



full circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

ISSUE #34 - February 2010



NEW GIMP HOW-TO! DIGITALLY RETOUCH A PHOTOGRAPH

BEFORE

AFTER



HOW-TO

Written by Hüseyin SARIGÜL

Digitally Retouch Photos in GIMP

SEE ALSO:
N/A

APPLICABLE TO:

ubuntu kubuntu xubuntu

CATEGORIES:



DEVICES:



This month, our subject is digital retouching of photographs. Nowadays, unblemished or even perfect faces are the rule on magazine covers and billboards. In this article I'll show you some general cosmetic retouching techniques.

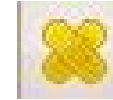
Professional photographers and artworkers digitally retouch in a few different ways. Some use Gimp or similar tools. Others prefer filters. Here, we will use both together. We'll retouch in a practical way. First, we'll see how to remove acne from photos.

Open the photo (my source image is shown left) in Gimp and check it for defects.

I've detected the following defects:

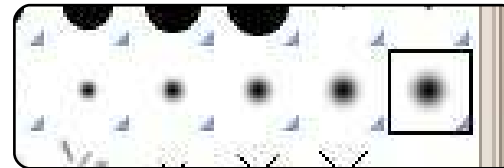
1. Flash reflections on the face.
2. Acne on the face.
3. Lines and wrinkles
4. Suboptimal colors.

Now, one by one, we will apply our solutions. We'll begin by removing the acne and spots. The healing tool will be used for this. Choose the healing tool (right) from the toolbox. Its shortcut key is H.



Healing Tool

Now we need to choose a brush. Circle Fuzzy (shown below, selected) is a suitable option. You can change the size of the brush by increasing / decreasing the scale value.



The healing tool is for removing acne and spots. First, with + and - zoom into the photo. Then mark the best color option - while pressing CTRL, then release the CTRL and click on the acne/spot.

You should see that the acne has disappeared. You should



perform the same process for all acne/spots.



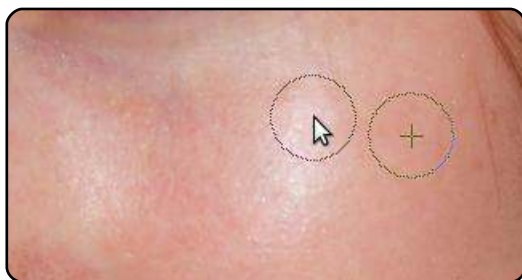
All acne has been removed. Now it's time to remove the light from the flash - for this process we can use the clone tool or healing tool.



Clone Tool: Selectively copy from an image or pattern, using a brush.

In both tools, we maintain a low opacity value and we must do this by using different regions and for several attempts - not all at once.





While the Ctrl key is pressed, click on the location which has the ground color close to a shiny place. Click a different place again and do the same process. Let this process continue until the light from the flash is gone.



Now we'll select some parts of the face. Choose the Free Select tool from the toolbox.



Free Select Tool:
Select a hand-drawn region with free and polygonal segments

We will need to do more than

one selection, so we'll choose the add to selection icon shown right.



We choose the face as our first selection, then, after clicking the add to selection icon we hold down SHIFT and draw a second selection around the hand.



We choose the borders of the area that we would like to work on. If you make any mistake, you can use backspace to undo the previous action.

Now we should deselect some parts from our selection.

- Eyes
- Eyebrows
- Nostril
- Accessories

Choose the third option from the toolbox:



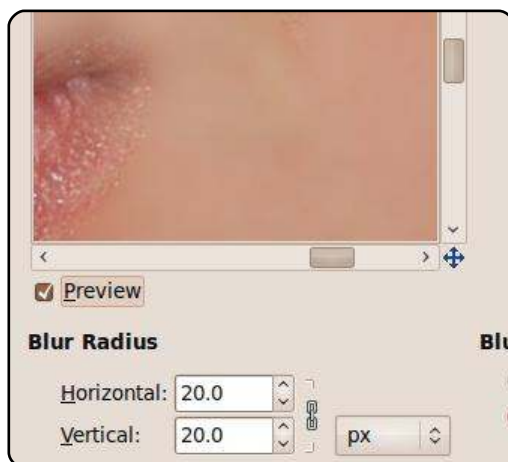
Deselect the parts that we have mentioned.



Don't forget to apply feather after each selection. Select > Feather and a value of 5 pixels.



Then apply a filter. Click, Filters > Blur > Gaussian Blur.



Choose suitable values, and click OK.

Press Shift + Ctrl + A or choose *None* from the Select menu.

Success! The last thing is correcting the colours. Click Colours > Colour Balance. The How-To for more information on this will be our next tutorial.

Translated from Turkish into English by Kaan Bahadır TERMELİ

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<http://www.flickr.com/photos/brendaaner/2729960358/sizes/m/>





HOW-TO

Written by Hüseyin SARIGÜL

Retouch Photos in GIMP - Part 2

SEE ALSO:

FCM#34 - Retouch Photo's - Part 1

APPLICABLE TO:

ubuntu kubuntu xubuntu

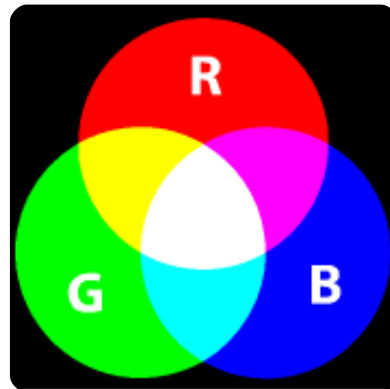
CATEGORIES:



DEVICES:



In this article we will learn how to edit dark and light tones in our photos. First of all, I would like explain colors and their ranges. There are different color profiles, we have three main colors within light and they are Red, Green and Blue (RGB). Another color profile is CMYK this is a mix of the main ink colors and is usually used in photos, printers and press.

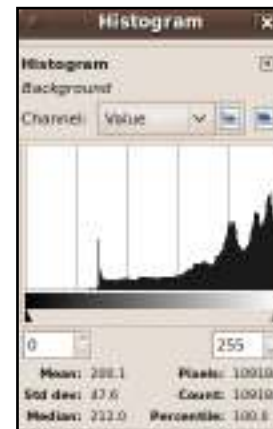


Histogram

The Histogram graph shows us the range of all the colors or a single color. How should be the color graph look? Let's explain it with some examples.



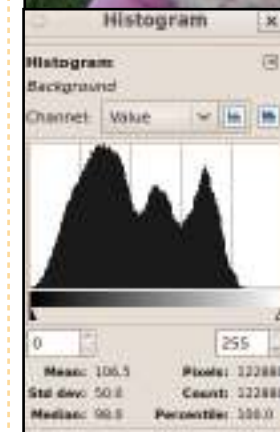
Above we have a photo with light and mid tones but no dark tone.



tones are not in your photo.

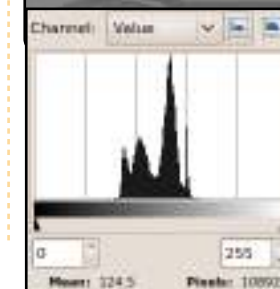
Let's check our second example (above right).

In this histogram, we have



mid and dark tones but no light tones (right).

Now, our third example:



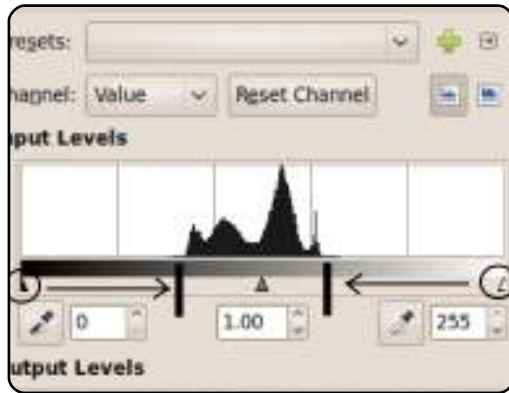
Here we have all mid tones and no light or dark.



RETOUCH PHOTOS IN GIMP - PART 2

If there is a problem with the colors in a photo, we can easily correct things by using either the Levels dialog or Brightness/Contrast settings.

Now we choose Colors > Levels. This pop-up represents the mix of RGB colors as it stands.



From "Channel" you can reach the histogram of RGB. We can edit them one by one. The "Auto" button can edit the tones automatically, but this isn't always correct.

There are three "Pick" buttons next to the "Auto" button. They are for dark, mid and light tones. You can click them one by one and choose the suitable tone point.

The best way is by doing it

manually. You can do this by dragging the triangles, which I have marked with circles (left), to the start and end points of the histogram. Then you can find the best tone by changing the position of the middle triangle. You can then use Brightness/Contrast to make colors sharp.



Let's go to Colors > Brightness/Contrast and choose:
+25 Brightness
+15 Contrast

Now our photo should look like this.

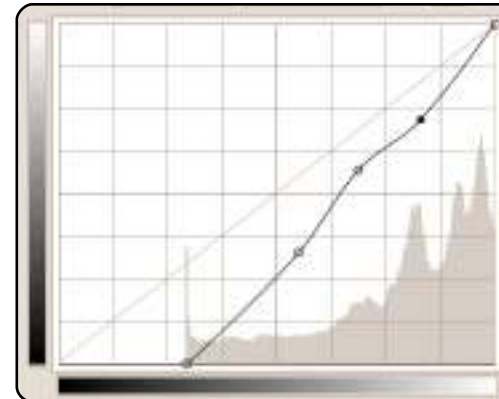


You can edit the tone of the other photos as we did there.

The second tool we can use is the Adjust Color Curves. This tool has similar properties as the "Levels" tool but it has a few little extras. With it we can increase the density of colours.

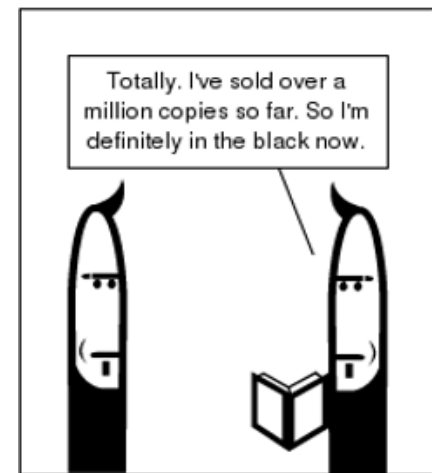
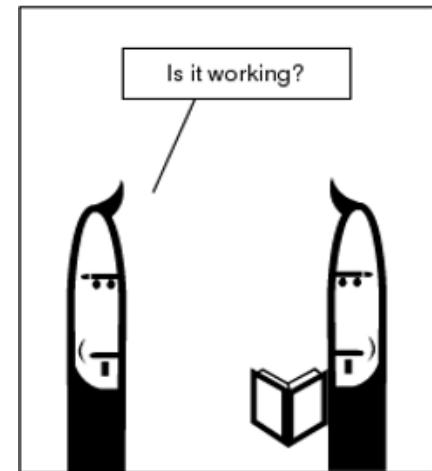
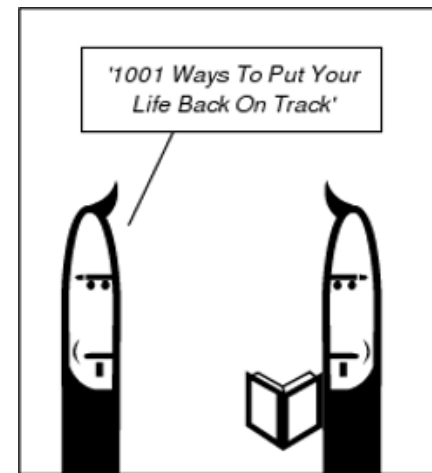
Let's open our first photo and choose Colors > Adjust Color Curves. In the pop-up window, the starting and ending points can be changed and tones can be adjusted.

That's all for this issue. The next article will tell you more about colour adjustment.



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Translated from Turkish to English by Kaan Bahadır TERMELİ





HOW-TO

Written by Hüseyin SARIGÜL

Retouch Photos in GIMP - Part 3

SEE ALSO:

FCM#34-35 - Retouch Photos 1 - 2

APPLICABLE TO:

ubuntu kubuntu xubuntu

CATEGORIES:



DEVICES:

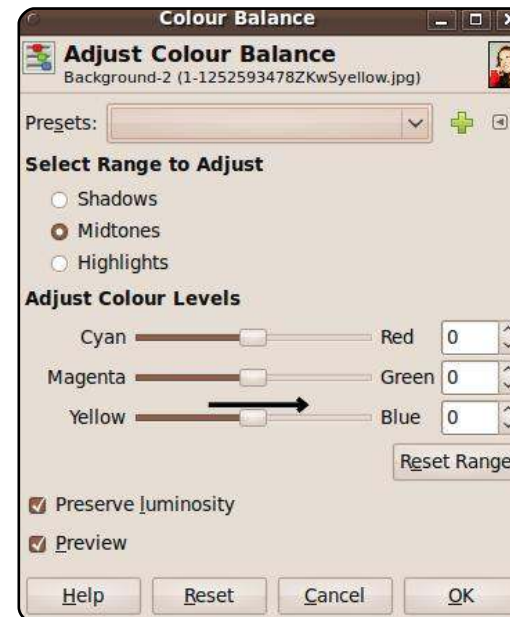


Here is the final article regarding color correction. Here we will introduce color adjustment in GIMP by examining a few example images. Let's start with the first example:



There is too much yellow in the picture, and a lack of blue. To correct this we will open the Color Balance tool (top right) from the Colors menu.

To return the picture to true color levels (right) we need to increase the level of blue in this window.



If you notice a lack, or excess, of any colors - including cyan, red, magenta, green, yellow or blue - Color Balance is a good option to correct this problem.

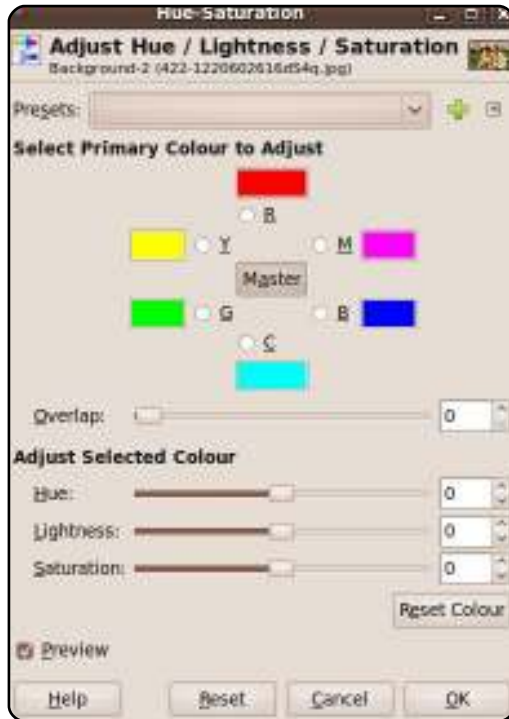
Of course, we can use this tool for just a selected area by using the select tool.

Let us analyse another picture.



It can be said the density of colors is too high in this picture. The best way to solve this problem is by using the Hue-Saturation Tool which is in the Colors Menu.





We can decrease the saturation value of the pictures to make them return to natural colors. Lightness is used to adjust the level of darkness-lightness. Hue can mix the



colors. It creates colors to replace other colors. Generally, we don't use Hue to adjust colors. But it is the best tool if you want to change any color.

Let us examine this picture that has a high level of yellow color density.



Another way to adjust colors is by using the Levels tool from the Colors Menu. We will adjust each color level separately. Start with one color, then try to find the true color level by moving the rectangles (especially the middle one).



Once we adjust all colors, this is our result.

I will finish my article after giving some short information about GIMP.

Gimp can let us automate some work. Some tools which are in the Colors menu:

The "Auto" Submenu
Equalize
White Balance
Color Enhance
Normalize
Stretch Contrast
Stretch HSV

These are really effective and easy to use. For the

features of this tool, you can visit

<http://docs.gimp.org/2.6/en/> where you can also find a lot of documents on other aspects of GIMP.

If your scanner has an option to scan film negatives, you can scan them, then use the Colors > Invert tool to turn them into positives.

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Author: Hüseyin SARIGÜL

Translated from Turkish into English : Mehmet SARIGÜL





HOW-TO

Written by Ronnie Tucker

GIMP - The Beanstalk Pt1



In the first of this new GIMP series, I'm going to try and show you some intermediate techniques. In other words, things that people may think are possible only with Photoshop. If you'd like to read more about the absolute basics of GIMP, then I refer you back to FCM#12-19. While I used an older version of GIMP in those issues, the layout of GIMP has changed little in the passing years.

For ideas, I'm using Photoshop tutorials that are freely available on the web, and, while not copying them step for step, applying the underlying principles of them to GIMP.

I should also state, for the record, that I'm using GIMP 2.6. As I write this, a 2.7 version is available, but, it is not entirely compatible with the *buntu family, and trying to install it can give conflicts.

What we'll be making is shown left.

Sources:

Sky -

http://www.2textured.com/index.php/Environment/Skies/skies_0347

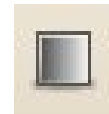
YouTube Video showing Pt1 being made:

<http://www.youtube.com/watch?v=NYFTdbzjubg>

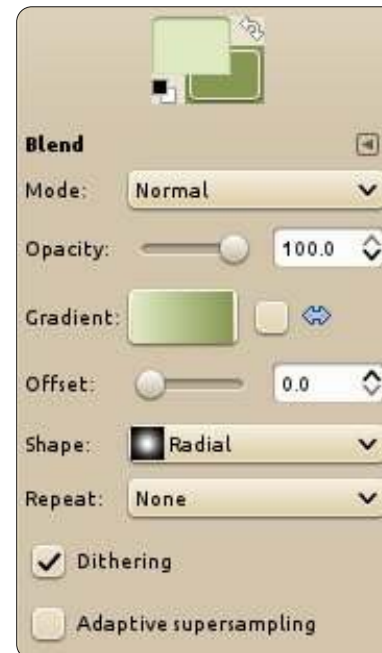
The Sky Gradient

First thing we need to do is create a new image (File > New),

and make it A4 in size, portrait in orientation, and with an X and Y resolution of 80. The default X and Y resolution is 300. That's for professional printing, and, it requires high resolution images as source material, and can slow down even the hardest of machines - so we'll go with 80 which is more than adequate for this tutorial.

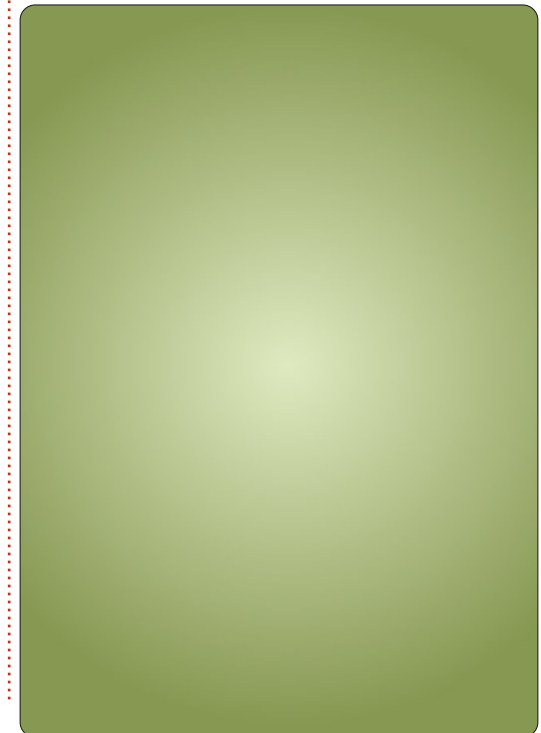


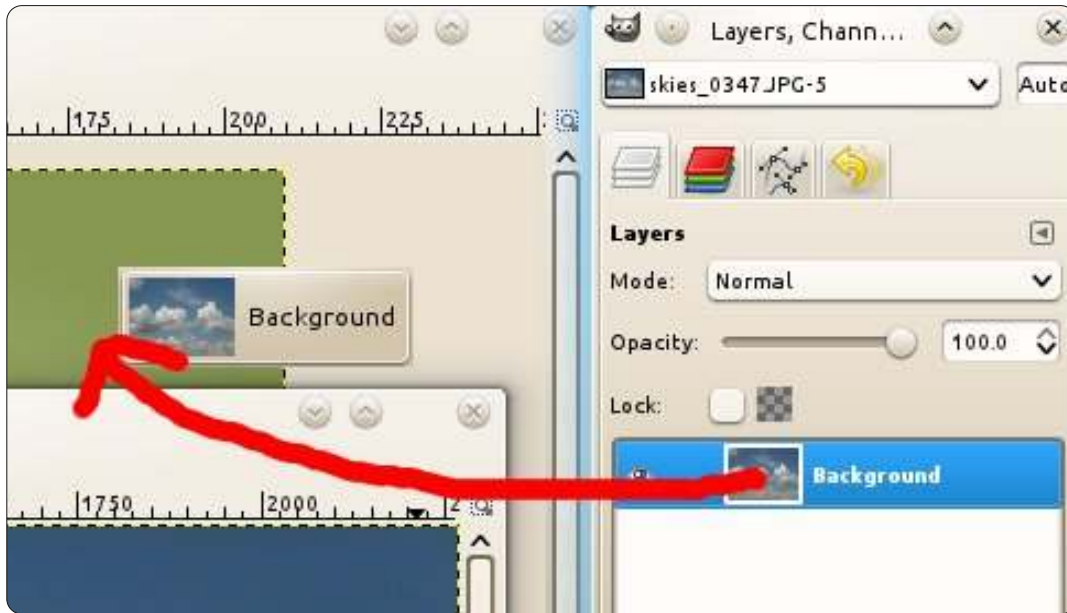
Select the 'Blend tool' icon (shown left), and, where it says 'Shape:', choose 'Radial' from the drop down menu. No need to change anything



else for now. For a foreground color, choose a very pale greeny-yellow (RGB = 220, 229, 189). For the background, choose a slightly faded greeny-yellow (RGB = 133, 151, 81).

Next, left click (and hold) in the middle of the blank image and move up to the top middle of the image. Release the mouse button and you'll have a radial fill covering the entire canvas.





No, Not The Layers!

Click File>Open, and choose your sky image. To quickly get the sky into our main image, we go to the 'Layers' tab and (as shown above) drag it onto our main image

With the sky now in our main image, you can close the opened sky image.



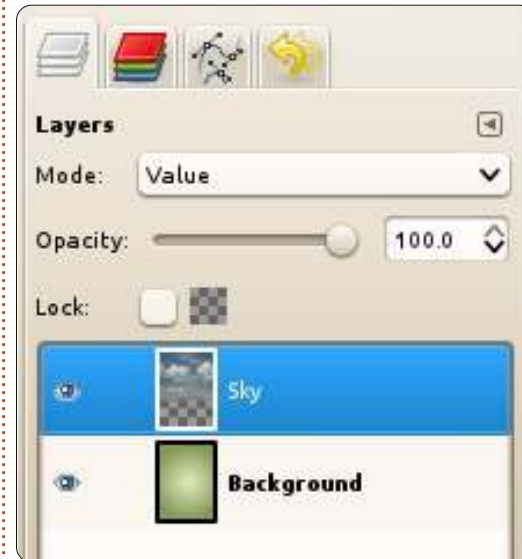
The sky image is quite high resolution, larger than we require, so we need to resize it. Click the 'Resize' tool (shown left), and click the sky. In the resize window that pops up, you need to make sure that the

little chain link icon is linked. If the icon looks like a broken chain, then your sky image will resize disproportionately and squish. Make the width of the sky about 300 wide, and click OK. This gives us some room to play with.



Click the 'Move' icon (shown left). Now, left click and drag the sky icon to where you think it looks best.

TIP: The gradient is one layer and the sky is another. If we add several more layers, it'll get quite confusing. To make things easier you can double click on a layer name and rename it.

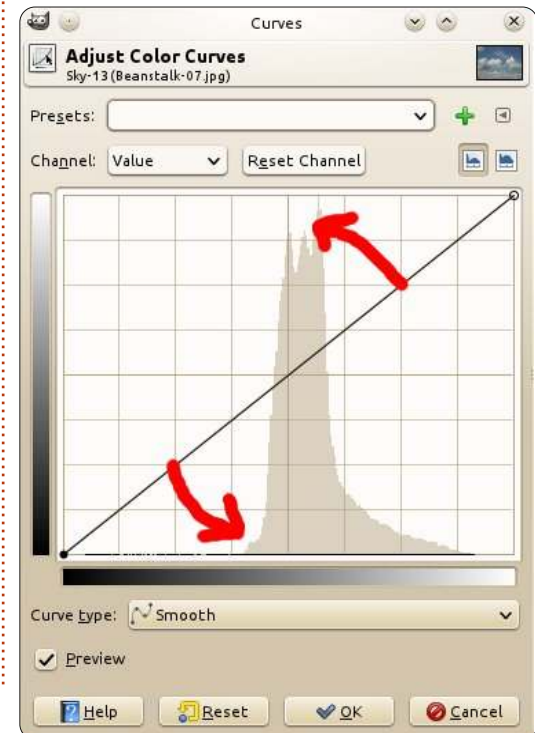


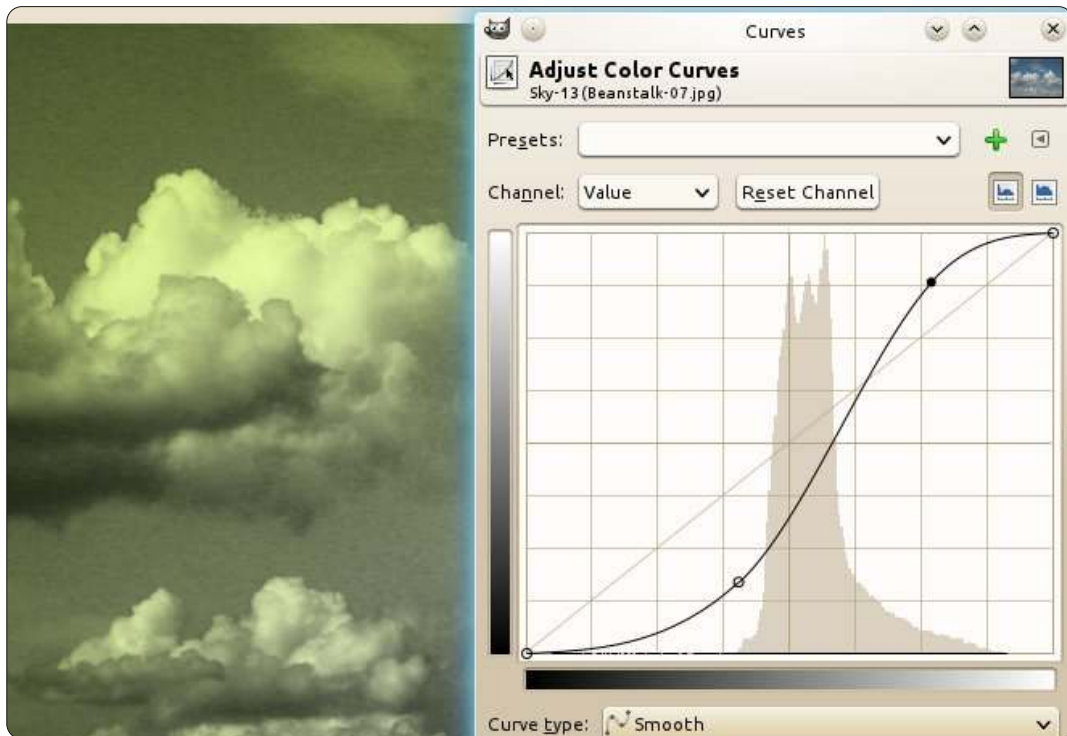
Now for some layer magic. With the sky layer still selected, click the

drop down menu above the layers and choose 'Value'.

Color Curve

You'll now have a greeny sky, but it doesn't look very dramatic does it? With the sky layer still selected, click Colors > Curves from the menu. We're going to create what's known as an S-curve. The S-curve is a great way of quickly color correcting your photos too. Click two boxes across and two down in the grid, and drag your mouse up and to the left slightly, and two boxes in and up from the bottom





left of the grid, and click and drag down to the right.

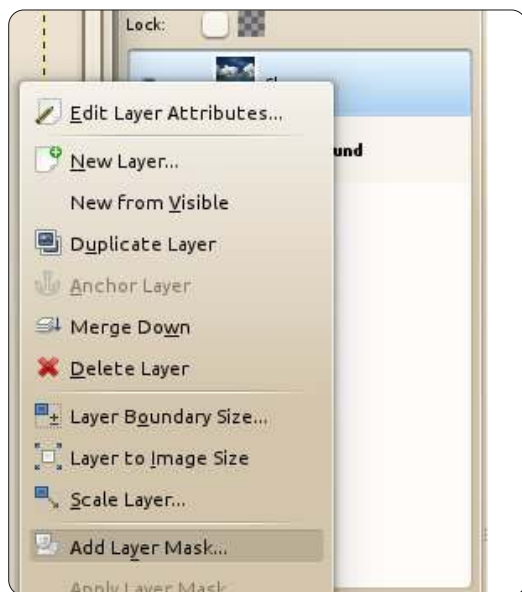
Which will give you an S-curve (shown above) which you should play around with until you get a nice dramatic sky with good darks, but not too bright lights.

Let's finish off this sky and that'll do us for this first part of the tutorial.

Layer Mask

Right click on the sky layer, and

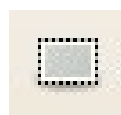
from the menu, choose 'Add Layer Mask' (shown below).



From the window that pops up, choose 'White (full opacity)' and click 'Add'. You'll see a box appear next to your sky thumbnail in the list of layers.

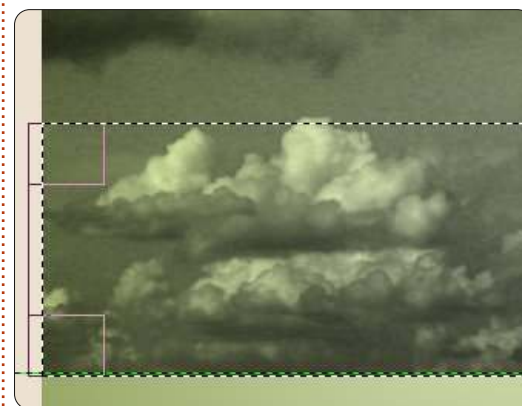


That box is a thumbnail of the layer mask. The idea is that if you select that layer thumbnail, and draw in black, you'll erase parts of the sky image. Draw over the erased area with white and the sky will reappear. This means you can show/hide parts of the sky - using the mask - without destroying the original sky image. We'll use the mask to fade the sky into the background.

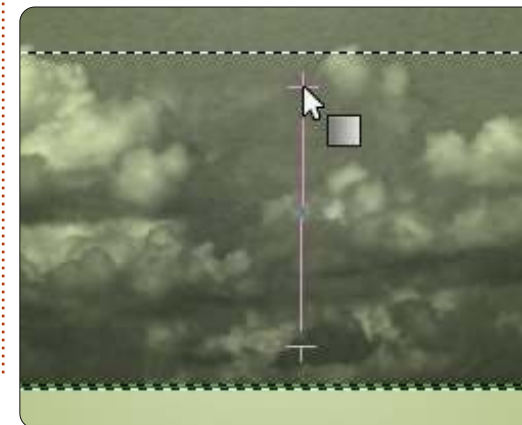


Make sure the mask thumbnail is selected, it should have a white outline, and click the "Rectangle

Select' icon (shown below left). Left click and draw a box around the bottom third of the sky.



Now click the 'Blend Tool' icon (that we used at the start of this tutorial), but make sure the 'Shape:' is Linear this time. You'll need a foreground colour of black, and a background colour of white. With that all set, click and drag just up from the bottom middle of the selected area, to just below the top middle of the selected area, and release the mouse button.





Your sky will now magically fade into the background. And since it's a layer mask, the original sky is untouched. You can right click on the layer mask and delete it and the sky will return to its original state.

Next month we'll add a piece of landscape below the sky, and maybe, just maybe, start growing that beanstalk. Class dismissed!



Ronnie is the founder, and editor, of Full Circle, an official Ubuntu member, and part-time artist who's work can be seen at:
<http://ronnietucker.co.uk>



The Ubuntu Podcast covers all the latest news and issues facing Ubuntu Linux users and Free Software fans in general. The show appeals to the newest user and the oldest coder. Our discussions cover the development of Ubuntu but aren't overly technical. We are lucky enough to have some great guests on the show, telling us first hand about the latest exciting developments they are working on, in a way that we can all understand! We also talk about the Ubuntu community and what it gets up to.

The show is presented by members of the UK's Ubuntu Linux community. Because it is covered by the Ubuntu Code of Conduct it is suitable for all.

The show is broadcast live every fortnight on a Tuesday evening (British time) and is available for download the following day.

podcast.ubuntu-uk.org



HOW-TO

Written by Ronnie Tucker

OK, so, we've got our sky recoloured and fading into the background; next, we want to have a little village below the sky.

Sources:

Village:

<http://www.sxc.hu/browse.phtml?f=view&id=1215281>

Tree:

http://alfoart.com/flash/beanstalk_tutorial/625100_53361668.jpg?http://www.2textured.com/main.php?q2_itemId=281

YouTube:

<http://www.youtube.com/watch?v=KTmehu8x2j4>

The Village

Bring the village photo into your scene. How? This is where I test if you've read part one or not. Same idea: open the village image and drag it into our main scene. You'll probably have to resize it to about 750 pixels wide, though.

Should you see something like this, don't panic



If you look at the list of layers, you'll see that the village layer is sandwiched between the sky and background images. We need the village to be at the top of the list. Simply drag it up above the sky layer.



Click the move icon, and drag the village layer down to the

GIMP - The Beanstalk Pt2

bottom of the image.

We're going to chop away some excess trees that are behind the village to give us a nice landscape.

Selections

The selection tools are some of the most important tools in GIMP as they allow you to be as detailed as you need to be when selecting an outline. For this, our first big tutorial, we'll go with a quick and dirty selection.

Click the 'Free Select Tool' (shown left) and draw around the treeline keeping only full trees. Draw out the side of the image, and

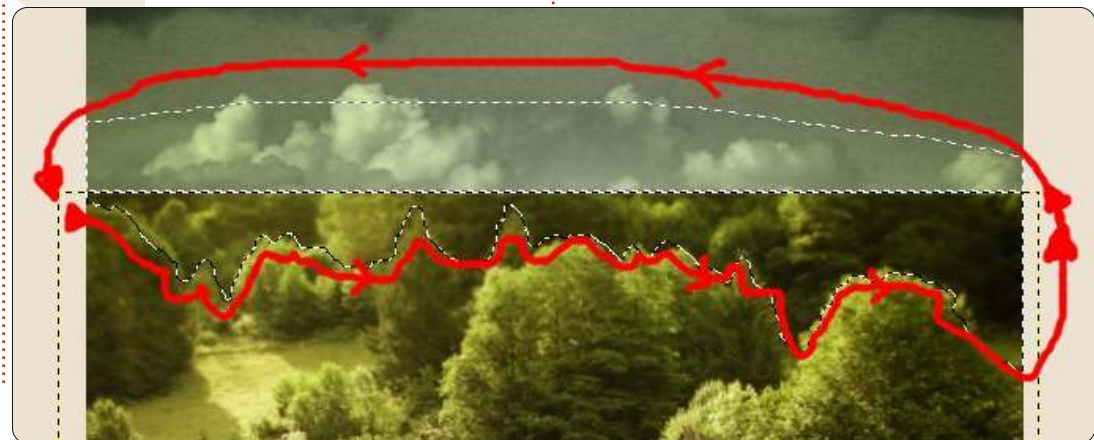


loop back to where you started. Press the Enter key on your keyboard to complete the selection.

You can, of course, go clockwise if you prefer.

Press the Delete key on your keyboard, and anything inside that selection will be removed.

TIP: If you press the Delete key and the selected area shows black, then you'll have to go to the menu, click Edit > Undo. Right click on the layers thumbnail, and choose 'Add Alpha Channel'. Now you can press Delete to remove your selection. This extra 'Add Alpha Channel' step isn't always necessary.





You can, if you like, go around the treeline and tweak it with the eraser, but for now we'll cover it up with a layer mask. You do

remember how to create a layer mask, don't you? Yep, right clicking on the village layer, and choosing to add a white layer mask.



Use the rectangle select tool to select the top half of the village (below left) and, like last time, use a black and white linear gradient to fade the top part of the village.



Remember last time how I spoke about the layer mask as being non-destructive? Well, here's your chance to try it out. We created a white layer which was completely transparent, so choose a foreground colour of white and click the 'Paintbrush' icon (shown left).

TIP: If you need to enlarge/shrink the paintbrush you can use the square bracket keys (that's [and]).

The idea here (shown below right) is to (on the layer mask!) paint white over some of the foreground trees to remove them from the fog effect in the background.

OK, let's get our whopping great tree inserted and we'll finish up part two.

I'll show you another quick way of inserting an image. Click the link above for the tree source. In your browser, right click the image and copy the image to the clipboard. Go to your main image in GIMP, and, in the menu, click Edit > Paste As > New Layer. Voila!



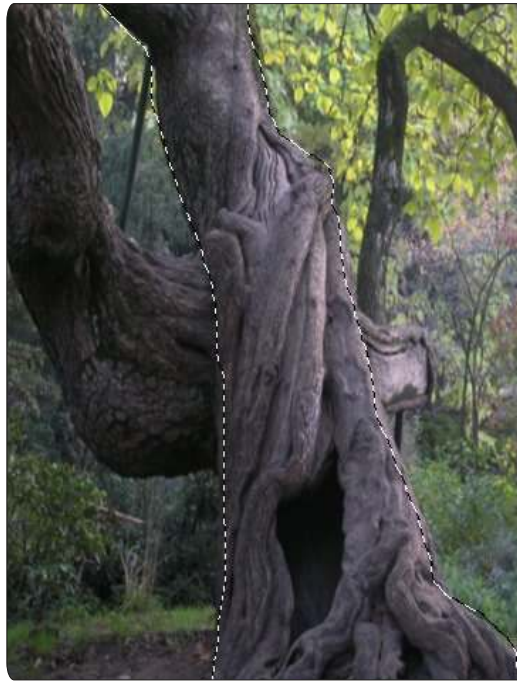
HOWTO - GIMP: THE BEANSTALK Pt2

You'll have to resize the layer to about 600 pixels wide, and move it down to have the tree roots halfway down the grassy part of the village. Clicking resize, and then on the tree, I'm unlinking the width and height numbers as I just want to stretch the tree vertically to about 650 high.



Like we did with the village, it's time to trim out the excess background, we just want to keep the tree. Time to click the free select tool and get to work.

This time we want to keep what's inside the selection, so, in



the menu, click Select > Invert and press Delete. One tree. But I think I'd like it growing up to the right, so click Layer > Transform > Flip Horizontally. I'd also like it to have a tint of green like the rest of the image, so click Colors > Colorize, and move the 'Hue' slider until you get a greenish tint to the tree.

Finally, apply a layer mask to the tree layer, and select the top third of the tree and use the blend tool to fade the tree into the clouds.

One last thing, your homework for this lesson: use the Dodge/Burn tool on the village



layer to paint a shadow from the tree across the grass.

In the final part of the Beanstalk image we'll add some pizzazz to the image.



Ronnie is the founder, and editor, of Full Circle, an official Ubuntu member, and part-time artist who's work can be seen at:

<http://ronnietucker.co.uk>





HOW-TO

Written by Ronnie Tucker

We're almost done with the beanstalk image, but I'd like to add some random bits and bobs to give it some pizzazz.

Sources:

Moon:

<http://www.sxc.hu/photo/1126941>

Stars:

<http://www.sxc.hu/photo/1005288>

YouTube Video:

<http://www.youtube.com/watch?v=HZcoOx94ox8>

Moonshine

Copy/paste the moon image into the beanstalk scene. I'm keeping the moon layer at about 150 wide and have flipped it horizontally.



This time, in the dropdown menu above the list of layers, choose 'Screen'; the black in the layer will vanish, and the moon will blend in nicely.



Although, a glow around it wouldn't go amiss. We'll cheat with the glow and use a filter. Click Filters > Artistic > Softglow. Move the sliders until you get something pretty. I used a high brightness and glow radius.

The good thing about doing this in a non-destructive manner is that you can change anything at any time without having to completely redo chunks of the image. I'm going to use an S-curve now on the tree as I think it needs to have brighter highlights on it and that

hollow should be nice and dark.



One last thing is that I'm going to add some stars to the sky, so it's time to bring in the image of the stars: place the layer below the moon layer, and make it about 300 pixels wide. This time though, make the layer mode 'Lighten only' from the dropdown menu. The last thing to do is give the stars a layer mask that will fade them out midway down the image.



Next month we'll have a tutorial from Thomas Standiford on making your photo look retro.



Ronnie is the founder, and editor, of Full Circle, an official Ubuntu member, and part-time artist whose work can be seen at:

<http://ronnietucker.co.uk>





HOW-TO

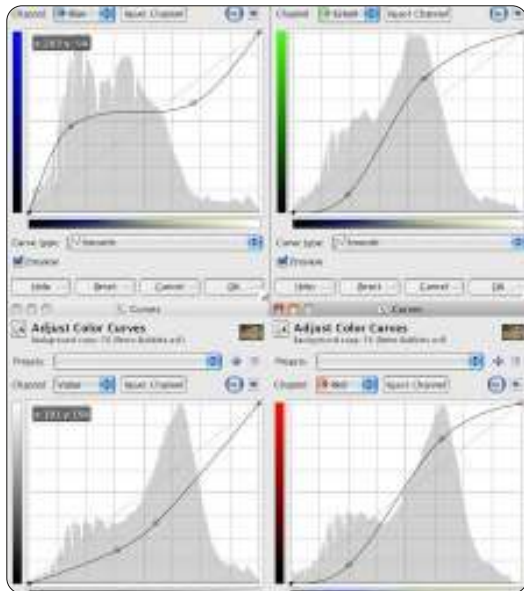
Written by Thomas Standiford

In this GIMP how-to, we're going to do some basic curves adjustments to make this photo have a cool stylized retro-type look.

We'll start with the image above right, and end with the image shown bottom right.

Get the Retro Colors

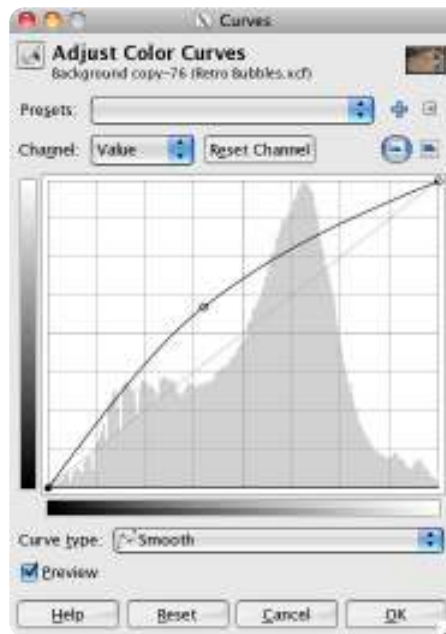
Most of the effect for this photo is simply from adjusting the curves of each channel (the red, green, blue, and alpha channels) like so:



Note: To change which channel to adjust, select the channel from the channel drop-down. You can switch back and forth between channels. All of these curves adjustments should be done in ONE COMMAND, not a series of four commands.

After making the adjustment, your photo should look pretty cool, but we need to tone the contrast down a bit.

Next, do another curves adjustment like so:



HOWTO - GIMP RETRO PHOTO

Not bad, now if only those bubbles didn't disappear in the process.



Enhance the Bubbles

The bubbles seem to have disappeared in this photo. We're going to use a combination of selections, and soft brushes to put some pop back into them.

Create a new layer, name it "bubbles".

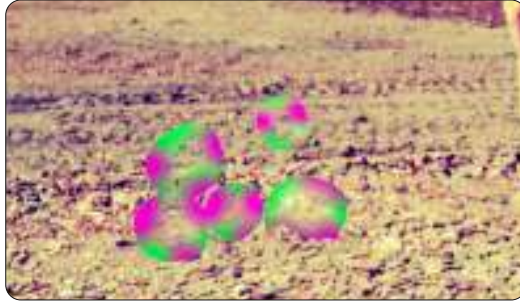
Now we will select the bubbles. Using the path tool, trace around the outer edge of each bubble.

Once all of the bubbles have been outlined, right-click on the path in the path menu (located in the same window as the layers), and click "path to selection."

Set your foreground and background to a lime green and

hot pink.

Using a fairly large and soft brush, carefully brush in a few spaces of pink and green in each bubble, like so:



Now that we have added the color to the proper areas of the bubbles, let's change some layer styles and adjust the opacity to make the bubbles look realistic.

Set the layer mode to Overlay.

Duplicate the layer. Name the duplicated layer "bubblebrighten".

Set the duplicated layer mode to addition.

Adjust the opacity of both the "bubble" and "bubblebrighten" layer until you end up with something you're happy with. My opacity settings are set to 23 and 40 respectively, and they look like this:



Now that our bubbles are a little more visible, let's dramatize the photo a bit.

Final Touches

Create a new layer, name it "dramatize", set the layer mode to Overlay, and fill the layer with black.

Add a layer mask to the dramatize layer.

Using the blend tool, set the gradient mode to radial, and use a gradient that goes from black to white. Create a gradient that goes from the center of the photo outward. Adjust the opacity of the layer to something you're happy with. Here is what I ended up with:

Next month we'll begin a video editing series using Kdenlive.

