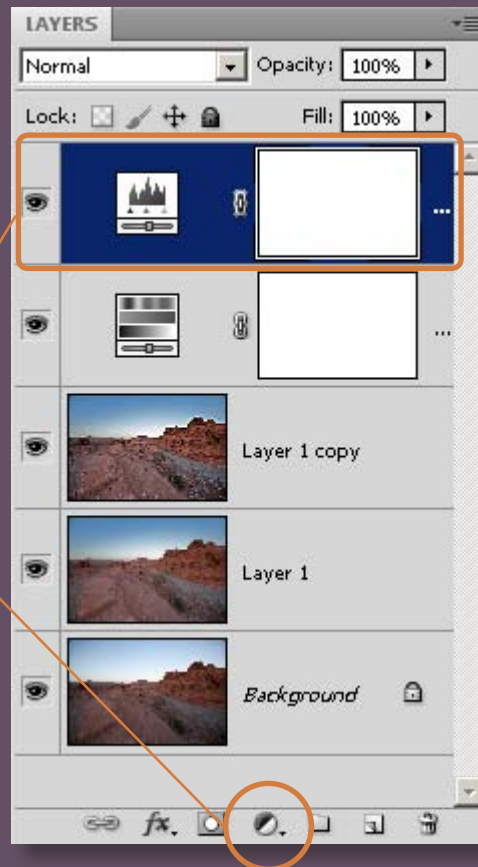


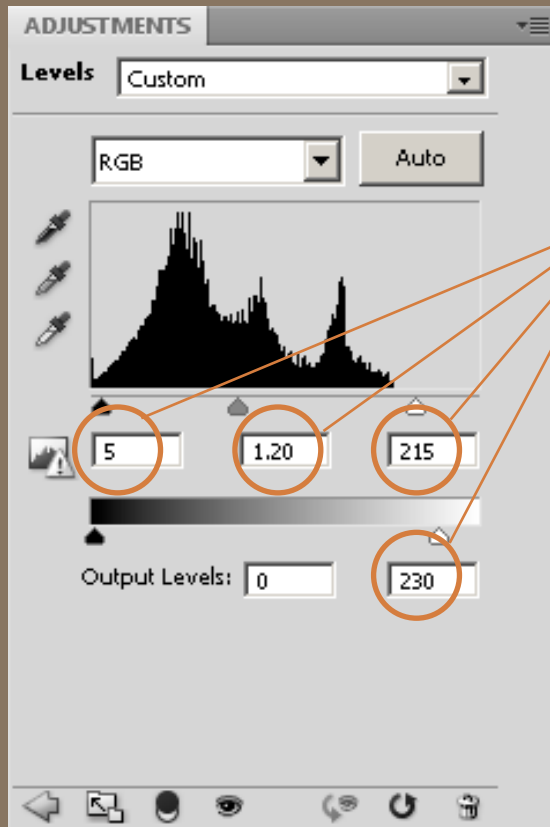
8. Add a Hue Saturation Layer Adjustment.

9. Set Hue Saturation to the following values.



10. Add a Levels Layer Adjustment.

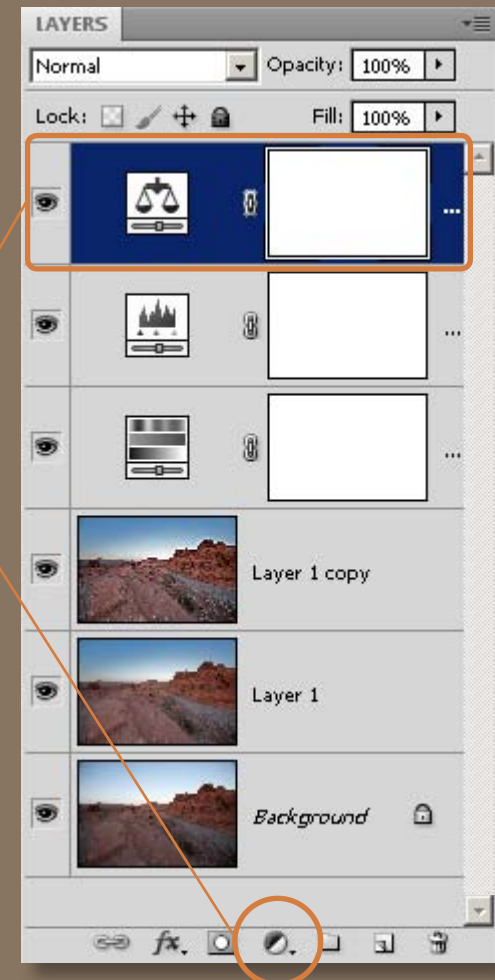




11. Set Levels adjustment to the following values.

12. Add Color Balance adjustment layer.

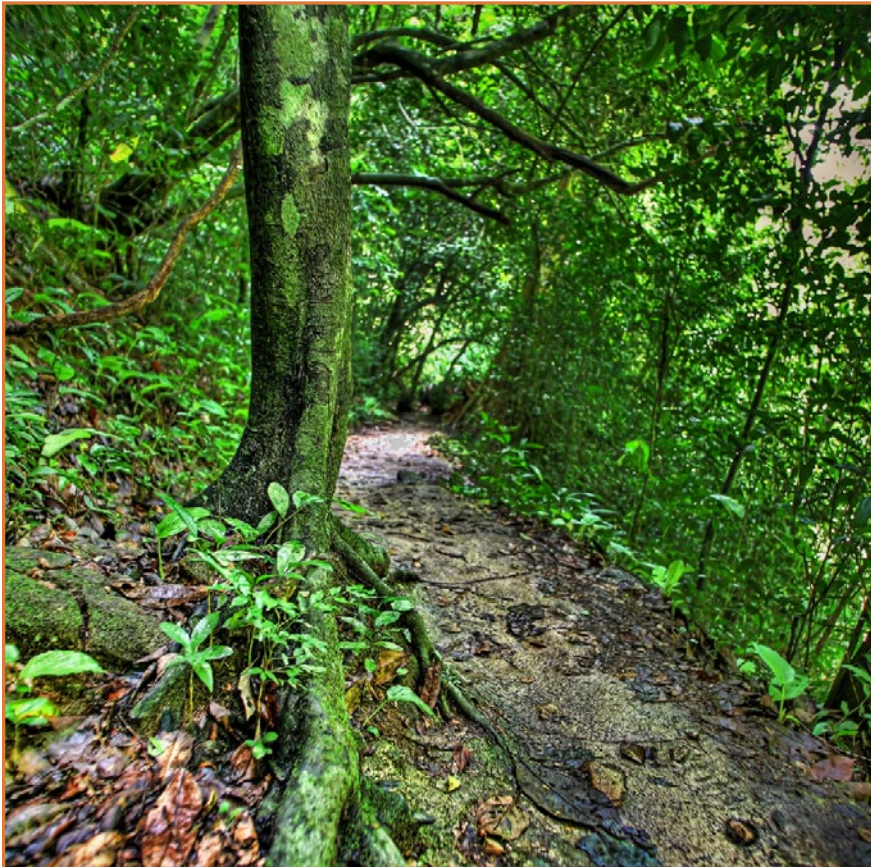
13. Set Color Balance adjustment to the following values.



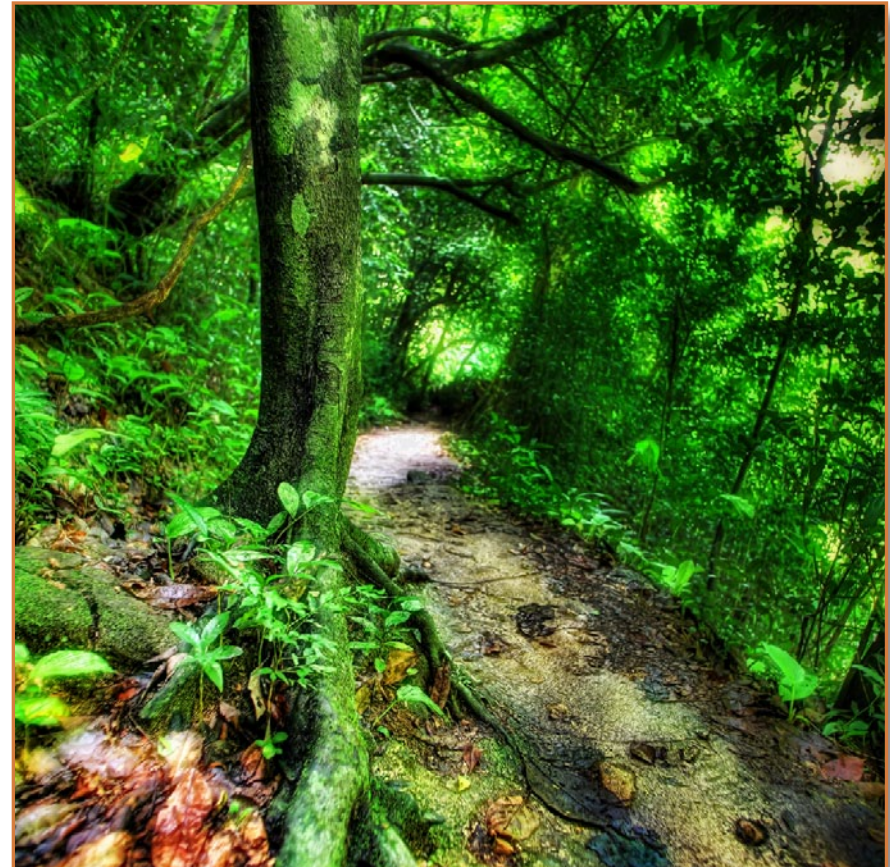


# 10. Orton Effect

The Orton Effect is a traditional photography technique created by Michael Orton to produce dream like images. This effect is achieved by sandwiching two film slides together to produce one photo. This involves combining two images of different exposure and focus. The first image, which is in focus, is over exposed by 2 stops, while the second image that is out of focus is over exposed by only 1 stop. Using Photoshop we can easily produce the same dream like effect.

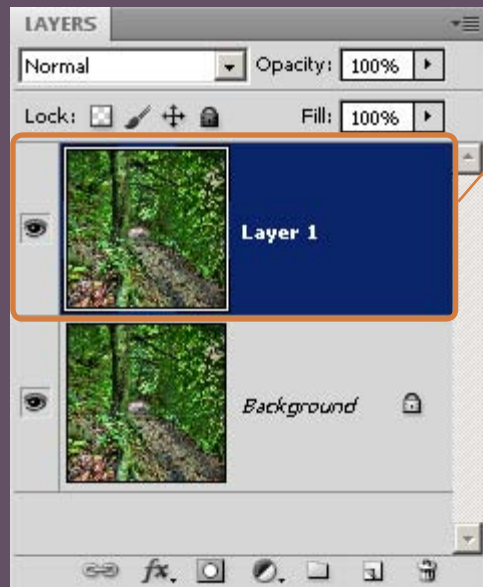


BEFORE



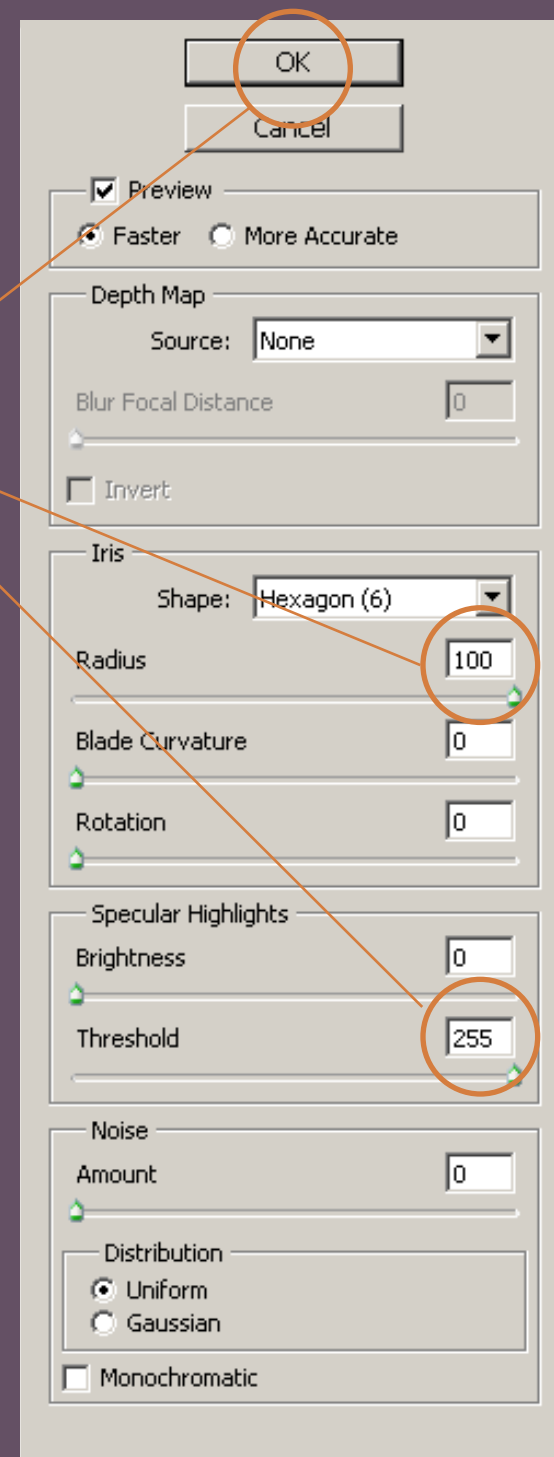
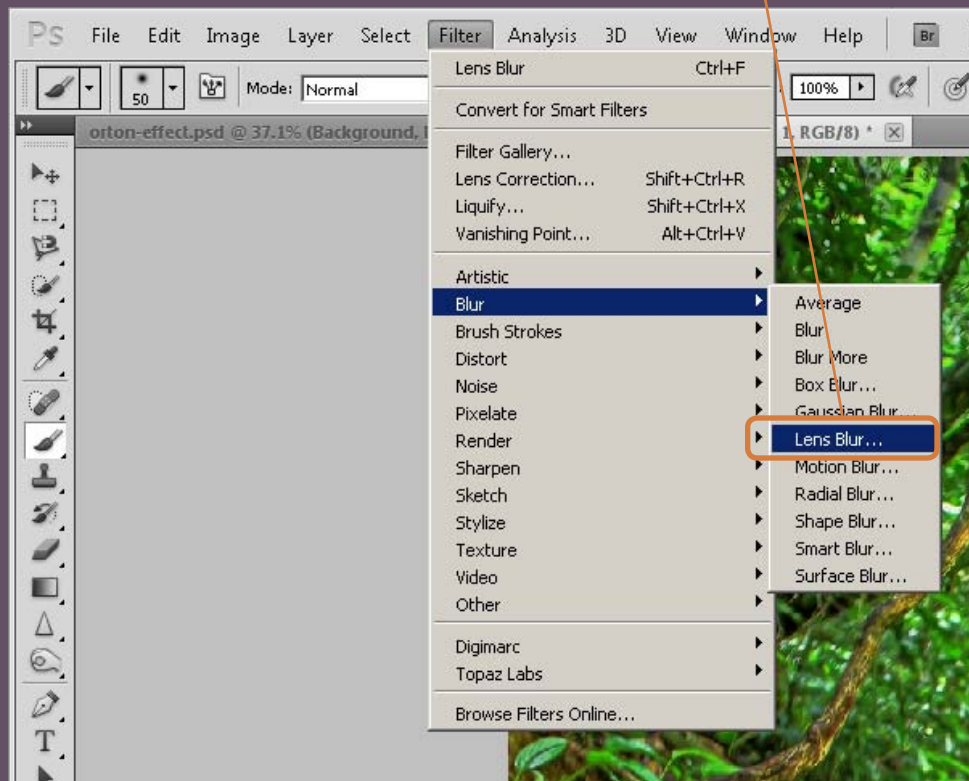
AFTER



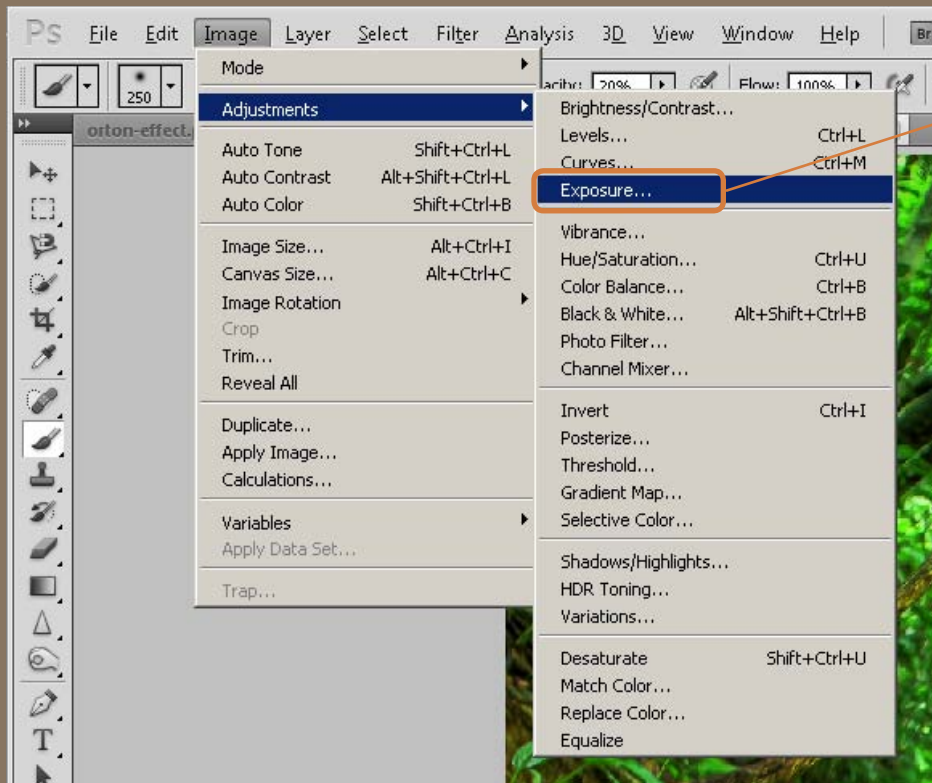


1. Duplicate the background layer.

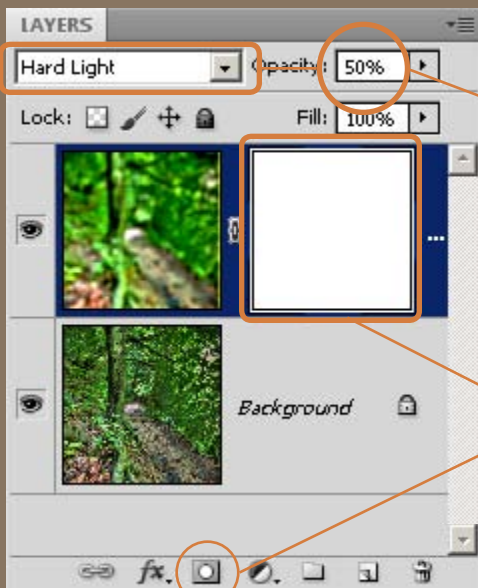
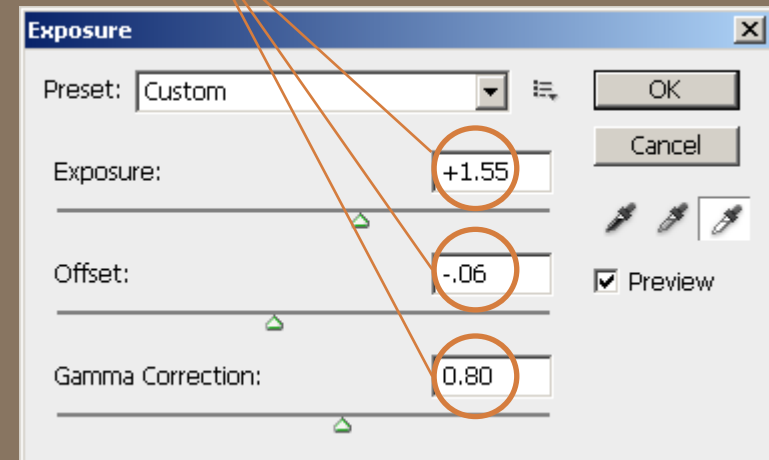
2. Apply Lens Blur to the new duplicate layer. Enter the values shown and click the OK button.







3. Now we apply an Exposure adjustment to our duplicate layer. Apply the values below and click the OK button.



4. Change the layer mode for the duplicate layer to Hard Light and the opacity to 50%.

5. Add a Layer Mask to the duplicate layer to paint away unwanted areas affected by the Orton Effect. My layer mask looks like this.



## CHAPTER 6

# Get Better Exposures

## 10 Tips for Better Exposures



# 1. Camera Mode

Most digital SLR cameras all have the same 5 modes; Auto, Program, Shutter Priority, Aperture Priority and Manual Mode. Some cameras might have more, and others might have less, but these are the most common modes for the majority of the digital SLR cameras today.

**Auto** – This mode puts the camera in complete control. This setting won't allow access to the auto exposure bracketing (AEB), so this mode won't work for shooting HDR exposures.

**Program** – This is a semi-automatic mode where you adjust your settings and the camera compensates to create the right exposure. I recommend this mode for beginners.

**Shutter** – This mode allows you to set the shutter speed of your camera while automatically adjusting the aperture to maintain the correct exposure. This mode is good for locking the shutterspeed so you can shoot at the same speed for all three exposures.

**Aperture** – This mode allows you to set the Aperture while automatically adjusting the shutter speed to maintain the correct exposure. This mode is good for locking the Aperture so you can shoot at the same f-stop for all three exposures. This is the mode I use for the majority of my HDR images.

**Manual** – This mode puts the user in complete control of the camera. Only recommended for those who want control of everything. I use manual mode for nighttime shots only because night exposures require more fine tuning.



## What camera mode do I use for HDR?

The camera mode I use all depends on the situation, but 90% of the time I shoot using Aperture Priority mode. I use this mode because it's the simplest mode to use with the most flexibility. For instance if I want to slow my shutter speed I simply drop my f-stop. In some instances I'll use shutter priority mode if I want to lock my shutter speed. For example if I want keep my camera's shutter speed at 5 seconds for each exposure, this would be the mode I'll use. Keeping the shutter open for 5 seconds allows me to capture smoother water in motion.

Below is a set of HDR images using different modes. All image was merged in Photomatix using the same settings. Minus the color temperature, there's not that much of a difference other than the motion in the water.

**PROGRAM MODE**



**SHUTTER MODE**



**APERTURE MODE**



## What camera mode do I recommend for beginners?

If you're new to photography, and all the camera settings are too overwhelming, set your camera to Program mode and let it do the work for you. Don't feel guilty, remember you're still learning. Eventually you'll run into limitations in Program mode. You can then move up to using Aperture and Shutter priority. Play around with those modes until you understand each of them and their limitations. Then move to the Manual mode, by this time you'll have a good grasp of each setting and how they affect each other. Take it in stages, everything will make sense the more you shoot.



## 2. Camera Settings Versus Composition

Most people worry too much about their camera settings. Many mistakes can be fixed during post processing. Don't get me wrong, it is important that you understand all the camera functions, but don't sweat the small stuff, especially if you got a great shot coming. You might end up missing it if you worry too much about camera settings!

When shooting, my priority is never camera settings, because I know I can fix most problems that occur if my exposure comes out bad, and that rarely happens. Mainly because digital photography gives instant feedback from the LCD. Just by looking at the preview, I can get a good idea whether my exposure is good or bad.

Remember with HDR photography you'll be shooting multiple exposures and combining them together. It's hard to get the wrong exposure when you have a few to work with. As long as you preview your images, you'll always have good exposures to work from.

My suggestion is don't worry about your camera settings, instead I recommend concentrating on composition and making sure your image is focused. Images that are out of focus is difficult to salvage, and a bad composition can't be fixed. If you spend most of your time composing, I guarantee you'll produce better photos.



After thinking about it, and most of you probably already know this, there is one setting that you should worry about, where post processing won't help, and that is ISO. If set high, ISO can produce very grainy and noisy images. Depending on how well your camera handles noise, ISO can ruin an entire shoot. I've done this once myself, and I'm sure some of you have also. I've shot an entire scene only to drive away realizing my ISO was set high from the previous night. So if there is any settings that you need to worry about, it's ISO!



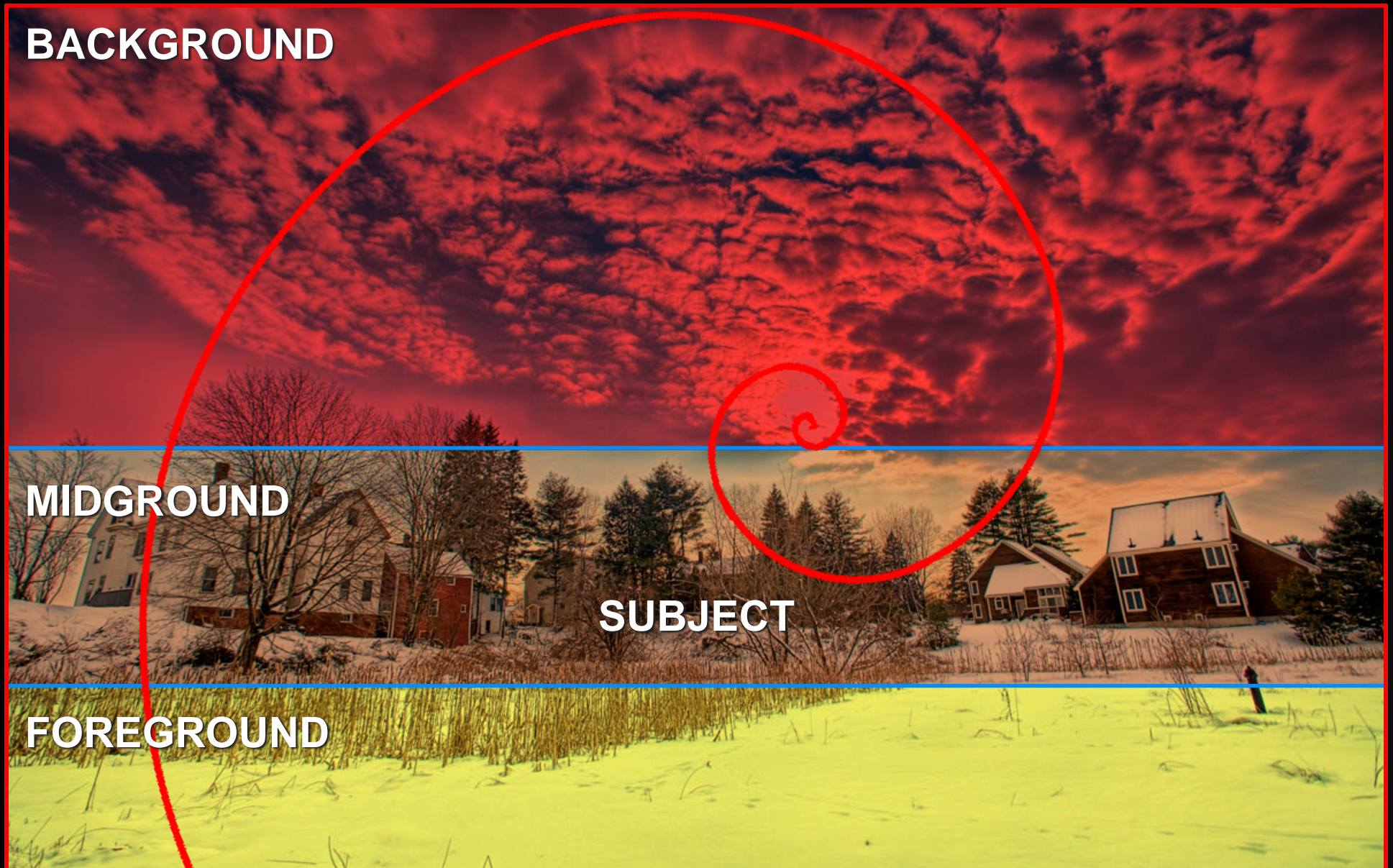
# COMPOSING YOUR PHOTOGRAPH



I could write an entire book just on composition alone, but I'm going to keep it simple, or else this book won't ever get done! So here's my quick tip in regards to composition. When I'm composing my image, I break it down into 5 elements. One of them involves the Golden Ratio, which is a spiral like pattern used by

many artist to compose their work. I use the Golden Ratio to frame and link the other four elements together. These 4 elements are subject, foreground, midground and background. Take a look at this photo and see if you can dissect the composition yourself. Then go to the next page to see how it all breaks down.





Breaking it all down into 5 basic elements makes composition a very easy task, especially when the environment lays out the composition for you. In this image you can easily see the foreground, midground and background. The subject in this photo is also the midground. The subject could also be the foreground or

background as well, sometimes the subject can stand alone, like a lone tree or rock... etc. The red spiral indicates the Golden Ratio. I use the Golden Ratio to link all 4 elements together. The Golden Ratio is what I use to frame my composition. There you have it, composition by Captain Kimo made easy :-)

### 3. Best Tripod Head Combination

The best tripod and head combination for everyday ease of use and portability is a carbon fiber tripod (with clips) and a Manfrotto 322RC2 Joystick Ballhead. This combination makes it super easy to compose photos in an instant. With this combination you spend less time fiddling around with your setup, and more time shooting.

The carbon fiber tripod I use is the Velbron 530. This is a very light weight tripod that has everything I need. Even though I recommend this tripod, I feel most tripods are pretty much the same. The only difference is in the way they operate. Here's a check list for getting a simple to use tripod that's easy to carry around.

- Clips for adjusting leg height. I find other methods of adjusting leg height, like screws, too time consuming, and even frustrating.
- Leg that fully extends 90 degrees. This allows me to setup the tripod anywhere.
- Center support tube that can be shorten for taking low composition shots. This is the tube that holds the head, if it can't be shortened, then you can't take full advantage of your legs extending 90 degrees.
- Carbon fiber tripods are durable, lightweight and easy to carry around.
- Small and portable tripods make traveling around easier, especially when you're carrying tons of gear.



The Manfrotto 322RC2, the only head I will ever use. Seriously, this head is the most convenient ballhead out there. It's super easy to use and super fast to operate. I don't know why anyone would use anything else. Unless you need a real heavy duty setup to hold a telescope, I highly recommend this ballhead. It's worth every penny!



## 4. Use a Remote Trigger

For an HDR photographer using a remote trigger is just as important as using a tripod. The key to getting excellent exposures for HDR is keeping the camera still. The less your camera moves while it's exposing, the better. The slightest movement, especially during a long exposure can ruin the entire shot. If you're using a remote trigger the chances of you physically moving the camera get eliminated, because you'll be triggering the camera via remote trigger.

Another benefit of having a remote trigger is that you don't need to have your hands on the camera to shoot. This will allow you to get shots that you wouldn't normally be able to get if you had to push the button on the camera.

Also the remote trigger prevents your arm from extra strain. Especially if you need to hold the button for long periods of time, like during bulb mode. Bulb mode allows you to hold the shutter open for an unlimited amount of time, as long as the trigger button is being held down. With a remote trigger you can lock the button down and let the camera expose, while you're free from holding the button. This is good for shooting nighttime HDR photos.

Remote triggers are probably one of the most inexpensive accessories a photographer can purchase. They range anywhere from 20-60 dollars. The more advanced triggers obviously cost more but I find that a basic trigger is more than enough to get the job done right.



For the price, remote triggers is one of the best investments you can make for getting better exposures. You can get one of these triggers from ebay or amazon rather cheaply. The generic types work fine, just make sure you do a quick research on the item and the seller before you buy anything, especially if it's an item from China.

## 5. Neutral Density Filter

Neutral density filters are used to help reduce light from entering the camera. Reducing light will cause the camera's shutter speed to slow down to obtain the proper exposure. By slowing down the shutter speed a motion blur effect can be achieved. Without an ND filter this would be impossible to accomplish during bright day light.

I always carry around my Hoya ND8 filter just in case I need to give my waterscape scene a little extra blur. This helps to create a sense of motion in my image. To do this I use my ND filter to help me slow down my shutter speed whenever the sunlight becomes too intense. Like shooting during mid afternoon when the sun is at its peak. Fully closing down the aperture during this time of day won't help. That's why I use a neutral density filter.

Another use for ND filters is creating shallow depth-of-field. This is normally done by opening up the aperture, but if it's too bright the exposure would be blown out. So by reducing light the aperture can now be opened to create a more pleasant shallow depth-of-field.

There are 2 types of neutral density filters that can be attached to the lens. Circular types that are screwed onto the lens and slot types that are inserted into a holder mounted on the lens. I recommend a circular type ND filter as this is more convenient.



ND filters come in various tints that help reduce light from entering the camera. The most common are the three filters listed below.

- **ND2 (1 f-Stop)**
- **ND4 (2 f-Stop)**
- **ND8 (3 f-Stop)**

I only use a ND8 filter. I find this works best for most situations.



## 6. Getting the Best Exposures

Getting the best result, means you have to take control of your exposure, and this depends on what you're trying to get from each HDR image. Do you want more foreground detail or more highlight color? This can be done by adjusting your exposure 1 stop up or 1 stop down. If you want more detail in your shadow, bring each exposure 1 stop up. But, if you're looking to get more color from the sky, bring each exposure down. By adjusting your exposure you control the final output of your HDR photo.

### STANDARD HDR EXPOSURE



This set of exposures was taken without any exposure adjustments. This set is darker than the photos on the right. This allows for better detail and color in the highlights. For instance the sky and clouds have more color than the HDR image on the right.

### OVER EXPOSED BY 1 STOP UP



Each shot above was taken 1 stop up using the original settings from the exposures on the left. Notice these exposures are brighter, making the foreground detail more noticeable than the original HDR photo on the left.



## 7. How Many Exposures to Shoot

Technically speaking, Photomatix will allow you to tone map a single RAW file and convert it to a pseudo HDR image. Photomatix is capable of doing this because a single RAW file has tons of detail information making it possible to create a decent HDR photo.

But to get a proper HDR image you need multiple exposures to capture more range than what a single file can offer. The most convenient number of exposures for me is three exposures. I've found shooting 2 stops up and 2 stops down, plus the original exposure, perfect for most HDR photos. Anything more than three isn't worth the time, hassle and file size.

The only time when shooting more than 3 exposures is worth the effort is when shooting nighttime HDR photos. I find that more exposures for nighttime images helps reduce noise, as well as, creating more detail and clarity in the final image. For nighttime shots I recommend 9 exposures.

**HDR IMAGE - 3 EXPOSURES**



**HDR IMAGE - 9 EXPOSURES**





## 8. Shooting RAW versus JPEG

This is a much debated topic, and honestly I'm not sure why. Both file format produce great results, and I can't see a difference after I'm done with the final HDR image. In my opinion, neither one is better than the other, and both have pros and cons.

Personally I find RAW files to be very inconvenient, but I use it because single RAW files can be used to create pseudo HDR images in Photomatix. I also use RAW files to blend them with the final HDR image. I find RAW files better for this because I'm able to recover more color before blending it back into the image.

I do however use JPEG file format when I start running out of space, or when my camera can't keep up with my shooting. JPEG files are much smaller than RAW, so I use JPEG when I run out of memory cards to get more shots. RAW files also take longer for the camera to process so shooting with JPEG allows me to get more exposures within a limited time frame.

When it comes to HDR, it doesn't matter whether you shoot RAW or JPEG. Both file formats will eventually get merged, tone mapped and converted into a TIF or PSD file in the end. And when the final HDR image is finished, no one is going to be able to tell what file format you used. So my advice, use the file format that works best for you. *If you can't decide then...*

### SHOOT RAW IF...

You plan on taking advantage of the RAW file format.

### SHOOT JPEG IF...

You want to use the most convenient file format possible.

## 9. Shooting HDR Landscapes

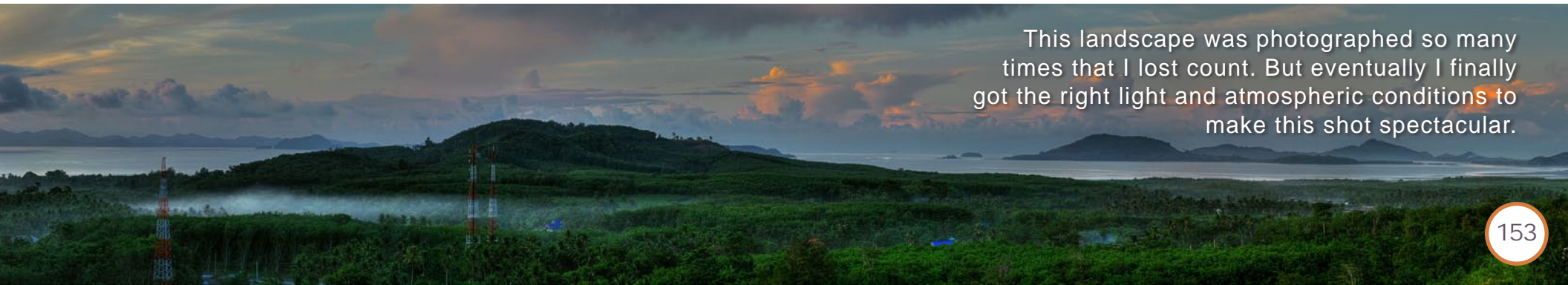


Landscape photography benefits the most from HDR imaging. This is because landscape photographs utilize high dynamic range to its fullest potential. Even so, simply shooting away at every composition won't get you the best landscape photo. Why? Because every composition is different depending on the time of day.

Every minute as the sun moves and the atmosphere changes, the light for each composition changes. Capturing the composition during the perfect time

of light is the key to getting that one breathtaking photograph. That's why great landscape photographers spend days, if not weeks, on one composition waiting for the perfect light.

If you want to capture great landscape photos, then don't be a tourist, be a photographer, chase the light. Don't shoot a scene once only to say you've been there. Revisit the site until you get that once in a life time shot. You'll know it when you see it.



This landscape was photographed so many times that I lost count. But eventually I finally got the right light and atmospheric conditions to make this shot spectacular.



# 10. Shooting HDR at Night

HDR photos can also be shot at night. It's pretty amazing how much a digital SLR camera can capture in the dark. Shooting nighttime HDR photos isn't complicated, but there are a few challenging things when photographing at night, like focusing!

The most difficult part of night photography is focusing on a subject. If there's no light to see then there's no way your camera is going to focus on anything. An easy way to remedy this is by using a flashlight. Of course this only works as long as the flashlight can illuminate the object for your camera to focus correctly.

What if you wanted to focus on something further than the reach of your flashlight? No problem. Here's a trick I use to get the camera to focus on distant objects. Find the farthest light source possible, something intense, like the moon or light from a building. Focus on that using auto focus, once you hear the beep, set your camera to manual focus. This will lock the focus on that point. This technique is great for shooting landscapes at night.

Since shooting at night requires long exposures a remote trigger is definitely recommend. However if you don't have a remote trigger you can always use the timer to get a steady shot.



Shooting at night tends to produce lots of noise. If your camera is very bad with noise at high ISO, I suggest you shoot more than three exposures for each HDR shot. Using more exposures for nighttime HDR photos will help reduce noise.

When tone mapping nighttime HDR images, I find Exposure Fusion works much better than Detail Enhancer. Since nighttime photos have less dynamic range, bringing out too much detail can make the photo look unpleasant. That's why I feel Exposure Fusion works best because it's geared more for blending the exposure than bringing out detail.

## CHAPTER 7

# Secrets Revealed

10 Photos & How I Got the Shot





- CAMBODIAN KITCHEN -



# 1. Cambodian Kitchen

The secret to this photo was merging the 3 exposures first in Photoshop, and then tone mapping the image in Photomatix. Doing this gives the HDR image a unique look, something different than what Photomatix is capable of producing. I recommend using this technique to produce more realistic images.



This is the result from merging the 3 exposures using Photoshop. I saved the image as a 32bit PSD/Photoshop file, which Photomatix has no problems opening.





### ORIGINAL EXPOSURE

**f/4.0** **1/60** **4368 x 2912**  
**AWB** **ISO 200** **11.67 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_3240.CR2  
**Document Type** Camera Raw image  
**Date Created** 5/15/2010, 1:40:31 PM  
**File Size** 11.67 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/60 s at f/4.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D

### UNDER EXPOSURE

**f/5.6** **1/125** **4368 x 2912**  
**AWB** **ISO 200** **10.86 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_3241.CR2  
**Document Type** Camera Raw image  
**Date Created** 5/15/2010, 1:40:32 PM  
**File Size** 10.86 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/125 s at f/5.6  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D

### OVER EXPOSURE

**f/2.8** **1/25** **4368 x 2912**  
**AWB** **ISO 200** **12.79 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_3242.CR2  
**Document Type** Camera Raw image  
**Date Created** 5/15/2010, 1:40:32 PM  
**File Size** 12.79 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/25 s at f/2.8  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D



Method: Details Enhancer

Strength 100

Color Saturation 100

Luminosity 10.0

Microcontrast 10.0

Smoothing

Min Low Mid High Max

☒ Light mode

Tone Settings

White Point 5.000%

Black Point 3.174%

Gamma 1.32

Color Settings

Temperature 3.2

Saturation Highlights 10.0

Saturation Shadows 10.0

Miscellaneous Settings

Micro-smoothing 4.3

Highlights Smoothness 6

Shadows Smoothness 73

Shadows Clipping 62



This is the final HDR image tone mapped in Photomatix using the Photoshop file.



Method: Details Enhancer

Strength 100

Color Saturation 100

Luminosity 10.0

Microcontrast 10.0

Smoothing  
      
☒ Light mode

▼ Tone Settings

White Point 5.000%

Black Point 3.174%

Gamma 1.30

▼ Color Settings

Temperature 3.2

Saturation Highlights 10.0

Saturation Shadows 10.0

▼ Miscellaneous Settings

Micro-smoothing 4.3

Highlights Smoothness 6

Shadows Smoothness 73

Shadows Clipping 62



This is the final HDR image from Photomatix, merged and tone mapped from the original RAW files, using the same tone mapping settings.





This is a close-up view showing you the difference between the two HDR images. This image is the Photoshop file tone mapped in Photomatrix.

The clarity of the detail is more apparent than the HDR image which was merged and tone mapped in Photomatrix.



This HDR image was merged and tone mapped in Photomatrix from the original RAW files. Detail and clarity is a little washy in this image. So why not use Photoshop to merge every image? I don't do it because most images turn out flat and colorless.





- GREEN CAY WETLANDS -



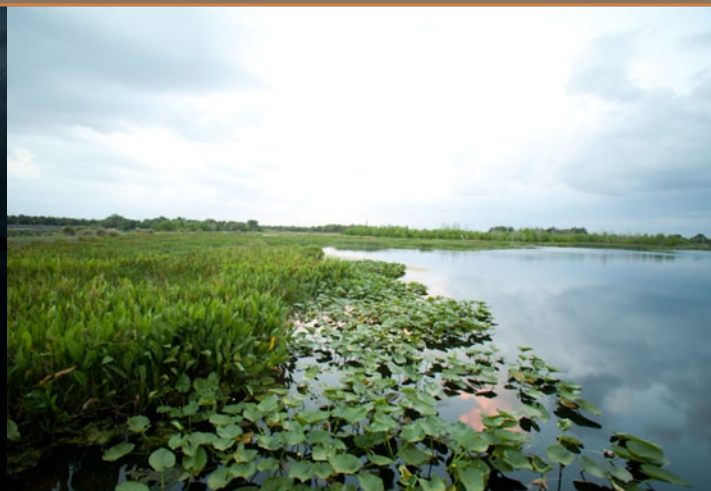
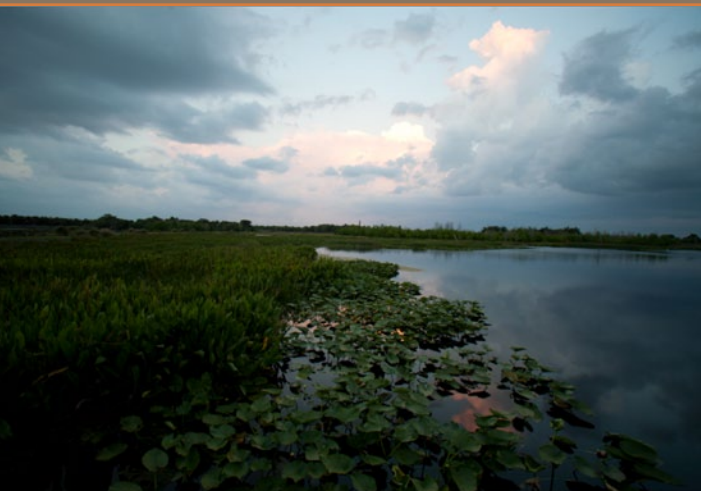
## 2. Green Cay Wetlands

I was able to produce this silky smooth image using my Hoya ND8 neutral density filter. The extra sharpness and clarity of the image was a result of using the Captain Kimo Action. Topaz Clean also aided in producing a little extra smoothness in the water, as well as, creating the crisp foliage seen in the lily pads and water grass.



This is the original HDR image tone mapped in Photomatix without any editing in Photoshop.





### ORIGINAL EXPOSURE

**f/5.6** **0.5**  
**AWB** **ISO 200**  
**11.45 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_8743.CR2  
**Document Type** Camera Raw image  
**Date Created** 4/10/2010, 8:07:09 AM  
**File Size** 11.45 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 0.5 s at f/5.6  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D

### UNDER EXPOSURE

**f/5.6** **1/8**  
**AWB** **ISO 200**  
**10.78 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_8744.CR2  
**Document Type** Camera Raw image  
**Date Created** 4/10/2010, 8:07:10 AM  
**File Size** 10.78 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/8 s at f/5.6  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D

### OVER EXPOSURE

**f/5.6** **2.0**  
**AWB** **ISO 200**  
**12.49 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_8745.CR2  
**Document Type** Camera Raw image  
**Date Created** 4/10/2010, 8:07:10 AM  
**File Size** 12.49 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 2.0 s at f/5.6  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D



Close-up of the final HDR photo to show the difference between the two images after applying Topaz Clean.

This image is the final HDR photo, notice the clarity in the lily pads, thanks to Topaz Clean.



This image is the original HDR photo without any processing.





- CURACOA SUNSET BEACH -



### 3. Curacao Sunset Beach

This photo was a redo, when I know I can produce a better image, I always redo it. What makes the new photo better than original HDR image is the cliff and trees in the foreground, which I blended from one of the original exposures. I also tone mapped from a different set of exposures to remove the wave. A smooth flowing water affect was applied to the upper portion of the ocean for a more calming feel.



This was the first version of the HDR image. You can see why I redid it. I processed this photo on my 12 inch laptop which was mainly why it came out the way it did.





### ORIGINAL EXPOSURE

*f*/22.0 1.0  
 +1  
 AWB ISO 100  
 5616 x 3744  
 23.76 MB --  
 Untagged RGB

#### ▼ File Properties

**Filename** IMG\_1058.CR2  
**Document Type** Camera Raw image  
**Date Created** 10/21/2010, 6:23:01 PM  
**File Size** 23.76 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1.0 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### UNDER EXPOSURE

*f*/22.0 1/4  
 -1  
 AWB ISO 100  
 5616 x 3744  
 21.66 MB --  
 Untagged RGB

#### ▼ File Properties

**Filename** IMG\_1059.CR2  
**Document Type** Camera Raw image  
**Date Created** 10/21/2010, 6:23:03 PM  
**File Size** 21.66 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/4 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### OVER EXPOSURE

*f*/22.0 4.0  
 +3  
 AWB ISO 100  
 5616 x 3744  
 25.97 MB --  
 Untagged RGB

#### ▼ File Properties

**Filename** IMG\_1060.CR2  
**Document Type** Camera Raw image  
**Date Created** 10/21/2010, 6:23:03 PM  
**File Size** 25.97 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 4.0 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II



The quality of my photos is fueled by my desire to produce better images. This is a prime example of that mind set to always challenge myself!







- RIVER OF ICE -



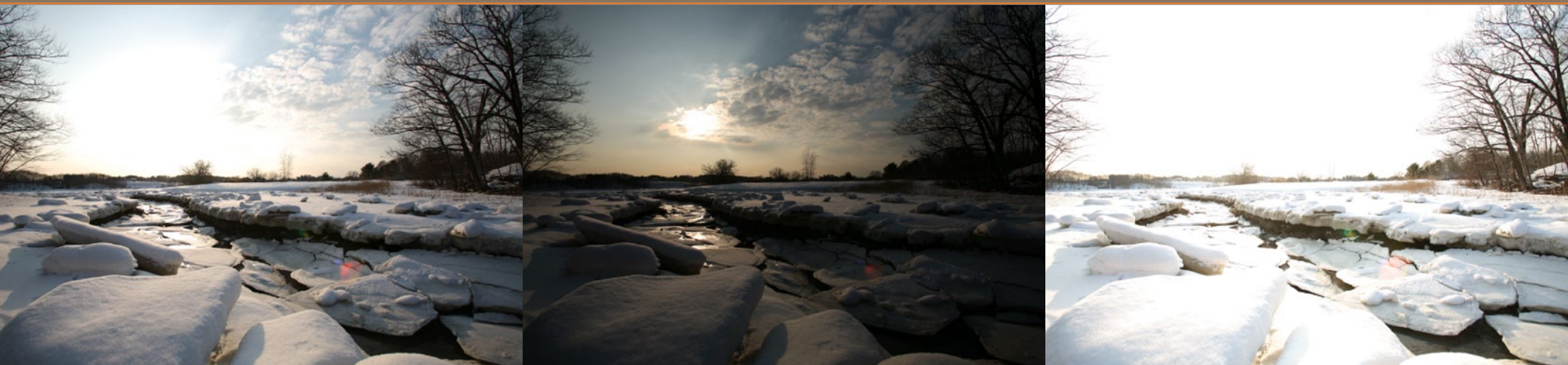
## 4. River of Ice

The trick to getting a beautiful winter photo is to reduce all your colors. Start first in Photomatix and make your temperature as cool as possible. Then use Selective Color in Photoshop and remove all the Reds and Yellows. Make it even cooler by boosting the Cyan and Blues. I'll do this a few times to remove all the warm colors, until it looks freezing. Then for a little contrast, I use Topaz Adjust with the technique outlined on page 104, to add extra detail.



This is the original HDR image without any editing in Photoshop. For a snow scene, reds and yellows really take away from a cold winter scene.





### ORIGINAL EXPOSURE

*f*/7.1 1/200 4368 x 2912  
 -- 5.32 MB 72 ppi  
 ISO50 sRGB RGB

#### ▼ File Properties

**Filename** IMG\_2497.JPG  
**Document Type** JPEG file  
**Date Created** 2/27/2009, 5:22:13 AM  
**File Size** 5.32 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/200 s at *f*/7.1  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D

### UNDER EXPOSURE

*f*/10.0 1/400 4368 x 2912  
 -2 4.17 MB 72 ppi  
 ISO50 sRGB RGB

#### ▼ File Properties

**Filename** IMG\_2498.JPG  
**Document Type** JPEG file  
**Date Created** 2/27/2009, 5:22:14 AM  
**File Size** 4.17 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/400 s at *f*/10.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D

### OVER EXPOSURE

*f*/5.0 1/100 4368 x 2912  
 +2 4.27 MB 72 ppi  
 ISO50 sRGB RGB

#### ▼ File Properties

**Filename** IMG\_2499.JPG  
**Document Type** JPEG file  
**Date Created** 2/27/2009, 5:22:14 AM  
**File Size** 4.27 MB  
**Dimensions** 4368 x 2912  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/100 s at *f*/5.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D





It took me less than 10 minutes to post process this image in Photoshop. That little extra time really made a big difference in the final HDR image.

That's why it's always good to play around with your HDR photo in Photoshop. Even if you think your image looks great the way it is, it never hurts to spend a few extra minutes to see what else can be produced.







- PERSISTENCE -



## 5. Persistence

To get the final image, I blended the over exposure photo to produce a cleaner shot of the water, and apply a little clarity to the yacht. When dealing with original exposures I always enhance the original image with Topaz Adjust to match the detail and contrast of the HDR photo. I also blended the under exposed image to get a smoother image around the sun. Gradient Map was added for more dramatic tones. Light Rendering was also used to direct the eye towards the sun, while Dodge and Burn was applied to darken and brighten areas.



This is the original HDR photo without any editing in Photoshop. Persistence is the name of the boat pictured in the photo.





### ORIGINAL EXPOSURE

**f/8.0** **1/250** **5616 x 3744**  
**AWB** **ISO 100** **22.17 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_6523.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/17/2010, 7:11:37 PM  
**File Size** 22.17 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/250 s at f/8.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### UNDER EXPOSURE

**f/11.0** **1/500** **5616 x 3744**  
**AWB** **ISO 100** **20.75 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_6524.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/17/2010, 7:11:37 PM  
**File Size** 20.75 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/500 s at f/11.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### OVER EXPOSURE

**f/5.6** **1/125** **5616 x 3744**  
**AWB** **ISO 100** **24.73 MB** **--**  
**Untagged** **RGB**

#### ▼ File Properties

**Filename** IMG\_6525.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/17/2010, 7:11:38 PM  
**File Size** 24.73 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/125 s at f/5.6  
**Exposure Mode** Auto bracket  
**Exposure Program** Normal  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II



This is a close-up of the final HDR image after processing in Photoshop. Notice how much cleaner the water is, as well as, the boats and area around the sun.



This is a close-up of the non-edited version of the same image, which is not as clear as the final HDR image from above.





- ISLAND MANGROVES -



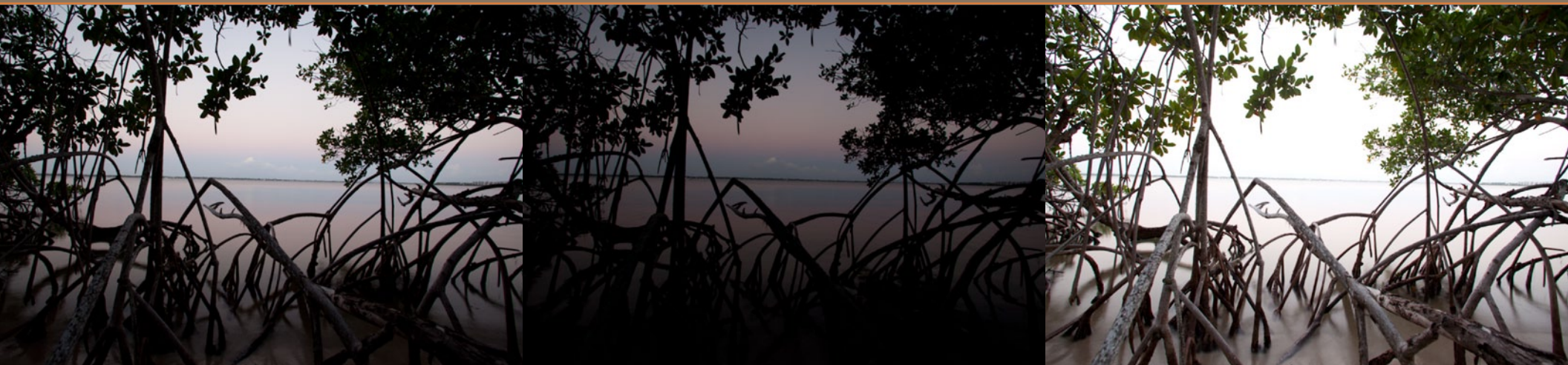
## 6. Island Mangroves

I was unhappy with the first final HDR image (seen below), so I redid the photo by converting it into a monotone image and added the Orton Effect. I used the quick masking technique shown on page 111, to bring back the details in the mangrove. Dodge and burn was also applied to over expose the roots of the mangroves, as well as, darkening the shadows.



This was the first final version of the Island Mangroves. The color in the photo wasn't doing it for me, so it was taken out. I added the Orton Effect to make it more visually interesting.





### ORIGINAL EXPOSURE

**f/10.0** 0.8  
 --  
 ISO 100

5616 x 3744  
 23.89 MB --  
 Untagged RGB

#### ▼ File Properties

**Filename** IMG\_6801.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/18/2010, 6:59:56 AM  
**File Size** 23.89 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 0.8 s at f/10.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### UNDER EXPOSURE

**f/10.0** 1/5  
 -2  
 ISO 100

5616 x 3744  
 21.61 MB --  
 Untagged RGB

#### ▼ File Properties

**Filename** IMG\_6802.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/18/2010, 6:59:57 AM  
**File Size** 21.61 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 1/5 s at f/10.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### OVER EXPOSURE

**f/10.0** 3.2  
 +2  
 ISO 100

5616 x 3744  
 27.54 MB --  
 Untagged RGB

#### ▼ File Properties

**Filename** IMG\_6803.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/18/2010, 6:59:57 AM  
**File Size** 27.54 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 3.2 s at f/10.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II





Here's a side-by-side comparison of the two HDR images. Not every one likes this new version, but I've learned through the years, you simply can't please everyone. So I always cater my images to my taste, but I always keep in mind other people's preferences.







- ATLANTIC WIND -



## 7. Atlantic Wind

Lots of folks wonder how I get so much clarity in my photos. In the original HDR photo below you can see how different it is from the final version. The secret to clarity and sharpness of my images is due to a combination of Photoshop tools and plug-ins. These are Topaz Adjust, Topaz Clean, Photoshop's Unsharpen Filter and the Dodge and Burn tool. I get all my amazing clarity by using all these tools.



Tone mapped HDR always come out much more blurry than their original exposures. This is due to the combining of pixels. Regardless, as blurry as they are, they always have more detail.





### ORIGINAL EXPOSURE

*f*/22.0 1/20  
 --  
 ISO 100

5616 x 3744  
 5.16 MB 72 ppi  
 sRGB RGB

#### ▼ File Properties

**Filename** IMG\_3208.JPG  
**Document Type** JPEG file  
**Date Created** 8/31/2010, 7:39:05 AM  
**File Size** 5.16 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/20 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### UNDER EXPOSURE

*f*/22.0 1/80  
 -2  
 ISO 100

5616 x 3744  
 3.76 MB 72 ppi  
 sRGB RGB

#### ▼ File Properties

**Filename** IMG\_3209.JPG  
**Document Type** JPEG file  
**Date Created** 8/31/2010, 7:39:05 AM  
**File Size** 3.76 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/80 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### OVER EXPOSURE

*f*/22.0 1/5  
 +2  
 ISO 100

5616 x 3744  
 6.11 MB 72 ppi  
 sRGB RGB

#### ▼ File Properties

**Filename** IMG\_3210.JPG  
**Document Type** JPEG file  
**Date Created** 8/31/2010, 7:39:05 AM  
**File Size** 6.11 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/5 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II



Simply applying contrast to our photo by using the methods mentioned on page 104, I was able to add a lot more clarity to this HDR scene.







– LAKE WORTH PIER –

## 8. Lake Worth Pier

I used Exposure Fusion to tone map this HDR photo. I find that tone mapping nighttime HDR exposures with Detail Enhancer tend to produce very unpleasant images. This is due to the fact that night photos have less dynamic range than images captured during the day. The photo below is the original HDR, notice there's not much of a difference between this and the final HDR image from the previous page. I feel night shots are best kept with less processing.





Exposure Fusion tends to produce very natural images. In a way you can almost get the same result by adjusting the RAW file using a RAW converter. But in the end I always get better results from HDR.





### ORIGINAL EXPOSURE

*f*/2.8 10.0  
 --  
 ISO 400

5616 x 3744  
 22.22 MB --  
 Untagged RGB



#### ▼ File Properties

**Filename** IMG\_4263.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/4/2010, 6:16:29 AM  
**File Size** 22.22 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 10.0 s at *f*/2.8  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Manual  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### UNDER EXPOSURE

*f*/2.8 2.5  
 -2  
 ISO 400

5616 x 3744  
 20.91 MB --  
 Untagged RGB



#### ▼ File Properties

**Filename** IMG\_4264.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/4/2010, 6:16:40 AM  
**File Size** 20.91 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 2.5 s at *f*/2.8  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Manual  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### OVER EXPOSURE

*f*/2.8 30.0  
 +2  
 ISO 400

5616 x 3744  
 24.11 MB --  
 Untagged RGB

#### ▼ File Properties

**Filename** IMG\_4265.CR2  
**Document Type** Camera Raw image  
**Date Created** 9/4/2010, 6:16:43 AM  
**File Size** 24.11 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 16

#### ▼ Camera Data (Exif)

**Exposure** 30.0 s at *f*/2.8  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Manual  
**Make** Canon  
**Model** Canon EOS 5D Mark II



I was able to pull a lot of foreground detail by using Photoshop's Shadows/Highlights tools described on page 133.







- BLUE HERON BRIDGE -



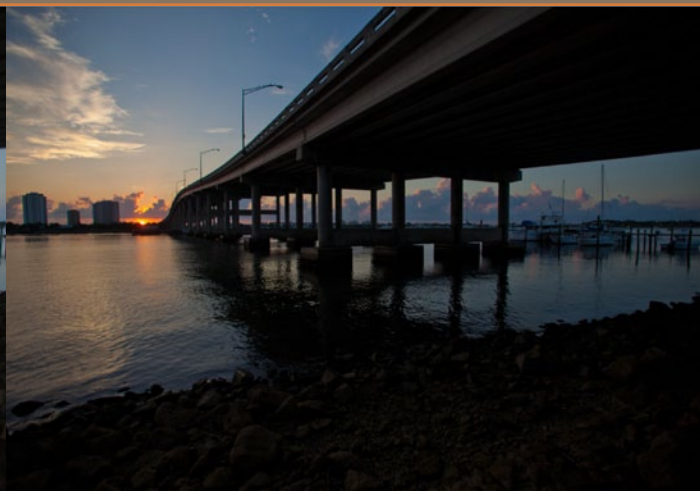
## 9. Blue Heron Bridge

The major contributor to this HDR image, if you haven't already guessed, is Gradient Map. Using Gradient Map allows me to add beautiful tones that isn't possible any other way. By adjusting the Gradient Map's layer opacity, and changing the transparency mode, I'm able to adjust the intensity of the tonal range. The beautiful thing about Gradient Map, unlike Black & White and Photo Filter, is that I'm able to adjust the color for each range.



Notice how bland this HDR photo is without any Gradient Map.





### ORIGINAL EXPOSURE

*f*/2.8 1/125 5616 x 3744  
 -0.33 60.18 MB 240 ppi  
 ISO 100 Adobe RGB RGB

#### ▼ File Properties

**Filename** even.tif  
**Document Type** TIFF image  
**Date Created** 9/13/2010, 7:10:47 AM  
**File Size** 60.18 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/125 s at f/2.8  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### UNDER EXPOSURE

*f*/2.8 1/500 5616 x 3744  
 -2.33 60.18 MB 240 ppi  
 ISO 100 Adobe RGB RGB

#### ▼ File Properties

**Filename** under.tif  
**Document Type** TIFF image  
**Date Created** 9/13/2010, 7:10:47 AM  
**File Size** 60.18 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/500 s at f/2.8  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### OVER EXPOSURE

*f*/2.8 1/30 5616 x 3744  
 +1.67 60.19 MB 240 ppi  
 ISO 100 Adobe RGB RGB

#### ▼ File Properties

**Filename** over.tif  
**Document Type** TIFF image  
**Date Created** 9/13/2010, 7:10:48 AM  
**File Size** 60.19 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/30 s at f/2.8  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm f/2.8L USM  
**Max Aperture Value** f/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II



My favorite two colors for Gradient Map is purple and orange. This combination always gives a photo more visual interest.







- JUNO BEACH SURFER -



# 10. Juno Beach Surfer

I used, pretty much, every trick in the book to get the final HDR photo, even cloning to remove the extra surfer. The surfer was removed because I felt that he didn't add anything to the photo, other than making the surfer next to him look crooked, so I took him out. By doing so, you don't notice how much the guy holding the surf board is leaning. Plus by removing the extra person it makes the viewer wonder why the surfboard is sitting all by itself. I like to go by the old saying... "less is more."





I took a little creative license to remove the extra person from the photo. Now you know why the surfboard is laying by it's lonesome. The secret is revealed!





### ORIGINAL EXPOSURE

*f*/22.0 1/6  
 --  
 ISO 100

5616 x 3744  
 5.86 MB 72 ppi  
 sRGB RGB



#### ▼ File Properties

**Filename** IMG\_3862.JPG  
**Document Type** JPEG file  
**Date Created** 9/3/2010, 7:16:34 AM  
**File Size** 5.86 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/6 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### UNDER EXPOSURE

*f*/22.0 1/25  
 -2  
 ISO 100

5616 x 3744  
 4.36 MB 72 ppi  
 sRGB RGB



#### ▼ File Properties

**Filename** IMG\_3863.JPG  
**Document Type** JPEG file  
**Date Created** 9/3/2010, 7:16:35 AM  
**File Size** 4.36 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 1/25 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II

### OVER EXPOSURE

*f*/22.0 0.6  
 +2  
 ISO 100

5616 x 3744  
 6.51 MB 72 ppi  
 sRGB RGB

#### ▼ File Properties

**Filename** IMG\_3864.JPG  
**Document Type** JPEG file  
**Date Created** 9/3/2010, 7:16:35 AM  
**File Size** 6.51 MB  
**Dimensions** 5616 x 3744  
**Bit Depth** 8

#### ▼ Camera Data (Exif)

**Exposure** 0.6 s at *f*/22.0  
**Exposure Mode** Auto bracket  
**Exposure Program** Aperture priority  
**Focal Length** 17.0 mm  
**Lens** EF17-35mm *f*/2.8L USM  
**Max Aperture Value** *f*/2.8  
**Metering Mode** Evaluative  
**Orientation** Normal  
**White Balance** Auto  
**Make** Canon  
**Model** Canon EOS 5D Mark II



Notice how the sun is blown out on the original HDR photo below. I fixed that by blending the original exposure back into the HDR image. The same technique I used on page 124.





CHAPTER 8

# Get Inspired

10 Inspirational Photos

# 1. Get out and shoot...

*“Just do it!”*

Photography is a very active hobby that requires effort to produce good photos. Amazing photos simply won't walk into your bedroom while you're sleeping. You're going to have to make it happen. You know the old saying– *“You can't win the lottery, if you don't play the game.”* Photography is the same way, only your odds of winning are much higher!



I woke up late this morning and the sun had already risen over the horizon. I could have stayed home but I decided to go out and shoot. Because I chose to be active, I was able to get this amazing photo. The more you shoot, the more likely you are to get better images.



## 2. Make it count...

### *“Plan it!”*

Now that you’ve decided to take action, the next step is to make it count. Plan your shoot by looking outside and checking the weather. Hint... HDR does very well during cloudy days, avoid shooting during overcast where the sky is completely gray. Learning to predict the weather, cloud movement and atmosphere will increase your odds in producing better HDR photos.



When I looked outside and saw this amazing light, I checked the weather and proceeded to drive north. I was unfamiliar with this area but I knew where the clouds were, so I drove around until I found this cool little park which made for a great foreground subject.

### 3. Best time to shoot...

## *“Golden Hour!”*

The Golden Hour is a time when the sun sets or rises. During this time the light is at an angle which creates beautiful contrast in the foreground and background subjects. The colors during this time of day are also the most vibrant. The more often you shoot during the Golden Hour, the better your chances are for getting those breathtaking photos.



If you haven't already noticed, most of my HDR photos are taken during the Golden Hour. This is my favorite time to shoot. There is no other time in the day where you can capture colors as vibrant.



## 4. Spend your time...

### *“Composing & Exploring!”*

If you spend your time exploring your area looking for a good composition, you're more likely to get a better photo than shooting the first thing you see that looks interesting. Sometimes the best shot is right behind you, and if you're too focused on the subject in front of you, then you might miss a better shot simply by turning around.



This shot was taken after the photo on the previous page. After the sun went down I decided to explore the area to see if there was anything else interesting. I went to the other side of the island and found this cool pier with some amazing clouds hovering right above it.

## 5. Don't leave too early... *"Keep Shooting!"*

You never know what's going to happen, so don't leave your scene too early. The weather is always changing, and without any notice, the clouds could rapidly move which affects the light. Before you know it you have a once in a life time masterpiece waiting to be captured. This would be a bad time to have your gear packed away!



I was getting ready to leave the area because the clouds were blocking the sunrise from showing. I waited a little longer to see what would happen, and sure enough the clouds opened up allowing the sun to peak out.



## 6. Don't just shoot alone...

### *"Shoot with Friends!"*

Shooting with a friend or a group of shutterbugs is always a more enjoyable experience. Not only can you share ideas and tips, but you can also cover more ground by exploring more areas and sharing composition. Plus with all that expensive gear it's much safer to go out with a buddy especially during dark hours of the day.



This photo was taken during the 2009 Scott Kelby Photowalk, which was led by yours truly. There was a total of 35 plus photographers that participated in the event. Everyone had fun, and we all learned something new.

## 7. Get inspired...

### *“Consume & Produce!”*

Look at what other people are doing. With the internet it's so easy to view other people's work. There are so many amazing photographers out there that it's overwhelming. I surf Flickr daily to see other people's photos. I especially enjoy seeing new photographers who have a unique style. I'm always looking for something new to add into my work, to give each photo a life of it's own.



After viewing a bunch of amazing photos with water crashing against the rocks, I decided to go out and shoot one for myself. Catching a wave is a lot harder than it looks.



## 8. Use the right equipment...

### *“Gear Up!”*

I always believe in equipping yourself with the right gear. Now I’m not saying go out and break the bank, just don’t let your equipment limit your vision. Like using a point and shoot camera, or shooting HDR with a camera with no AEB. If you’re going to do something, do it right. It’s the only way to get the most pleasure from anything you do, be it a hobby or profession.



Digital SLR camera, tripod, remote trigger... it all adds up towards a better photo. But we all know a great photo comes from the photographer and not the gear. Just don't let your gear frustrate you to the point where you give up before ever getting that amazing breathtaking photo.

## 9. Set goals...

### *“Challenge Yourself!”*

My goal is simple... produce a better photo than the last image. To do this, I'm always challenging myself, pushing my images to the next level. Every time I shoot, I'm looking for something better, something new, something that will differentiate my photos from the other images. While processing new photos I'm always trying new things to make a better photo.



I did a lot of experimenting to get this image. Had I processed this photo with my normal technique it wouldn't look nearly as cool. Since I'm always challenging myself to produce a better photo, I had to try something new to get what I was looking for from this particular photo.



# 10. And most important of all...

## *"Have Fun!"*

The most important part in photography that will determine how good your photos will really become, is whether you're having fun or not. If you're not having fun, it really shows in your images. You might want to consider changing your occupation or craft. I believe in enjoying every moment of your life. Every second that passes is a second you can't get back, so make it count!



The biggest part that has made me a successful HDR photographer is that I enjoy what I do. Decide on what you want, what you're good at, and what you get the most satisfaction from. By following your passion you're guaranteed to become a master of your craft.

CONCLUSION

The Last Page

New Techniques Coming Soon



# CONCLUSION

That's it for this book. Congratulations for making it to the last page. I hope you were able to get enough information from this guide to help you obtain the images you've been looking to produce. My objective for this e-book was to give you as much useful information as possible. If only one tip or technique made it worth your while, than my goal was accomplished.

My processing technique and style is always changing as I'm constantly challenging myself to create better photos. At the time I completed this e-book my style had already evolved into something new. Look forward to another e-book on more processing techniques as I develop new methods for achieving these styles.

Visit [CaptainKimo.com](http://CaptainKimo.com) to see my latest photos, or better yet, make it easy on yourself and sign-up for the monthly newsletter at [CaptainKimo.com/newsletter](http://CaptainKimo.com/newsletter), and while you're there don't forget to say hello :-)

Until next time, I wish you the best of luck in capturing and creating that perfect photograph.

Cheers,

*Kim Y. Seng*  
a.k.a. Captain Kimo

