

Varis PhotoMedia Tutorials

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Welcome

This tutorial has been prepared for the photographer who is striving to learn digital imaging. I make an effort to supply current information about digital imaging techniques and general information about computer technology that is pertinent for today's professional photographer. This information is based on my personal experience down in the trenches at the front lines of the digital revolution that is sweeping the photographic industry.

One thing is certain: all of the information contained herein will be obsolete in a fairly short time - how short, I can't say. Be forewarned that things are changing very rapidly and the only way to stay competitive is to keep learning. I devote a good percentage of my time learning new things and I am attempting to share what I learn with you but this information will go out of date so you should be flexible and not take this tutorial to be the ultimate statement on the subject.

I consider the knowledge contained in any of my tutorials to be public domain but the form in which this knowledge is presented is copyrighted as are all the photographic images used as examples. Unless otherwise noted all imagery is copyrighted by Lee Varis and any use of these images without permission is forbidden. You are permitted to use this tutorial for your personal education - you are not permitted to sell or otherwise distribute this material. Please contact me for any other use.

I maintain a web site where I post additional information, examples and tutorials. You are invited to browse various portfolios as well as download free material and purchase additional tutorials at:

<http://www.varis.com>

I hope you find the information contained in this tutorial helpful. Please let me know if you find any errors or omissions - I'm always trying to improve these materials! You may contact me via E-mail at:

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best regards, Lee Varis 2004

Soft Focus Effects

Simulating Traditional Photo Effects in Photoshop

Soft focus or diffusion is one of the most common photographic effects traditionally produced by placing a diffusion filter over the lens at the time of exposure in camera or later at the enlarger when making a print. This is one of the very earliest special photographic effects. It was used quite extensively in the earliest days of photographic experimentation when photographers sought to imitate the impressionist paintings being produced at around the same time.

Today we see examples of this effect in portrait and fashion photography as well as movies. The soft glow of the Elven forest city in the film “Lord of the Rings” is a perfect example. We also see diffusion used extensively in traditional portraiture and wedding photography.

Photoshop allows the modern artist to apply the soft focus/diffusion effect after the capture of the image and with much more control and finesse. The following pages will examine some of the basic diffusion and soft focus effects common in traditional photography and the new digital techniques for achieving them in Photoshop.

Download Sample Files

Sample files for this tutorial are available for download. All images are copyrighted © 2003 by Lee Varis unless otherwise noted. Use of these files is restricted to personal education in this tutorial - no other use is permitted. By clicking the download button below you are agreeing to these terms.

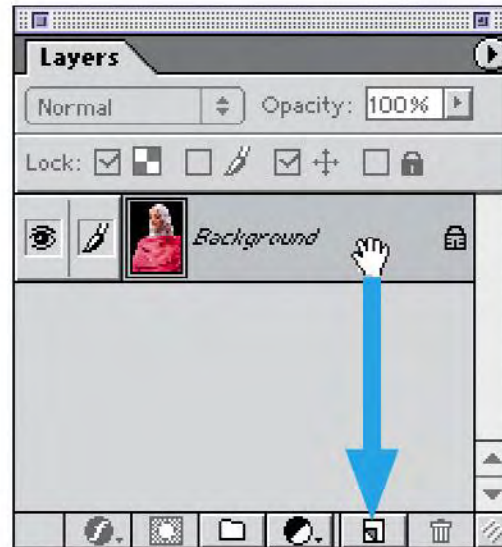
Download Files

These files are compressed in a Binhex archive. To use these files you must first extract them from the archive using a file compression utility. You can download the excellent free “Stuffit Expander” utility from Aladin Software by clicking below:

Stuffit Expander

Choose your platform from the buttons at the top of the web page - Mac, Windows and Unix

Duplicate Layer



All of the diffusion effects we will look at start off the same way by duplicating the background layer. In the Layer palette, click and drag the background layer onto the new layer icon (bottom right of the layer palette next to the trash icon).

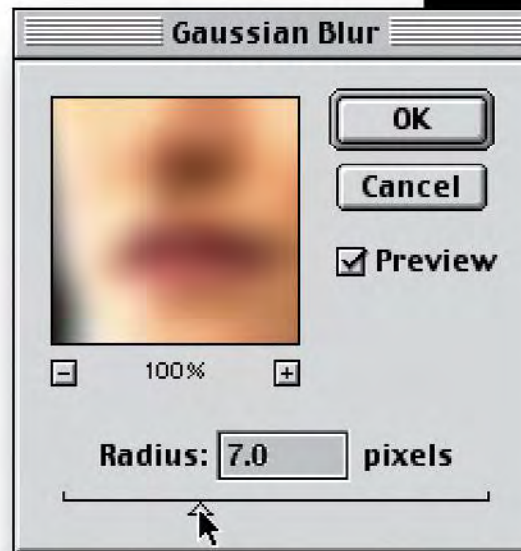
Diffusion techniques rely on the interactions between the original “sharp” background layer and a “soft”, Gaussian blurred duplicate. The next step will be the application of the “Gaussian Blur” filter...

Gaussian Blur

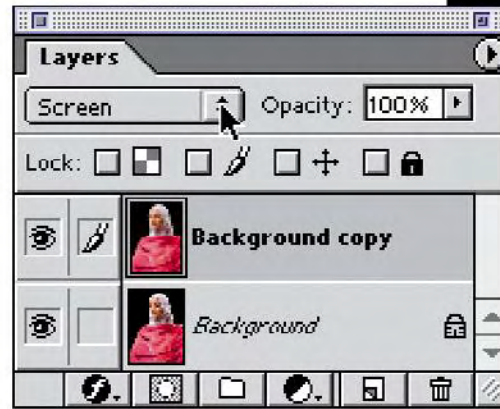
Apply a Gaussian Blur filter (Filter > Blur > Gaussian Blur...) with a fairly high radius to this duplicate layer - enough to seriously blur the image without completely destroying the overall shape and tones.

The trick now is to blend this blurred layer with the underlying sharp layer by using the opacity slider at the top of the layer palette. You can easily vary the intensity of the blur with higher or lower opacity settings and a higher or lower blur radius.

This first technique closely mimics the way a diffusion filter on the camera lens works; the blurred image softens the contrast by lightening the shadows and darkening the highlights of the sharper image with a kind of sharp inside of blur look.



Screen Blur



For variations on this layer blur approach we will change the layer apply modes of the top “blur” layer.

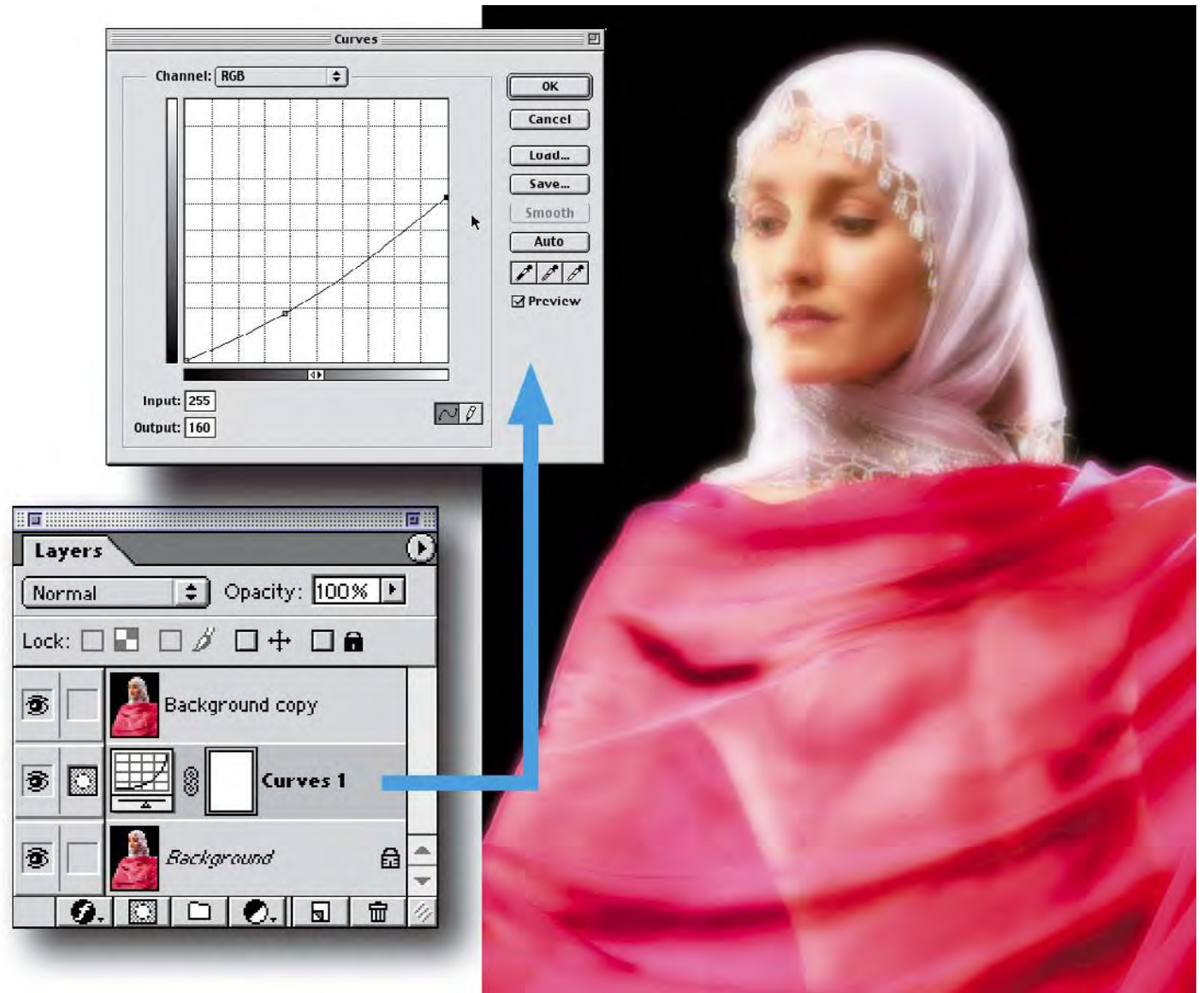
First, simply change the drop down menu right under the Layers Tab of the Layers to screen. Now the blurred image brightens everything, shadows and highlights, for a dramatic glow without blur even at 100% opacity.

Our highlights have lost a considerable amount of detail, however – to mitigate this we will add a Curves adjustment layer between the Background and the blur layer...

Select the background layer by clicking on it in the layers palette. Click and hold on the adjustment layer icon (the diagonal slash B+W circle) and choose “Curves...” from the resulting drop down (up) menu. Pull the white point down and lower the mid point a bit as well.

In my example the curves dialog is set up with black to the left and white to the right. This is normal for RGB images but you may find that your “Curves” are set up the opposite way - which would be normal for CMYK images. You can toggle the direction of black to white by clicking on the gradient at the bottom of the Curves grid. Clicking in the grid itself will toggle from a coarse to a fine grid like the one I show here.

This will darken the underlying image and put some weight back into the combined image. The screened blur has a softer look with a brighter glow, especially when applied at 100% opacity. A considerable amount of variation is available here by varying the opacity slider, Curves and position of the Curves in the layer stack (try moving the Curves layer to the top and re-adjust contrast for a completely different look).

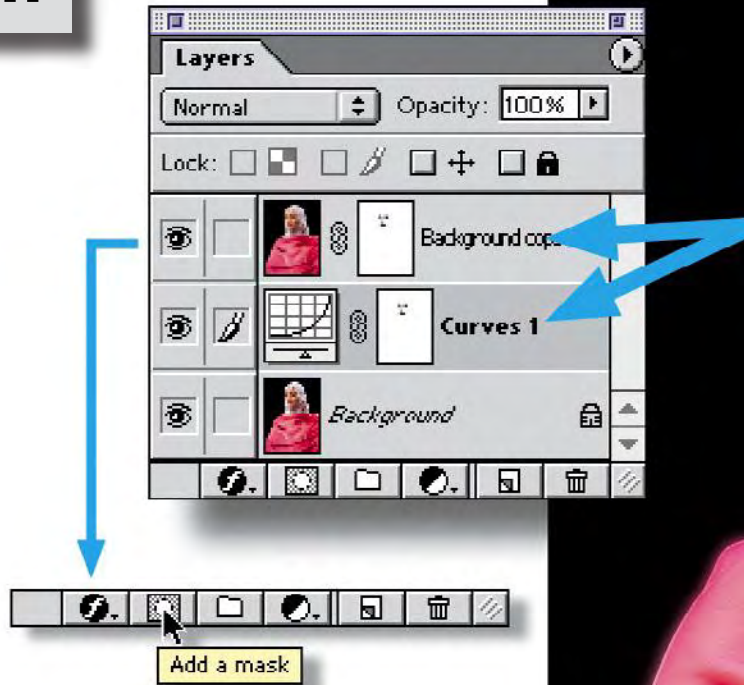


We can selectively sharpen areas of interest (the eyes and mouth in my example) by using a layer mask to hide the effect of the blur on the underlying image...

Selective Sharpen

First, let's hide our "Curves" adjustment layer by clicking on the "eye" icon in the Layers palette. Now select the top Blur layer and then click on the layer mask icon at the bottom of the layer palette. A white layer mask is created (it shows to the right of the image thumbnail in the layer palette). We will paint into the layer mask with black using a soft airbrush at low opacity. Paint over the eyes and mouth, slowly masking away the blur.

Now we need to duplicate the layer mask in our blur layer to the Curves adjustment layer so that when we activate the "Curves" we won't see the darkening effect in the eyes and mouth. There's a little trick to this... first hold down the Cmd/option key and click on the layer mask icon in the layer (to the right of the image thumbnail). This loads a selection (marching ants) based on the layer mask. Now, with the selection still active, turn



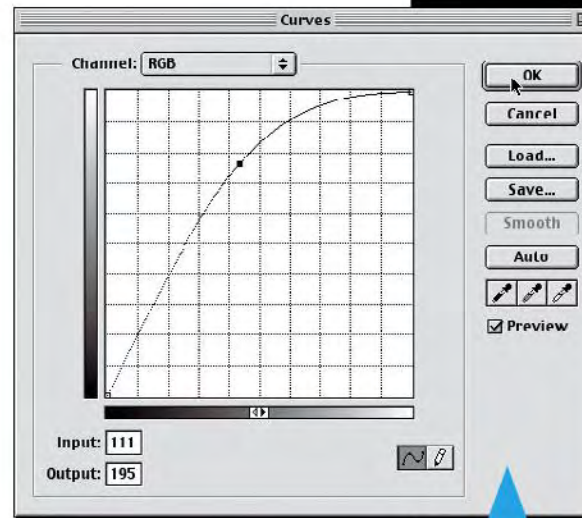
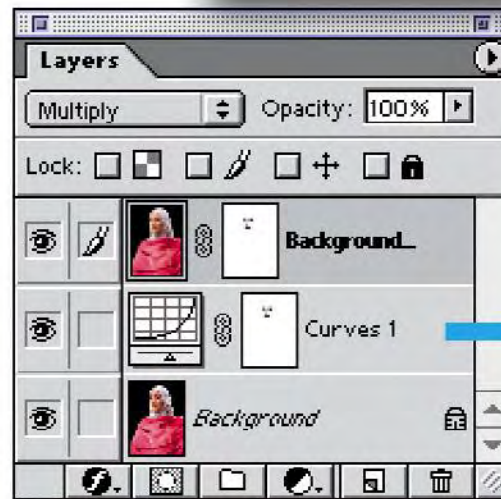
on the Curves adjustment layer and select it by clicking on it in the Layers palette. Then drag the current Curves layer mask (white rectangle to the right of the "Curves" thumbnail) to the trash icon at the bottom of the Layers palette. A dialog will pop up asking if you wish to discard the layer mask - click OK. Next, with the selection still active, click on the layer mask icon at the bottom of the Layers palette.



A new layer mask will appear and the Curves adjustment will be hidden from the eyes and mouth.

Multiply Blur

The last few variations on this technique simply explore different layer apply modes. Change the layer apply mode to Multiply. This is the opposite of Screen - the blur layer will darken everything, shadows and highlights, emphasizing shadows and contrast while smoothing midtones. We will have to change our adjustment Curve to counteract the added tonal weight. Move the white point back to the top and pull the mid point up to lighten the underlying image until the combined layers look right.

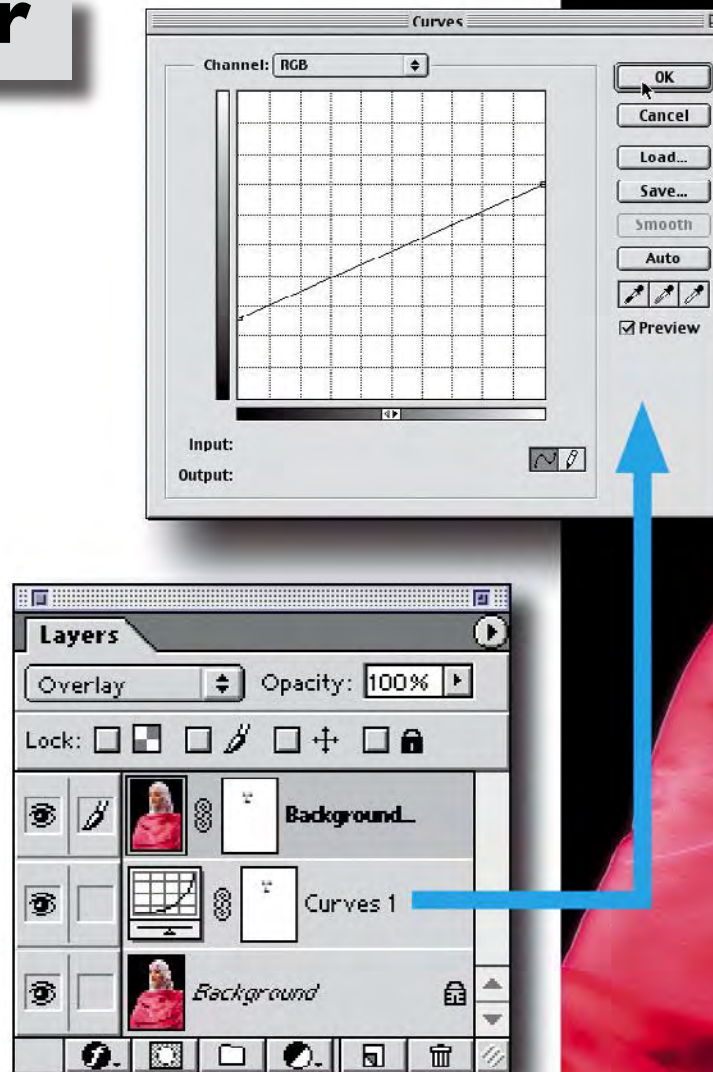


Overlay Blur

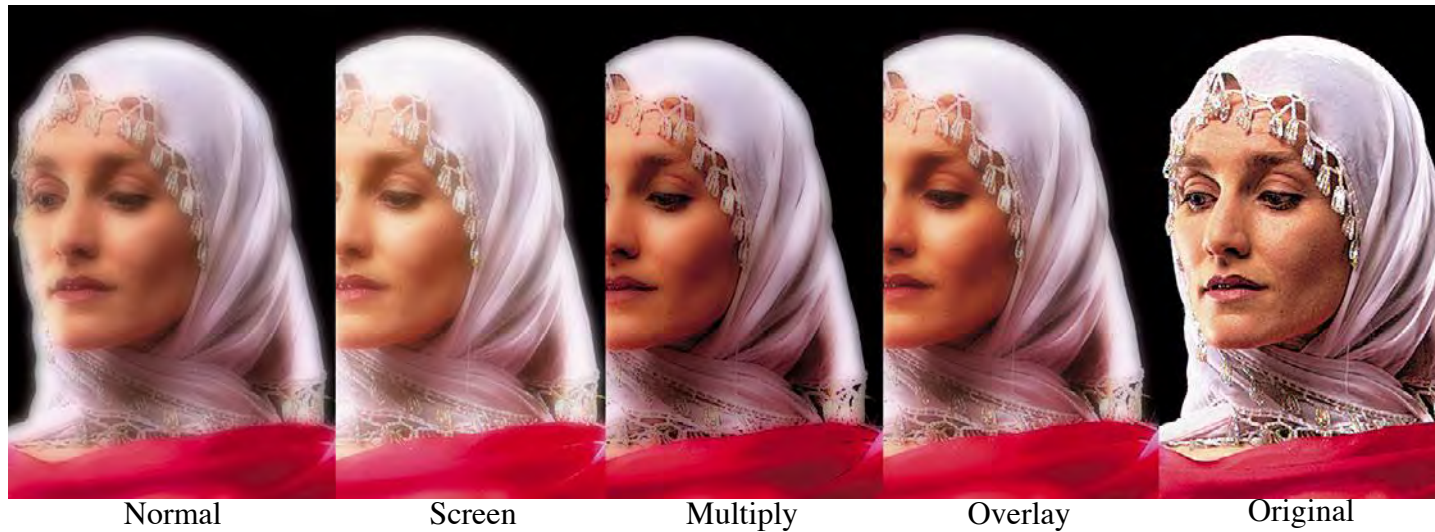
The last variation is a subtle combination of screen and multiply. Change the apply mode to Overlay. [fig.7] This will lighten highlights and darken shadows. It also requires a different compensating Curves adjustment layer!

Remove the mid point, pull the white point down and the black point up to reduce the contrast of the underlying layer until everything looks right. The Overlay contrast enhancing blur layer can also pump up saturation a bit so, depending on the image that you apply it to you might want to desaturate either the blur or the underlying layer.

Hardlight and Softlight are similar to Overlay with harsher and softer effects (Softlight might be too subtle) - again experiment with the opacity slider and Curves layer to vary it. I personally like the Overlay approach to diffusion - it seems to provide



a subtle glow that doesn't look too mushy because it enhances the contrast at the same time it smooths out textures.



Compare the different apply mode diffusion variations in fig.8 from left to right:

Normal, Screen, Multiply, Overlay and original undiffused -

all shown without layer masks to protect the eyes and mouth. You will notice that Screen, Multiply and Overlay have an affect on color as well as contrast and you should keep this in mind when you experiment with these techniques. Some images will lend themselves to one particular approach and others might work in many approaches - you just have to try them out to see for yourself. Think about using this to enhance a light source like a candle flame or light bulb that might be visible in an image; diffusion doesn't have to be applied globally over the whole image to be effective.

Its also worth mentioning that there are other apply modes worth considering. Try experimenting with Darken and Lighten for interesting effects. Difference can create wild negative special effects with a lot of variety depending on the level of blur. Color Dodge and Color Burn can also be interesting. Have fun with this and see just how far you can push things.

Congratulations

If you managed to follow this so far you've applied quite a few advanced layer control techniques including:

- * Duplicating layers
- * Using adjustment layers
- * Changing layer apply modes
- * Creating layer masks
- * Duplicating layer masks

Just about all of the soft focus / selective focus techniques rely on manipulating a blurred layer against a sharp layer. The type of control that digital technique provides is very liberating. You no longer have to decide at the moment of capture if a soft focus filter should be used over the lens. You can also simulate the popular shift/tilt selective focus effect without having to use a perspective control lens or a view camera.

The following pages illustrate one approach to the shift /tilt selective focus effect...

Selective Focus

One focus effect that we see all the time these days is the shift/tilt lens used to move the plane of focus so that only a small part of the image is in focus. This is normally accomplished by tilting and shifting the front lens board of a view camera to angle the plane of focus through an area of interest instead of aligning it vertically in a normal orientation.

In the example here, a digital capture of the lovely Jamie Bjorge, I would like to concentrate the focus on her eyes. By tilting the lens I can cause the focus to gradually transition from totally blurred at her waist to completely sharp at her eyes. But what if it doesn't quite work or worse, what if a client changes her mind later and the only version of this picture is selectively blurred?

We can use a variation of the soft focus techniques previously discussed to simulate the effect of this "tilted lens" effect quite easily. Our first step, of course, is to duplicate the background layer by dragging it on to the new layer icon at the bottom of the layer stack...

Toggle to Final



Gaussian Blur Layer

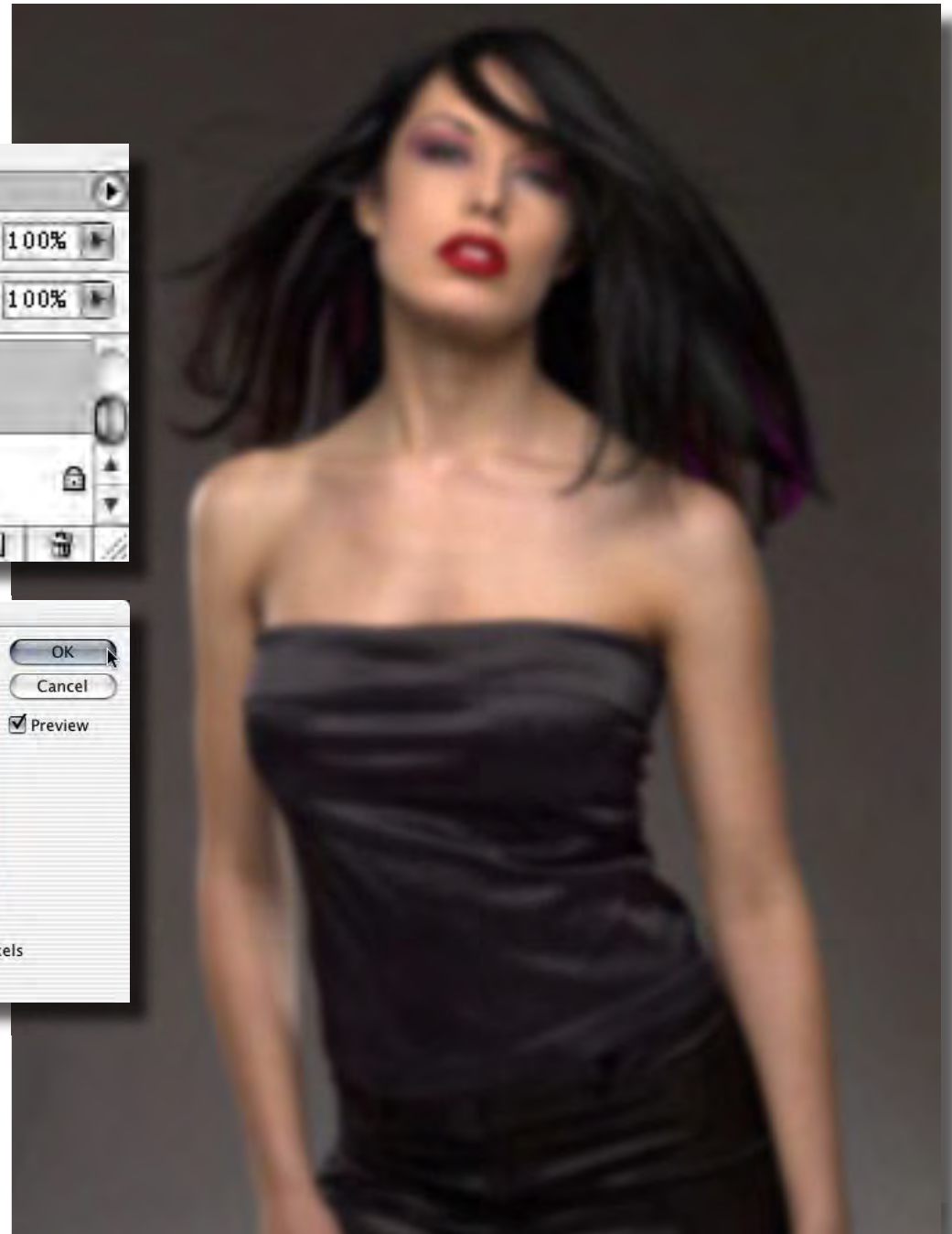
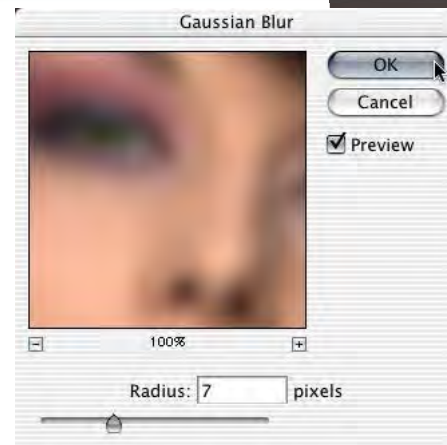


Once we have a duplicate layer we can apply a blur:

Filter-> Blur-> Gaussian Blur..

Use just enough to smooth out the image but not completely destroy the features.

This will end up being a preliminary blur – we will do one more blur layer but we need to have a transitional layer to avoid having a sharp image inside of a blur where the blur transitions to sharp. This layer will also be used at 100% opacity – we will use a layer mask to control how it is applied over the underlying image.

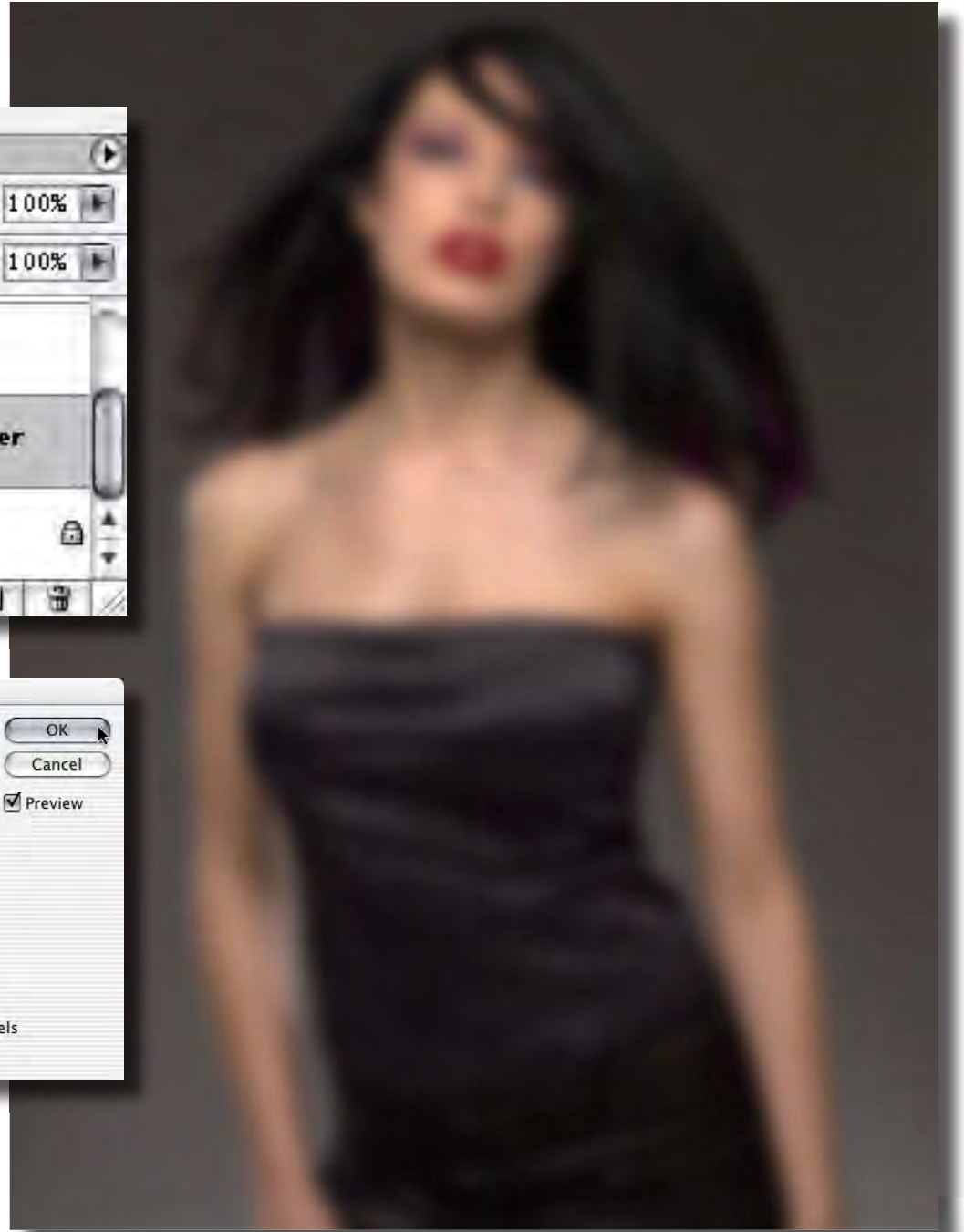
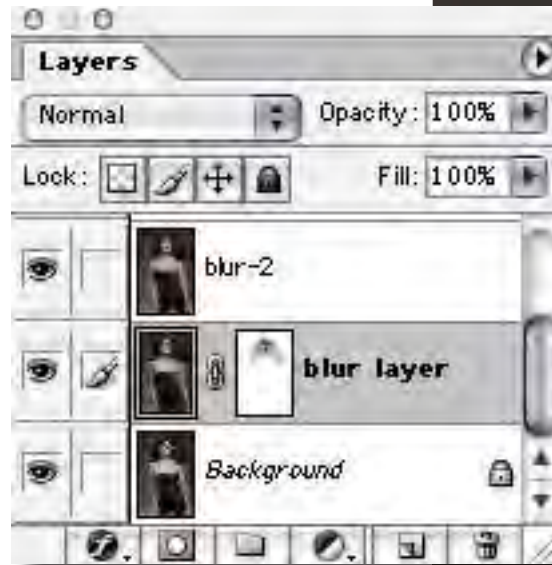


Layer Mask the Blur

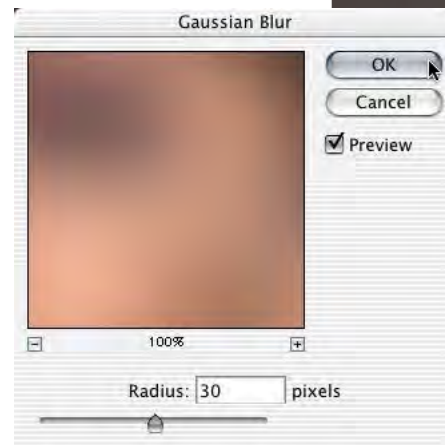


Make a layer mask by clicking on the mask icon at the bottom of the Layers palette. Use a soft brush with black at 30% opacity to slowly hide the blur at her eyes, nose and mouth. Brush back the blur just a bit in her hair above and below where you “focused” the eyes.

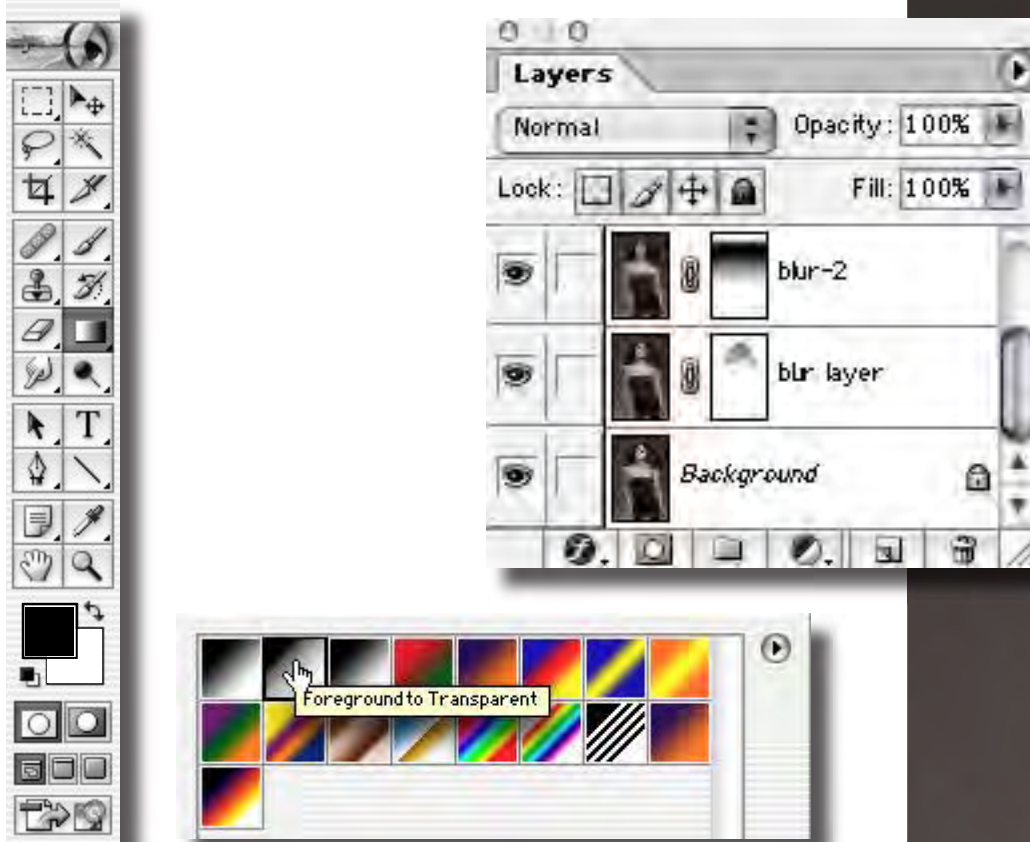
2nd Blur Layer



Duplicate the background layer again and move this duplicate to the top of the layer stack. Apply a Gaussian Blur with a high radius – this time we want to destroy the focus completely, a radius of 30 should do the trick.

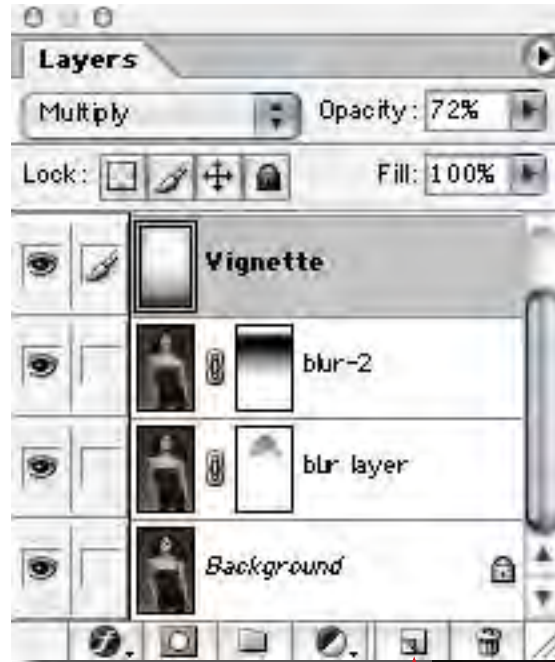


Gradient Mask



Create a new layer mask for this super blur layer. Next select the gradient tool, switch foreground color to black and select the “Foreground to Transparent” gradient style. Drag down from her neck to her waist – this will hide the super blur gradually from her waist up. Now switch the colors again for white in the foreground. Drag down from the top of her head to her eyes – this will simulate the tilted focus plane as it tilts back through her eyes the top of her head will get more blurry.

Vignette



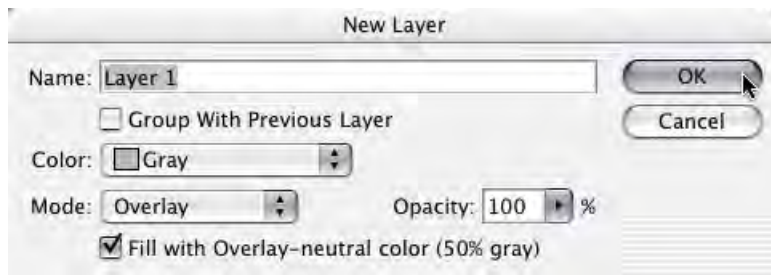
For a final tweak we will add a subtle vignette effect!

First create a new empty layer by clicking the new layer icon. Change the layer apply mode to multiply. Now we will drag a black to transparent gradient into this layer at 25% opacity gradually building up density at the edges of the image . When the edges are dark enough you can use a soft eraser to remove the darkness from her face.

Layer Noise - Film Grain

That's pretty much it!

As a final step, especially with blurred subjects, its a good idea to add a bit a noise to eliminate the possibility of banding showing up in print. The best way to do this is to make one more layer – this time hold down the option/Alt key when you click on the new layer icon. You'll get the layer options dialog – set it as below:

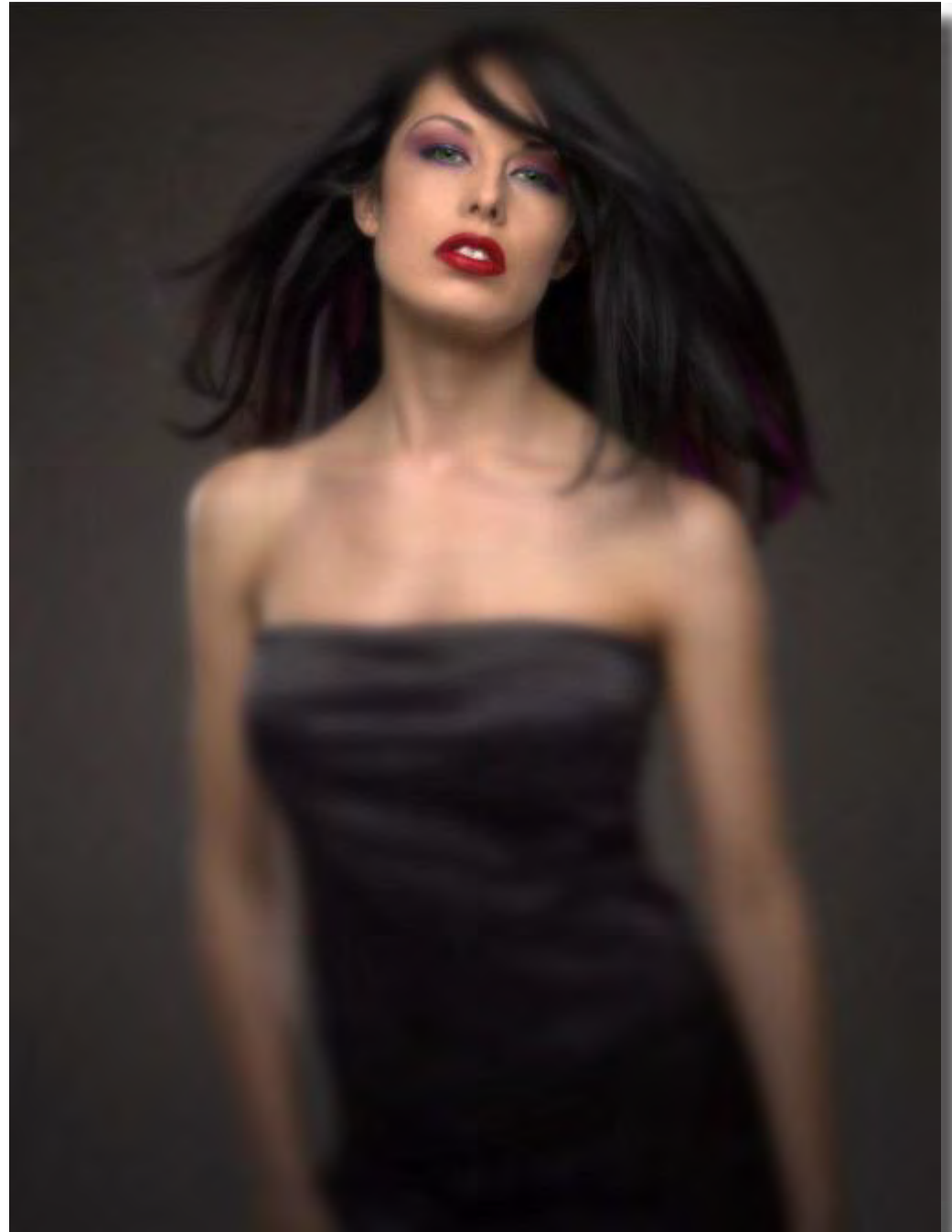


A gray Overlay layer will have no effect on the underlying image but we will now add noise to this layer:

Filter-> Noise-> Add Noise...

Select Gaussian noise with a fairly small value, maybe 3 or 4 . If you want you can simulate film grain by using a higher value and checking the “monochrome” check box.

Toggle to Original



Conclusion

We've covered a lot of different techniques used in concert to create traditional "analog" camera effects. It may seem like this is a lot of trouble to go through to get to a place we were at by simply placing a filter over the lens or tilting the lensboard. Once you get used to it, however, you'll discover that you have much more control over the results and the flexibility of having the image sharp or soft focused exactly where you want it can not be beat. Also, having the luxury of deciding to use or not use a soft focus effect after capture is quite liberating, allowing for an extended period of experimentation and discovery. There are some differences between the analog "look" and the digital simulation, especially with the "tilt - lens effect". For the most part these are subtle and with a little effort you can massage the digital version into a very useable effect.

This tutorial only scratches the surface of what is possible with digital effects. Many interesting variations of these techniques can be developed using the various methods outlined here in different combinations. You can experiment with colorizing the blur layers in different ways to come up with different looks. Once you have a particular look you like, try writing it into an Action so you can automate the multiple steps into a push button process. Once you get the hang of the general approach the only limit to where you can go with it is your imagination.

Varis PhotoMedia Tutorials

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Thank you

I hope you enjoyed this tutorial. The techniques outlined here represent just the tip of the iceberg. Photoshop is a very deep application - a person could spend years studying it and there will always be more to learn. If all this seems a little overwhelming, take a break, do what you feel comfortable doing in Photoshop and return to this tutorial again later on. Often, it takes several weeks for a particular technique to sink in so give it time.

I have other tutorials available online (navigate to the methods section), some are free and some are available for a modest charge. See tutorials and some examples of my work at:

<http://www.varis.com>

There are many learning resources available on the web - here are a few other sites with good information:

<http://www.russellbrown.com>

<http://www.creativepro.com>

<http://luminous-landscape.com/>

<http://www.imaging-resource.com/HOWTO.HTM>

<http://www.photoworkshop.com/>

<http://www.adobe.com/misc/training.html>

<http://studio.adobe.com/expertcenter/photoshop/main.html>

<http://www.ledet.com/margulis/articles.html>

<http://www.steves-digicams.com/>

<http://www.photoshopuser.com/>

<http://www.handson.nu/>

<http://photoshopgurus.info/>

These last two links are typical of the majority of Photoshop tutorial sites - they are focused on cool graphics effects not photography. You might want to look over this material anyway - sometimes you can learn a lot about basic functions in Photoshop.

I'm always trying to improve these materials and I'm always open to your feedback. You may contact me via email at:

varis@varis.com

best regards, Lee Varis 2004