



## INTRODUCTION TO GRAPHICS

# Beautify a Face

Information Sheet No. PS642

This tutorial will show you how to beautify a face. The corrections that we're going to do will make the face look different, but at the same time we avoid to make the results look unnatural. Of course, the face we're going to work on is not going to look the same when we're done, but we will only make necessary and subtle changes.

I'm not only going to show you how to beautify a face, but I will also make suggestions that can be useful for other projects. I will also explain how to use some of the tools involved and show you how to work in a non-destructive way).

The tutorial is written for Photoshop 7 and higher, but some of the techniques that are shown in this tutorial or advice that is given, can also be useful for those who use older versions of Photoshop.

We're going to use the following image:



Grab the larger original version from this project folder.

The following image shows you all the steps of this tutorial, so that you have a global idea how we're going to retouch this photograph:

There are a few things that you have to keep in mind when you want to beautify portraits;

Although it is not possible in our lab at this time, when doing actual professional work it is extremely important that you calibrate your monitor before beginning.

Always avoid reflections or bright light on your monitor's screen.

Analyze the image carefully before you start and figure out what you want to correct.

Plan ahead; what are you going to correct first, which techniques or tools are you going to use.

Work with large images (more pixels is better)

Avoid images that are heavily damaged by strong lossy compression like jpeg. It's preferred to work with lossless formats like TIFF, RAW, PSD, etc. (Lossless formats always contain the original data, no pixels or color is lost). In this tutorial we're going to use a jpeg image to show you that we will run into a problem when we want to color the scarf.

Zoom in as much as possible, because it allows you to work extremely accurate and that's very important, because we want to avoid as much as possible that the image looks retouched.

Constantly check your progress by turning off/on the layer with your corrections, because it makes it easier to see when you've gone too far. Also make sure you check your image at 100% (1:1) on a regular basis.

Always name your layers. This is important because sometimes you have layers on which you only have very small corrections for eyes, mouth, teeth, etc which can't be recognized just by looking at the layer's thumbnail. This can lead to mistakes, frustration and lost time.

Lock every finished layer. This is to avoid making corrections to the wrong layer and discover this days or weeks later when it's too late.

Try to work as much as possible non-destructively.

It's very important to work slowly and patiently. Be critical and don't be afraid to mess things up. As long as you work non-destructively it's going to be easy to undo mistakes, even days later.

Learn the most important navigation techniques. This not only allows you to work faster, but also more efficient. You will notice that it will increase the quality of your corrections.

Always start with a global light and color correction and end with a proper crop and sharpening if necessary.

## General tips

As stated previously, it's important that before you retouch a photograph you calibrate our monitor if you haven't done so. There are several ways to calibrate a monitor and the most common way is to make use of Adobe Gamma, a utility that comes with all latest versions of Photoshop. This information sheet is not going into much detail how you can calibrate your monitor, but here are some links that explain how find the tools and perform the calibration process:

<http://kb.adobe.com/selfservice/viewCon->

[tent.do?externalId=321608&sliceId=2](http://tent.do?externalId=321608&sliceId=2)

[http://www.adobe.com/education/pdf/cib/ps7\\_cib/ps7\\_cib17.pdf](http://www.adobe.com/education/pdf/cib/ps7_cib/ps7_cib17.pdf)

[http://www.computer-darkroom.com/ps8\\_colour/ps8\\_2.htm](http://www.computer-darkroom.com/ps8_colour/ps8_2.htm)

It is important is to set at least the Black and White (B&W) Point of your monitor. I wrote an article in the past that explains how to do this (it's quite simple actually):

[http://www.lunacore.com/articles/art002\\_monitorbwpoint.htm](http://www.lunacore.com/articles/art002_monitorbwpoint.htm)

What you're trying to avoid by setting the B&W Point is that the screen of our monitor is going to be too bright or too dark. It's very simple; if you have details in the brightest or darkest areas of our image then you want to be able to see them. It also avoids that having major surprises when you decide to print your images.

It's also important that we know how to quickly zoom in/out, move the canvas, how compare the retouched part of the image with the original in a rather fast way, etc.

Very important to know is this; quite often I talk about brush sizes, whether it's about the Clone Stamp Tool, Patch Tool, Brush tool, etc and often I advice a particular brush size. Remember that you can change the size or hardness of a brush at any time by using the following shortcuts;


REMEMBER THESE SHORTCUTS, THEY SAVE YOU LOTS OF TIME AND ENCOURAGE YOU TO CHANGE YOUR BRUSH MORE OFTEN AND IN RETURN YOU'LL ACHIEVE BETTER RESULTS:

Shortcut	
↓	Decrease the size of the brush
Shift + [	Increase the size of the brush
↓	Decrease hardness of the brush (softer edge)
Shift + ]	Increase hardness of the brush

## Levels adjustment

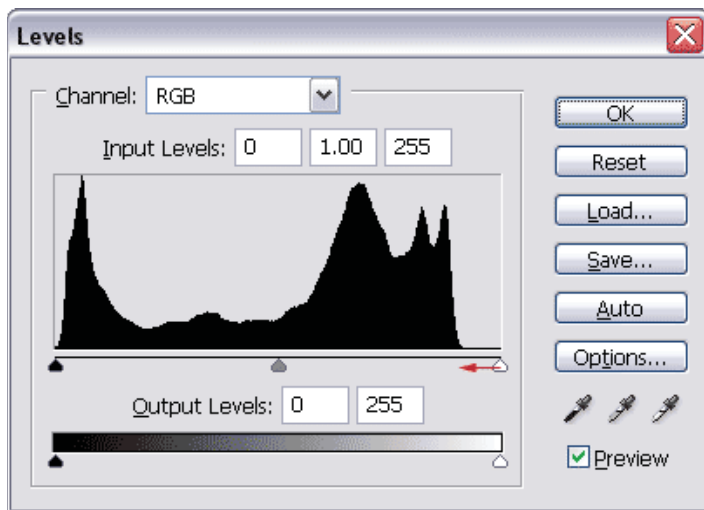
Open the image.

The image is a little on the dark side and you're going to correct that with a Levels Adjustment Layer.

Click on the Create a new fill or adjustment layer icon  and select Levels...

You'll notice when you look at the Levels histogram that this black graphic representation stops before it reaches the end. This is an indication that the image is too dark.


Click on the white slider and move it towards the end of the histogram and click OK to fix our problem :

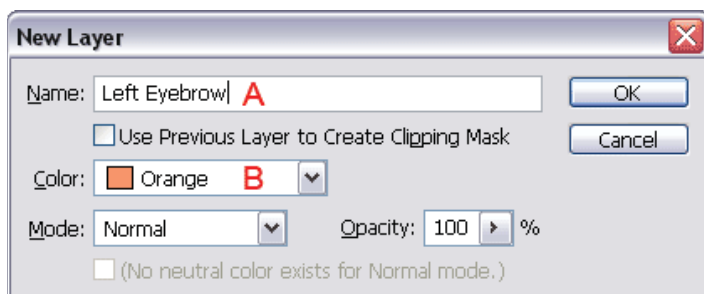


## Fixing the eyebrows

First add a new layer by clicking on the Create a new Layer icon  in the layers palette.


Rename this layer to Left Eyebrow by double clicking on its name.

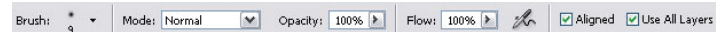
Tip: if you hold down the Alt key (option key on the Mac) when you click the Create a new Layer icon , you'll see the New Layer window popping up:



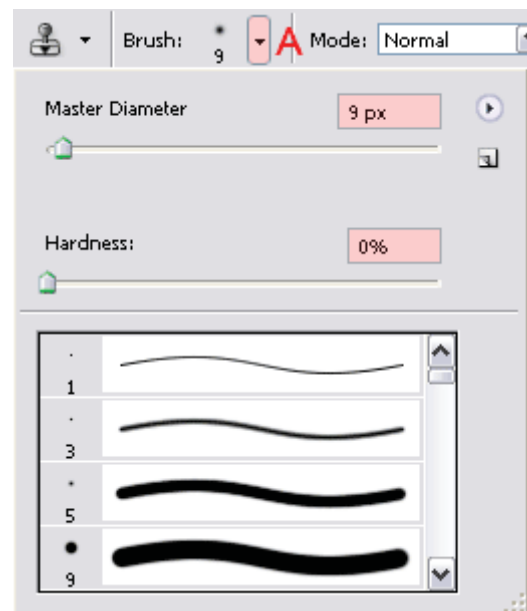
In this window you can change the name of the layer (A) or give the layer a color (B) in the layers palette. Whether you rename the layer by double clicking on its name or

by entering the name in the New Layer window is all up to you. Throughout this tutorial however I will ask you to rename the layer afterwards (just a habit of mine).

 Continue by selecting the Clone Stamp Tool in the tool bar and checking the options bar:




Make sure that your Clone Stamp options look the same. In the option bar you'll notice that a particular brush was chosen. Click on the button with the black triangle (marked with A in the screenshot below) and select a Master Diameter of 9 px and a Hardness of 0%:



Notice when you go back to the screenshot of the options bar that we have selected Use All Layers. What this means is that the Clone Stamp Tool will take all layers in account, so even if you're working on an empty layer, it will still clone all information that is visible in our document window, even if what we're cloning is on a different layer. This has three important advantages:

You're not damaging the original photograph (our background layer) in any way.

You can easily correct our mistakes by using the Eraser Tool  in our tool bar to remove cloned pixels on our "clone layer" (in our case the Eyebrow layer).

You can apply effects to our corrections, for example by applying a Gaussian Blur, without affecting the original image.


Now look at this screenshot:

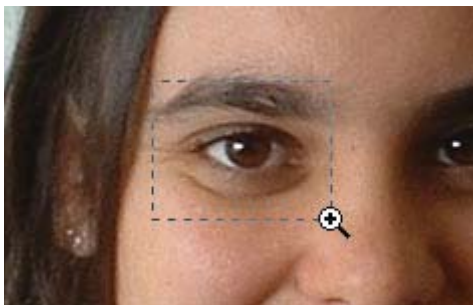


By selecting the option Aligned in our options bar our target (B) and source (A) of the Clone Stamp Tool will always be aligned at any time, as if they are glued together; if you move the mouse pointer up then our 'virtual source' (A) will move up, move it to left and the virtual source will move to the left too.

Ok, let's start cloning. With the Clone Stamp Tool selected, hold down the Alt key and move the cursor to the area marked with A. Press and release your left mouse button (this will mark the source area for the Clone Stamp Tool) and release the Alt key.

Zoom in to about 300%.

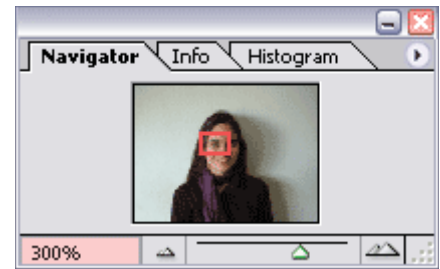
Tip: the best way to zoom in at 300% is by selecting the Zoom Tool  and using the mouse to select the area where you want to zoom in (click and drag):



Now you can either: use the Status Bar to enter 300:



use the Navigator Palette and enter 300:



or press Ctrl and - (until you've reached 300% in your status bar. If you have the need to zoom out: press Ctrl and +.

The choice is all up to you, use what you feel most comfortable with.

Note: if the Status Bar or your Navigator Palette is not visible, then just go to the menu and select View and make sure that they are enabled (a ✓ in front of it).

Let's return to our previous screenshot:




What we're going to do now is cloning the skin above the eyebrow and use it to hide the upper area of the eyebrow, since we want to make the eyebrow look smaller. We do that by following the curve as marked with the top red arrow. If you don't have a steady hand, then you might consider to follow the curve by using single clicks.

Once you're done you move the cursor back to location B, but this time you start slightly lower, a distance that's only slightly smaller than the size of our cursor. Now you're going to repeat the same step again; following the curve and hiding the hairs of the eyebrow with the cloned skin.

Depending on the size of your brush my might have to do this 2,3 or 4 times, every time starting slightly lower.

Note: after you went over the eyebrow with a few passes, you're probably going to see some ugly, artificial looking patterns:



This can be corrected by using the Clone Stamp to clone skin from different source areas. When you do that you might consider to lower the opacity a bit, to around 50% and use a slightly larger brush (remember the [ and ] shortcuts). Another option is to use the Healing Brush Tool  which keeps lighting and color as much as possible intact, but avoid to use the Healing Brush too close to the edge between eyebrow and skin or the results are going to be unpredictable.


Notice the two areas marked with C and D. These are are ones that need special attention. This information sheet will not give a lot of detail about these areas, just some guiding principles:


*zoom in*

*clone areas that are close to the area that needs to be cloned*

*use a small brush*

*remove distracting patterns with the Healing Brush Tool.*

It's not all that easy when this is your first time that you clone skin, but be patient, practice a few times and you'll get the hang of it pretty fast. Also remember what I said earlier; use the Eraser Tool  to make corrections. You can also Undo a step by using Ctrl + Z (command + Z on the mac), Step Backward using Alt + Ctrl + Z (command + option + Z on the mac) or remove the Left Eyebrow layer and start all over.


Now let's add a new layer by clicking on the Create a new Layer icon  in the layers palette.

Rename this layer to Right Eyebrow by double clicking on its name .

Use the same approach that we used for the left eyebrow to fix this eyebrow.




Notice when you look at the before/after examples that the eyes start to 'speak', that's because the eyebrows aren't as distracting to the viewer as they were before and now the focus is more on the eyes and that's exactly what we want. Every photographer will tell you that the eyes are a very important part of the face. Eyes can be extremely powerful in close-ups, so pay special attention to them like I will in this tutorial.

Lock the Left Eyebrow layer when you're finished by making it active and clicking on the lock icon  at the top of your layers palette (see screenshot). Do the same for the Right Eyebrow layer.




Locking layers is important when you're planning to use a lot of layers, it will avoid that you make adjustments to the wrong layers and even worse, that you only notice this about 50 steps later... ouch! The reality is that you sometimes assume that a layer is active, when it actually isn't and that's how these mistakes happen.

Note: You're probably not a make-up artist and most people are not. Needless to say that most female readers probably have a better understanding how to beautify a woman's face than men. If you have problems to understand how to beautify a face, then search on the internet for some faces (Google/Images for example) to get a better understanding.


Note: if the edges of your new eyebrow are a bit sharp, then use the Blur Tool  in the tool bar to slightly soften the edges. Do this on the eyebrow layers only (!) and make sure that the Blur Tool option Use All Layers is selected when you do this. Needless to say that the layer shouldn't be locked when you do this. Start with a Strength of about 50% (you can find this option in the option bar when the blur tool is selected) and increase

or decrease this value as much as you prefer. Make sure that you only blur the edges and avoid to blur too many fine details in the skin or the hairs of the eyebrows. You can avoid this by selecting a small size for the Blur Tool brush. You can even consider to use the Blur Tool on a separate layer on top of the eyebrow layers (again, with Use All Layers selected) to avoid that you destroy your previous hard work with your Clone Stamp tool.

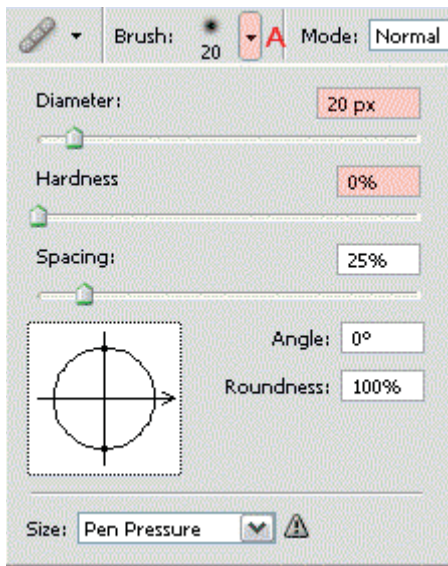
## Removing wrinkles

Add a new layer by clicking on the Create a new Layer icon  in the layers palette.

Rename this layer to Left Wrinkles.

Select the Healing Brush Tool  in the tool bar.

Now check the options bar:



Click on A to open the Brush Options window. Select a diameter of 20 and a hardness of 0%. Check the other options too, like Spacing, Angle and Roundness, but yours are probably the same since I didn't change any of these default values.

Don't forget to check the other options in the option bar:



Notice again that Use All Layers is se-

lected (again, so that we make our corrections on a separate layer).


With the Healing Brush Tool selected, hold down the Alt key (Option key on the Mac) and move the cursor to this area (in case your cursor looks different; just select the center of the marked area):



Zoom in to about 300%. Press and release your left mouse button (which will turn your selected area into the source area for the Healing Brush Tool) and release the Alt key (option key on the Mac). Now with one stroke move the cursor over the wrinkle that's beneath the eye and release the mouse button; the wrinkle should disappear. If you're not satisfied with the result, just press Ctrl + Z (Option + Z on the Mac) to undo what you've just done and try again.

Don't forget to remove the wrinkles in area A (see next screen shot). Use a smaller Healing Brush size like 10 to remove those wrinkles. Be careful not to damage the corners of the eye, like in B. Use a smaller brush size if you have to.




Add a new layer by clicking on the Create a new Layer icon  in the Layers Palette.

Rename this layer to Blemishes.

Select a Healing Brush size for the smaller blemishes that's slightly larger than the blemishes itself. Larger continuous areas should not be fixed with a brush size that equals the size of this area, but with a smaller size, in some cases even 20% smaller than the area itself (experiment). This is to avoid problems with the brightness of the area that we're healing, especially in those areas where there is a rapid transition from bright to dark (or backwards).

Make sure that you Lock this layer when you're done.

The image below has several marked areas that needed a fix:

Add a new layer by clicking on the Create a new Layer icon  in the Layers Palette.

Rename this layer to Right Wrinkles. Continue to remove the wrinkles around the right eye using the same method, but this time using a new source area, like for example the one marked in this screenshot:

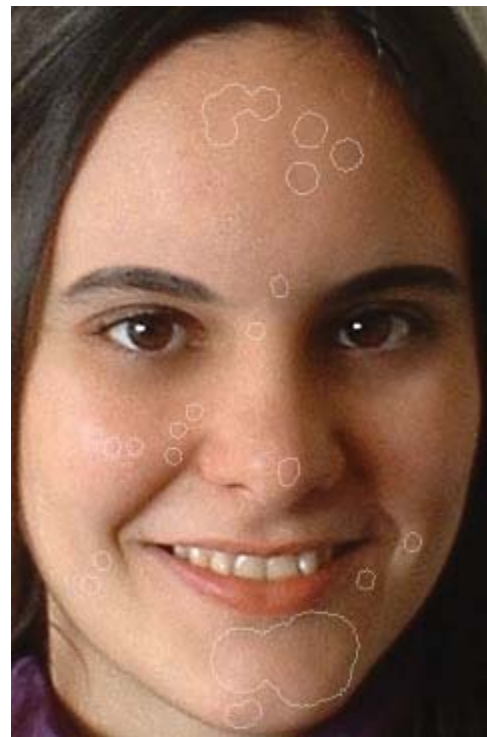


You'll notice that the eyes start to look even better than before and that's because fixing the distracting eyebrows and removing the wrinkles has really moved the focus to where it should be; the eyes. But we're not done yet as we'll see later.


Lock both the Left and Right Wrinkles layers when you're done like we did previously with the eyebrow layers.

## Removing blemishes


You already have the Healing Brush active, so start removing some blemishes.



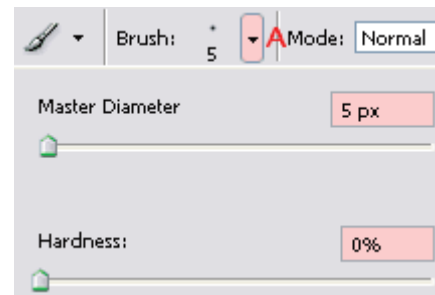


Make sure before you do that, that your mask is still active; it will have a double border and there will be a mask icon  in front of your layer.

Continue by zooming in on the teeth to about 400%.

Grab the Brush Tool  in the tool bar and in the options bar click on the button marked with A.

Enter a Master Diameter of 5 px and a Hardness of 0%:



Make sure that the Opacity is set to 100% for this brush in your options bar.

Now comes the tricky part; paint over the teeth that need to be desaturated, but avoid the gum and lips. Don't paint on the darker areas between the teeth, but only focus on the teeth.


You made a mistake? No problem, press Ctrl + Z to undo your last step. But more important; you can always fill the painted (white) areas in your mask with black again by painting on them using a black brush. A quick way to do is by pressing the letter X on your keyboard. This will switch the back-and-foreground color. Needless to say that you have to press X again (switches the foreground color to white again) if you want to continue where you left off.

Return to the Hue & Saturation adjustment layer when you're done by double clicking on its thumbnail




Set the lightness to +40 and click OK:

## Whitening and fixing teeth

Add a new layer by clicking on the Create a new Layer icon  in the layers palette.

Rename this layer to Teeth.

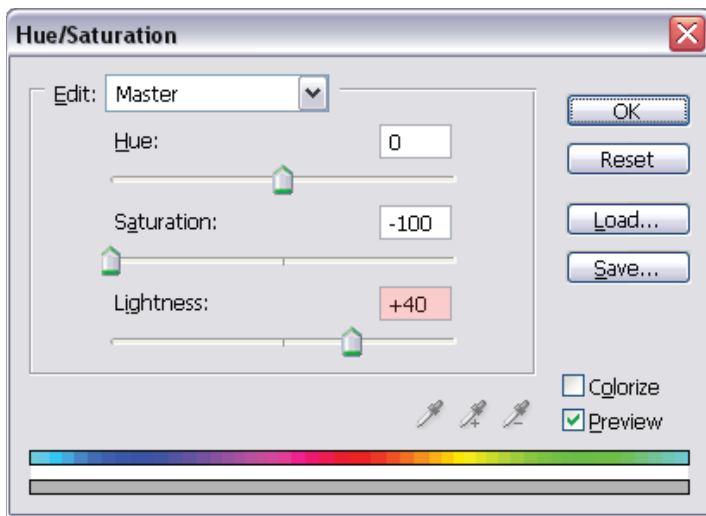
Add a Hue & Saturation adjustment layer by clicking on the Create a new fill or adjustment layer icon  in the layers palette and selecting Hue/Saturation.... Move the Saturation slider all the way to -100 and click OK.

This has turned your image into a gray scale image, but we're going to fix that by pressing Ctrl + i. What happens is that the mask (filled with white), which was automatically added (and active) when we added the adjustment layer, was inverted and is now filled with black. A black mask means that none of the desaturation will be applied to the image underneath that layer.

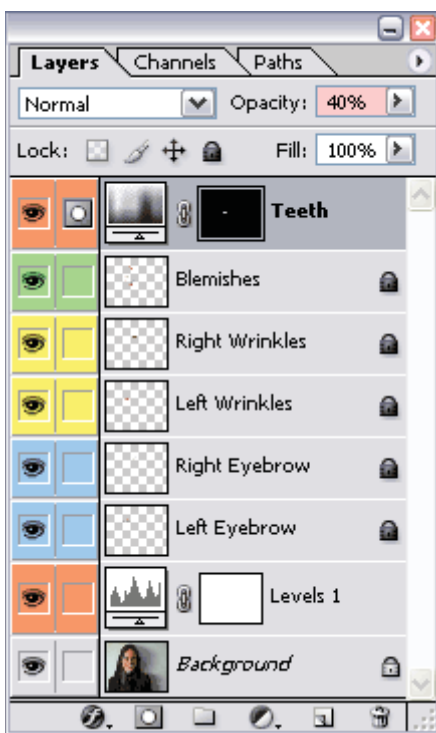
You're now going to paint on the mask to reveal that particular area that needs desaturated colors, which are the teeth.


First press the letter D on your keyboard to make sure that the foreground color is white:






Set the Opacity of this layer to about 40%:



You might consider to use a higher value for opacity, but be careful that you don't make it too high; the result will look unnatural. That's why it's so important to turn this layer on/off (click on ) to see the difference.

Tip: You can color the layers in the layers palette by using that same icon; right click on the  icon and select the preferred color in the window that pops up (in this example Yellow is selected):


Hide this layer  
Show/Hide all other layers

- No Color
- Red
- Orange
- ✓ Yellow
- Green
- Blue
- Violet
- Gray


Lock the Teeth layer.

You might have noticed that one tooth seems to be a slightly turned the wrong way:



Because of this we also see a slightly distracting highlight on that same tooth. Let's see how we can fix this. Add a new layer by clicking on the Create a new Layer icon  in the Layers Palette.

Rename this layer to Tooth.

Zoom in to a value between 500%-800% and fix the tooth with the Clone Stamp Tool . Select a Clone Stamp brush with a size of 2 or 3, hardness of 0% and use an opacity of around 30% (can all be selected in the options bar). To set the source (like we did in our previous step), use the area to the right of the highlight as seen in this screenshot:



Lock the Tooth layer.



It's not as difficult as it seems. Just remember; be patient and don't try to take huge steps, meaning that you shouldn't go for a higher opacity than 30% or use a larger brush just because it "takes so long". Also remember that you're working on a separate layer so if you're making a mistake you can always go back.

### Increasing definition of eyes

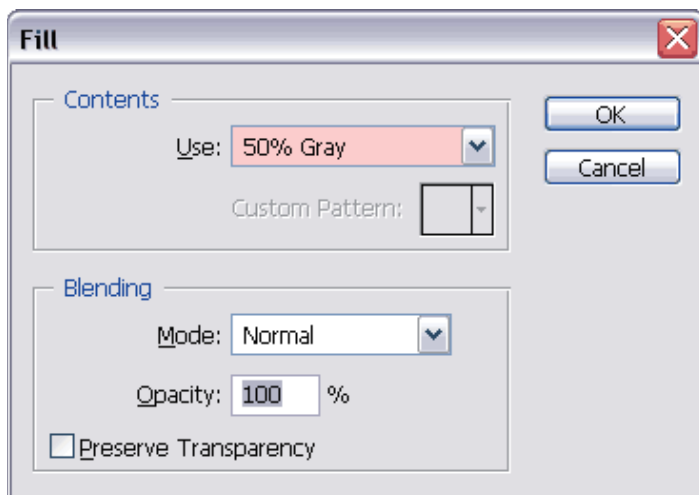
We have learned in our previous steps that it's important to have the focus on the eyes. In this step we're going to increase that focus by increasing the contrast in the eyes by brightening the whites and making the eyelashes darker.

Add a new layer by clicking on the Create a new Layer icon in the layers palette.

Rename this layer to Eyes.

Go to the menu and select Edit / Fill...

Select 50% Gray and click OK.



Set the blending mode of this layer to Soft Light:



What we've done is creating a 50% Gray layer with a blending mode of Soft Light. This will have no effect on our image as you might have discovered. However... when we make parts of this gray layer darker or lighter it will actually effect the brightness values of the image underneath.

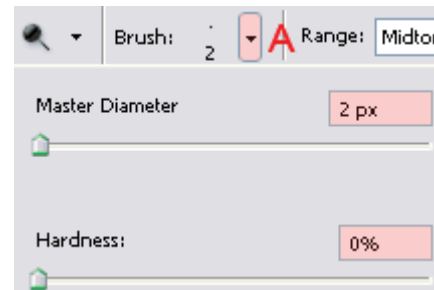
Select the Dodge Tool in the tool bar. With the Dodge Tool selected make sure that in the options bar the option Exposure is set to 100%:



Note: normally this value would be much lower (quite often below 10%) if we were to use this tool directly on an image (without using a 50% Gray layer), but this is not the case right now. The option Range doesn't matter; you can set it to any value because it doesn't have any effect on our results.

Continue by changing the brush options of the Dodge Tool by clicking on the button marked with A.


Set Master Diameter to 2 and Hardness to 0%:

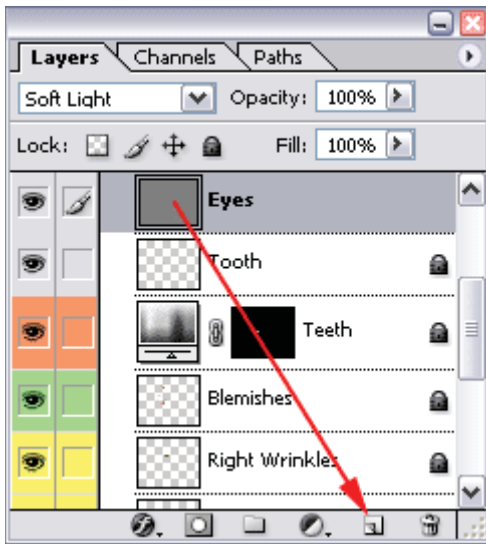


Zoom in on the left eye with 500%. Start by moving over the largest white areas while holding down the left mouse button (avoid touching the iris, eyelashes or skin). Only release the mouse button when you're done. Don't go over the same area a second time after releasing the mouse button.

Use the same approach for the right eye.

The difference will be hardly noticeable at first, but by turning on/off this layer in your layers palette you'll notice that it's quite an improvement. Again, switching layers is the best way to figure out whether you made the correct adjustments.


If you prefer a stronger effect, then drag and drop this layer with the mouse on the Create a New Layer icon  in the layers palette...




...and lowering its opacity until you like what you see.

Continue by Locking the Eyes layer (and the duplicate of this layer if you have one).



Time to work on the eyelashes. Add a new layer by clicking on the Create a new Layer icon  in the layers palette.

Rename this layer to Eyelashes. Fill this layer with 50% Gray like we did with the eyes, but this time set the blending mode of this layer in the layers palette to Overlay. I've chosen overlay, because it gives me more contrast than the Soft Light blending mode would have given me.

Select the Burn Tool  in the tool bar. The brush size we're going to use is 3, the hardness is 0% and Exposure is set to 100%. Again, the range option doesn't matter.

Zoom in on the left eye with 500%. Move your mouse cursor over the upper eyelashes while holding down the left mouse button. Only release the mouse button when you're

done. It's the same story as with the eyes; don't go over the same area a second time after releasing the mouse button.

Use the same approach for the right eye.

If you prefer to do the lower eyelashes too (hardly visible, so I wouldn't advise it), then do this on a new layer, again filled with 50% Gray and a blending mode set to overlay and lower the opacity of this layer, because the effects are probably going to be too strong. Of course you can also consider to lower the opacity of the layer with the upper eyelashes.

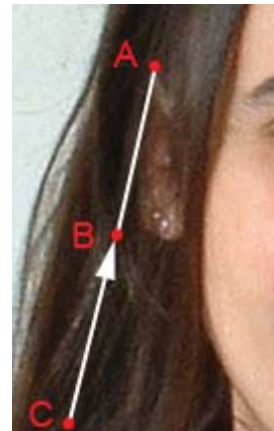
Lock the Eyelashes layer.




Notice that the difference is minimal, but that's mainly caused by the low resolution and quality of the original image. You'll have better results with other images.

### Fixing hair

You need to fix the hair to hide her right ear. First let's look at the following image:



The line A-B marks the length of the ear. With hair it's important to clone with large strokes, as if we're painting strains of hair, this to avoid patterns and in the end gives the "new" hair a more natural look. In order to be able to make full strokes between A and B (the full length of the ear), we need to set the source of the Clone Stamp Tool somewhere close to C. It is preferred that the distance between B and C is slightly larger than the distance between A and B so that we're able to cover the complete ear.

Add a new layer by clicking on the Create a new Layer icon  in the layers palette.

Rename this layer to Hair.

Select the Clone Stamp Tool  in the tool bar.

Now compare your settings in the options bar with the ones I used:

Brush: 30; Hardness 0%

Mode: Normal

Opacity: 100%

Flow: 100%

Make sure that you have the same settings (the hardness of the brush is 0%).

Some might wonder; instead of using an opacity of 100% why not use something like 30% and cloning over the same area several times? The reason is that cloning over the same area with a 30% opacity tends to blur the fine strains of hair. A lower opacity however can be used at a later stage to fine tune the results after using the Clone Stamp Tool which was set to a 100% opacity.

With the Clone Stamp Tool selected, hold down the Alt key (Option key on the Mac) and move the cursor to the area marked with C in the previous image of the hair. Press and release your left mouse button (which will mark the source area for the Clone Stamp Tool) and release the Alt key (option key on the Mac).

Zoom in on the ear with about 200% and start at the left, place the cursor on the lower part of the ear, press the left mouse button and move the cursor upwards under the same angle (parallel) as the other strains of hair and release the mouse button when you've covered the top of the ear and repeat this whole process again, but this time start slightly to the right like show in the next column:



It should be possible to cover the ear in 3 or 4 strokes. When you're done, look for patterns and fix them with the same Clone Stamp Tool and change its size (remember the [ and ] shortcuts) or source if you have to. Turn the layer off /on a few times to get a feeling how well you're doing. You might also need the Burn or Dodge Tool to control the brightness levels in some areas, but make sure that you select a pretty large size and rather low exposure setting in the options bar like 10% or lower if you do so.

There is no straightforward technique to clone hair, because quite often there are many steps involved. The best advice is to experiment and to be patient. Also remember that to combination of the Clone Stamp Tool with other tools is highly recommended (if necessary).

Lock the Hair layer.



## Matching color scarf with skin tone

Add a new layer by clicking on the Create a new Layer icon in the layers palette.

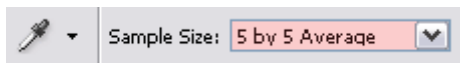
Rename this layer to Scarf.



This is caused by the jpeg artifacts and reminds us again to save original photographs preferable in a lossless format like TIFF or PSD (no information will be lost) or to avoid high compression rates when you do use a lossy format like for example Jpeg.

In this step you're going to use a different approach. You're going to add a layer filled with a color, blend it with the scarf and use a mask so that the blended color will only affect the scarf and nothing else.

Select the Eye Dropper tool in the tool bar. Go to the option bar and select a 5 by 5 Average Sample Size for this tool:



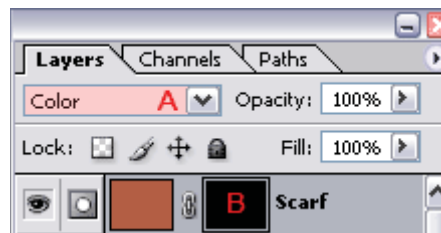
This allows us to sample a more average presentation of the actual color.

Zoom in to about 200% and "click" with the Eye Dropper Tool on the girl's lower lip to sample the color (which will be our new foreground color). Don't sample the highlighted areas, but choose an area like this:

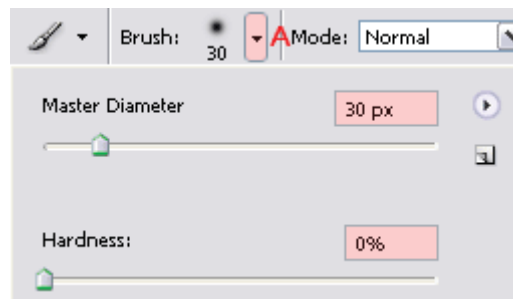


Go to the tool bar after you've have sampled the color and select the Paint Bucket Tool and fill your current Scarf layer with this new foreground color. Change the blending mode of this layer to Coloras marked with A in our next screenshot.

Now hold down the Alt key and click on the Add Layer Mask icon and release the mouse button and the Alt key. The scarf layer with our sampled color is now invisible, since we've completely masked it (B) by holding down the Alt key (option key on the Mac) when we added the mask (Note: a completely black mask makes the layer invisible).



Select the Brush Tool in the tool bar and got to the options bar and click on the button with the little black triangle marked with A:



Select a Master Diameter of about 30 px and a Hardness of 0%.

Also check in the options bar that Mode is set to Normal, Opacity 100% and Flow 100%.

First make sure that your mask is still active; it will have a double border and there will be a mask icon in front of your layer. Now continue by pressing D on your keyboard to set the foreground color to white and the background color to black:



Start painting on the scarf inside you document window so that it reveals the new color. Use a smaller brush if needed to work in smaller areas or close to the edge of the scarf.

Set the opacity of this layer to about 60%.



Notice that we have now avoided the color posterization that we saw in the screenshot at the beginning of this step.

Lock the Scarf layer.

### Image crop

In this step you are going to crop an image. To understand how to crop an image it's really necessary to forget Photoshop for now and to talk a little more about photography and what makes an image "work".

Start by knowing that you shouldn't underestimate the power of cropping an image. Quite often it allows you to correct mistakes that were made when the photo was actually taken, ones that are often related to the composition aspects of an image. A good crop is one of the easiest and fastest ways to make an image more powerful. Not only can it be used to "move" the main subject to the most powerful area in our image, but it can also strengthen existing elements of a photograph, like the height of a tower or the wideness of a landscape (panorama format).

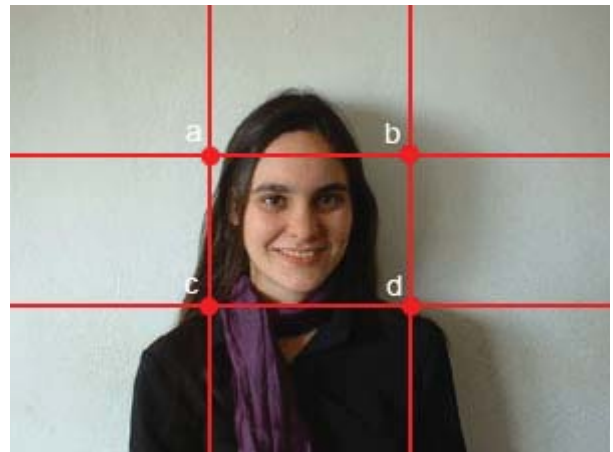
Look at the original image:



It's not a very exciting composition. The main subject is kept small and about 75% of

the image is just a plain background. After all that hard work we've done in the previous steps it would be great to balance the composition and to move closer to the main subject (the girl).

We're going to improve the composition by making use of photography's Rule of Thirds. I don't like the word rule, because I consider it more a guideline and that's why it's important to know when to break with this rule/guideline. The Rule of Thirds states that by dividing the image in thirds, both vertically and horizontally and placing the main focus points close to the four points where these lines intersect (the four red points marked in the next image) tends to make the image more pleasing to look at.



You'll notice when you look at the image that the center of the face is exactly in the middle. Often referred to as a "bull's-eye" shot. In most cases (not always) that can lead to a boring composition. Now let's apply the rule of thirds by cropping this image and look at the result by moving your mouse over this image.

By modifying the position of the eyes (an important focal point in any face!) towards one of these 4 stronger points, in this case a, the end of her left shoulder (from the girl's point of view) and which is also a distinct point in this image, is now closer to d. By cropping the image this way, you will have created a closer view on the main subject and the face is getting all the attention that it deserves.

It would have been better to move the

crop more to the left so that a would be exactly been both eyes, but then you would have had to “cut off” part of her right shoulder (from the girl’s point of view) and that would have been a distraction for the viewer. This should also be a reminder for us; some things just can’t be corrected in Photoshop. As a photographer however you could have asked her to stand in front of the wall under a certain angle, instead of parallel to it and that would have solved the “problem” with this shoulder and would have made the image more dynamic.

Why not move the girl to the right so that the focal point of eyes would have been b instead?

- Professional photographers quite often consider it more powerful to leave the largest neutral space on the side the eyes/head are facing. Here the girl has turned her head slightly to the left (from her point of view), so you try to keep the open space intact that’s on the right side. Compare it with a photograph of a moving race car; if a photographer wants to add space then he adds it in front of the car, in the direction it’s going and it makes the image more dynamic. Why does it make an image more dynamic? That’s because of the way our eyes and brain work. If our eyes see a car, then our brain wants to know where this car is going, that’s a natural response.

- The shadow makes the photograph more interesting and gives the image depth, so we don’t want to do anything wrong with it. Also by cropping the image this way, you tend to divide the image in a left half that’s quite bright and a right half that’s quite dark (clothes, shadow), so we’re actually splitting the image in half. Photographs that are split in half tend to lead to a boring composition (in general that is, not always). Take for example landscape photography; place the horizon exactly in the middle and compare it with a horizon at 1/2 or 2/3 like you see in most photographs shot by professional photographers. These photographers do this with a reason, to make the image look more pleasing by avoiding a boring composition.

Here’s how the it would have looked with the girl on the right:



Also notice that it now feels as if she’s ‘pushed’ against the right side of the image, it creates “tension” and in this particular shot we’re trying to avoid this.

## Sharpening

It’s important in most photographs that you avoid sharpening unless you have a specific reason to do so. So we should try to focus on techniques or third party plug-ins to target what’s most important, which is edges.

It can’t be said enough; think twice before you apply any filter or image adjustment to a complete image. Many beginners (but also more experienced users) make this mistake. The main keyword here is: selective, meaning that you only edit what has to be edited by using a selection, quite often this means using a mask. You can find several examples of how to edit in a selective way in the tutorials on layers and masking among the information sheets.

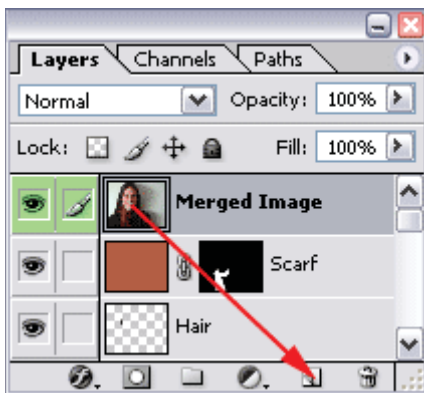
So what does that mean when we want to sharpen an image? In the case of portraits it’s important that the eyes are sharp, because that’s the main focal point in a face, because unconsciously we always look at the eyes first. On some occasions one might even consider to only sharpen the eyes, again, to make the eyes stand out, to increase the focus on the eyes. It’s very simple; sharp eyes are more important than sharpening skin which increased noise.

There are several ways to sharpen an image; one is a professional plug-in like FocalBlade, which uses a sharpening technique which focuses mostly on the edges of an image. Photoshop has some useful tools of its own.

Before you begin, first add a layer that contains a merged copy of the image that we want to sharpen and we do this by adding a new layer first on top of all the other layers by clicking on the Create a new Layer icon in the layers palette. Rename this layer to Merged Image.

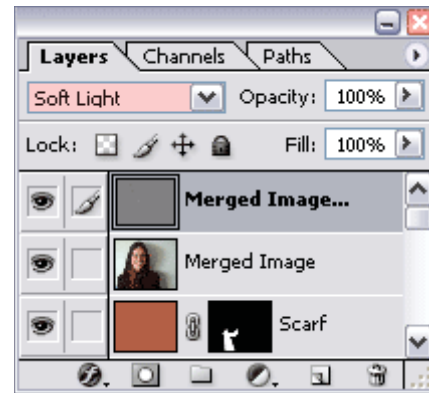
Now for the magic trick; hold down Ctrl + Alt + Shift + E to merge all visible layers on the active layer (Remember this shortcut, it's a very useful one) or in other words; the layer Merged Image will contain the image that was visible in the document window (the result of all these layers) when you used this shortcut.

Duplicate this layer by clicking on the layer's thumbnail, holding down the mouse button, dragging the mouse cursor to the Create a new Layer icon and releasing the mouse button:



This new layer will automatically be the active layer and be named Merged Image copy.

Go to the menu and select Filter / Other / High Pass... Select a value of 1.5 pixels and click OK. The next step is to set the blending mode of this layer to Soft Light:



Click on the Add Layer Mask icon to add a mask to this same layer. Press D on your keyboard to make the fore- and white and the background color black and press X to make the foreground color black, the background color white.

You can now paint with a soft brush inside your document window to mask those areas that you don't want to be sharpened and in most cases these will be the areas that contain noise, like skin for example.

Alternative tools for sharpening are of course Photoshop's Unsharp Mask or in CS2: Smart Sharpen. There are however many different sharpening techniques and some of which don't even make use of any sharpening tools. The High Pass Sharpening technique is such an example.

And here's our final result.



Final Words

We've reached the end of this project. It has been a long trip but hopefully a useful one. Unlike some other things you do with Photoshop, retouching is quite often not just a matter of adding  $1+1=2$ , since most corrections have to be done by hand, almost as if you're controlling a brush and it will always deliver slightly different results. Also the combination of several techniques or tools, for example when you clone something difficult like hair, can lead to an unpredictable outcome. The steps as mentioned the introduction can help you to get more control over retouching, but the main priorities should be; practice and experiment.

Hopefully this exercise has also taught you the importance of non-destructive editing. Not only have you created an image that is highly organized, but you're also able to make some final adjustments at a later stage. Do understand, however, that non-destructive editing is not the key to everything and there are some pitfalls you will come across.

Just always remember to avoid going "over the top" with your corrections if you want your results to look natural. Extreme whites in the eyes or incredible white teeth for example might look great, but does it look natural? That's quite often the question you have to ask yourself and there is no manual that can help you, again it's all about practice and preference. You also have to ask yourself if it's always important to make people look better, since these minor imperfections are part of who we are and are part of what makes us unique.