Quick answers to common problems

# GIMP 2.6 Cookbook

Over 50 recipes to produce amazing graphics with the GIMP

Juan Manuel Ferreyra

[PACKT] PUBLISHING open source* community experience distilled

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BIRMINGHAM - MUMBAI

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# Credits


**Author**

Juan Manuel Ferreyra

**Reviewers**

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Adline Swetha Jesuthas

**Cover Work**

Adline Swetha Jesuthas

# About the Author

**Juan Manuel Ferreyra** is an illustrator and animator from Buenos Aires, Argentina. He is 34 and lives with his cat. Although he started drawing at a young age, computers caught all his attention, and he worked in the IT world for many years. He dropped out from Computer Engineering and started studying filmmaking, working on his own projects and as a freelance illustrator in his free time. After a few years, he decided to leave the IT world and started working as a full time freelance illustrator and animator; his website is `http://www.omykron.com.ar`. The cat is happy.

---

Este libro es para mis abuelos. BIG thanks to my good friend Buanzo for introducing me the fine people at Pack Publishing: Dilip and Joel, thanks for your support and understanding. Thank you everyone.

---

# About the Reviewers

**Nedo Laanen** graduated in 2003 from college where he studied Applied Mathematics & Computer Science. After a trip to Rajasthan (India), he started working full time in the computer industry for a large agency, where he worked for several clients as a Novell System Administrator. Soon he developed a keen interest in Linux and Open Source software and started to pursue a career as a Linux professional at Stone-IT in Utrecht. Nedo worked for companies like the Dutch WWF in Zeist and the Dutch Council for Refugees in Amsterdam, as well as for several Dutch hospitals. He was also involved in the 'Antonius Open' project at the Antonius hospital in Utrecht. A prestigious project of the Antonius hospital to cut back costs by implementing Linux and Open Source software on their computer network, replacing expensive proprietary software and eliminating vendor lock-in.

In 2007, Nedo went on a trip to Thailand with his girlfriend Reeta and several of his friends. For the occasion, he bought a digital SLR camera to document his journey. From that moment on his interest in digital photography started growing exponentially. He followed several courses in digital photography and learned the rest from the internet and by just doing it. Being a Linux professional, he manages and processes all his images on his Linux desktop using Open Source software like the GIMP, Geeqie, Ufraw, and qtpfsgui.

Nedo started a website in 2009 named **OpenSourcePhotography.org** (`http://www.opensourcephotography.org/`). He wanted to share his knowledge of Open Source software in conjunction with modern day digital photography by posting news on his blog and by giving reviews on Open Source digital photography Software. His goal is to show amateur and professional photographers alike that Linux and Open Source software is not scary and difficult to use. Being a photographer himself, he can reduce costs by using Linux and Open Source software in his photography, thereby lowering the prices for his clients.

---

I would like to thank Packt Publishing for granting me the opportunity to help them with the GIMP 2.6 Cookbook.

---

**Saurav Shrestha** graduated from Minnesota State University in 2010 with a Bachelor's degree in Information Technology. He is an avid Linux user who's been using Ubuntu for the past 4 years, and The Gimp, informally, for past two years.

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# Table of Contents


Preface 1

Chapter 1: Using Draw and Paint Tools 5

- Introduction 5
- Creating an orb using different paint tools 5
- Blending colors 15
- How to paint a sky and clouds 18
- From sketch to finished piece: creating a cartoon of yourself 25

Chapter 2: Image Filters and Effects 45

- Introduction 45
- Using Blur 47
- Using Distorts 53
- Using Light and Shadow 66
- Using Noise 68
- Using Edge-Detect 72
- Using Artistic 73
- Using Decor 76
- Using Map 80
- Using Render 82
- Using web design-oriented filters 90
- Using logo-creation filters 96

Chapter 3: Text and Fonts 103

- Introduction 103
- Creating a quick logo for your company 104
- Creating 3D text 111
- Creating glowing text effects 115
- Creating shining plastic text 118
- Creating gold text 123
- Creating icy cold text 127

Creating fiery text 131
Creating paper cutout text 136
Creating rubber stamp text 139

Chapter 4: Photo Manipulation 143
Introduction 143
Scaling an image 144
Cropping an image 146
Flipping or rotating an image 147
Improving low-light photos 152
Scaling an image without deformation (Liquid Rescaling) 158
Creating a diorama effect (simulating depth of field) 163
Creating HDR photos 167
Creating a black and white postcard with a color touch 182

Chapter 5: Playing With Color and Sharpness 191
Introduction 191
Removing red eyes from a picture 192
Coloring black and white pictures 194
Removing objects from an image 197
Removing backgrounds 205
Creating surreal picture manipulations 211
Adding graffiti to a photo 222
Cleaning objects 230
Correcting facial imperfections 238

Chapter 6: Web Design Tips: Buttons and Blogs 251
Introduction 251
Creating a simple Web 2.0 style web design layout from scratch 252
Creating custom glossy buttons 260
Creating an Art Nouveau inspired blog template 265
How to create an Impressionist inspired template 279
Creating headers for your blog/website 303

Chapter 7: Web Design Tips: Backgrounds 313
Introduction 313
Creating a colorful abstract background 313
Creating a green time-machine background 319
Creating a light spikes background 326
Creating a retro dots background 332

Chapter 8: Plugins and Scripts 341
Introduction 341
Installing plugins and scripts 342

Using the 3D Screenshot script 344
Using the Midnight Sepia script 346
Using the Star Scape script 349
Using the Antique Photo Border script 351
Using the National Geographic script 353
Using the Watermark script 356
Using the Save for Web plugin 360
Using the DBP Plugin 362

Appendix A: Beyond GIMP 367
Beyond GIMP 367
Platform-specific projects 369
Useful links 369

Appendix B: Release Changes 371
Introduction 371
Interface changes 371
Tool changes 374
GEGL 375
Plugin changes/news 375
Backwards compatibility 375
Known problems 375
Running GIMP for the first time 376
Command-line arguments 377
Adding tablet support to GIMP 379
The windows and their arrangement 382
Getting started with the tools 384
Using Undo 385

Index 387

# Preface

The GIMP project was started in 1995 by Peter Mattis and Spencer Kimball, and is now maintained by a group of volunteers under the auspices of the GNU Project. The first release was in January 1996, The latest version of GIMP, version 2.6.1, was released on December 21, 2010. Available under the terms of the GNU General Public License, GIMP is free software; this means that everybody can download and use it.

Besides being free, GIMP is a high-end image editor for photo retouching, image creation and editing. Through the years, a huge user community has grown around the GIMP; hobbyists, professional illustrators, filmmakers, and photographers use it daily in their work. This user base not only use it but also contributes to expand and improve GIMP through plugins and scripts.

This book is a collection of tasks that will allow you to learn how to use GIMP from a basic to an advanced level. Also, you can experiment while you learn, and enjoy it. I will repeat this throughout the book. It's important that you don't stick to the tasks exactly. If your objective is to work as a professional, only through experimentation will you acquire your own technique and style. Drawing, painting, and designing should not be a mechanical thing, even if you took the job just because you needed the money!

Enjoy the book.

## What this book covers

*Chapter 1, Using Draw and Paint Tools*, explains how to use the most basic drawing and painting tools that are available for anyone wanting to start as an illustrator/cartoonist.

*Chapter 2*, *Image Filters and Effects*, gives an overview on many of the default filters that come with GIMP, applied examples, and a description of their options.

*Chapter 3*, *Text and Fonts*, explains how to work with fonts. It teaches several techniques to turn any kind of text from a solid colors to brilliant effects like frosted text, golden text, or a rubber stamp.

*Chapter 4*, *Photo Manipulation*, starts with an explanation of the basic image editing tools. After that, there are a few advanced techniques to create high-quality effects with any kind of photo.

*Chapter 5*, *Playing With Color and Sharpness*, explains how to correct imperfections and erase objects or the whole background from any photo.

*Chapter 6*, *Web Design Tips: Buttons and Blogs*, starts with how to create Web 2.0 buttons, and ends explaining how to create your own blog template from scratch using photos and some drawing tools.

*Chapter 7*, *Web Design Tips: Backgrounds*, explains how to create different backgrounds for a website from scratch by using only GIMP tools.

*Chapter 8*, *Plugins and Scripts*, gives an overview on how plugins and scripts work in GIMP, and how they continually help expand the user experience and improve the software.

*Appendix A*, *Beyond GIMP*, takes us beyond the software and discusses other useful resources that may help the amateur and professional.

*Appendix B*, *Release Changes*, highlights the changes introduced in v2.6.

## What you need for this book

You need to download GIMP 2.6 from `http://www.gimp.org`. All the tasks in this book were created using GIMP 2.6 in a Linux environment, but as long as you are using version 2.6.x, you can complete any of the tasks in a GIMP installation on the operating system of your choice.

## Who this book is for

This book is for people who have general knowledge about using computers, and for beginners who want to start a professional career as illustrators, graphic designers, and image editors. My intention is to start with simple tasks, increasing the level of difficulty with each chapter, so at the end of the book, you will not only have a good base of using GIMP, but you will also have some pieces you can use to start a portfolio.

## Conventions

In this book, you will find a number of styles of text that distinguish among different kinds of information. Here are some examples of these styles, and an explanation of their meaning.

New terms and important words are shown in bold. Words that you see on the screen, in menus or dialog boxes for example, appear in the text like this: "The resolution fields are useful when printing the image."

Warnings or important notes appear in a box like this.

Tips and tricks appear like this.

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# 1
# Using Draw and Paint Tools

In this chapter, we will cover:

- Creating an orb using different paint tools
- Blending colors
- How to paint a sky and clouds
- From sketch to finished piece: creating a cartoon of yourself

## Introduction

This chapter is about drawing and painting with GIMP; two of the most basic and fun steps in illustration. (you should have fun if you want to work as an artist!)

We are going to start with the basic tools, and then increase the number of elements and their complexity to get to the final piece.

## Creating an orb using different paint tools

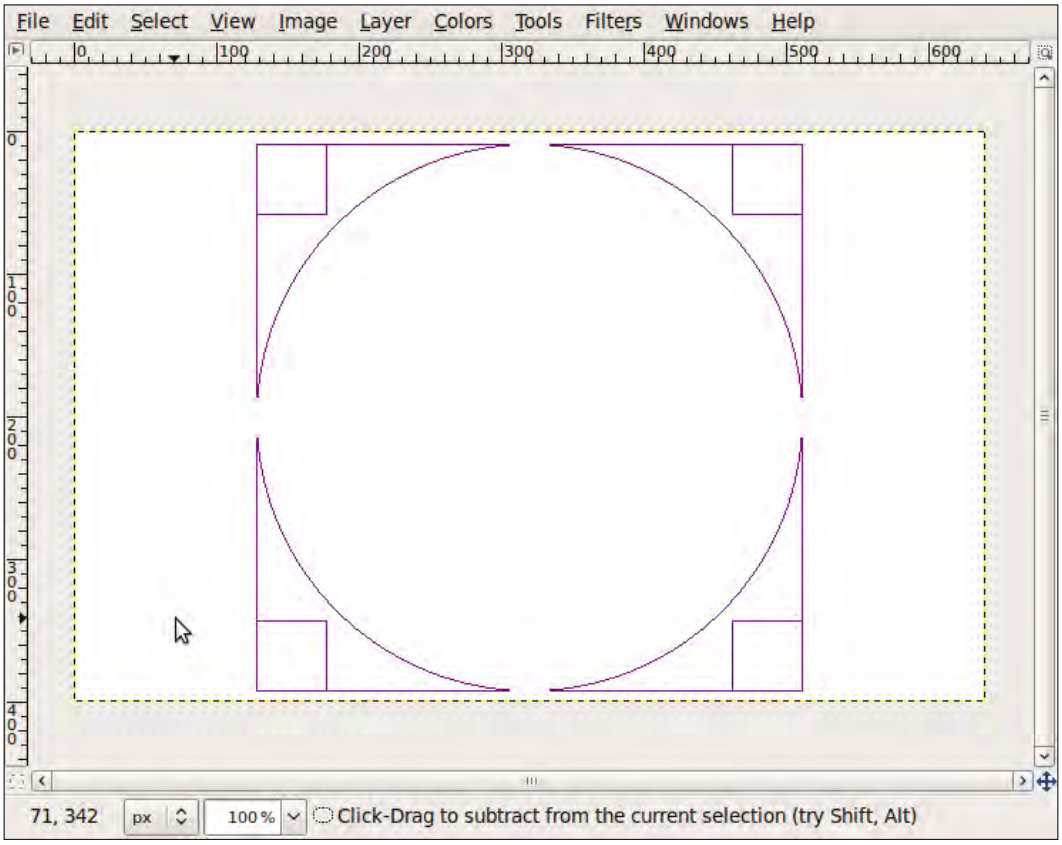
So, what's an orb? Basically, it's a sphere that we're going to paint and make it look like a glossy surface. It's a good introduction to a series of GIMP tools, how to paint and draw, and also to the kind of images you're likely to use on a typical business web page.

Don't try to replicate what you see here, experiment while you learn from these examples. See how changing values, sizes, colors, and other attributes makes that piece you are creating your own. Create your style while learning how to do things.

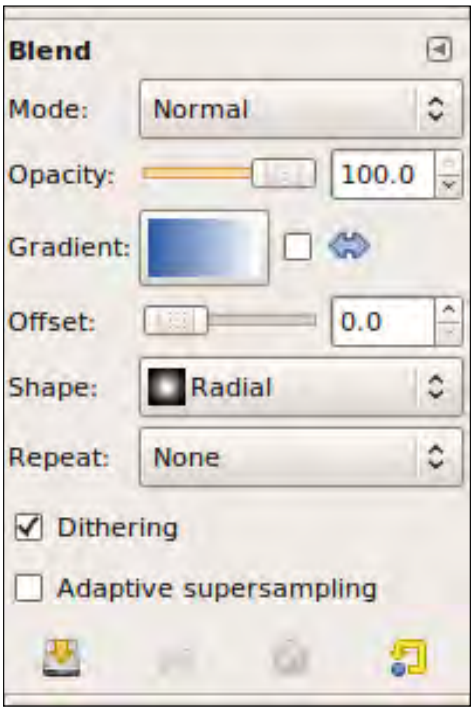
## How to do it...

An orb can be created by following these steps. We'll also give it a glossy surface and the shading that goes with it:

1. Create a new file, select the **Ellipse Select Tool** (this can alternatively be done by pressing *E*), and create a perfect circle. Press *Shift* while dragging or use the tool options to make it perfectly round (enable the **Fixed** option to make it perfectly round):

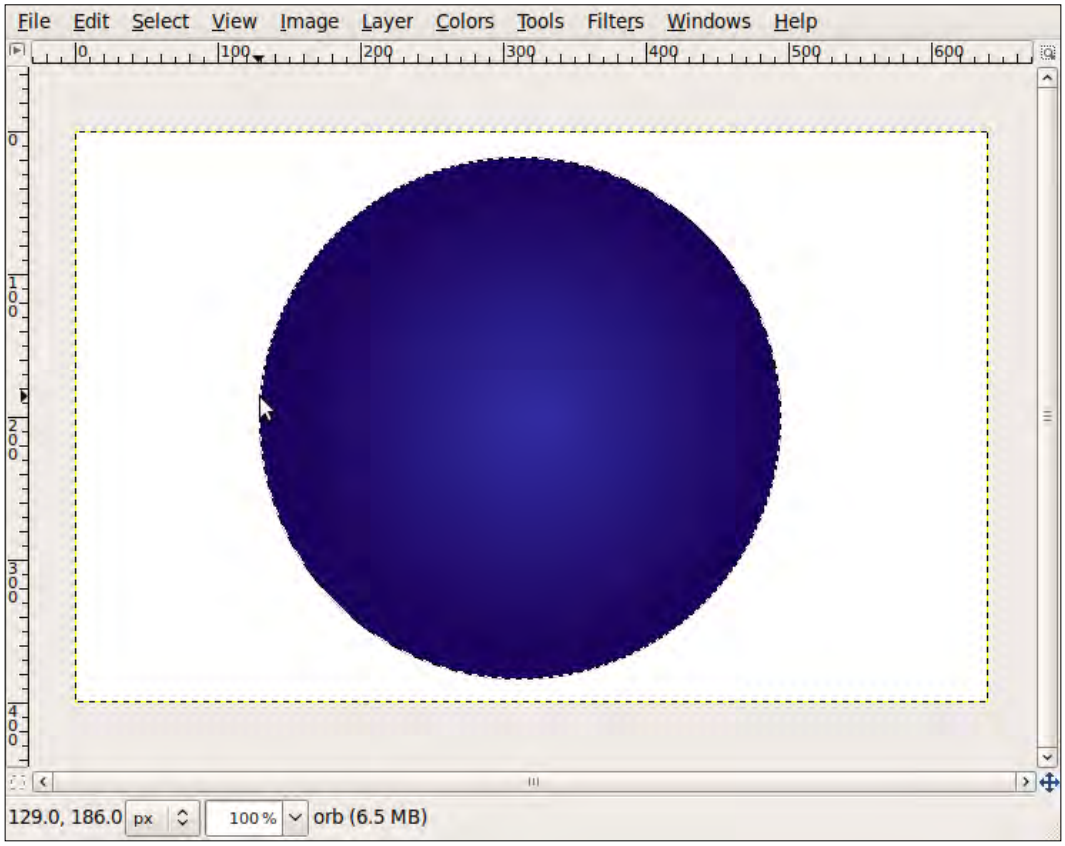


2. Select the **Blend Tool**, and in its tool options change the **Gradient** to **FB to BG (RGB)**, pick a foreground and background color, and change it's shape to **Radial**:

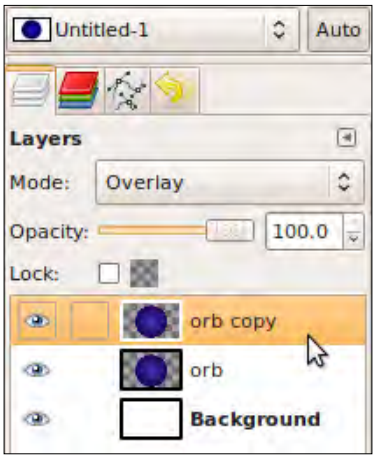



Make sure you have the lightest color as the foreground color and the darkest one as the background color. Use the little white arrow icon near the background and foreground colors to reverse them if you need.

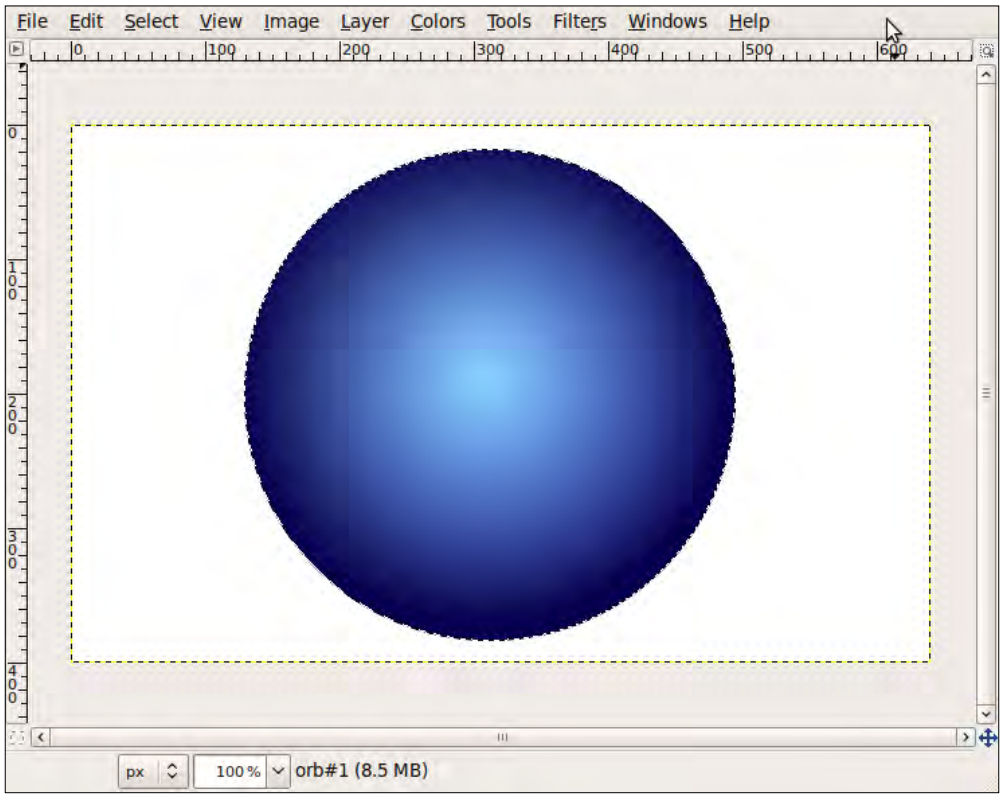
3. Create a new layer, name it **orb1**, and apply the gradient by clicking and dragging from the center of the circle to its lower right. Once applied it should look like the following screenshot (you don't need to position it exactly at the centre point of the circle):




4. Duplicate the orb layer by right-clicking on the layer **orb1** and selecting **Duplicate Layer** (*Shift* + *Ctrl* + *D*). Name it **orb2**, and set its mode to **overlay**:

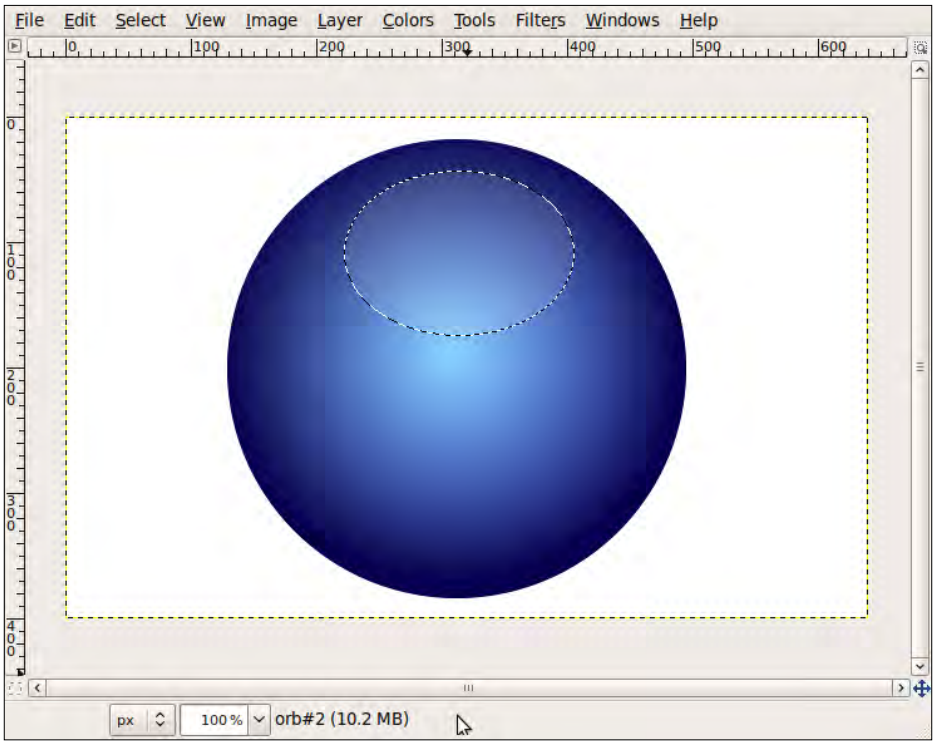



5. Create a new layer. As you can see, the circle created in step 1 with the **Ellipse Select Tool** is still there. Select the **Blend Tool**, change its **Gradient** to **FG to Transparent**, the **Shape** to **Radial**, and for the foreground color, pick a lighter tone based on the one at the center of the circle. Apply it from the center to its bottom:



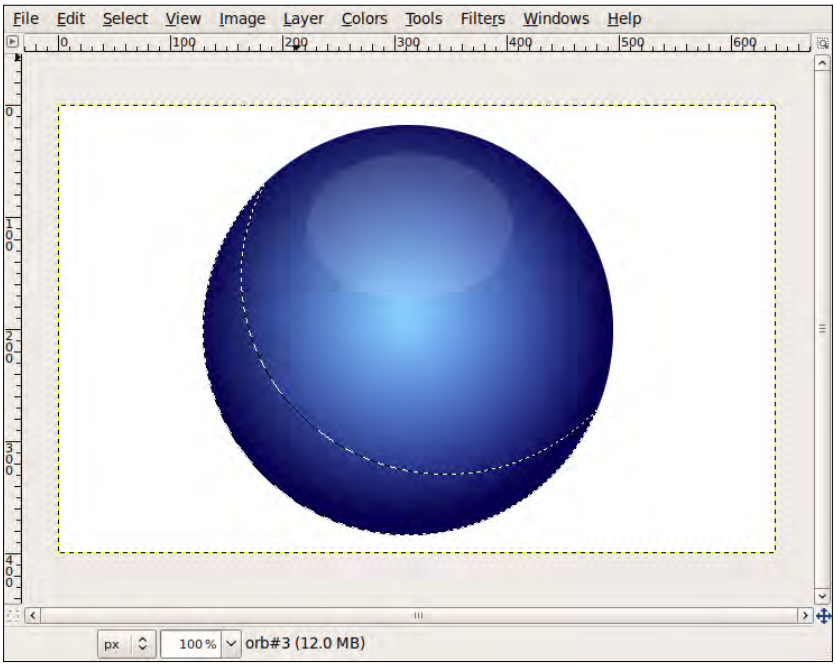
## There's more...

Let's create some reflections. In a new layer, create a small circle around the top centre part of the sphere, select the **Bucket Fill Tool** (*Shift* + *B*), and fill it with a white color. Change its **opacity** to something around 10:

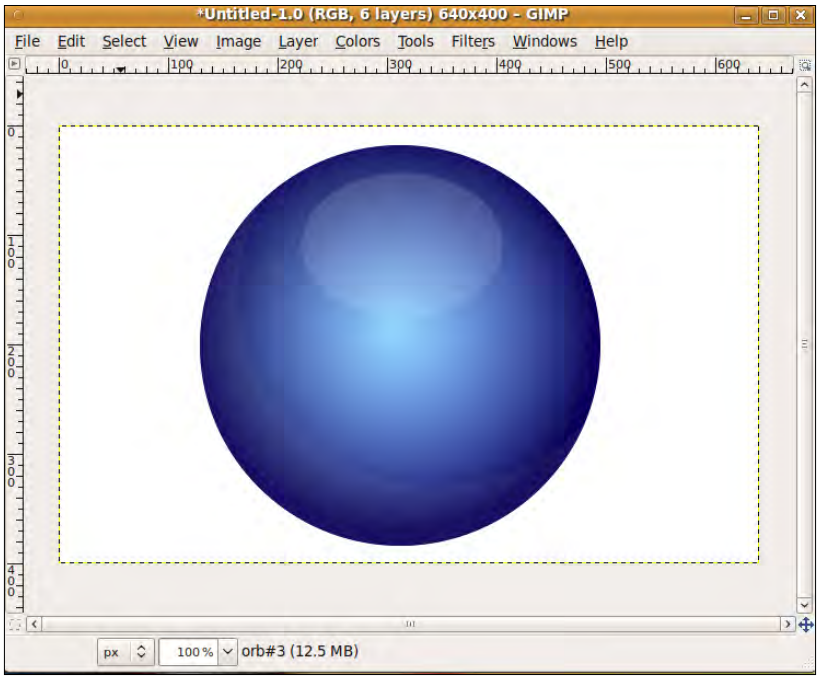



Right-click the **orb2** layer and from the dropbox select **alpha to selection**. Create a new layer, and drag it to the top of the layer list so we can create a reflection on top of the sphere. Now select the **Ellipse Select Tool**, and set it to **subtract mode**:

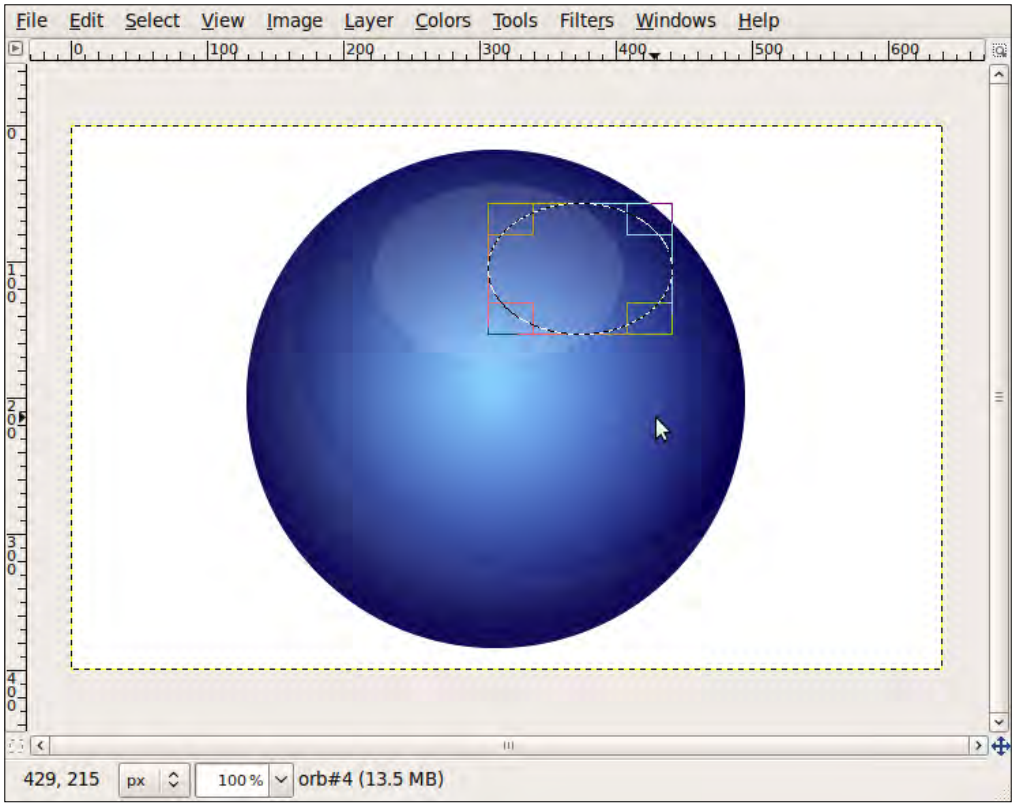
Draw a big ellipse around the sphere leaving only a small part at the bottom, as shown here:



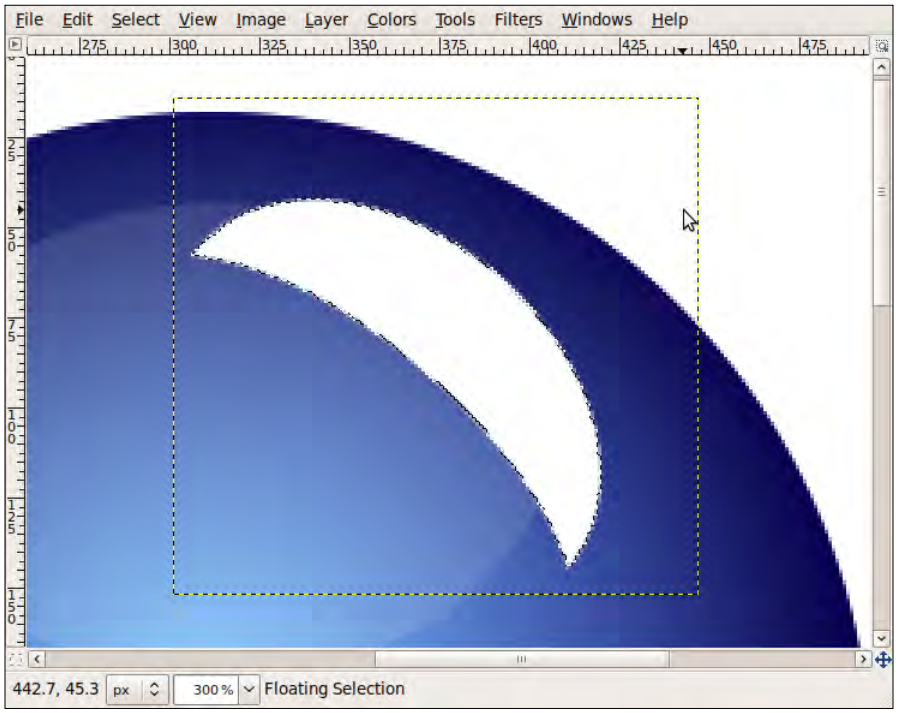

Then, in a new layer fill, this selection with white, and change its **opacity** to something around 5:



Now, with the **Ellipse Select Tool**, in a new layer, draw another small circle around the top right side of the sphere, smaller than the previous one. Then set the tool options to subtract, and deselect the bottom part of the small ellipse you just created (just draw another ellipse near the bottom part with the subtract mode selected). Then, fill it with white color:

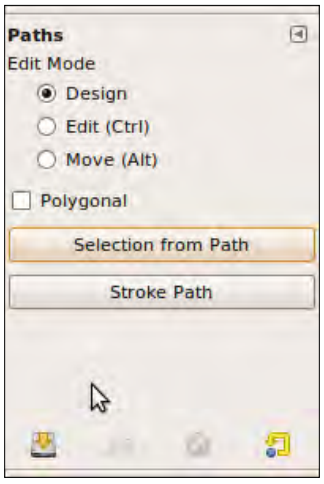


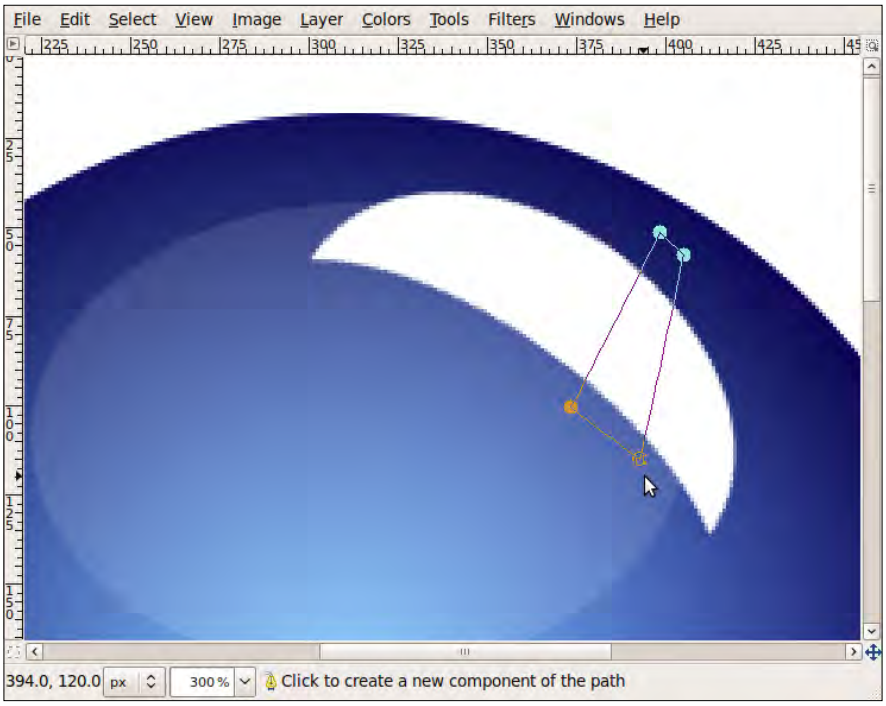

Then, move and rotate the selection, combining the **Move Tool** (*M*) and the **Rotate Tool** (*Shift* + *R*) until it looks as follows:




You can also use the **Zoom Tool** (*Z*) to zoom in and out of the file if you want to work with more accuracy.

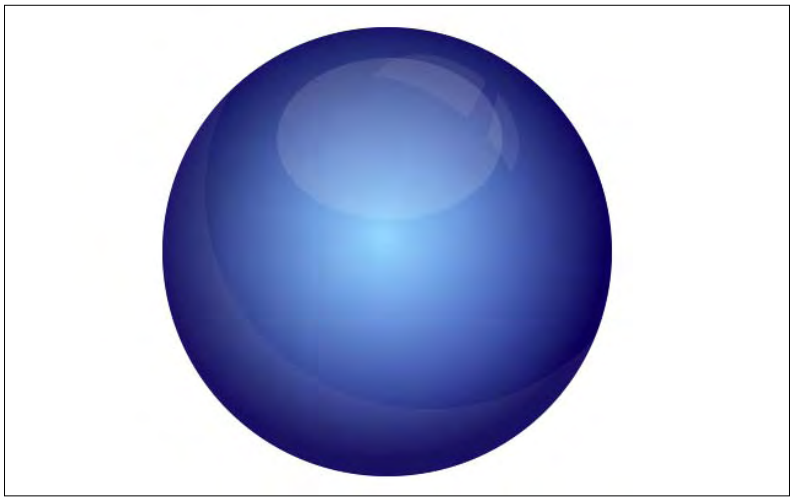
Now, select the **Paths Tool** (*B*) and draw a small figure, as shown in the following screenshot, to give the impression of a reflection. Then, click on the **Selection from Path** button inside the tool options of the **Paths Tool**. You can also use the *Enter* key to complete a path selection:






Then, you can press *Delete* to erase the selection and change the layer's **opacity** to something around 7.

We're done now; your orb should look like the following:



# Blending colors

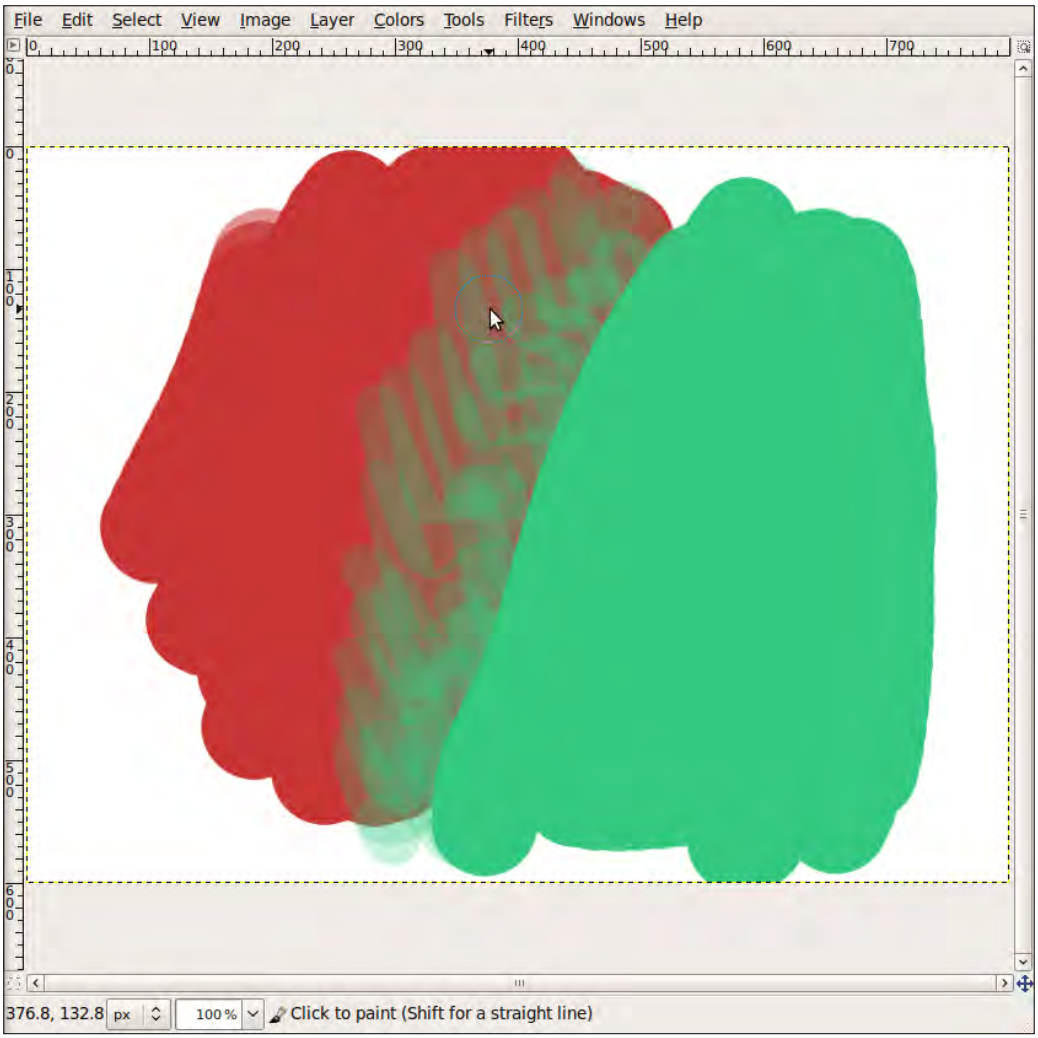
There are many techniques on how to blend and mix colors, both on the digital and the analogue world of paper and pencil. Here, I present to you a quick way to blend any combination of colors; of course, you will need some practice to master it, but following it you'll also take command of a few more tools of GIMP.

## How to do it...

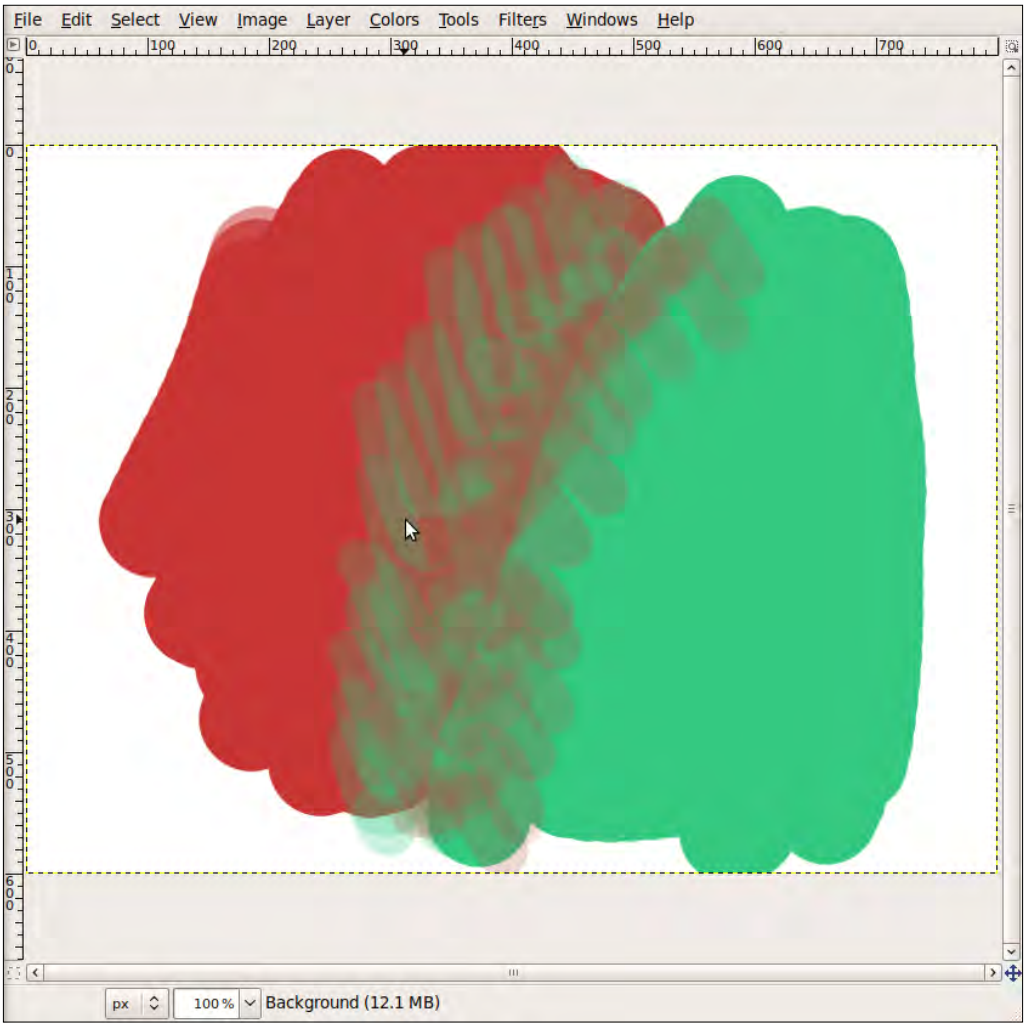
To blend two distinct colors carry out the following steps:

1. Create a new file, pick two colors you like and paint them one besides the other with a thick brush.
2. Pick a thick brush, change its opacity to around 30, and start painting with short crossed strokes over the opposite color you have selected. This is a process so don't expect it to happen magically, just keep trying.

This is how my picture looks after the first pass:



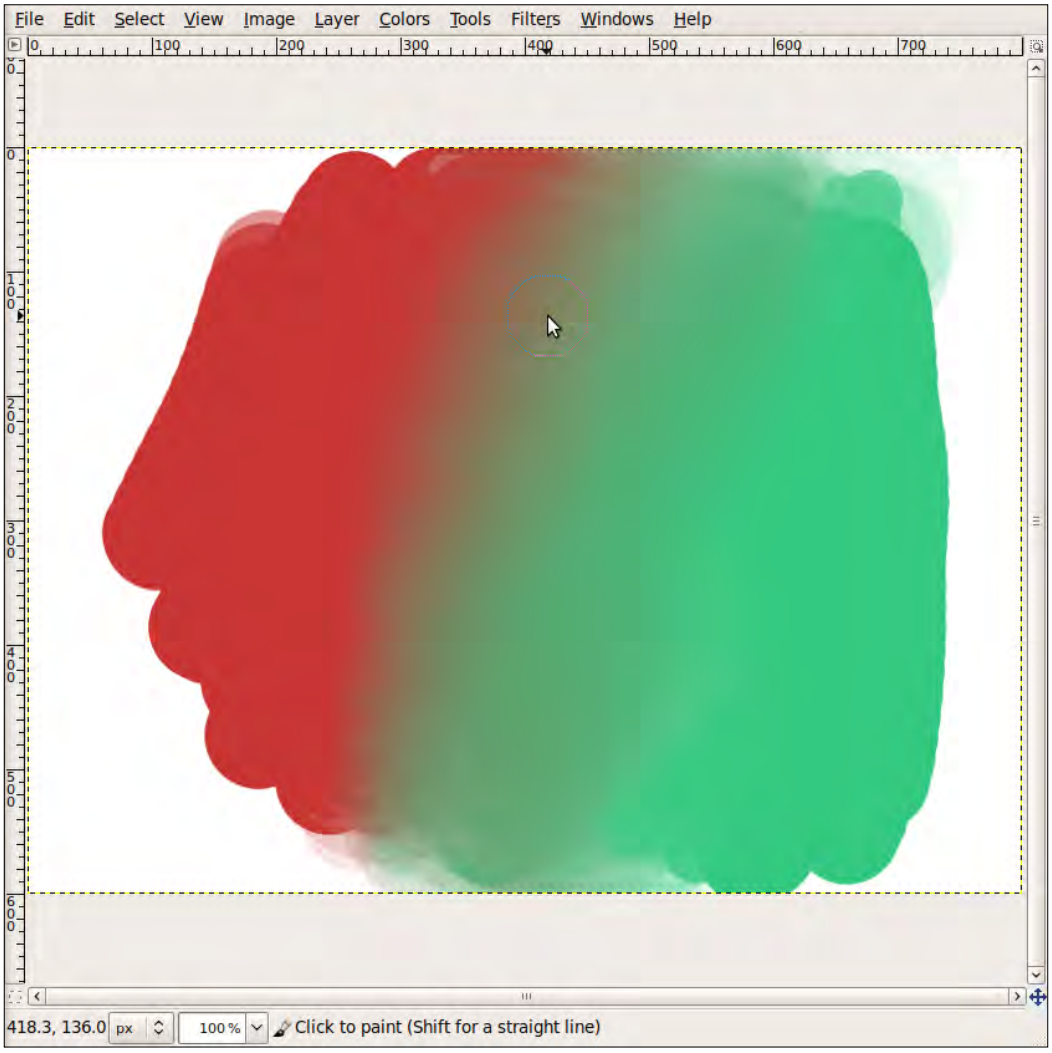

3. Reduce the size of the brush, and pick the lightest color (use the **Color Picker** on the section you just painted over); in my case, I picked a red. Use the **Color Picker Tool** (or hold down *Ctrl* and left-click while using the brush). Using the same technique, paint over the other color. In my case, I painted over the green patch on the right:




Now you just repeat the process, pick the lightest color, correct brush opacity and size, and paint it with short strokes over the opposite color. As I said, you need to practice; most of the time, you will not end with the kind of color blending you want or imagine, but after a while you'll master the tools and know what sizes and opacities work to get the best results.

4. After repeating the process a couple of times, if you need to, you can smooth everything with the **Smudge Tool:**

Vary the brush type (a fuzzy brush works best), size, and opacity, and smudge the colors until you are satisfied with the way colors intersect and blend. The result should look something like the following:



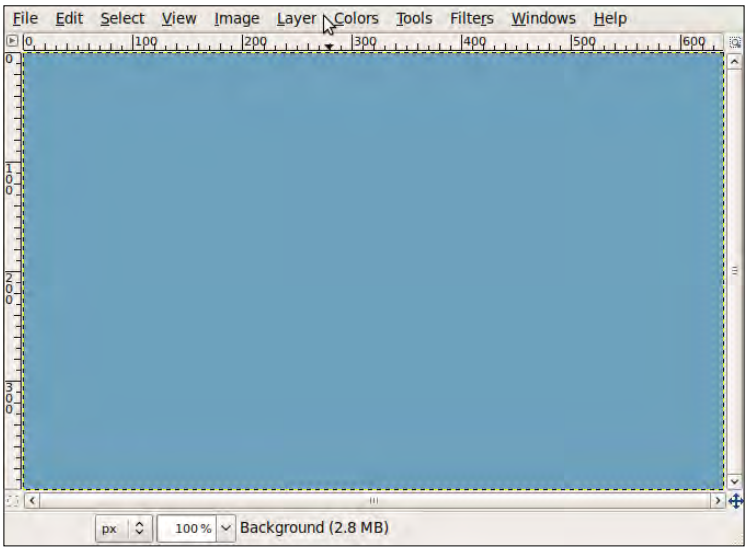

# How to paint a sky and clouds

Painting the sky is a great way to apply several techniques and continue mastering GIMP tools. If you can paint while actually watching the sky, you will develop the speed and ability to create and not only copy, something that is essential to any artist looking for his/her own style.

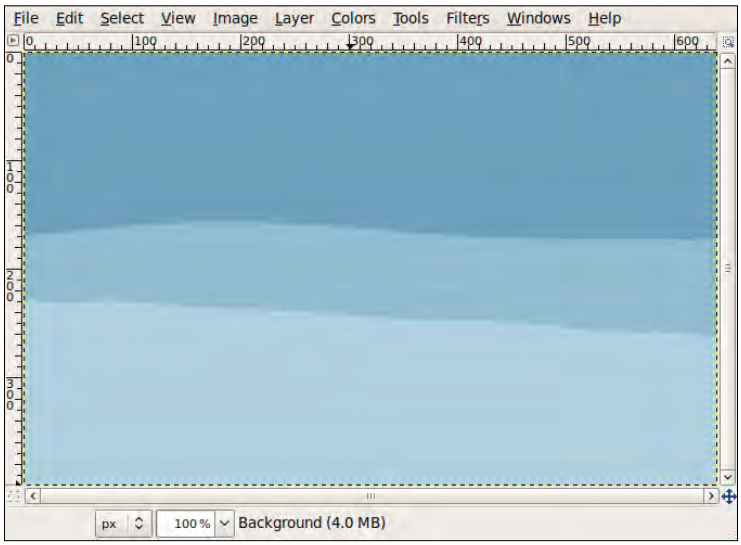
## How to do it...

Follow these simple steps to create a beautiful skyscape:

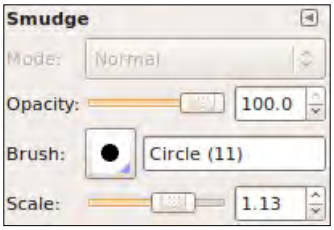
1. For this recipe, always work on the same layer. First, fill the canvas with a sky-blue color of your choice using the **Bucket Fill Tool**:

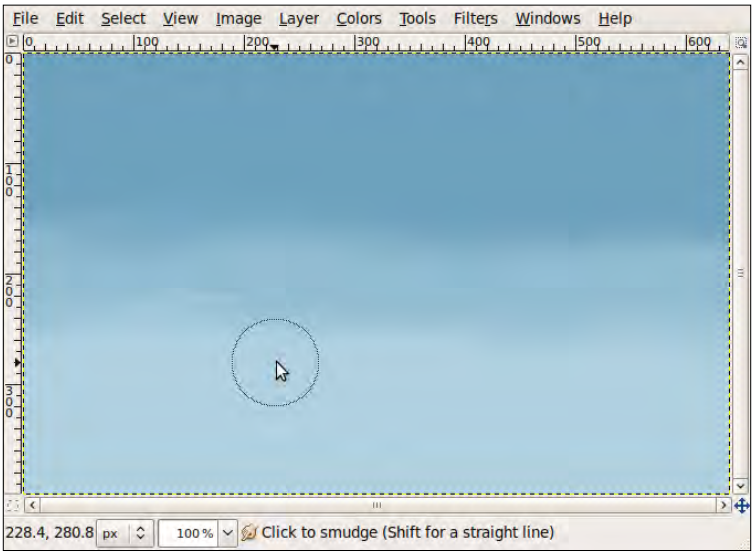



2. Now, use the **Dodge Tool** to create variations on the sky. This is the base of the clouds. If you look at the real sky, you'll notice that it tends to get brighter on the horizon.

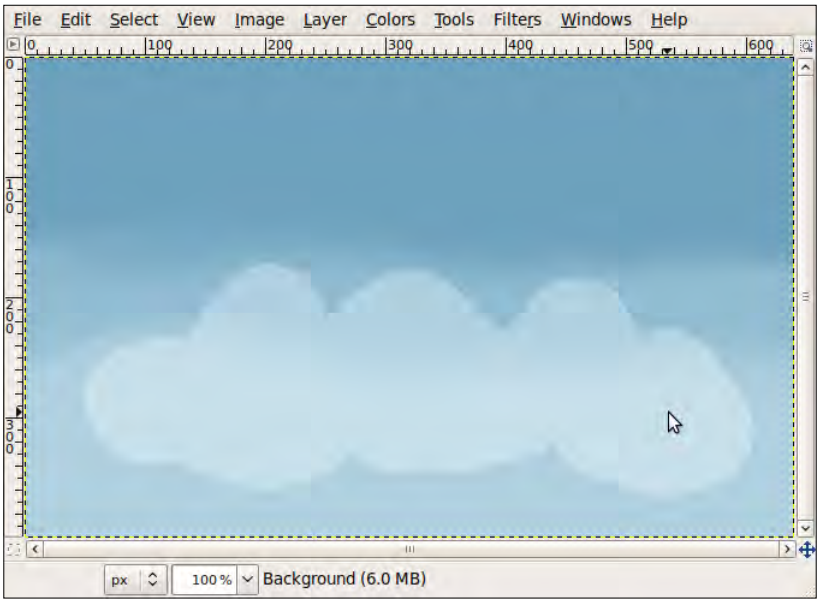


3. Quickly blend it with the **Smudge Tool**, and pay attention to the brush size, opacity, and rate. This gives different looks to each sky; makes it brighter, darker, rainy, snowy, and so on.



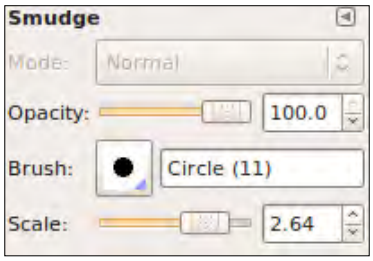




4. Now again select the **Dodge Tool** with a smaller brush, and paint a rough form of the cloud you want:

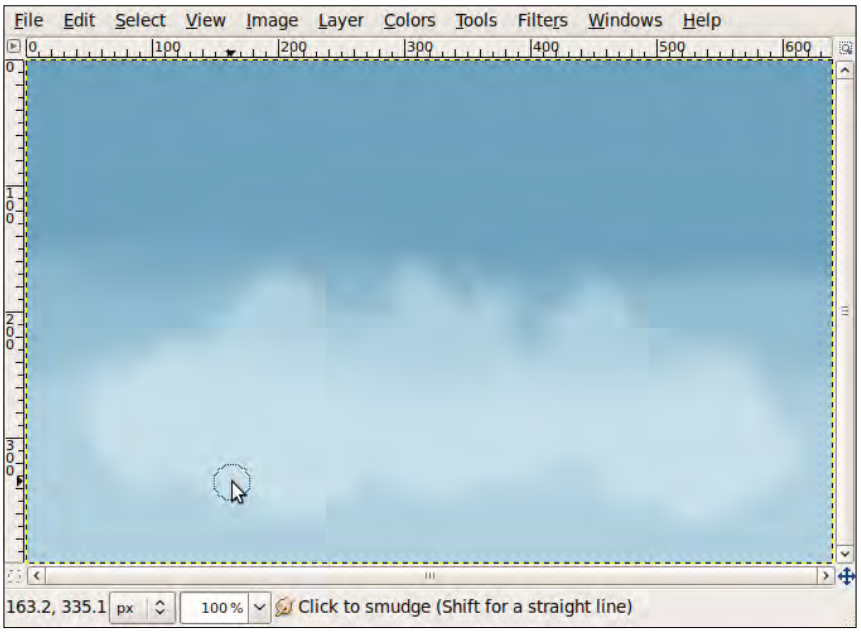



This needs to be done in a one-click motion, without lifting your finger off the mouse button. So, hold it while creating the entire cloud (outline and filling). If you let go of the mouse-button, the dodge tool will make your previous dodge look even lighter. This doesn't count as a mistake, but be aware that this can happen.

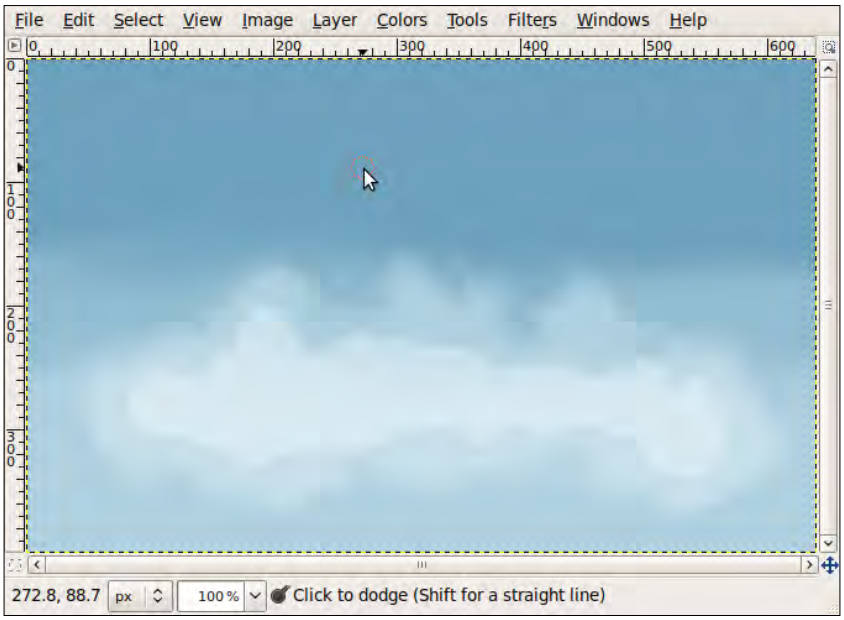
5. Now, **Smudge** it to give it a more fluffy appearance, try first with a wider **Scale**:



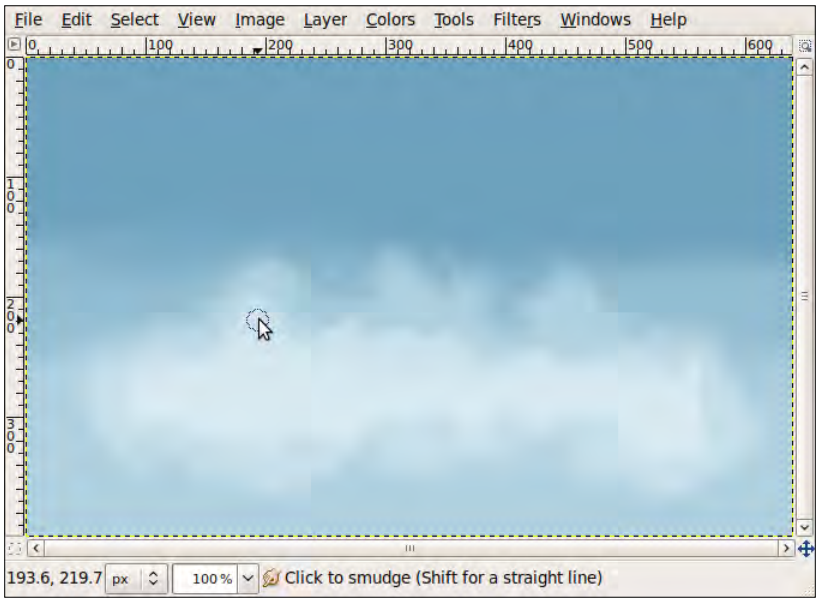
As you can see, this is starting to look like a real cloud! Now, repeat the operation a few more times until you are satisfied with your work:



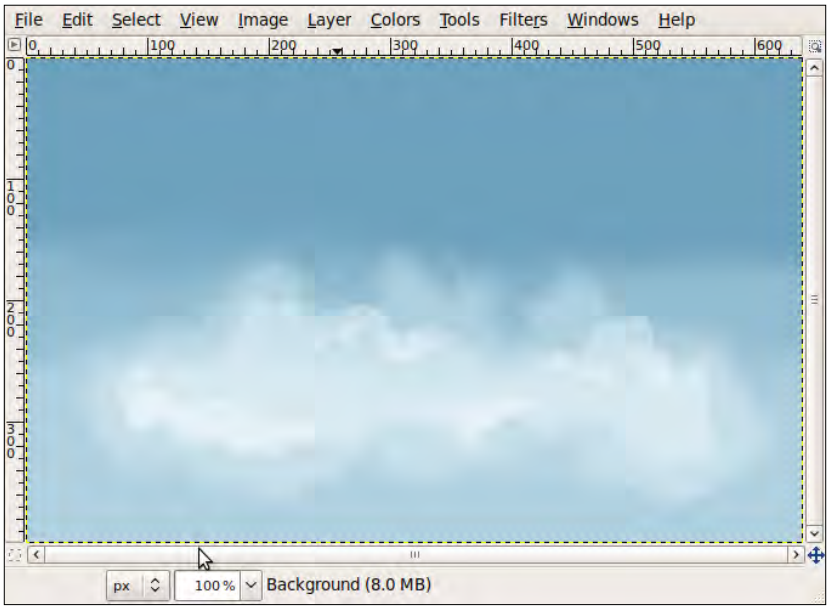

6. Use smaller brushes each time you use the **Dodge** tool



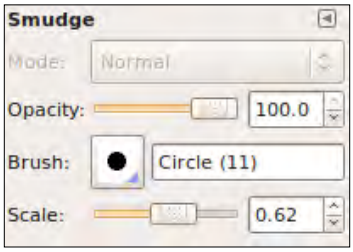
Smudge only the area where you applied the last dodge:



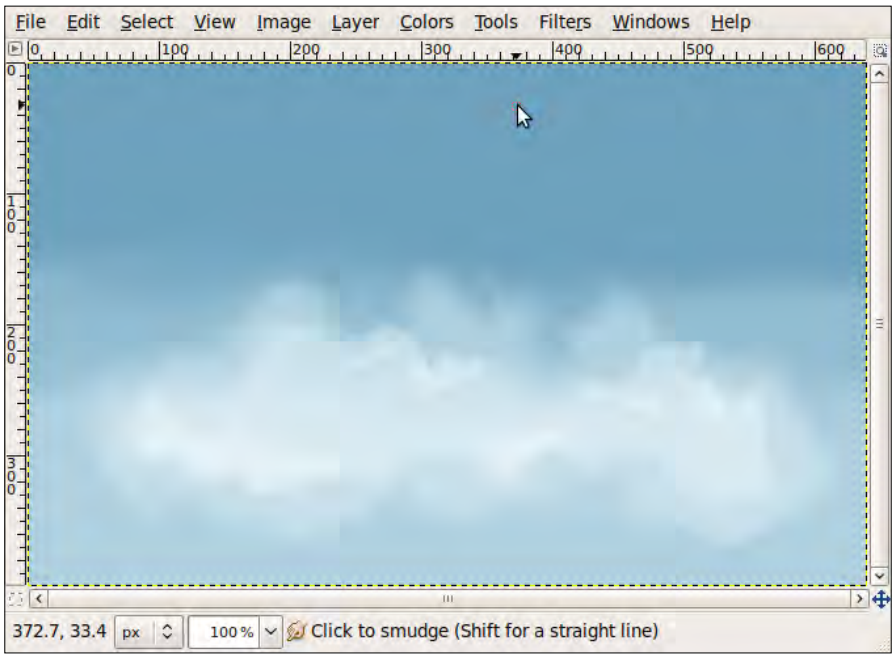

7. Now, you can start painting highlights. Just repeat the operation with smaller brushes, and paint only where you want the cloud to have more volume and brightness. Don't use thick brushes.



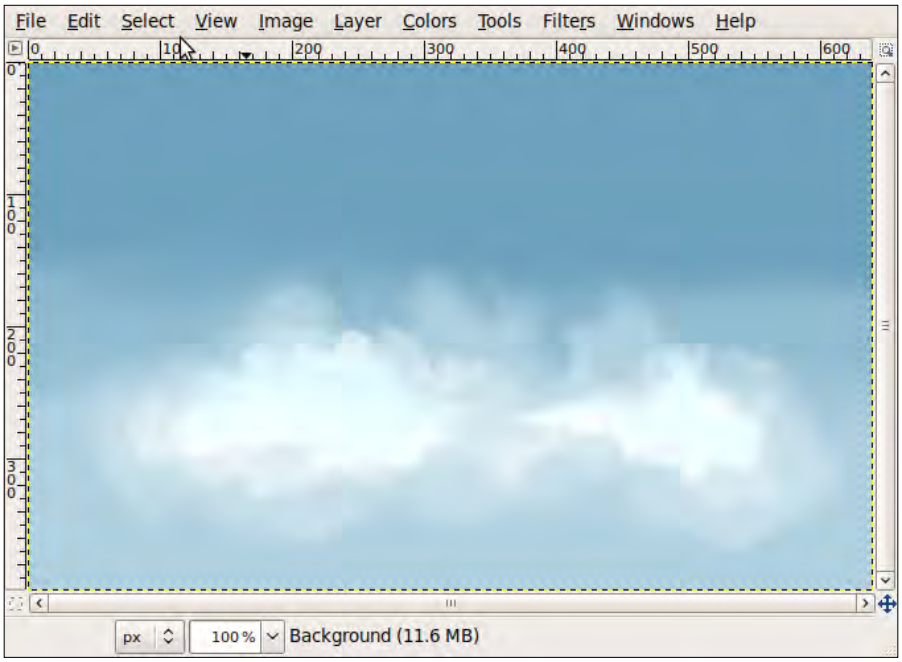
8. As before, now apply **Smudge** again. See how using a fuzzy or a solid brush completely changes how the cloud looks:




The cloud is starting to get some realistic volume now:




9. Repeat the previous two steps a few more times until you are satisfied with the result.




# From sketch to finished piece: creating a cartoon of yourself

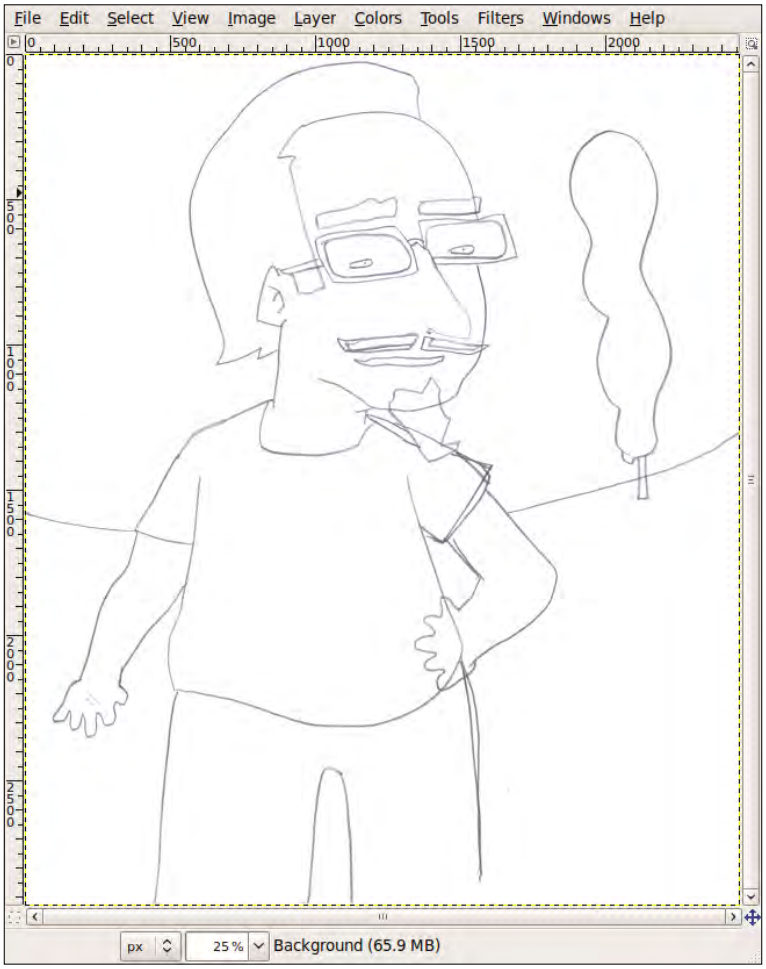
The design of a person's cartoon is based on his/her physical characteristics. This doesn't mean you should draw exaggerated features, or at least, not always. From my point of view, to draw a cartoon of any real person, I consider not only his/her characteristics, but also knowing him as a person. Chat for at least a couple of minutes, know their tone of voice, their body language, and then, just then, put everything into consideration, and start sketching, even while talking. Also, you should be careful what you exaggerate, some people may get angry or sad if you make a nose bigger or smaller, a chest or a belly too big or too small.

As I have said previously, don't try to copy what you see here, my goal is to show you how to create a cartoon using a computer program—GIMP, in this case. So, experiment, and if you get frustrated, just get a cup of tea, come back in ten minutes and continue practising until you are happy with what you see.

## How to do it...

Sometimes, inspiration or ideas don't come easy. Sometimes, you keep looking at your model or landscape and you can't start working on that white page that is starting to look bigger and bigger. Sketching, scribbling and doodling are the most natural ways for me to start working when I have a shortage of ideas. Just grab a pen, a pencil, anything, and a piece of paper, and start moving your hand. It won't be long (usually!) until you find shapes and textures that give you that wonderful idea. That's why most of the time I start my illustrations on a piece of paper. Of course you could also sketch, scribble, or doodle in a computer screen and GIMP!

1. Firstly, create a new layer, and start with a nice brush. Use the **Eraser Tool** or change the layer's **Opacity** and paint in a new one while cleaning it until you get to the base of your cartoon. For this chapter, I've created the outlines of my cartoon on paper with a 2B pencil, and then scanned the cartoon into GIMP:



2. As you can see, the outlines are not clean, many lines don't look good, other shouldn't be there, and sometimes you just want to redo them. This is an important step when creating any illustration. Here you clean the outlines to give the base of the image a professional look. However, remember, this is not a step-by-step process. You can always go back to clean (or rough it up!) at any point if you feel like it.

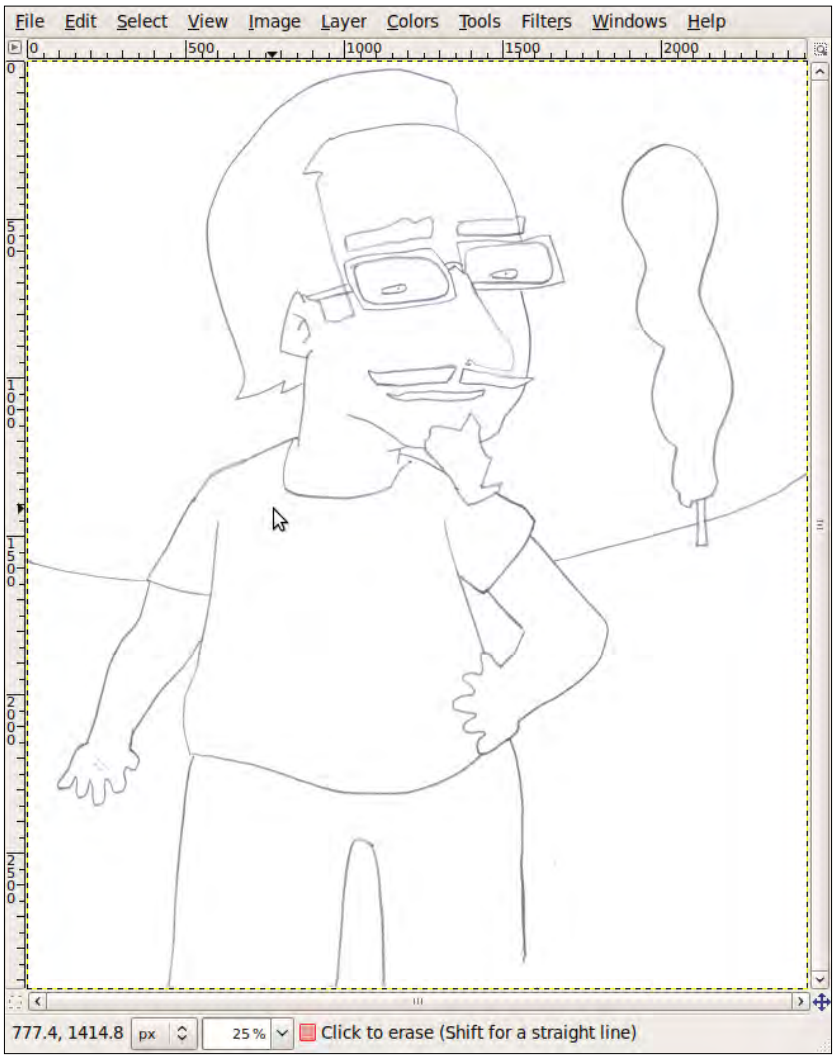
   Currently the image looks like this:

3. Use the **Eraser Tool** and the **Brush Tool** with a brush the same color as your background to remove the lines you don't want. The resultant image will have a cleaner look, like the following:

The **Zoom Tool** (+ and - on the Number Pad) is essential for this part. Use it to get a more detailed view of the outlines and to erase exactly what you want.

Always have in mind the final media where your illustration is going to be shown. Sometimes, I find myself obsessively trying to change something that nobody is going to see. I mean, that's fine if you want to hide things or just create something perfect, even if you are the only one that will notice it, but if you are on a tight schedule and just need to finish a piece of work, don't get obsessed when you are working with the zoom.

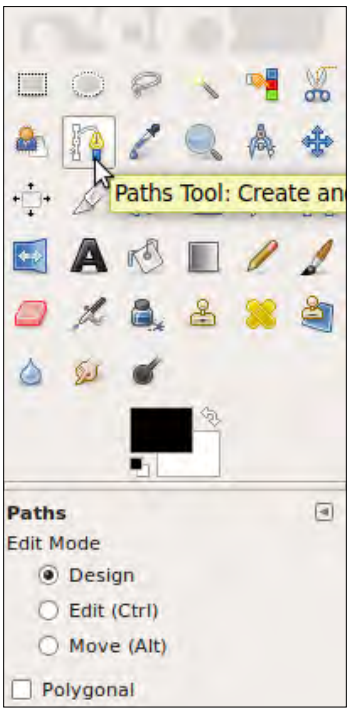
4. This is how my cleaned image looks:

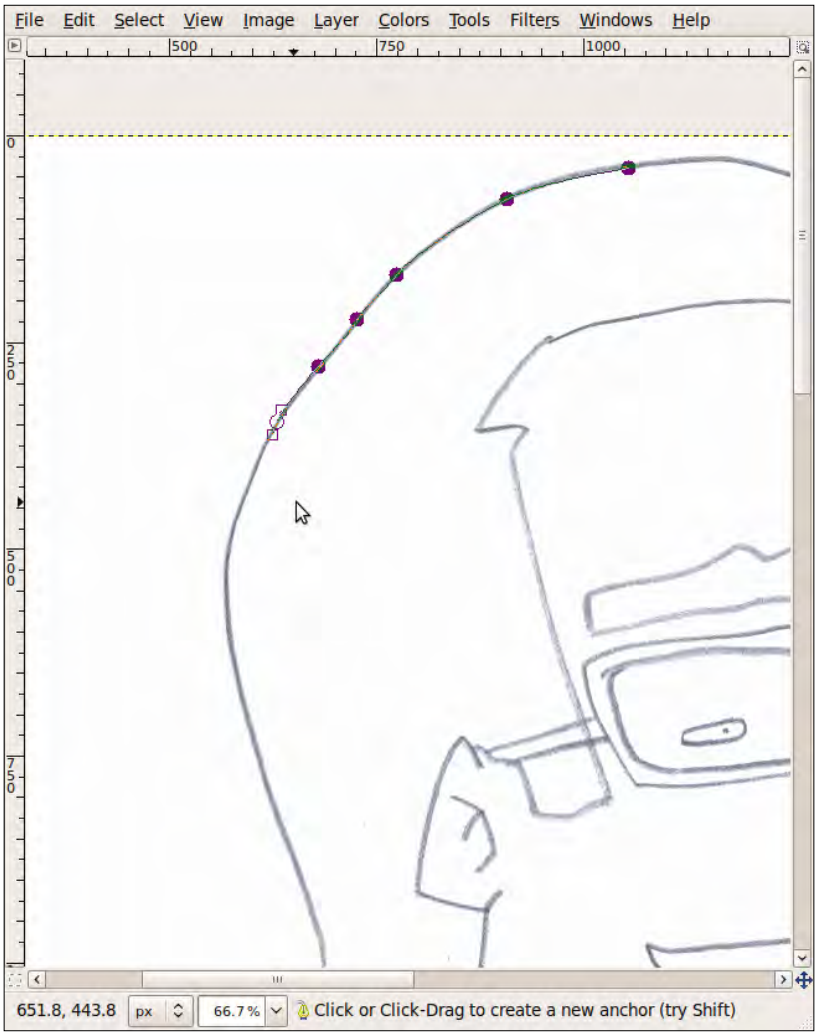


To give your picture a more standard, professional look, you should trace the pencil outlines (or even your digital sketch) and give it a smoother look. Lines should flow, giving the impression the outlines are made in a single try, with no rough edges and unions.

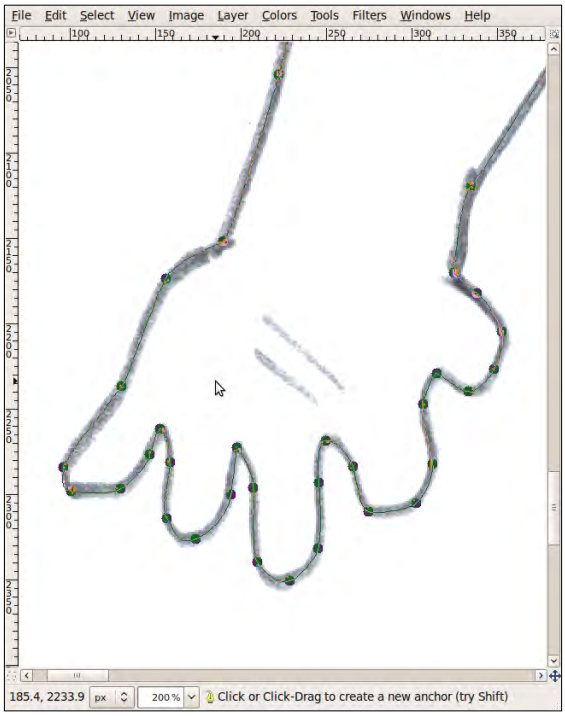
As I said, what we have seen is just a standard. In my opinion, you should look for your own style, and try to use it with your clients. I mean, most of the time I draw my own outlines on paper, or just trace them with a modulated brush (you'll need a tablet for that) after cleaning the sketch. However, this is not the case many times, so here, I'm giving you the steps to create clean outlines:

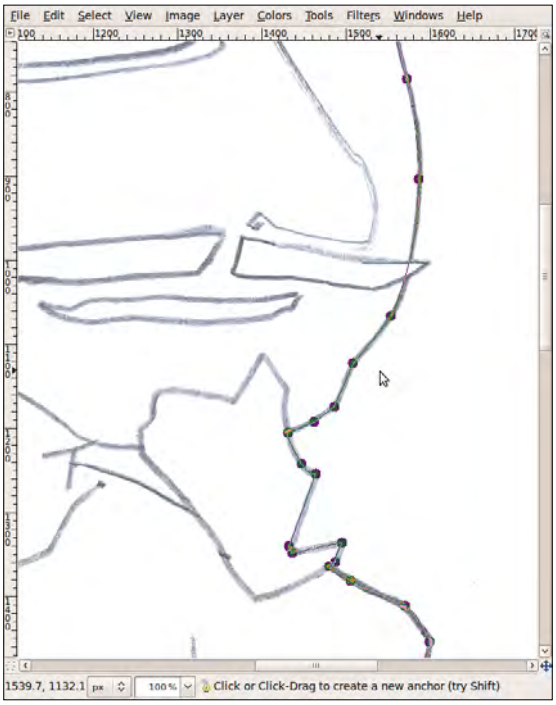
1. Select the **Path Tool** and start tracing your sketch. You can begin where you want. I usually start with the outer lines, and use the **Zoom Tool** to trace it more accurately. However, remember, don't get obsessed! You still are a long way off from the final piece!






2. Continue tracing the outer lines, and don't get messed up if you don't know where to continue when you reach an intersection, just work on the outer lines. There's no need to close the path for what we are doing now, so if you get stuck, just stop and create the stroke for the selected path, and then continue tracing.


File Edit Select View Image Layer Colors Tools Filters Windows Help
185.4, 2233.9 px 200% Click or Click-Drag to create a new anchor (try Shift)


File Edit Select View Image Layer Colors Tools Filters Windows Help
1539.7, 1132.1 px 100% Click or Click-Drag to create a new anchor (try Shift)

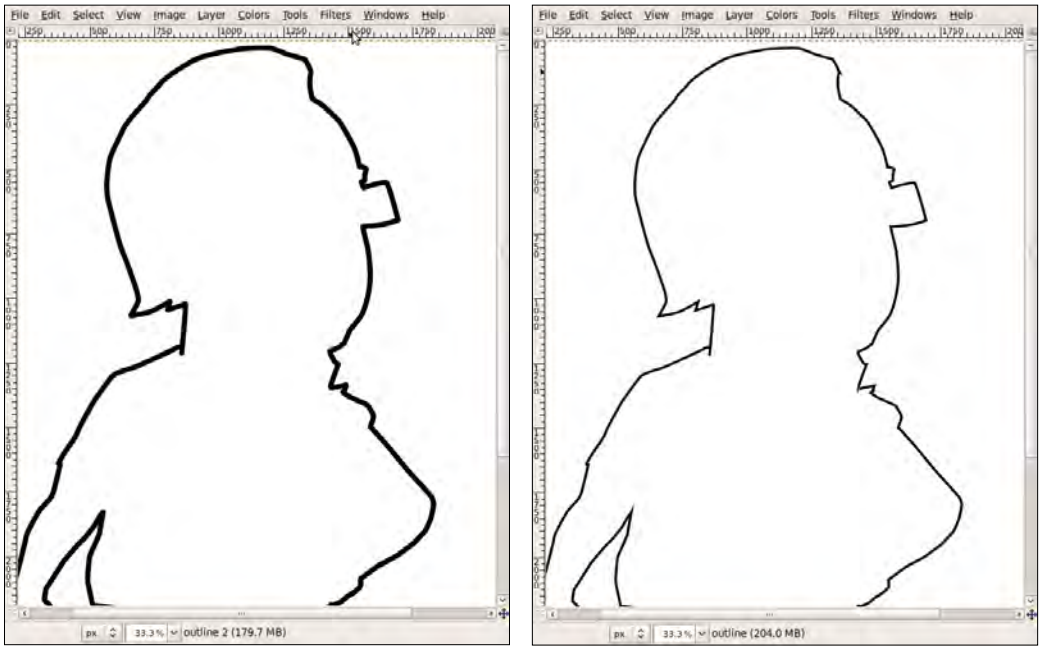
In my case, I completed all the exterior outlines before creating the strokes. You may do this at any time.

3. Continue tracing with the **Path Tool**, creating a stroke, and so on, until you cover all the sketch lines. To create the strokes, first create a new layer and name it **outline**, then click on the **Stroke Path** button inside the **Path Tool** options toolbox. A new window will pop up, where you can choose from several different ways of creating the stroke:

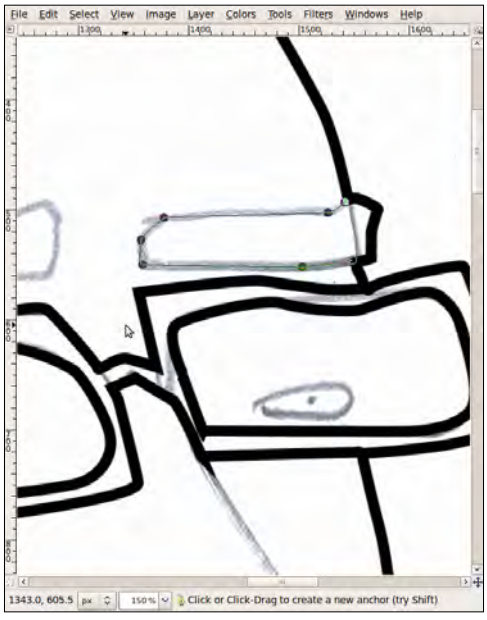
Basically, it can be a **Stroke line** or a **Stroke Line with a paint tool**. Now you make a decision, or better, try different settings, until you find one that works best for you and how you want the final piece to look.

Applying a stroke line with the **Stroke line** option produces lines with harder vertices. However, if you use the **Stroke with a paint tool** option, it gives you a little more control over the way lines behave. Select the paintbrush as the paint tool for the stroke and configure a brush with its own options to get your outline drew exactly as if you have done it yourself with a steady hand. You can even enable the brush dynamics option, which will create the stroke simulating pressure and any other options you have enabled in your brush tool settings.

Applying strokes to a path with different settings gives different looks:



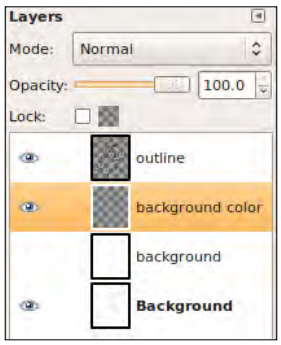

4. Continue creating the remaining strokes. Sometimes, the inner details of your characters look better with thinner lines than the ones on the outside. Experiment with different values. In my image, I used different settings for the lines around the eyes, the mouth, and the background.



This is how my outlines look after I have finished tracing everything:

Let's start painting:

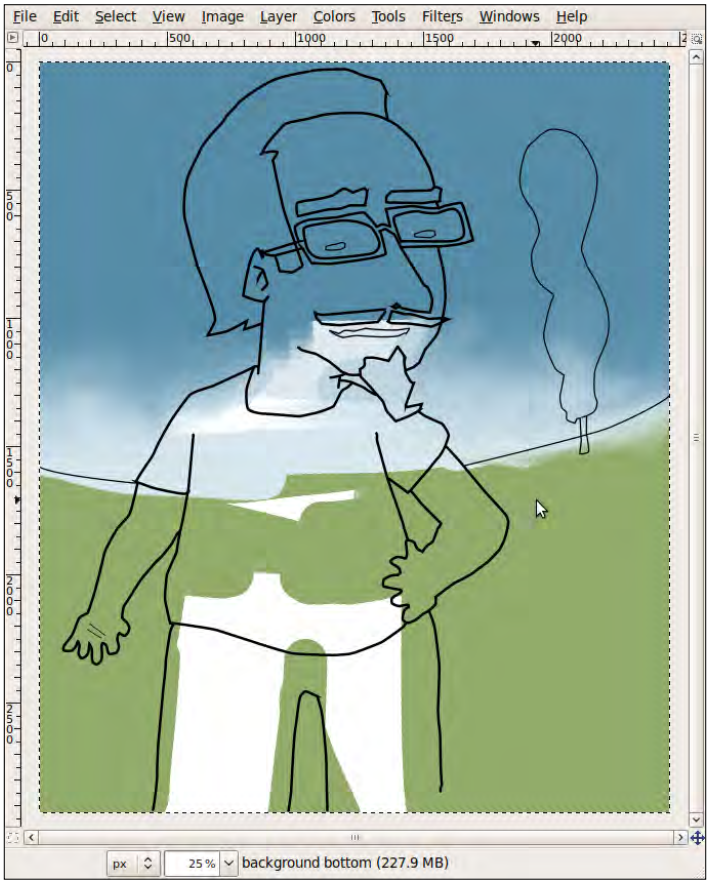
1. First, create a new layer, and name it **background color**. Place it below the **outline** layer:




   As you can see, I've also created a couple more layers to help me when cleaning and adjusting the sketch.

2. Now, pick a color for the sky and a brush, and paint it. Fill it with some clouds using the technique we learned in the previous recipe. There's no need to avoid painting inside the character because we are going to create a layer to paint over the background:

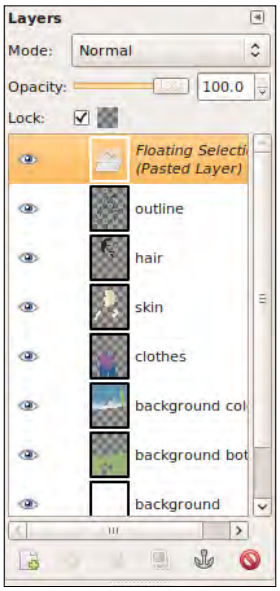
3. When you are done, create another layer, and name it **background bottom**. Place it below the **background color** layer, and paint it with a nice green. If you go over the lines just use the **Eraser Tool** to adjust the limits, use the **Zoom Tool** to work with greater accuracy.



4. Now, go back to the **background color** layer, adjust your brush, and paint the little tree on the right. Using the **Fuzzy Select Tool**, left-click on the tree color to select it. This is a quick way to paint inside a specific part of the drawing without touching the surrounding colors. If what you need to paint is complex, you could also create a new layer and paint on it to avoid painting over an area that you think is already finished. This is not the case; you are just painting a small part of the tree with a lighter green. Use a small brush to paint it. If you want to practice, try to blend these two colors. This is the tree without blending it's colors:

For this example, I choose to leave the two colors separated:

5. Now, you just have to apply the same process we did for the background to the character. Create a few more new layers like **hair**, **skin**, **clothes** and go for it!



6. You have enough information now to experiment with colors, brush sizes, dodge, and burn, so go paint your character, and come back when you are finished. Here is my painted illustration, just in case you need some inspiration:

You could also add a few shadows, I added a small one for the tree in the background. For the skin and clothes use the same technique as with the tree.

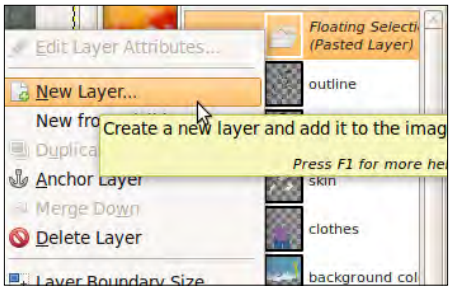
7. Use the **Fuzzy Select Tool** to select the color (if the color is not contiguous you can always add to the existing selection, pressing **Shift** or changing the tool mode in it's options box). Then, pick a lighter or darker tone for the color you want to add to the shadow or the highlight, and paint it in the same layer (or create a new one if you really want to keep things ordered).

Be careful with shadows. Try to make them consistent with the light source, or if you don't want to do that, make them very inconsistent, so as to not give a chance to the observer to think that you made a mistake while drawing. In my case, light should come from the back of the character, but I always prefer to introduce a little confusion and paint shadows that give the character a stranger appearance.

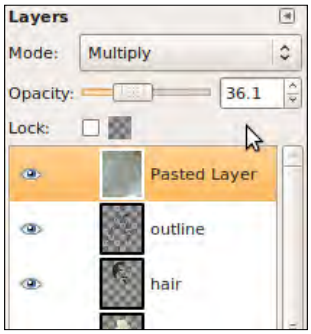
You can consider your picture finished, but you can always experiment a little more! In my case, I like to play with textures, I'm always putting strange things in my scanner to create weird textures that give any illustration the strange, worn out, vintage, retro, grunge style that I like!

1. So to really finish my illustration I picked a royalty-free texture from the Internet and pasted it into the image:

2. I know, that doesn't look good, but wait. Use any of the transform tools (**Move**, **Rotate**, **Scale**, and so on) to change the texture shape and cover everything: Basically, select the **Scale tool** and click on the texture. Then, drag the corners of the texture image until it completely covers the canvas. Use the *Ctrl* key if you want to keep the texture's proportions). Then right-click the texture's layer and choose **New Layer** to convert it to a normal layer:




3. Now, change its mode to **Multiply**, and change its **opacity** to a value that works for you, and there. The cartoon is complete!




Here is my final piece:

# 2
# Image Filters and Effects

In this chapter, we will cover:

- Using Blur
- Using Distorts
- Using Light and Shadow
- Using Noise
- Using Edge-Detect
- Using Artistic
- Using Decor
- Using Map
- Using Render (Pattern)
- Using web design-oriented filters
- Using logo-creation filters

## Introduction

In GIMP, filters are a special type of plugins designed to modify an image. Usually, the filter works by taking the active layer (or a selection) as input and modifying it with a mathematical algorithm. The result is the modified layer, but a few filters have the option of creating a new layer with the result.

Several effects can be applied with the different filters GIMP provides; you can find them in the **Filters** menu, and they are organized in categories:

- **Blur**
- **Enhance**
- **Distort**
- **Light and Shadow**
- **Noise**
- **Edge-Detect**
- **Generic**
- **Combine**
- **Artistic**
- **Decor**
- **Map**
- **Rendering**
- **Web**
- **Animation**
- **Alpha to Logo**

Each category contains several filters; each one modifies images with different parameters and algorithms. Most of the filters have a *preview* option; which enables you to check the effect of the plugin before applying it, and save time. Anyway, remember that you always have the **Undo** (*Ctrl + Z*) operation to go back in time, and cancel the last operation. All the effects and plugins have their own filter window, which can be moved and resized to have a better preview of the changes the filter makes on the original image.

This chapter's goal is not to teach you how to use every filter and all of their options—this is not a reference manual. I'll show you a few of the most useful filters for illustrators and designers that can save you time and effort in completing your work. As I've told you many times now: experiment, try different things and learn when things don't end looking the way you wanted.

I'll be using the same picture most of the time; so you can compare results when applying filters of the same kind—say hello to Ron and Leeloo:

# Using Blur

Blur filters apply a blur to the active layer of an image or to a selection, if one is created. There are six different blur filters in GIMP 2.6, each one with its own options.

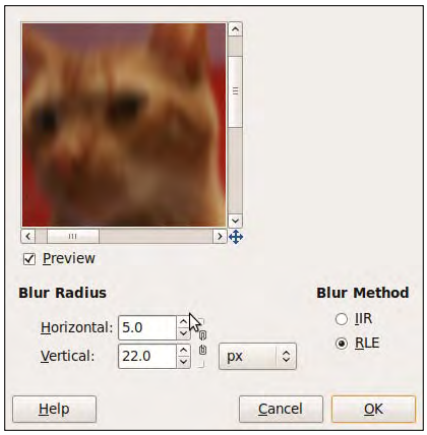
## How to do it...

The basic steps for applying any blur filter are the same:

1. Open any existing image.
2. If you want to apply the effect to an area of the image use any of the **Selection Tools** (Optional).
3. Choose any of the **Blur** filters, modify parameters, and apply.

The basic **Blur** effect (**Filters** | **Blur** | **Blur**) is a quick-with-no-options blur. It automatically adds a simple blur that softens the image. The **Gaussian Blur** (**Filters** | **Blur** | **Gaussian Blur**) offers more control. With it you can choose the blur radius (this means the amount of blur) for each coordinate, along with the method by which it is generated; IIR works best for large blur radius and images which are not computer generated, and RLE works best with computer-generated pictures with large areas of the same color.

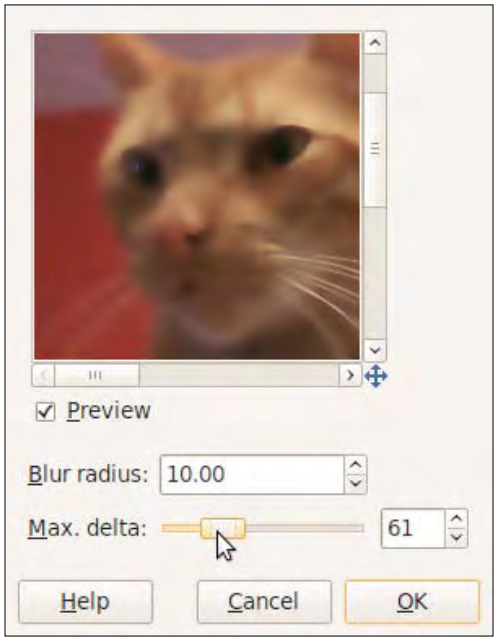
The following is the **Gaussian Blur** configuration window, where you can control the amount of blur on each coordinate:




After applying **Gaussian Blur**, our image will look like the following:

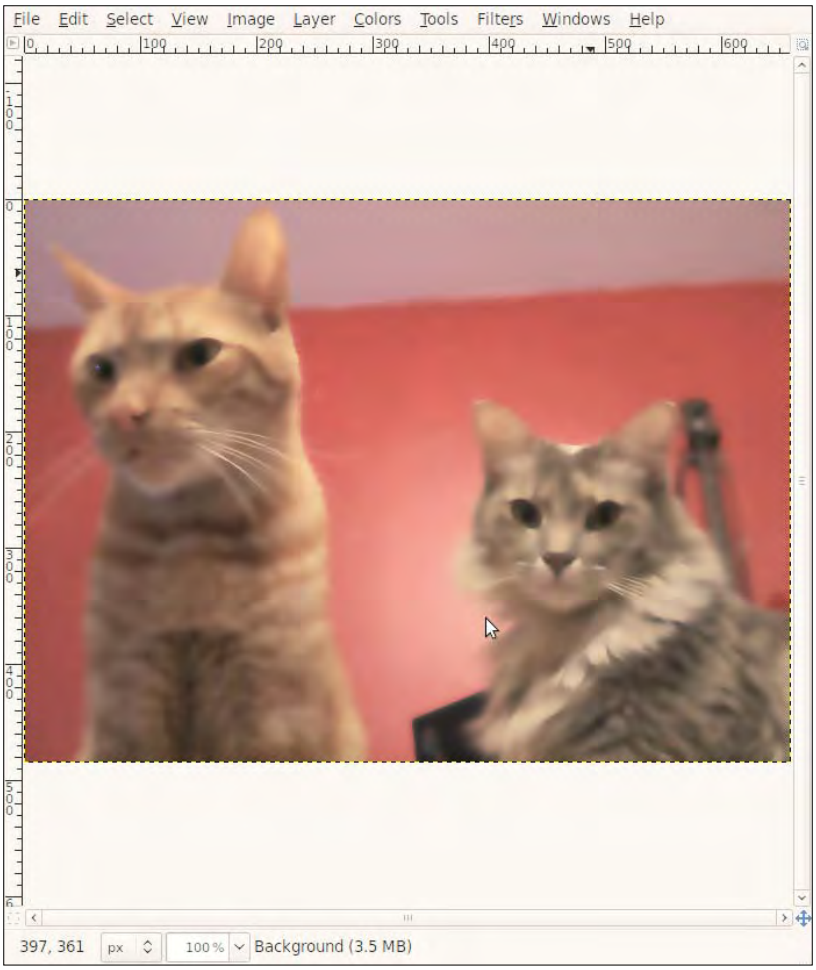
There's also the option of using **Selective Gaussian Blur** (**Filters** | **Blur** | **Selective Gaussian Blur**), where blur is applied if the pixel's value is less than the value in the **Delta** field of the options, and you can use it to give your pictures some sort of depth.

The following is the **Selective Gaussian Blur** configuration window:



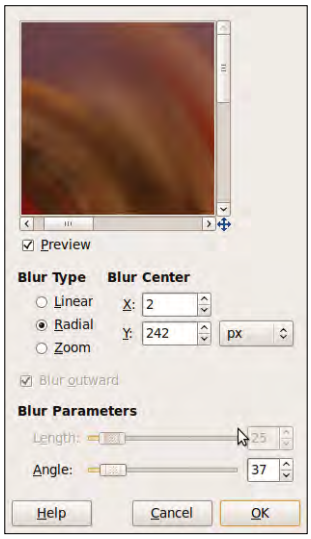
If the color value of the pixel is above the value set in the **Delta** field, the blur is not applied to that pixel.

On applying **Selective Gaussian Blur**, our image will look like the following:




**Motion Blur** simulates the blur generated by movement. You can set it to **Linear**, **Radial**, or **Zoom** along with its **length** and **angle.** The **Blur Center** option is where the blur starts (Radial Blur). You can't set it in the preview window.

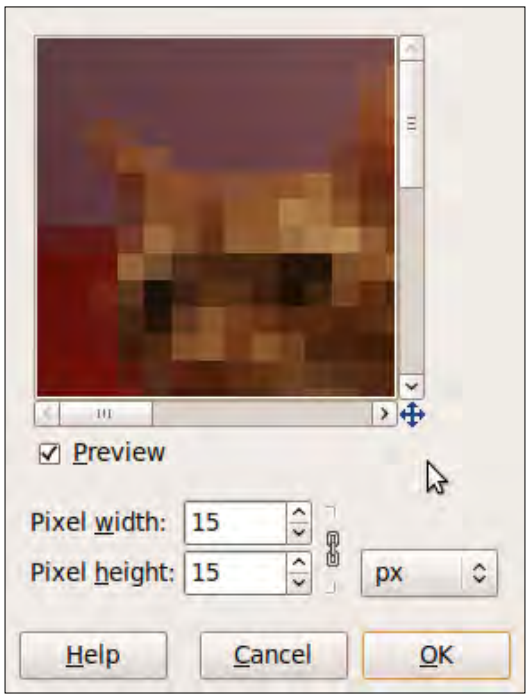
The following is the **Motion Blur** configuration window:




Applying **Motion Blur** would make our image look like the following:

**Pixelize** works more as a distortion filter but it generates an effect that I really like. You set how big you want your pixels and it sets them in color blocks:

The following is the **Pixelize** configuration window:



Applying **Pixelize** produces the following result:

# Using Distorts

**Distort** filters modify your image or selection in many different ways.

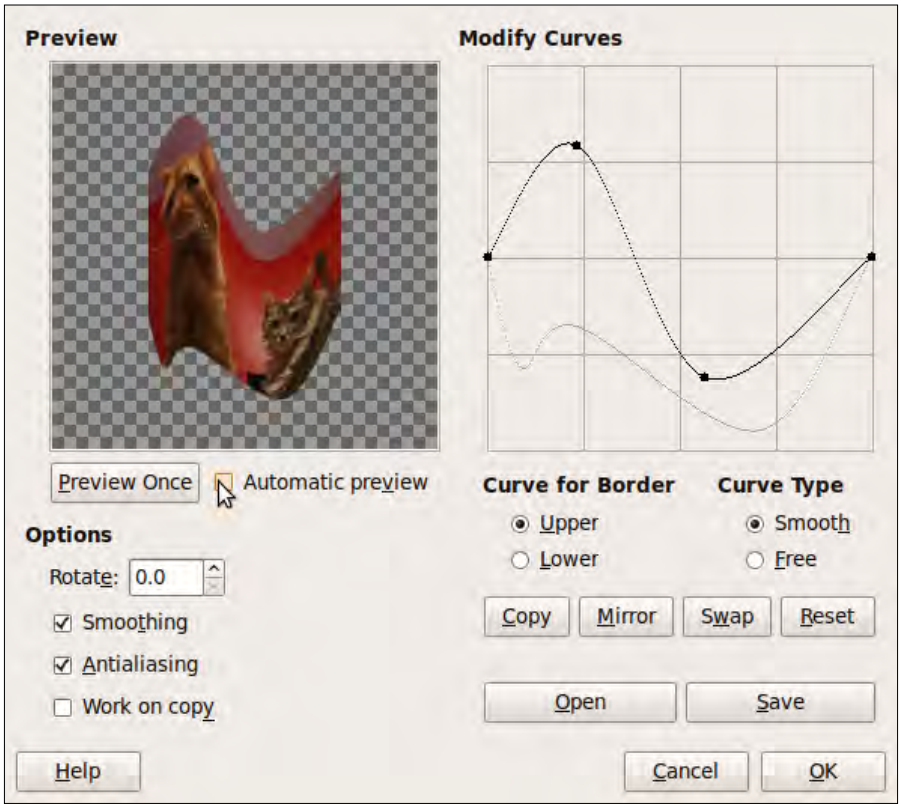
## How to do it...

The basic steps for applying any distortion filter are the same:

1. Open any existing image.
2. If you want to apply the effect to a specific area use the **Selection Tool** (Optional).
3. Choose any of the **Distort** filters, modify parameters, and apply.

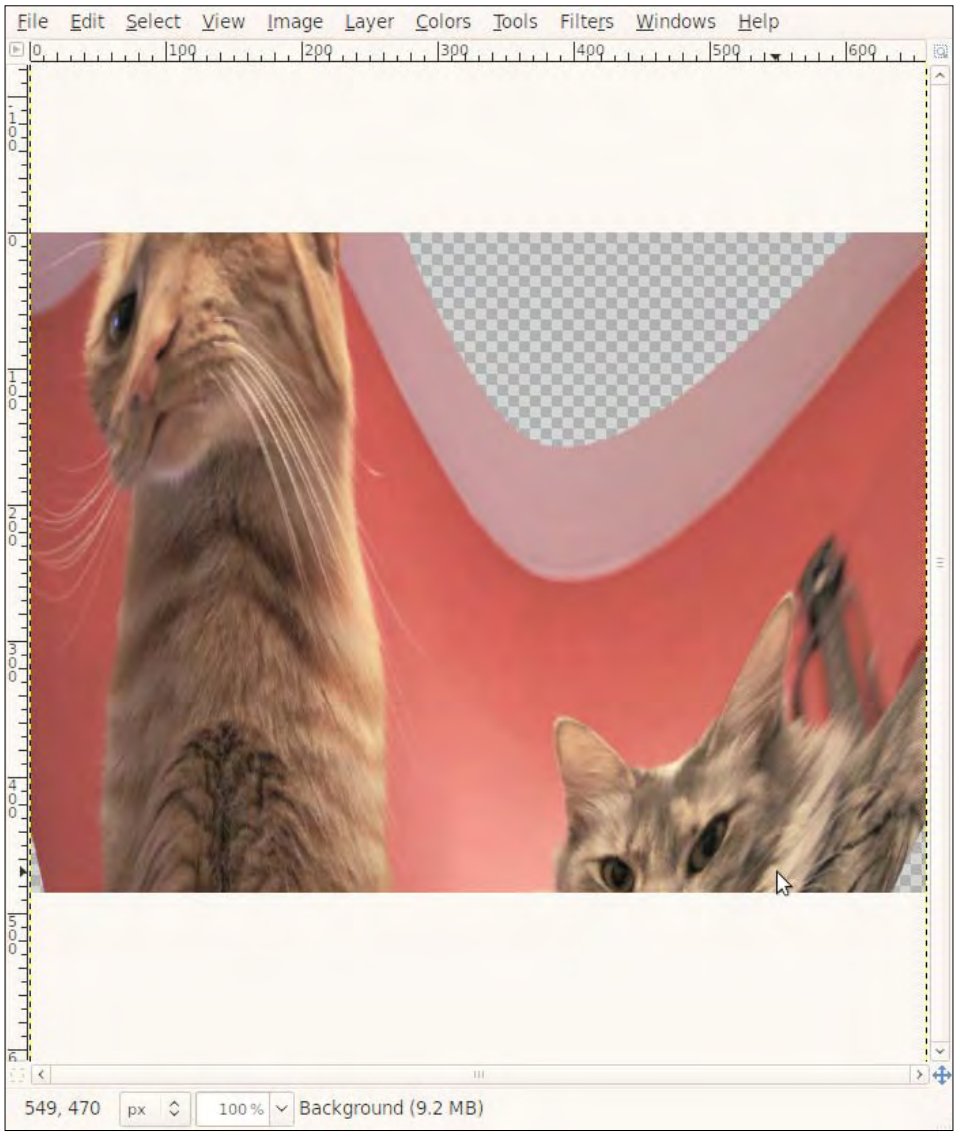
**Curve Bend** is a quick way to alter an image or selection in no time, and get good results. The result is applied from one border to the other.

The following is the **Curve Bend** configuration window:



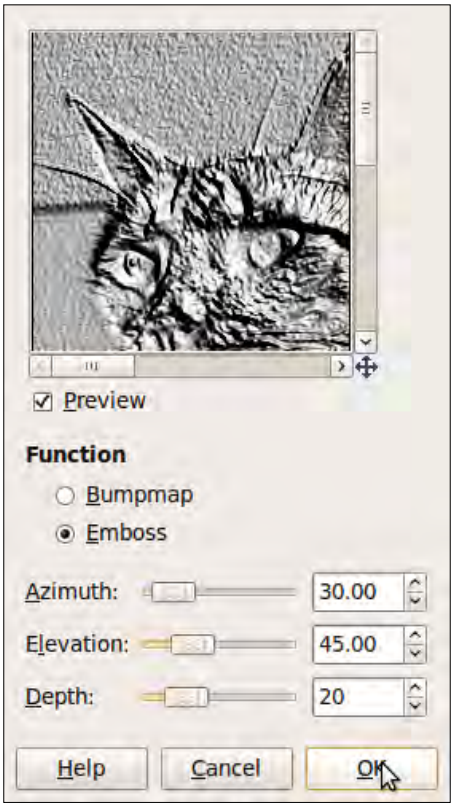

The quickest way to use it is to click and drag inside the **Modify Curves** grid after enabling the **Automatic preview** option. However, be careful, if you have a slow computer or create complex curves, the preview can take more than just a few seconds to complete.

Applying the following curve should produce an image like the following:




The **Emboss** filter converts bright areas of your image or selection to bumps, and dark areas to hollow points, giving it the impression of being carved or stamped.

In the **Emboss** configuration window you can control different values. **Azimuth** sets the angle of the light counter-clockwise, **Elevation** sets the height of the light in degrees (from 0 to 180), and **Depth** sets the distance of the light source:

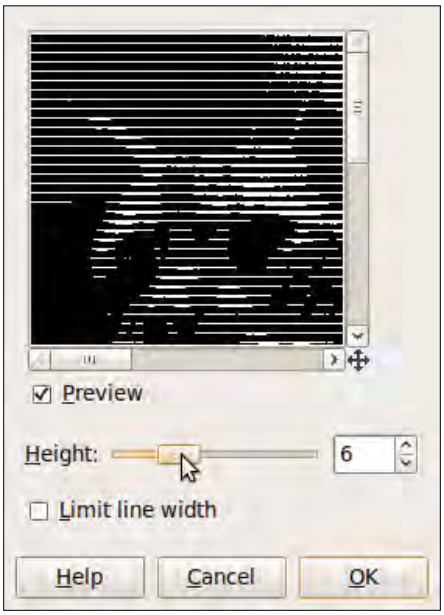



Keep in mind this filter only works with images in RGB mode. You can change its mode using the **Image** | **Mode** menu option.

Applying **Emboss** with the shown values will produce the following result:

There are a few filters that need an alpha channel to work. This is the case of the **Engrave** filter, which converts the image to black and white with horizontal lines that change height, depending on the value of the pixels below it. To add an alpha channel to an image, go to **Layer** | **Transparency** | **Add Alpha Channel**. Then, you can apply the filter as always.

The **Engrave** configuration window looks like the following:

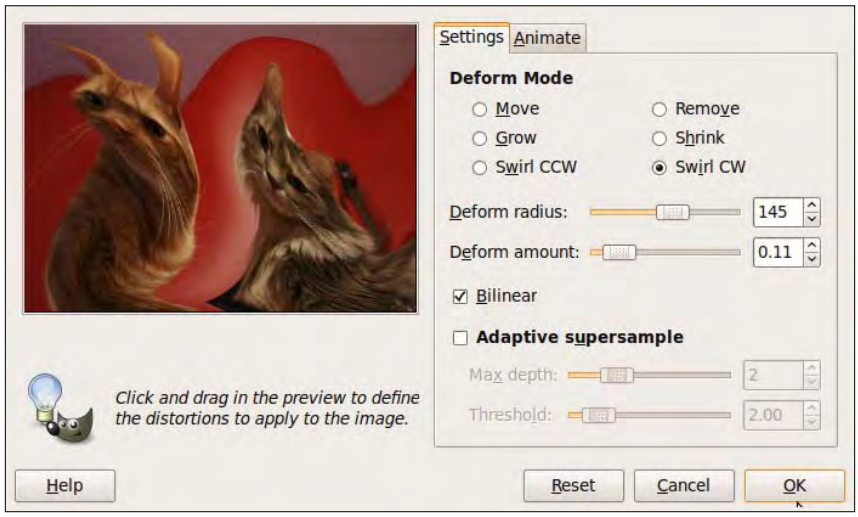


Each pixel contains not only information about its own color, but also about its transparency level. When two pixels are overlaid one on top of the other, the transparency data is used to know how the pixels should be colored. This transparency information is called the **Alpha Channel**. Usually you don't define the alpha channel on a pixel-by-pixel basis, but on the overall image/selection to set different transparent areas.

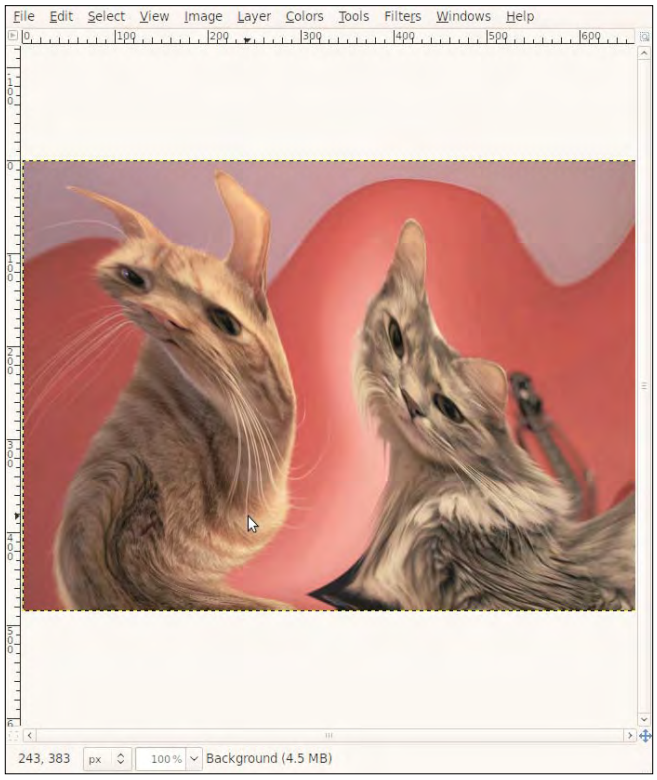
On applying **Engrave** with the shown values, we get the following resultant image:

The **IWarp** filter works as an advanced Curve Bend; it allows you to interactively deform your image. It has an animation option that quickly allows you to create an animation that fades the deformation in and out.

The following is the **IWarp** configuration window:



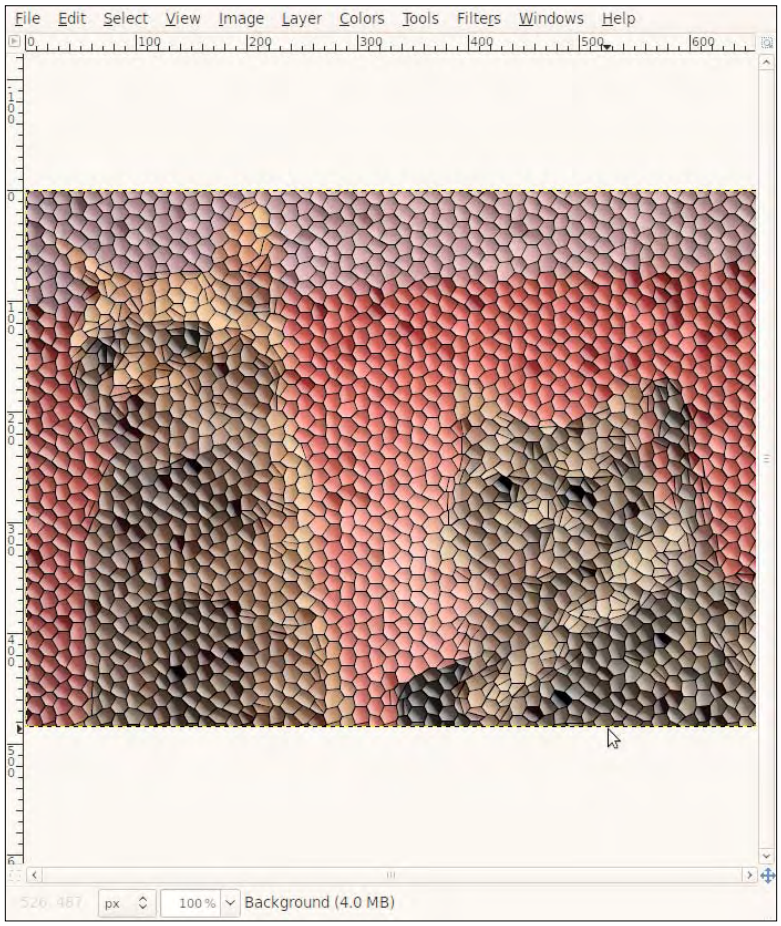

Applying **IWarp** would produce a result similar to the following:



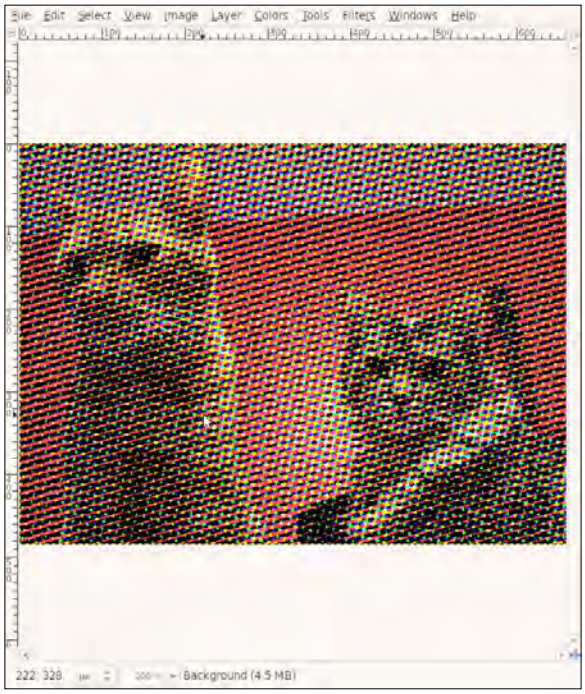
You have now read a little about the **Distort** filters; these are just a few examples of some of them. Go practice and experiment!

The **Lens Distortion** filter simulates and can correct the distortions introduced by camera lenses. We can compensate for the fisheye effect produced by some lenses, or introduce our own:

The **Mosaic** filter creates 3D joined polygons as if the image was a tiled mosaic:




The **Newsprint** filter creates dots, reducing resolution but increasing the apparent tone depth. This is useful when printing with a device with not many tones; but hey, it also creates a nice effect:

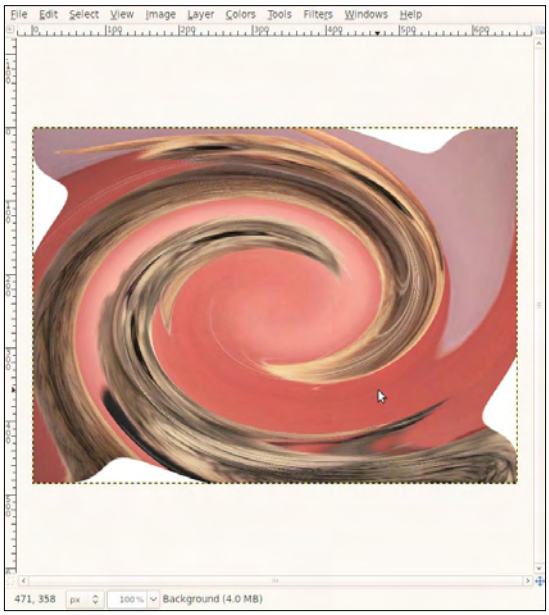



The **Ripple** filter creates waves, as if the image was a reflection on moving water:

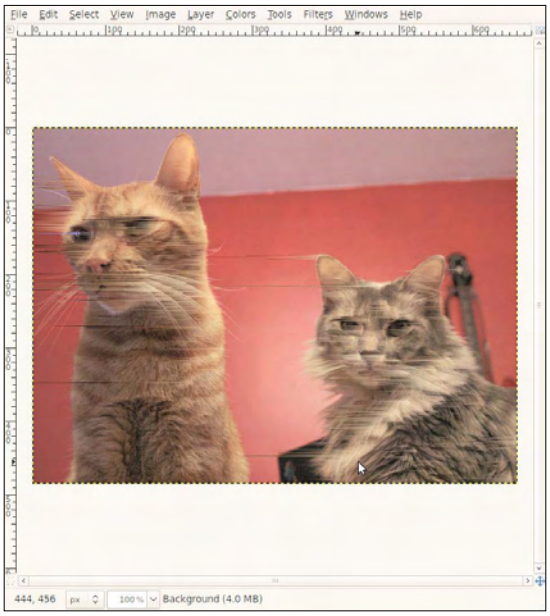
The **Video filter** simulates the scan lines of a video file:

The **Waves** filter creates radial waves around the center of the image or selection simulating the effect of ripples in a pool of water:

The **Whirl and Pinch** filter distorts the image in a spiral (whirl) and as if it was pinched toward or from the screen (pinch):




The **Wind** filter detects edges and adds black or white lines from them. This can be another way to give the illusion of movement:



# Using Light and Shadow

These filters are separated in three main groups; the first group is for creating illumination effects, the second holds scripts to render shadows, and the third is used to make the image look as if seen through a lens or a glass tile.

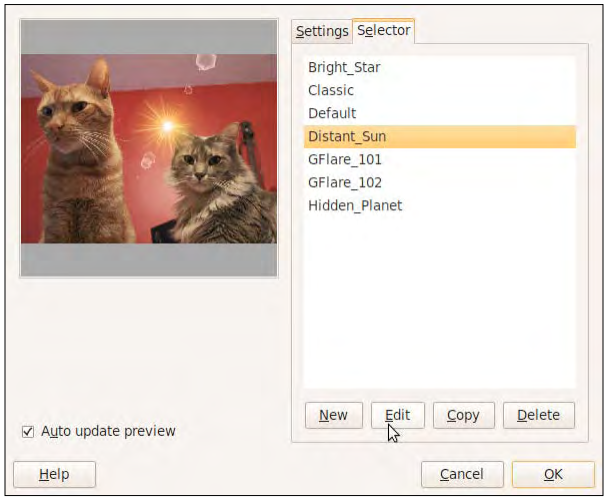
## How to do it...

The basic steps for applying any **Light and Shadow** filters are the same:

1. Open any existing image.
2. If you want to apply the effect to an area of it, use any **Selection Tool** (Optional).
3. Choose any of the **Light and Shadow** filters, modify parameters, and apply.

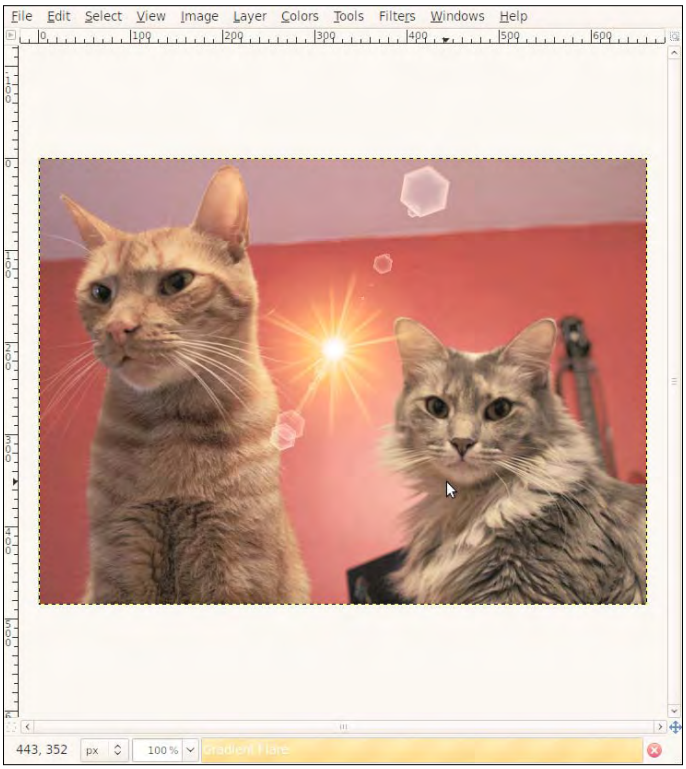
The **Gradient Flare** filter has lots of options. It consists of three separate pieces: the center glow, rays, and flares. Each one has its own properties and options:

The **Gradient Flare** configuration window looks like the following:



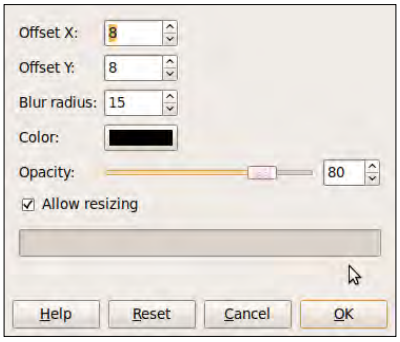

By clicking **Edit** inside the **Selector** tab, we can edit all the settings on how each component of the flare behaves: the glow, the rays, and any other secondary flare we want to include. Most of the presets work very well if you are short of time and want quick results, but you should at least play a little with the sliders just to get a custom result a little more coherent with the original image. Work with the colors, the real light sources, take a photo pointing your camera to a light source, see how real flares are created, and work from there!

After applying **Gradient Flare** our image looks like the following:




The **Drop Shadow** filter is a quick way to make a layer or selection cast a shadow over a background. This is useful for web developers and designers when creating backgrounds or borders.

The following is the **Drop Shadow** configuration window:



With this filter, you can give your image a simple 3D look. If the **Allow resizing** option is enabled, the image is automatically scaled to show the shadow. You can also control its position, color, and size:

# Using Noise

These are some of my favorite filters. I already told you that I like textures and dirt. Most of the time, I work with my own scanned textures, or paint the dust and scratches, but by working a little with the different options, there's always some time to save. Some of these filters apply random noise to the image or selection (like **Hurl** or **RGB Noise**), while others have more selective algorithms which allow you to not only give texture to your image but also give it an impressionistic look while still keeping its colors and forms (like **Pick**, **Slur**, or **Spread**).

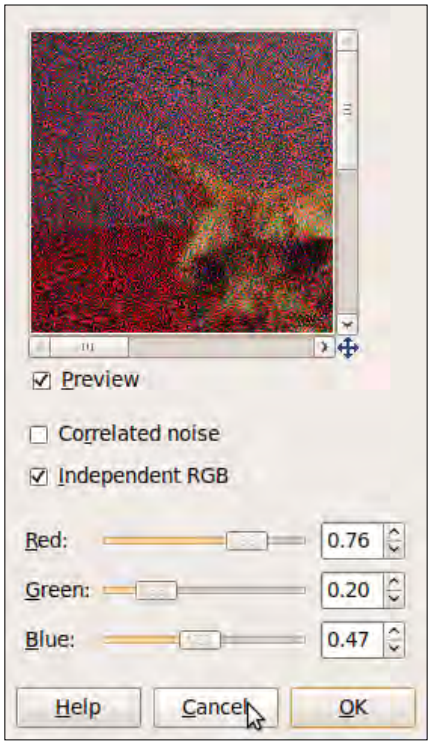
## How to do it...

Adding **Noise** can be done by following these simple steps:

1. Open any existing image.
2. If you want to apply the effect to an area of it use the **Selection Tool** (Optional).
3. Choose any of the **Noise** filters, modify parameters, and apply.

The **RGB Noise** filter adds noise to a layer or selection based on the modification of each color channel of every pixel. It doesn't work on images in indexed mode.

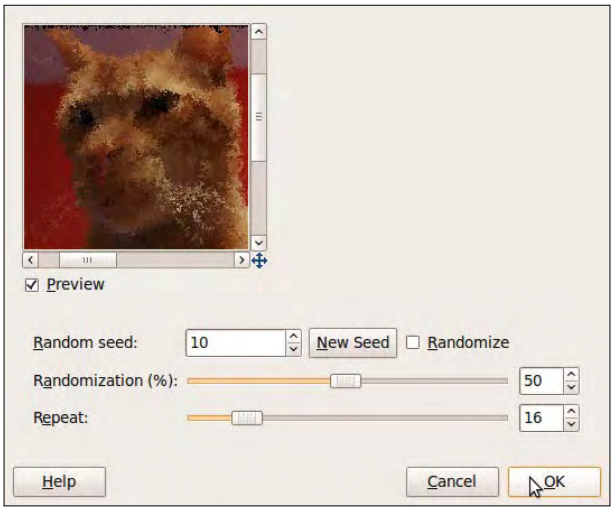
The following is the **RGB Noise** configuration window:



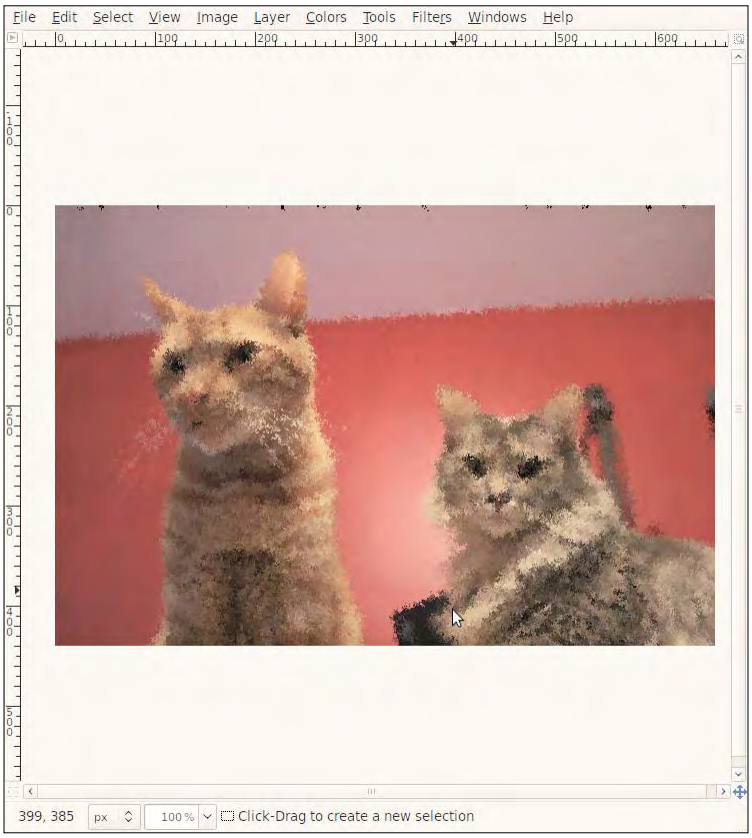
Applying **RGB Noise** would produce an image like the following:

**Pick** interchanges surrounding pixels on the active layer or selection randomly. Visually, it looks like smudging your picture with a small, thick brush; so have this filter in mind for the time you need something like this quick!

The following is the **Pick** configuration window:




On applying **Pick** the image looks like the following:



# Using Edge-Detect

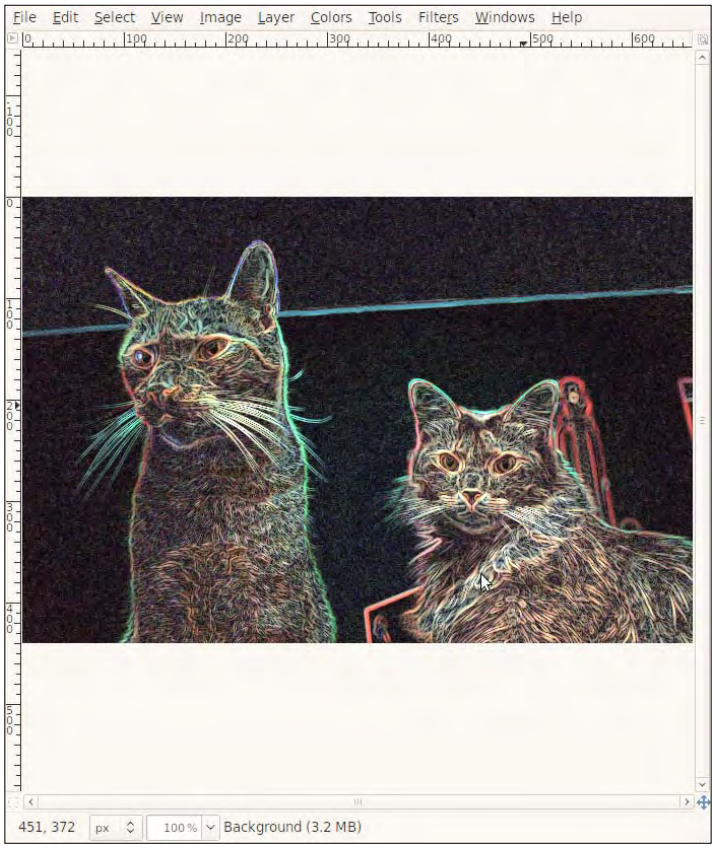
**Edge-Detect** filters not only do what they imply; as the **Noise** filters of the previous pages they provide very interesting effects that can really make your images stand out.

## How to do it...

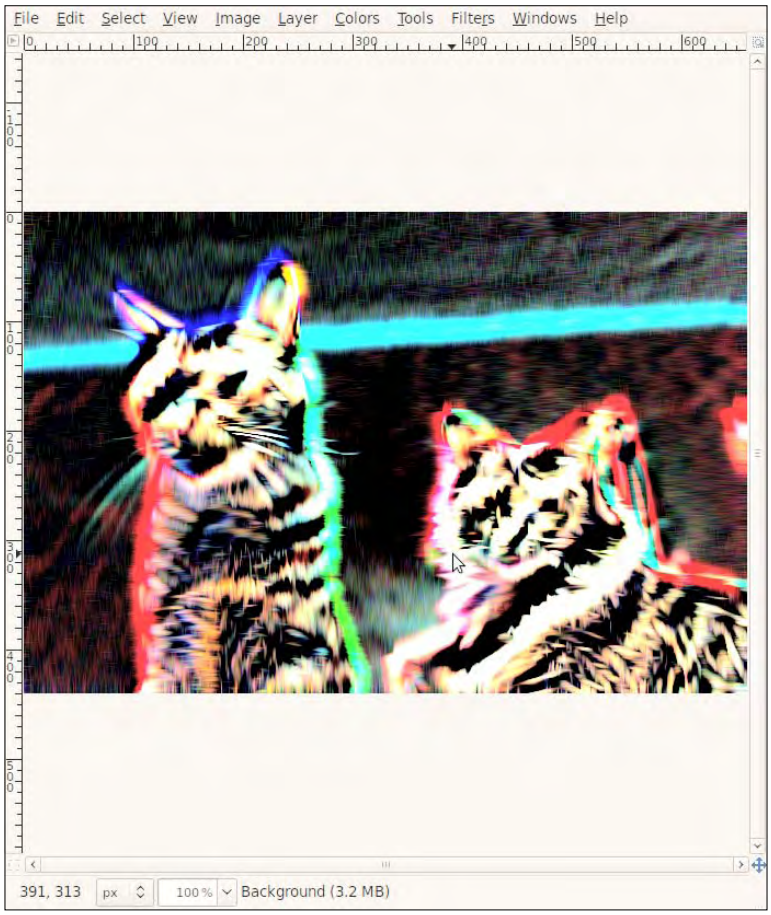
You can add **Edge-Detect** filters by carrying the following steps:

1. Open any existing image.
2. If you want to apply the effect to an area of it, use the **Selection Tool** (Optional).
3. Choose any of the **Edge-Detect** filters, modify parameters, and apply.

**Edge** and **Sobel** can really turn your image into a weird sort-of retro-psychedelic piece. Just try the different options, and play a little with the settings. After applying the **Edge** filter, our image looks like the following:



The **Neon** filter detects contours and applies a neon effect to them:




# Using Artistic

These filters render several traditional artistic effects, simulating paint, canvas, and other media.

## How to do it...

You can apply **Artistic** filters to your image by carrying out the following steps:

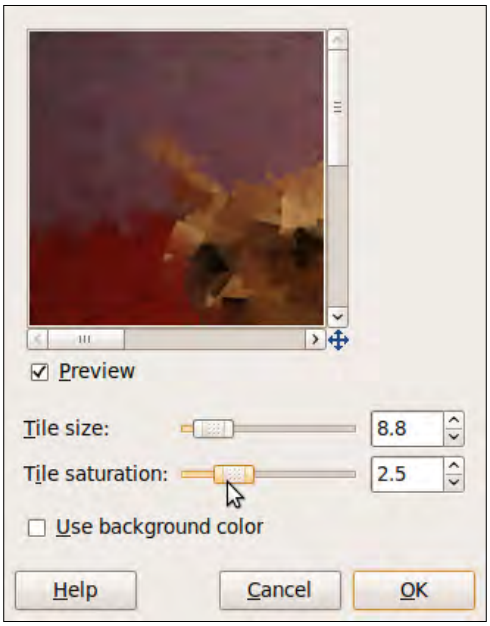
1. Open any existing image.
2. If you want to apply the effect to an area of it, use the **Selection Tool** (Optional).

3. Choose any of the **Artistic** filters, modify parameters, and apply.

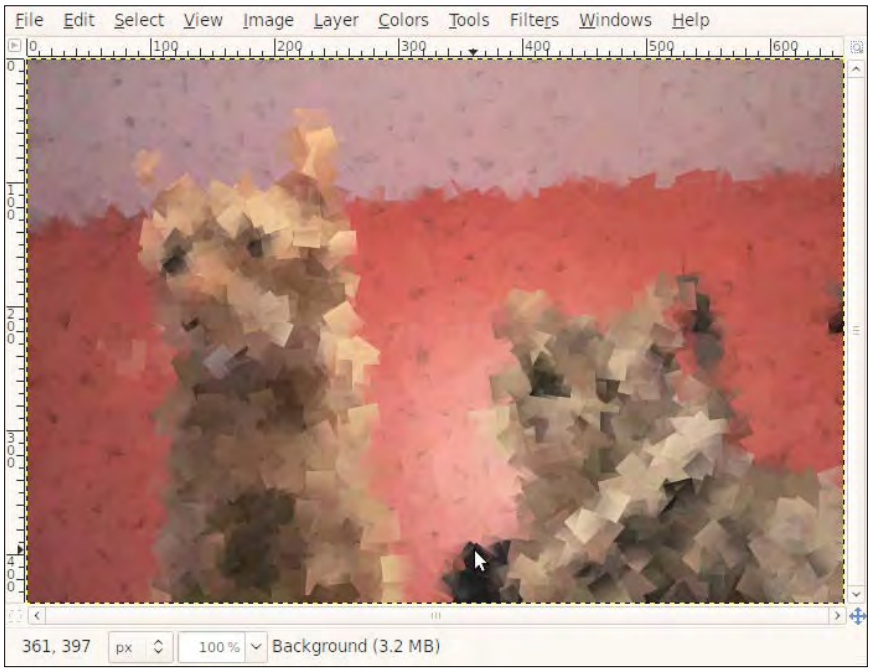
The **Canvas** filter renders a simulated canvas over the image, giving it a textured look as if the image was printed or painted (that depends on the actual picture!) on a canvas. The following is the **Canvas** configuration window:

**Canvas** would produce the following result:

You can also completely change the way your image looks with a filter like **Cubism**. This is what the **Cubism** configuration window looks like:



Applying these settings would produce the following result:




## There's more

However, Cubism is only the starting point. You should definitely check the **GIMPresionist** plugin, which provides many more options, combining the Canvas and Cubism filters with brush and color selections, brush stroke orientation, and distribution. It's a really powerful plugin that enables the user to customize fully how the artistic plugins work.

# Using Decor

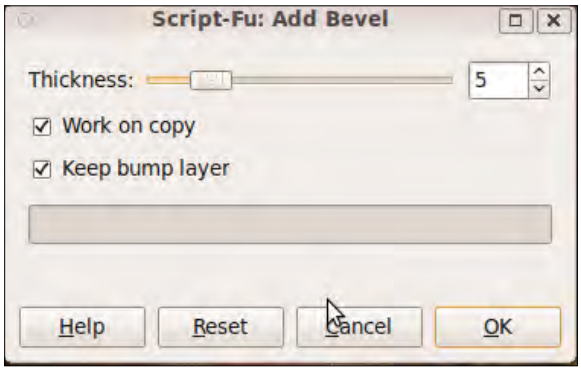
**Decor** filters render borders to selections or layers.

## How to do it...

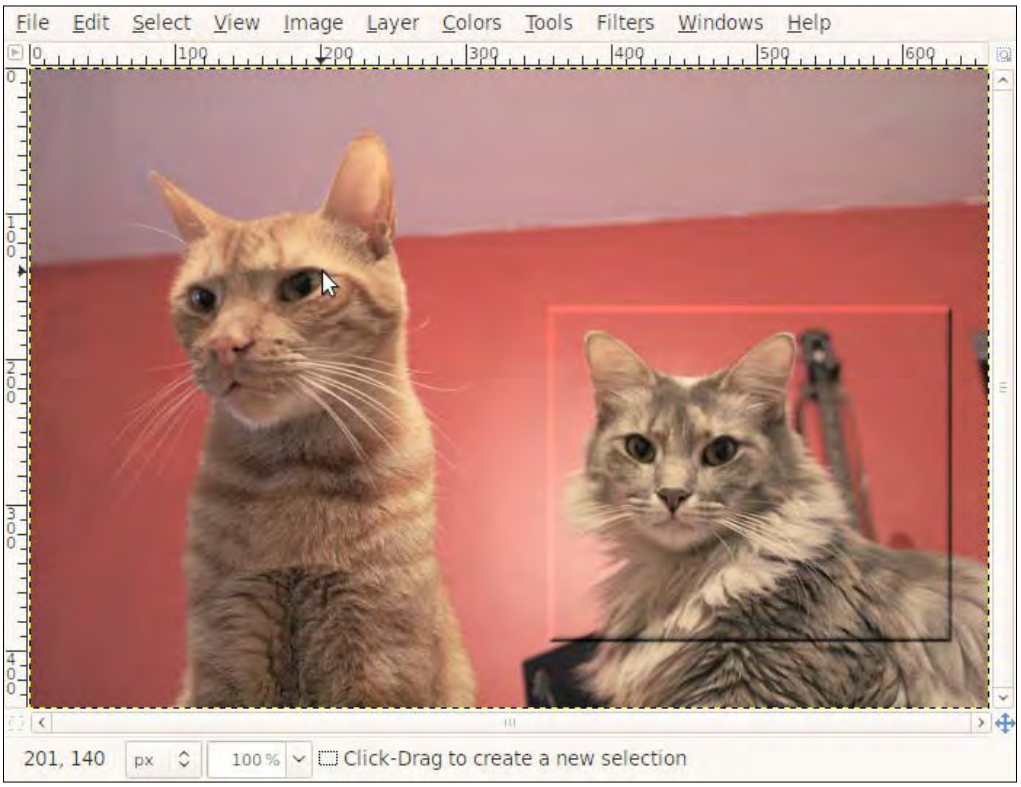
You can apply a **Decor** filter by following these steps:

1. Open any existing image.
2. If you want to apply the effect to an area of it use the **Selection Tool** (Optional).
3. Choose any of the light and shadow filters, modify parameters, and apply.

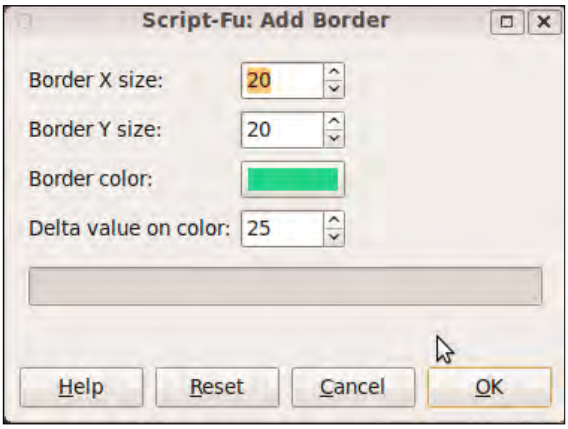
There are three filters in this category that can make your web design job a little quicker. The **Add Bevel** filter adds a slight bevel to the image or selection:



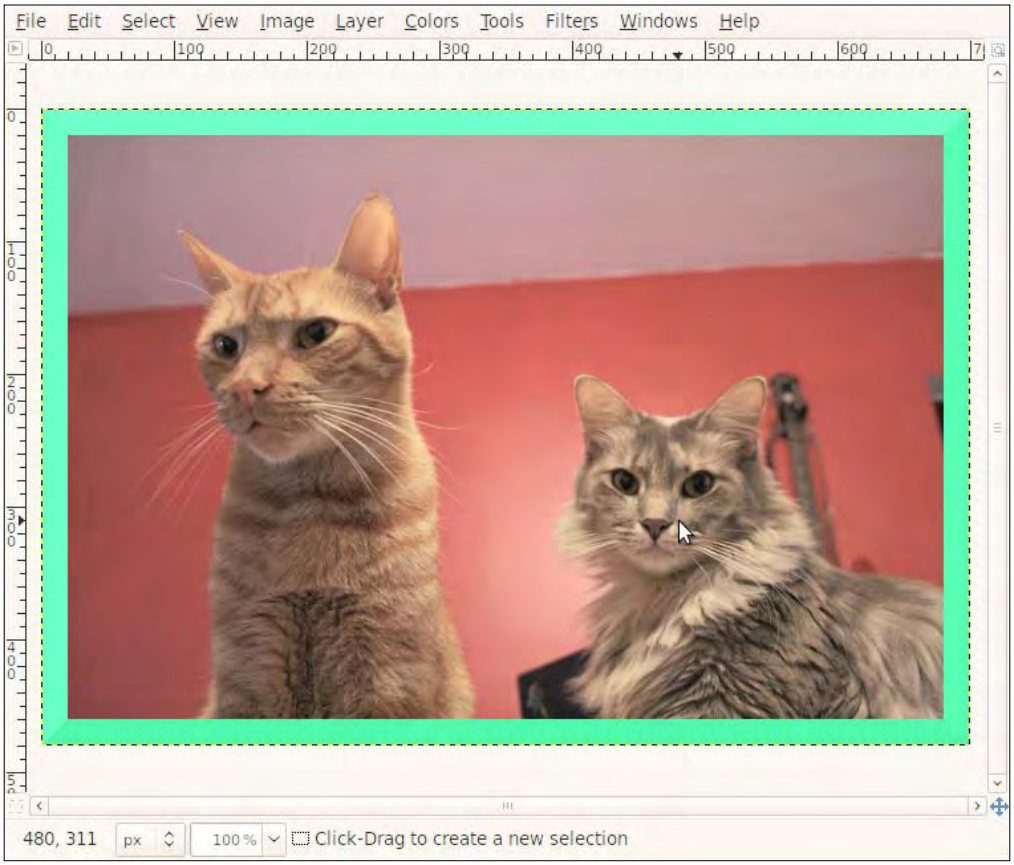

The result of beveling a section can be seen in the following image:



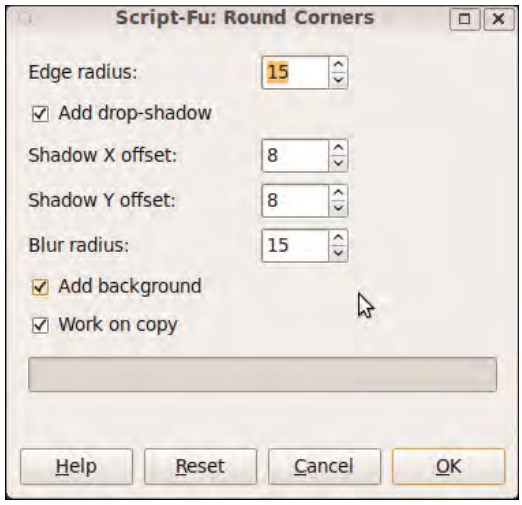
The **Add Border** filter adds a colored border to the image or selection:




The shown values would produce a border similar to the following:



The **Round Corner** filter turns corners of your image into smooth curves:




With these values, we would get the following resultant image:

Be aware of the fact that if you are working on a website design, and you need rounded corners, you should have a transparent background, and save the image as PNG or GIF. JPG files do not support transparency.

# Using Map

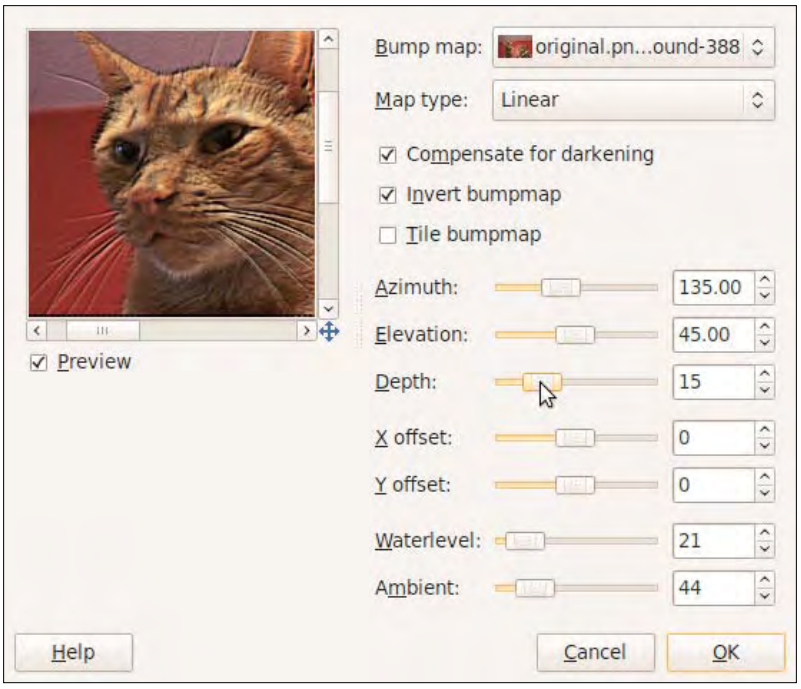
**Map** filters are used to create 3D effects in your image by mapping it into an object. This object can be a previously embossed image, a sphere, the same image, a curve, and so on.

## How to do it...

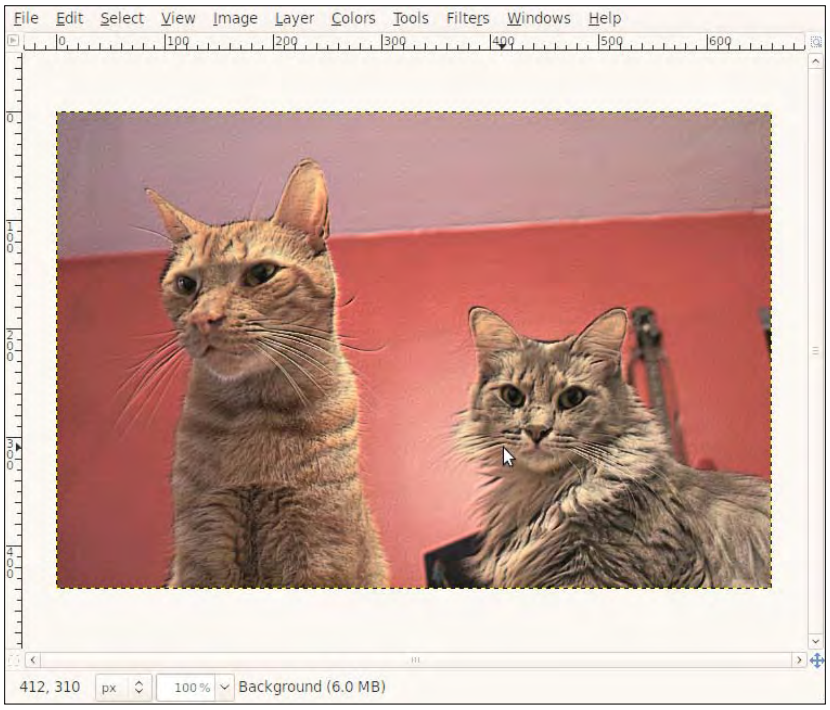
To map an image to an object carry out the following steps:

1. Open any existing image.
2. If you want to apply the effect to an area of it, use the **Selection Tool** (Optional).
3. Choose any of the **Map** filters, modify parameters, and apply.

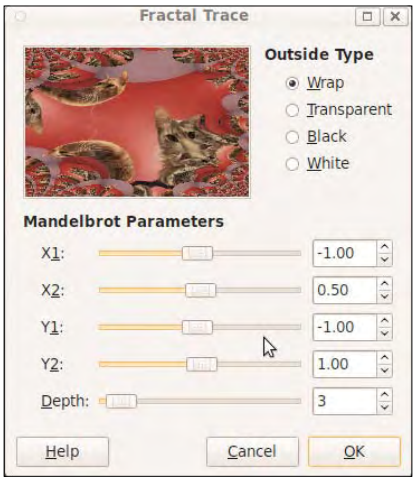
The **Bump** filter maps your image into another. You need to open a second image file first before trying to apply the filter. The following is the **Bump** configuration window:



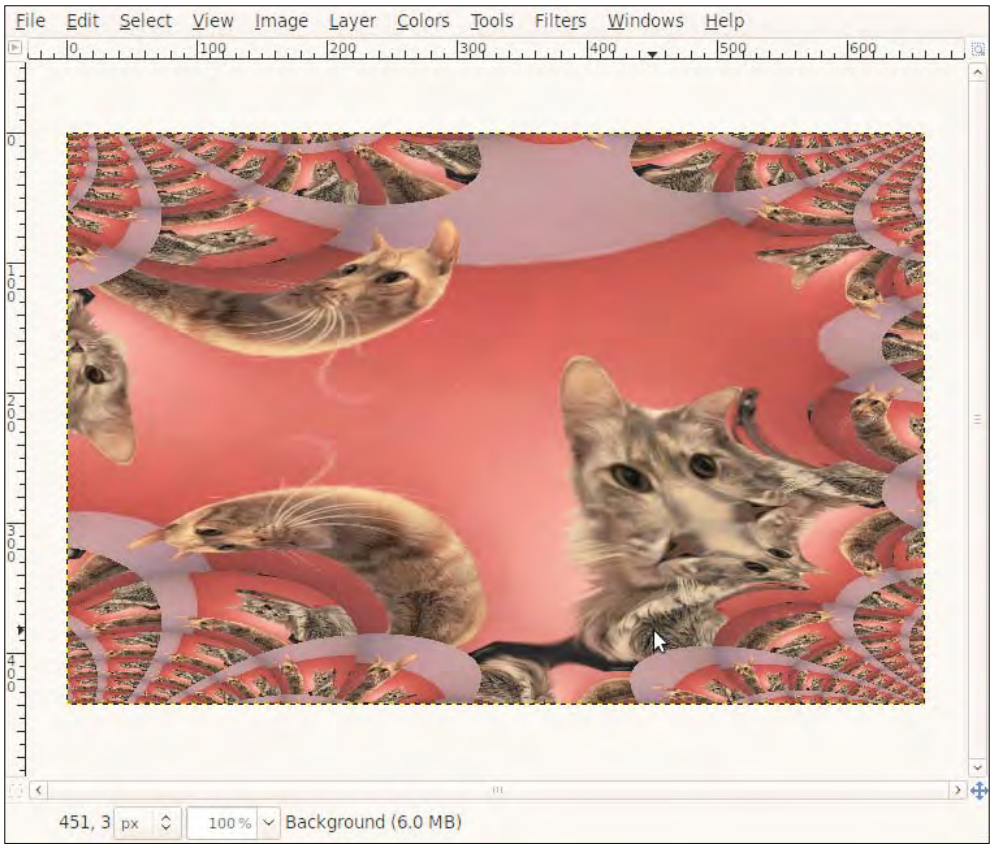
Using the same image as the map will give you an image with sharper embossed edges. Here is an example:




Fractals are fun and a quick way to distort your image completely. You can use its elements and composition to form very interesting mathematical shapes. The **Fractal Trace** filter is shown in the following image:



This would produce the following resultant image:




# Using Render

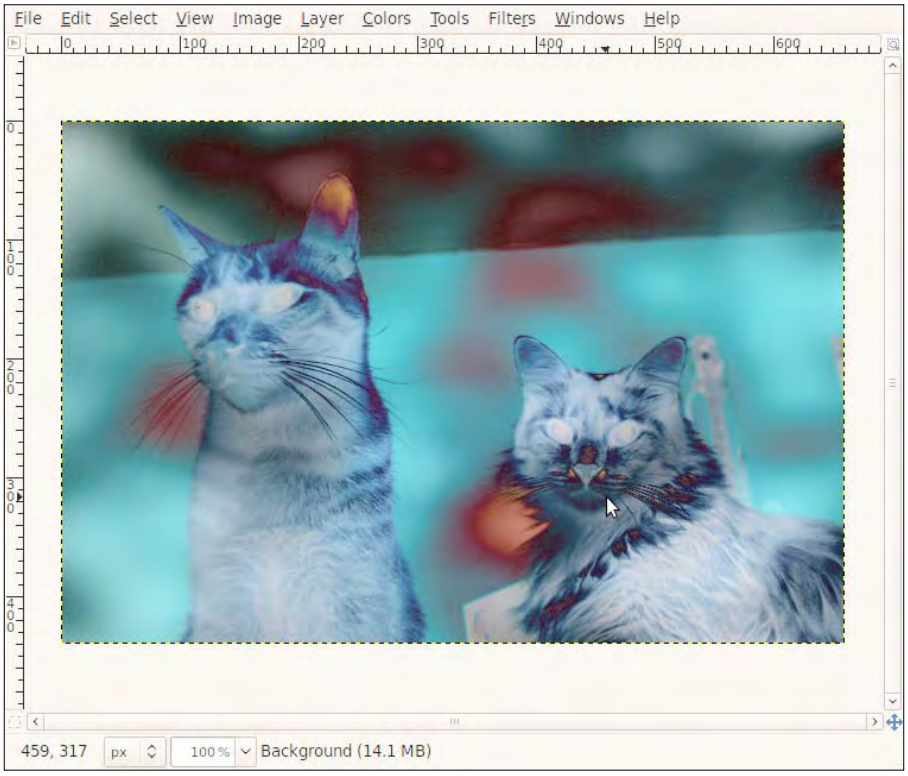
The **Render** filters work differently from the other filters in GIMP. They don't usually modify the content of an image. They create a particular effect from scratch, sometimes overwriting the active layer. It's always a good idea to duplicate your active layer, or create a new one, when you work with these filters.

## How to do it...

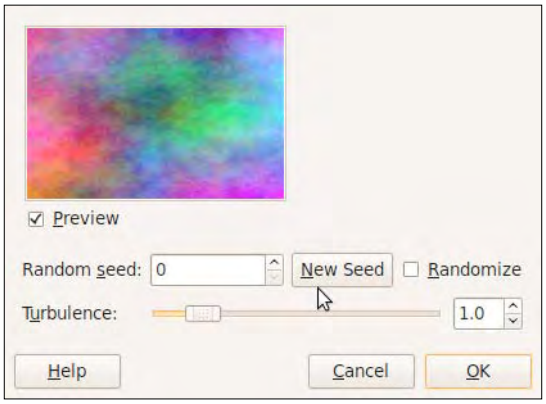
New layers can be rendered by carrying out the following steps:

1. Open any existing image.
2. If you want to apply the effect to a specific area, use the **Selection Tool** (Optional).
3. Choose any of the **Render** filters, modify parameters, and apply.

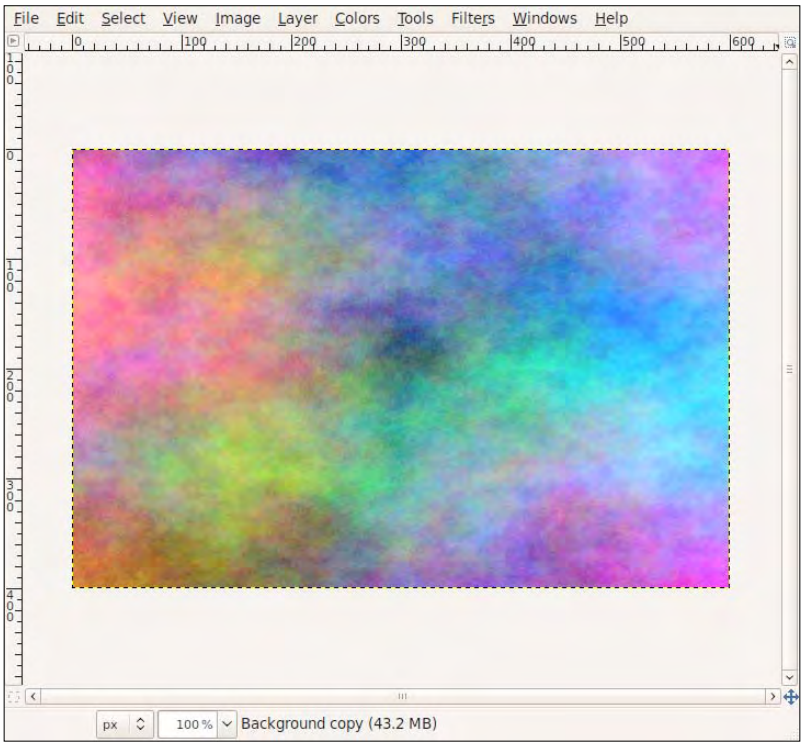
The **Difference Clouds** (**Filters** | **Render** | **Clouds** | **Difference Clouds**) filter renders colors in cloud-like areas. It renders them in a new layer, which is then set to difference mode, so the original layer is not modified. It produces an image similar to the following:



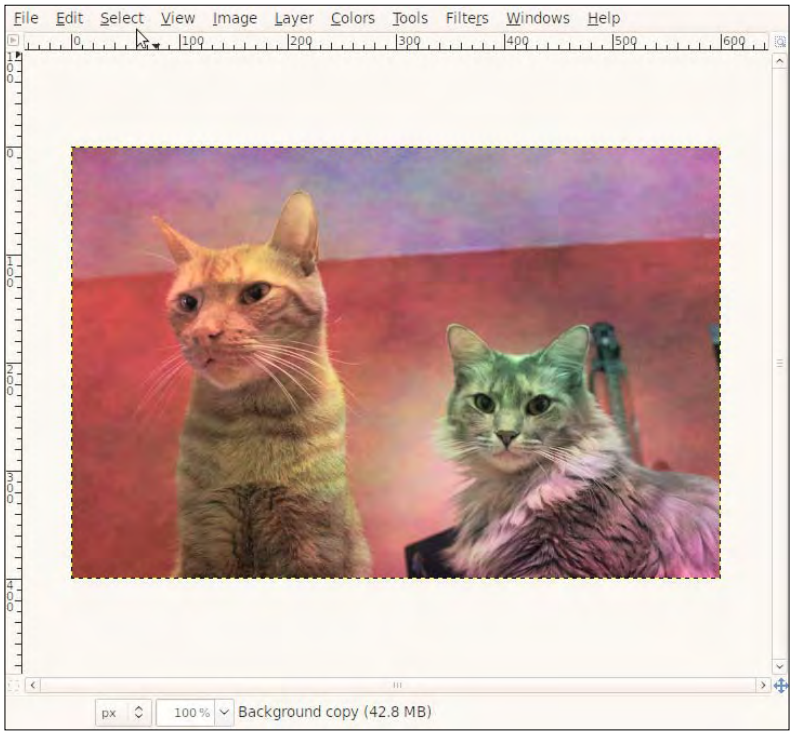

**Plasma** renders random saturated colors in the active layer. The following is the **Plasma** configuration window:



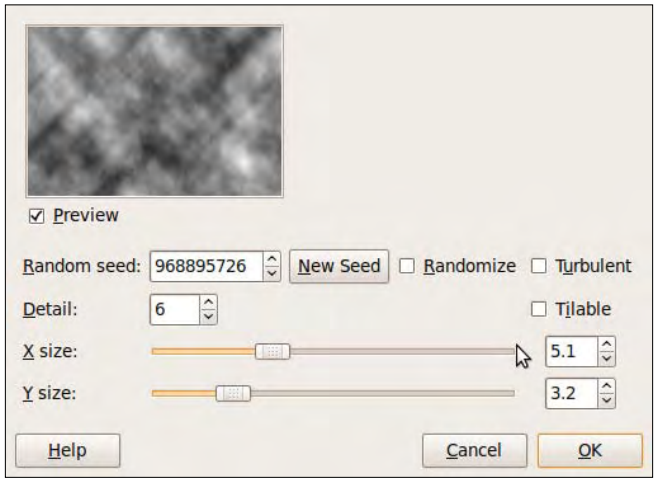
After applying **Plasma**, we get the following image, which is actually not much to see:




You can get nice results with it if you duplicate your original layer. Apply the filter (try different settings!), put the generated layer on top, and set its mode to overlay:

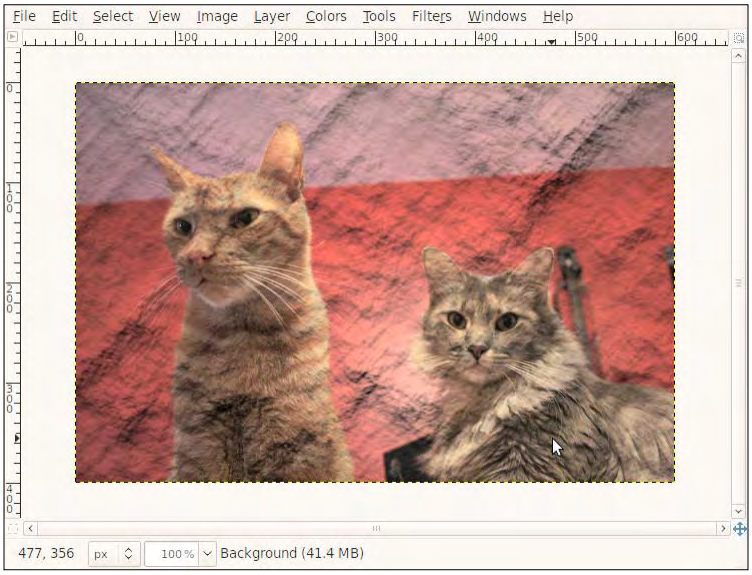



At first, the **Solid Noise** filter doesn't look very useful, it renders grey smoky clouds which look pretty lame, but remember the **Bump** map filter? **Solid Noise** is a good way to generate random textures to apply them as maps. Play a little with this filter, and use it as input for the **Bump** and **Warp** plugins. They can give you very interesting effects. These are the render settings for **Solid Noise**:

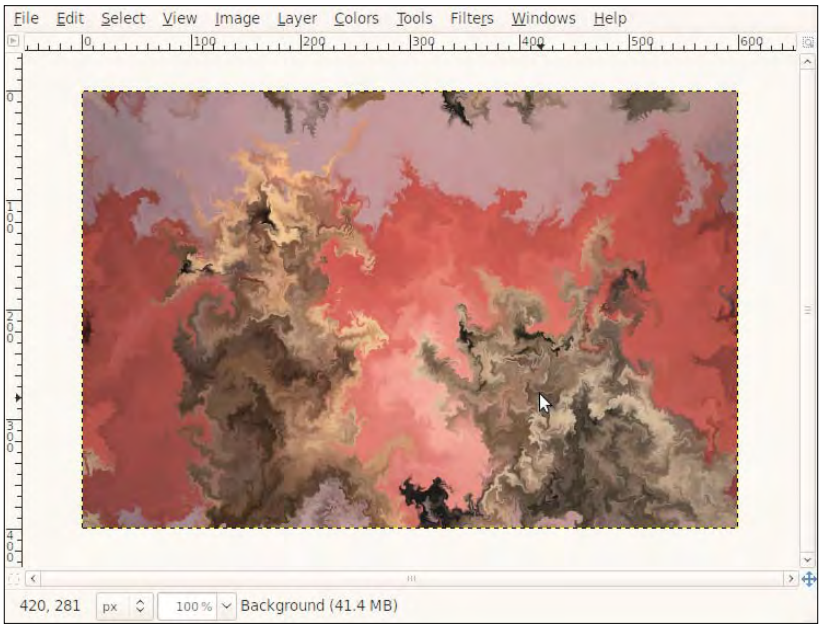


This is how it looks when the generated **Solid Noise** is used as input for the **Bump** and **Warp** filters in the **Map** category:

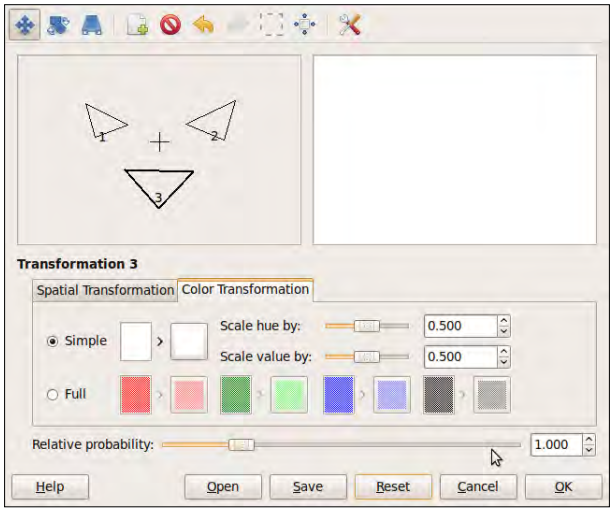
- **Bump** would produce an image like the following:



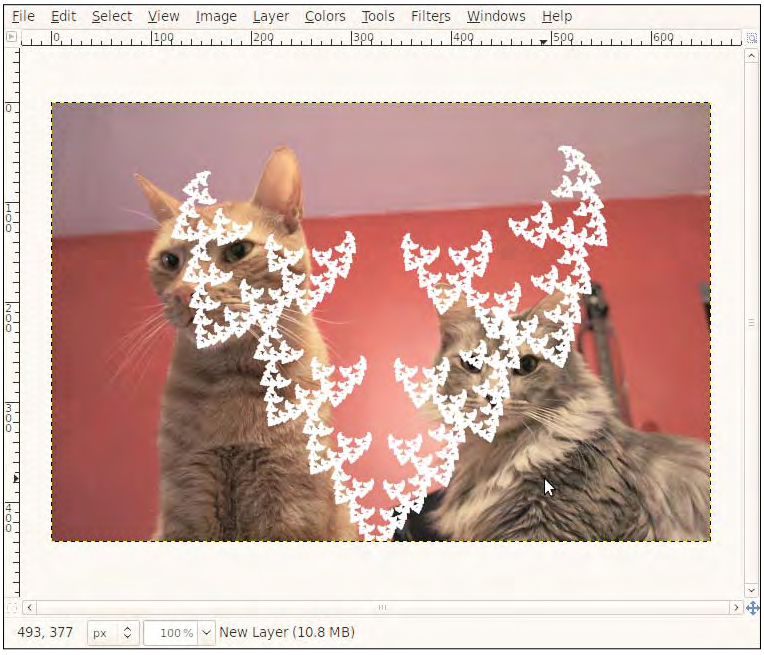

- Whereas **Warp** would produce the following image:



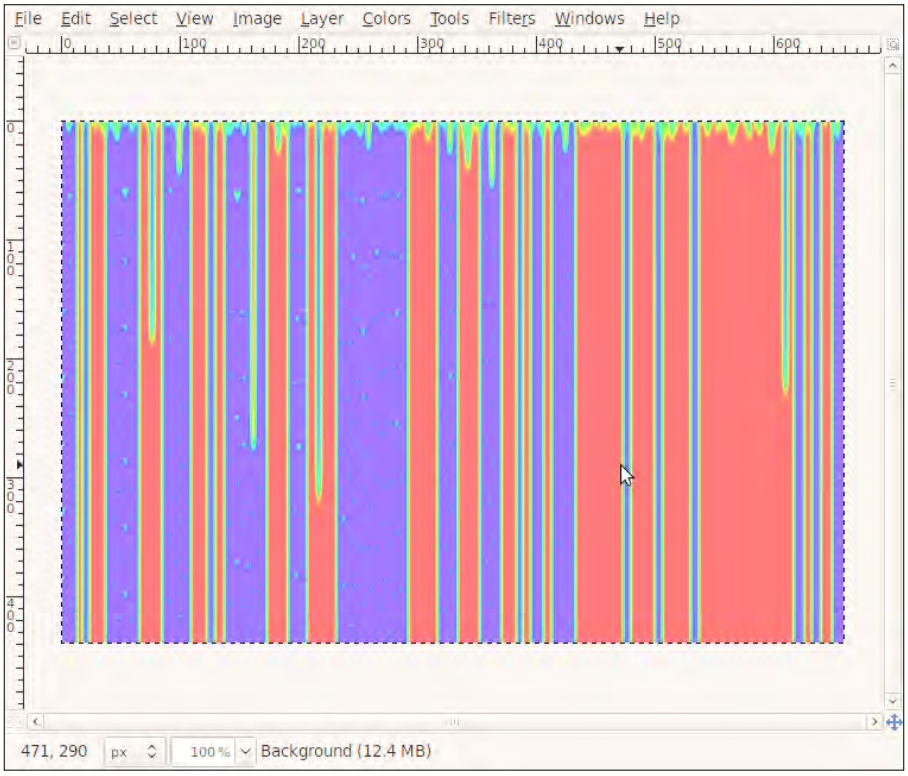
**IFS** stands for **Iterated Function System** (**Filters** | **Render** | **Nature** | **IFS Fractal**). It is a very powerful fractal generator that can create very cool organic shapes. The changes you make with the mouse in the little box on the left of the options window need to be small and precise:




Moving anything way too much or too little can turn the output into a shapeless spot or a not-too-organic shape. It's another fun part of GIMP. You MUST experiment with this filter, and in no time you will be creating fun, organic shapes.

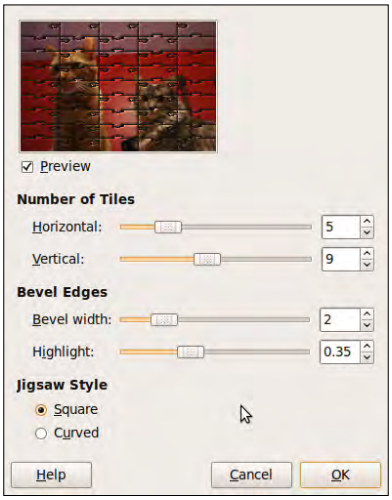


**CML Explorer** (**Filters** | **Render** | **Pattern** | **CML Explorer**) is one of the most complex filters in GIMP. It can create incredible textures, but you sure will need more than a few minutes to experiment with its options and parameters. You can set the options for each of the **Hue**, **Saturation**, and **Value** along with several other advanced parameters. The **New Seed**, **Fix Seed**, and **Random Seed** buttons are very important, as they change the way random values are generated. You can set any value in the options on the right and completely change your texture just by clicking on these buttons. The following is an example of such a rendered image:

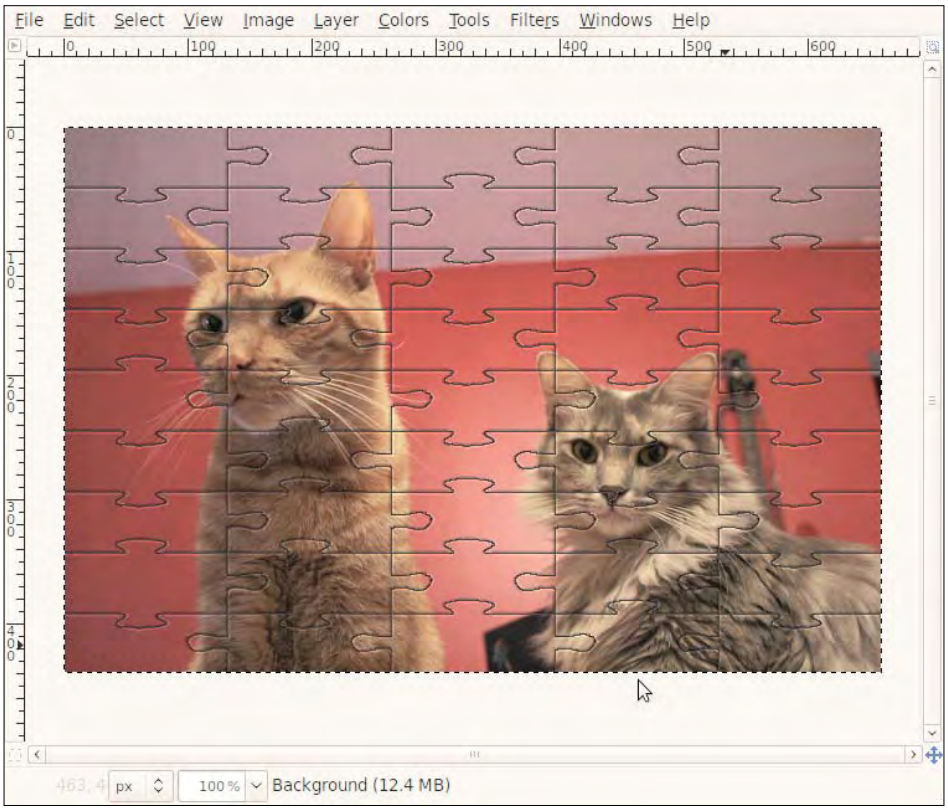



**Jigsaw** (**Filters** | **Render** | **Pattern** | **Jigsaw**) is a fun filter which you can use to turn your image in a puzzle quickly. Maybe you can print and spend some time with your kids cutting and rebuilding a nice family photo!

The following is the **Jigsaw** configuration window:




Our puzzled image will look like the following:



# Using web design-oriented filters

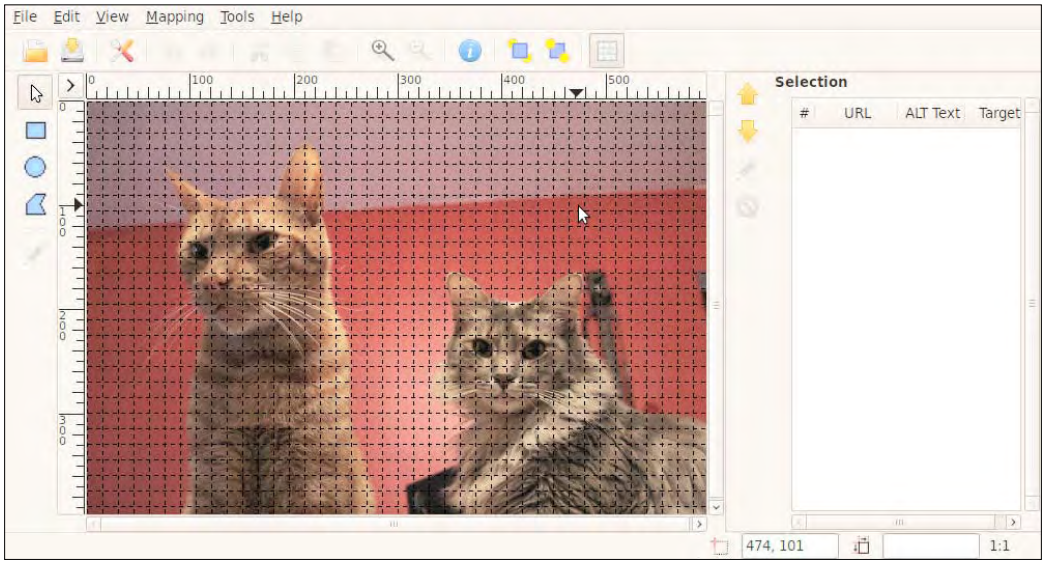
These three filters are oriented to help you use your images in web pages.

## How to do it...

**Web** filters can be applied by following these steps:

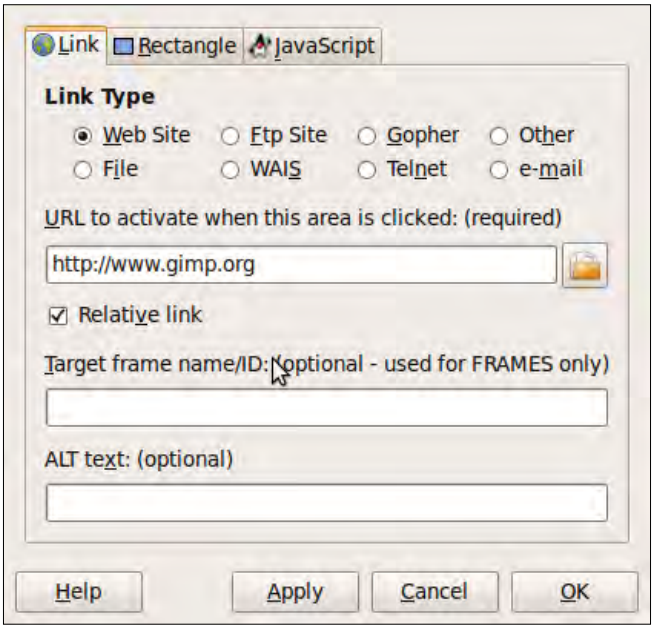
1. Open any existing image.
2. If you want to apply the effect to an area of it, use the **Selection Tool** (Optional).
3. Choose any of the **Web** filters, modify parameters, and apply.

**Image Map** takes a layer as input and allows you to quickly divide an image and define areas where the user can click and go to different links, execute JavaScript functions, and so on. Nowadays, image maps are not used very much because of Flash and JavaScript development, but they can be a useful and quick way to get a nice-looking page. It's a complex filter, but basically, once you select the filter from the menu, you will switch to a window like the following:

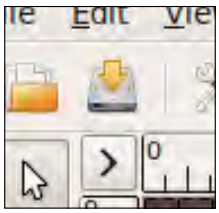



Use the **Define Rectangle Area** to draw a rectangle around the area you want to define as clickable:

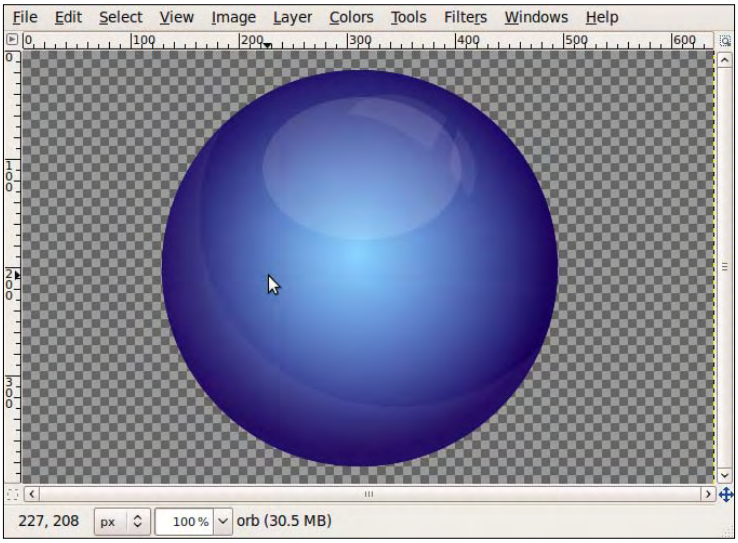
Once you have that area defined, a new option window appears, where you can configure the link you want the browser to go to when the user clicks on it. There are several other options you can experiment with, but this is the basic function of this filter:



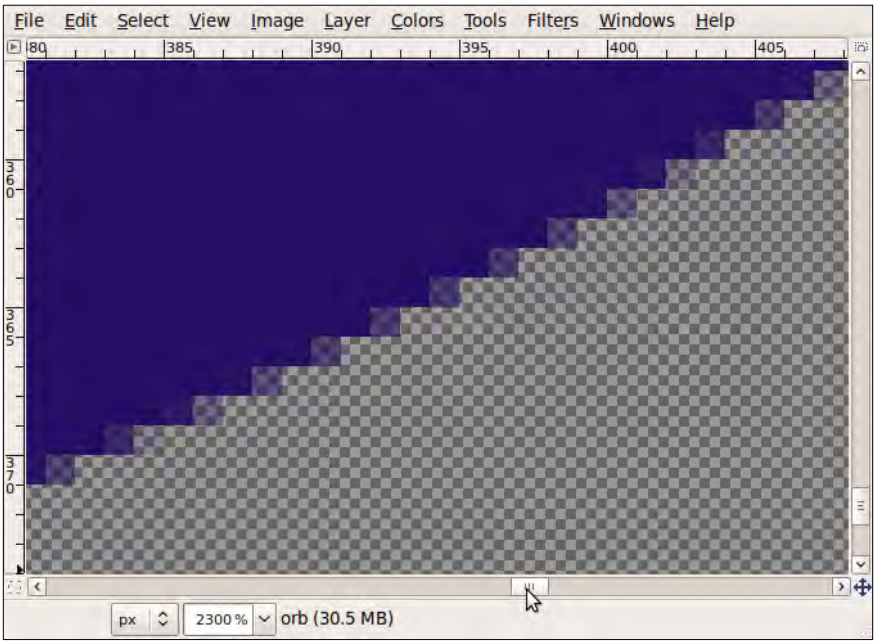

After creating all the areas you need, you can use the **Save** button to create your image map definition:



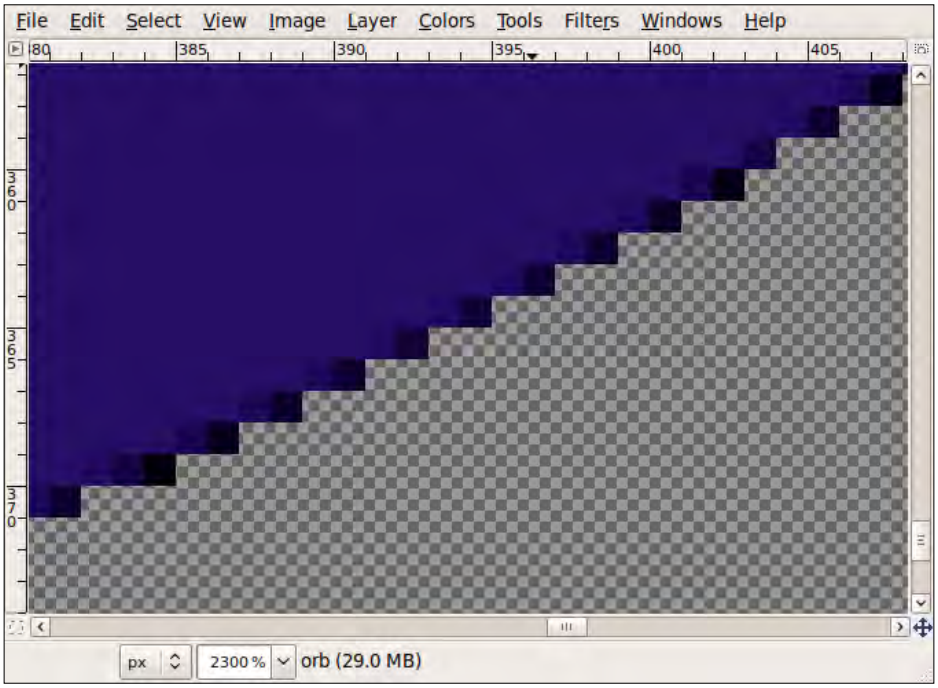
The **Semi-Flatten** filter is a simple handy tool used to improve images with semi-transparent levels. I'll use the orb created in one of the previous chapters to show you how this filter works:




If you apply the filter at this zoom level, maybe you won't notice any change, but let's zoom in before applying it:



First you need to set your background color, the same one you will be using on your web page. This filter uses that value to change semi-transparent image edges from one color to the background smoothly:

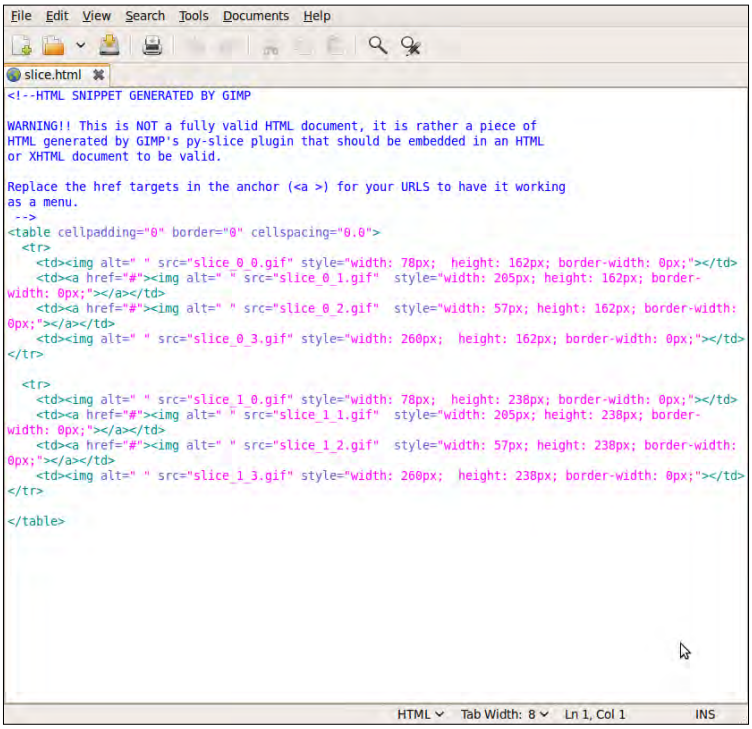



The first image shows the transparent pixels on the edge of the orb. After applying the filter you can see that the semi-transparent pixels are filled with the selected background color (in this case black) in a smooth way.

**Slice** is more for helping you create a tiled table of your image for use in a HTML file. You set horizontal and vertical guides, which then are used to split your image into a subset of files, as shown in the following image:

It also creates the HTML file to correctly show them and make it look like the original picture. It uses the HTML `<table>` tag, which is a little outdated now in the web 2.0 world of CSS styles and JavaScript, but is a quick way of showing a big image that can take a lot of time to load.

Keep in mind that the final generated HTML that this filter generates is basic. You should personalize this final generated HTML before using it in your pages.



# Using logo-creation filters

**Alpha to Logo** filters work with the alpha channel of the active layer to add different special effects. Keep in mind that you always need an alpha channel to work with these filters.

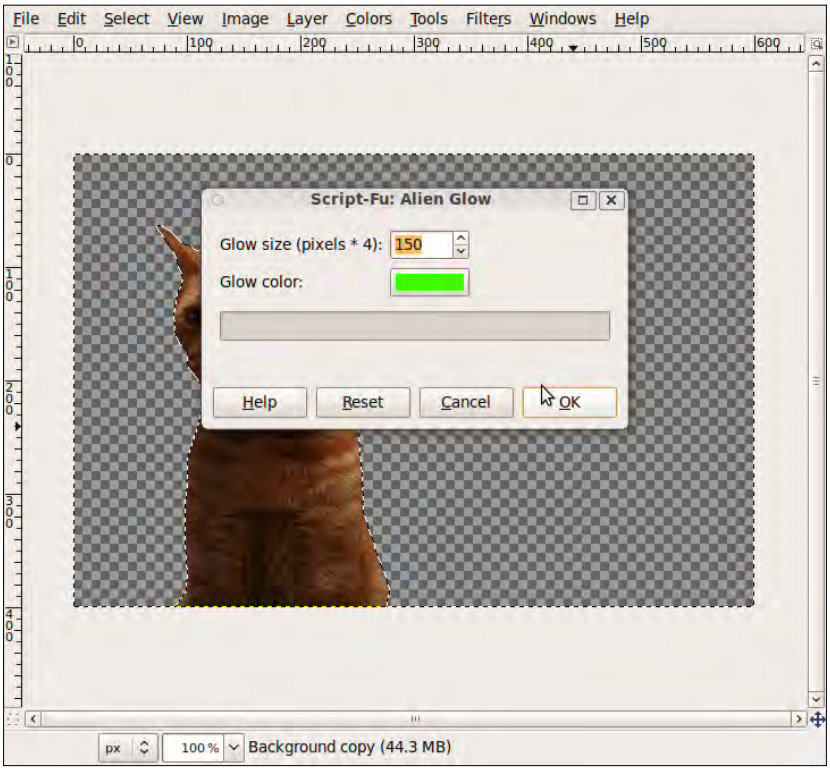
## How to do it...

Any Alpha to Logo filter can be added by following these steps:

1. Open any existing image.
2. If you want to apply the effect to an area of it, use the **Selection Tool** (Optional).
3. Choose any of the **Alpha to Logo** filters, modify parameters, and apply.

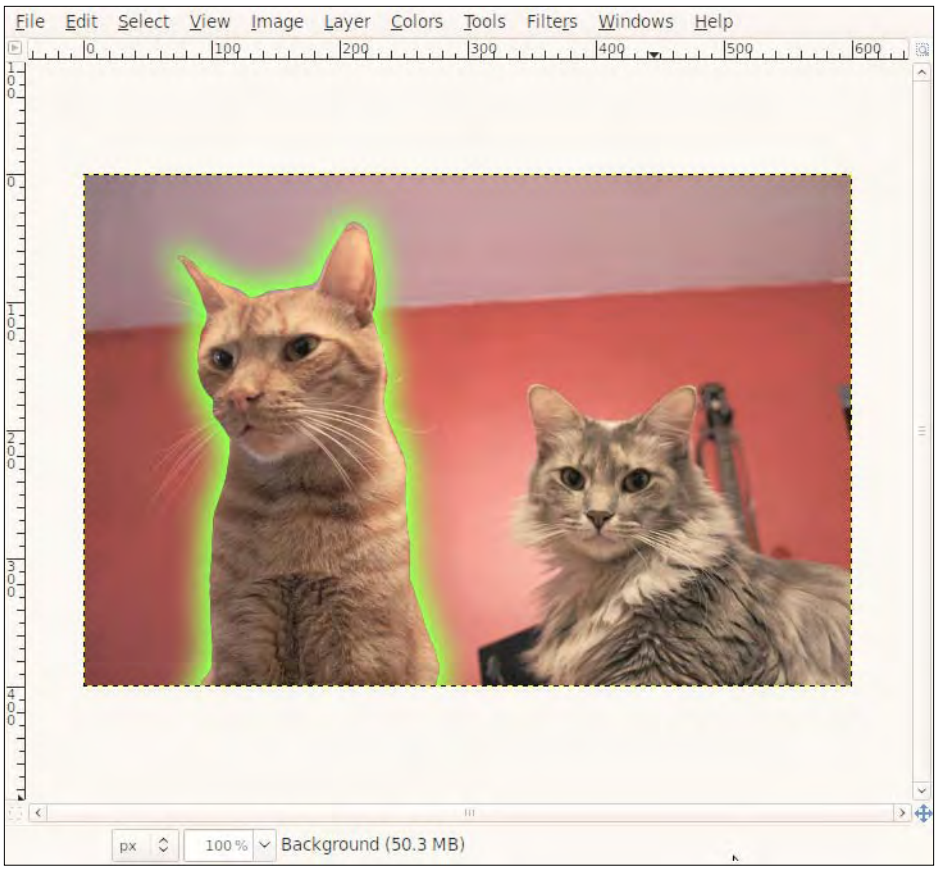
The **Alien Glow** adds a spooky glow around the layer's alpha channel. If you apply it to a full layer maybe it doesn't add much to the image, but see what it does after a little layer duplication and reordering.

Right-click on the layer's name inside the layers widget, and select **Add Alpha Channel**. Duplicate the layer, and create your selection. Then, apply the filter.



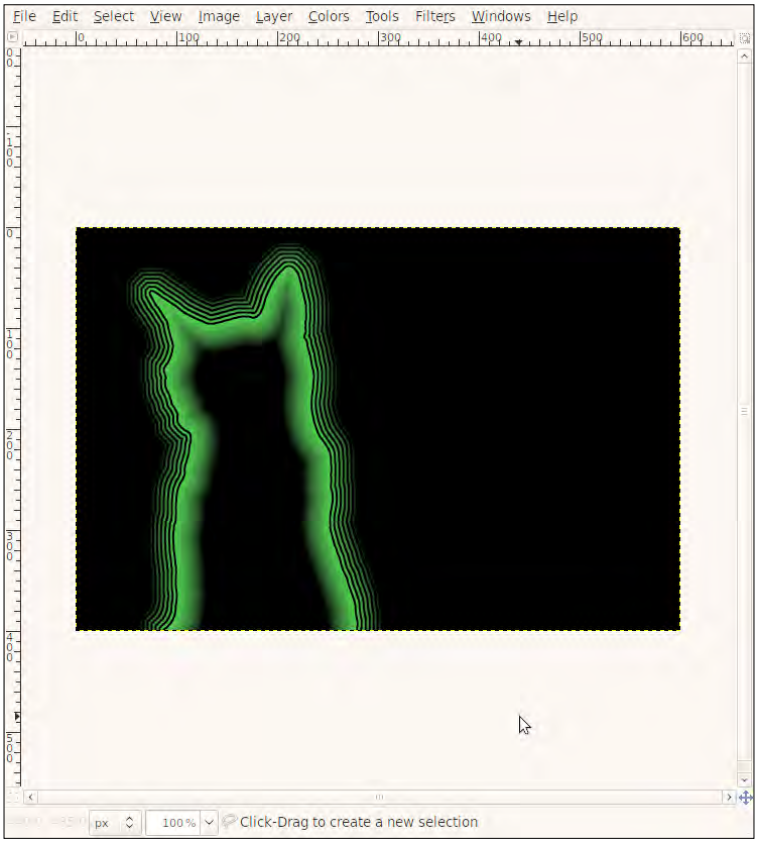
I know, it doesn't look like much yet, but after a little layer reordering, you'll end up with a cool effect:

Place your duplicated selection layer on top and your original background layer over the solid black that the filter renders. You should get an effect like the following:



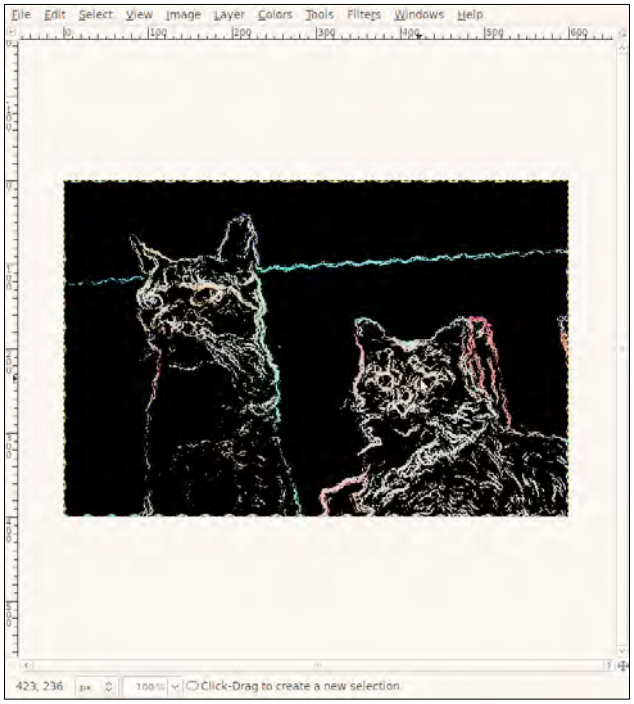
You can explore different variations on this filter and the others in the **Alpha to Logo** category. All of them have different options, but the way you apply them to the full layer or a selection is the same. Following are some examples:

- The **Alien Neon** filter adds a glow around the layer's active alpha channel, as shown in the following image:

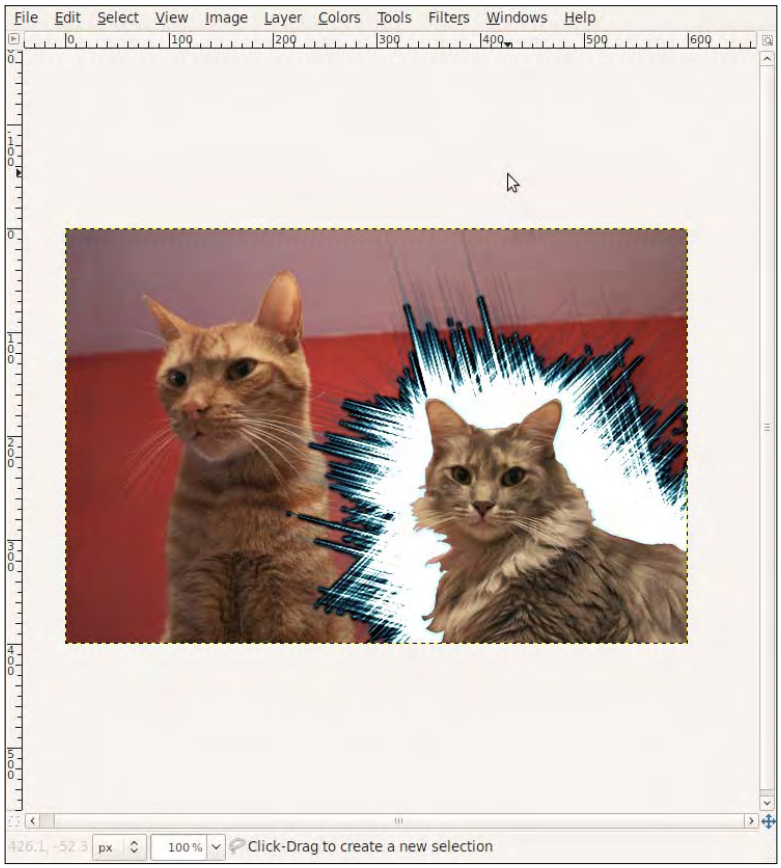



- The **Basic I** and **Basic II** filters add a gradient to the layer's active alpha channel, along with a drop shadow and a background layer:

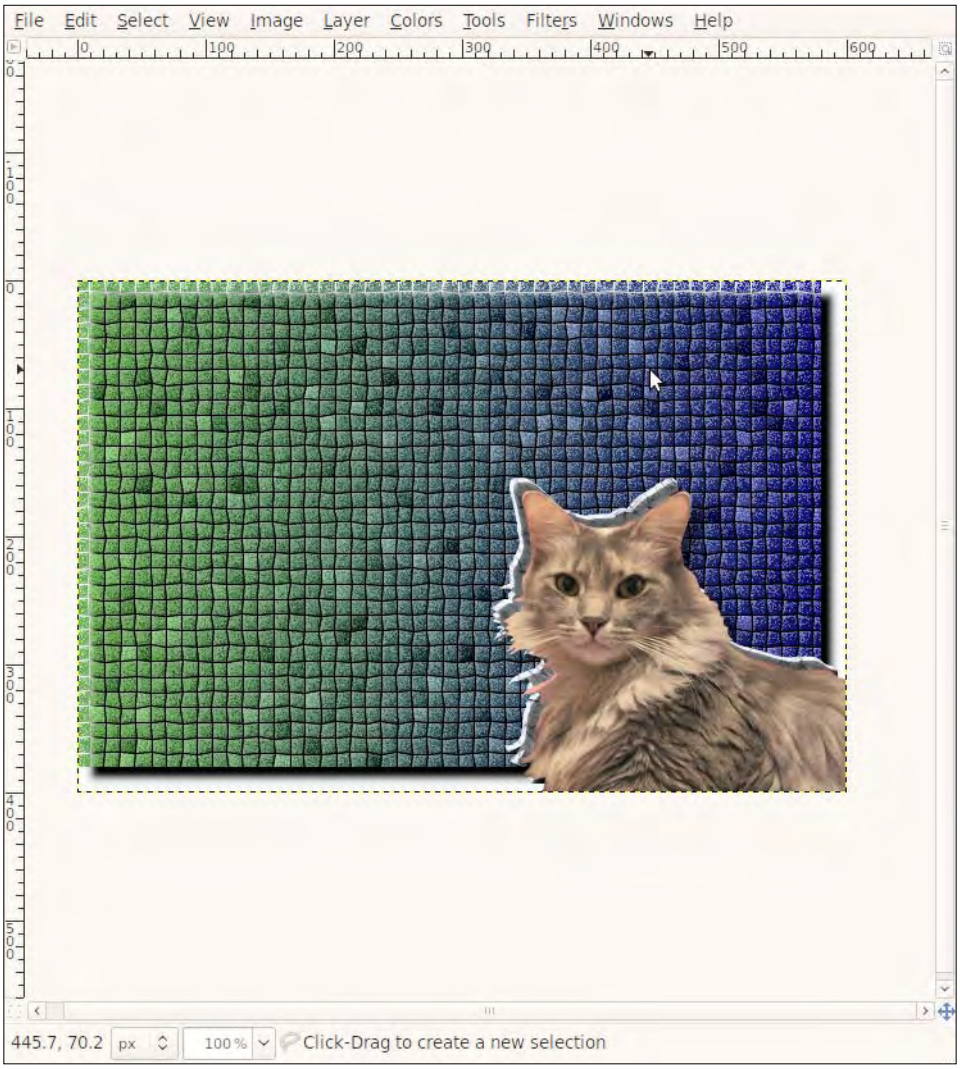
- The **Chalk** filter converts the active layer into a chalk drawing:



- The **Frosty** filter adds a frosty-sparkle effect to the layer's active alpha channel:




- The **Textured** filter creates a texture from a predefined pattern:


File Edit Select View Image Layer Colors Tools Filters Windows Help
445.7, 70.2 px 100 % Click-Drag to create a new selection

# 3
# Text and Fonts

In this chapter, we will cover:

- Creating a quick logo for a company
- Creating 3D text
- Creating glowing text effects
- Creating shining plastic text
- Creating gold text
- Creating icy cold text
- Creating fiery text
- Creating paper cutout text
- Creating rubber stamp text

## Introduction

This chapter is about working with text. GIMP uses the fonts installed in the system. Many times, they are not enough for even the average user. There are many websites that let you download cheap fonts for a low price and also, fortunately, there are hundreds of websites with free, open-source fonts for download, a huge community of font-loving enthusiasts that have no problem with sharing their creations.

Installing a font to use it with GIMP is a really quick and easy task. Just copy the font files to the `.fonts` folder or to your `.gimp-[version]/fonts` folder in your home directory. Then, restart GIMP.

Once you have your fonts set up, they will be available for you with which to work. GIMP comes with a wide variety of filters and effects. We saw a few of them in action in the previous chapter. Now, we are going to use some of them with just text layers, to give you a clear idea of how to create great looking text starting from a solid-color font.

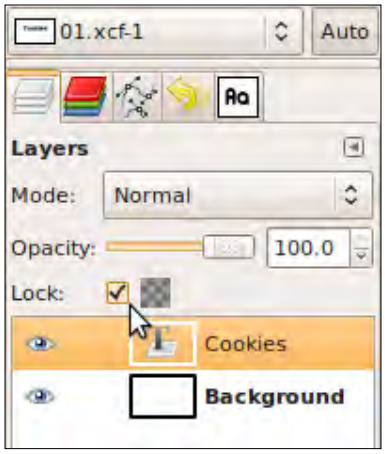
# Creating a quick logo for your company

By using a few filters and just little work, we are going to create a logo for a company in no time.

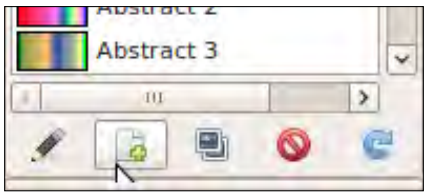
## How to do it...

We can go about creating our logo by carrying out the following steps:

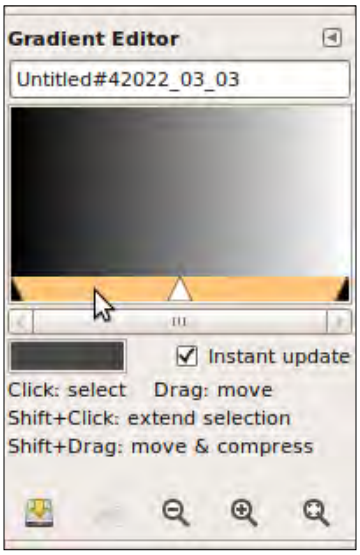
1. In a new file, using the **Text Tool**, write the name of the company. Pick a font, its size, and place it a little above the middle of the canvas. Lock the layer by selecting it and clicking in the **Lock** checkbox to avoid accidentally making changes to it:



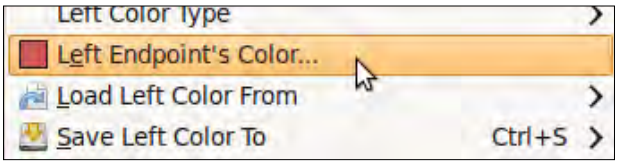

2. Create a new gradient by clicking on the **+** button at the bottom of the **Gradients** dialog. If it is not enabled, call it by using *Ctrl* + *G*, or go to **Windows** | **Dockable Dialogs** | **Gradients**:



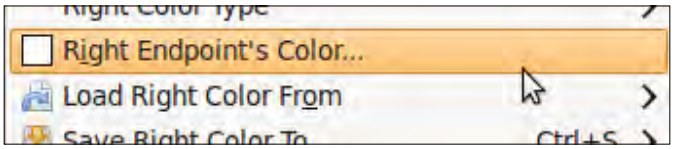
3. To pick the colors for the gradient, position the mouse over the the orange bar (blue in Windows) and right-click:



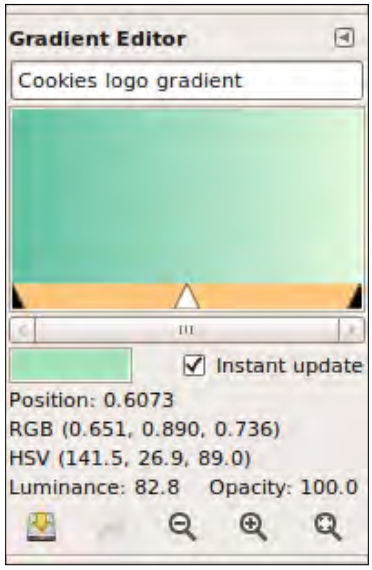

Select the **Left Endpoint's Color**:




And/or the **Right Endpoint's Color**:

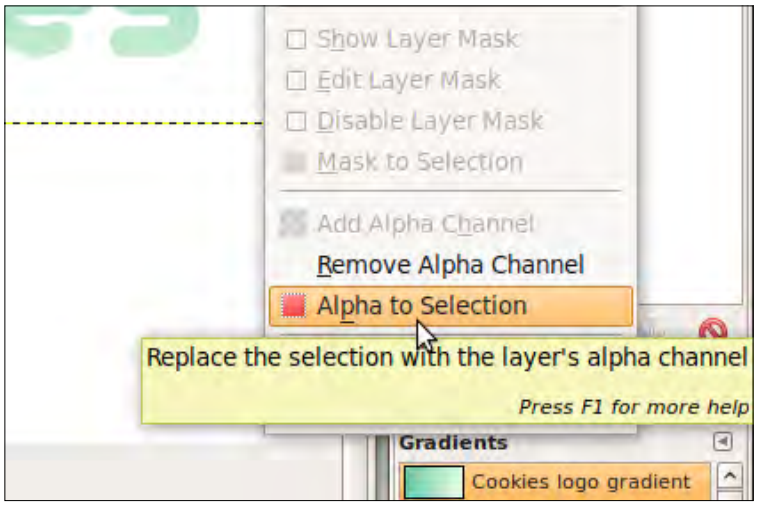


Here are the colors I have chosen:

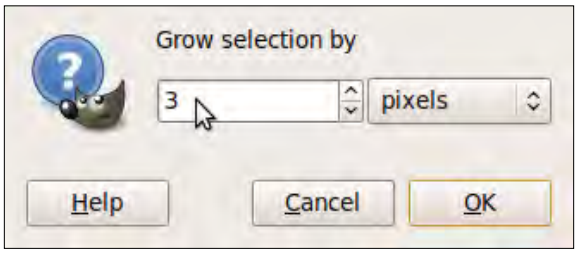



4. Using the **Blend Tool**, apply the gradient:

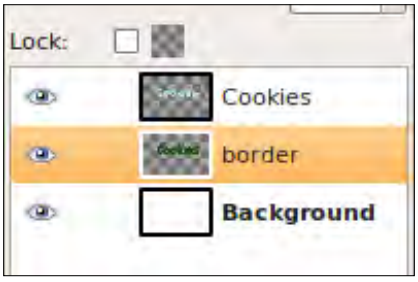
5. Right-click inside the text layer name in the **Layers** dialog, and select the **Alpha to Selection** option:



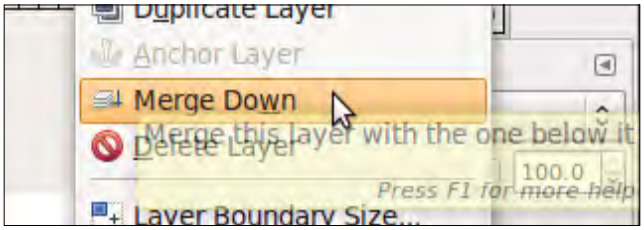

6. Then, go to **Select** | **Grow**, and make it bigger by 3 pixels:




7. Create a new layer and name it **border**. Fill it using the **Bucket Fill Tool** (I used a dark color), and place it underneath the text layer (drag and drop the **border** layer):



8. Duplicate the **border** layer by clicking on the **Duplicate** button at the bottom of the layers dialog, or going to **Layer** | **Duplicate Layer**.
9. Repeat this operation with the text layer. Move this last duplicated layer on top of the **border copy** layer.
10. Merge these duplicated layers by going to **Layer** | **Merge Down**, and change its name to **reflection**:

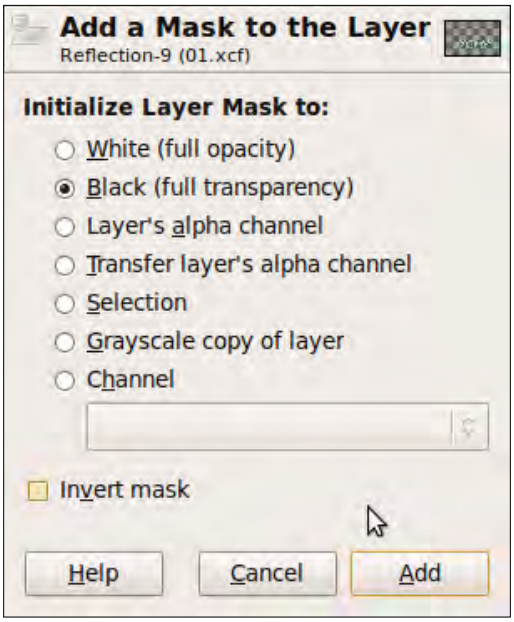



Choose **Select** | **none** from the menu to be sure there's no selection present.

11. Using the **Move Tool**, place the **reflection** layer below the "text" layer and flip it with the **Flip Tool**.

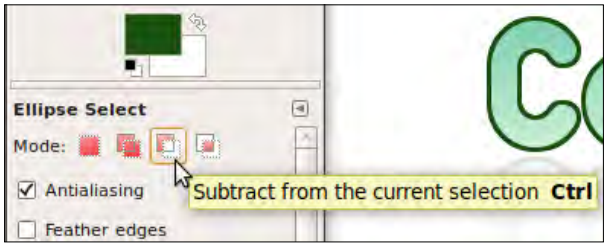
Use the **Move Tool** to adjust the position of the flipped text, and separate them vertically by just a few pixels.

12. Right-click in the **reflection** layer inside the **Layers** dialog, and select the **Add Layer Mask** option. Choose the **Black** (**Full Transparency)** and click **Add**.




13. Using the **Blend Tool**, pick the **FG to BG** gradient from the Gradients Dialog, and apply it from bottom to the top to create a semitransparent reflection of the text:

14. Select the original text layer. Right-click on it in the **Layers** dialog, and choose **Alpha to Selection**. Then with the **Ellipse Select Tool** in subtract mode (check the following image):




Draw an ellipse, as in the following image:

15. Create a new layer and name it **glass**. Then, fill it with a white color using the **Bucket Fill Tool**:

16. Change its opacity to something around 30 and you are done! Here's the final logo:

## How it works...

Just by using a font you like and a few tools you quickly created a logo. See how we only used default paint/blend tools and masks to create it? GIMP has powerful extensions but you can also create professional pieces without using complex filters or even using much time.

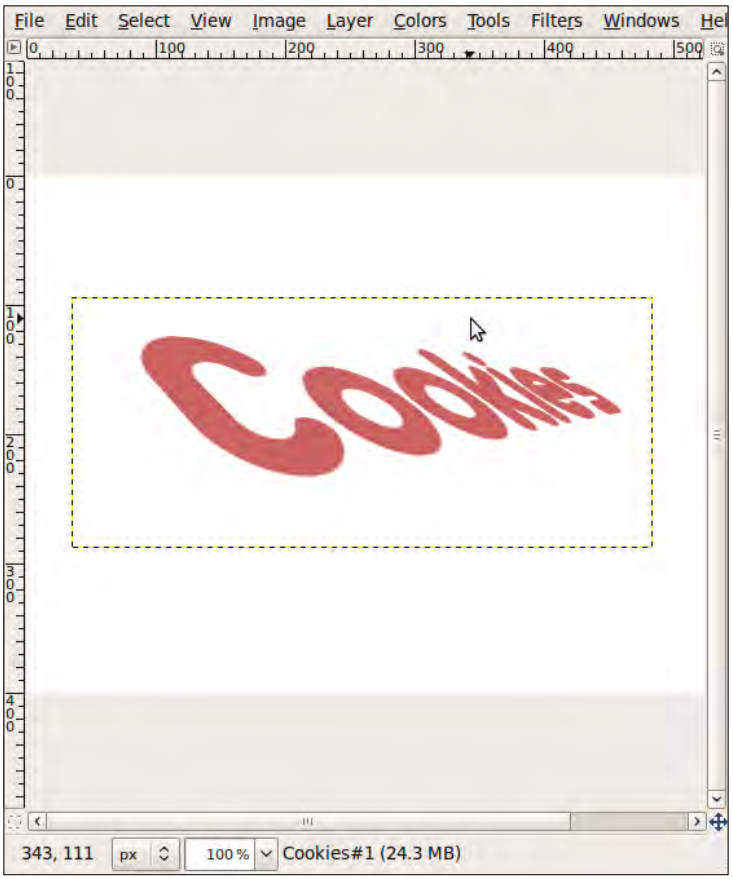
# Creating 3D text

This is a fairly simple recipe where we are going to create 3D text.

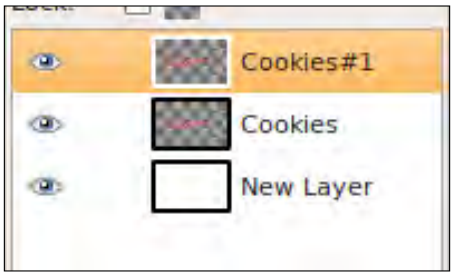
## How to do it...

Follow these steps to create text with a 3D effect:

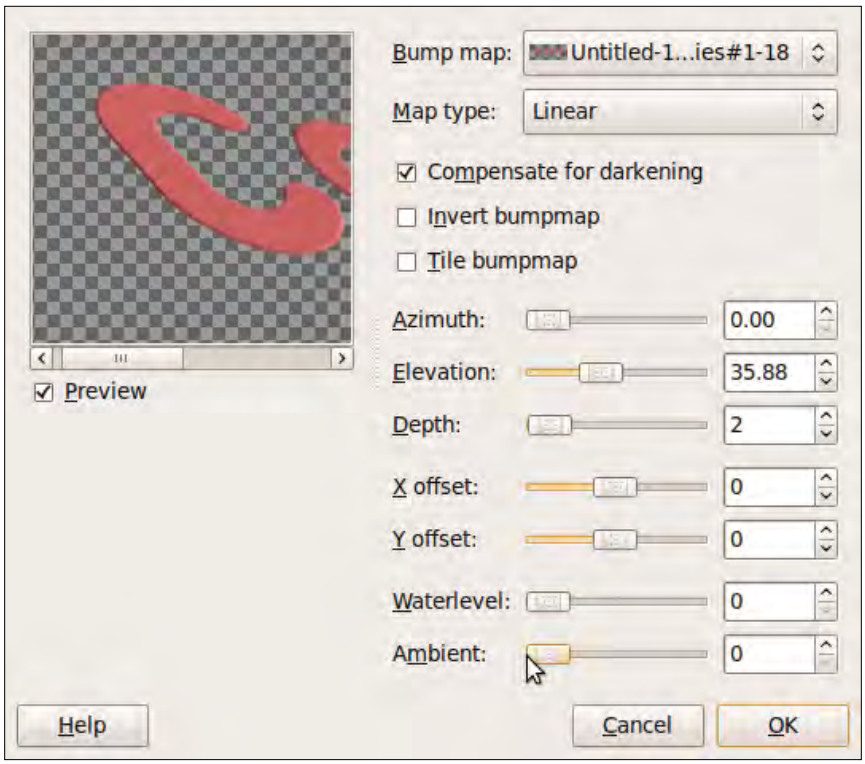
1. In a new file, create your text. Pick a font, color, and size. Select the **Perspective Tool**, and drag the layer's corners to simulate perspective until you are satisfied.



2. Duplicate the text layer, and make the copy invisible.

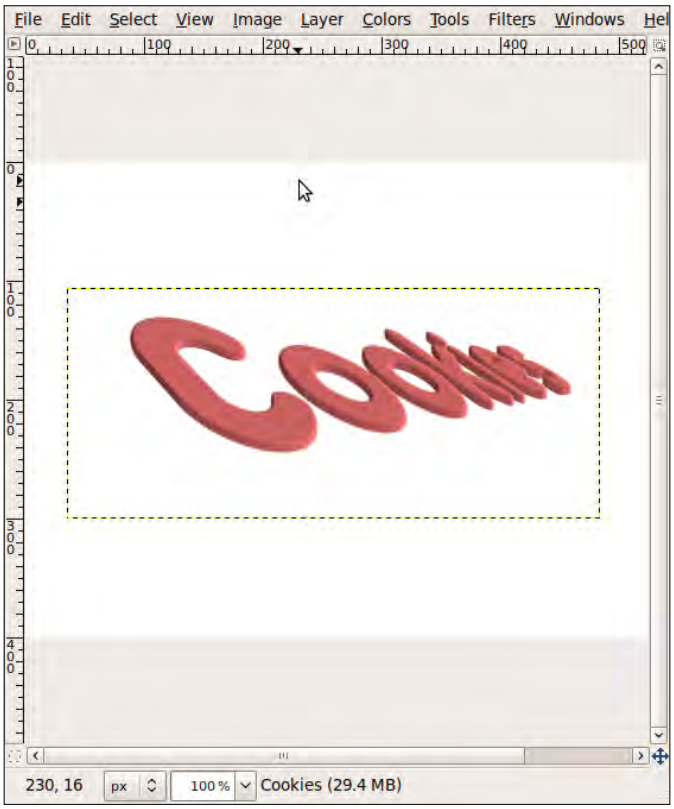



3. With the original text layer selected, go to **Filters** | **Map** | **Bump Map** and experiment with the settings. You can see mine in the following image:

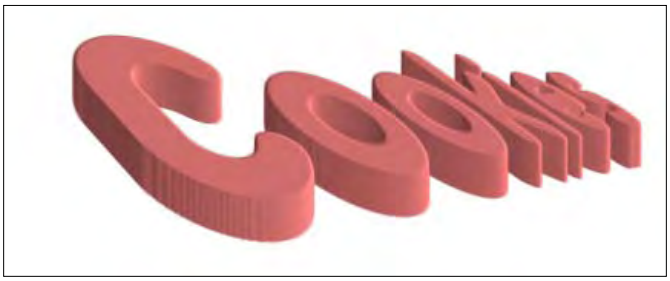


Once you click **OK**, duplicate the layer five or six times. These layers are the basis of the 3D text effect.

4. Now select one of the layers, click the **Move Tool**, and press the down key once:




Select another layer, click the **Move Tool** again and press the down key twice. Repeat this operation on each of the duplicated layers, for each layer press the down key one more time than the previous layer. When you are satisfied with the thickness of the text, merge all the duplicated layers and your image will be ready:



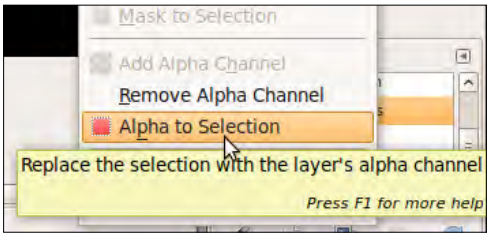
# Creating glowing text effects

This is a simple recipe. We will create glowing text with a subtle outline. I'll be using a gradient to fill it and make it a little more psychedelic, but you can pick a solid color if you want, or create your own gradient for it.

## How to do it...

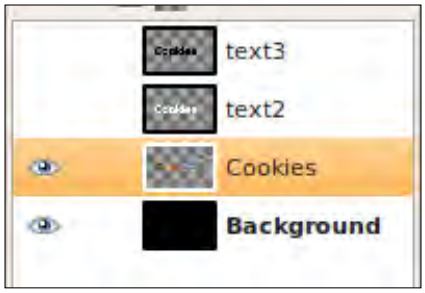
You can create glowing text by following these steps:

1. Create the text, right-click on its name inside the **Layers** dialog, and select the **Alpha to Selection** option:



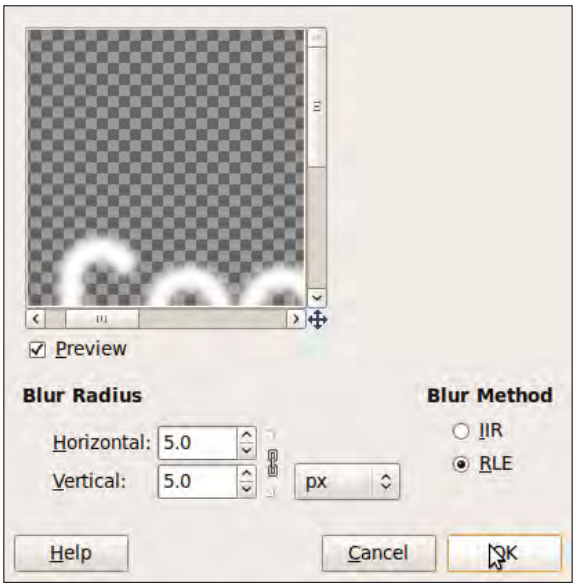

2. Delete the text layer, and create a new one. Name it **text**. Don't erase the selection. Now, you can choose to use a solid color or a gradient for the glow effect. I'll pick a colorful gradient and apply it from left to right with the **Blend Tool**:

3. You should still have the selection around the text, create a new layer (name it **text2**), and fill it with a solid white using the **Bucket Fill Tool**. Now, create another new layer (name it **text3**), and fill it with a solid black.
4. Delete the selection by going to **Select** | **None** from the menu. Make these two layers invisible by clicking on the eye icon to the left of the layer's name in the **Layers** dialog:

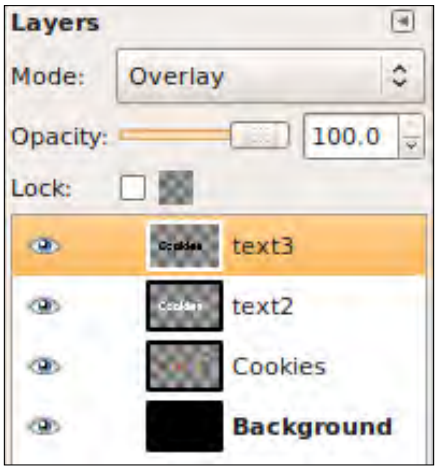



5. Select the **text** layer, and go to **Filters** | **Blur** | **Gaussian Blur**. Set the horizontal and vertical value to around 10 or 15 pixels:

6. Enable and select the **text2** layer, and apply the same **Gaussian Blur**, but with a **Blur Radius** of around 5:




7. Just to give the glow effect another twist, select the **text3** layer and set it to **Overlay** mode. Be aware that this works best with a dark, colored background. If you have a bright or transparent background, the effect won't be so noticeable:



Here's what the final piece looks like:

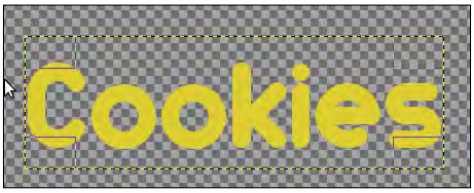
# Creating shining plastic text

In this recipe, we are going to create text and make it look like it is made of a plastic material.

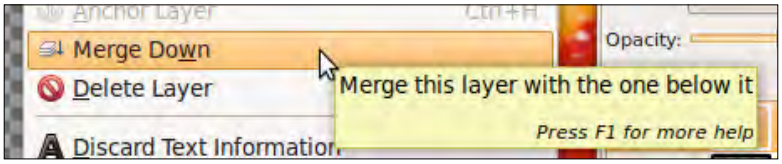
## How to do it...

We can create shining plastic text by carrying out the following steps:

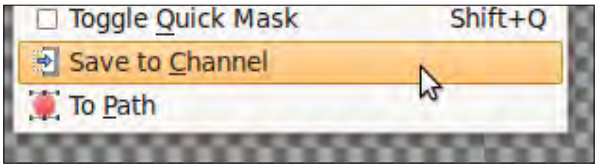
1. In a new file, create a new layer. Use the **Text Tool** to create the text you want. Pick a bright color, and place the text around the middle of the canvas.



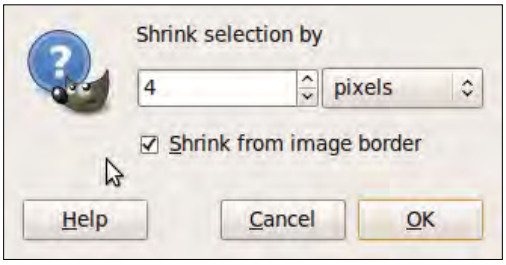

2. Select **Layer** | **Merge Down** from the menu or by right-clicking on the layer's name in the **Layers** dialog:




Then, choose **Alpha to Selection** to select everything on the layer that is not transparent. Now, click **Select** | **Save to Channel**:

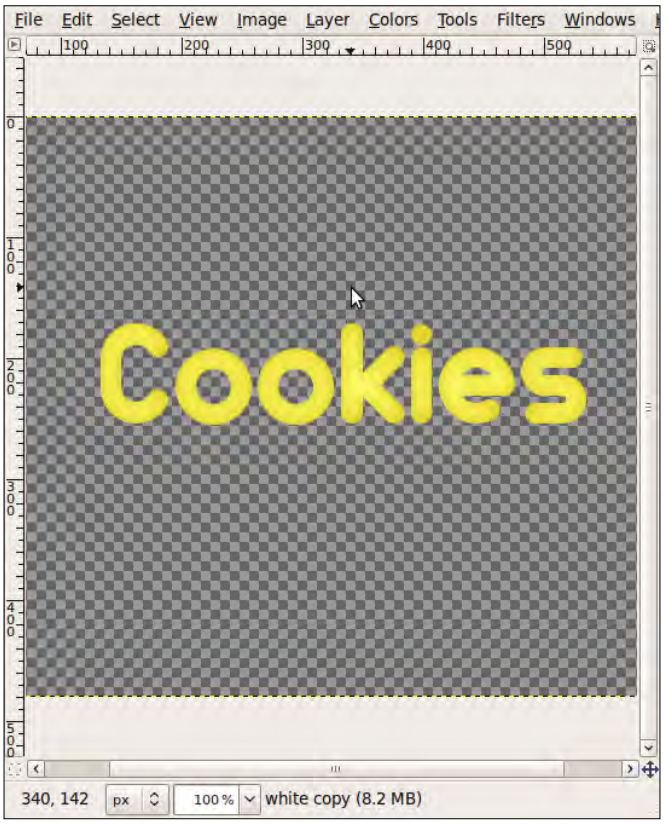


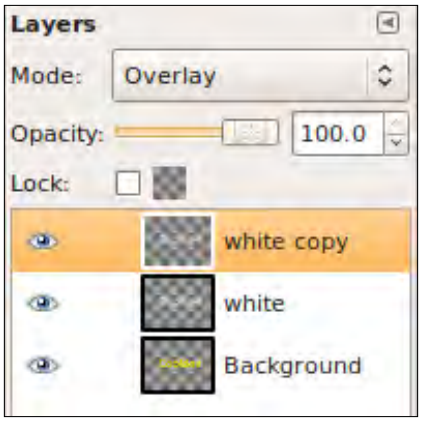
3. Choose **Select** | **Shrink** from the menu and shrink the selection by around 10 pixels. Be careful how much you shrink the selection. 10 pixels worked for my example, but if you are using a small font size or if the font is too narrow, you will have to use a different number; experiment!




4. Create a new layer, and fill it with a solid white using the **Bucket Fill Tool**:

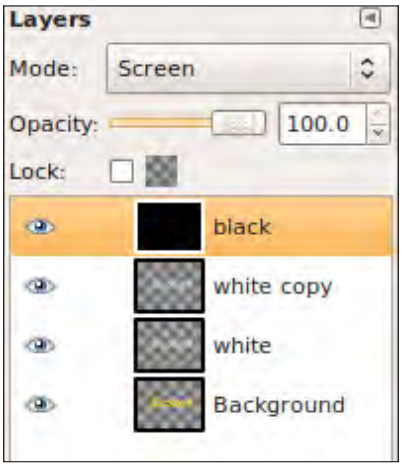
5. Go to **Filters** | **Blur** | **Gaussian Blur** from the menu, and apply a blur of around 20 pixels in both directions:



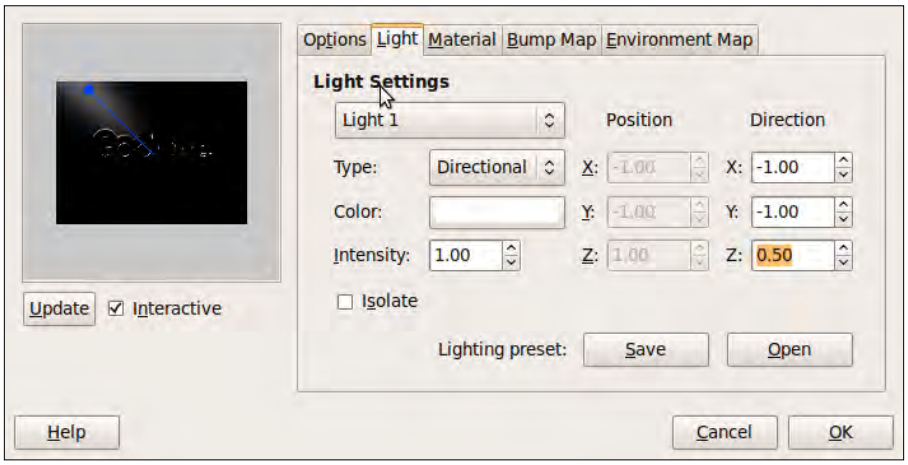
6. Open the **Channels** dialog if it's not visible (**Windows** | **Dockable Dialogs** | **Channels**), and select the previously saved channel by clicking on it:

7. Apply a **Gaussian Blur** of around 20 pixels (**Filters** | **Blur** | **Gaussian Blur**). You may not see the effect applied if you don't have the channel as visible. Don't worry now about that.
8. Create a new layer, and fill it with a solid black using the **Bucket Fill Tool**. Place it on top of the other layers, and set its mode to **Screen**:

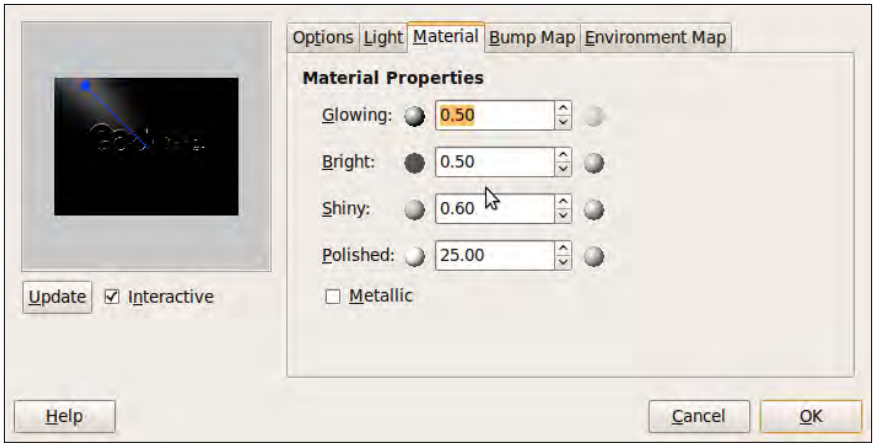



9. Go to **Filters** | **Light and Shadow** | **Lighting Effects** and create some reflections, and play a little with the settings. I used the following:

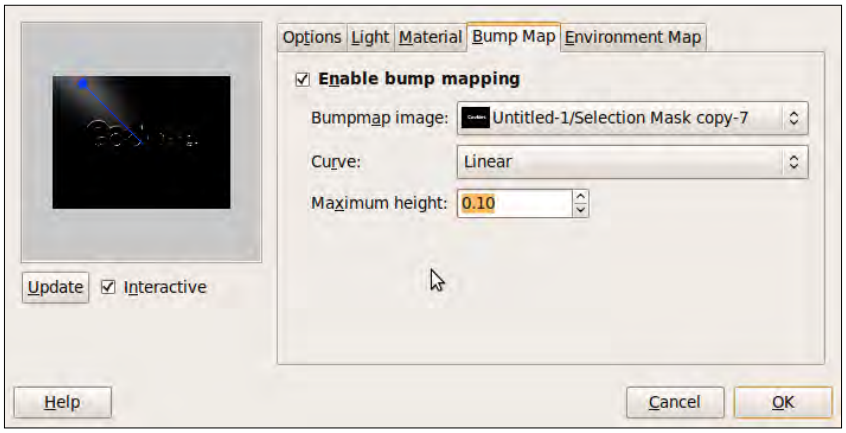
- A **Directional** light with a normal intensity. Use the **X**, **Y**, and **Z** direction buttons to point the light to the place you want:



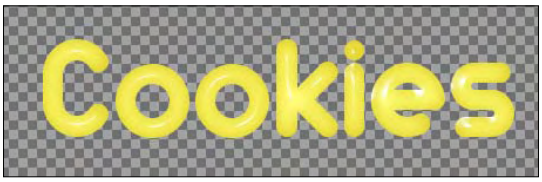

- The **Material** tab defines how light is reflected by objects. The small spheres show how each option reacts to light from the option's minimum to it's maximum values. The **Metallic** option simulates a metallic object:




- The **Bump Map** tab lets you add relief to an image. Brighter points will appear higher than darker points. Everything depends on the light positioning.




Play with this filter and the amount of blur applied to the saved channel until you are satisfied with the final piece. Following is what my final plastic text image looks like:



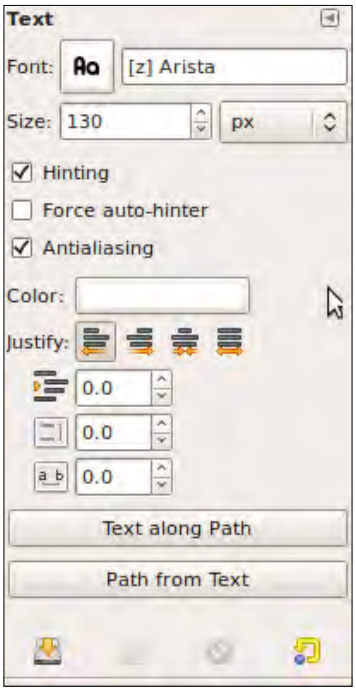

# Creating gold text

This easy recipe will let you create a gold-like effect for your texts.

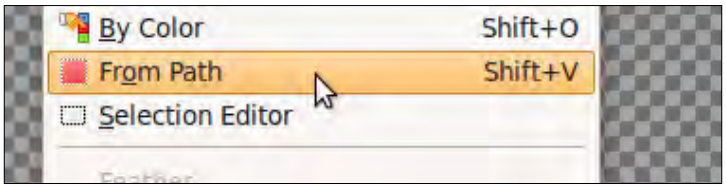
## How to do it...

Follow these simple steps to create golden text:

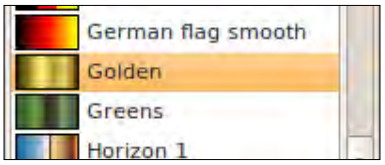
1. In a new file, create your text, and fill it with a solid white. With the text layer selected and still with the **Text Tool**, click on the **Path from Text** in the **Text** options box:




2. Create a new layer, and name it **main**. Then, go to **Select** | **From Path** to load the selection into this new layer:

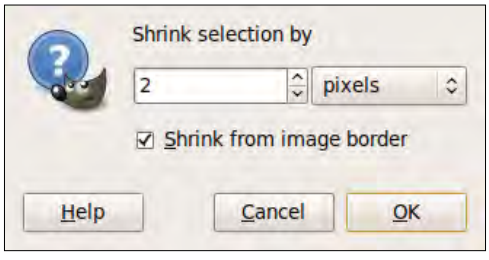



3. Use the **Blend Tool**. Pick or create a gradient that looks like gold. GIMP comes with a **Golden** gradient, but it may be a little too bright. You may modify it to get a better effect:

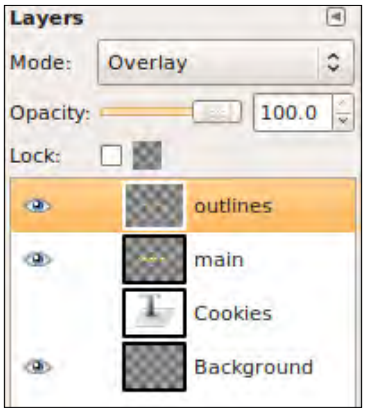



Apply the gradient:

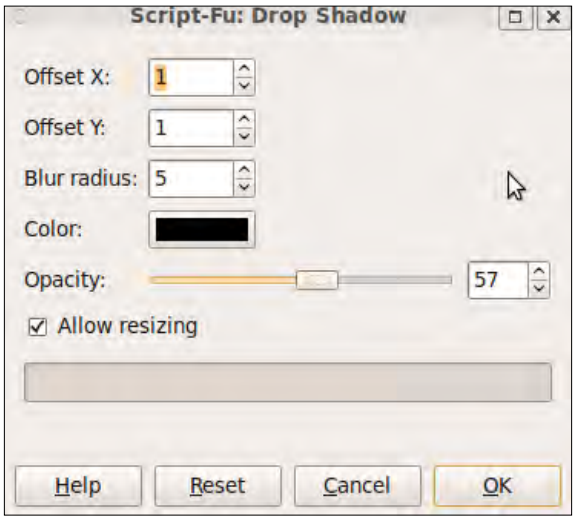
4. Duplicate the text layer, and name it **outlines**. Go to **Select** | **Shrink**, and reduce the selection by 2 or 3 pixels. Delete the selection with the *Delete* key or by pressing *Ctrl* + *X*:



Go to **Colors** | **Brightness-Contrast**, set the **Brightness** slider all the way to the right, and set the layer's mode to **Overlay**:




6. Choose your main text layer from the **Layers** dialog. Go to **Filters** | **Light and Shadow** | **Drop Shadow**, and apply a small shadow:




Try not to make the shadow too strong. It's better if it is barely seen. Following is what my final golden image looks like:

# Creating icy cold text

In a few easy steps, turn any text into a cool looking cold piece.

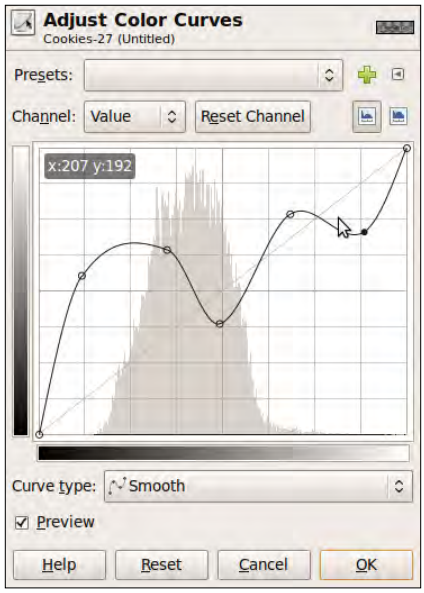
## How to do it...

To give that cool, icy look to your text, follow these steps:

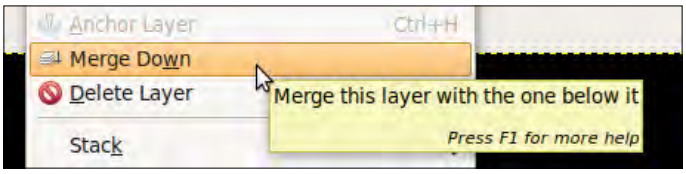
1. In a new file, type your text, and pick a font and size. Right-click on the layer's name in the **Layers** dialog, and choose the **Alpha to Selection** option. Go to **Filters** | **Render** | **Clouds** | **Plasma**, and apply it. You'll get something that looks like the following:

2. Go to **Colors** | **Desaturate** to change the layer to black and white values, and click **OK**.

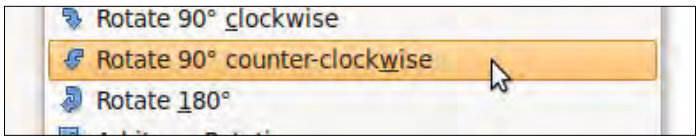
3. Now go to **Colors** | **Curves** and try different options by clicking directly inside the graph. Take the following image as an example:



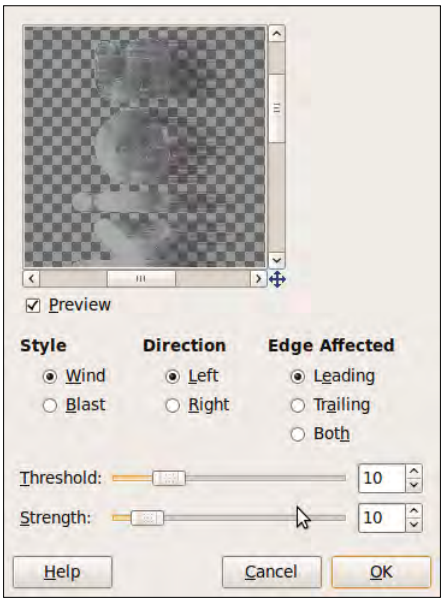

4. Create a new layer, and select **Layer** | **Merge Down** from the menu. Choose **Select** | **None** from the menu.



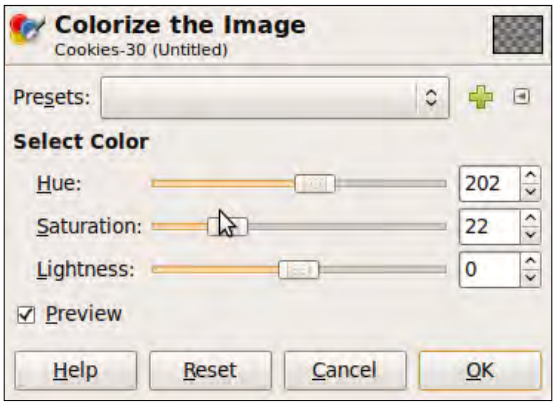

5. Rotate the layer 90 degrees counter-clockwise by going to **Layer** | **Transform** | **Rotate 90° counter-clockwise**:



6. Go to **Filters** | **Distort** | **Wind** and click **OK**. This will add a frosted effect:




7. Rotate the layer back to its original position by selecting **Layer** | **Transform** | **Rotate 90° clockwise**. Ice can be of many colors, pick the one you like by going to **Colors** | **Colorize**:



Your final image should look something like the following:

# Creating fiery text

This intermediate recipe will teach you how to make text appear as if it were on fire, and also give you a little more practice with the **Smudge Tool**.

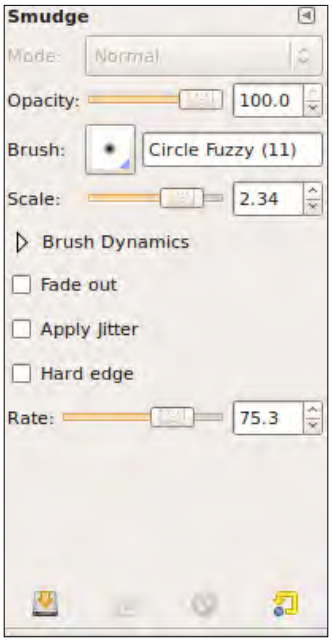
## How to do it...

In order to produce fiery text, follow these steps:

1. In a new file, create a new layer, and fill it with a solid black. Pick a font and size, and create your text with a white solid fill. Merge down the text layer with the previously created one by going to **Layer** | **Merge Down**, or by selecting it by right-clicking on the layer's name from the **Layers** dialog.

2. Select the **Smudge Tool**, pick a soft brush, an try with different settings to smudge the letters upwards simulating a burning flame.

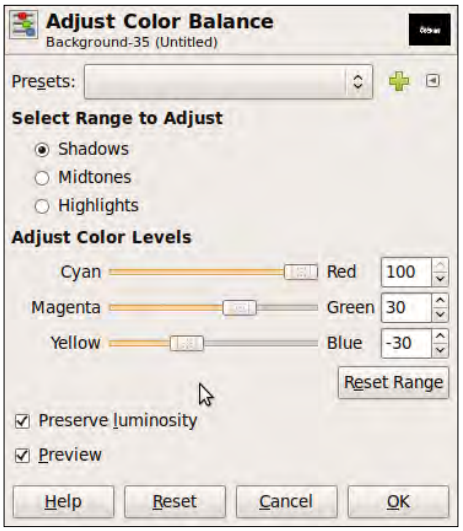
   I used a soft circular brush, varying the scale to get better results as I was smudging the letters.



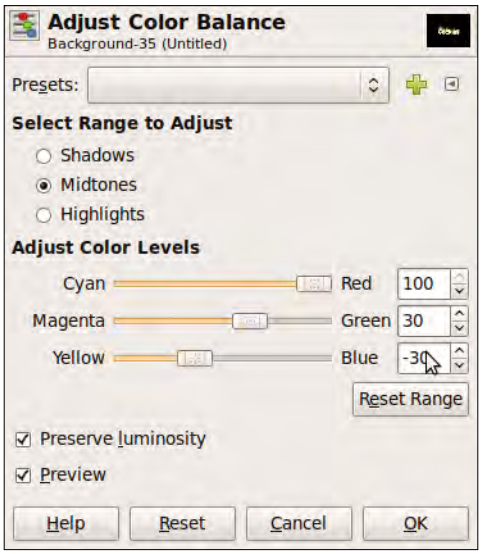

   This is how the first letter looks after a few strokes. Remember to smudge upwards:

3. Use the **Zoom Tool** to work with more detail. Continue using the **Smudge Tool** to change borders of each letter, and turn the solid white into different shades of gray. Following is what I ended with after a while:

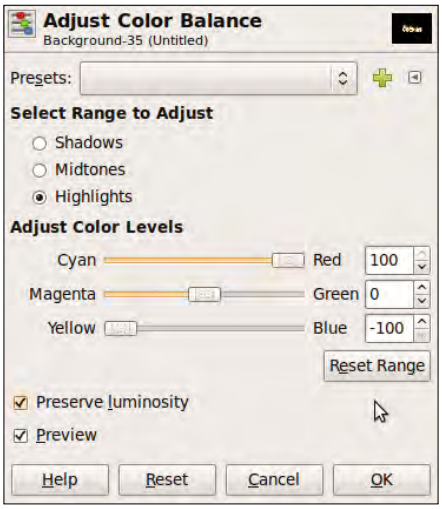
4. Go to **Colors** | **Color Balance**, and apply it three times with these values:
    - First, adjust the color balance for the **Shadows** of the image:




    - Then, adjust the color balance for the **Midtones**:




    - Finally, adjust the color balance for the **Highlights** of the image:




After applying these changes, you will end with something like the following:

5. If you want, you could apply a small **Gaussian Blur** to it. Go to **Filters** | **Blur** | **Gaussian Blur**, and apply it with a value around 3 pixels. Following is my final piece:

# Creating paper cutout text

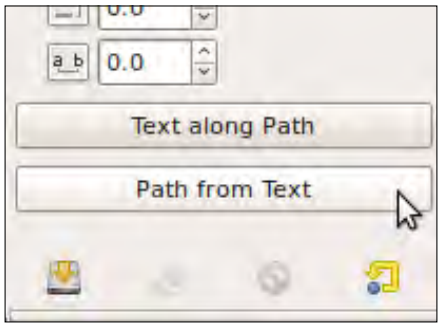
In a few fairly simple steps, make your text look as if it has been cut from a piece of a old paper. Also we'll learn how to correct and improvise a little when we are experimenting with filters to get the results we want.

## How to do it...

Follow these steps to produce a paper cutout text effect:

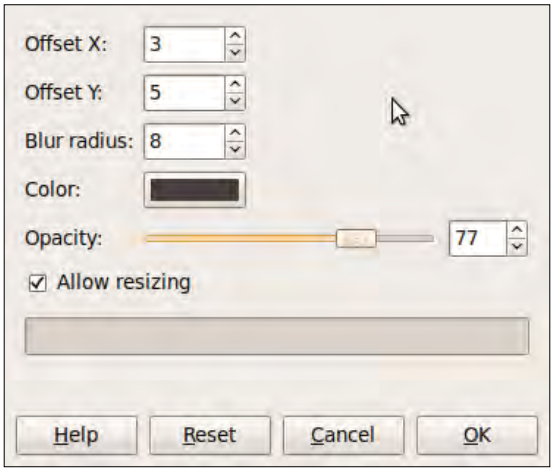
1. Create the text, pick a font and a size. The font's color will be used as the object below the paper cutout:

2. With the text layer selected, and with the **Text Tool**, click on the **Path from Text** button at the bottom of the options:




Now, go to **Select** | **From Path** and then **Select** | **Invert**.

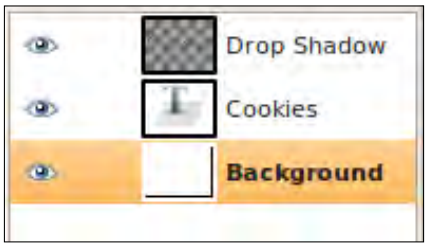
3. Create a new layer and name it **Drop Shadow**. Go to **Filters** | **Light** and **Shadow** | **Drop Shadow**. Set it to a small amount, and also pick a color that is a bit darker than the text face to improve the effect of the paper casting a shadow on the object behind it:



Now, sometimes when you are trying new things, they don't go exactly as you want. In this case, the filter applied a shadow also to the edges of our layer. Following is what it looks like:

Pick the **Eraser Tool** and erase all the shadows you don't want. This is how it looks after erasing everything I don't like:

4. If you don't already have it, create a new layer, and fill it with a white solid texture. Place it below the text layer:




5. Now, go to **File** | **Open as Layers**, and pick a paper texture. As I told you before, I try to create my own texture library by scanning and taking photos of any kind of texture around me. You can do that too, or also download any royalty-free texture from the Internet.
6. Once you load your texture, place it between the text layer and the solid white we just created in the previous step. You can adjust levels, change color balance, desaturate, and change its mode to **Multiply**. Experiment with all these until you are satisfied, Following is what my final image looks like:

# Creating rubber stamp text

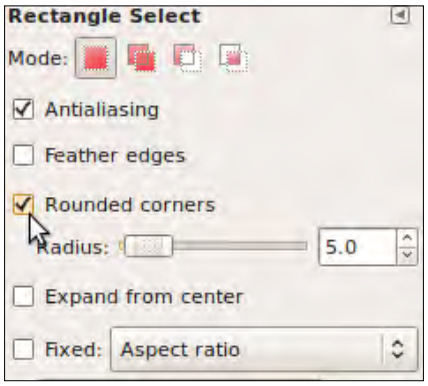
This is a quick and easy recipe to create an effect as if your text is made by a rubber stamp.

## How to do it...

To create a rubber stamp-like effect carry out the following steps:

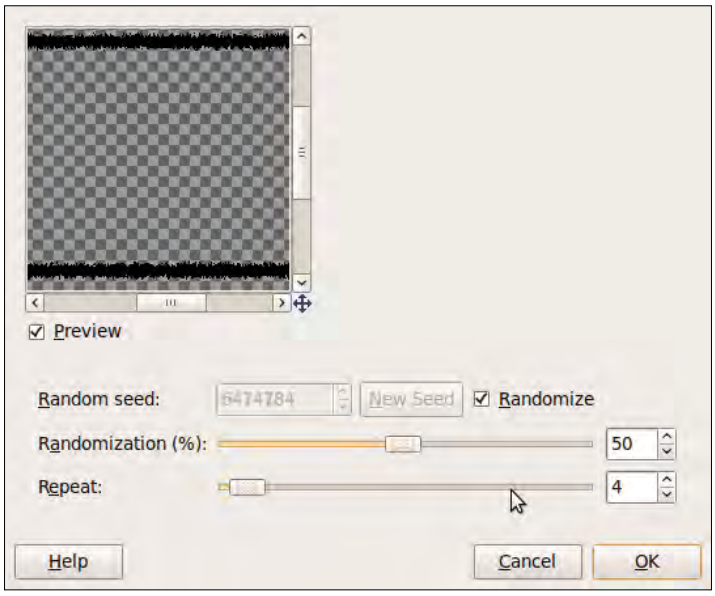
1. In a new file, create your text, and pick a font, size, and a color.

2. Use the **Rectangle Select Tool**, check the **Rounded Corners** option in the tool options dock, and draw a rectangle around the text you just created:




3. Go to **Edit** | **Stroke Selection**, set the **Line width** to something around 10 pixels, and click **Stroke**:

4. Go to **Filters** | **Noise** | **Slur**, and set the **Repeat** slider to something around 3. Apply this filter with the same settings both to the rectangle and to the text layer:




5. Finally, use the **Rotate Tool** to rotate the layers and make it look like real stamped text:

# 4
# Photo Manipulation

In this chapter, we will cover:

- Scaling an image
- Cropping an image
- Flipping or rotating an image
- Improve low-light photos
- Scaling an image without deformation (Liquid Rescaling)
- Creating a diorama effect (simulating depth of field)
- Creating HDR photos
- Creating a black and white postcard with a color touch

## Introduction

When working with photos we need to be sure that colors always look the way we want. Monitors, LCDs, and laptop screens, all render colors differently, and they don't look the same. There's no way you can control how people see their own screen, but you can calibrate your own using some kind of *color profiling*. The problem extends to different devices like scanners, printers, and cellphones, among others, because each device has its own color characteristics. Also, each device can handle different ranges of color.

To avoid these problems, color profiles were implemented. It's a table that matches a specific color of a device to a device-independent color. Color profiles are created by each manufacturer, but the ICC (International Color Consortium) created its own standard.

## Calibration, image modes, and colour profiles

This is one of the first things to do before working with photos. The **Color Management** menu (**Edit** | **Preferences** | **Color Management**) enables you to load any preset for your monitor. The presets can be created using any hardware calibration and measurement tool. For Linux, you can use **LPROF** (`http://lprof.sourceforge.net`) and **ARGYLL** (`http://www.argyllcms.com`). For more information on color management in Linux, check `http://en.wikipedia.org/wiki/Linux_color_management`.

Apart from the color profile in use, you should set up your monitor and video card to render colors as close as possible to the standard. For Linux you can use **XCALIB** (`http://xcalib.sourceforge.net`) or **DISPWIN** (`http://www.argyllcms.com/doc/dispwin.html`)

You can also simulate how an image will look when printed by selecting **Print Simulation** from the **Mode of Operation** in the **Color Management** menu.

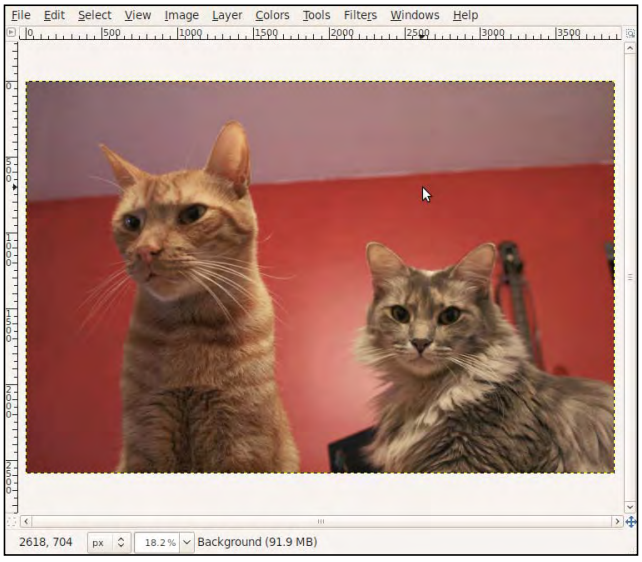
# Scaling an image

Image scaling is one of the easiest tasks, and also one of the most useful. In just a few seconds you can reduce an image's size, making e-mail transfers quicker.

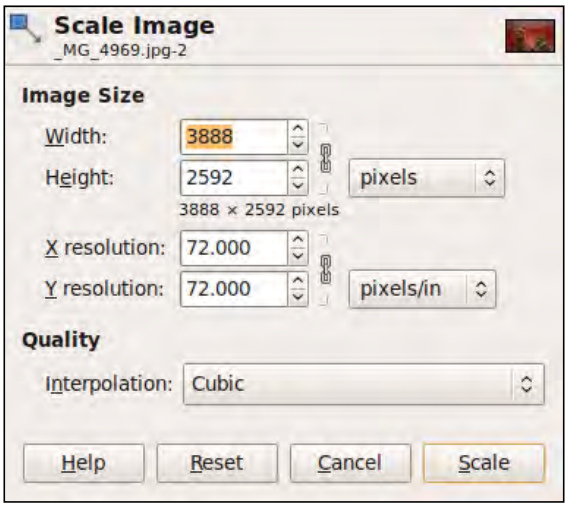
### How to do it...

To scale an image follow these steps:

1. Open a file, go to **Image** | **Scale Image**.



2. Change the size to whatever you want:




As you change one value, you can see the other changing too. That's to keep the original file aspect ratio. If you click on any of the chain icons you can change any value independently.

## How it works...

Image scaling works by changing the number of pixels of an image. The way pixels are created/deleted can be changed by choosing a different interpolation method in the **Quality** section of the **Scale Image** window. The best (but slowest) method is the **Cubic** interpolation, which calculates the color of each pixel by estimating an average of the eight closest ones. On the opposite corner, if you choose **None** as the interpolation method, each pixel gets its own color from its closest neighbor. This is the fastest method, but it also generates unwanted aliasing that can give you headaches if you are working with transparencies and high-contrasts.

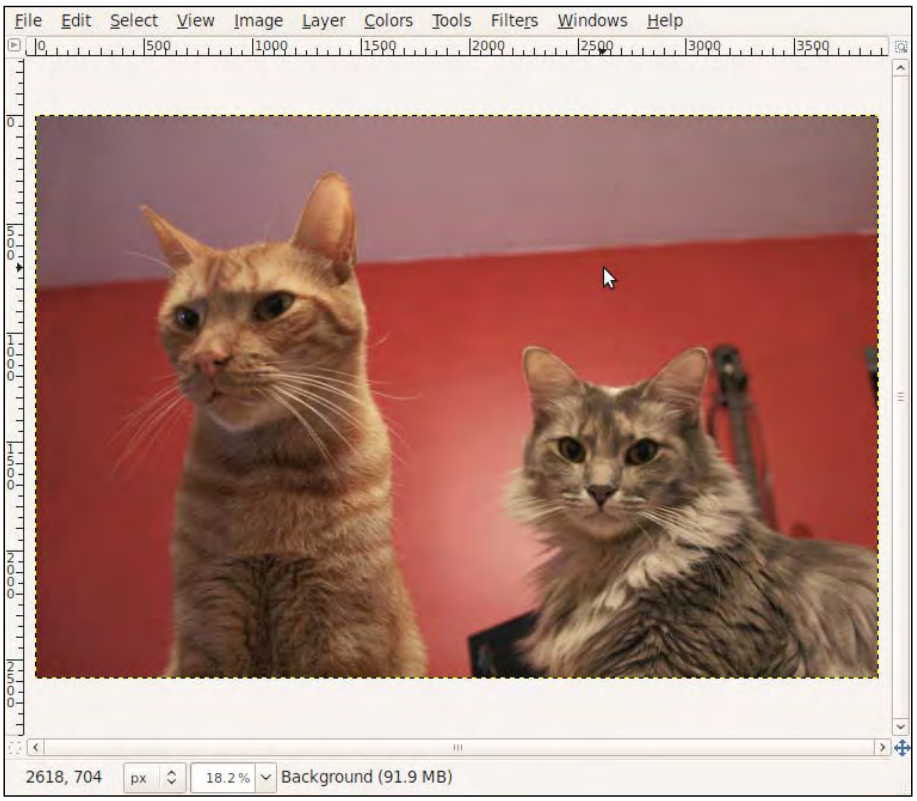
The **resolution** fields are useful when printing the image, they say how many pixels are per inch. If your image is too big and the resolution too low, the printed image can look pixelated. You can change the print size of an image without changing its resolution or size by going to **Image** | **Print Size**.

# Cropping an image

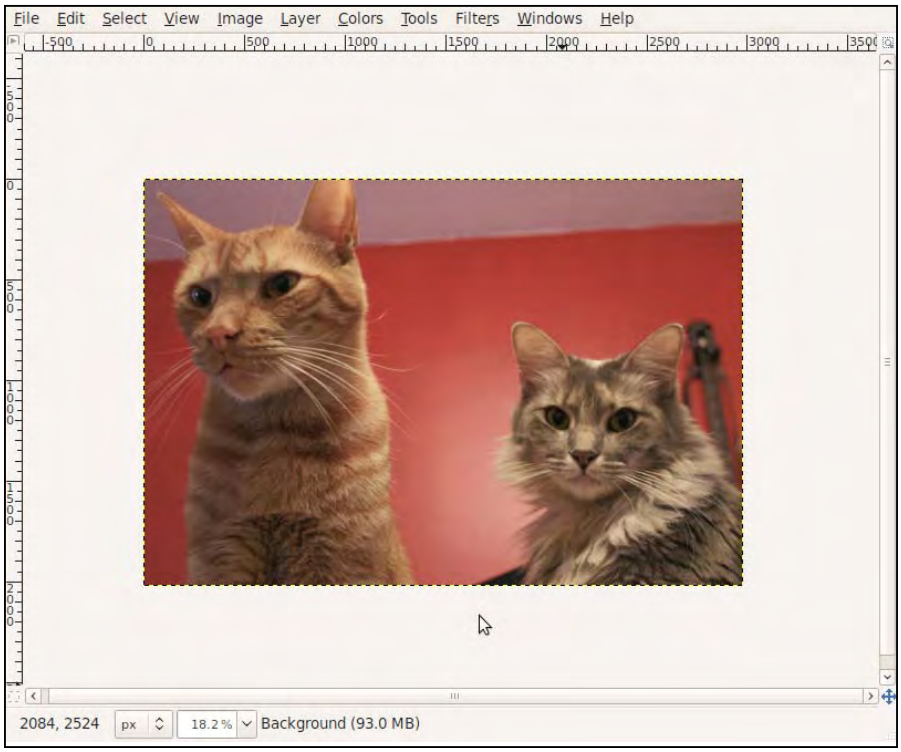
There's another quick way to rescale your image and select just a section of it. Use the **Crop Tool**.

## How to do it...

1. Open an image, and select the **Crop Tool**:




2. Quickly click and drag around the area you want. Then, just press *Return* (*Enter* in Windows), and anything around the selection area will be cropped.



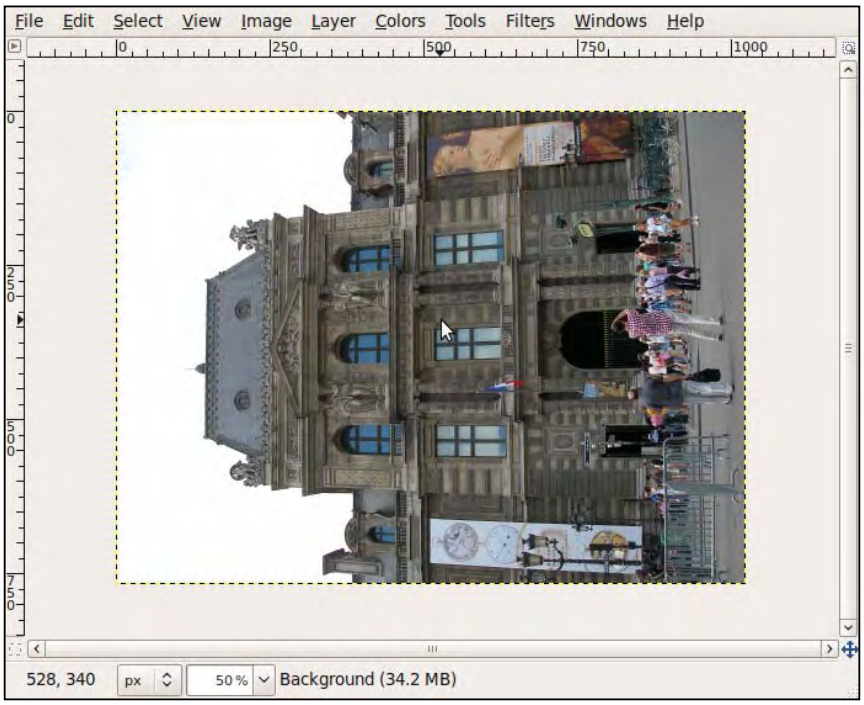

# Flipping or rotating an image

Sometimes you scan and old photo or take a picture with the camera tilted. Following is how to quickly rotate or flip them:

## How to do it...

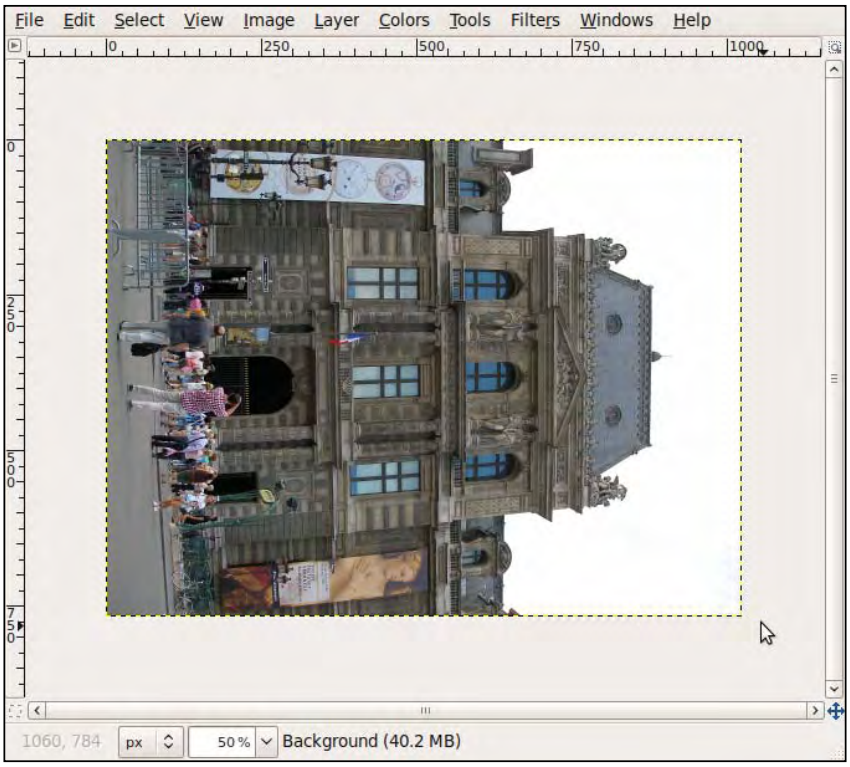
To rotate or flip an image easily, carry out the following steps:

1. Open an image, for example the following:



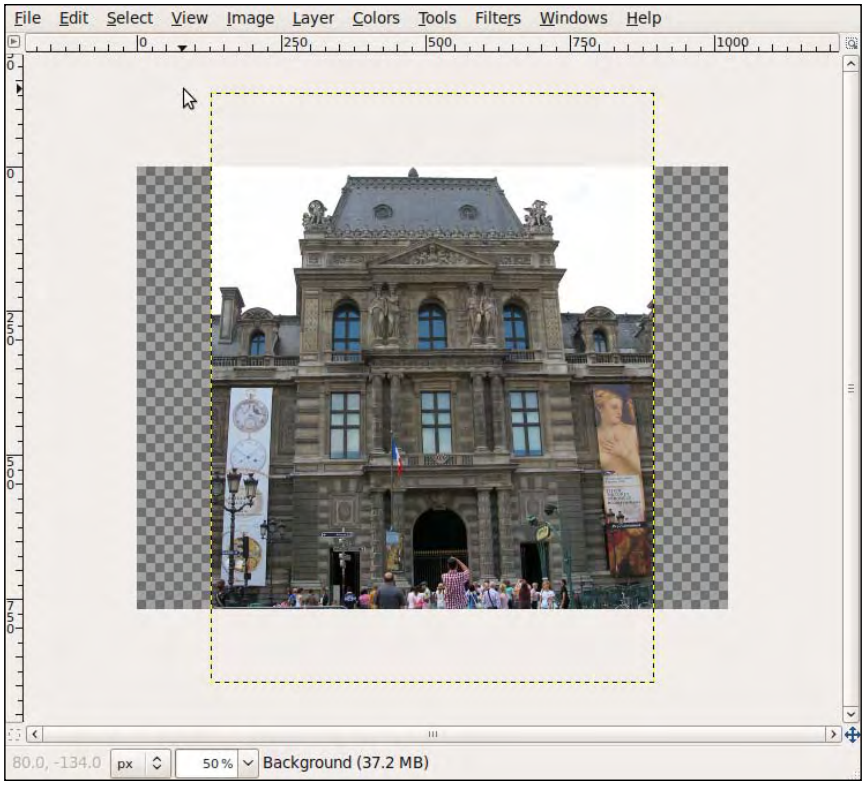

2. Select the **Flip Tool** from the **Toolbox**:

Use the left-mouse button along with the *Ctrl* key to change between horizontal and vertical flipping.




3. Now, to rotate the image, select the **Rotate Tool** from the **Toolbox**:

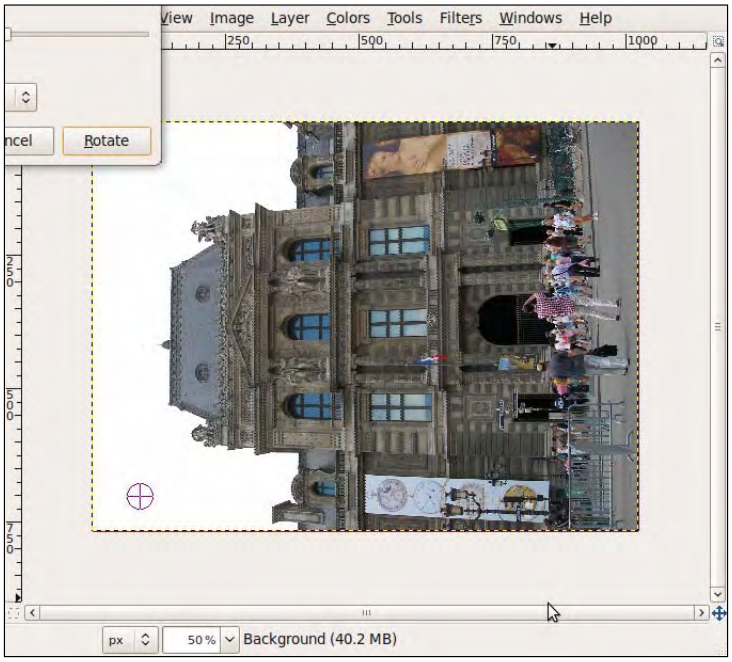
Click and drag your image to rotate it. Use the *Ctrl* key to constrain rotation to 15 degrees steps. Press the *Return* key when you've finished:



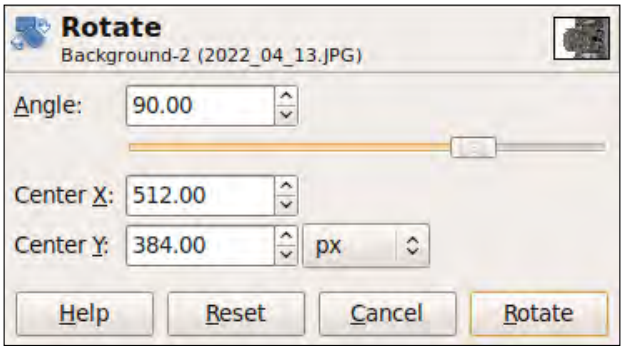

## How it works...

Flip and rotate are basic tools. You can use the mouse to perform the operations after selecting any of them, but using their respective tool options gives you a lot more control. In both cases, you can control what to rotate (a layer, a selection, or a path).

Also, in the **Rotate** tool, you can change the middle point around which the image rotates. This allows you to rotate the image with more freedom. To change it, select the **Rotate Tool**, and click and drag the small circle that appears in the center of the image:




You can also set its coordinates from the **Rotate** window:



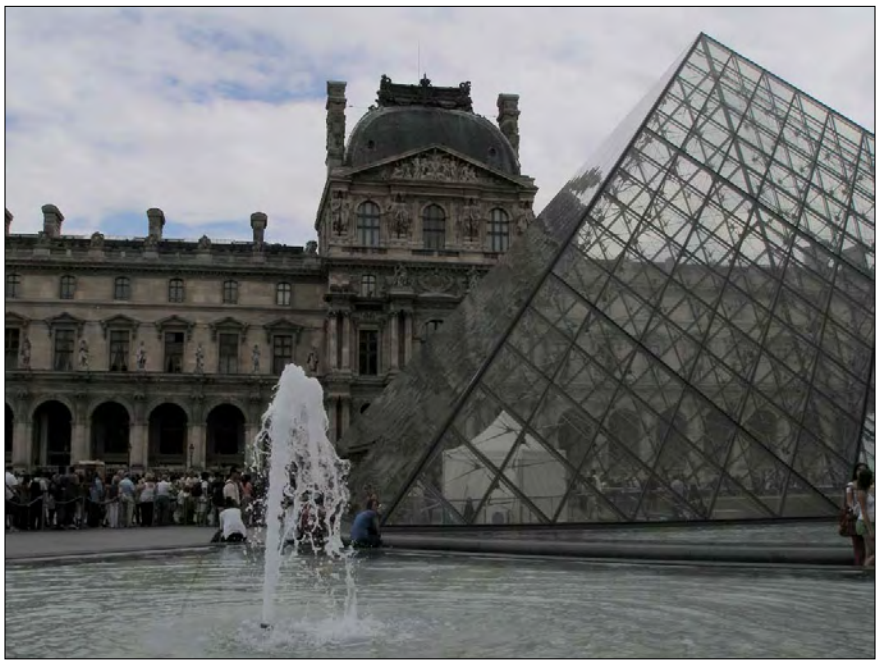

You can also flip and rotate an image by using the menu items in **Image** | **transform**.

# Improving low-light photos

Sometimes, we take photos too quickly, and they end up being too dark. There are ways to correct this problem but keep in mind we are dealing with random pictures. Sometimes, we might end up with a grainy photo with washed colors or without contrast. So follow the upcoming steps as a guide, and experiment with different settings until you are satisfied. Sometimes, you can fix your image by changing just the brightness and contrast, sometimes, you have to combine the steps, and sometimes, repeat them.

## How to do it...

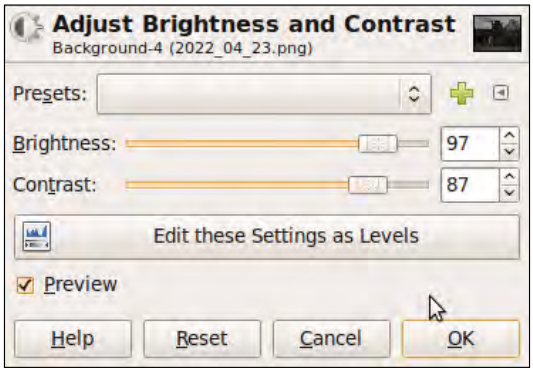
To improve or brighten low-light images, carry out the following steps (you are free to experiment with the values). Open a dull/dark image that requires brightening, for example the following:



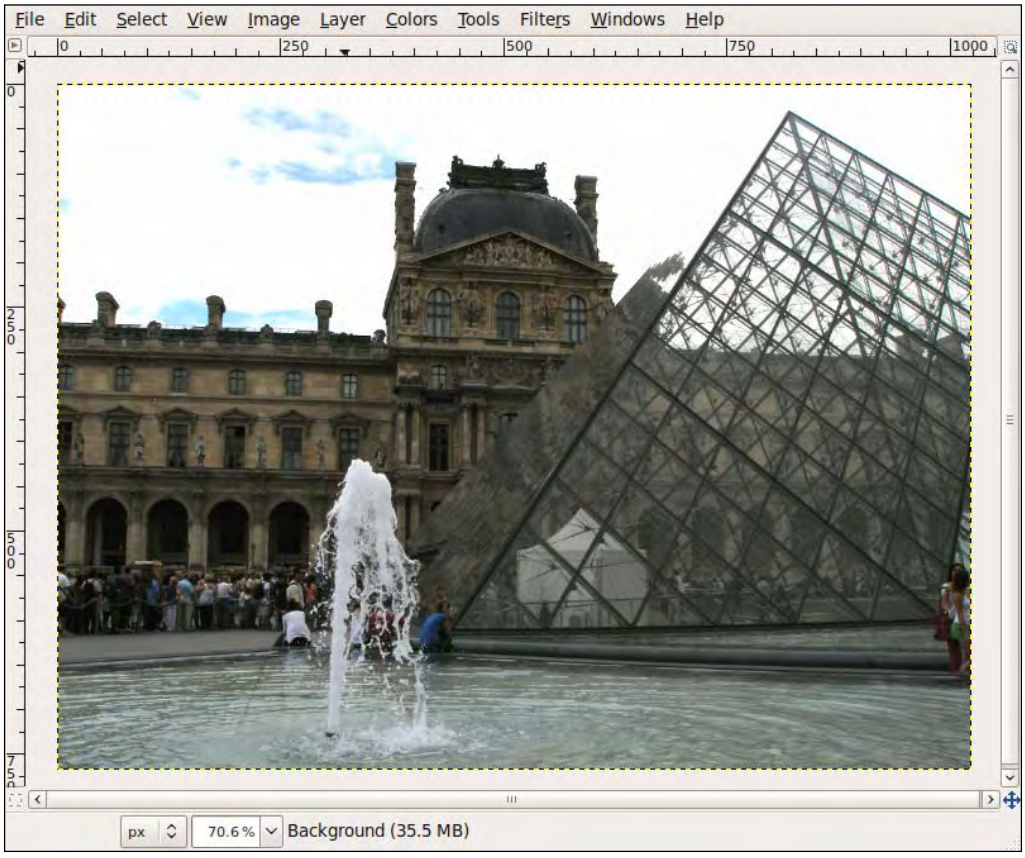
There are three methods by which we can improve the image:

1. **Method 1**: This is the most basic, quick, and easy way to try to make your low-light photo look better.

Go to **Colors** | **Brightness-Contrast**, and move the sliders to change the brightness and contrast levels for the active layer or selection:

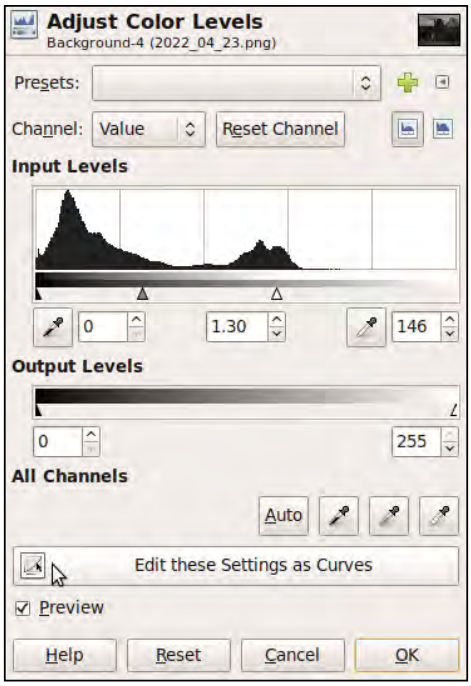



You can also keep your left mouse button clicked and drag horizontally to change contrast, and vertically to change brightness. The final image looks like the following:

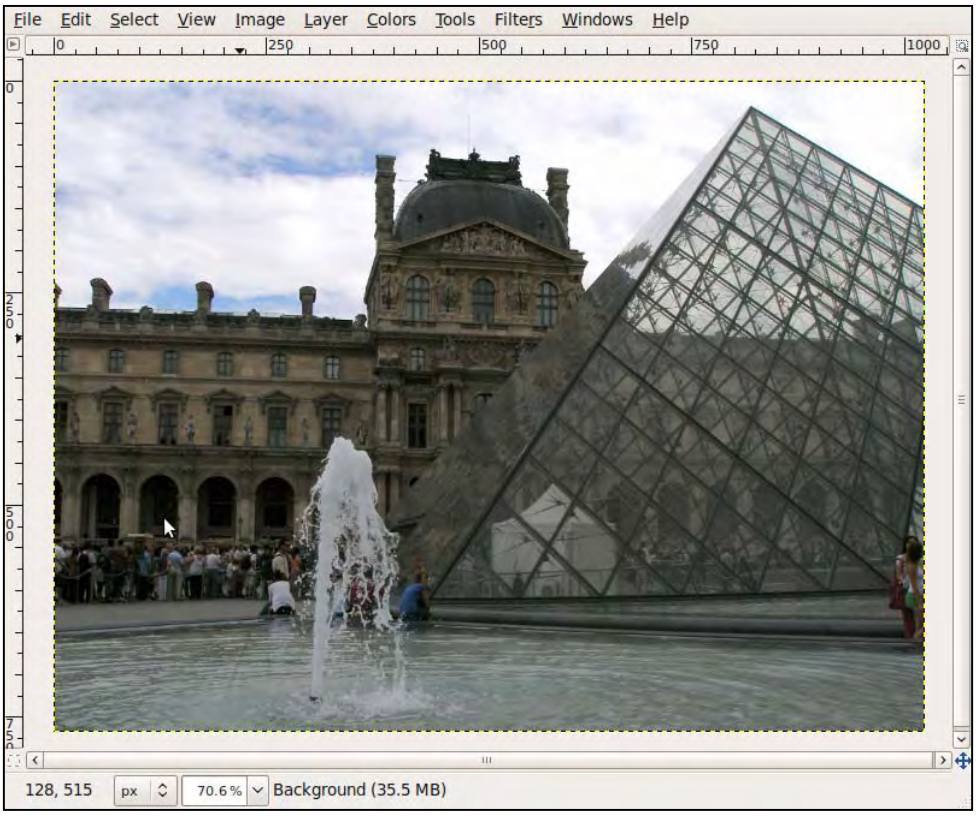


2. **Method 2**: Changing levels is a bit more complex, but once you know a few things, using it is pretty intuitive.

   Go to **Colors** | **Levels**, and the **Adjust Color Levels** window appears. By clicking and dragging inside each of the three little triangles at the bottom of the **Input Levels** area, you can change the values for dark, middle, and light levels of your layer or active selection. These values range from 0 (black) to 255 (white) and allows you to change how the image looks depending on how each pixel falls in any of these three "categories":

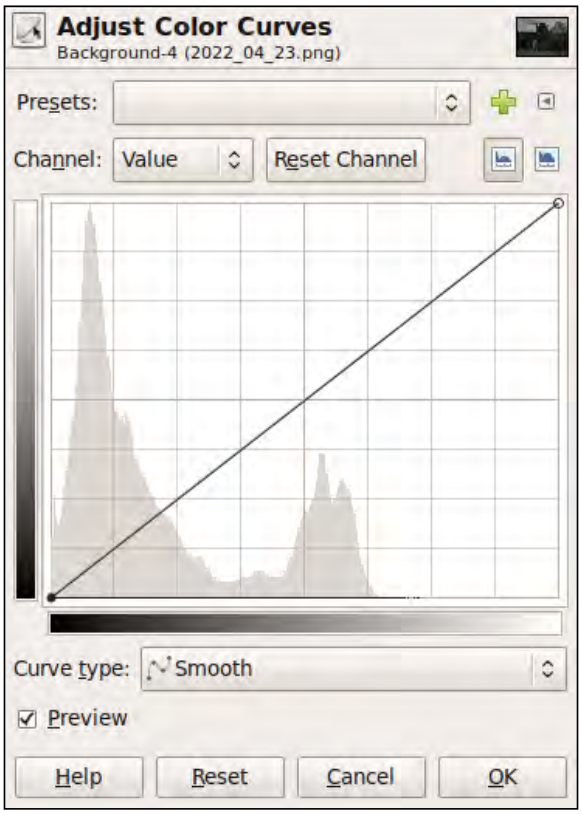



   This is how the image looks after applying the changes:



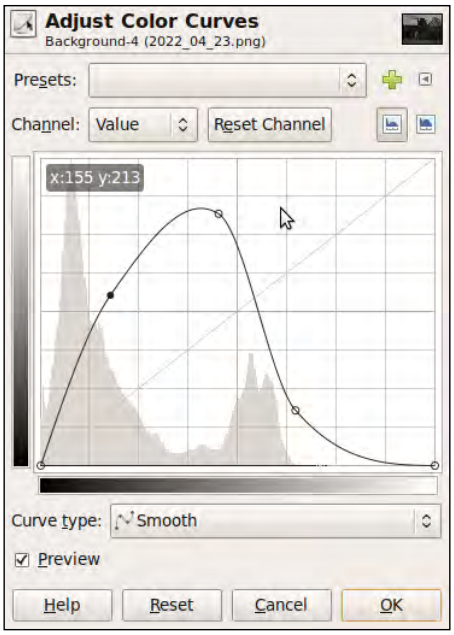

3. **Method 3**: Changing curves instead of levels or brightness-contrast is the best way to make your image look better. Since with curves, we have better control over how contrast and brightness are distributed by adding as many control points as you want.

Go to **Colors** | **Curves** to get to the **Adjust Color Curves** window:

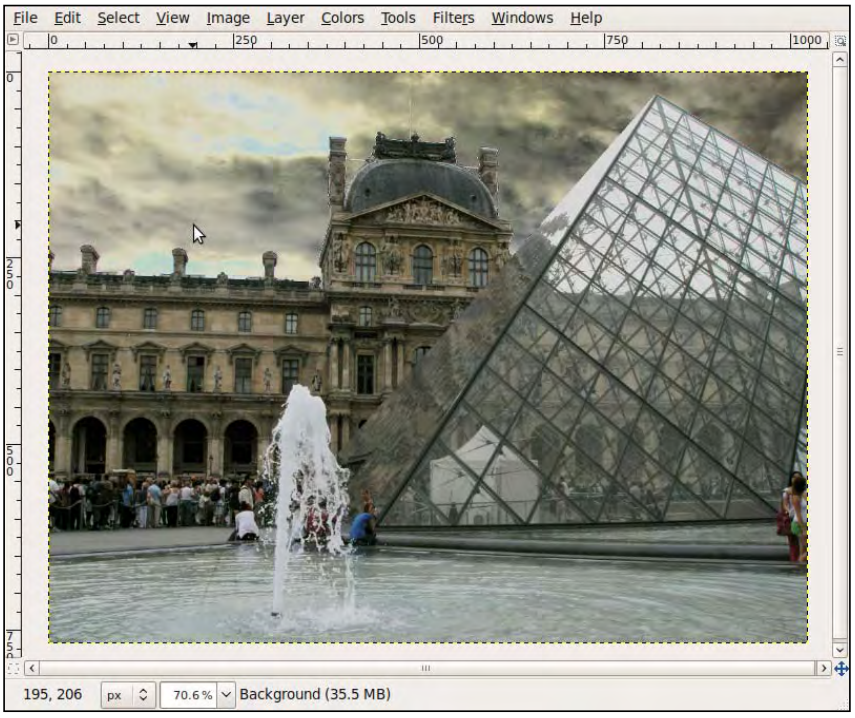



The vertical gradient represents the image's pixel level you want to set (the output tonal scale). The horizontal gradient represents the level of each selected pixel (the input tonal scale); both of them ranging from 0(black) to 255(white), shadows to highlights.

There are two anchors, each on an extreme of the graph. If you click on them, or when you click on the curve (and a new anchor is created) you can move it around the axes with the mouse or the up and down arrow keys if you want more precision.




This is the image after applying the changes:



As you can see, playing a bit too much with curves can introduce color aberrations, so you have to keep experimenting until you get to the colors and definition you want.

# Scaling an image without deformation (Liquid Rescaling)

Image scaling is easy when you want to just change the size of an image. However, many times you want to change size of just a few objects, or adjust the background size. These tasks can be painful and time-consuming. However, since a few years ago there have been some techniques available that allow the automation of these tasks. There is a plugin that implements one of these algorithms (called Seam Carving).

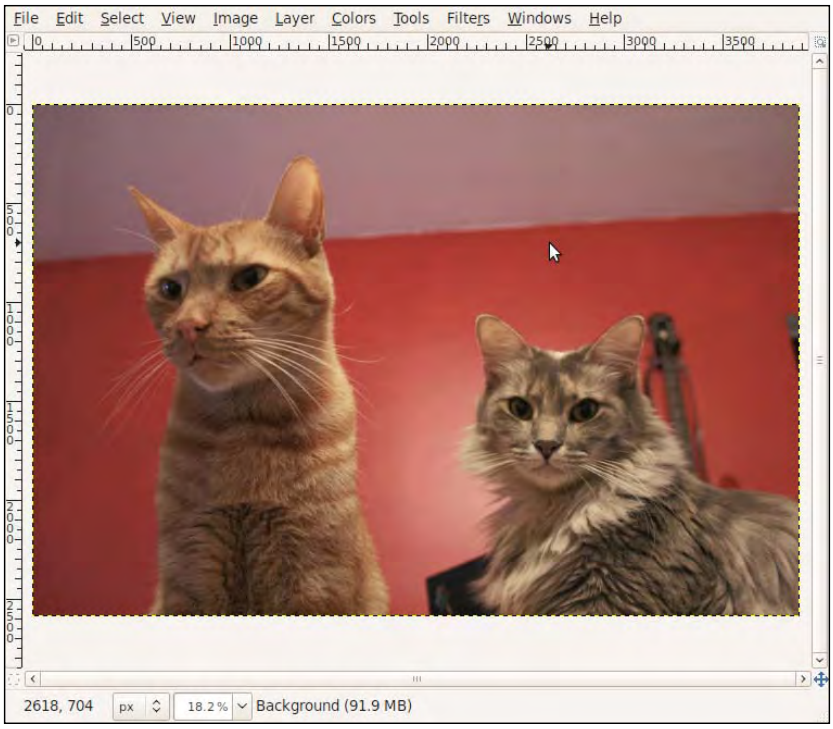
## Getting ready

To use this plugin, you will have to install it first. The process is different depending on the platform you are working on, but it's pretty straightforward and easy. All the information to download and install it is on `http://liquidrescale.wikidot.com/`. You can confirm it's properly installed if you see a **Liquid Rescale...** option at the bottom of your **Layer** menu.

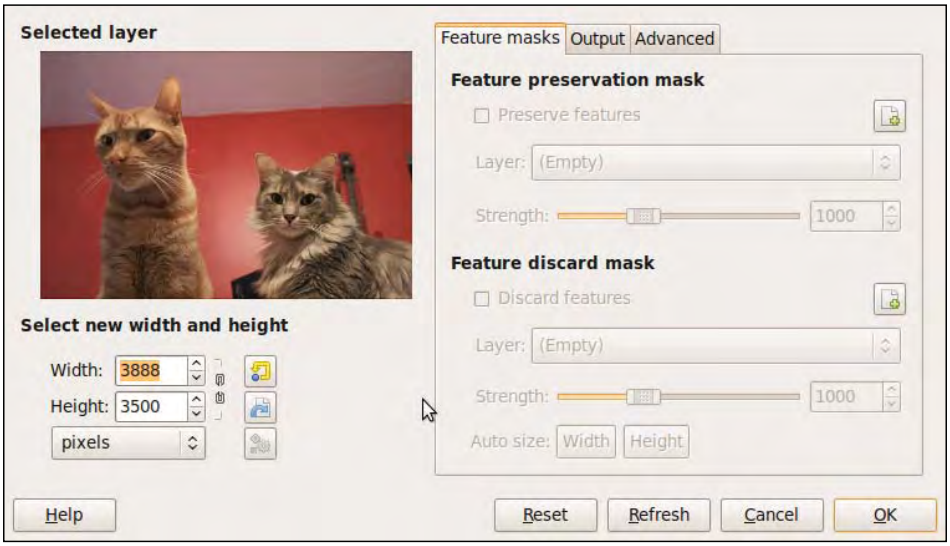
## How to do it...

Time to have fun with the liquid rescale:

1. Open an image you want to rescale. For example, the following:

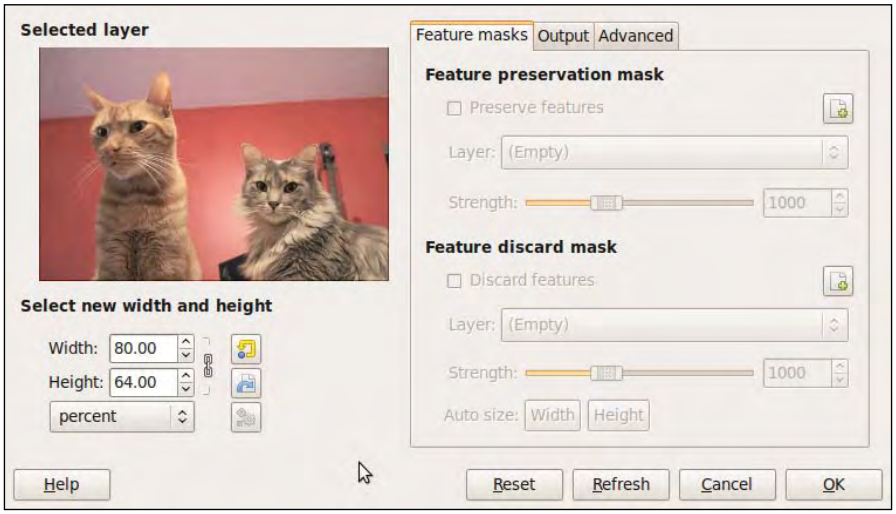



2. Go to **Layer** | **Liquid Rescale...**

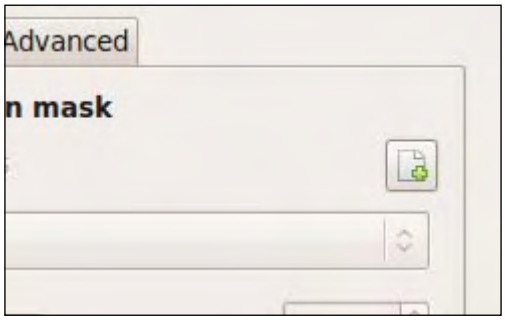


The plugin can take more than a moment if you are using big images. So, it's a good way to start by copying the original file, opening it, and reducing it's size. Once you are satisfied with the results, you can open the original and apply the plugin with the same settings.

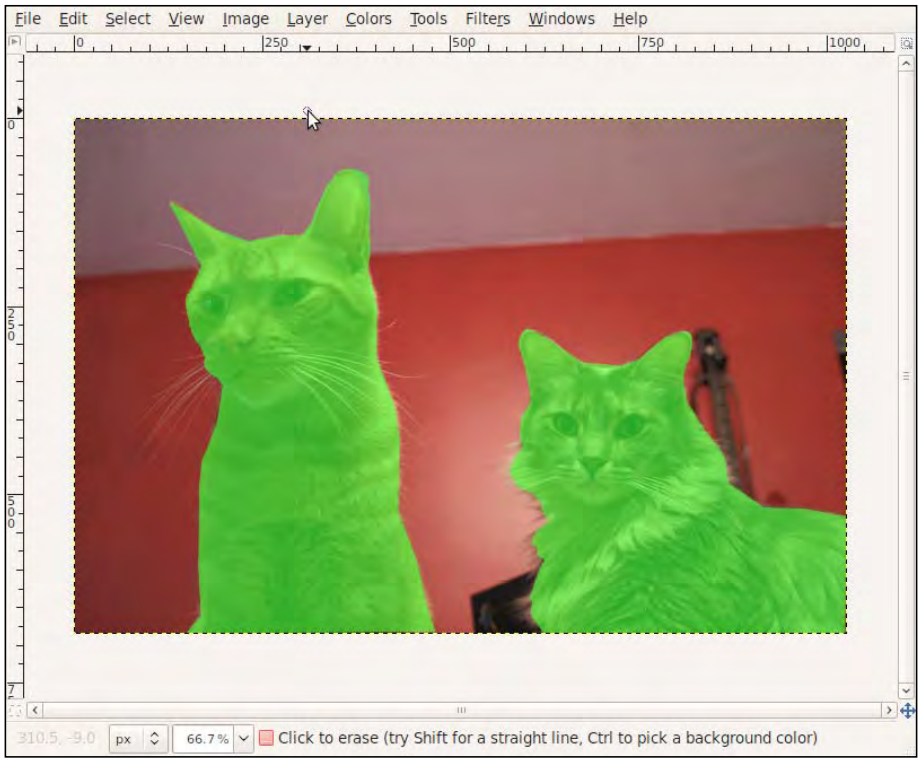
3. Now it's fun and test time! Try these options first:



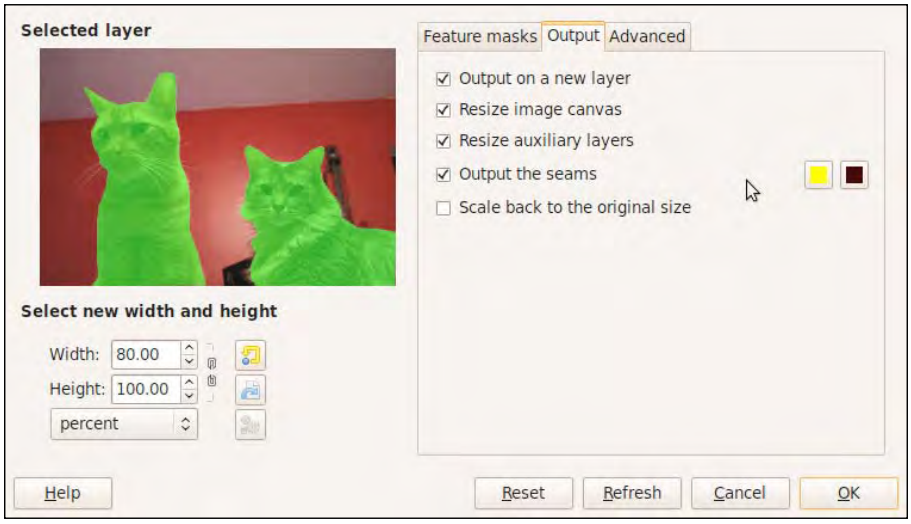

4. Click on the **New** button in the **Preserve features** section on the right. A new layer will be created:



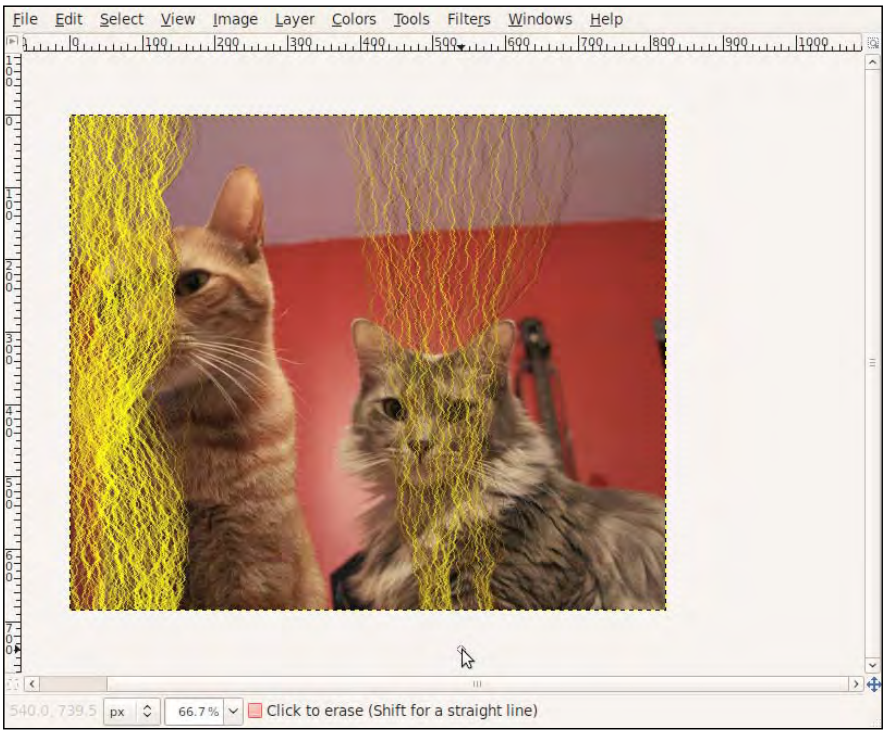

5. Now, move the plugin window, don't close it! Go back to the image window and combine the **Selection Tools**, the **Path Tool**, and the **Paintbrush Tool** with the **Paint Tool**, and paint over the areas you wish to preserve when scaling:




6. Back in the plugin window, click the **Refresh** button at the bottom to see the preservation mask applied. Click on the **Output** tab, and copy my settings:



7. Click **OK**. You should get the following result:




8. Hide the **Background LqR seam map** layer to check the filter result. Go to **File** | **Save** or **File** | **Save as**..., or any of the save options from the **File** menu to save your changes.

## How it works...

What you've just done is to paint around the areas that the plugin preserves when it is applied. You are helping it decide what NOT to scale. In this case, I decided to shrink the image's width, and by painting the cats in the layer that the plugin creates, I told it to use the surrounding pixels to modify the image.

The preservation mask is optional, but when practicing you will realize that many times, without it, the plugin can create undesired distortions.

The **Background LqR seam map** layer created in the example is optional; don't click in the **Output the seams** box in the **Output** tab of the plugin window. I used it in my example to show you how the plugin doesn't cross the area you marked as preserved unless it is too big, and there's nothing else to modify when scaling.

## There's more...

This is a very useful and time-saving plugin when you get the hang of it. Check it's page for any updates, manual, and tutorials at `http://liquidrescale.wikidot.com/`.

# Creating a diorama effect (simulating depth of field)

A diorama is a miniature model; it can be a fictional or a real place. Here, you will learn to make your pictures look like small landscapes with tiny little people or objects moving around.

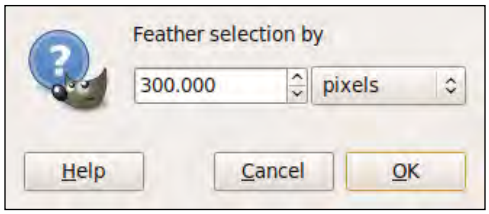
## How to do it...

Carry out the following steps to give your picture a diorama effect:

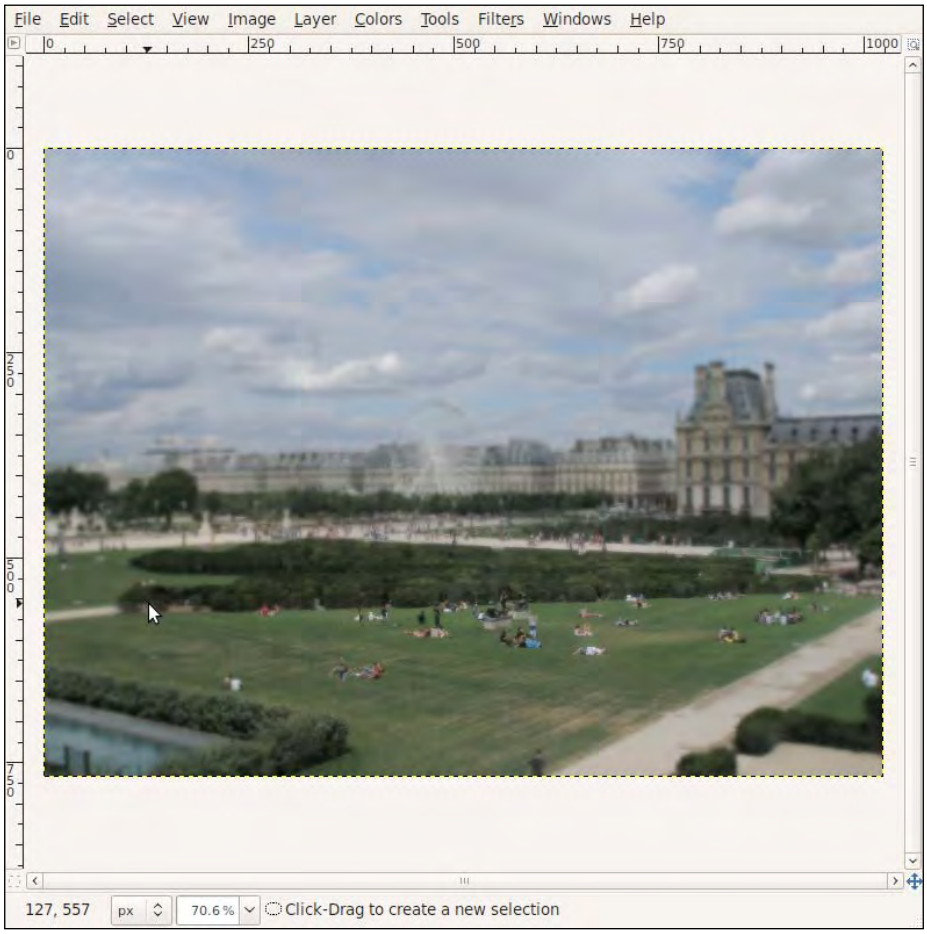
1. Open an image file (a nice wide landscape with people, cars, and so on would be apt). For example, the following image:

2. Pick a focus point; it should be anything near the ground level. Using the **Ellipse Select Tool**, draw a selection around it. For my example, we choose the people around the center of the image enjoying the day, sitting on the grass:

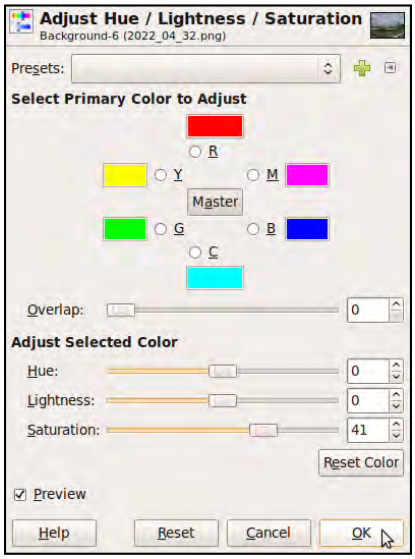
Invert your selection by going to **Select** | **Invert**. Now, go to **Select** | **Feather**, and enter a value between 200 and 400. I made a few tests, and a feather of 300 pixels works for my example.




1. Now, go to **Filters** | **Gaussian Blur** and enter anything between 5 and 7 pixels for both the X and Y values.



2. Clear your selection by going to **Select** | **None.** Go to **Colors** | **Hue-Saturation**, and increase the saturation level to anything you like. The following are the settings I used:




3. Following is what the modified image looks like:

## How it works...

As the effect simulates a photo taken of a little model instead of a real life landscape, we need to fake the depth of the field of the lens. Depth of field is how far away the eye (or a camera lens) can remain in focus. In a small model, the depth of field can be very small; that's why we pick a focus point, and start selectively blurring around it, increasing the amount of blur for the objects that are further from it.

Coloring also is different for small objects and wide, far-away landscapes. Since small objects are usually lit with artificial lights or camera flashes, color can be more vivid or bright, so we need to simulate them too.

# Creating HDR photos

**HDR** stands for **High Dynamic Range**. HDR techniques allow the creation of images with a wider range of luminance between the darkest and brightest areas of a single photo. This means pictures are a bit surreal and great looking!

## How to do it...

For this technique you need to take three photos of the same target, one underexposed, one correctly exposed, and one overexposed.

Most modern cameras already come with a setting to do this. Check your camera manual for the "multiple exposure button" and the "AEB—Automatic Exposure Bracketing" options. If you are not sure how this works, just take three pictures:

**Normal**: Just take the picture!

**Underexpose**: Use a shorter exposure time or close the aperture.

**Overexpose**: Use a longer exposure time or open the aperture.

Unless you want to have aberrations or artifacts in the final piece, always use a tripod!

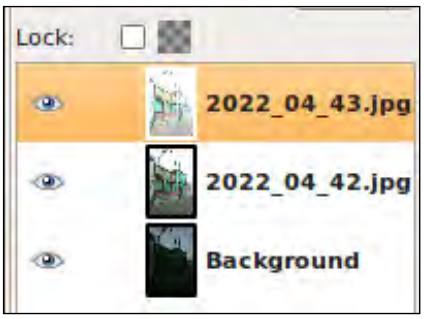
These are the pictures with which I'm going to be working:

- Following is the underexposed picture:

- Following is the well-exposed picture:

- Following is the overexposed picture:

1. Open your files, go to **File** | **Open as Layer**, and select your three photos. Hit *Return* or click the **Open** button. Your files will be loaded each one into it's own layer:

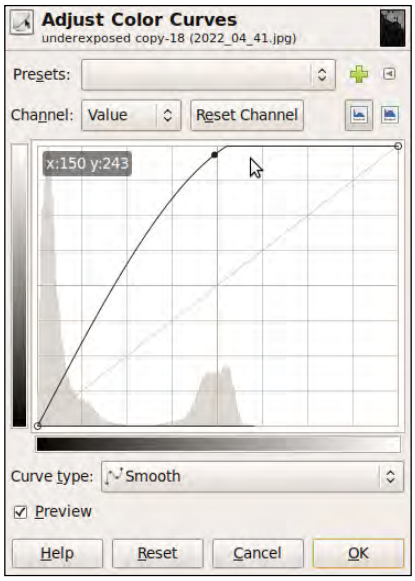



2. Reorder the layer with the normal picture at the bottom, the underexposed one in the middle and the overexposed picture on top of them. Rename the layers to avoid confusion:

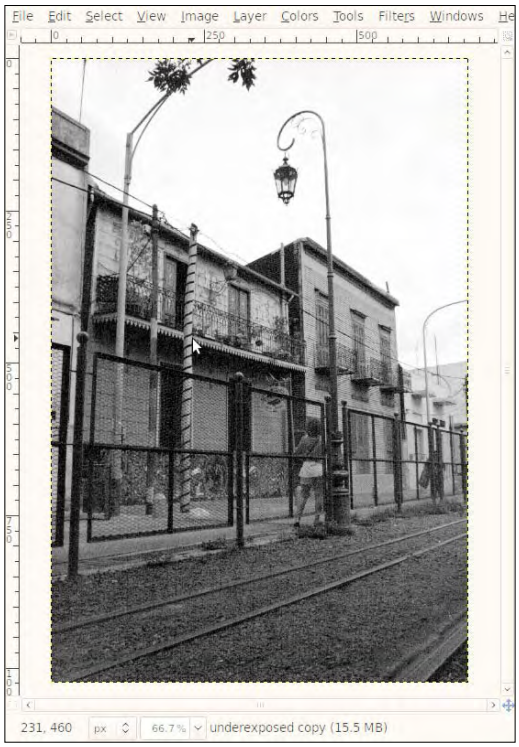
3. Make the **overexposed** layer invisible by clicking on its eye icon.

4. Select and duplicate the **underexposed** layer, and go to **Layer** | **Duplicate Layer**. Select the **underexposed copy** layer, and go to **Colors** | **Desaturate** to make it black and white. Click **OK**.

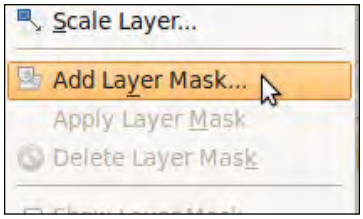
5. If the image is mostly black and white like in my example, go to **Colors** | **Curves** and drag the diagonal's middle point upwards to get a brighter picture. Now, click **OK**:




This is essential for the effect to work. Experiment with this setting, and try to make things appear if it's too dark



6. With the **underexposed copy** layer still selected, go to **Select** | **All** and press *Ctrl* + *C*, or go to **Edit** | **Copy**. Make this layer invisible by clicking the eye next to it in the **Layers** dialog. Click on the **underexposed** layer to select it. Right-click on it, and select **Add Layer Mask...**:

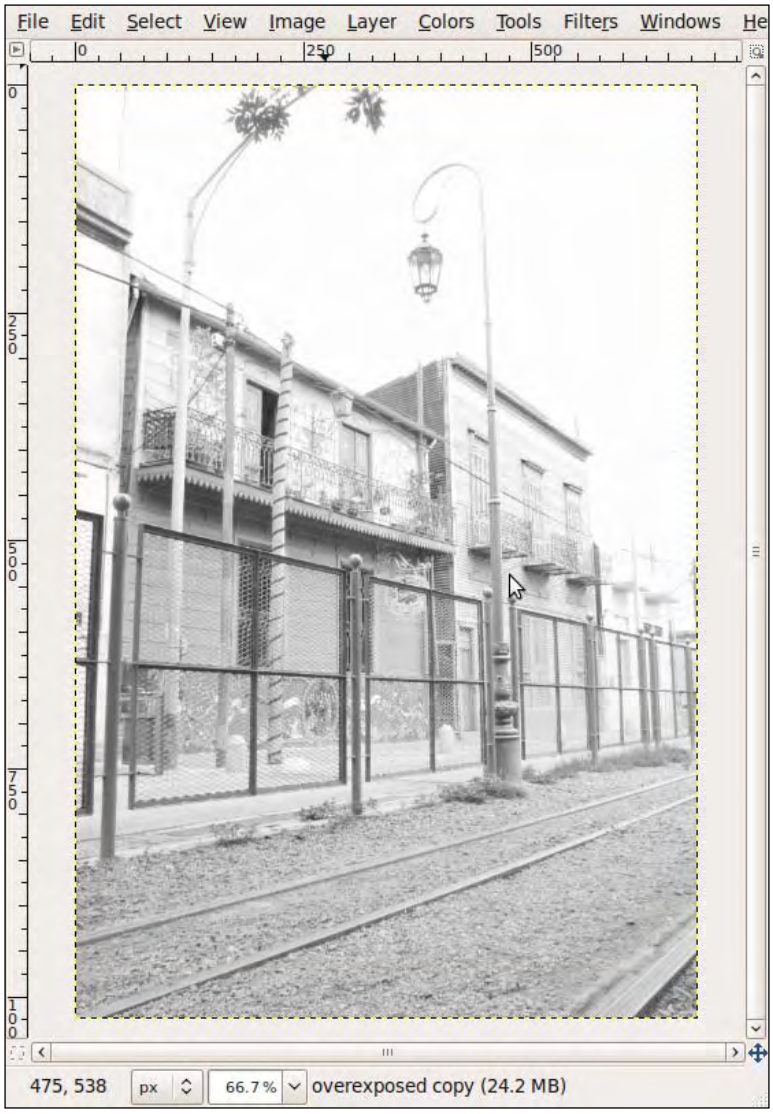



Click **Add** on the window that appears:

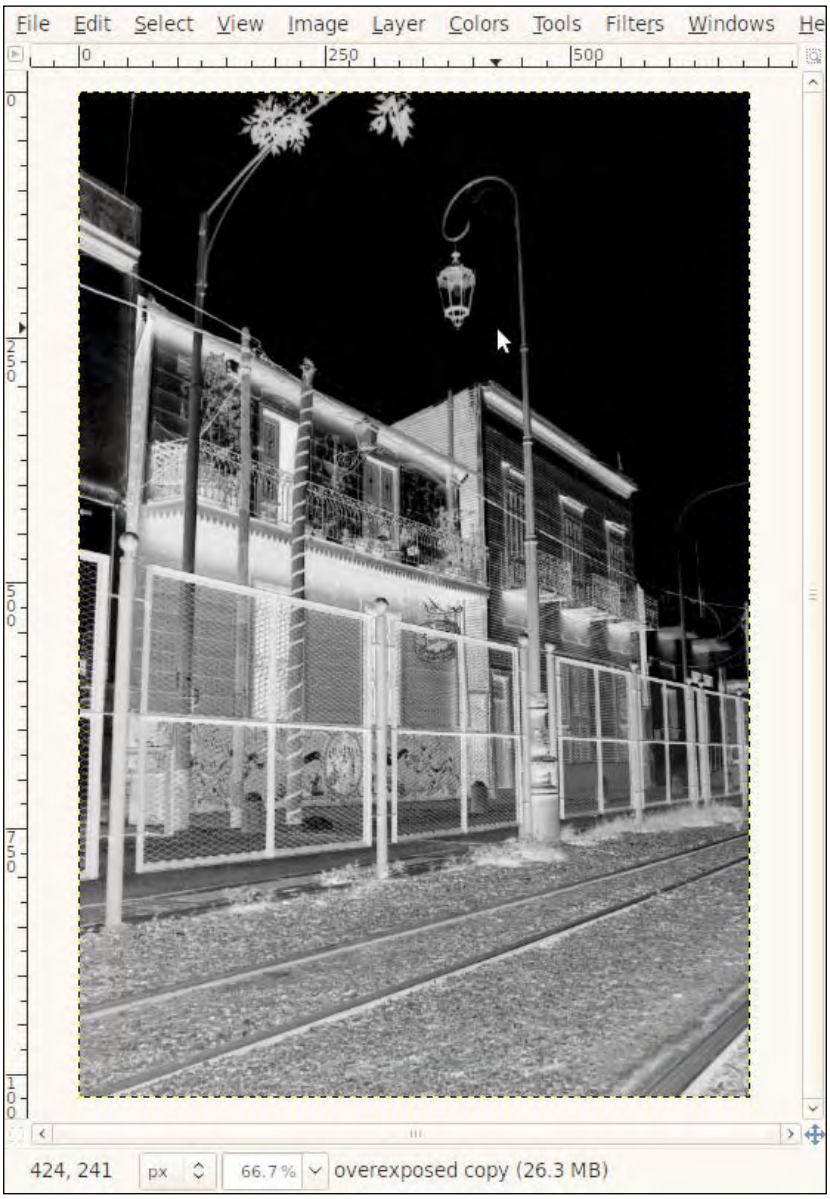
7. With the new mask selected, press *Ctrl* + *V* or go to **Edit** | **Paste** to paste the desaturated layer into the mask. Click the anchor button:

You should see now that the darkest areas of the underexposed picture are shown, while all the bright parts are masked. Click the eye button of the **underexposed** layer to see the difference:

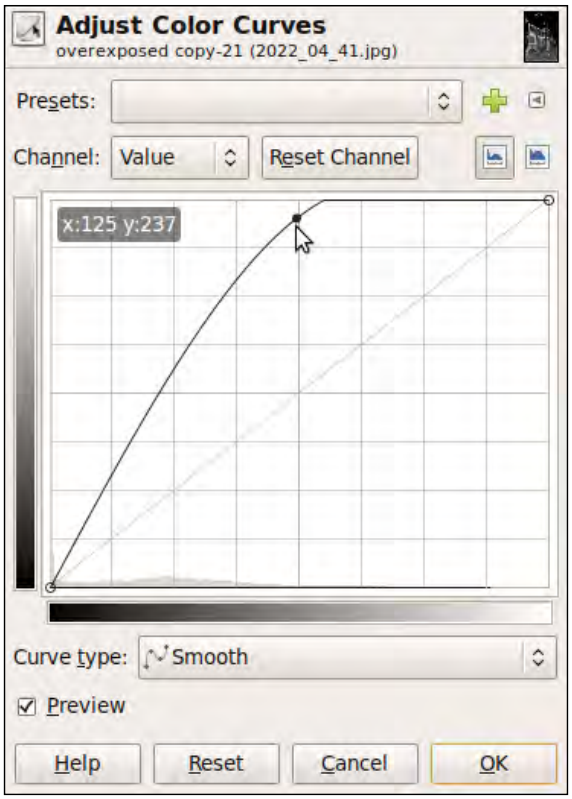
8. These steps are *almost* the same as for the **overexposed** layer. Select and duplicate the **overexposed** layer. Select the **overexposed copy** layer, and make it black and white:



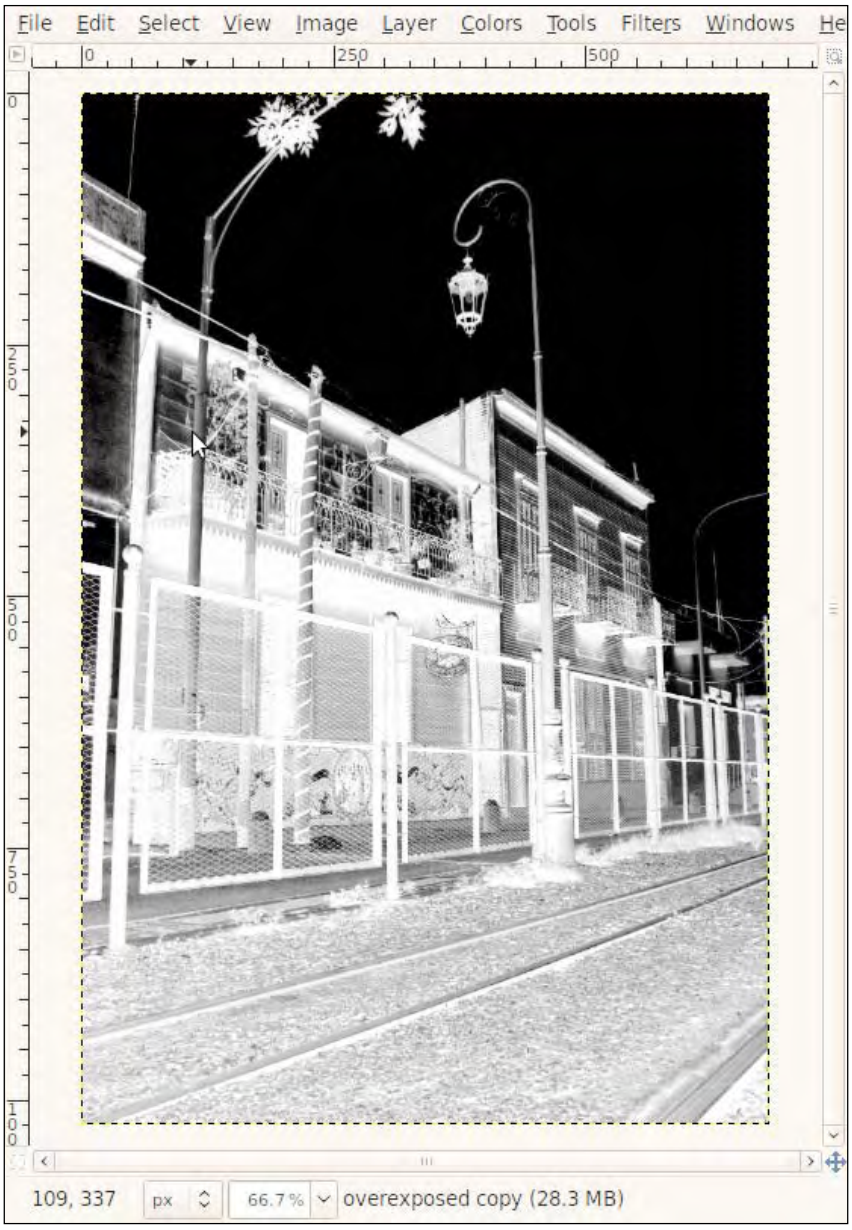
9. Invert colors so we can use it as a mask. Go to **Colors** | **Invert**:



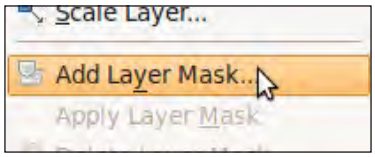
10. If again, the image is mostly black and white like in my example, go to **Colors** | **Curves**, and drag the diagonal's middle point upwards to get a brighter and picture:



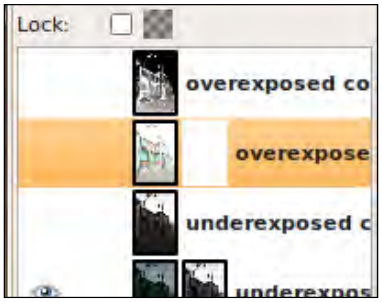

Remember, experiment here! I got the following image:


File Edit Select View Image Layer Colors Tools Filters Windows He
0
250
500
109, 337
px
66.7 %
overexposed copy (28.3 MB)

11. With the **overexposed copy** layer still selected, go to **Select** | **All**, and press *Ctrl* + *C*. Make this layer invisible by clicking the eye next to it in the **Layers** dialog. Select the **overexposed** layer. Right-click on it, and select **Add Layer Mask...**:




Click **Add** on the window that appears:




12. With the new mask selected, press *Ctrl* + *V* to paste the desaturated layer into the mask, and click the anchor button:

You should see now that the brightest areas of the overexposed picture are shown, while all the dark parts are masked; through them you can see the dark areas of the **underexposed** and behind it, the **normal** layer.

Here's the final piece:

## How it works...

The idea in HDR photography is to take different shots of the same picture and normally expose the different shades, so that shadows, bright areas and normally lit areas appear correctly exposed in each shot. What we've done here is to use masks to make specific parts of the image transparent to allow the proper part (the well-exposed areas in each photo) to be displayed.

The key to the whole process is to take at least three photos, exposed normally, one stop underexposed, and one stop overexposed. Use a timer to avoid moving the camera when taking the photos. It's not impossible to do this with slightly different angles or compositions, but first try to use a tripod.

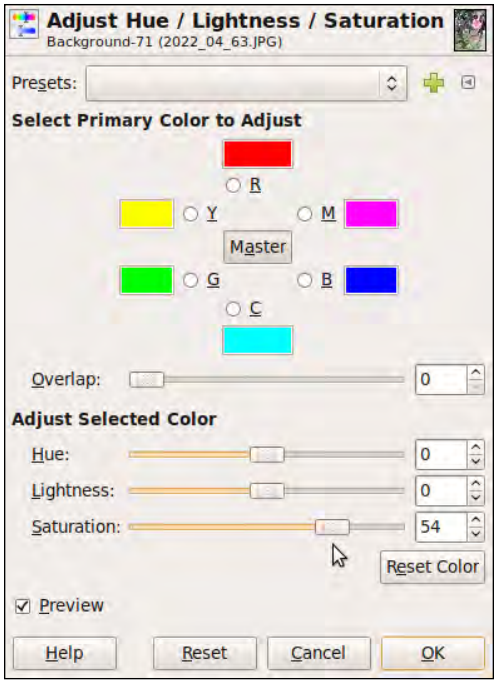
# Creating a black and white postcard with a color touch

This is a quick way to create a nice postcard from a picture, turning it to black and white with a twist of color in it.

## How to do it...

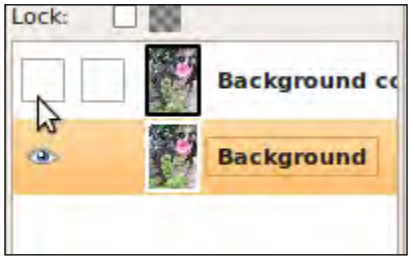
Keeping in mind that we are going to use it as a postcard; take a new picture, or search for one that you like. I'll be using the following photograph:

1. First, duplicate the layer by going to **Layer** | **Duplicate Layer**. Click on the eye icon next to the **background copy** button to make it invisible. Click on the **background** layer to select it.
2. The final piece will be grayscale, with a little touch of color. So, first choose the object that will remain in color. For my example, I choose the flower. Go to **Colors** | **Brightness-Contrast**, and adjust the saturation until you are satisfied with the level of the object you choose to remain in color. The following are the settings I used:



Following is how the picture looks after applying the effect:

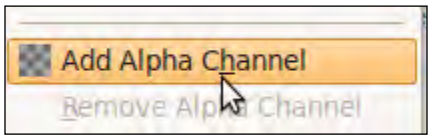
3. Re-enable the **background copy** layer by clicking on the white rectangle next to it:



4. Click on the **background copy** layer to select it. Go to **Colors** | **Desaturate** to turn the layer to grayscale. Click **OK**:

If you want, you could adjust levels or curves of the black and white layer.

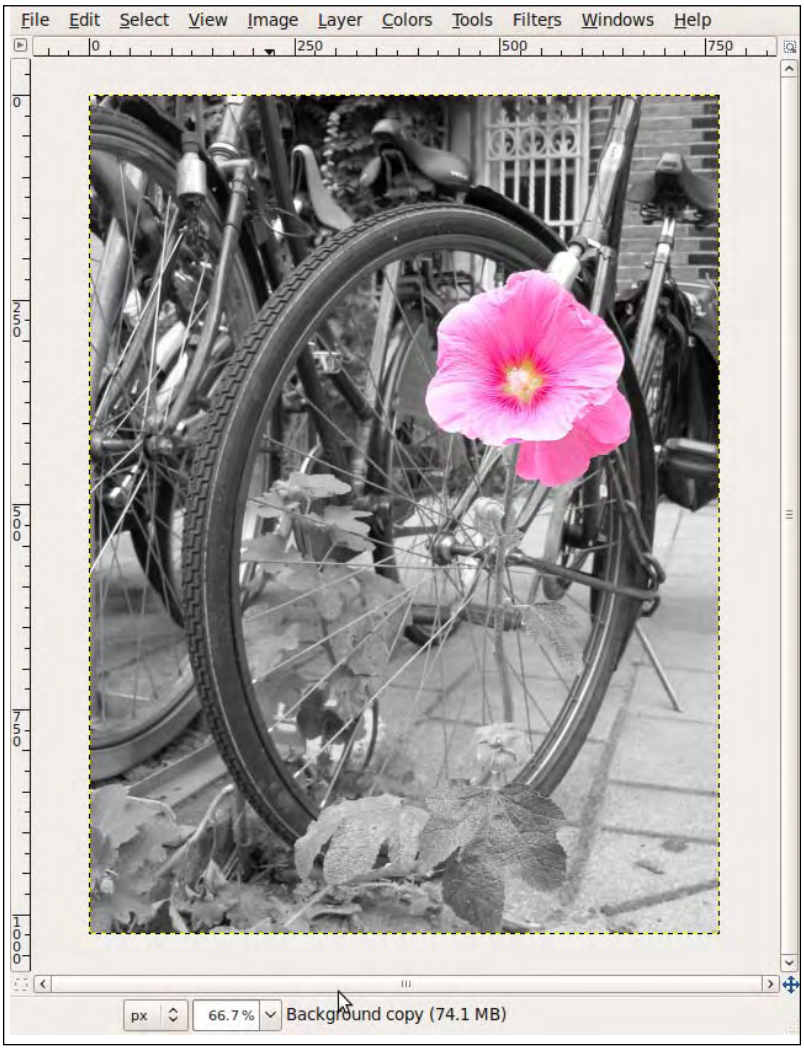
5. Right-click on the layer name, and select **Add Alpha Channel**:




6. With the **background copy** layer still selected, use the **Eraser Tool** over the areas where you want to expose colors:

Use the **Zoom Tool** along with the brush type and scale slider of the **Eraser Tools** options to work with better accuracy.

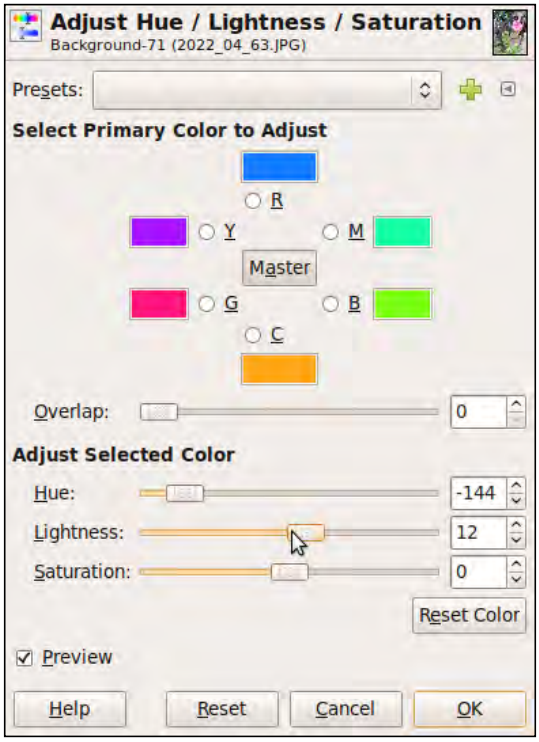
If you have solid colors, you can try quickly selecting it with the **Fuzzy Select Tool** use it's threshold slider to also select contiguous colors.




Continue working until you expose all the areas you want.

The **Eraser Tool** works differently when applied to a layer without an alpha channel or with it. If the layer doesn't have an alpha channel, the **Eraser Tool** removes areas of colors and replaces it with the current background color. On the other hand, if the layer has an alpha channel, the tool removes areas of colors, turning them transparent. This is why we need to add an alpha channel to our desaturated layer.

7. You could also delete any part you want of the black and white layer, and apply any kind of other color-correction technique to the original layer, by going to **Colors** | **Hue-Saturation** and adjusting the **Hue** and **Lightness** sliders to change the color of the object completely:



This is how the final piece looks:

# 5
# Playing With Color and Sharpness

In this chapter, we will cover:

- Removing red eyes from a picture
- Coloring black and white pictures
- Removing objects from an image
- Removing backgrounds
- Creating surreal picture manipulations
- Adding graffiti to a photo
- Cleaning objects
- Correcting facial imperfections

## Introduction

GIMP is a powerful tool. This chapter shows just a few of its capabilities in color correction and image retouch. From simple tasks such as red eye removal to complex object removal and skin corrections, GIMP can be your primary image editing software.

This chapter goes from very basic tasks, such as masking and colorizing a black and white picture to removing/adding objects from a photo and correcting little imperfections of the skin to make people look better. A digital facelift is always cheaper than the real ones!

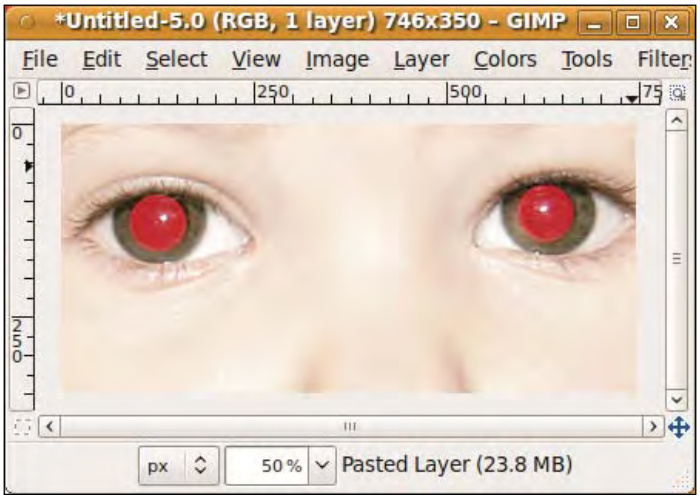
# Removing red eyes from a picture

Nowadays, many cameras have a setting to avoid the red-eye from the flash reflection, but sometimes they are ineffective. This is one of the simplest tasks you can do using GIMP to solve of one of the most annoying effects that happens sometime when we take a picture.

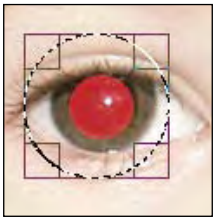
## How to do it...

To correct a photograph for the red-eye effect, carry out the following steps:

1. Open a photograph with people or animals in it, where one or more subjects have red eyes.

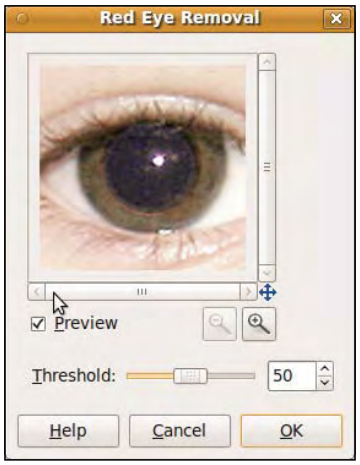



2. Using any of the selection tools, draw a selection box around the pupil:

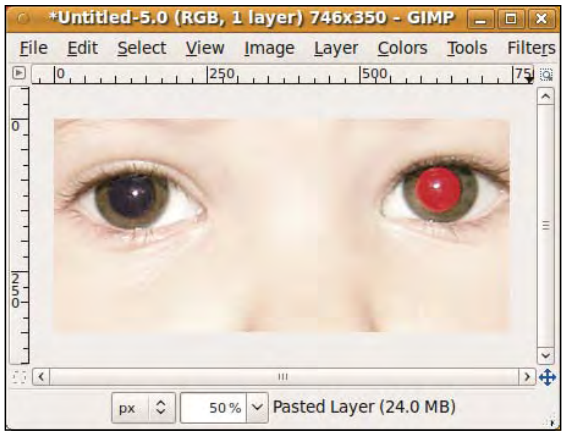


The filter can be applied to a whole layer/image, but it's better to create a selection around the area of the pupil. Be careful! If you have people with red hair or any significant amount of red inside the selection area, then it might be erased. Use the **Ellipse Select Tool** and enable the **Fixed** checkbox inside the tool options to select the pupil quickly. Always try to select just the pupils and nothing else.

3. Go to **Filters** | **Enhance** | **Red Eye Removal**. Use the **threshold** slider to change the amount of red that is removed from the selection:




Click **OK** when you are satisfied. The photograph I worked on finally looked like the following:



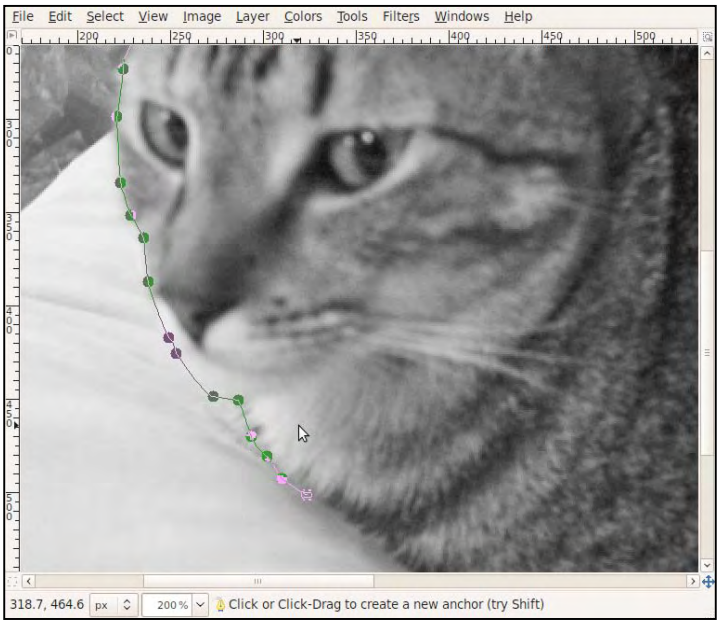
# Coloring black and white pictures

In this simple task, we are going add some color to a black and white picture.

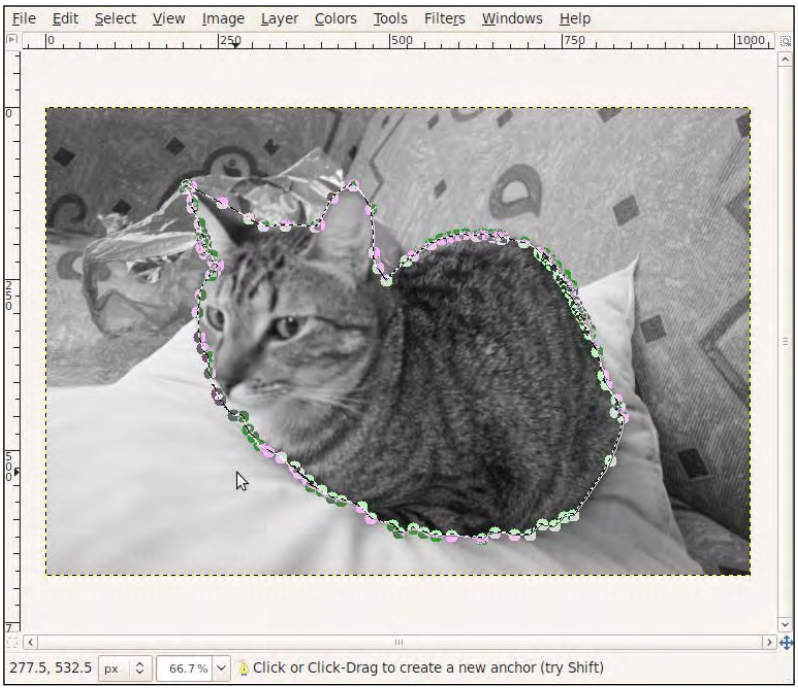
## How to do it...

First of all, pick any black and white picture that you like; it should have at least one object in it that you want to colorize. Following is my pick: meet Scarlett, the cat!

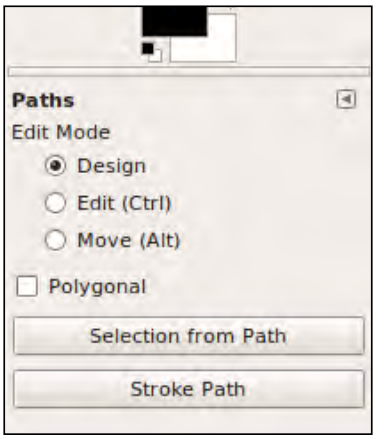
1. Choose any object in the picture that you want to colorize. Use any of the selection tools available to accurately select it. In my case, I used the **Path Tool** to create a path around the cat:




After a few minutes, this is how my path looks:

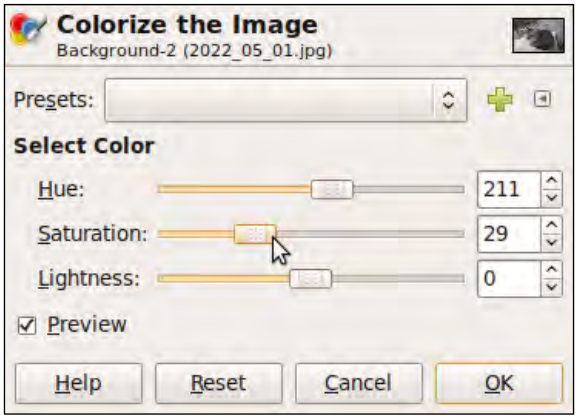


2. Once the path is complete, click on the **Selection from Path** button in the **Path Tool** properties widget:




Click the **Move Tool** to make the path invisible and see the selection applied.

3. Now go to **Colors** | **Colorize**. The **Colorize the Image** window appears. The following image shows the settings that I used for my picture:



4. Go to **Select** | **None**, and you are done. Following is what my final image looks like:

## How it works...

The colorize tool works as if you put a colored glass over your picture. If the original layer/image is colored, it first converts it to grayscale, so the original colors are not retained.

## There's more...

When you colorize, don't use my settings. Be aware of your object selection and it's surroundings, and don't use a very high value for the **Saturation** slider if you don't want your object to look like a pasted image from another picture. Also, use the **Lightness** slider to give your object more or less light or brightness.

You could also apply **Colorize** to different objects in the same picture, even colorize it completely!

## See also

Check the *Creating surreal picture manipulations* recipe later in this chapter to see a variation of this task, and completely change how a picture looks.

# Removing objects from an image

Sometimes, you take a picture and at first sight it looks awesome, then you notice something that you don't like, something that shouldn't be there: a person, a hand, a glass. In this recipe, we are going to learn how to remove these unwanted objects.

## How to do it

Here is what I will be using for the example; what I want to remove is the white street light in front of the plane:

2. Select the **Clone Tool**:

To use this tool, first we have to choose an area to clone. In my example, I am starting with the area where the street light meets the sky. Hold down *Ctrl*, and click some place near the street light. The distance between where you *set the cloning point* and the object to be removed should be at least the object's width. You'll understand why as soon as you start using the clone tool!

3. After you do this, start clicking and dragging (painting) over the object you want to remove. While cloning, you'll see that the clone point you placed in the last step moves the same way as you do. When you click, everything from the clone area is copied.

The **Clone Tool** can be confusing. If you just left-click, the cloning starts from the starting clone point you set. However, if you left-click and drag, the starting clone point moves along with your mouse, cloning everything around it's original position. When you release the mouse, the starting clone point goes back to the place where you positioned it.

Be careful. If you drag the starting clone point over the object you want to remove, it will be cloned to the place where your mouse is, as shown in the following image:

4. For my example, it works better to have the clone point at around the same horizontal level, because of how the sky color changes:

You should always readjust your starting clone point position and size, and use the zoom tool when you get to areas that are not uniformly colored. In my example, there are three tricky areas: the clouds, the plane, and all the objects on the ground. Just have patience, and remember that you always can go back and **Undo** it if you don't like what you have done.

5. When you don't know what's behind the object you're cloning, use your imagination. You can clone other parts (like I did here with the trees) or use a brush to paint something new:

6. Clouds and those kinds of textures aren't difficult either; start cloning:

7. When the object is gone, use the **Smudge Tool** to make the cloud look real again:

The following is the final image, I also removed a few wires that were around the plane and the background:

## See also

Check the *How to paint a sky and clouds* recipe in Chapter 1 if you want to add realistic clouds to the sky.

# Removing backgrounds

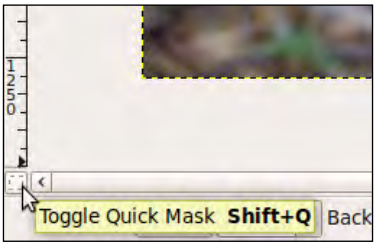
In this task we are going to pick an object from a picture and erase its background in a few easy steps. This is useful when you want to add something to another photo or just want to erase everything but the object in question and have a solid color (or a transparency). There are a few different ways to do this. In this task, we are going to use the **Quick Mask** tool.

## How to do it...

Choose a photo, and select one object in it that you want to keep. Following is the picture I will be using:

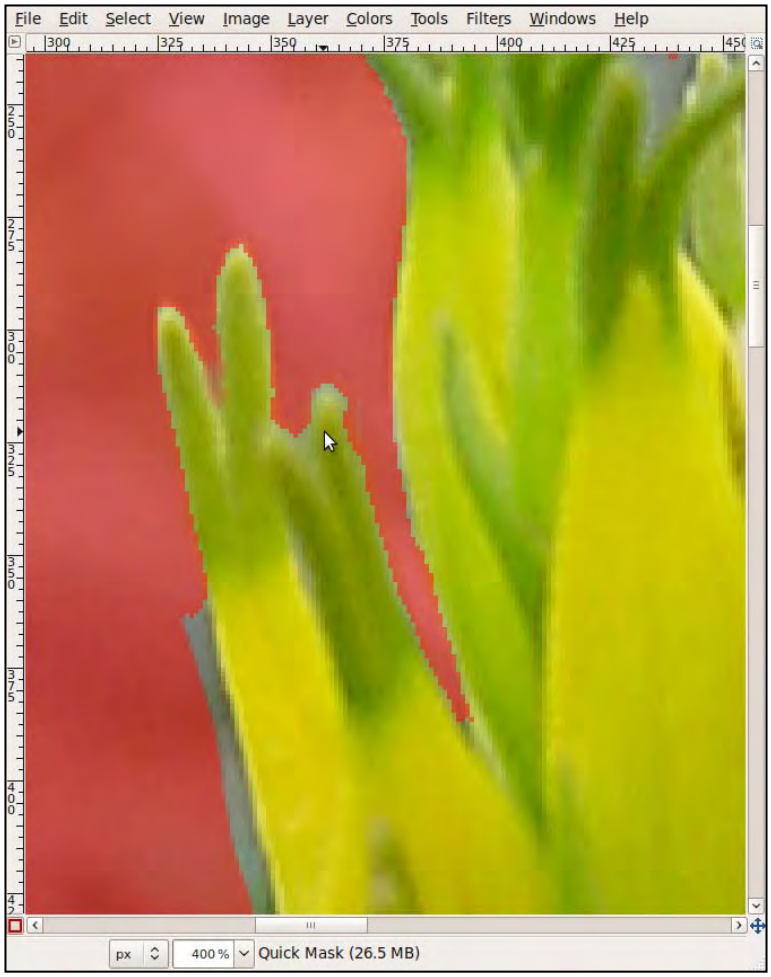
1. Select the **Lasso Tool**. Draw a rough selection around the object. There's no need to be accurate at this point.

2. Click on the little square button at the left bottom corner of the picture window. This activates the **Quick Mask** tool:




Don't be alarmed! The translucent red is the actual mask. It represents everything that is NOT selected:

3. Select the **Pencil Tool**, and use a black color. Use it to paint the background more precisely around the object you selected. Remember, you can use the **Zoom Tool** to be even more accurate. Also, try using different pencil sizes to have more control. Be patient!



If your object doesn't have well-defined edges, you can try applying a sharpen filter, or make a decision on where you want the mask to end.

The following is my picture with the mask finished:

4. Again, click the **Quick Mask** button (*Shift* + *Q*) at the lower-left corner of the picture window:

5. Copy your image (**Edit** | **Copy**), and paste it as a new image (**Edit** | **Paste as** | **New Image**) to create a new image with just your object and no background.

## Creating surreal picture manipulations

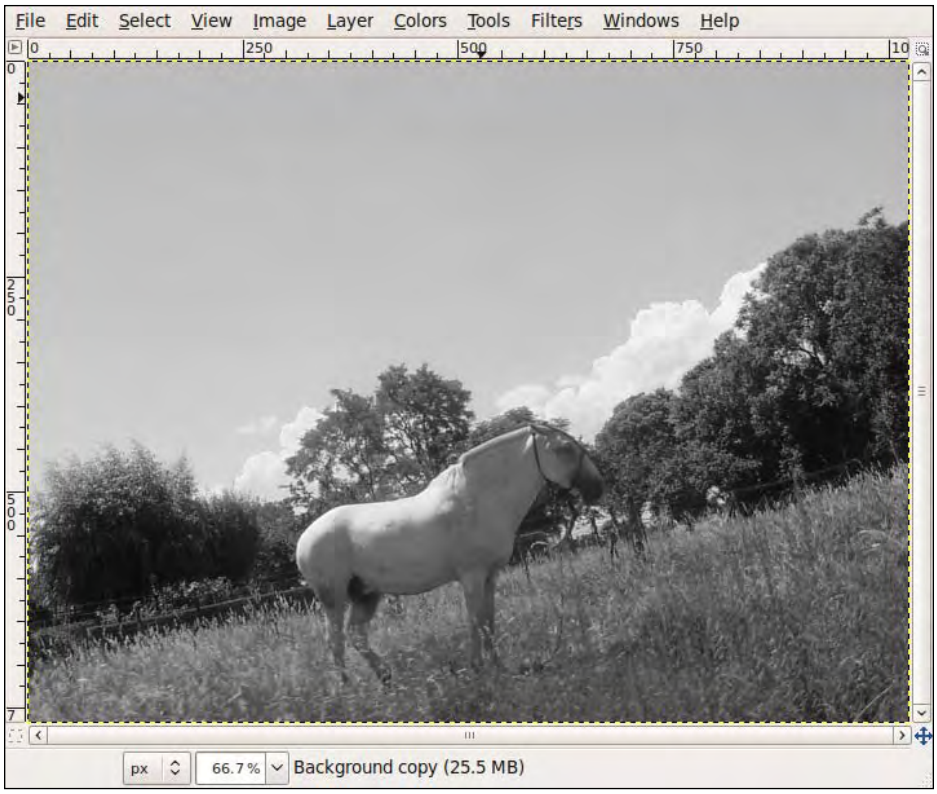
In this one, we are going to use another method to change the mood of the picture completely, from a saturated normal-looking country picture to a surreal picture, or a weird-looking scene from a bad B-movie! Experiment!

## How to do it...

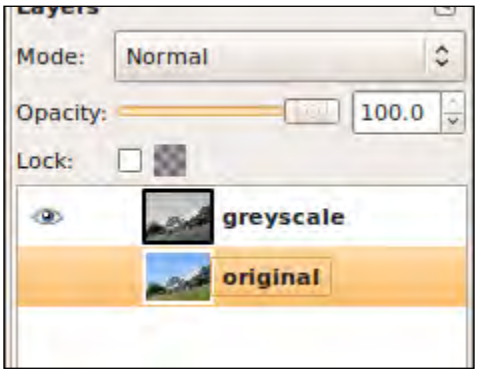
Pick a photo, open it in GIMP. I shall be using the following image:

1. Duplicate the layer by clicking on the button at the bottom of the layers widget:

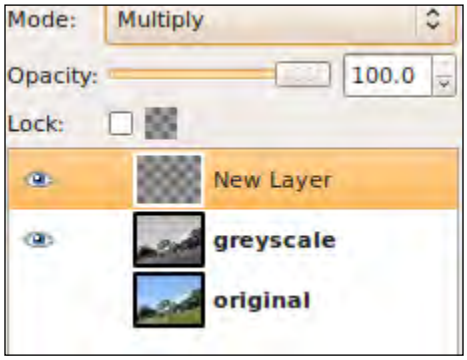
2. Go to **Colors** | **Desaturate**, and click **OK** on the window that appears to convert the active layer to grayscale:



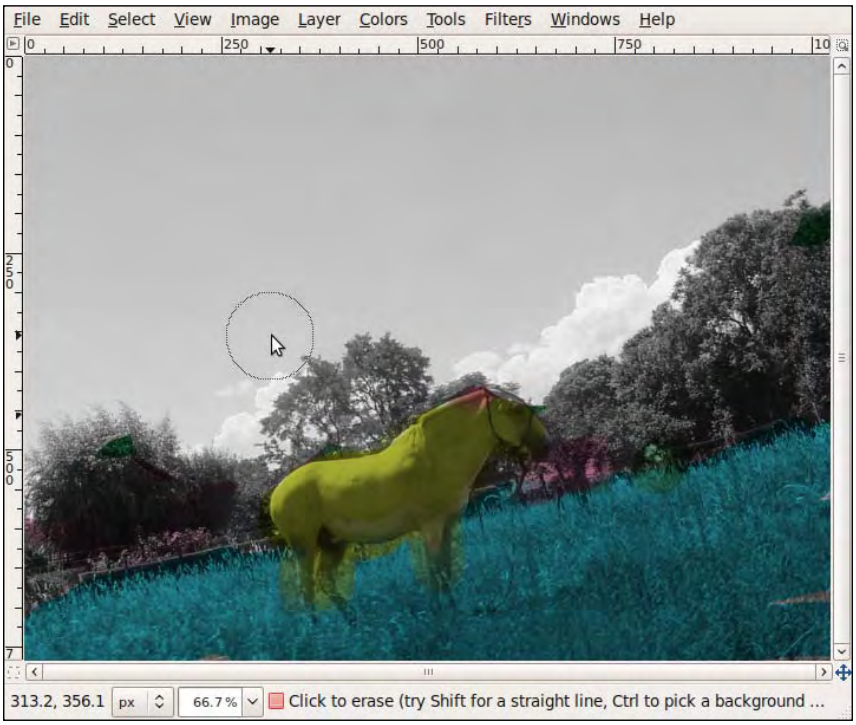

3. Rename each layer accordingly, and make the colored one invisible. We are keeping it for reference, or in case we don't want to change some colors.



4. Let's do a quick sketch on what we are trying to do here first. Create a new layer, and set it's mode to **Multiply**:



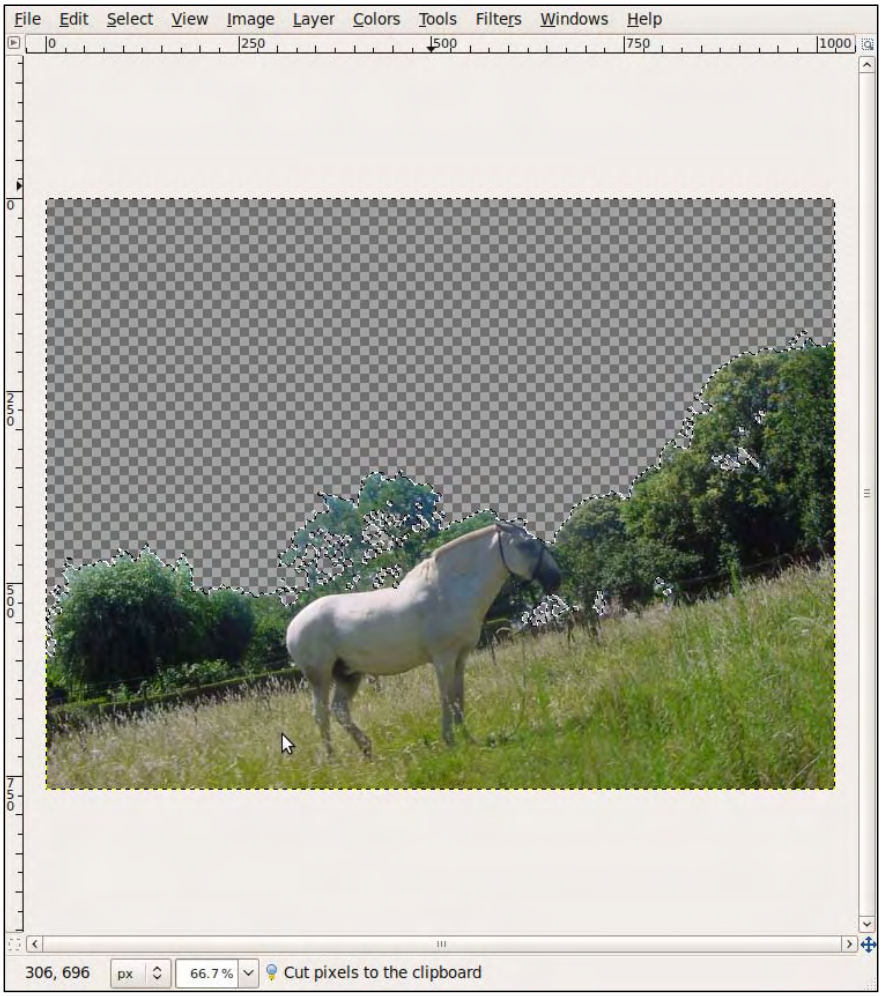

5. Now, choose the different objects you want to change. Click on the **Paintbrush Tool**, and after selecting the colors you want for each object, quickly paint them on. This is just to get an idea of how the final picture will look. Don't pick the final colors yet, just play a little and see how the different colors combine. Also, don't paint the sky.



I know, it looks like a mess, but remember, this is a sketch!

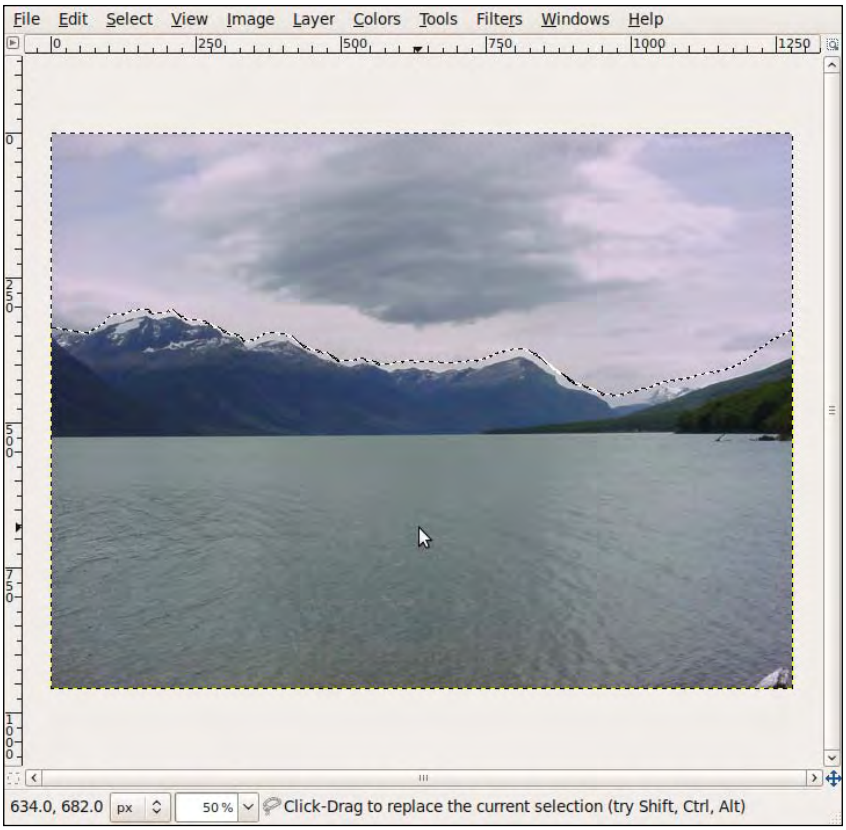
6. Using any of the selection tools, select the sky. I used a combination of the **Select by Color Tool** and the **Free Select Tool** and got a selection like the following:

7. Go to **Layer** | **Transparency** | **Add Alpha Channel**. Now, go to **Edit** | **Cut** to remove the original sky:



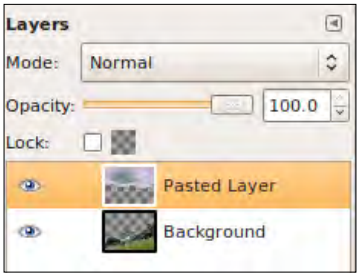

If there's anything remaining of the original sky, don't worry, we'll deal with it later.

8. Now, open another picture; choose one with lots of clouds, maybe of a coming storm. Use the selection tools to select the sky, copy, and close it. I'll be using the following image:



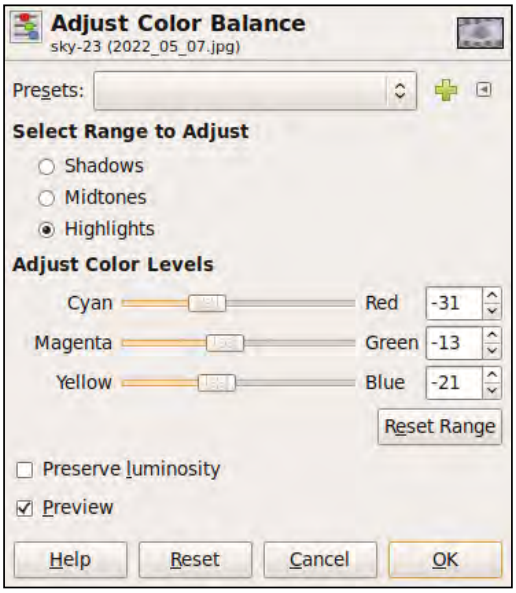

9. Go back to our file, and **Edit** | **Paste** the sky on top. Click on the **new layer** button in the layers widget to create a new layer with it:

**Pasted Layer** is the default name GIMP gives to it after you click the **new layer** button.

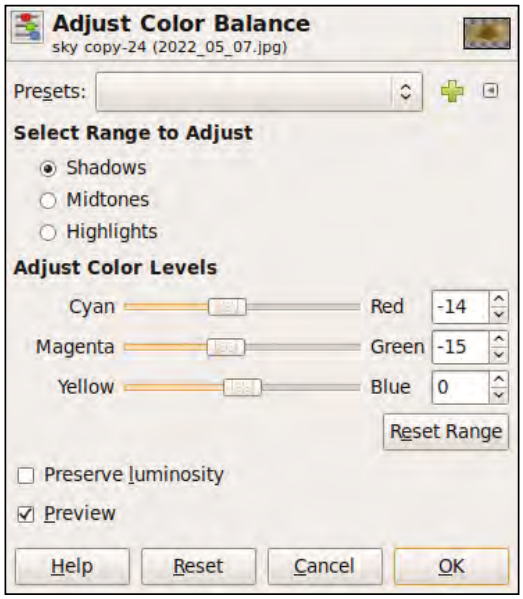



10. Rename it to **sky**, and drag it to the bottom of the layers list. Use any of the transform tools to place it as you want:

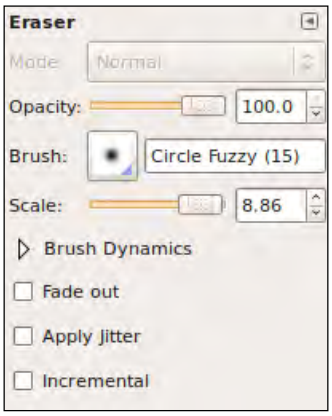
11. Go to **Colors** | **Color Balance**, deselect the **Preserve luminosity** toggle, and adjust the sliders to a combination that you like. Once you like the tones, adjust the sliders also for **Highlights** and **Shadows**:




12. Now, duplicate the **sky** layer by going to **Layer** | **Duplicate layer**. Repeat the color balance, and now pick completely different colors:

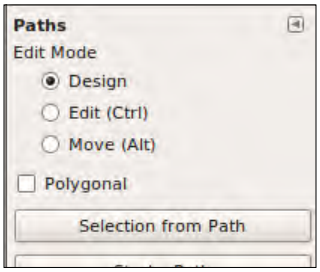


13. Now click the **Eraser Tool**, and choose one of the **Circle Fuzzy** brushes:



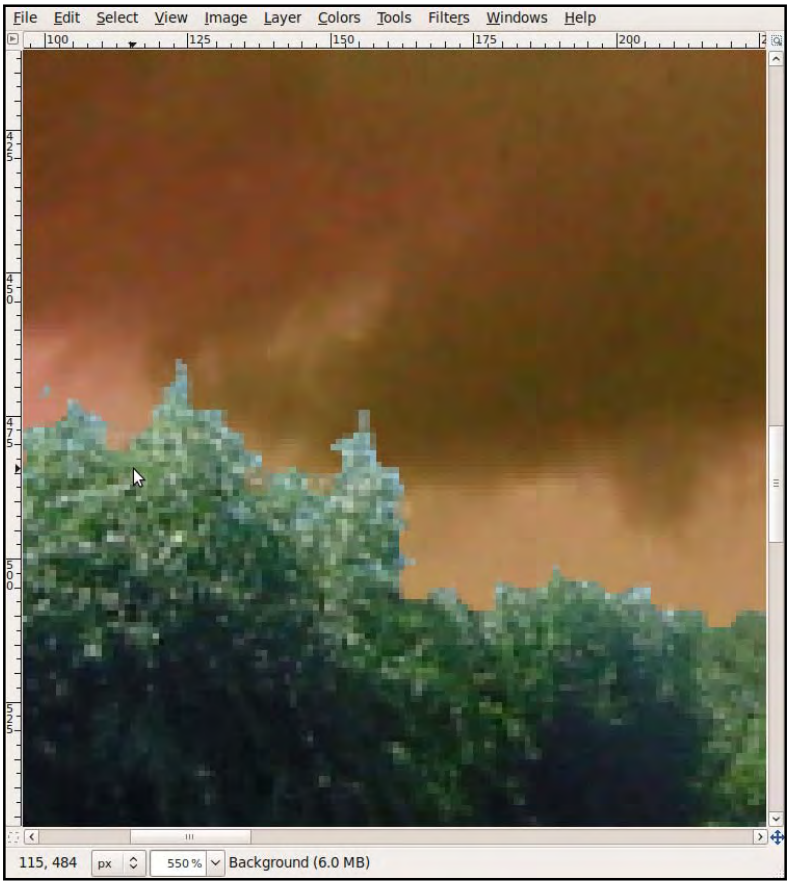

14. Delete parts of the **sky copy** layer to uncover the underlying **sky**. Change the opacity of the **sky copy** layer to make the color change more subtle:

15. Select an object with any of the selection tools. In my case, I used the **Path Tool** and clicked the **Selection from Path** button to select the horse:




16. Now go to **Colors** | **Color Balance**, and pick new colors for your object. Here, experiment with settings for **Highlights**, **Shadows**, and **Midtones**. Try to pick colors that go along with the ones in the sky.

17. To finish the piece, use the **Smudge Tool**, along with the **Blur**/**Sharpen Tool** and the **Eraser Tool**, to blend all the areas that still have hard edges. In my example I combined these tools, and used them on the background trees.



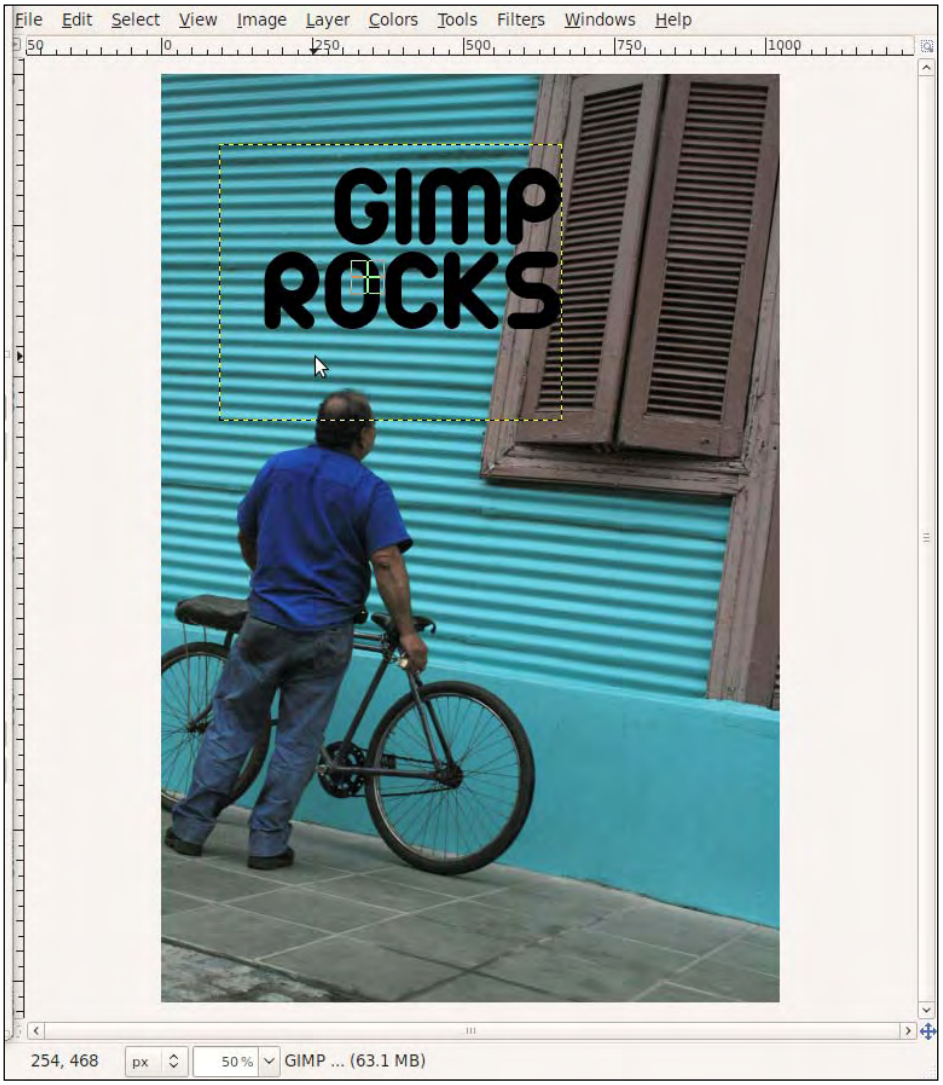

# Adding graffiti to a photo

This is a fairly simple task. We are going to add a graffiti to a picture and make it look as if it were really painted on the wall.

## How to do it ...

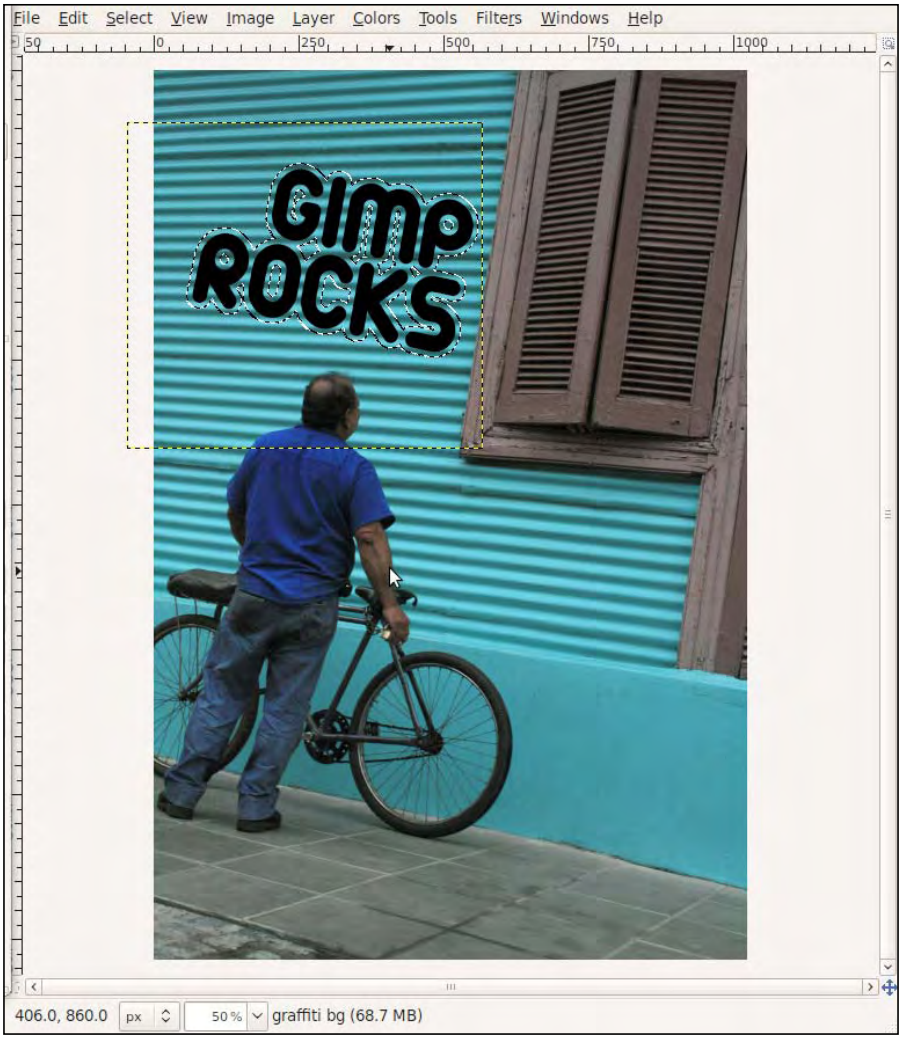
You should pick a picture with a wall. The effect will be better if the wall is textured. This is a photo I took at La Boca, a really nice place in Buenos Aires:

1. Choose a place where you want your graffiti to be. The graffiti can be anything you want! Let's spread the word about GIMP. Click on the **Text Tool** and write with any font that looks good as graffiti:

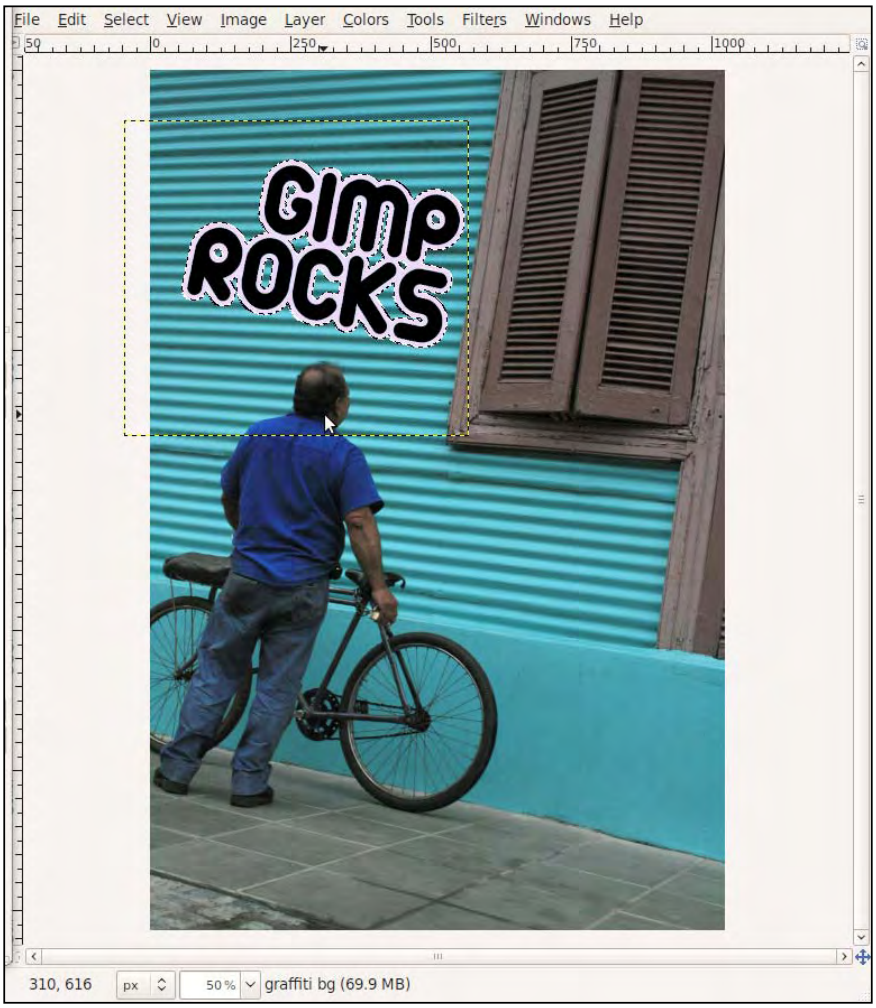



2. Use the **Scale Tool**, along with the other transformation tools, to place it exactly where you want. Don't worry about the perspective right now.

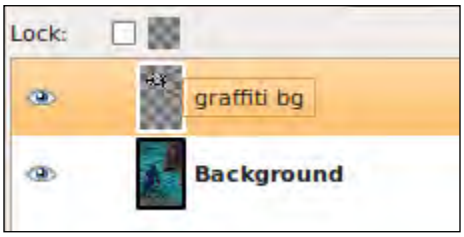
3. With the **graffiti** layer selected, click the **Perspective Tool**, and use it to match the picture's. You can drag each corner to deform it and simulate the perspective according to your point of view.
4. Duplicate the **graffiti** layer (**Layer** | **Duplicate Layer**). Place the new layer below the original one and name it **graffiti bg**. Right-click on it, and choose **Alpha to Selection**. Now, go to **Select** | **Grow**, enter an amount of around 10 pixels, and click **OK**.



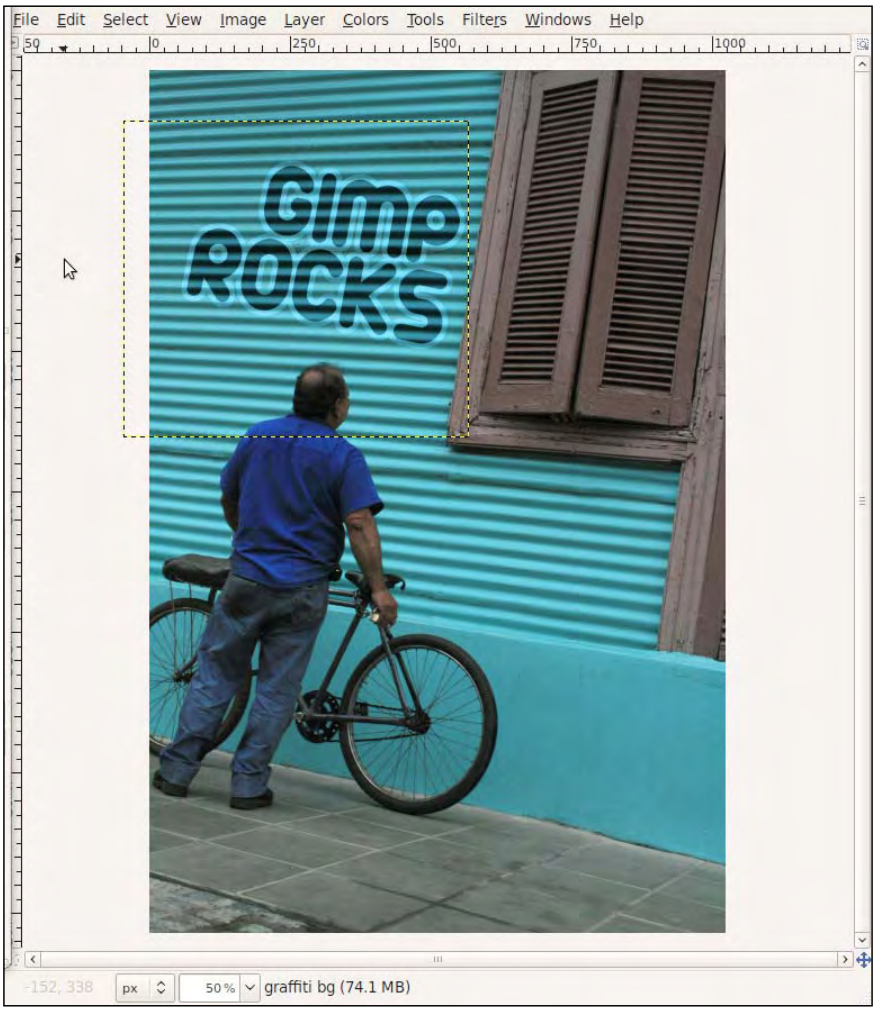
5. Use the **Bucket Fill Tool** to fill the selection with any light color of your choice:




6. Once you are satisfied with the graffiti, use **Layer** | **Merge Down** to merge all the layers (not the background, just the graffiti!) together:



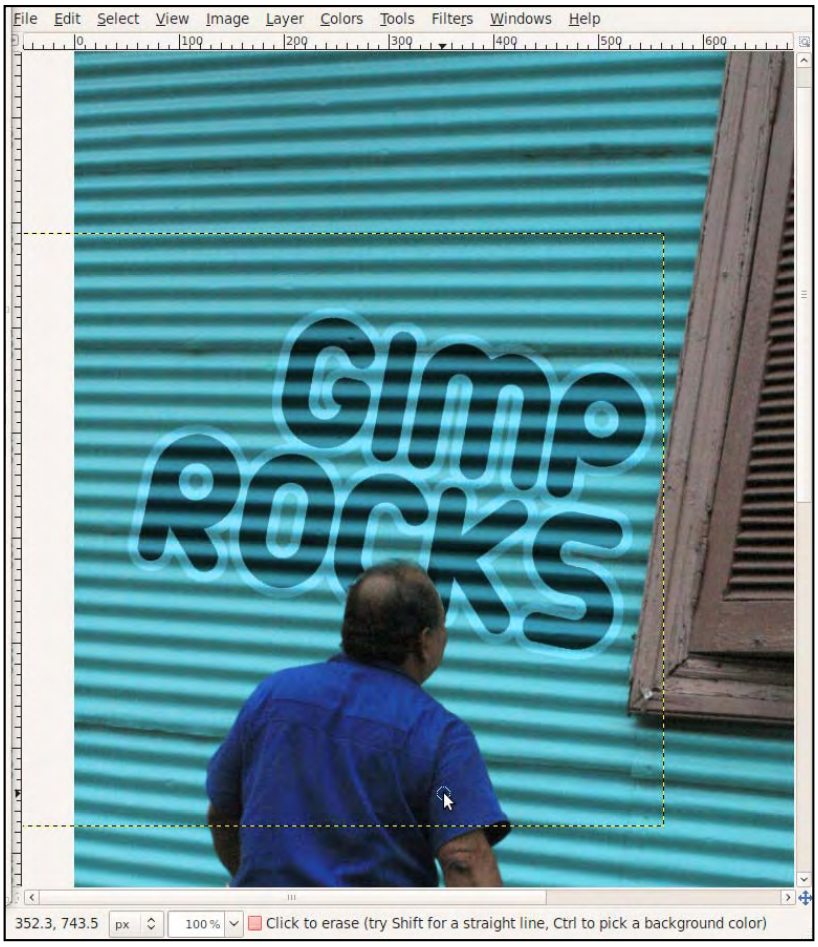
7. Select the **graffiti** layer, and set its mode to **Overlay**.



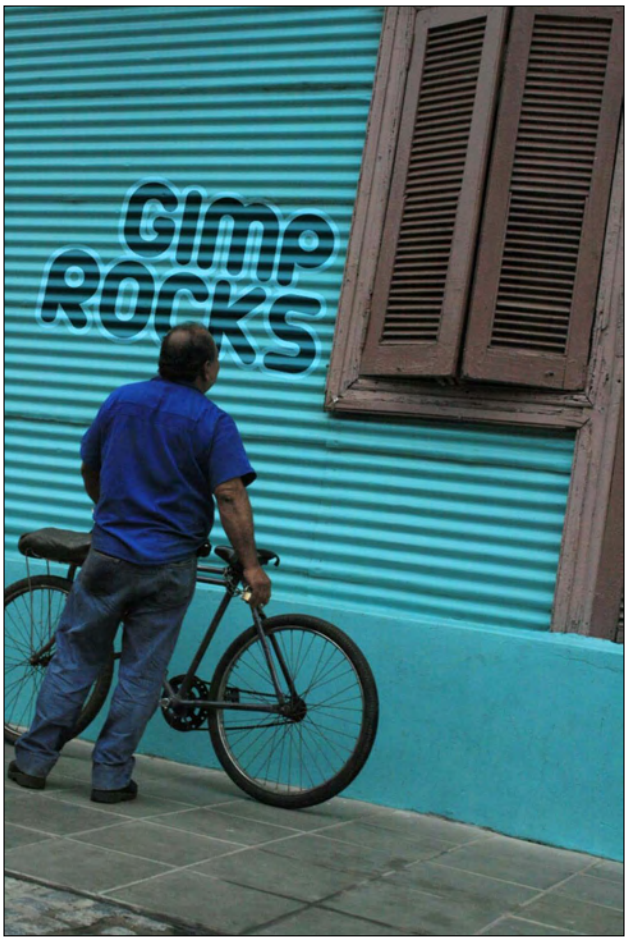
If the graffiti looks too sharp, go to **Layer** | **Duplicate Layer** move the duplicated one below the original, then go to **Filters** | **Blur** | **Gaussian Blur**, and apply some blur to it. Try different values until you are satisfied with how it looks.

8. I moved the graffiti layer a little lower to show you how to make it look as if it's covered by some object.

9. Click on the **Eraser Tool** and delete any part of the graffiti that looks like its being covered by another object:



Following is how my the final picture looks:




## Cleaning objects

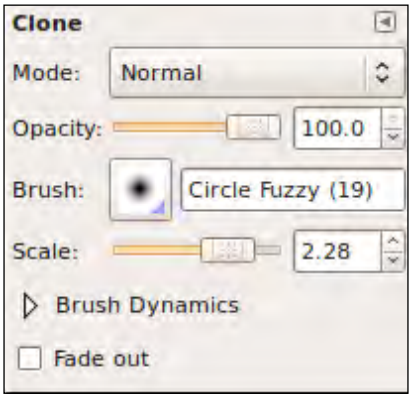
In this task you will learn how to remove stains or replace any part of an object in your picture that you don't like, and make it look cleaner, or smoother. This is a complex task. To get good results, lots of practice is needed, so don't get frustrated if on the first try you don't get the results you want!

## How to do it...

Load the picture with the object you want to clean. I'll be using the following image:

I really like this picture from a fountain in Rome, what I don't like is the rusty stain on the faun's chin (I think it's a faun). To clean this image, I carried out the following procedure:

1. Select the **Clone Tool**, and pick a starting clone point with a color close to the one that should appear in the area you want to clean. Change the starting clone point to some place near the clone area as you make it wider. Remember to use different brush sizes to make your work easier.




2. Use a fuzzy brush, and combine single clicks with a few click-and-drag.

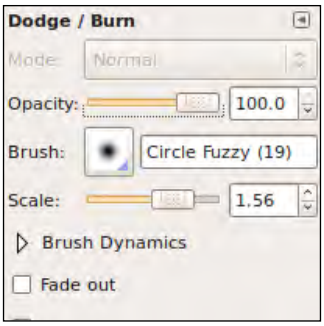
The area looks much better now, but as we cloned a small area and repeated it, the texture is not right.

3. Watch your picture. Identify areas on it where the texture and color might work in the cleaned area. Clone from different areas to improve texture:

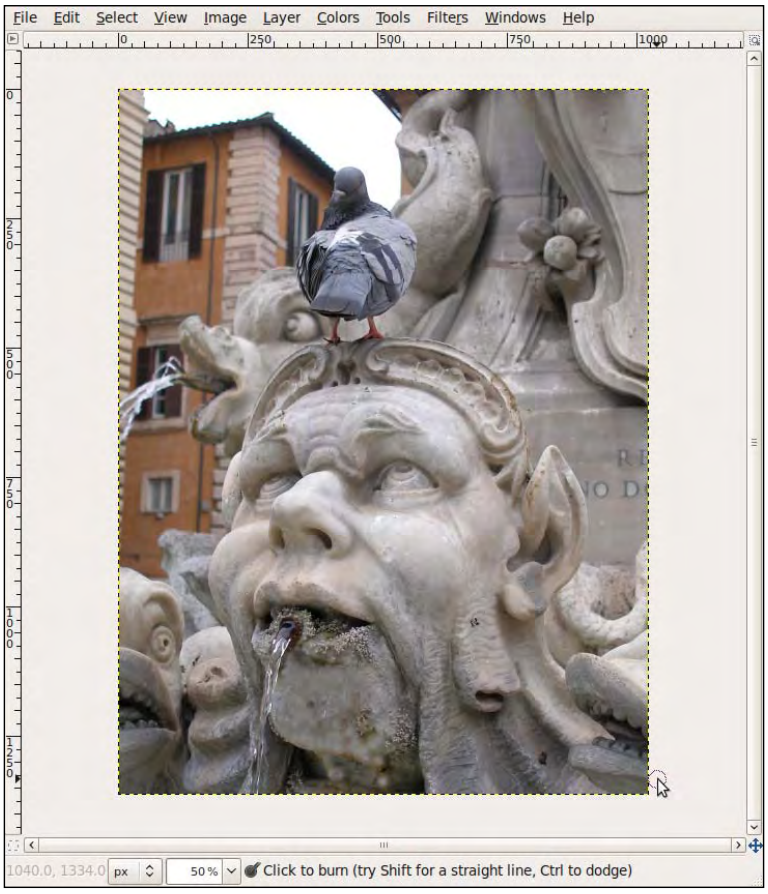
Change your clone tool opacity to add more variants to the texture:

File Edit Select View Image Layer Colors Tools Filters Windows Help
250
500
750
1000
1250
424.0, 1132.0 px 50 % Click to dodge (try Shift for a straight line, Ctrl to burn)

4. The textures look good now, but the chin looks flat. Use the **Dodge/Burn** tool to add some highlights and shadows to it. Use a fuzzy brush:




Set the **Dodge/Burn** tool to burn look at the whole picture to see which direction light comes from and shade accordingly:



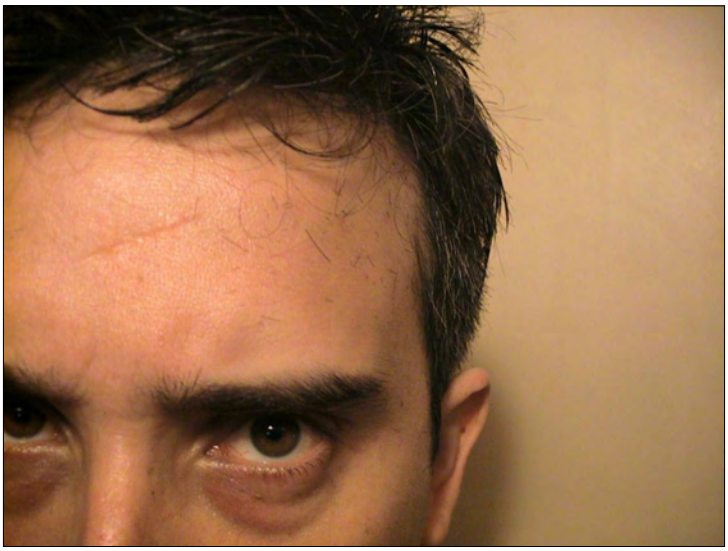
5. Decrease the **Dodge/Burn** tool opacity to have more control over the amount of shade you add. Also, use different brush sizes, depending on the area you want to shade. Following is what my final image looks like:

# Correcting facial imperfections

In this task, we are going to correct skin imperfections like wrinkles, bags under the eyes, and other such facial defects. This is a complex task; to get better results, you need practice and patience. These steps can be applied to any kind of picture: from a photo from aunt Millie's birthday that you took with a small consumer camera, to expensive studio photography with models and special lightning.

## How to do it

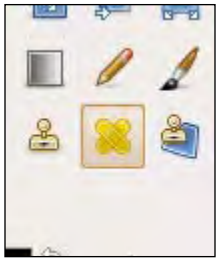
Open a photo that you like. This is mine:



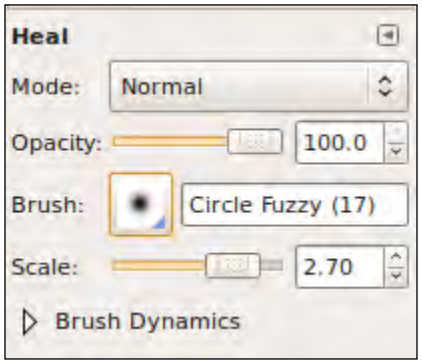
Actually, that's really me, I want to show you that skin imperfections can be corrected in any kind of photo, even in this low quality, badly lit picture! When I took this picture, I just had a haircut, so we are going to get rid of those tiny loose hair that are around my forehead.

1. Let's work just under the eye on the right side of the picture. Duplicate the layer first, just to have the original at hand and compare results when we finish.

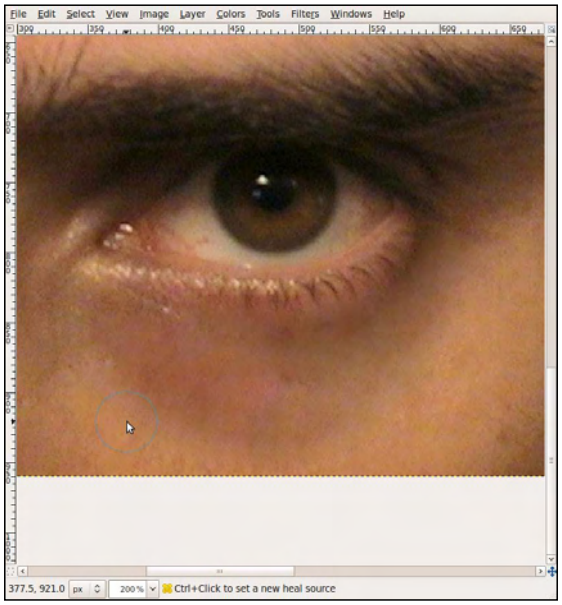
Go to **Layer** | **Duplicate Layer**. Now, click on the **Healing Tool**:



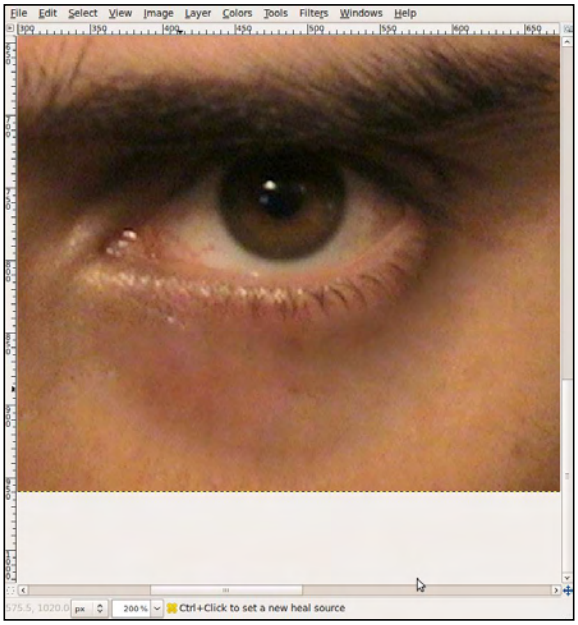
2. This tool works in a similar way as the **Clone Tool**. First, pick a starting clone point from an area that has a color tone similar to the one you think should be in the area below the eye. Hold *Ctrl,* and click over the area you selected. Pick a fuzzy brush:



3. Now start healing the darkened areas you want to remove; use different brush sizes and different starting clone points:

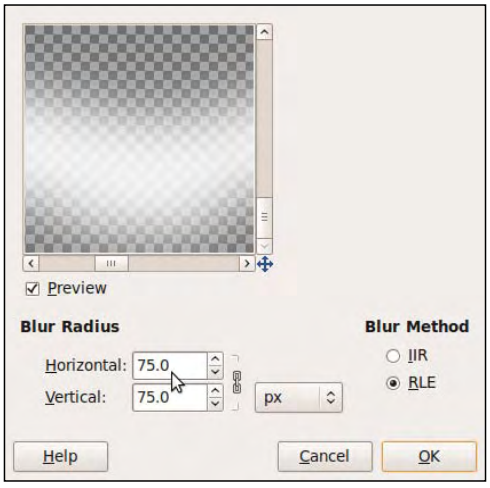



This is not the final step, so take care of the worst areas, and try to make the area look uniformly colored:

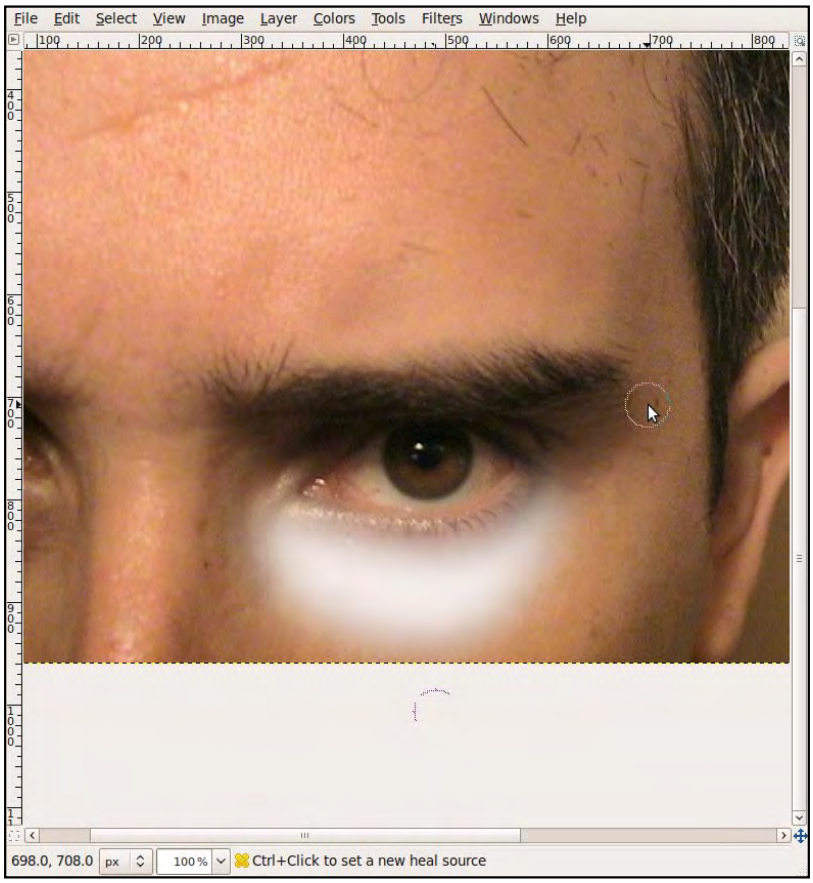


4. Now, create a new layer, and make it transparent. Select the **Paintbrush Tool**, and with a solid white color, paint all over the area on which you have been working:

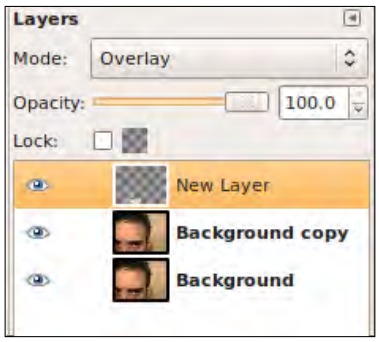
5. Now, apply a **Gaussian Blur** to this layer, using a **Radius** of around 75 pixels:



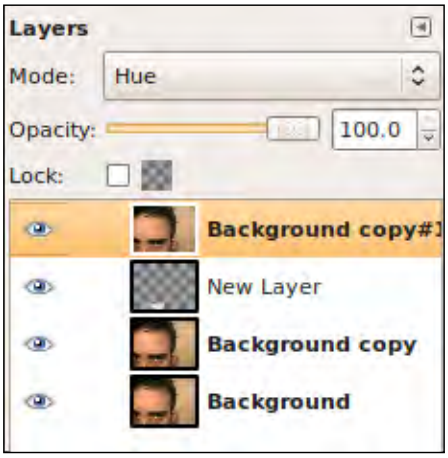
Following is how the solid white layer looks after applying the **Gaussian Blur**:



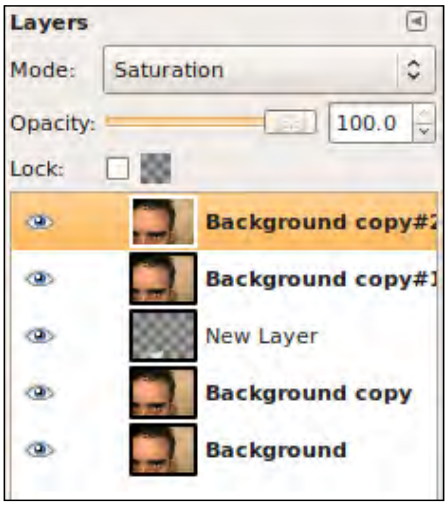

6. Change the layer's mode to **Overlay**:



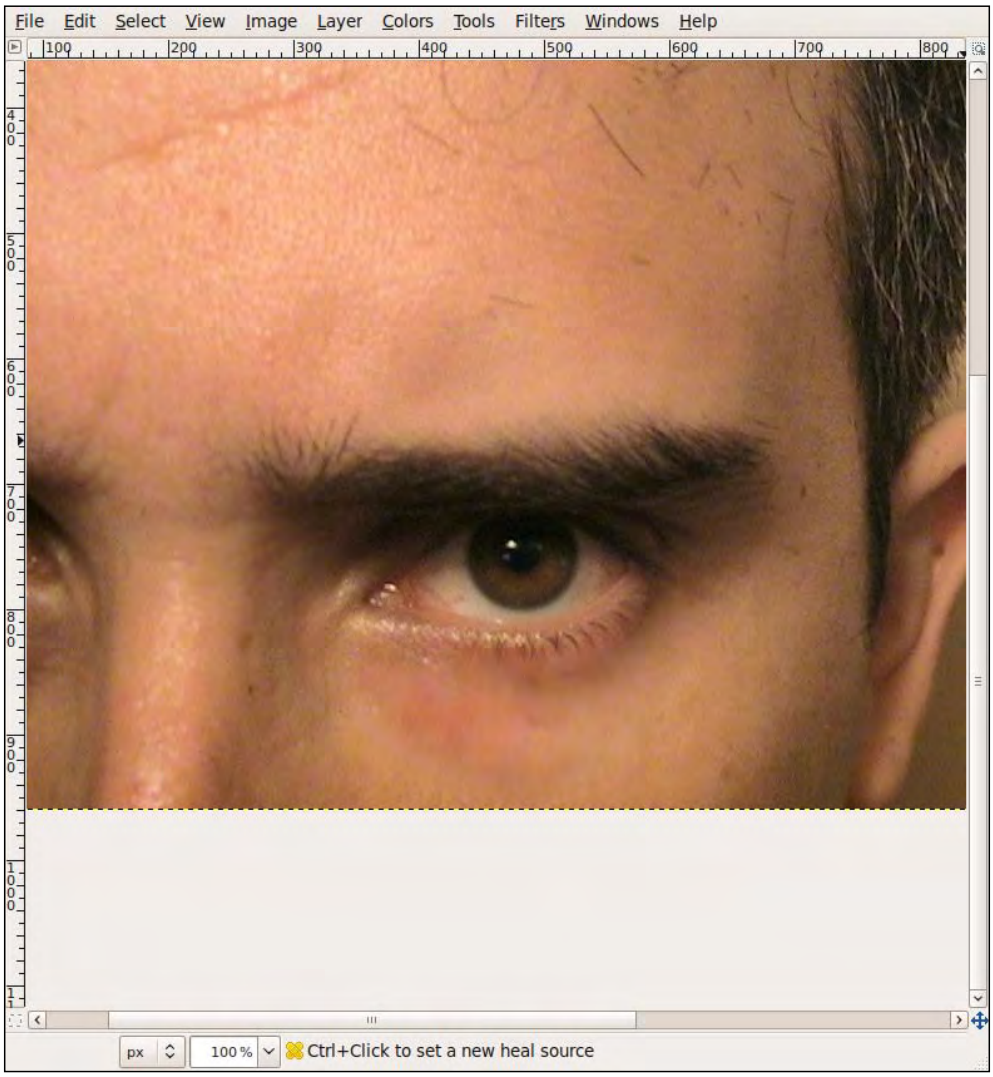
7. Duplicate the original **background** layer, and move the newest copy on top of the others. Change its mode to **Hue**:




8. Repeat the last operation, but this time, set the layer's mode to **Saturation**:

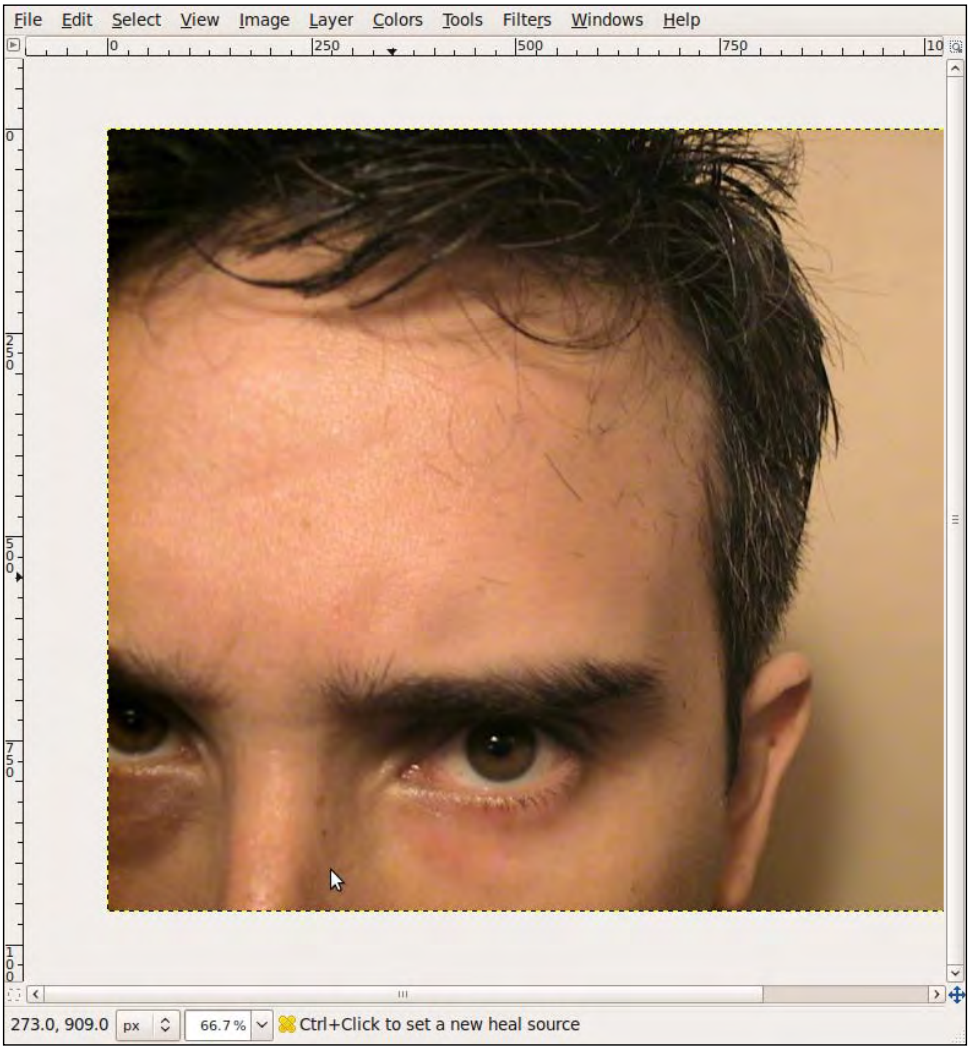


9. It's done. If you want, decrease the opacity of the transparent layer (**New Layer**):




10. Save your image using another name. Go to **File** | **Save as**:
11. Once you saved your file, flatten the image to just one layer by going to **Image** | **Flatten Image**. Now, you have the same picture, but with only one layer. We can start working on the forehead.

12. Click the **Healing Tool** again (use a fuzzy brush). Pick a starting clone point near the scar, and start cloning:



Be aware of the light source and how it makes the forehead shine. In my case, if there was no scar, the forehead would be the brightest area, so change your starting clone point accordingly. Be patient, and go slowly. Following is how the forehead looks after a few minutes:

13. Zoom the image to the area you want to clean. Use the **Healing Tool** again. This time, pick a starting clone point for each particle, hair, freckle, and so on, that you want to remove.

Try it to be the closest to the area you want to retouch. Always use a fuzzy brush, and change the brush scale to be more precise:

Following is the final piece. With one of the eyes corrected and the forehead cleaned:

# 6
# Web Design Tips: Buttons and Blogs

In this chapter, we will cover:

- Creating a simple Web 2.0 style web design layout from scratch
- Creating custom glossy buttons
- Creating an Art Nouveau inspired blog template
- Creating an Impressionist inspired template
- Creating headers for your blog/website

## Introduction

Internet was not always this colorful, animated, and sometimes overwhelming thing we have nowadays, but since the beginning buttons have existed in some form or another. They've been evolving and changing from one design paradigm to another. The elements that changed through time are more or less the same: size, shape, color, borders, 3D or 2D, and so on.
In this chapter we are going to create buttons that work with the Web 2.0 model. They have some design elements that are essential for it, but remember: there are no obligations on how buttons look. You can start from a totally normal Web 2.0 page design and convert it to something completely different just by changing a few elements on it.

Blogs are something different. Well, it's not that they didn't exist ten years back, but they appeared with the evolution of the different digital communities that people used to interact, namely, Usenet, e-mail-lists, bulletin-board systems, and mainly on-line diaries. Today, many tools are available for anyone who wants to start periodically sharing his/her thoughts, work, hobby, and anything else on the Internet. With just a few clicks you can have a fully functional blog with a nice design. In this chapter we are going to create our own design for any kind of blog, so our online presence can be understood not only based on what we post in a blog, but also on how we present the content on a really personal level.

# Creating a simple Web 2.0 style web design layout from scratch

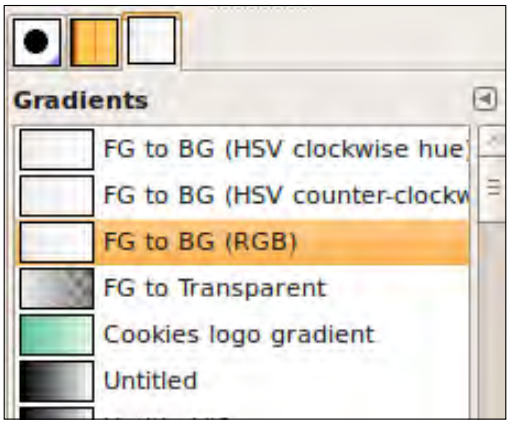
Web 2.0 is associated with user interaction, interoperability, user-generated content, blogs, web applications, and so on. From a design point of view, a Web 2.0 website has to provide a clean, user-centered design to allow developers and users to collaborate with each other in the creation of the site content. This is a fairly easy task; you just need to follow the steps, and use your own creativity to create a simple Web 2.0 layout.

The template will be a normal image file that you can cut into pieces and convert to HTML slices like we've seen in Chapter 2 at the beginning of the *Using web design-oriented filters* task.

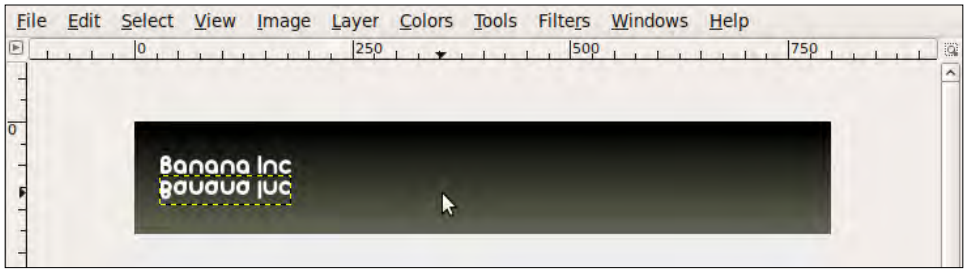
## How to do it...

Follow these steps to create a web design layout:

1. Go to **Layer** | **New Layer**, and create a new image of around 800x1000 pixels. Fill the background with a light gray.
2. Go to **Layer** | **New Layer**, create a new layer, and name it **header**. If not enabled, go to **View** | **Show Rulers** (*Ctrl + Shift + R*) to make them visible. Click on the **Rectangle Select Tool**, and drag from side to side of the image, around 125 pixels in height.
3. Select the **Blend Tool**, and choose **FG to BG (RGB)** from the **Gradients widget**:

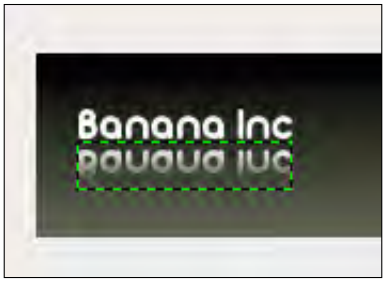



4. For the header background we are going to use a dark gradient. Pick a color for the foreground and a lighter one for the background. Then, drag inside the rectangle from top to bottom in a straight line to fill it (use the *Ctrl* key to easily create a straight line).
5. Use the **Text Tool** to write a company name, pick a font you like and a size of around 30 pixels. Duplicate the text layer, name it **reflection**, move it below the original, and flip it vertically with the **Flip Tool** to create a reflection. Use the **Select Tool** to move the **reflection** layer just below the original text:



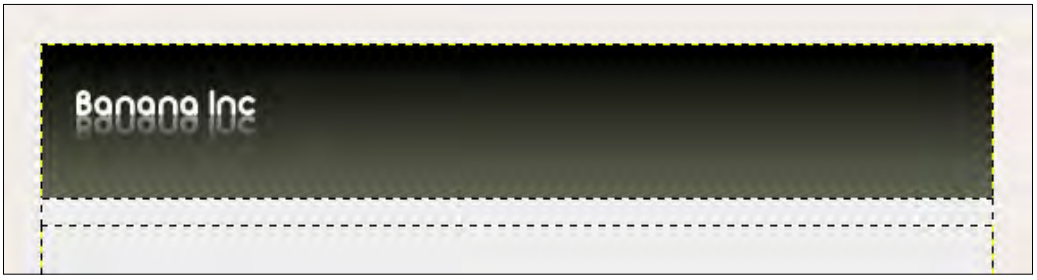

6. Right-click inside the reflection layer. Select the **Add Layer Mask** option. Select the **White (full opacity)** option, and press *Return*. Select the **Blend Tool**, and reset the colors to black and white by clicking inside the little squares at the bottom left side of the foreground and background colors.

7. Drag inside the **reflection** layer from bottom to top in a straight line.



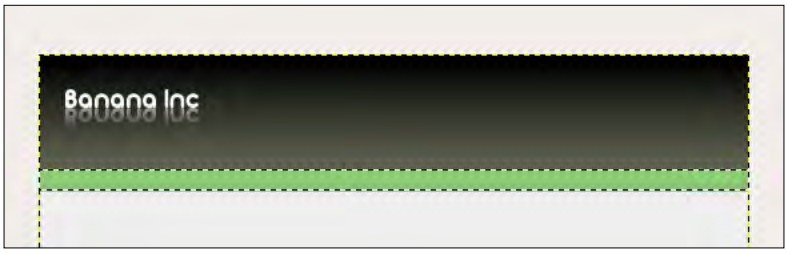

You could also adjust the layer's opacity if you want.

8. Create a new layer, and name it **menu**. Use the **Rectangle Select Tool**, and draw a rectangle from side to side of the image just below the header and around 20 pixels in height.

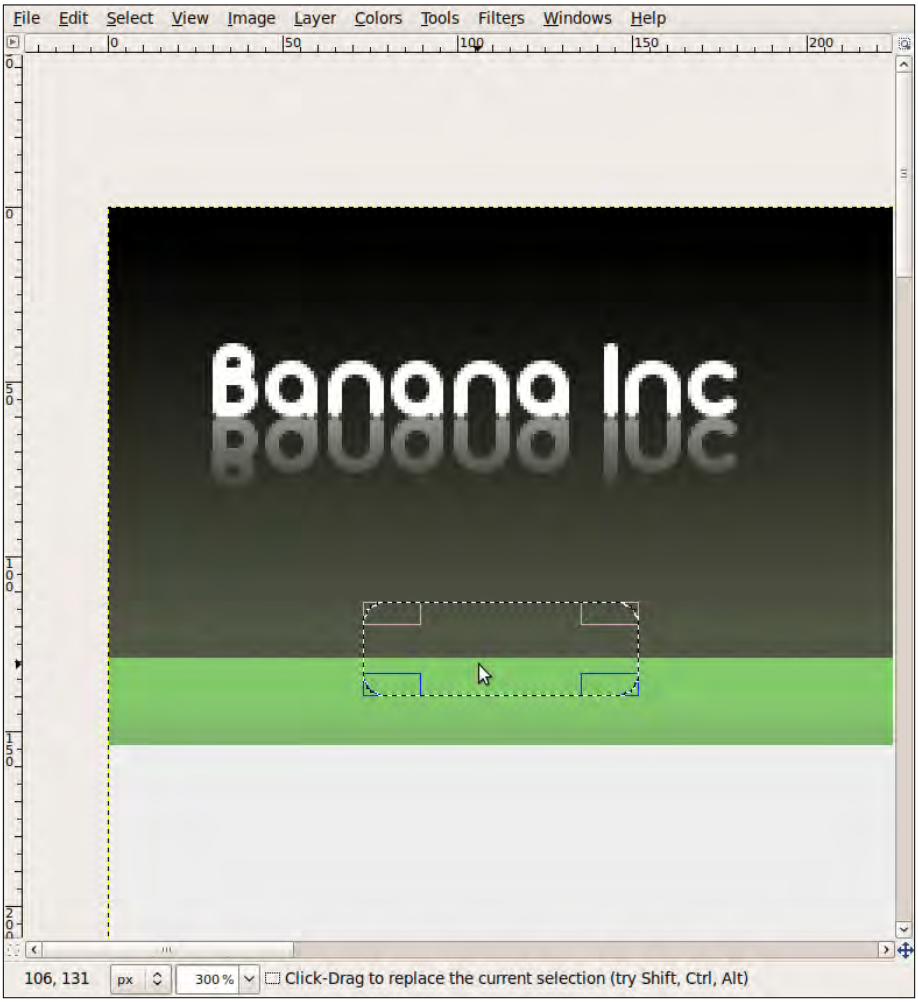



9. Pick the **Blend Tool**, select the **FG to BG (RGB)** from the **Gradients** widget, and choose a bright color combination for the foreground and background colors. Put the brighter one in the background. Write down the color codes in case you change them (or later, when you need them, you can always use the **Color Picker Tool**):

Apply the gradient from bottom to top.

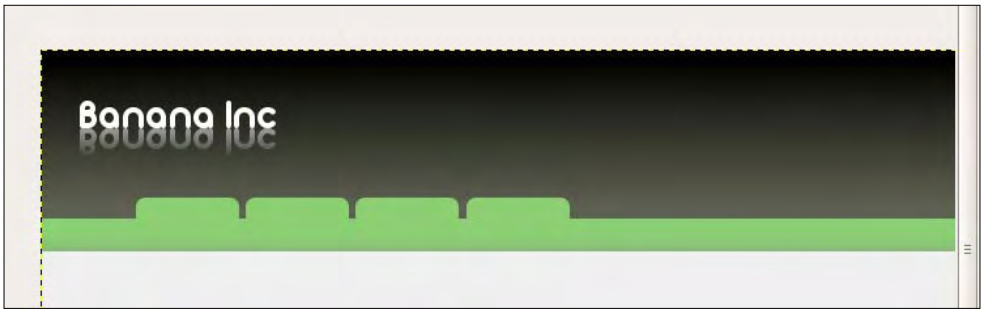



10. Create a new layer, and name it **tabs**. Zoom a little. It will be easier at this point. Use the **Rectangle Tool**, and create a new one of around 85 pixels width and 25 pixels height. Tick the **Rounded corners** box inside the **Rectangle Tool** properties, and choose a radius of around 6. Place the selection a little above the bottom of the menu.

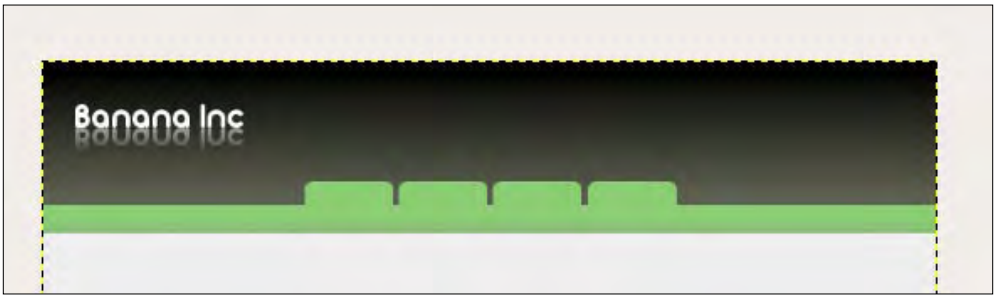


11. Fill the selection using the **Bucket Fill Tool** with the brightest color you used at the bottom of the menu.

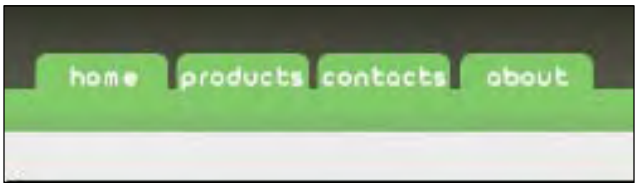
12. Duplicate the **tabs** layer three or four times, depending on how many menu options you want to have. Use the **Move Tool** to align them horizontally.



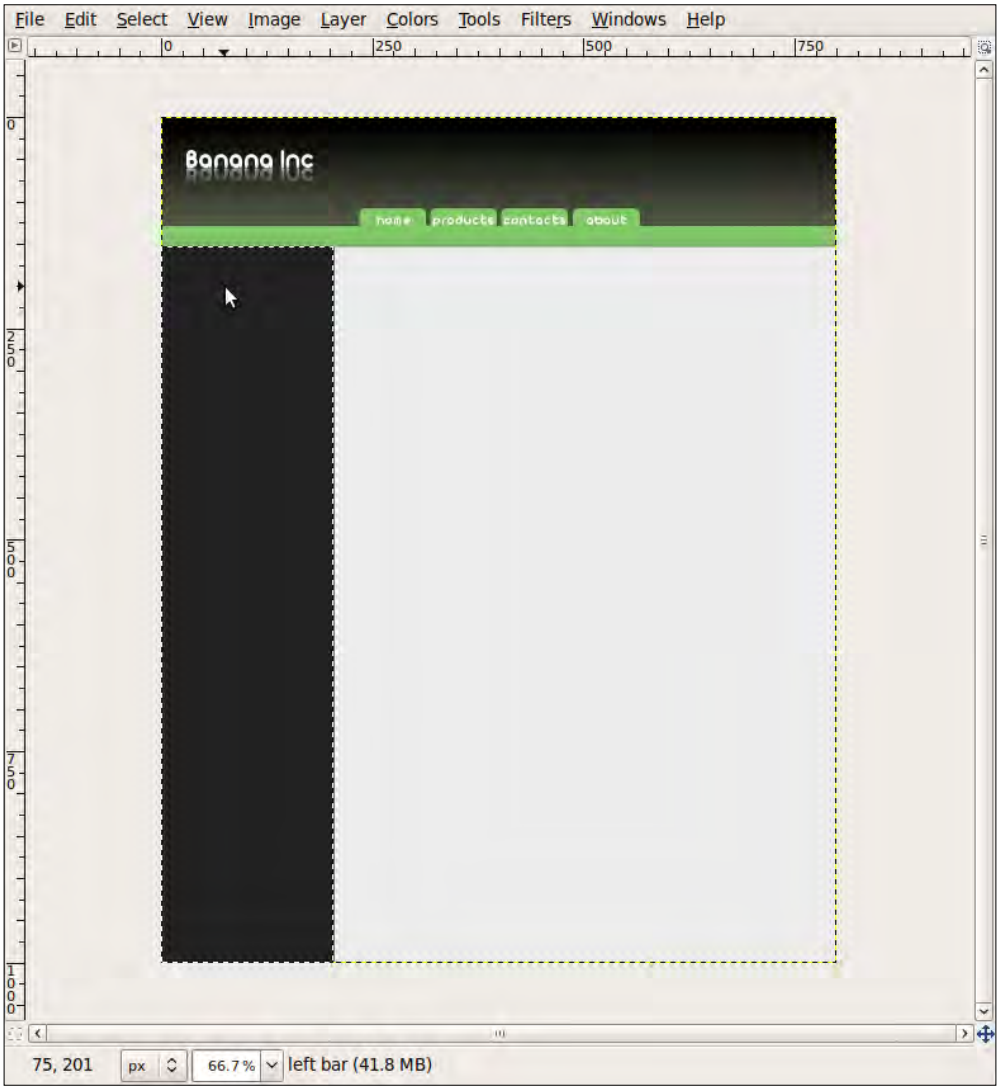

13. Link all the tabs together by clicking the chain icon left of each layer inside the **Layers** dialog. Use the **Move Tool** to center the tabs:



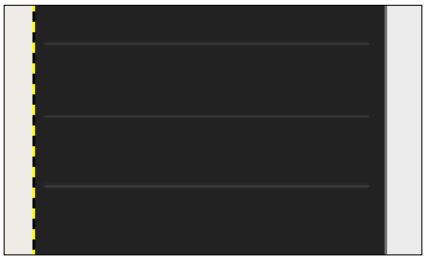

14. Create texts for each tab according to the company:



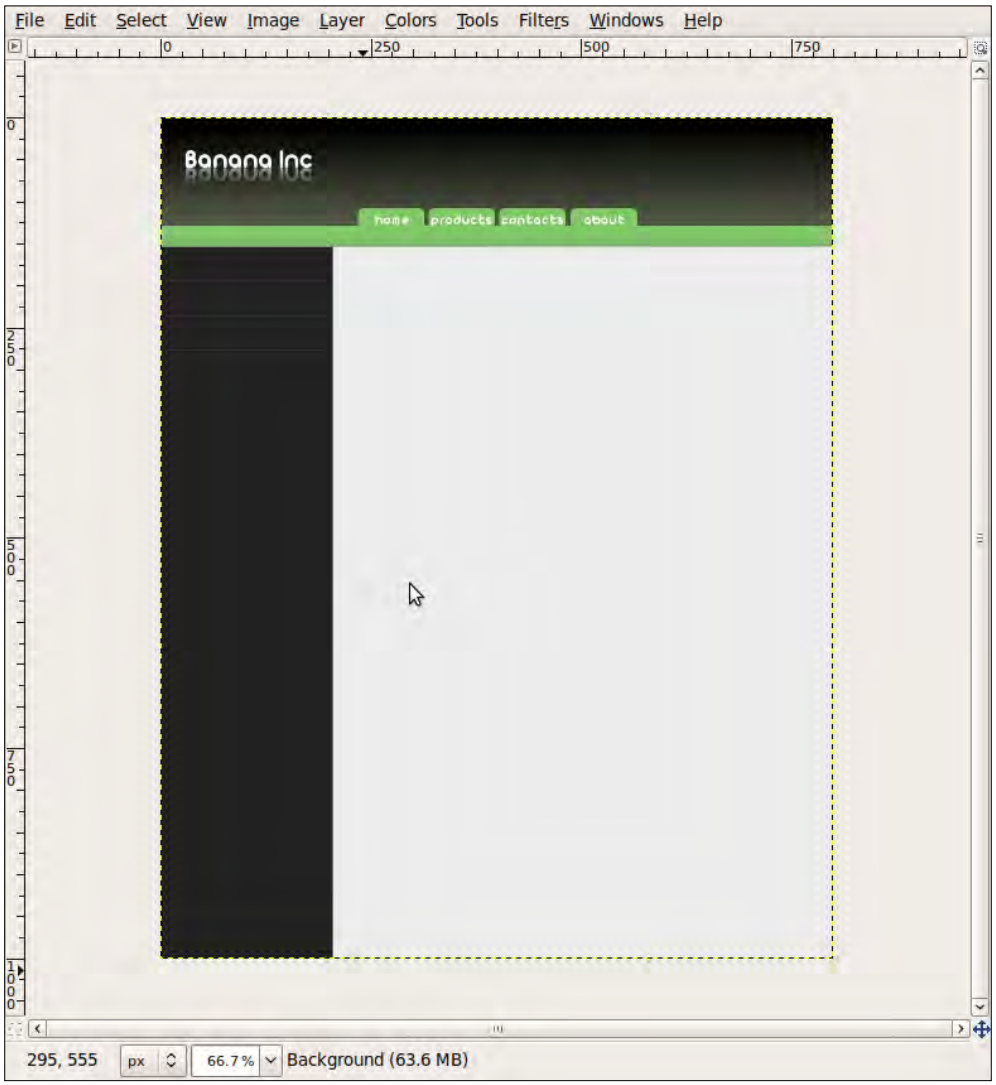
15. Create a new layer, and name it **left bar**. Use the **Rectangle Select Tool** (Remember to disable the **Rounded corners** box!), and create a rectangle on the left side of the image of around 200 pixels wide and all the way to the bottom of the image. Fill it with a dark gray, almost solid black.



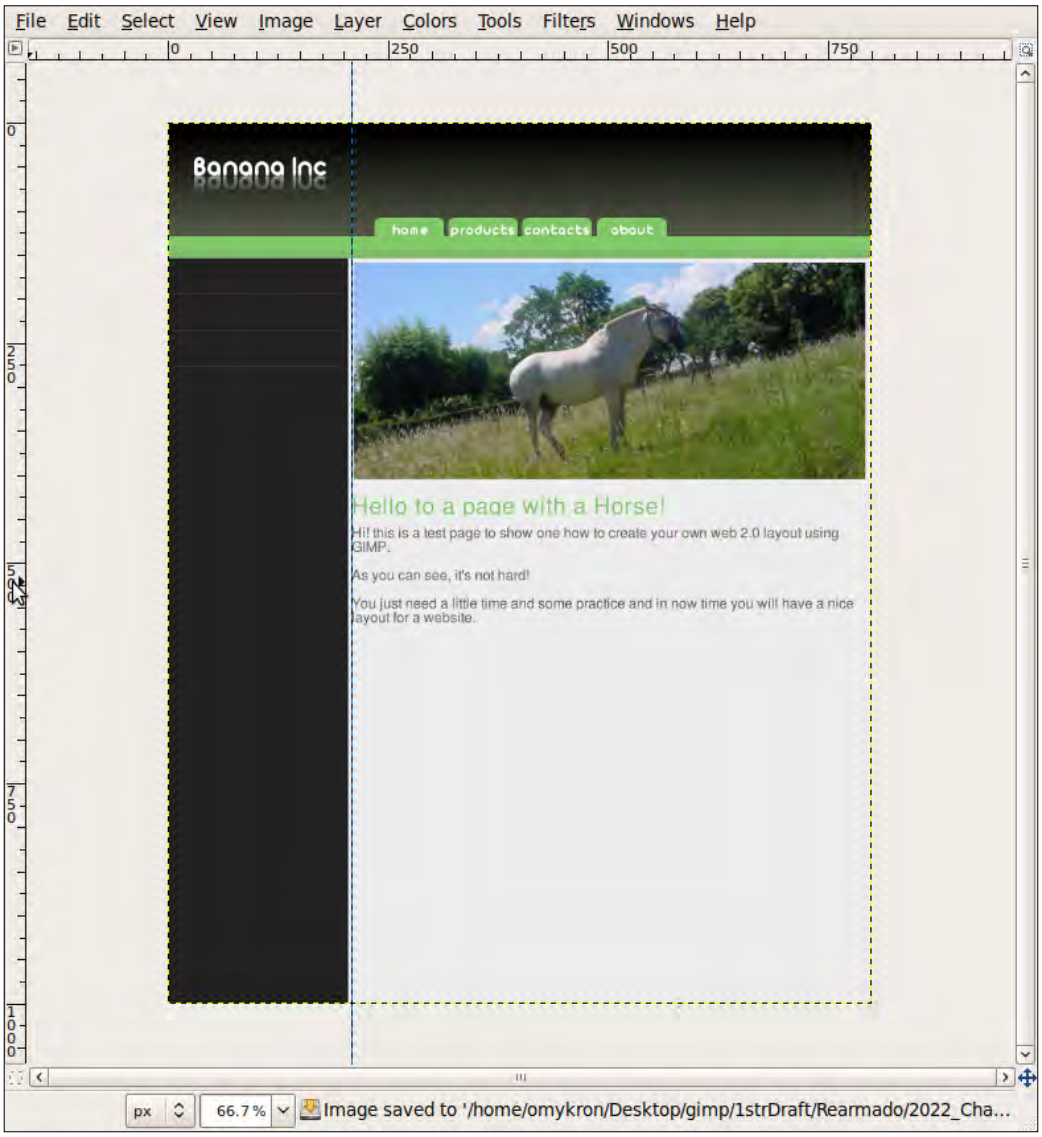

16. Create a new layer, name it **lines**, choose a dark shade of grey, draw a line using the **Pencil Tool**, and use a brush size of 0.05 or less. Duplicate the layer, and move and align the lines vertically. Each space between lines is to hold an option of the submenu for each tab.



17. The basic web layout is complete, and looks something like the following:



Following is how it looks with a some basic content in it:



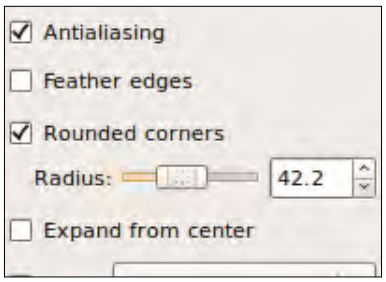

# Creating custom glossy buttons

In this task, you will learn how to create buttons with glossy surfaces that can be easily incorporated to any modern Web 2.0 layout for any kind of company.

## How to do it...

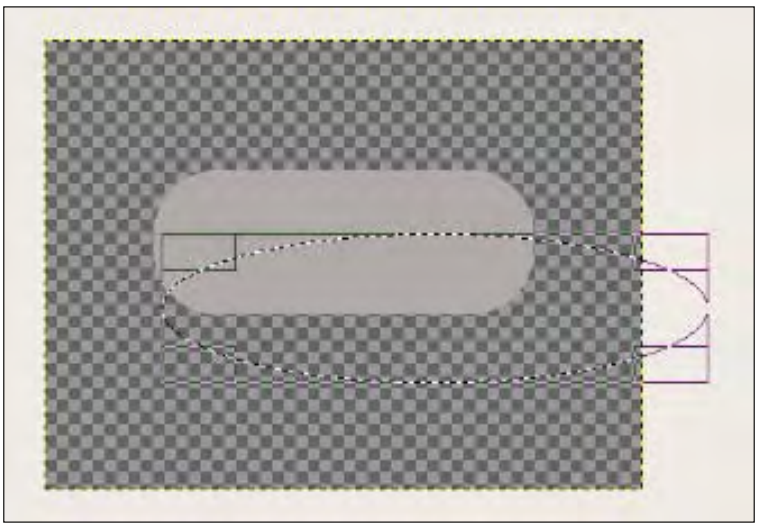
The following steps show you how to prepare glossy buttons:

1. In a new file—transparent file with no background—use the **Rectangle Select Tool** to create a shape of the dimensions you need. Enable the **Rounded corners** option. For my example, I used a radius of around 40 pixels.



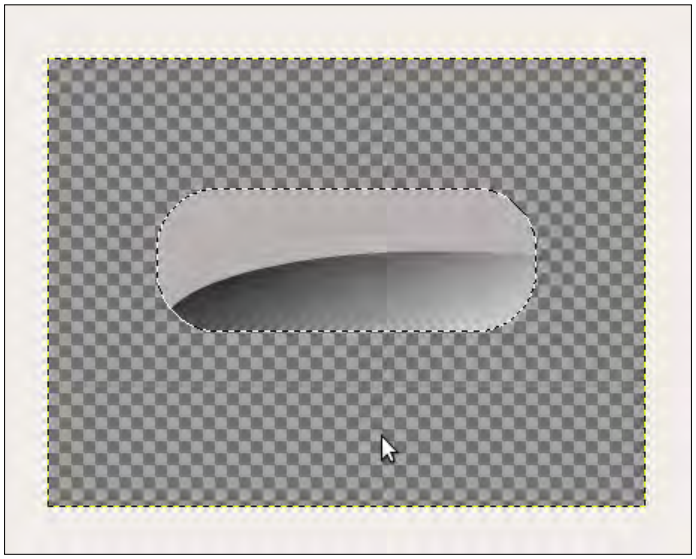

   Fill the selection with a gray shade, duplicate the layer twice, and name the layers **top**, **bottom**, and **base**.

2. Use the **Ellipse Select Tool**, and draw a selection like the following:

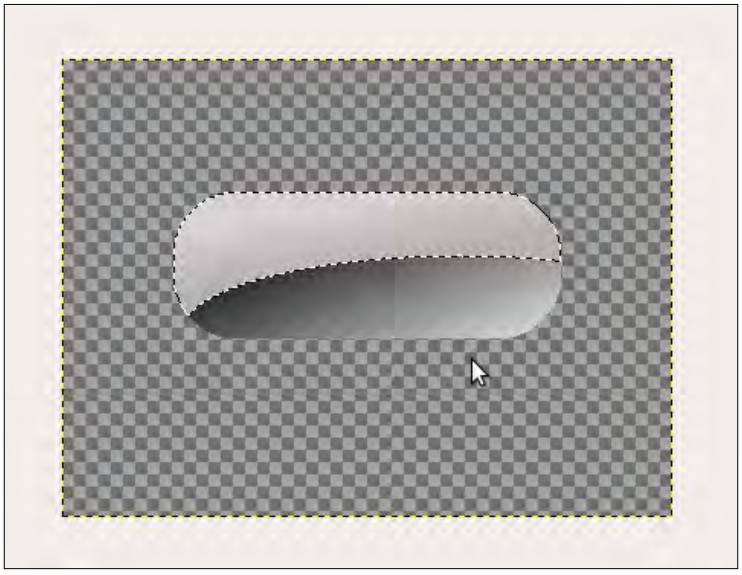


3. Select the **top** layer from the **Layers Dialog**, and go to **Edit** | **Clear**. This will erase the selected part from the **top** layer.

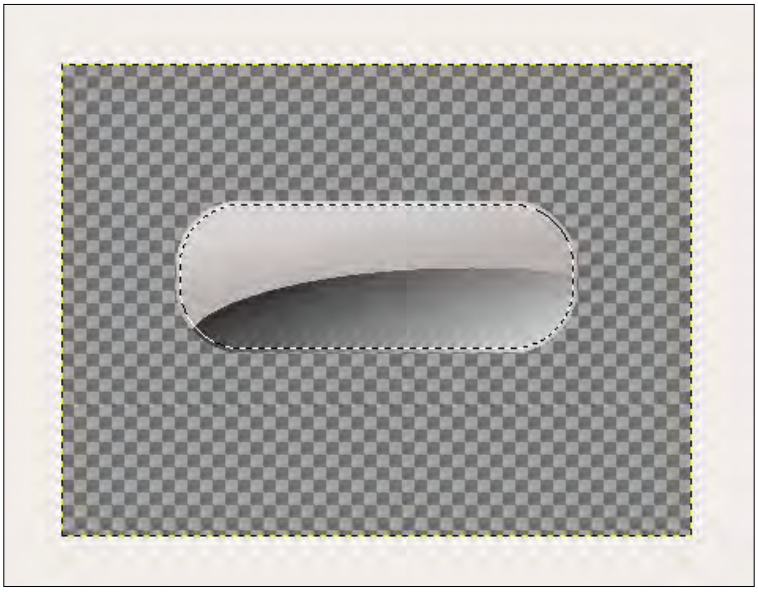
4. Select the **bottom** layer from the **Layers Dialog**. Use the **Fuzzy Select Tool**, and click inside the image to quickly select the whole layer. Click the **Blend Tool**, pick a black to white gradient, and drag from top-left to bottom-right:



5. Now, select the **top** layer from the **Layers Dialog**. Use the **Fuzzy Select Tool**, and click inside the image to quickly select the whole layer. Pick a lighter shade of gray to do some highlights. Select the **FG to BG (RGB)** gradient from **Gradients**, and use the **Blend Tool** to paint a gradient on it.



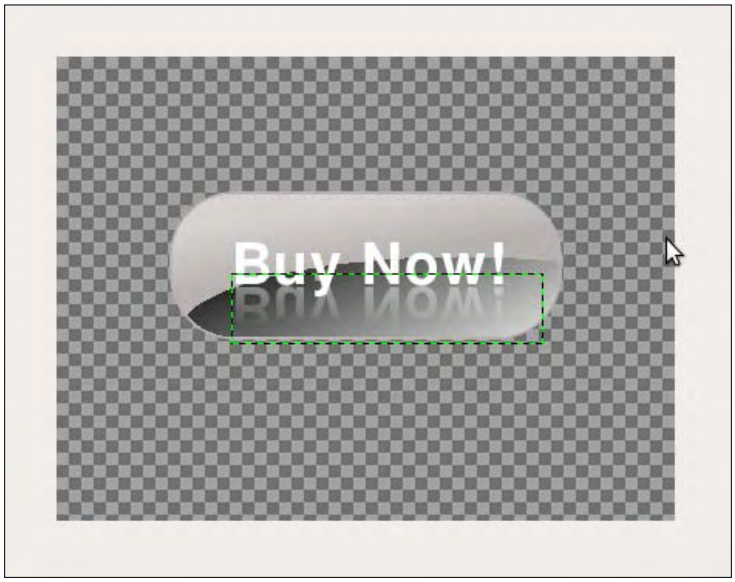
6. Make the **top** and **bottom** layer invisible by clicking the eye icon besides them. Select the **base** layer from the **Layers** dialog. Use the **Fuzzy Select Tool** and click inside the image to quickly select the whole layer. Enable the other two layers by clicking the eye icon besides them (without deselecting the **base**), and go to **Select** | **Shrink**. Enter an amount around 2 pixels, and hit *Return*.



7. Go to **Select** | **Invert** to invert the selection. Click the **top** layer from the **Layers** dialog, and go to **Edit** | **Clear**. Then click the **bottom** layer from the **Layers** dialog, and clear the layer.

8. Add any text you want to the button.

9. Duplicate the text layer. Move it below the original one, and use the **Flip Tool** to flip it vertically. Right-click the duplicated layer's name in the **Layers** dialog, and select **Add Layer Mask** (make sure the **White (full opacity)** option is selected). Hit **Add** in the window that appears. Select the **Blend Tool**, reset the foreground and background colors to black and white, and draw a gradient inside the mask.




Adjust the opacity of the duplicated text layer if you need to:

# Creating an Art Nouveau inspired blog template

Art Nouveau is a movement that developed around the end of the 1800s. It was mainly used in decorative arts, architecture, and applied arts. It is characterized by very organic, stylized curved lines. In this task we are going to create a basic blog template based on the style of Art Nouveau motifs.

Custom blog templates can be tricky to configure. Always save your template in a GIMP format, just in case you need to move things around to adjust them to your blog's code. Of course, you can always learn a little HTML and CSS!

## Getting ready

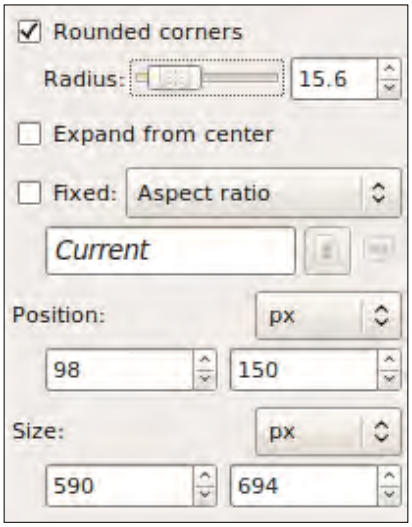
Art Nouveau is everywhere. Search the Internet for some examples, artists, and inspiration. You can also sketch a few designs.

## How to do it...

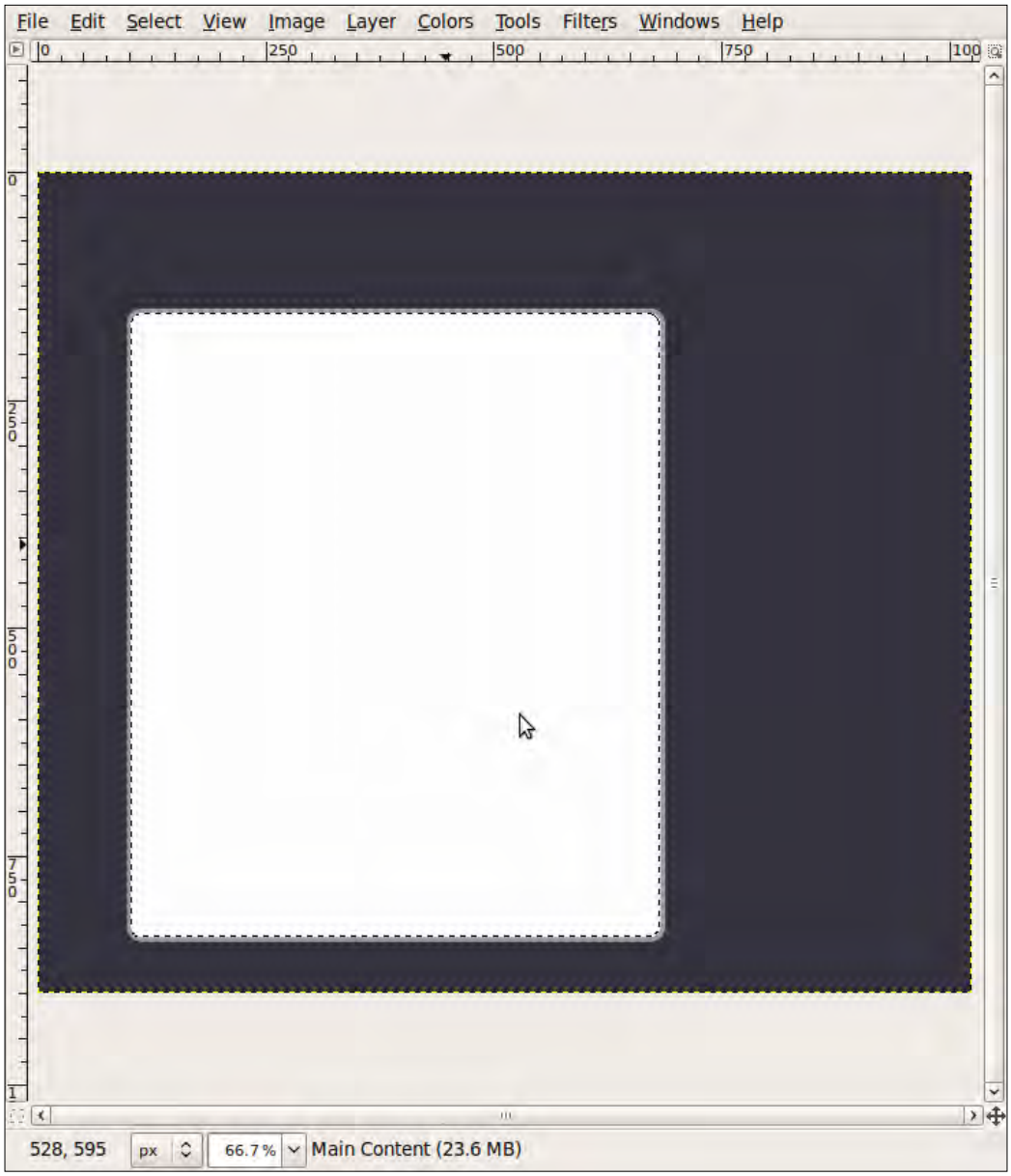
Follow these steps to create your blog theme:

1. Create a new file, 1024x900 in size, and, fill the background with a dark solid color.

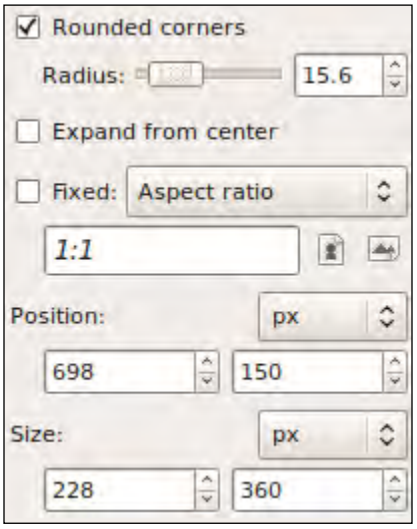
2. Create a new layer, and name it **Border Main Content**. Use the **Rectangle Select Tool** to draw a rectangle. Copy the parameters I have used for this example; they are as follows:



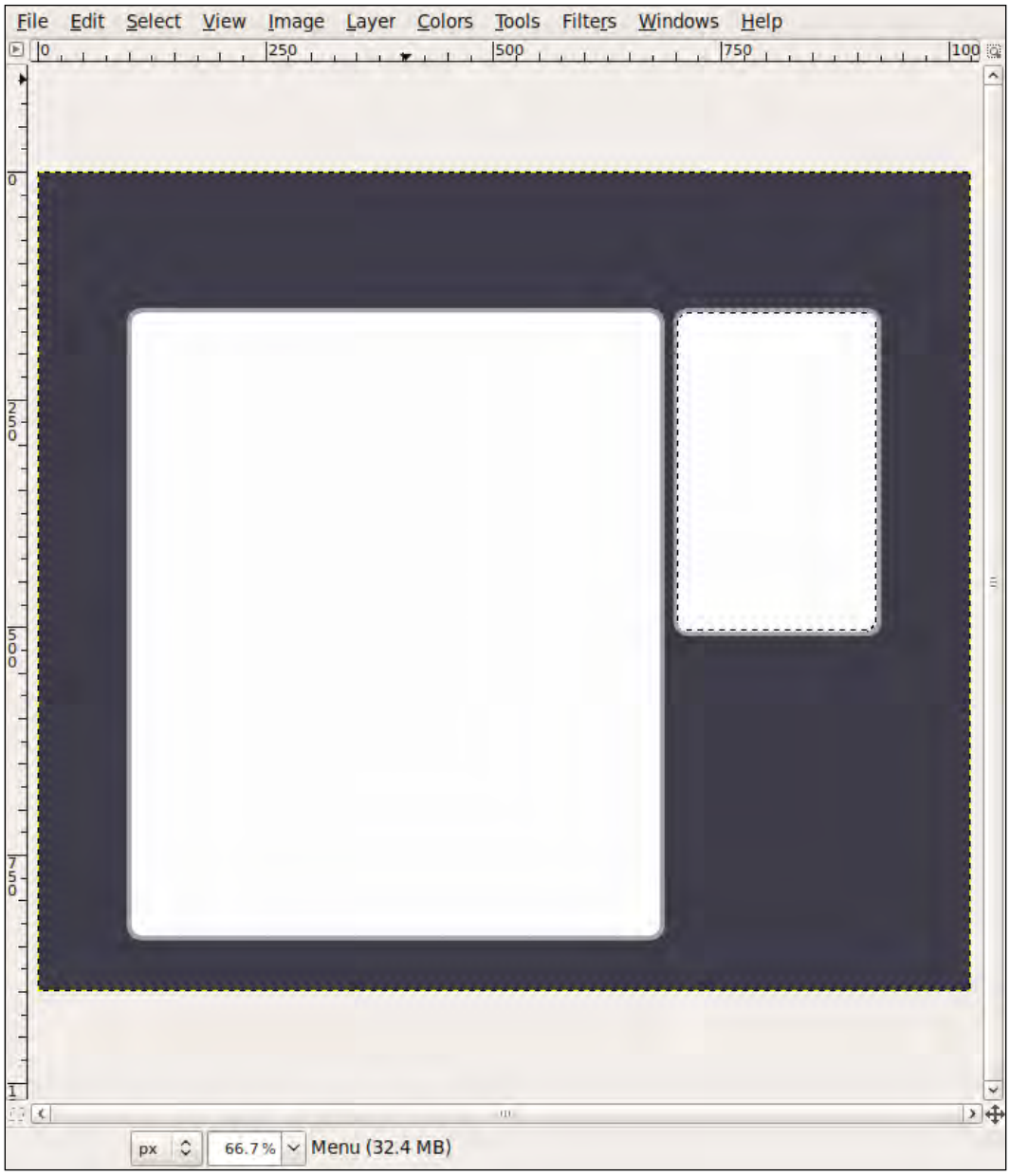

3. Fill the selection with a solid white. Set the layer's opacity to something around 50%. Go to **Select** | **Shrink**, enter 5, and press **OK**. Create a new layer, and name it **Main Content**. Fill it with a solid white.


File Edit Select View Image Layer Colors Tools Filters Windows Help
0
250
500
750
100
528, 595
px
66.7 %
Main Content (23.6 MB)

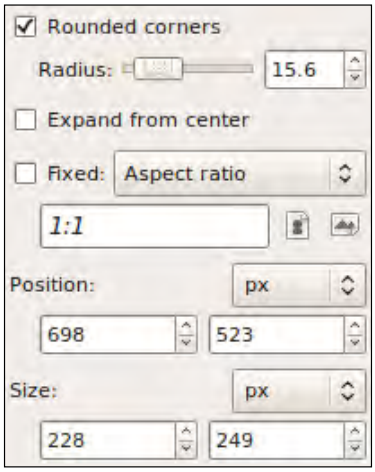
4. Now, let's create two more boxes, one for the menu and another for the profile, links, history, or anything you want to put there. For each box, repeat the last few steps to create the base border and solid background. Create a new layer, and name it **Menu Border**. Create a rectangle selection with the following settings:




Fill it with a solid white, and change it's opacity to 50%. Create a new layer, and name it **Menu**. Go to **Select** | **Shrink**, enter 5, and press **OK**. Fill it with a solid white.


File Edit Select View Image Layer Colors Tools Filters Windows Help
0
250
500
750
100
px
66.7 %
Menu (32.4 MB)

5. Create a new layer, and name it **Menu 2 Border**. Create a rectangle selection with the following settings:

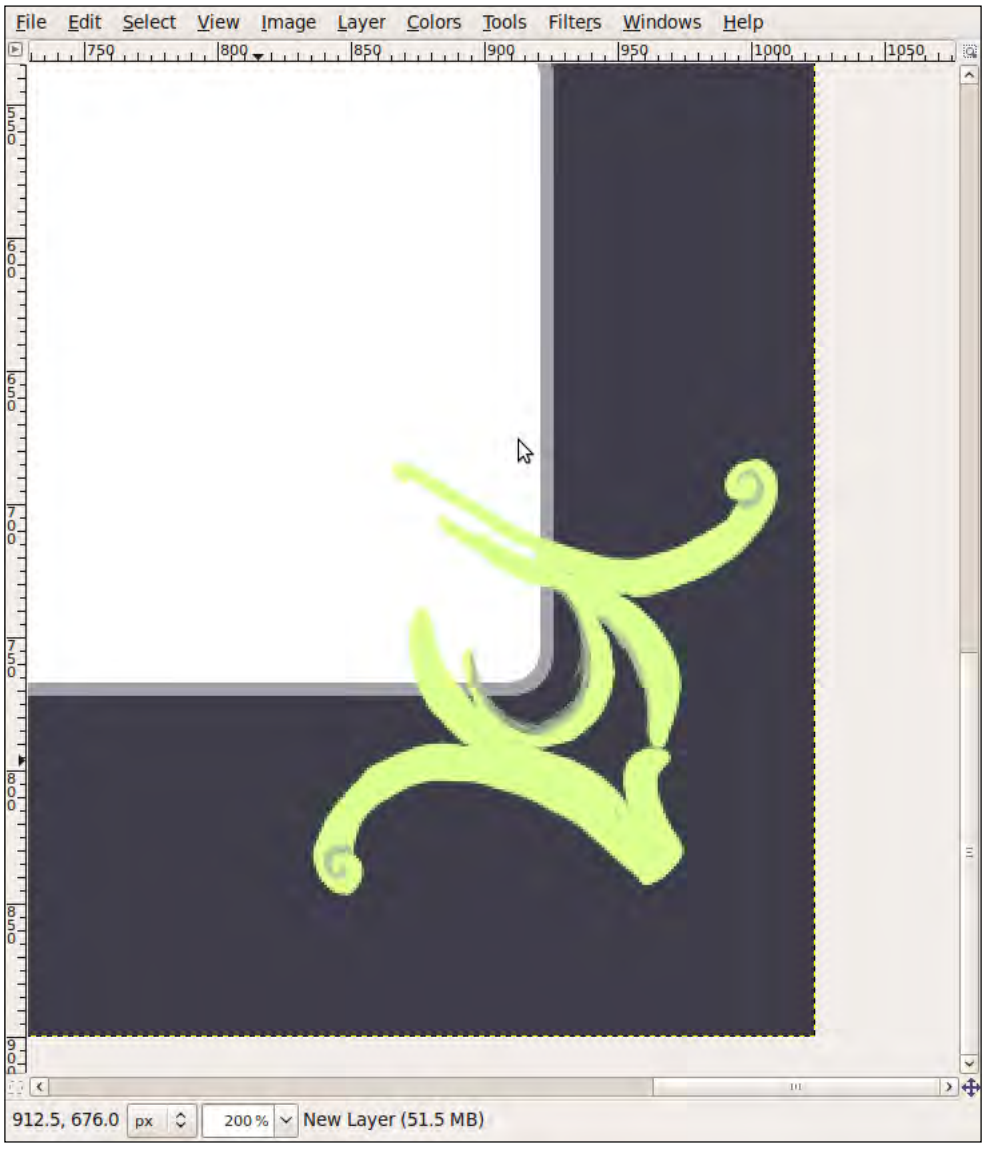



   Fill it with a solid white, and change it's opacity to 50%. Create a new layer, and name it **Menu 2**. Go to **Select** | **Shrink**, enter 5, and press **OK**. Fill it with a solid white.

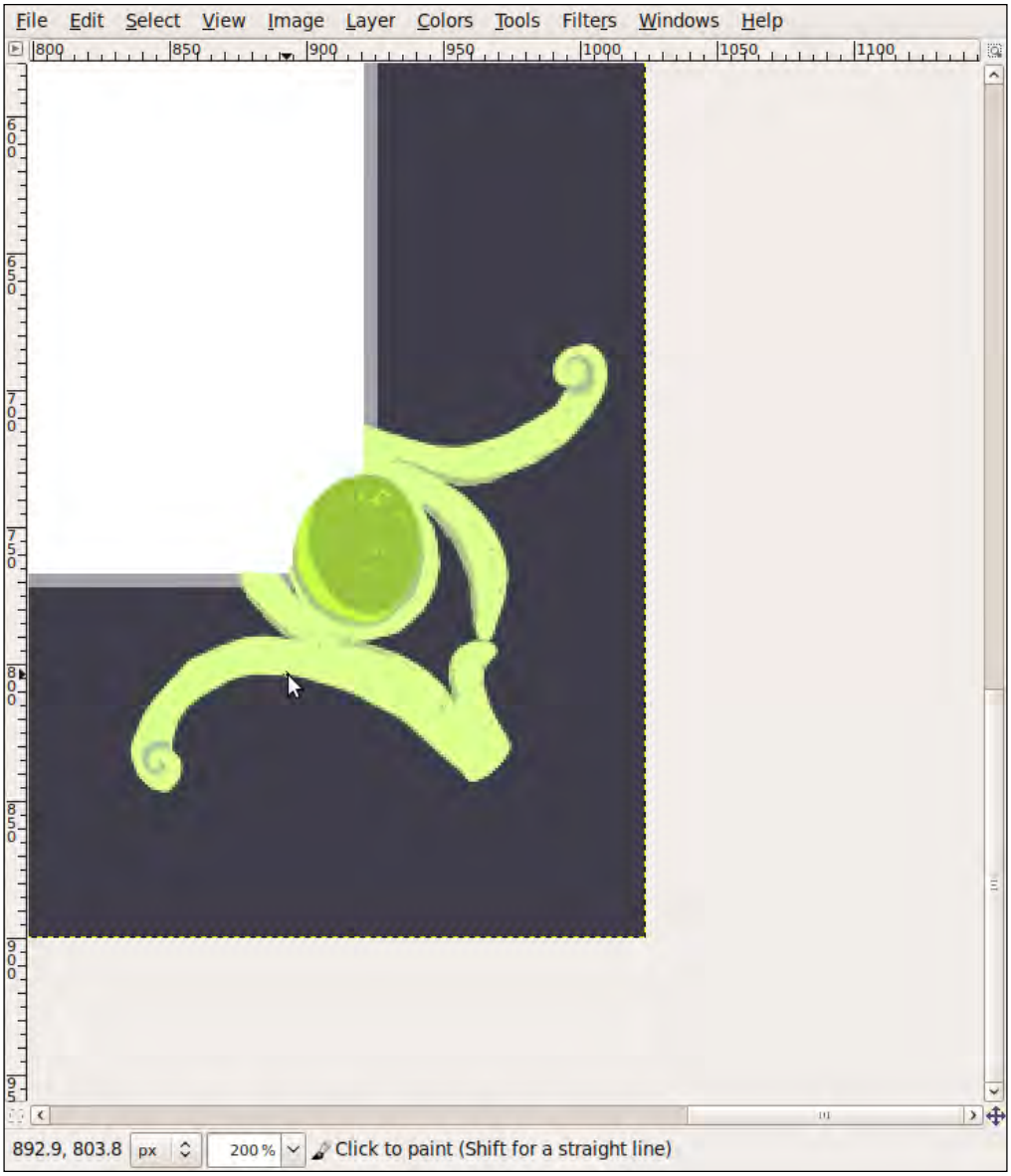
6. This can be the trickiest part. Here is where your investigation about Art Nouveau shows it's results. Create a new layer, and using a soft brush and a soft color, start drawing some designs. Use simple motives, curved lines, and flower designs.

File Edit Select View Image Layer Colors Tools Filters Windows Help
0
100
200
300
28.2, 195.2
px
150 %
Click to erase (Shift for a straight line)

Try to use organic shapes. Here, I started with some basic shapes. Once I got to the point I'm satisfied, I started adding some shadows/volume:



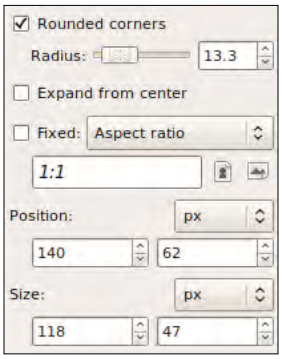
Then I added a big solid color, and some shiny spots to simulate some kind of gem:



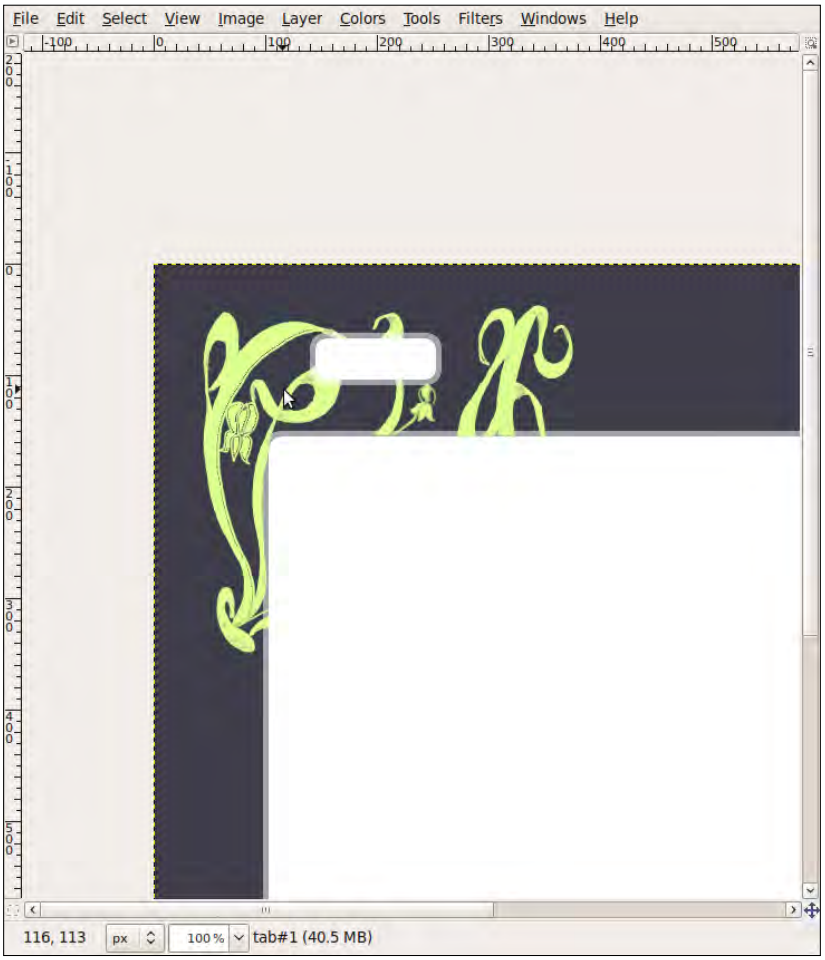
A little bit of smudging and a few more shadows and it's done. Finally, I added a little sunburst, which is very characteristic of the style.

If you can't manage to draw anything, don't despair. Search the web; there are lots of royalty-free brushes that you can use to create flower patterns and curved lines in no time.

7. Create a new layer, use the **Rectangle Select Tool**, create a small rectangle, and apply the following parameters to it:

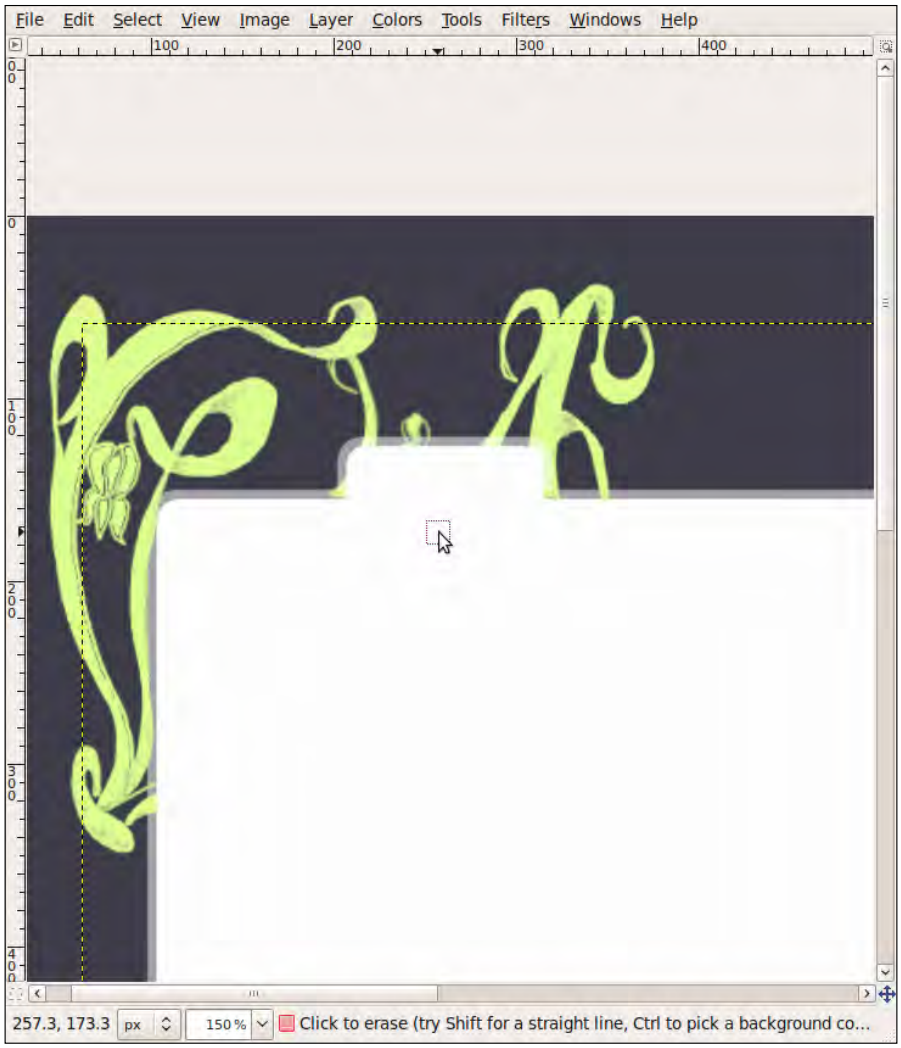



8. Fill it with a solid white, and change it's opacity to 50%. Create a new layer, go to **Select** | **Shrink**, enter 5, and press **OK**. Fill it with a solid white:

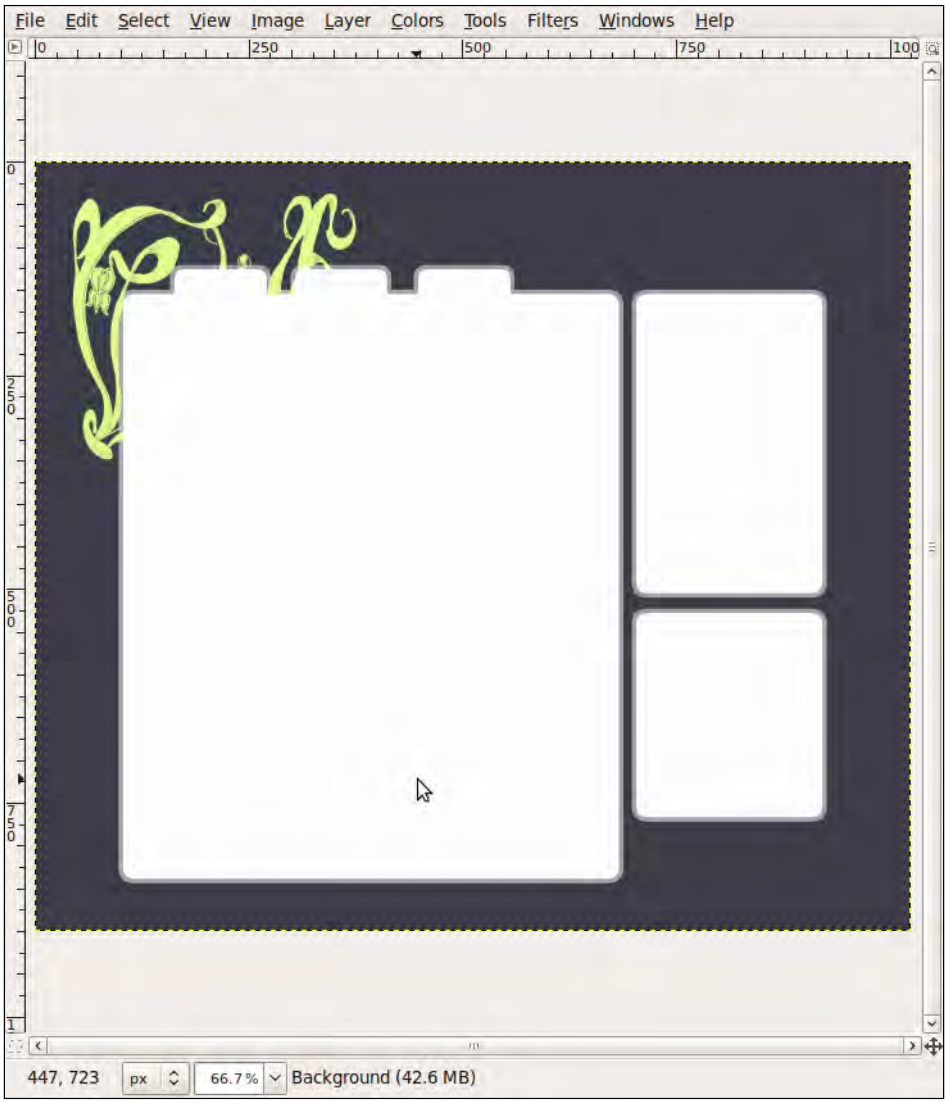


9. Now merge these newly created layers into one. Go to **Layers** | **Merge down**. Rename the merged layer to **tab**.

   Use the **Move Tool** to position the tab just above the content box. Select the **Eraser Tool** and delete the overlapping borders.




10. Duplicate the **tab** layer, and distribute them along the top of the content box!


File Edit Select View Image Layer Colors Tools Filters Windows Help
0
250
500
750
1000
447, 723
px
66.7 %
Background (42.6 MB)

The template is ready now; you need to decide where you are going to put your content, and that's it. Following is my finished piece. I added a tiled background to add a little more color.

# How to create an Impressionist inspired template

We are going to take advantage of a filter that comes with GIMP 2.6 that probably would make Monet very angry (as he is considered the father of Impressionism). Though it's a good way to quickly turn any photo or drawing into a sort-of impressionistic piece.

Usually, impressionistic art has many different subjects. Depending on the many painters that embraced and developed it through time, people, furniture, cities, landscapes, still life, almost anything has been represented. However, all of them have things in common: there's an interest in light and how it changes, how time passes, movement, and the need to express the perception of nature rather than simply trying to duplicate it on a canvas. That's why we can see so many strange colors and forms instead of a perfect body, a perfect face, a perfect building, and so on.

## Getting ready

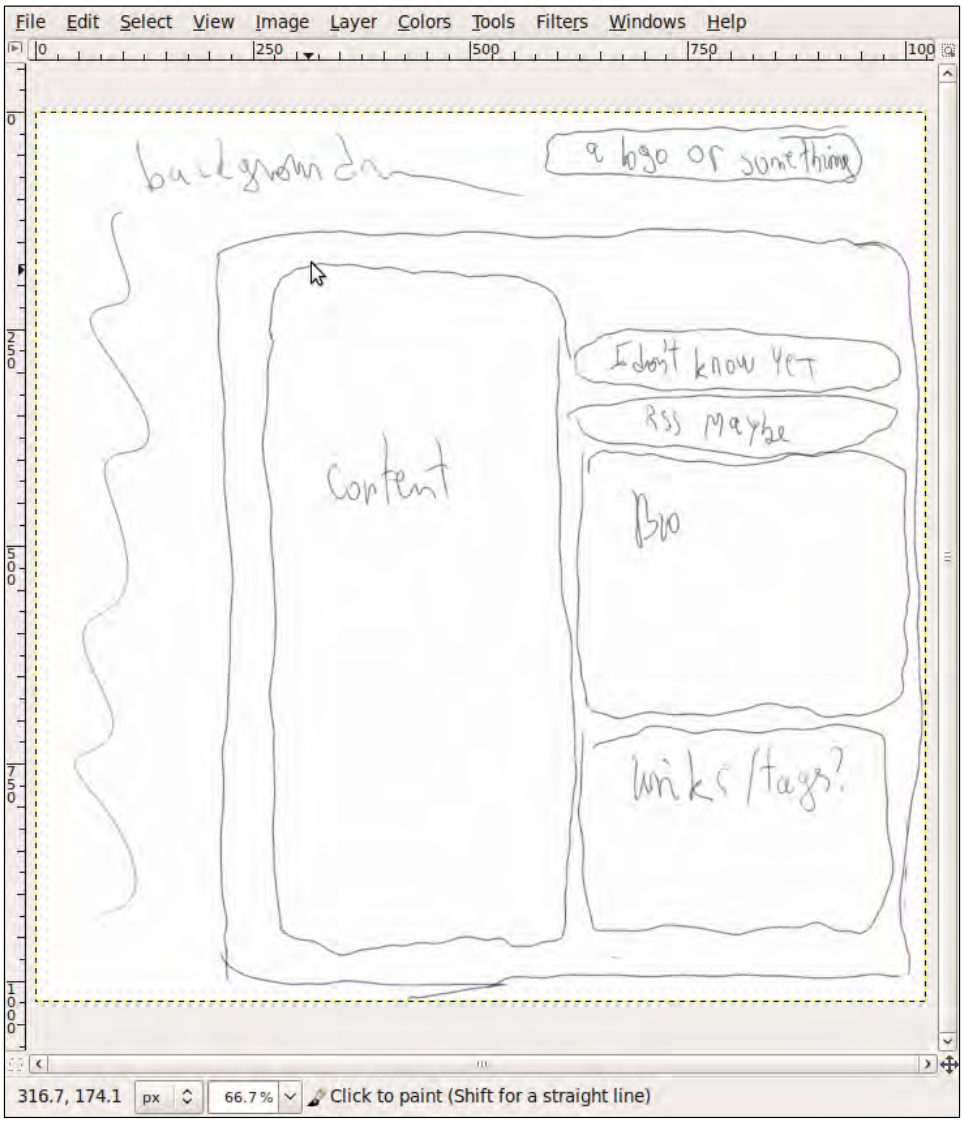
This is another example of how to create any kind of template from just an idea. Research Impressionism as much as you want. Personally it is one of my favorite art movements and includes many of the most famous painters from the 19th century.

Once you are satisfied with your research, pick a series of photographs. Try to pick a theme. Two or three photos will be enough.

## How to do it...

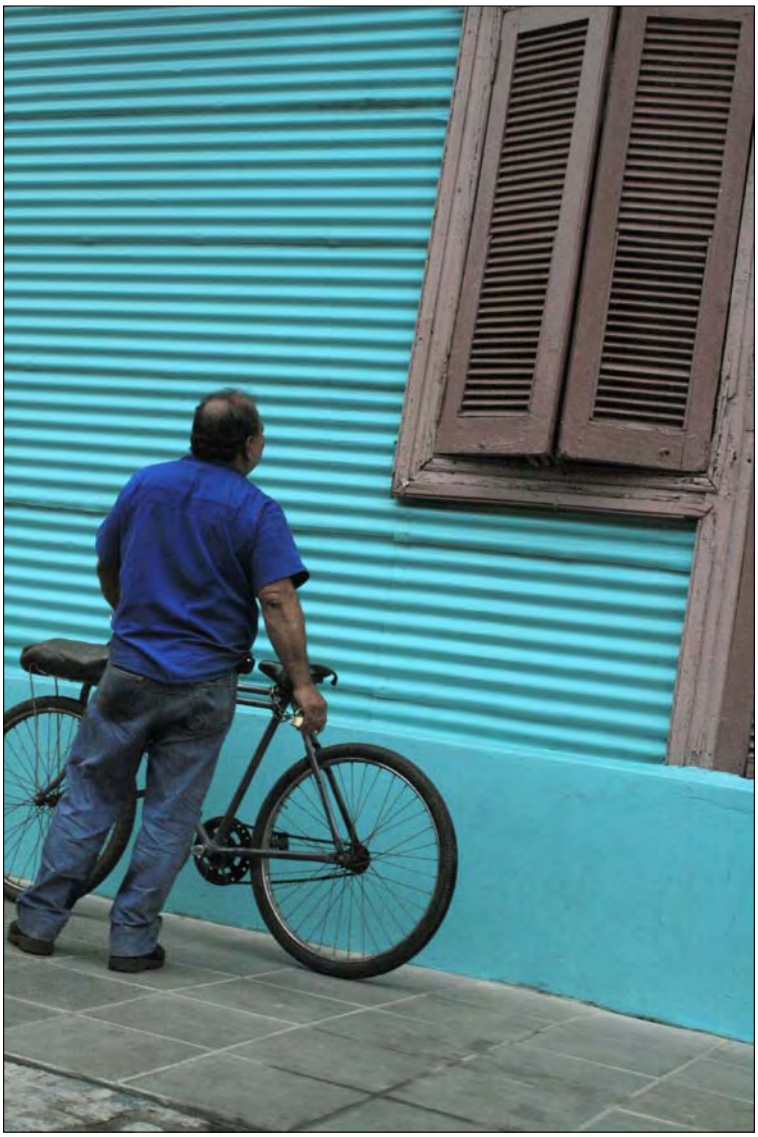
The following steps will show you how to create an Impressionistic template:

1. For this task, I decided to make a really quick and rough sketch:



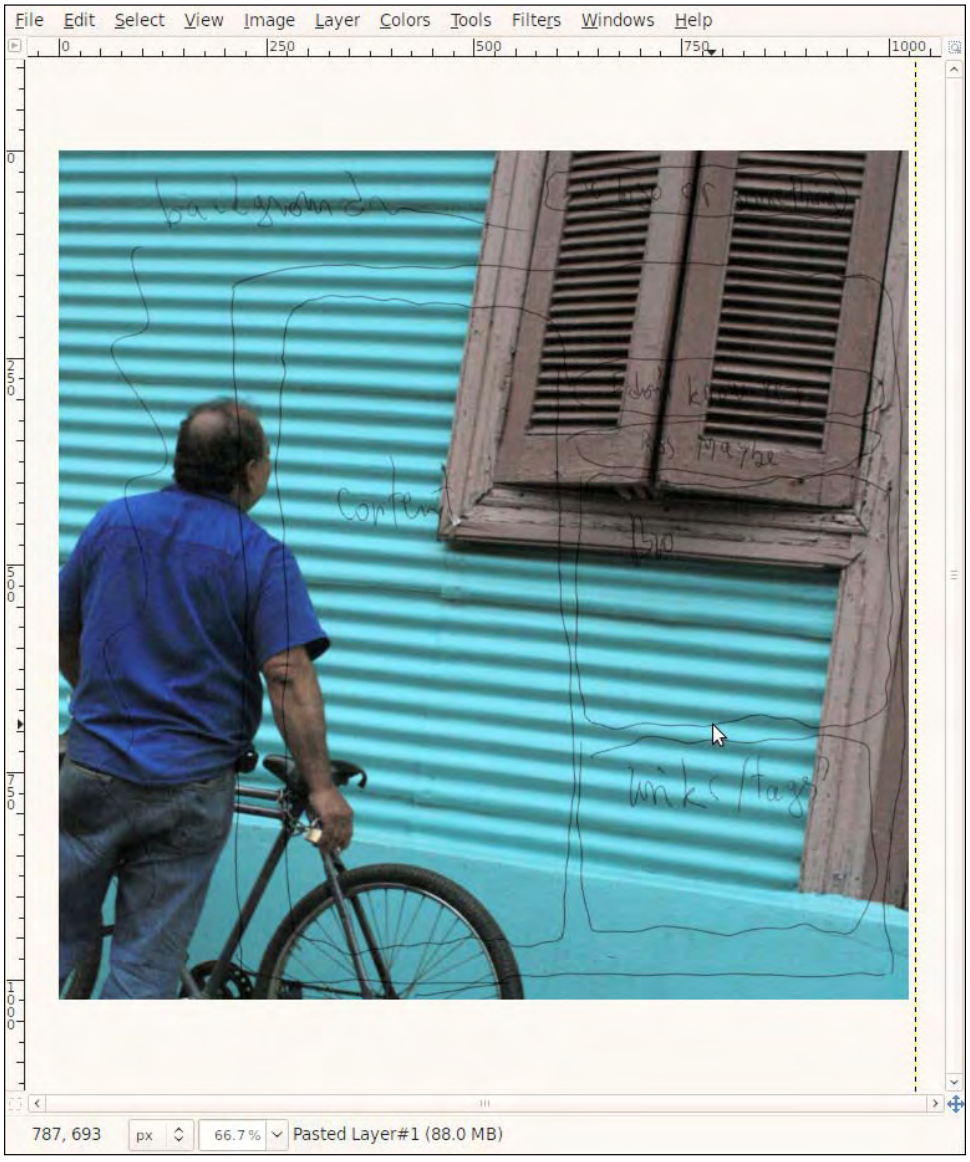

   (Told you it was rough). As you can see, there's no sign yet at all of how we are going to make it look, just a faint notion on where I want to put things like content, menus, and so on.

I decided to use two photos. The following one is for the background of the blog:

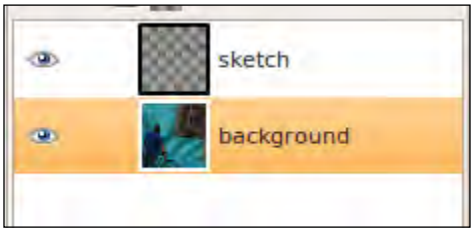


The following one is for the header. We are going to crop it and edit it to take advantage of the colors and shapes, and make our blog a little more abstract:

2. My rough sketch is 1024x1024 pixels, so I'm going to work directly on it, pick a photo for the background, and place it on a new layer. (One way of doing this is to copy and paste. Click on the **New layer** button to place it in it's own layer). In my case, the photo was too big, so this is how it looks after scaling and moving it around a little to the place where I like:

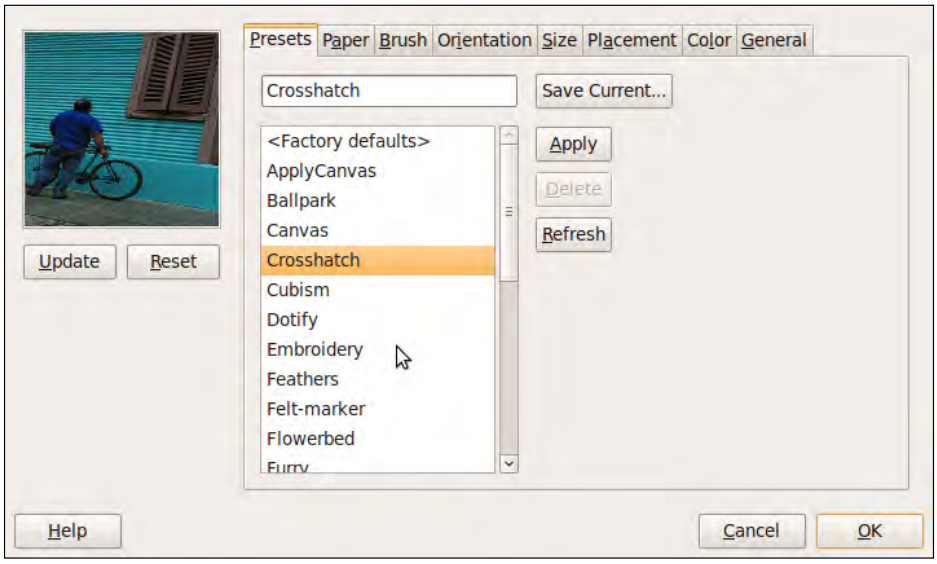


Place it below the **sketch** layer:

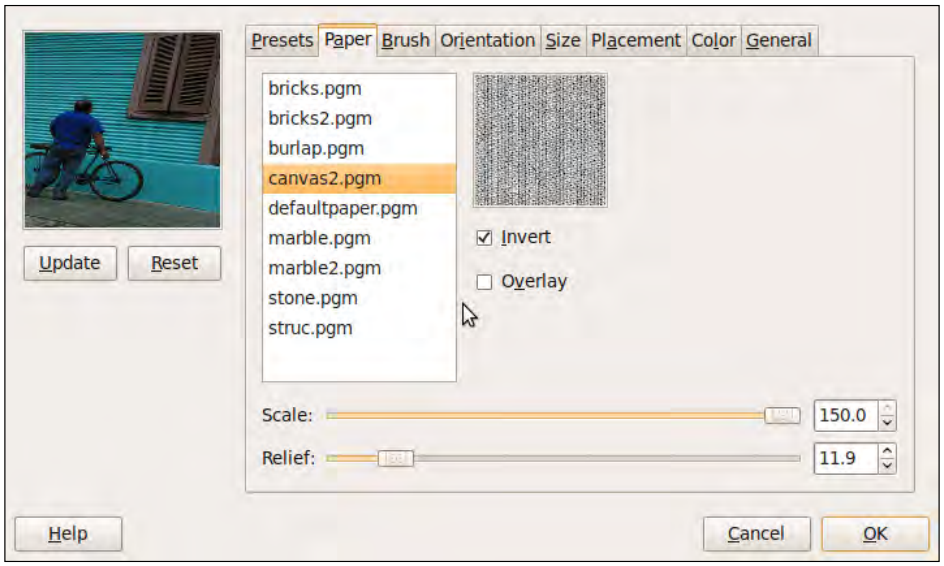



3. Now let's use the **GIMPressionist** filter. Select your **background** layer and go to **Filters** | **Artistic** | **GIMPressionist**. This is a complex filter, not because it's hard to use, but because it has lots of options that you can use to get many different results. You should experiment until you get the result you like best. After you change any option you can press the **Update** button to see how it modifies the image. Here are the settings I used for my background:

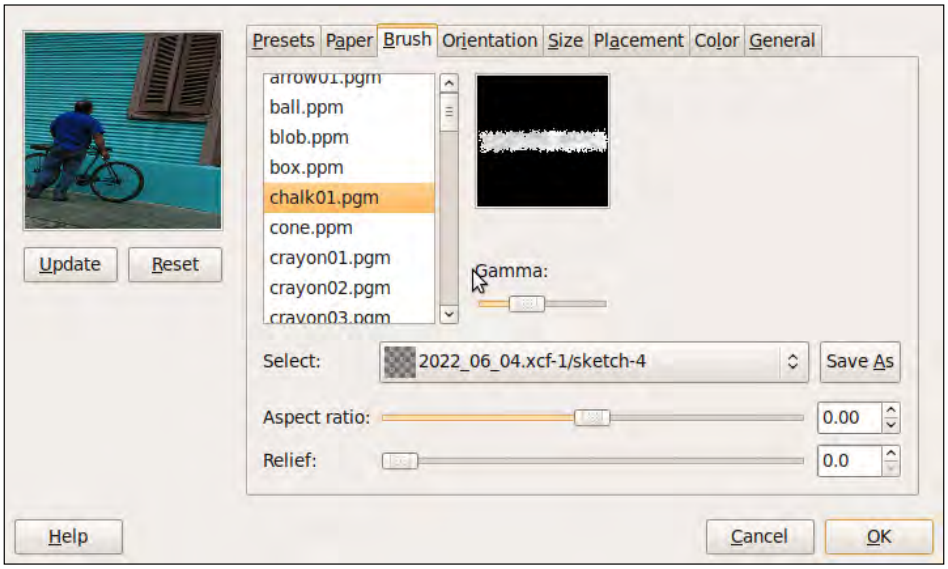
    - **Presets**:



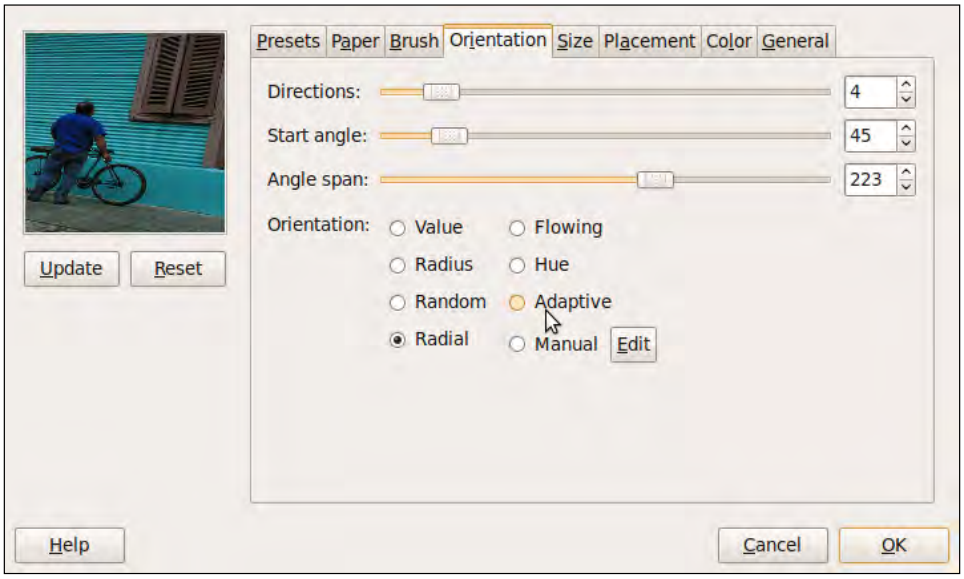

    - **Paper**: These are textures that simulates different kinds of media, like paper, cloth, marble, and stone.



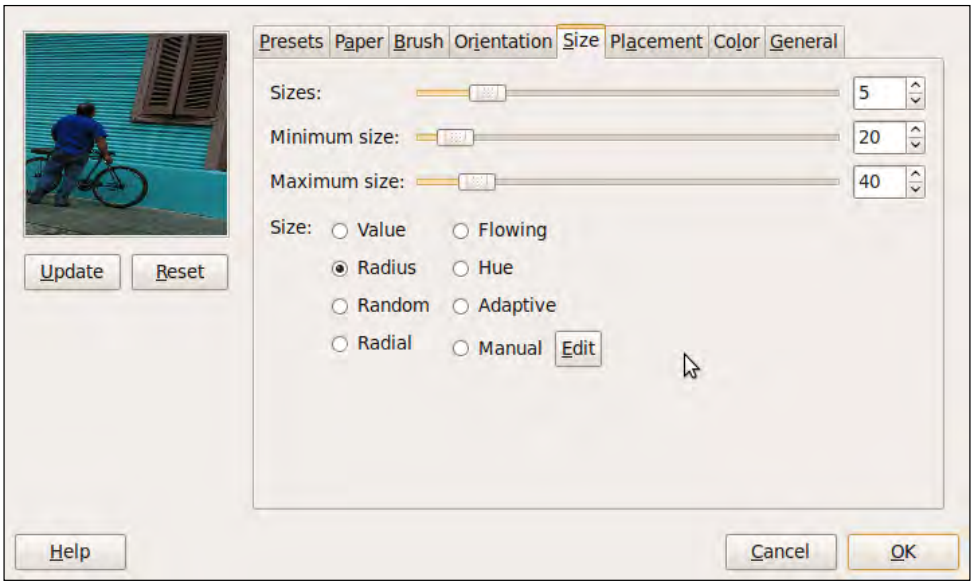

- **Brush**: This tab contains a wide variety of brushes that simulates material used to paint.



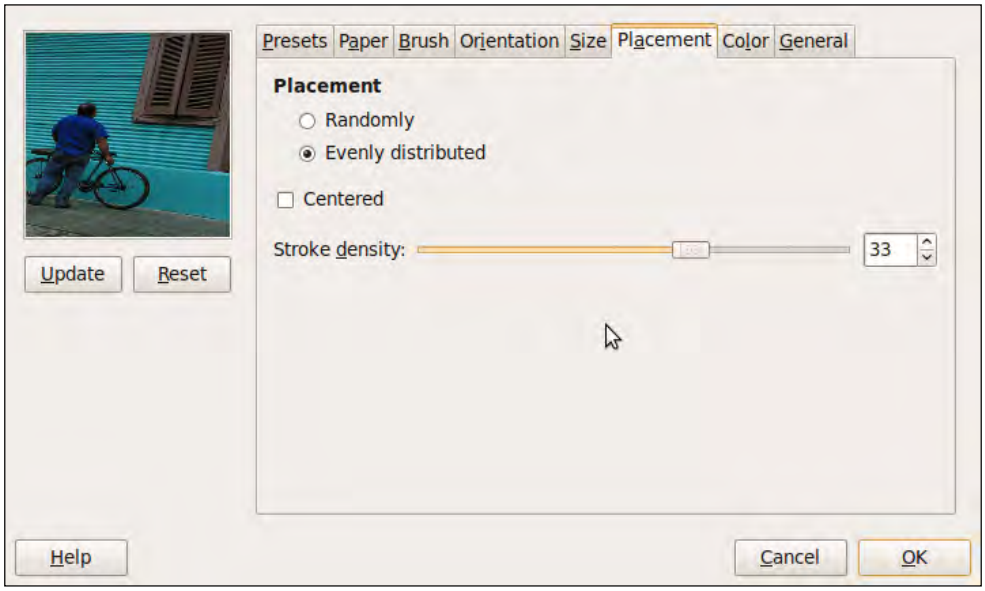
- **Orientation**: Here, you can change the orientation of the brush strokes. You can set the direction of the strokes based on different parameters (**Value**, **Radius**, **Random**, **Radial**, **Flowing**, **Hue**, **Adaptive**), and there's also a **Manual** setting which opens a window that allows you to set the direction manually.



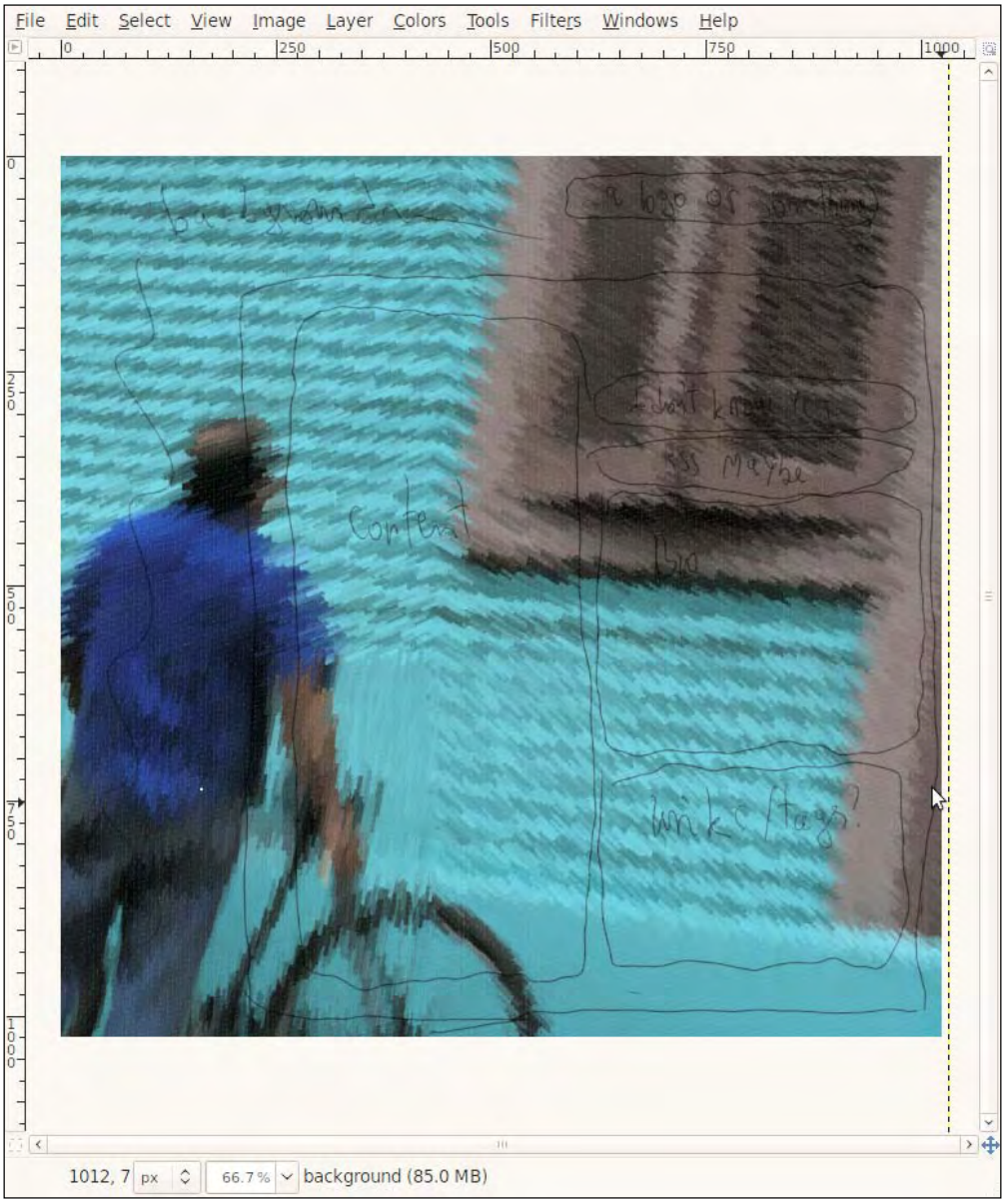

- **Size**: This tab allows you to change the minimum and maximum sizes for the brush strokes, and how they are determined based on different parameters similar to **Orientation**.




- **Placement**: Here you can configure how the strokes are distributed.

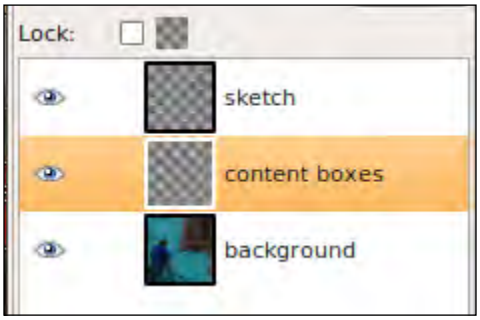


I didn't change anything in the **Color** and the **General** tabs. As I said all along, it's better if you experiment with the different parameters instead of trying to duplicate the exact effect. Here's how my background looks after applying the filter:

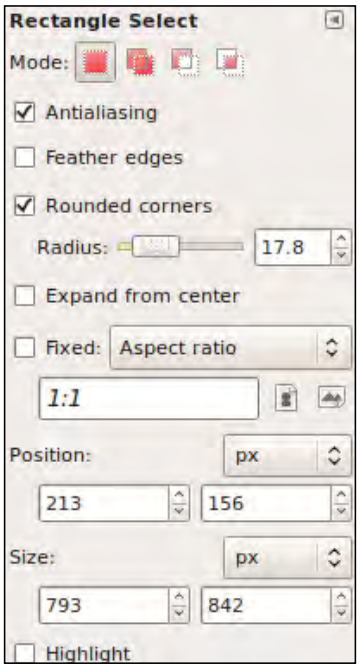



You can see that the filter only modified the selected layer.

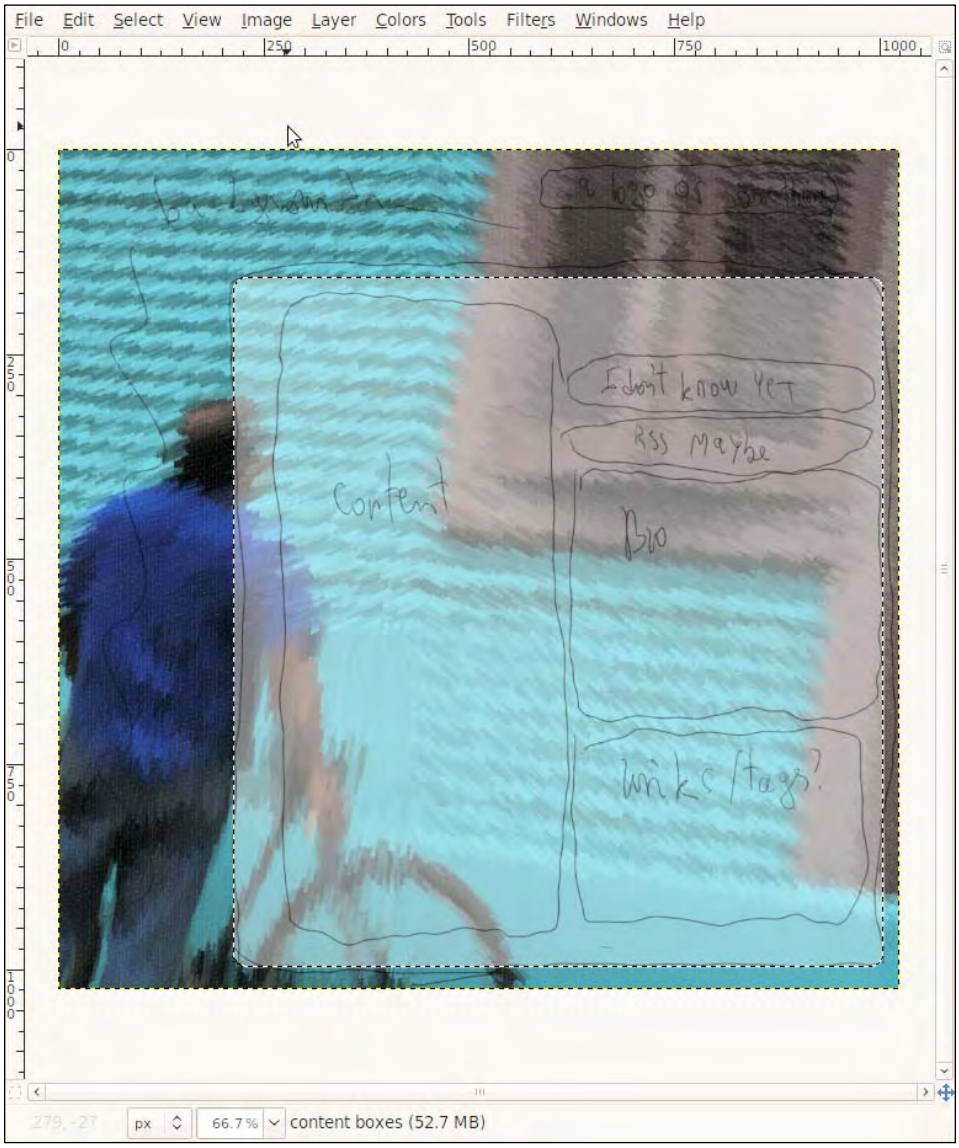
4. Create a new layer, and name it **content boxes**. We are going to draw the content boxes in it. Lock the **background** and the **sketch** layers by clicking the lock icon besides each name inside the **Layers** window. Place the new layer between them.




5. Using the **Rectangle Select Tool**, draw a rectangle, and place it near the sketch lines. Use the **Position** and **Size** parameters in the tool options to place the selection box exactly where you want. I like rounded corners for these template, so I enabled them.



Fill the rectangle using the **Bucket Fill Tool** with a solid white, with it's opacity around 25%:




5. Now, create the other content boxes. Draw a new rectangle selection—with the **Rectangle Select Tool**—inside the big one you just created. Then, click on the **Subtract from the current Selection** icon inside the tool options, and draw another rectangle inside:

**Clear** the selection. This should give you the following result:

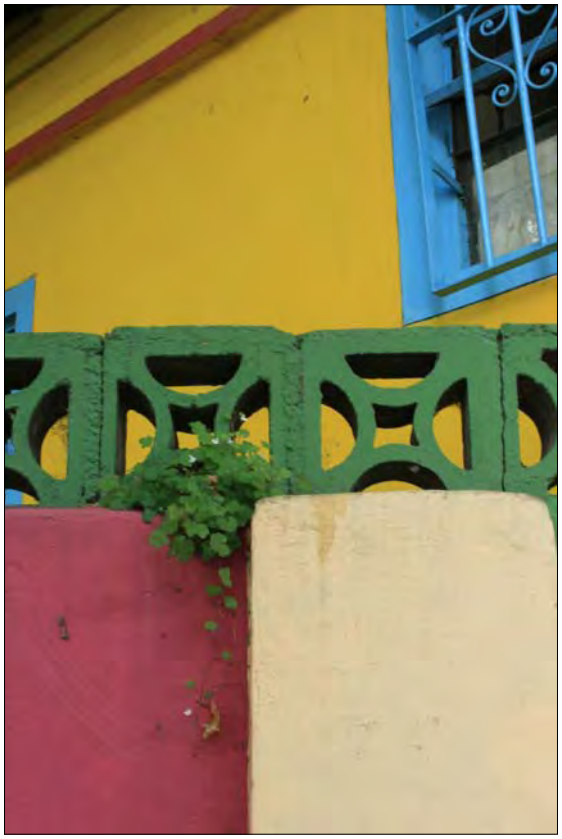
See that I changed the design a little from the sketch; thought it will be better to have a wider main content area.

6. Repeat the previous operation for each box of your sketch.

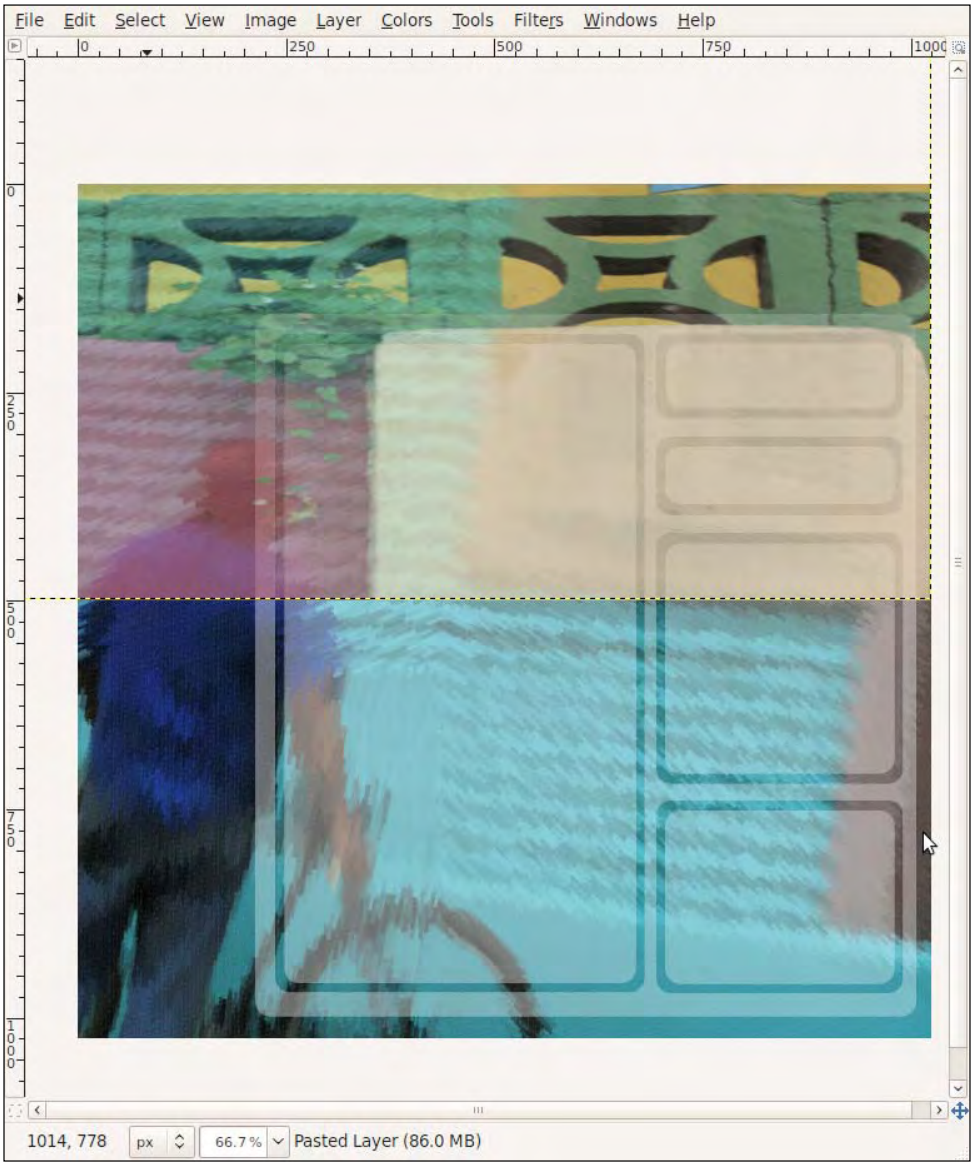
See how I used guides to help me draw each box and keep them aligned?

Guides are horizontal or vertical lines that are not part of the image, and that you can temporarily display on top of any image while you are working on it. Creating a guide is easy; just click on the ruler, and drag into the image. A new guide will appear, and you can position it in any place you need. To move an already positioned guide, you need to use the **Move Tool**. To delete a guide, simply drag it outside the image. If you enable the **View** | **Snap to Guides** option from the menu, the pointer will snap to the guide closest to it. You can hide the guides toggling the **View** | **Show Guides** from the menu. Finally, you can delete all the guides with the **Image** | **Guides** | **Remove all guides** option from the menu.

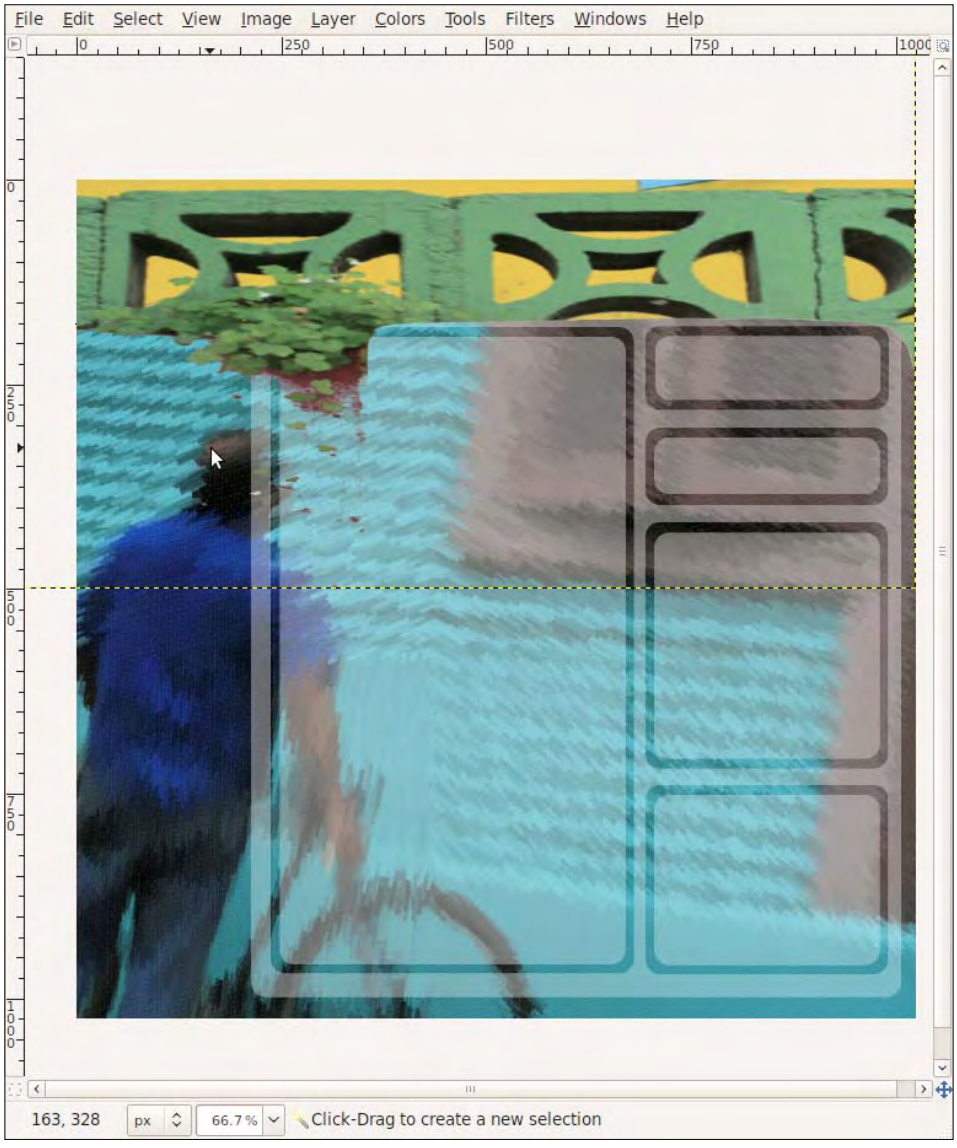
7. So far, we have a sort-of impressionistic background and some content space. We can create a header to make it look better and add more cohesion to the design. Pick a new photo; keep in mind we don't have lots of space left, so we are going to crop it, and then make it look like a painting.



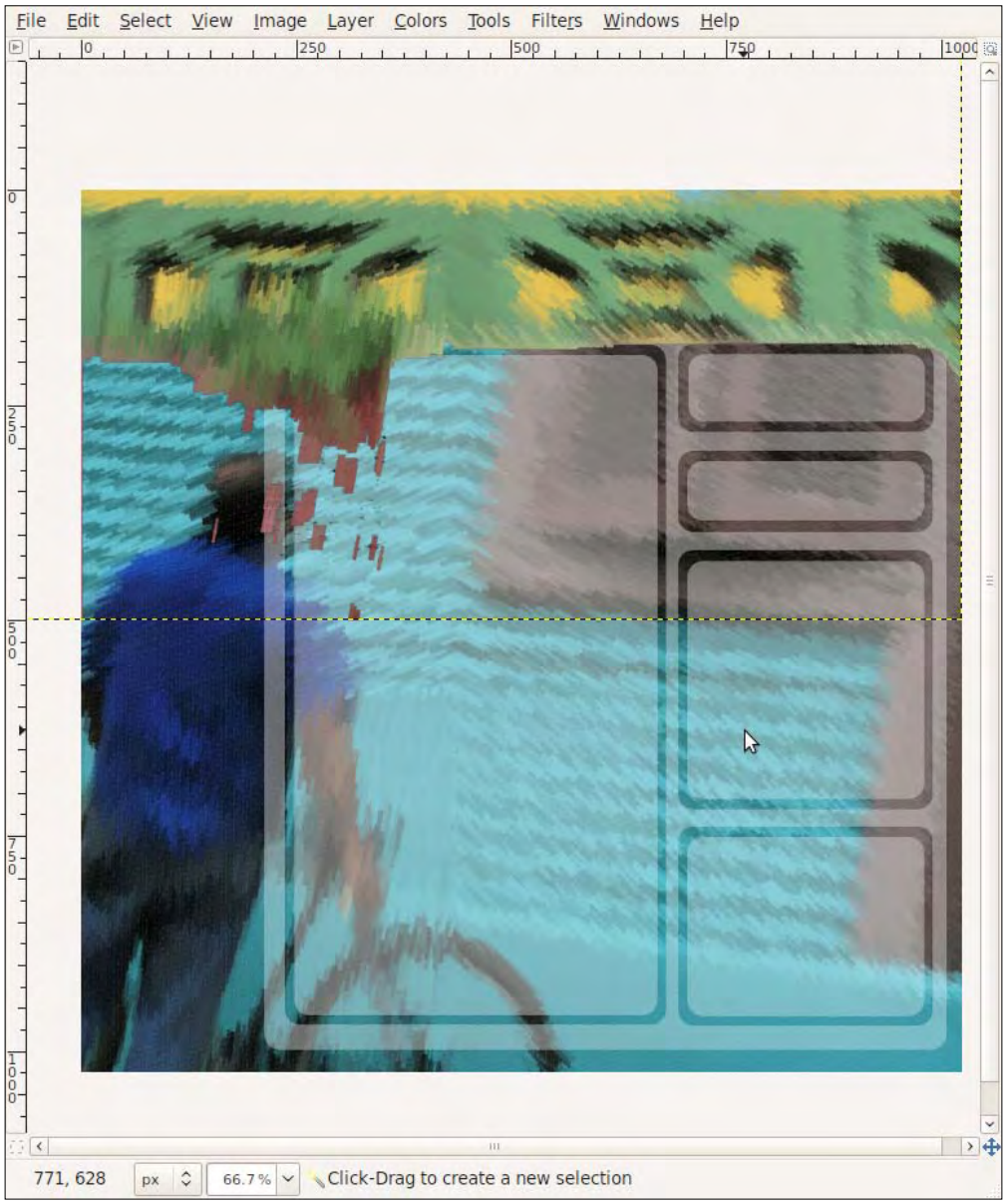
8. Place the new photo as a layer on top of everything else, and name it **header**. Set it's opacity to 40% to see what's below it and use the transform tools to place it where you want.



See how I completely deformed it. What I'm trying to do here is to have some organic shapes that will be turned into some kind of surreal impressionistic drawing. I used the **Fuzzy Select Tool** to quickly erase parts of the header image:

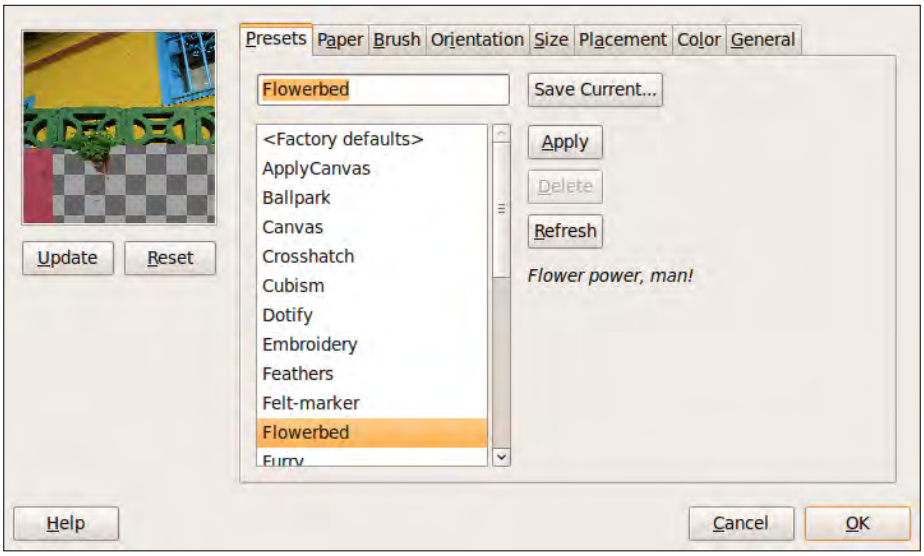


9. There are still parts that can be deleted, but let's try the **GIMPressionist** filter again to see how it changes our header photo. Go to **Filters** | **Artistic** | **GIMPressionist...**:

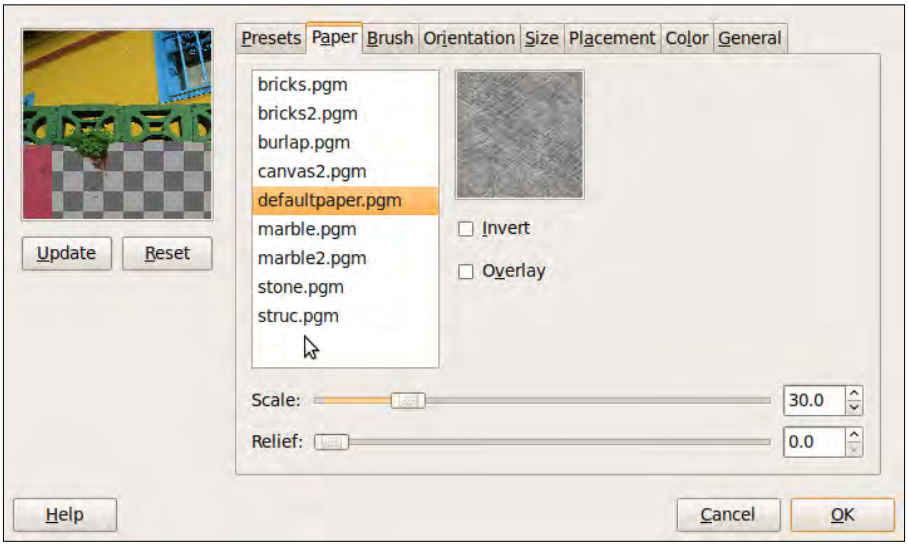



I applied it using the same settings that I used for the background image, as you can see, it doesn't look quite good. This is always part of the design process: Try things out, if they don't work, don't get frustrated, and try again until you like it.

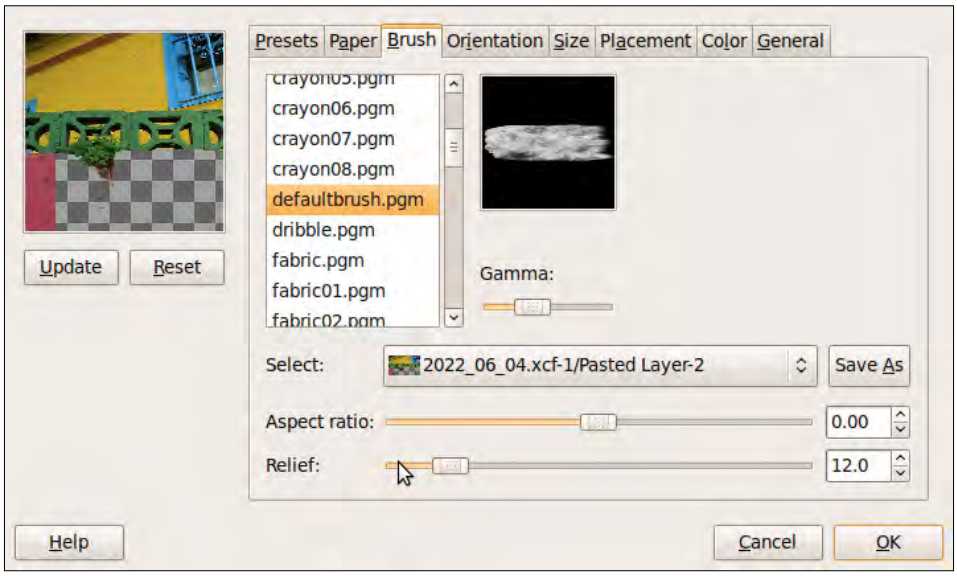
10. So, after a few minutes, these are the settings that worked for me:
    - **Presets**: The flowerbed preset is always a good way to start for me:



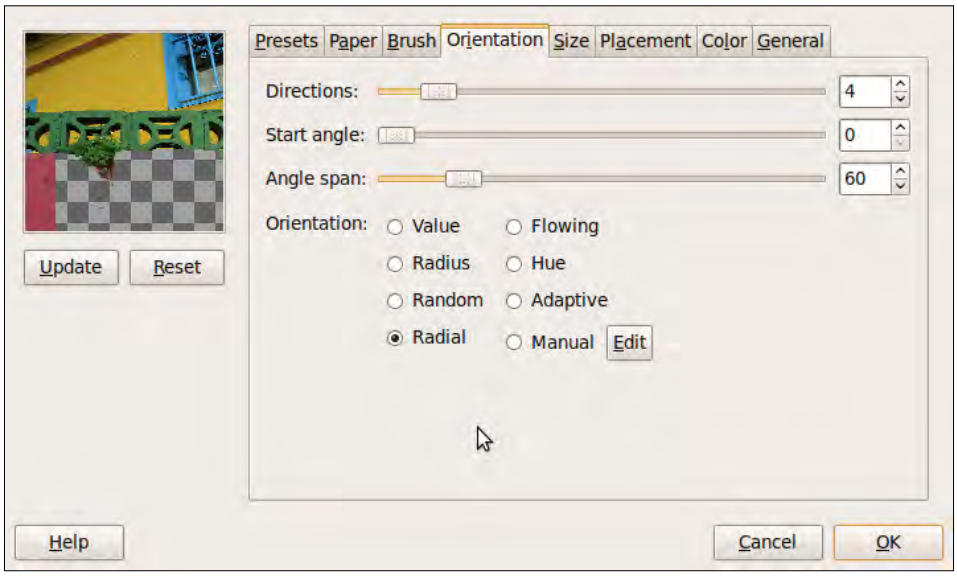

    - **Paper**: In this case, the default paper texture works best for this image:



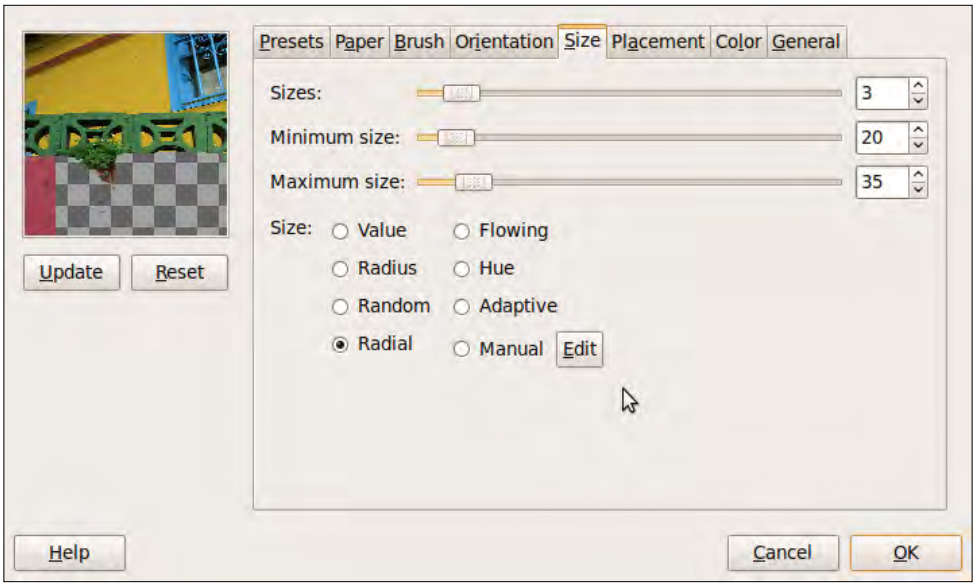
- **Brush**: Okay, now this looks like I'm just going along with the default settings, but really, try modifying the **Amplitude** and **Gamma** settings.



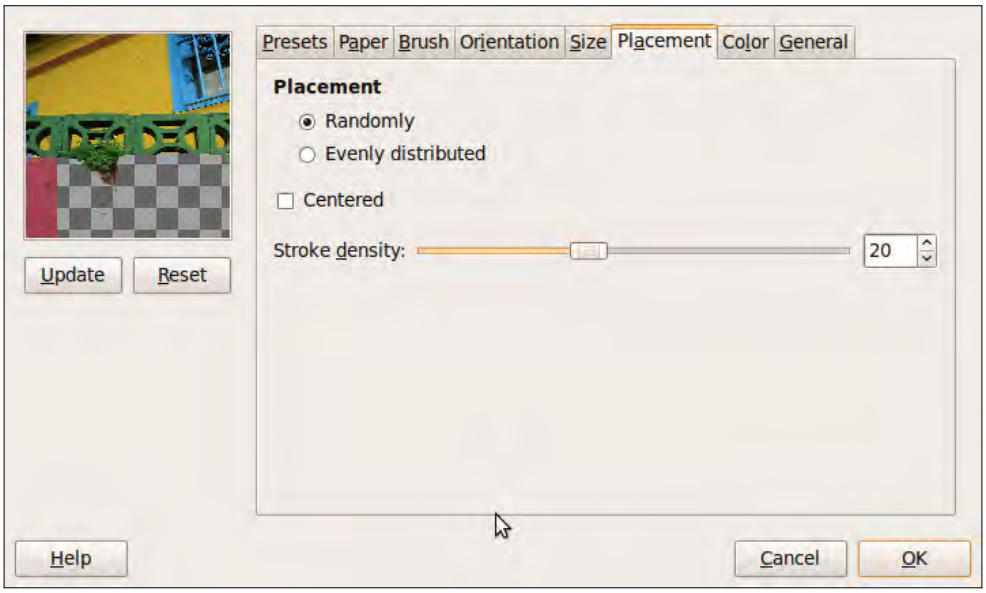

- **Orientation**: Here, I decided to use a **Radial** orientation



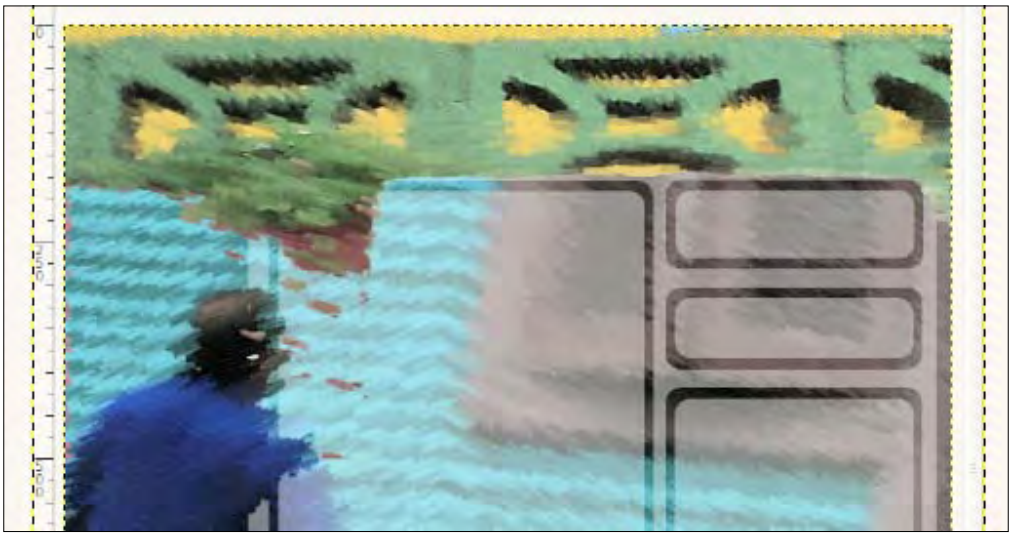

- **Size**: The size of the brush always has to be configured based on the image size on which we are working:



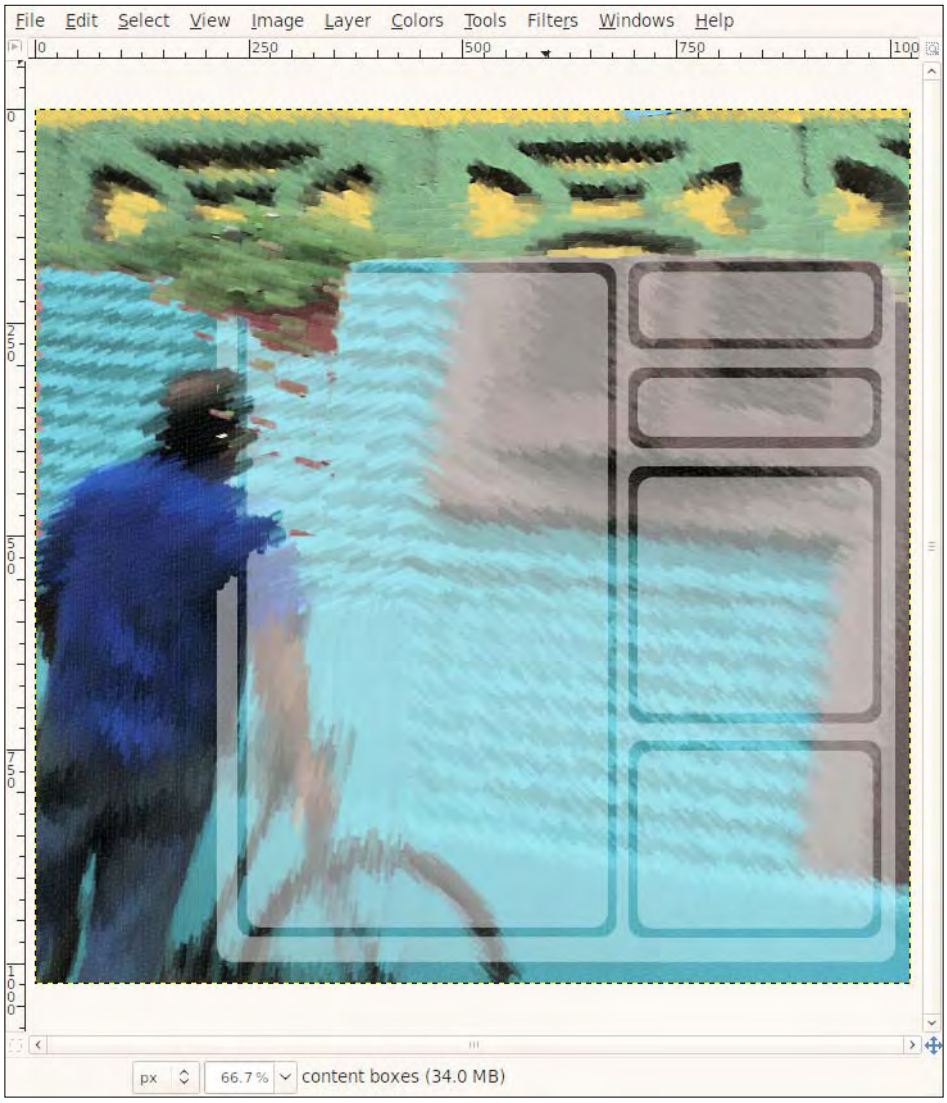

- **Placement**: I used a random distribution of the brush strokes with a medium density:



I didn't touch the other two tabs. This is how the header ended up after applying the **GIMPressionist** filter:



11. In the original picture, I used as a background, there is a man looking at a window with his bicycle. Now, it's a little blurry, but it's obvious that there is a figure there. I liked the idea of him looking at the content, so I selected the **content boxes** layer, and with the **Eraser Tool**, I stared clearing the boxes over the man's figure:


File Edit Select View Image Layer Colors Tools Filters Windows Help
0
250
500
750
1000
px
66.7 %
content boxes (34.0 MB)

I had to make a decision on where to stop deleting, so I decided that anything below his shoulder should fade. This is a typical decision you will have to make when applying an idea to a design that looks like it's finished but that may still need a little more work. Also, I decided to put the **header** layer below the **content boxes**. That's it!

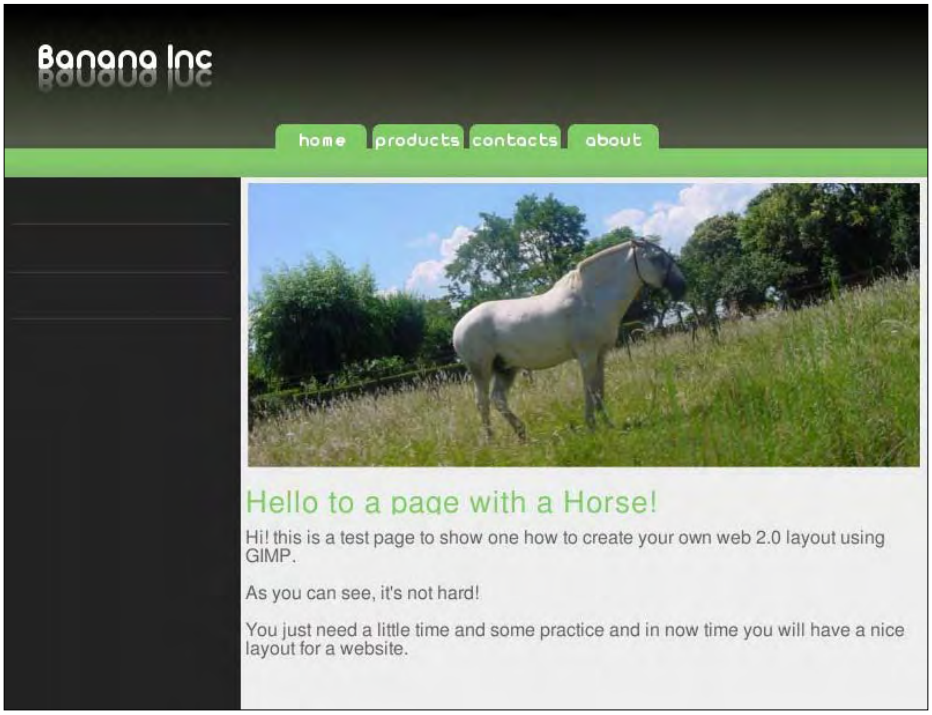
# Creating headers for your blog/website

Jus like the previous recipes, this one is also like a basic guide to create a header, rather than a set of instructions to make a header for a blog or website. Let's think that it's some kind of company that sells horses, and we just need to create a header for this website.

For our horse-selling website, we need a header of 593x102 pixels. It's a little small, but it's a good way of teaching a lesson about dealing with customers. Many times someone asks us to do a design work that's not based on standard parameters, configuration, or styles. We have three choices here: accept the work, propose changes to the site before starting our work (of course this usually implies more time and money), or accept the customer conditions, and use our creativity to do a good job with what we have at hand. In this case, we are going to create the header the customer wants.

## Getting ready

Each header must be designed according to how the website looks. You don't want to create a header for anyone without knowing what kind of content the website or blog holds or how it has been designed, the color palette being used, and other features of the site. For this task, we will be creating a header for the Web 2.0 layout we created in the first task of this chapter:



## How to do it...

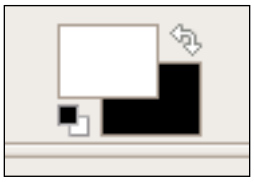
Headers always have a fixed width and height, it depends on the website dimensions. If it's a blog, there are also a few standard sizes that vary accordingly to where the site is hosted, or the template you are using.

1. Go to **File** | **New**, and create a new file with the dimensions we need (593x102 pixels). Save it (**File** | **Save**) with a proper name, and leave it for now.
2. Get a photo of a horse racing; search for a royalty-free one, as we are not going to actually use the photo, just use it as a model for our header. I found one that I liked here:

   `http://www.horseracingphoto.co.uk/category/photos/flat`

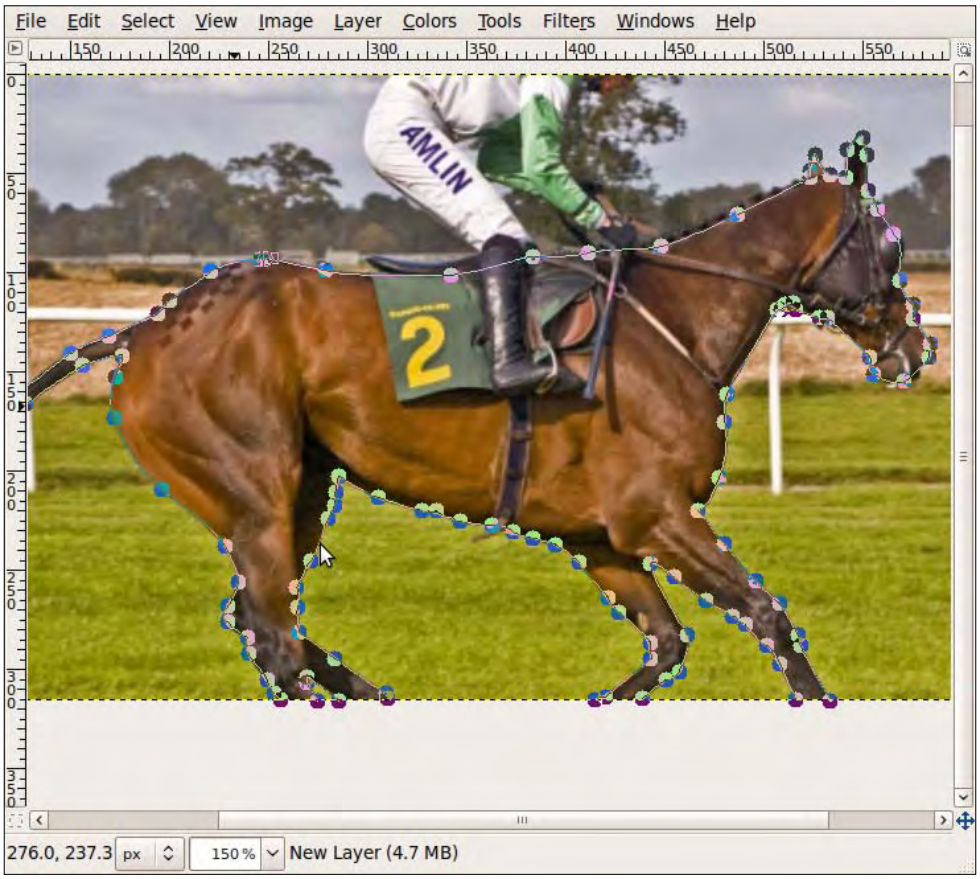
3. Open it in GIMP. Create a new layer, name it **solid background**, and fill it with a solid black. Place this layer below the image layer. Now create another new layer, and name it **silhouette**, place it on top of the other two, and keep it selected.

4. Select a solid white for the foreground color.

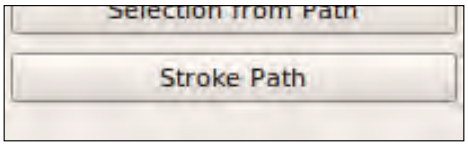


5. Now, patiently use the **Path Tool** to trace the silhouette of the horse. Use the **Zoom Tool** to be more accurate, but don't get obsessed. Keep in mind that our header is not too big, and we don't need lots of detail.

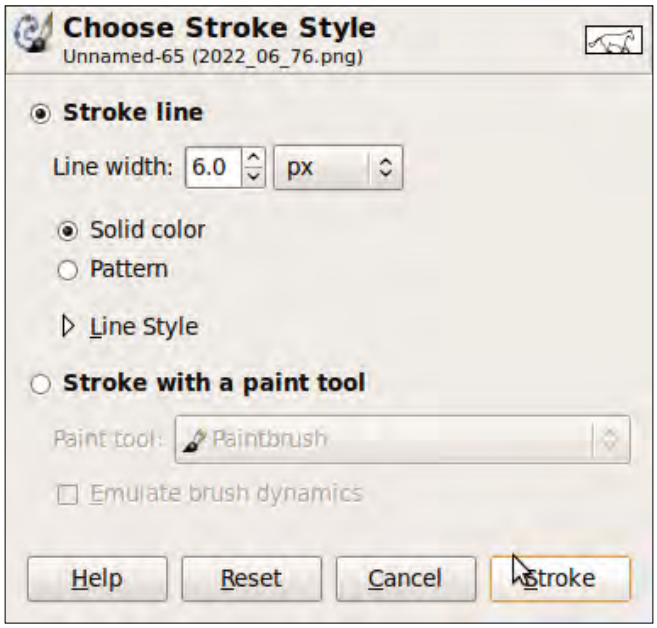
To close the path, click on the initial control point you placed. Following is how my path looks after going all around the horse's figure:



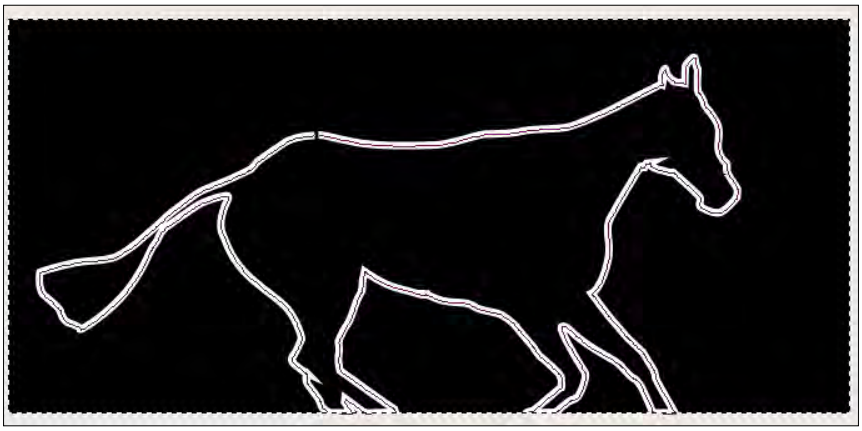

6. When you finish with the **Path Tool**, click on the **Stroke Path** button in the tool properties window:



In the **Stroke Path** window, click on the **Stroke** button, and view the results:



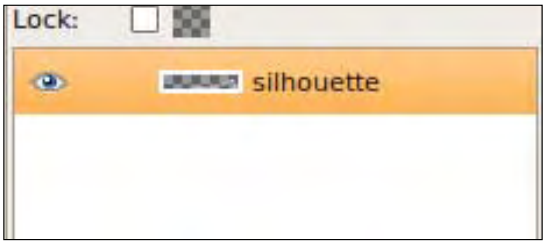

There's our race horse silhouette!



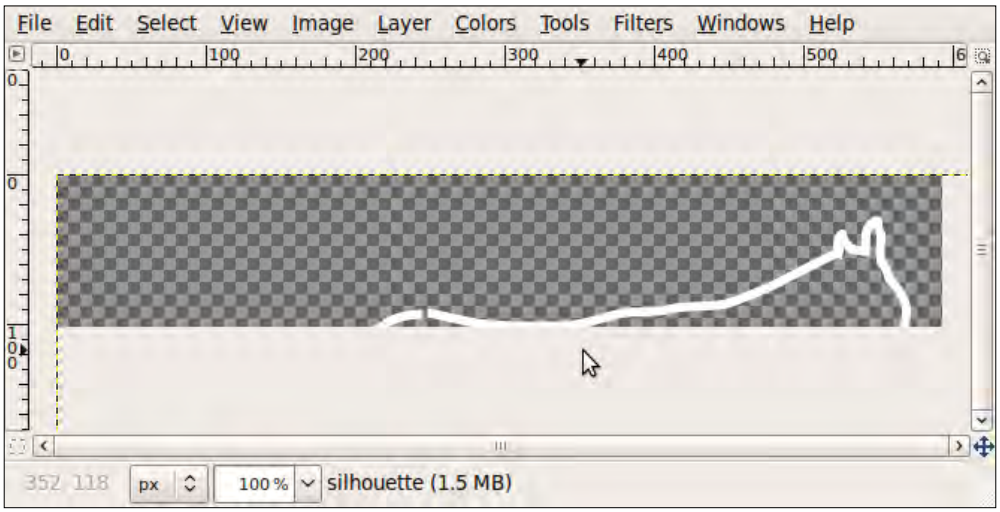
7. With the **silhouette** layer still selected, go to **Select** | **All** and **Edit** | **Copy**. Save and close the horse picture file to preserve it. Now, we need to paste the silhouette into the real header file (so far we've been working on the downloaded horse image, remember?). So, go to the **Windows** menu, and choose the header file you created in Step 1 of this recipe (or if you closed it, go to **File** | **Load** to reopen it). Go to **Edit** | **Paste**, and click the **new layer** icon at the bottom-left side of the **Layers** dialog.

This will put the horse silhouette in it's own layer. Name it **silhouette**.

If you created the file with a solid background, delete that layer now. We want a transparent header.

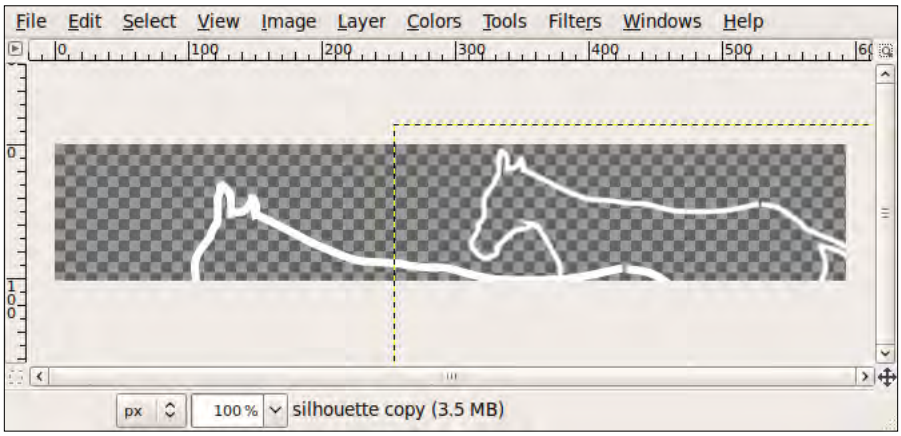



8. Following is how my header looks so far:

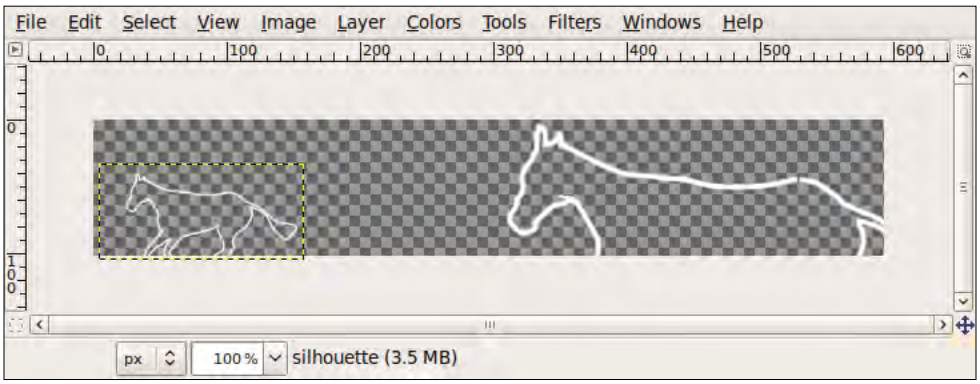



Not very interesting, I know! Use the **Flip Tool** to flip it horizontally.

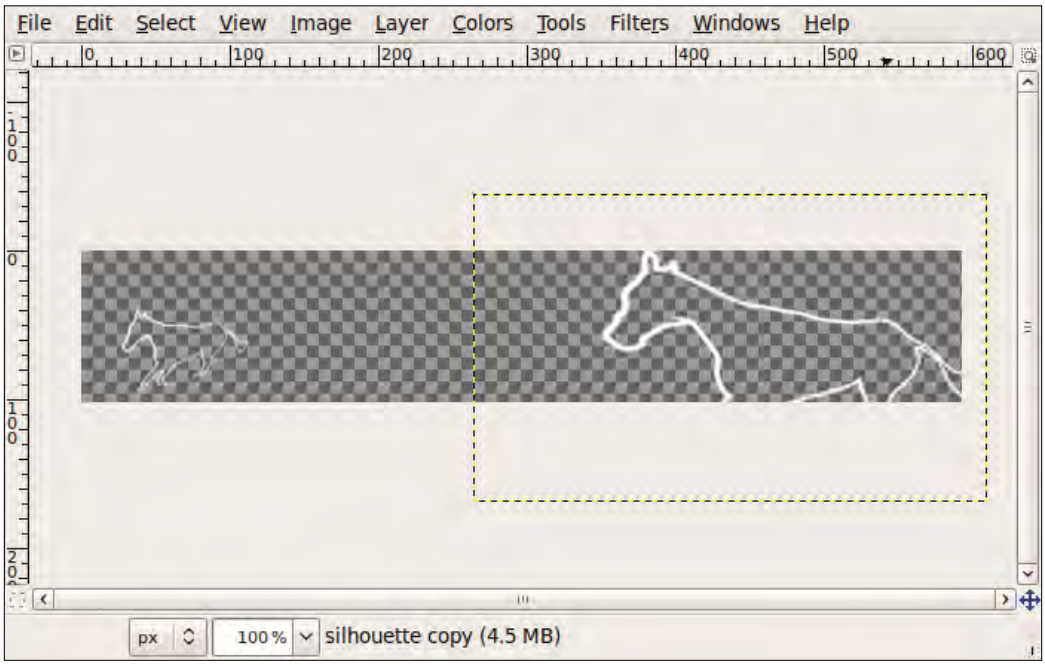
9. Now, duplicate the layer by going to **Layer** | **Duplicate Layer**, and use the **Scale Tool** and the **Move Tool** to adjust it to a size that you like:



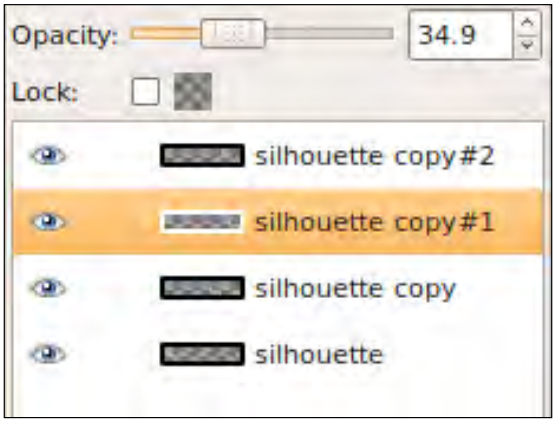

10. Select the other layer, and use the **Scale Tool** and the **Move Tool** to create another little horse on the left side of the header.



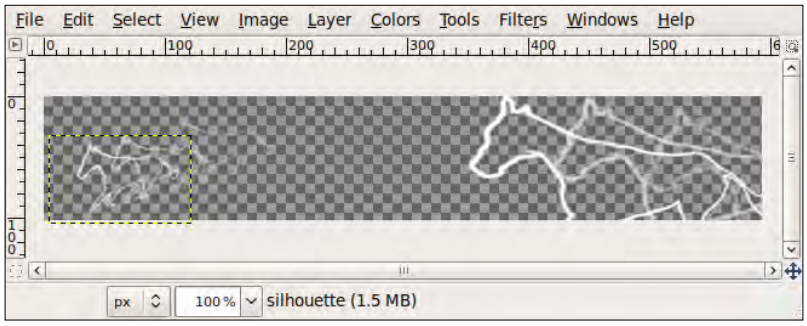
11. Use the **Perspective Tool** to make the silhouettes appear as they are coming or going.




12. Duplicate each layer twice; use the **Move Tool** to place two of the copies a little far from the original. Set their opacity around 60% and 40% to simulate movement.




13. Repeat these last steps with the other horse layer.




14. This very basic header is done now. See how it blends with the original layout:

# 7
# Web Design Tips: Backgrounds

In this chapter, we will be:

- Creating a colorful abstract background
- Creating a green time-machine background
- Creating a light spikes background
- Creating a retro dots background

## Introduction

Backgrounds are usually relegated to the last part of the design process of a website. Once the general layout is defined, we just take some elements from it, mix and twist, and come up with a background that fits the design.

In this chapter, we are going to create several images that can work as backgrounds for any site, maybe directly or with some changes, but always starting from scratch—just a new file and no site at all in our minds. This is a great exercise, not only to develop our GIMP skills, but also to discover that there are always different ways to start designing a website.

## Creating a colorful abstract background

Abstract art can be defined in many ways; one of them is to think that an abstract piece has elements that have no or almost no reference in the real world. In this task, we are going to create an abstract image with that idea as a starting point.

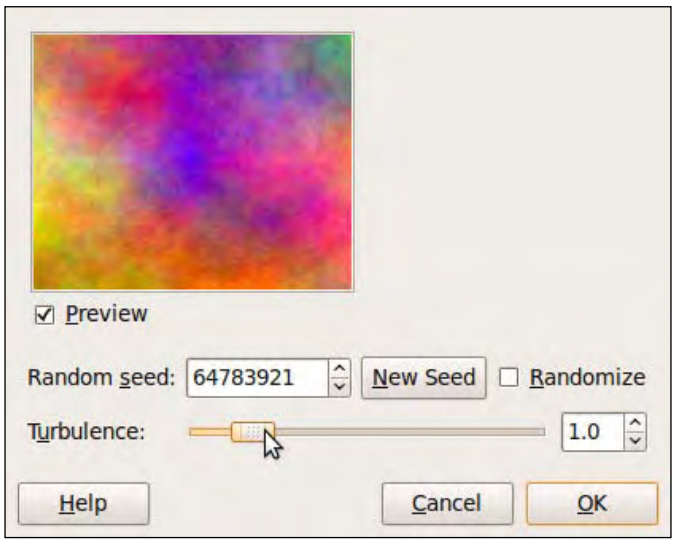
## Getting ready

A background for a website can have different dimensions based on how the site looks. For these recipes, I'll be using 1280 x 1024 pixel images. Be aware that this is not a standard background size.

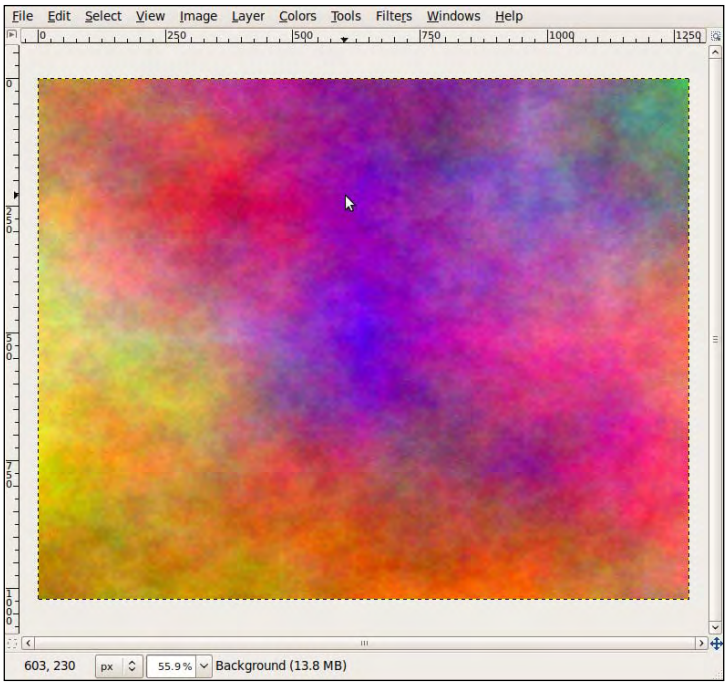
## How to do it...

The following steps will show you how to create an abstract background:

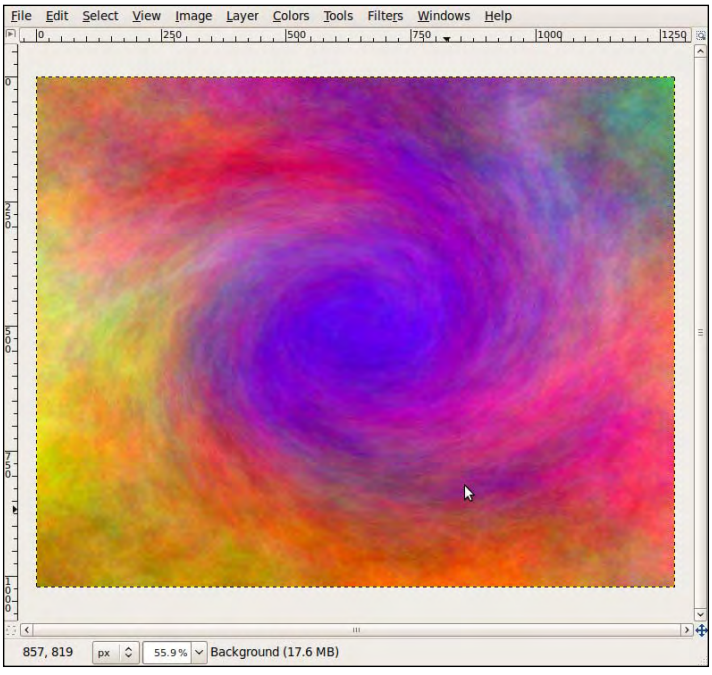
1. In a new file, go to **Filters** | **Render** | **Clouds** | **Plasma**. Click the **Randomize** button until a color combination that you like appears. Keep the **Turbulence** slider around 1:



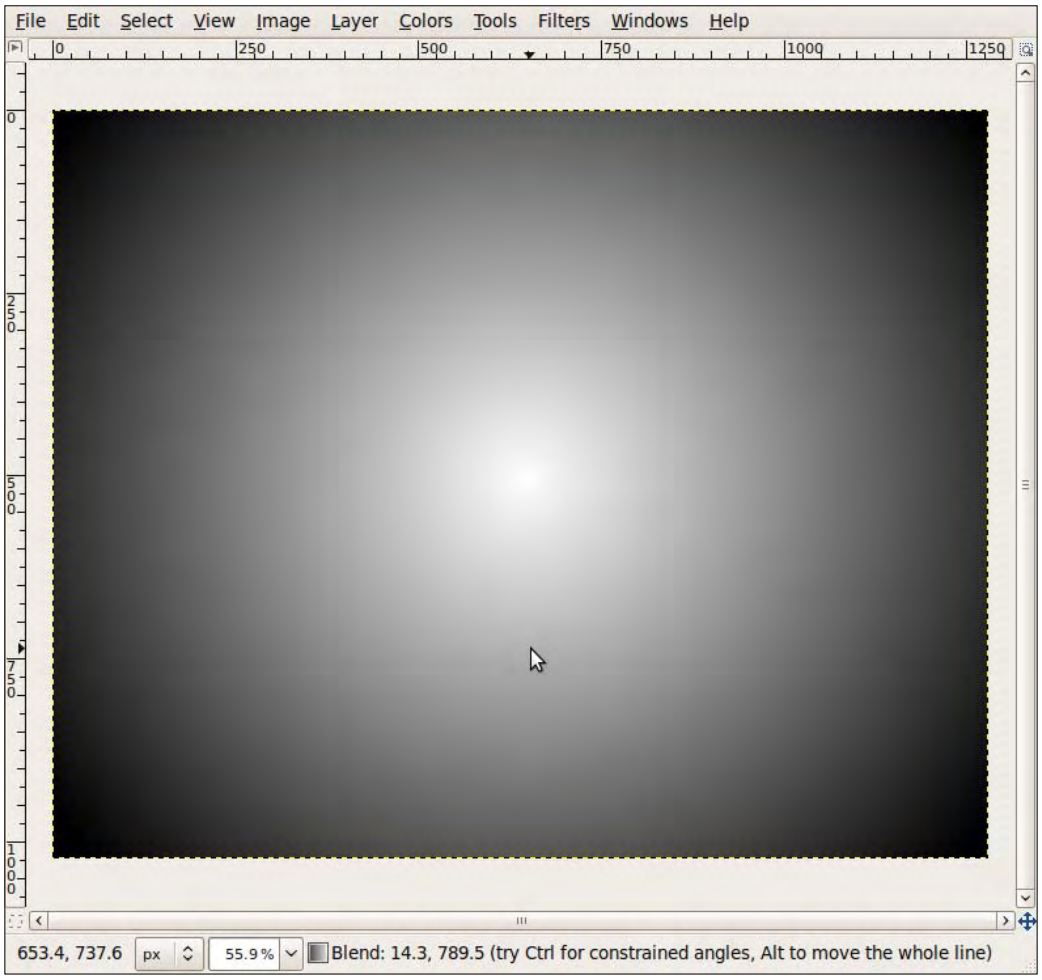

Click **OK**, and you will get plasma clouds as shown in the following sceenshot:



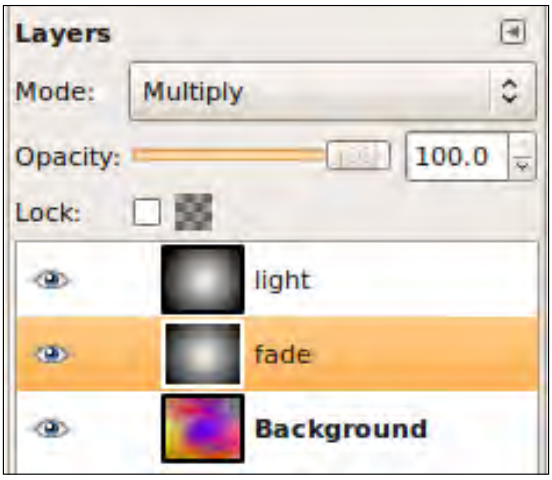

2. Go to **Filters** | **Distorts** | **Whirl and Pinch**, play a little with the settings, and click **OK**:



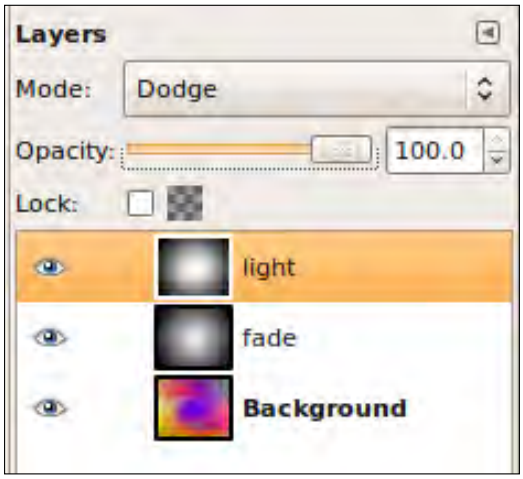
3. Create a new transparent layer, and name it **fade**. Use the **Blend Tool** to create a **Radial** gradient from white to black:




4. Duplicate the **fade** layer, name the copy **light**, and place it above the original. Set the **fade** layer's mode to **Multiply**:



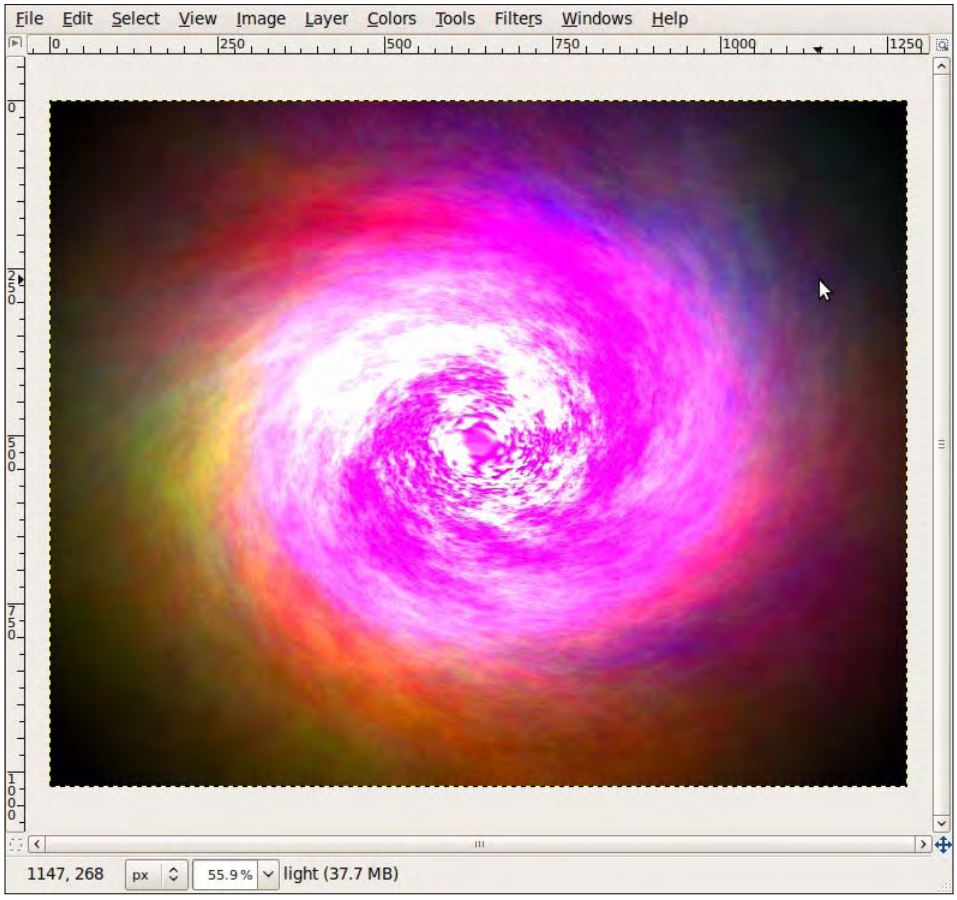

5. Click the **light** layer, and reapply the **Whirl and Pinch** filter (*Ctrl* + *F*) to it with the same settings as the last time. Set its mode to **Dodge**:



The **Multiply** layer mode creates darker images by multiplying the pixels of the upper layer by the ones in the layer below, and then dividing the result by 255. **Multiply** is useful when sketching, to keep the lineart on top of the others.

The **Dodge** layer mode creates brighter images by multiplying the pixels on the lower image by 256 and dividing the result by the inverse value of the pixel of the top layer. Sometimes this creates color inverted areas too. These modes can be set in paint tools as well. In this case, it's useful to enhance details in dark areas.

Don't try to copy it directly, experiment with different gradient settings and opacity.



# Creating a green time-machine background

This is another quick abstract background based on some filters. Remember that you can always try different settings; experiment and completely change how the final image looks by changing any setting during the task.

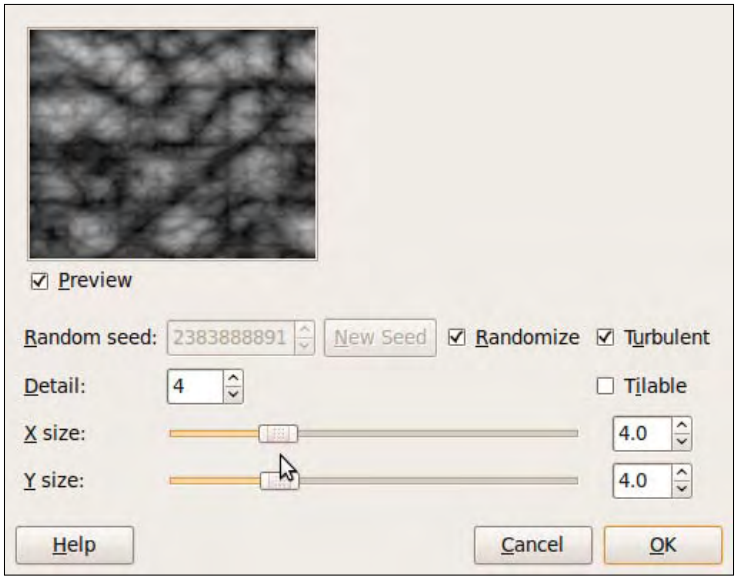
## Getting ready

A background for a website can have different dimensions, according to how the site looks. For these backgrounds, I'll be using 1280 x 1024 pixel images (Be aware that this is not a standard background size).

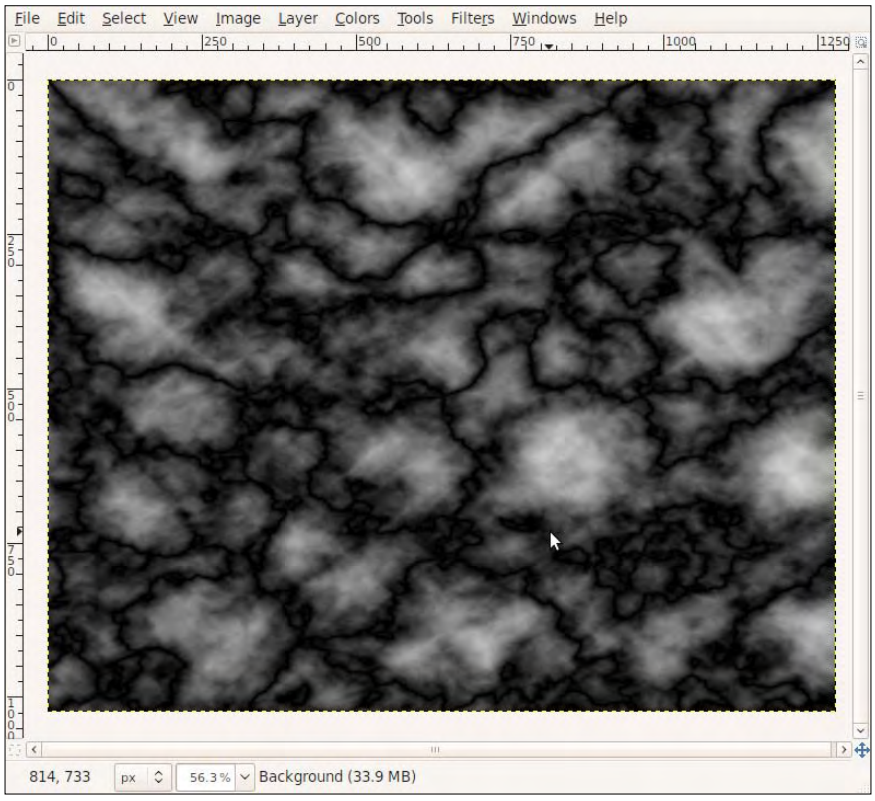
## How to do it...

The following steps will show how to create a background reminiscent of a time-machine trip:

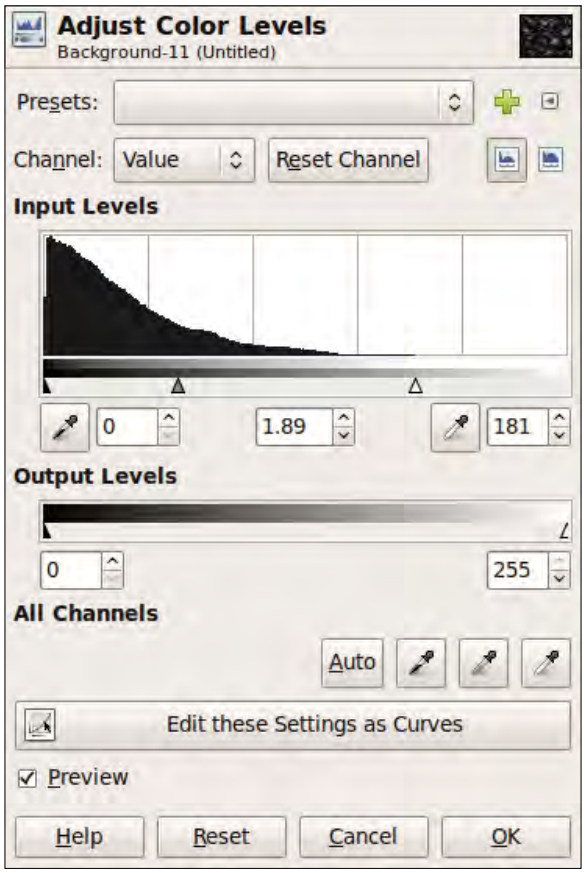
1. Go to **Filters** | **Render** | **Clouds** | **Solid Noise**. Check the **Randomize** and **Turbulent** boxes. Use a detail level of 4 or 5:



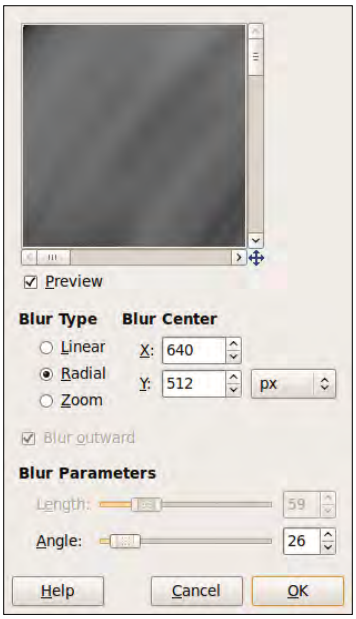
2. On the same layer, now go to **Filters** | **Render** | **Clouds** | **Difference Clouds**, and apply it without changing any value:



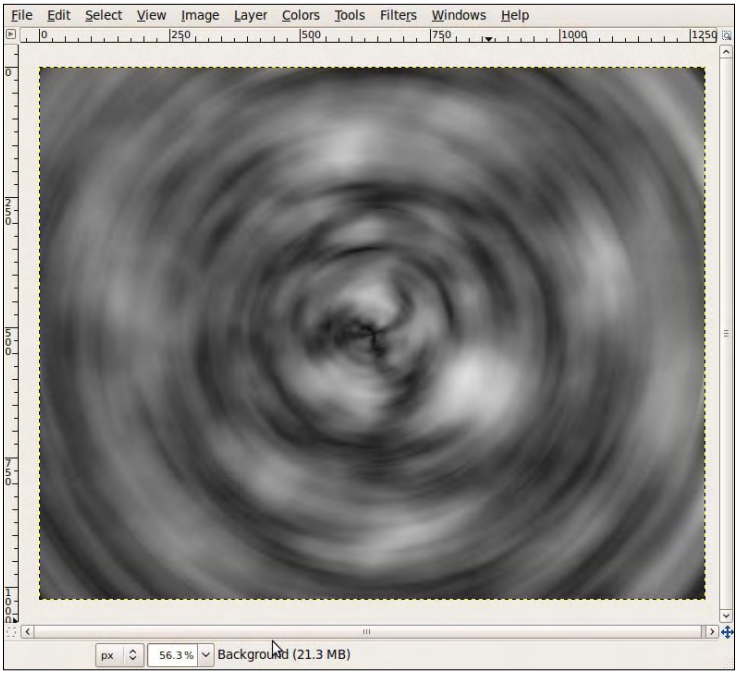
3. Go to **Colors** | **Levels**. Drag the sliders, and try to make the white sections brighter without eliminating the dark areas:



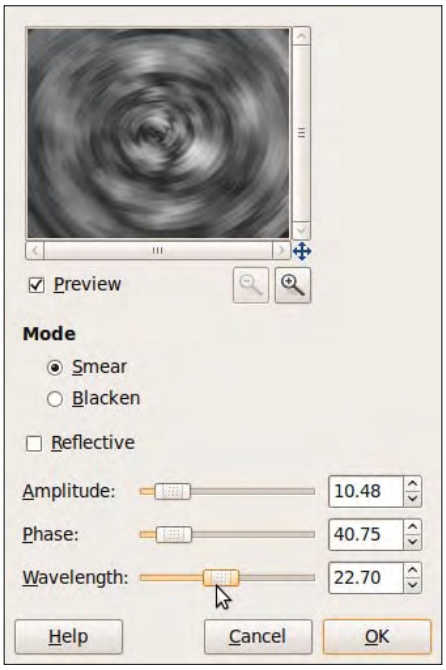
Let's add some motion now. Go to **Filters** | **Blur** | **Motion Blur**:



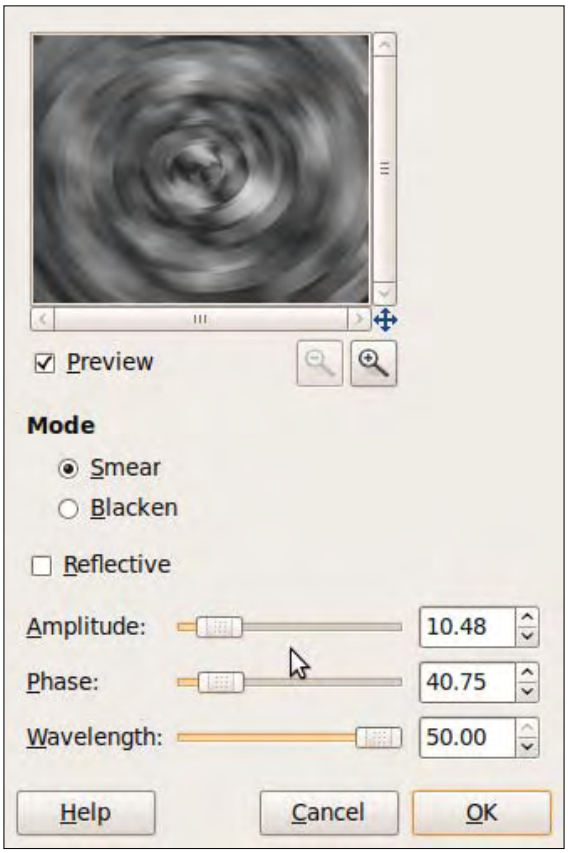

Change the type to **Radial** and the **Angle** to 30 pixels.



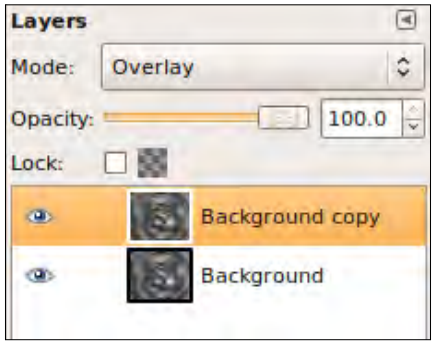
4. Now, go to **Filters** | **Distorts** | **Waves**, and play a little with the values:



5. Duplicate the layer, and go back again to the **Waves** filter. Now, apply it but set the **Wavelength** slider all the way to the right:

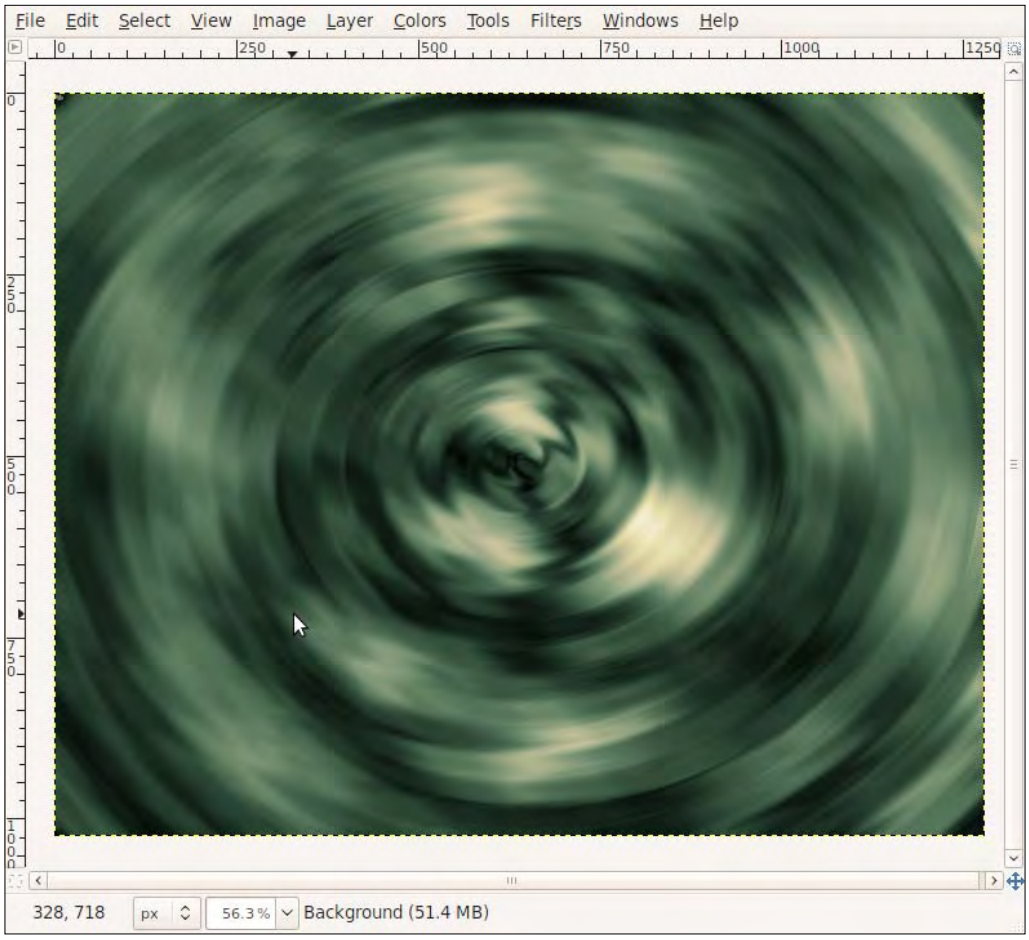



6. Set the duplicate layer's mode to **overlay**:

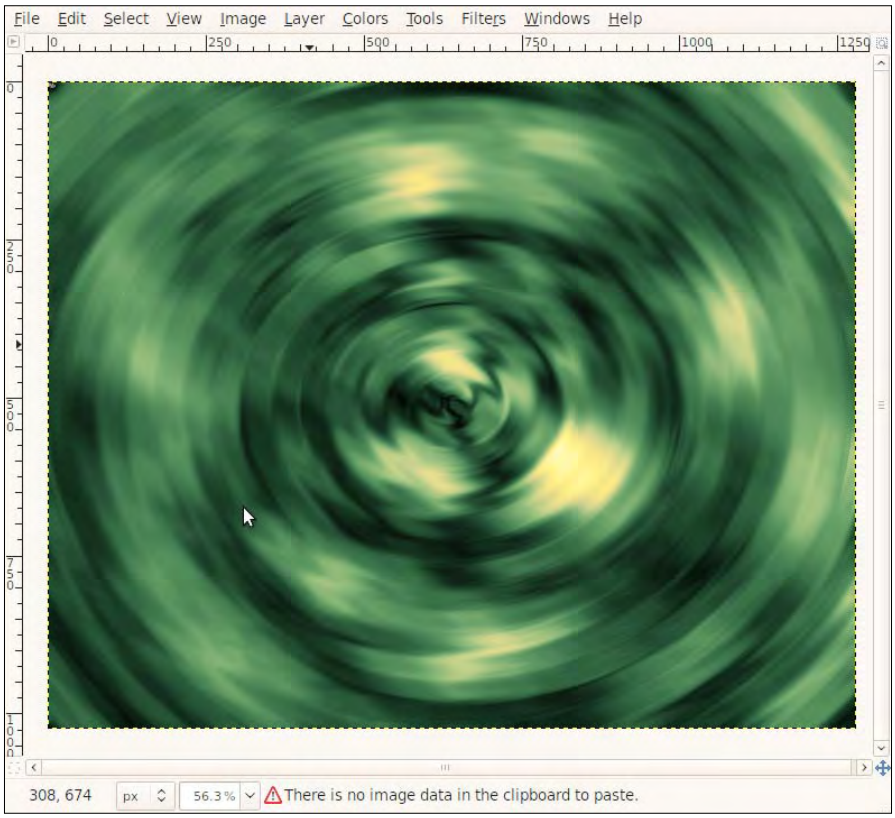


7. Go to **Layer** | **Merge Down**. Go to **Colors** | **Levels**. Select a **Channel**, and modify each one separately. Click the **Edit these settings as curves** button. Change each channel until you reach a color that you like, and click on the **OK** button.

   After applying the **Levels** change; this is the image I got:



8. Finally, go to **Colors** | **Hue-Saturation**, and adjust the sliders to make it look brighter. Our green time-machine background is ready:




# Creating a light spikes background

Within a few minutes, and after using one of the best filters in GIMP, we can come up with a great variety of different backgrounds.

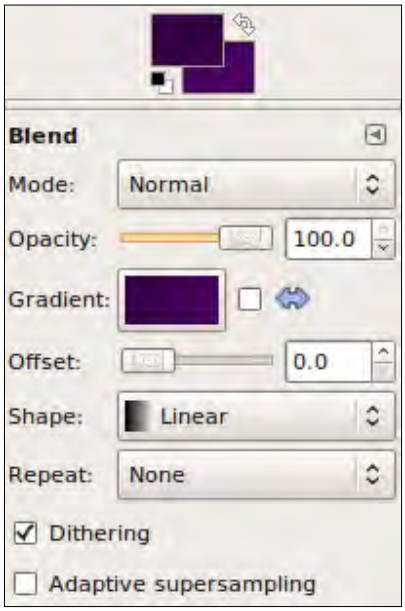
## Getting ready

A background for a website can have different dimensions, according to how the site looks. For this background, I'll be using 1280x1024 pixel images (Be aware that this is not a standard background size).

## How to do it...

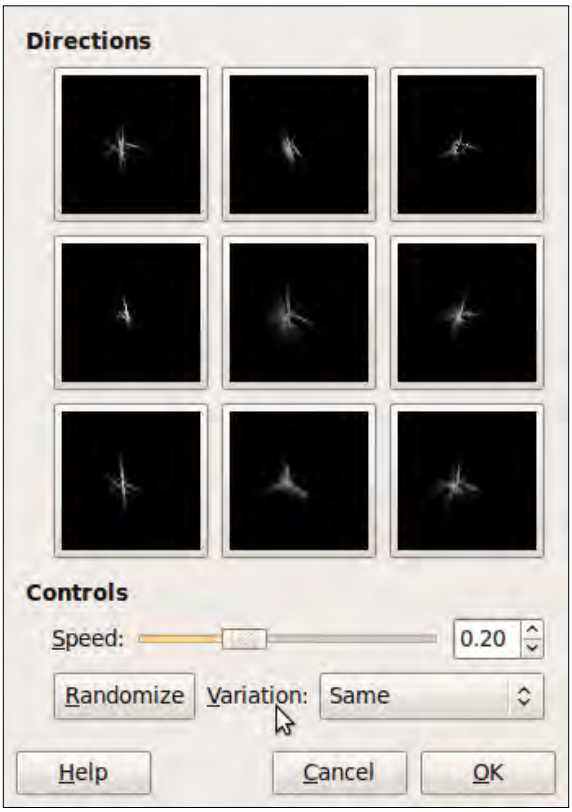
Create light spikes by following these simple steps:

1. Create a new file. Use the **Blend Tool** to create a subtle gradient for the background. Following are my settings for it:

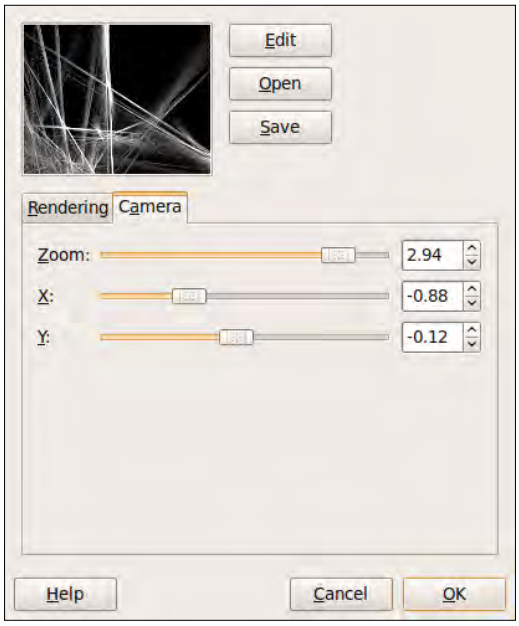



2. Create a new layer. Reset your foreground and background colors by clicking the small icon at the lower left bottom of the colors inside the toolbox:

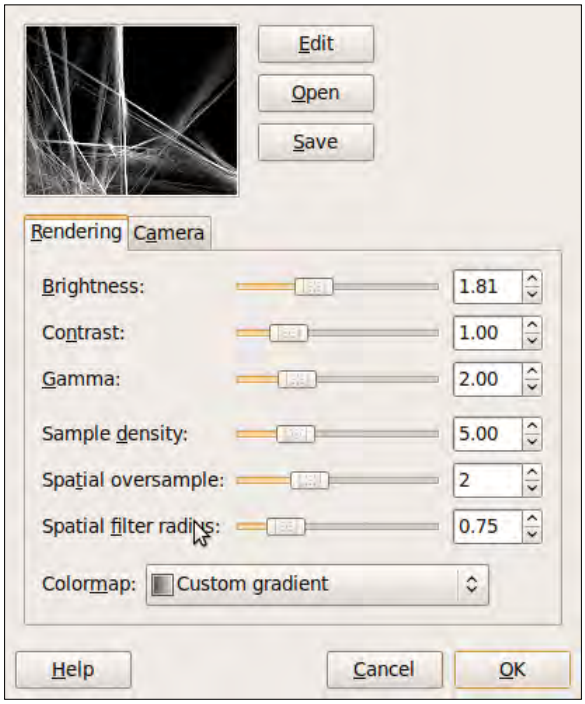
3. Go to **Filters** | **Render** | **Nature** | **Flame**. Click the **Edit** button, and choose a flame you like:



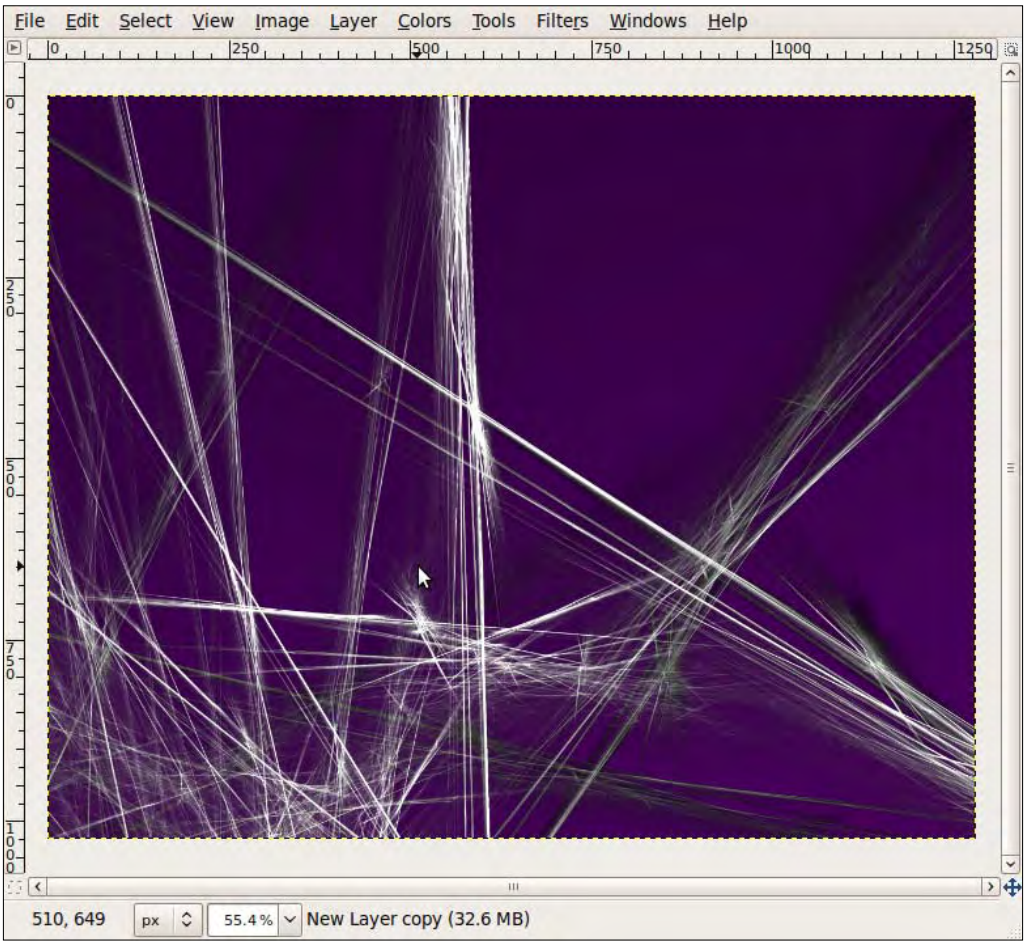

Click **OK**, and select the **Camera** tab. Increase the **Zoom** slider, and place the flame wherever you like.



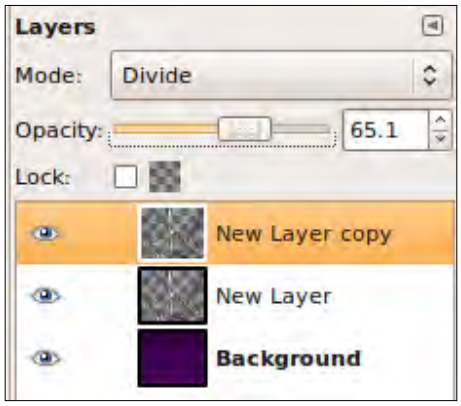

4. Go back to the **Rendering** tab, and set the **Brightness** slider to 1.8:



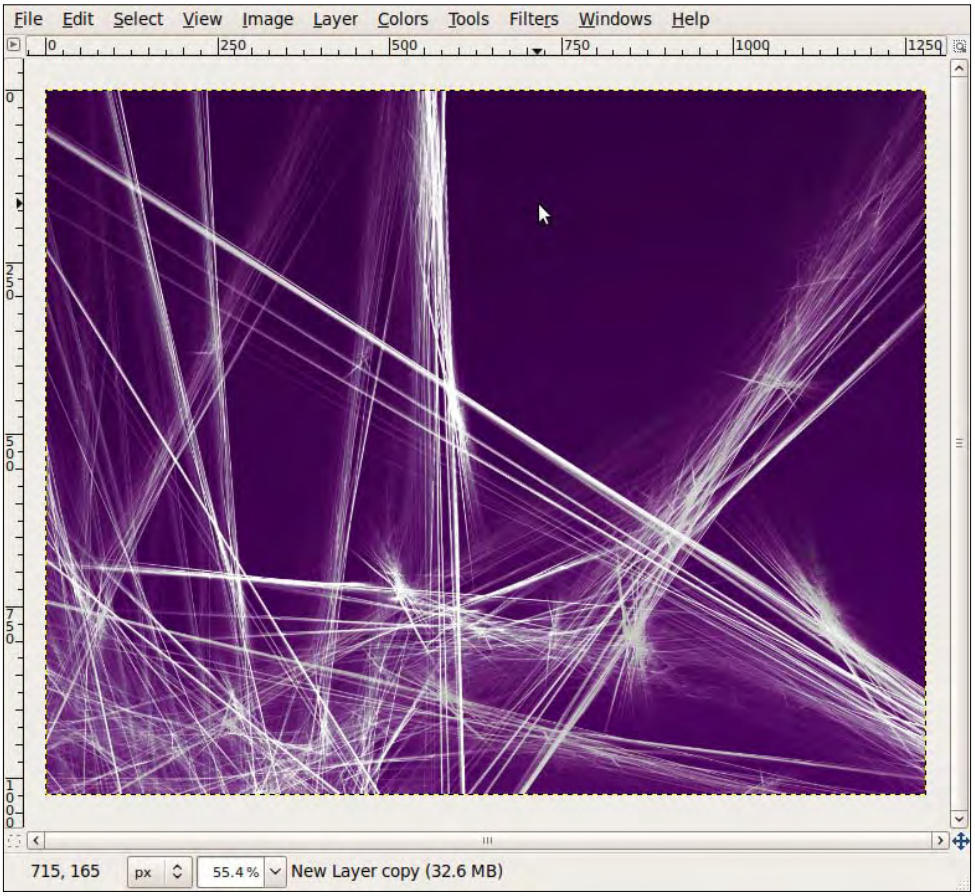
Click **OK** and wait. Sometimes, this filter is a bit of a CPU killer!




5. Duplicate the layer. Set the mode of the uppermost layer to **Divide**, and adjust it's **Opacity** to anything around 60%:


Layers
Mode:
Divide
Opacity:
65.1
Lock:
New Layer copy
New Layer
Background

That's it!


File Edit Select View Image Layer Colors Tools Filters Windows Help
0
250
500
750
1000
1250
715, 165
px
55.4 %
New Layer copy (32.6 MB)

# Creating a retro dots background

"Retro" can be almost anything. It usually defines something not too old but outdated or aged. It's use in graphic media is vast. In our examples here, we are going to define retro as something that's no longer considered "modern". We can relate to it, but without nostalgia.

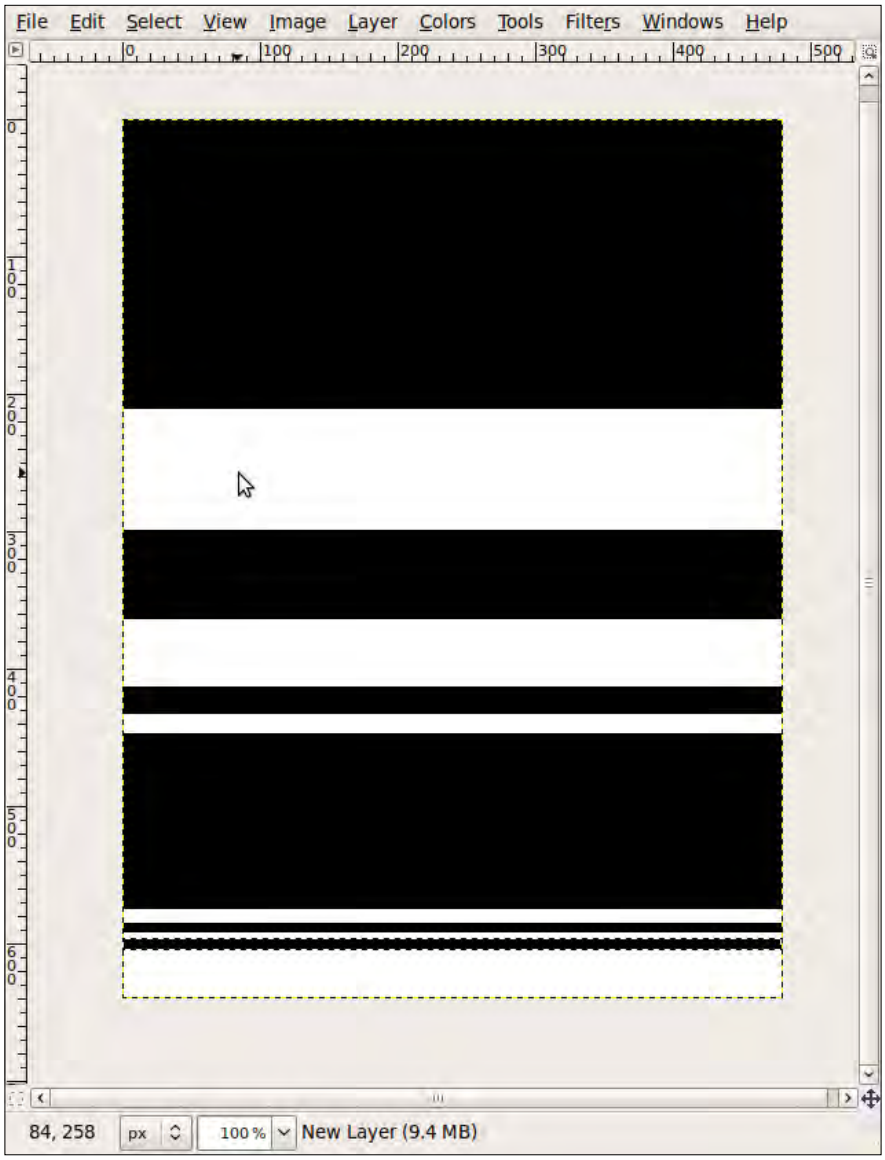
## Getting ready

As usual, we need some documentation and need to spend some time trying to understand what's considered a retro style. Also, a background for a website can have different dimensions, according to how the site looks. For this background, I'll be using 1280 x 1024 pixel images (Be aware that this is not a standard background size).

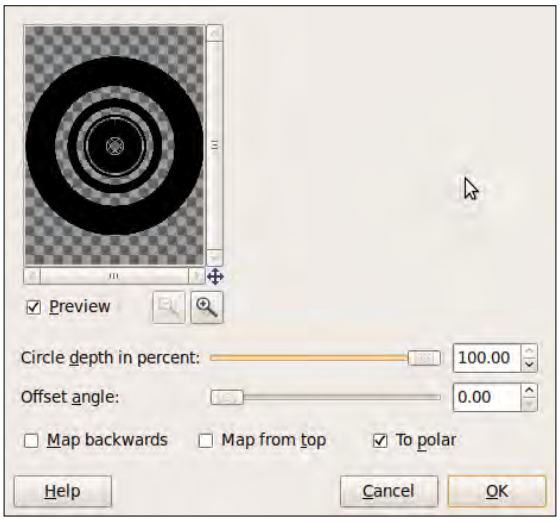
## How to do it...

The following steps will show you how to create a retro background:

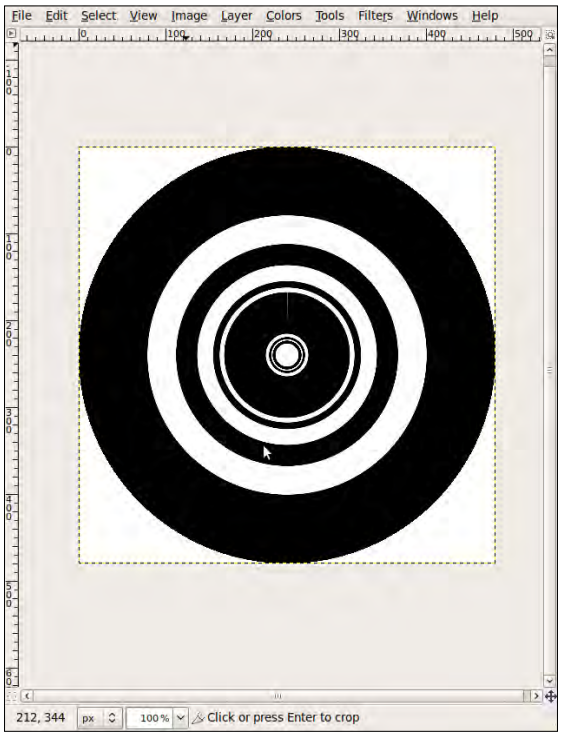
1. Create a new 640 x 480 file with a white background. Create a new layer, and name it **dot**. With the **Rectangle Select Tool**, create different rectangles, and fill some of them with a solid black using the **Bucket Fill Tool**. You should get something that looks like the following image:


File Edit Select View Image Layer Colors Tools Filters Windows Help
0
100
200
300
400
500
84, 258
px
100 %
New Layer (9.4 MB)

2. Once you are satisfied with the rectangles, go to **Select** | **None**, and go to **Filters** | **Distorts** | **Polar Coordinates.** Apply the following settings:

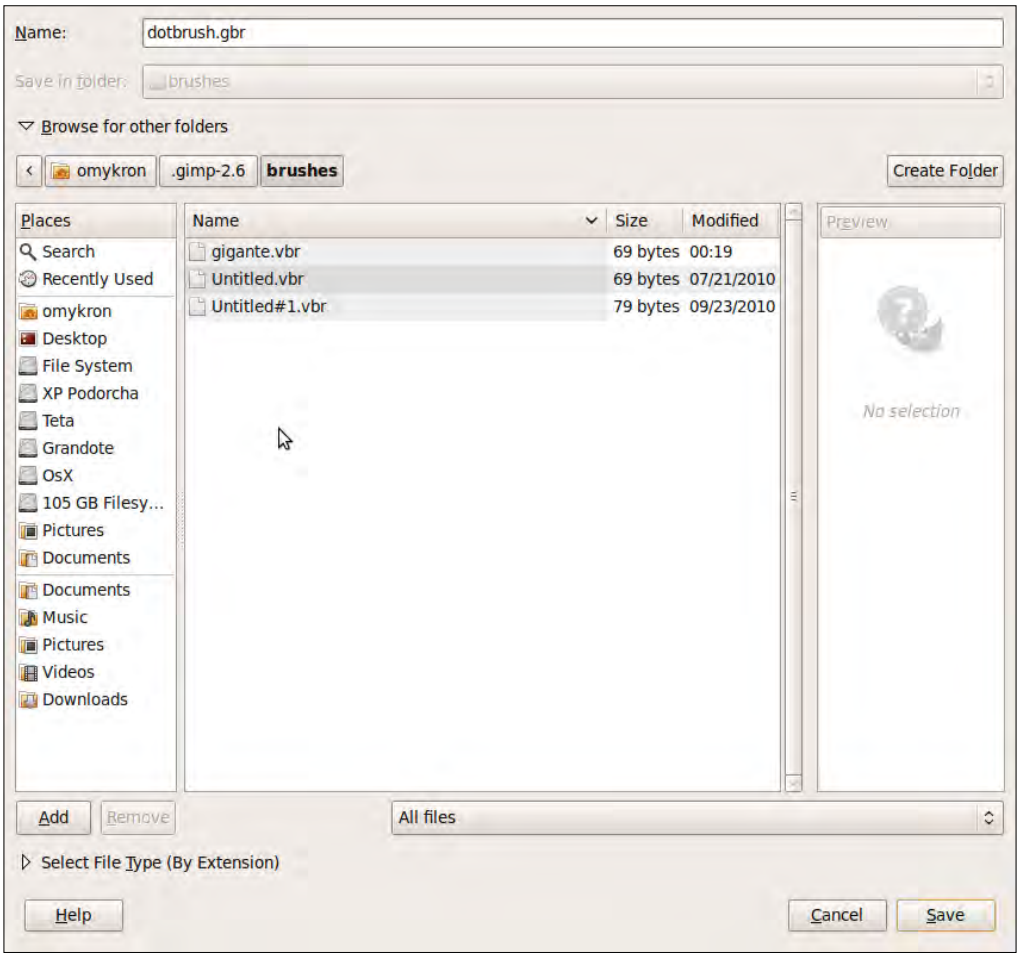



Click **OK**:



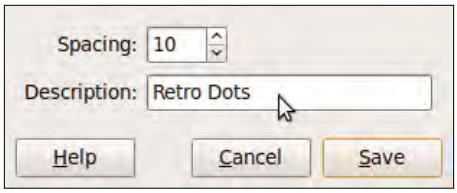
3. Now, go to **Image** | **Autocrop Image** to reduce it to just the circles.

4. Go to **Image** | **Mode** | **Grayscale**. Go to **File** | **Save as...**, and save it as `dotbrush.gbr` (don't forget the extension!) in your `.gimp-2.6/brushes` directory.

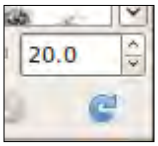



Select **Flatten Image** on the **Export File** window, and click **Export**.

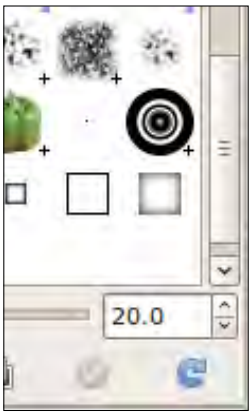
In the new window that appears, edit the description, and don't change the **Spacing** setting, then click **Save**.



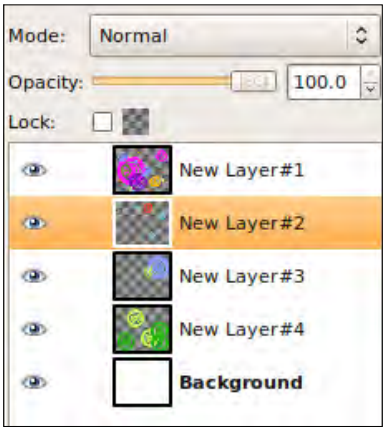

5. Create a new file for our background, and fill it with a white solid background. If it's not enabled, make the brushes dialog visible by going to **Windows** | **Dockable Dialogs** | **Brushes** and clicking the refresh icon on it's lower right corner:

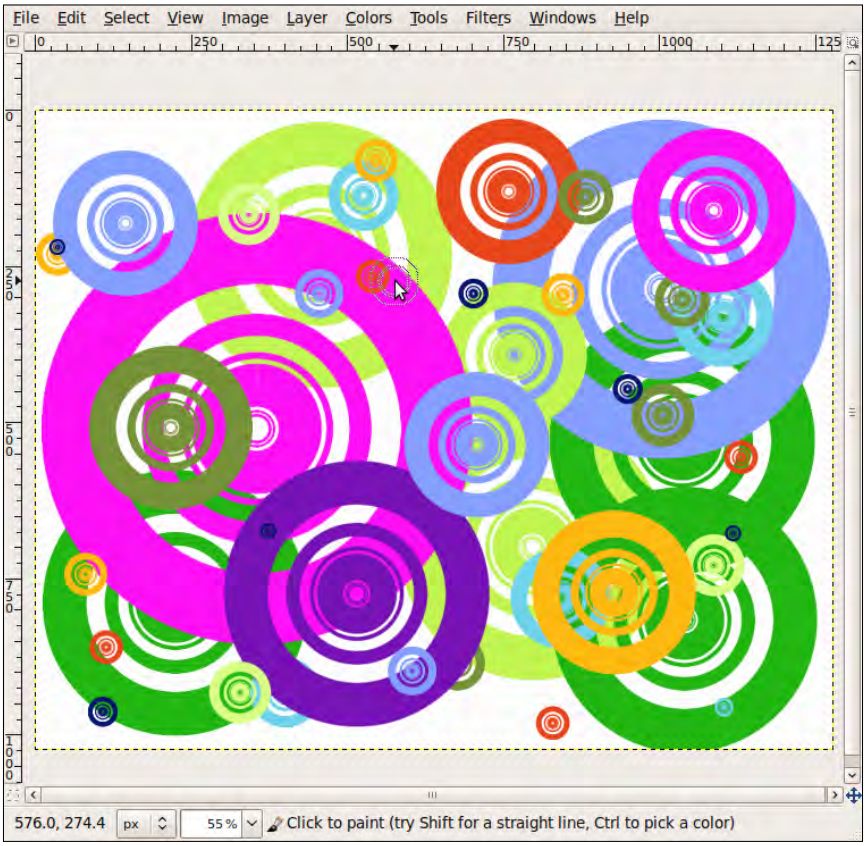



Scroll down, and the brush we just made should be there!

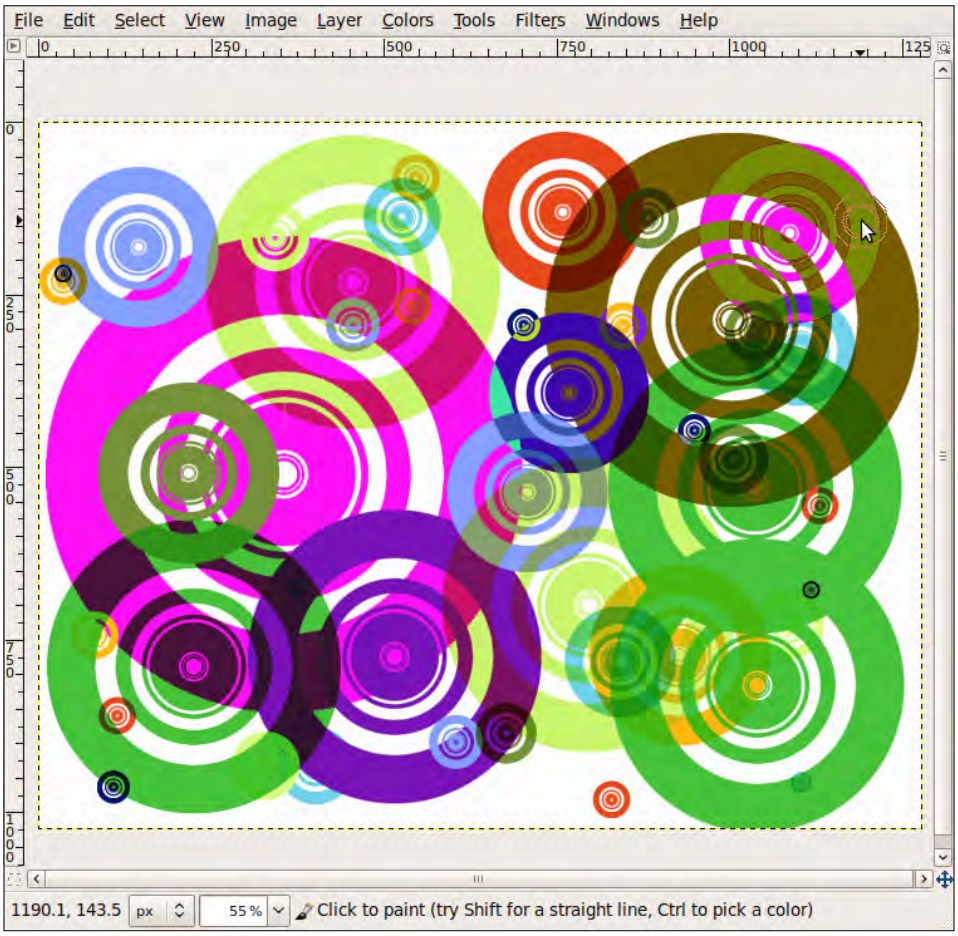


6. Select the **Paintbrush Tool**, and click on our brush. Create a new layer. Now, choose different brush sizes and random colors, and paint several dots all around the canvas in different layers:



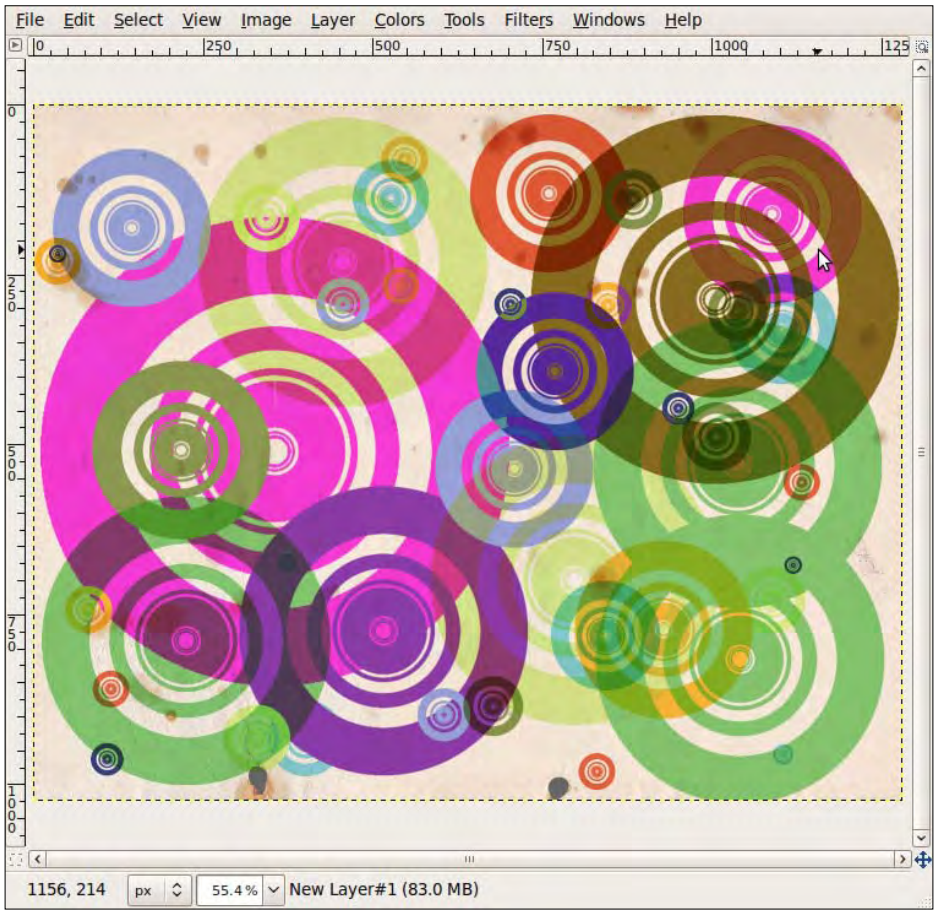



7. Set each layer to different modes. Play a little, until you are satisfied:




8. Now, scan or find a royalty-free paper texture, and paste into a new layer. Change it's mode to **Multiply**, and set it's opacity to anything you like.

Adjust each layer's opacity to get a washed look, as if the colors were fading. Following is what the final retro background looks like:



# 8
# Plugins and Scripts

In this chapter, we will cover:

- Installing plugins and scripts
- Using the 3D Screenshot script
- Using the Midnight Sepia script
- Using the Star Scape script
- Using the Antique Photo Border script
- Using the National Geographic script
- Using the Watermark script
- Using the Save for Web Plugin
- Using the DBP Plugin

## Introduction

Being an open-source project, GIMP provides a great way for users to enrich the project capabilities. Plugins enable developers to extend GIMP functionality without the need to modify the complex and huge core source files. A plugin is an external program that is called within the GIMP environment and can interact with it.

Plugins can be written by anyone with enough coding skills, but as they are executable programs, there are security concerns that you need to be aware of before using them. Any user can create a plugin and post it for download on his/her personal page, but also anybody could download it, add malicious code, and redistribute it. So, you should only install plugins downloaded from known sites. There are quite a few websites for this, but there's also an official repository where developers test and check all the submitted plugins to detect security issues and also optimize them. The official GIMP plugin repository is at `http://registry.gimp.org/`.

A fresh GIMP installation comes with several plugins. Most of them can be found in the **Filters** menu. Also, many times, plugins are written for a specific GIMP version; this implies that changes are necessary on the plugin code to make it work on a different version than the one for which it was written. So before installing a new plugin, check its documentation to know if it will work with your GIMP version.

As plugins are developed by users, many times their code is not exactly 'stable', so there will be times when a plugin crashes. GIMP can detect this and show you an error. It's wise to save and backup your work each time you use a new, recently-installed plugin, to avoid unexpected things happening after a plugin crash. Also, it may be good to restart GIMP after a plugin crash.

# Installing plugins and scripts

Installing new plugins is not difficult, most of the time it is a straightforward task. Continue reading to see how to install a GIMP plugin successfully.

## Getting ready

As I mentioned earlier, you should always download and install plugins from known sources. The official GIMP plugin registry is at `http://registry.gimp.org/`, so that's the safest place. There is also no registration required for downloads.

## How to do it...

The following steps show how to install a GIMP plugin:

1. Go to `http://registry.gimp.org/`, and search for the plugin you need. Download the plugin package file from the same page, select the file accordingly to your operating system.
2. In all cases, the downloaded file is a compressed file. Extract the files inside the plugin to a new folder.
3. Usually there is an `INSTALL` or a `README` file. Check those to see if there are any special steps to install the specific plugin. Many times, plugins need to be compiled. Follow the steps in the `README` and the `INSTALL` files to build your plugin successfully. To install and build plugins on Windows, first you have to set up a developing-environment. This implies software installation, time, and effort, because Windows doesn't come with the tools by default.

Depending on the installation procedure for each plugin, sometimes a manual copy of files is also required; this varies on each operating system:

- **Linux**: Depending on your distribution, the path can vary, but if you want just your user to be able to use the plugin, move the files to the following hidden directory in your home directory: `~/gimp-[GIMP_VERSION]/plug-ins/`, where `[GIMP_VERSION]` is the version of GIMP you have installed. For this book, I've been using GIMP 2.6, so my full path is `~/.gimp-2.6/plug-ins/`. If you want any user to be able to use the plugin, you have to move its files into the `plug-ins/` directory in the main application directory. As I said, this varies with each Linux distribution, but typing `whereis gimp` can show you a list of directories where you can search for the `plug-ins` directory.
- **Windows**: GIMP installs by default to your `Program Files/` directory, so look inside it for a `plug-ins` folder. Move the plugin files in to it.

4. If GIMP is open, restart it, just to be sure the plugin directory is re-read and the plugin installed.
5. Test the plugin. If the plugin is for opening a new filetype, try opening a file of that kind. If it's another kind of plugin, check its documentation to know where it loads in the menu, or search for it in the menus!

## There's more...

If you are interested in writing your own plugins, be aware that this is an advanced task. There are hundreds of plugins out there, and there is a great chance that what you want to do has already been implemented by a user or a group of users somewhere. Always check the plugin repository first before you start coding something from scratch. You could always join an existing project if you find somebody already working on what you need.

There are three main sites where you can get information on how to start coding:

`http://docs.gimp.org/en/gimp-scripting.html#plugins-write`

`http://developer.gimp.org/plug-ins.html`

`http://www.home.unix-ag.org/simon/gimp/guadec2002/gimp-plugin/html/`

The URLs are from the official GIMP documentation, on `http://developer.gimp.org/`. You can also learn about how the main code is built and the overall program architecture.

Plugins are not the only way to add functionality to GIMP. It also has a built-in macro language that users use mostly for automating repetitive or complex tasks. The Script-Fu language is based on Scheme, an interpreted language with its own syntax rules.

GIMP comes with many scripts that you can use as a base for your own scripts and learn the language in the process. There are also many sites where you can download and use user-created scripts. Go to **Edit** | **Preferences** | **Folders** | **Scripts** to see the path where you have to copy your downloaded or new scripts (or check the default scripts) to make them available in GIMP. There is no need to restart GIMP after installing new scripts, just go to **Filters** | **Script-fu** | **Refresh Filters** to reload all. Through the Script-fu console (**Filters** | **Script-fu** | **Console**) you can test single commands and see if your syntax is right, and browse the language functions and descriptions. The Script-fu syntax can be tricky sometimes with its parenthesis and space between operators.

Finally, through other plugins, you can add other languages, like Perl, TCL, and others. Search the plugin registry at `http://registry.gimp.org`.

# Using the 3D Screenshot script

This script turns any image into a 3D composition with reflections, shadows, and glow. Download it from `http://registry.gimp.org/node/3479`.

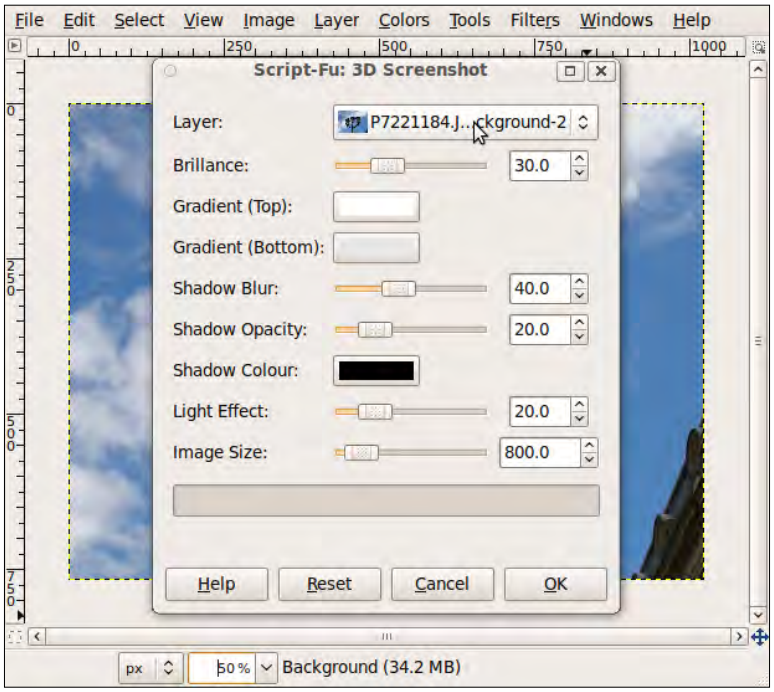
## Getting ready

To install this script, download and move the `.scm` file into your `scripts` folder. Check the right path from **Edit** | **Preferences** | **Folders** | **Scripts.** Restart GIMP if it's already running.

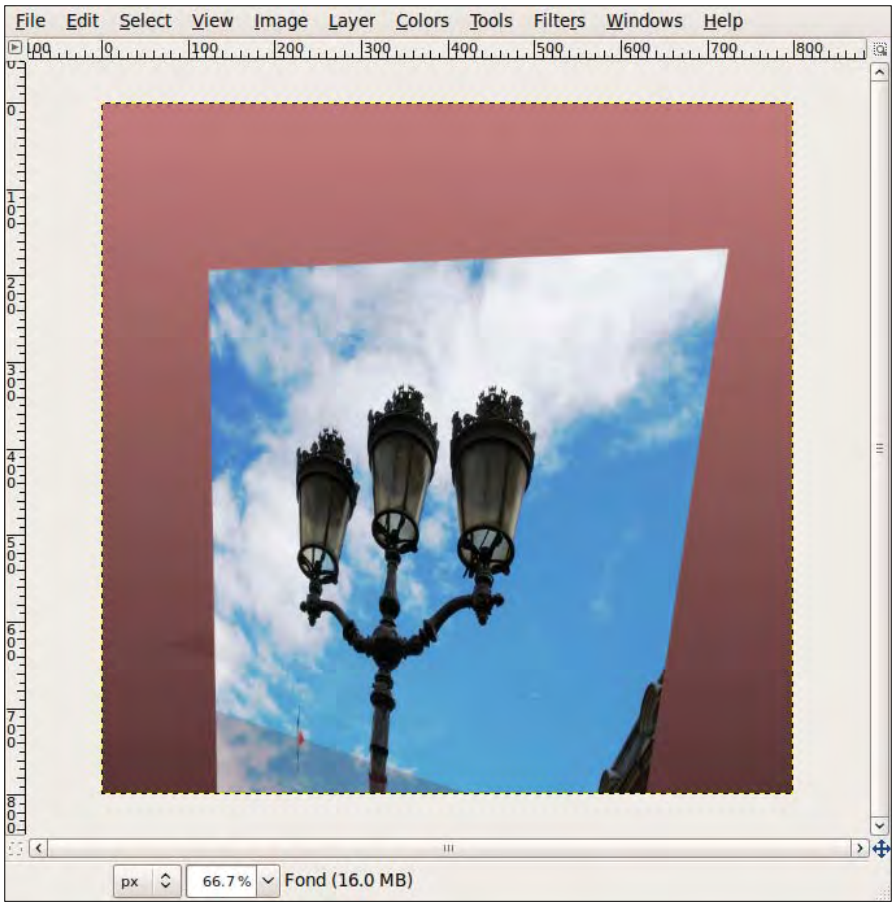
## How to do it...

First, load an image into GIMP that you wish to convert to a 3D screenshot. I used the following:

1. Open the **3D Screenshot** window by going to **Filters** | **Script-Fu** | **3d Screenshot**.
2. Choose the layer with which you want to work. Experiment a little with the parameters. The **Gradient (top)** and **Gradient (bottom)** parameters define the background color. If you change them, change the **Shadow** parameter accordingly to match with the background:



Following is the final piece:




The script creates several new layers which you can rearrange (or continue editing) to improve the composition.

# Using the Midnight Sepia script

This script is great for making quick postcards. It adds a subtle sepia effect while keeping some of the original colors and enhancing them. Download it from `http://registry.gimp.org/node/10980`.

## Getting ready

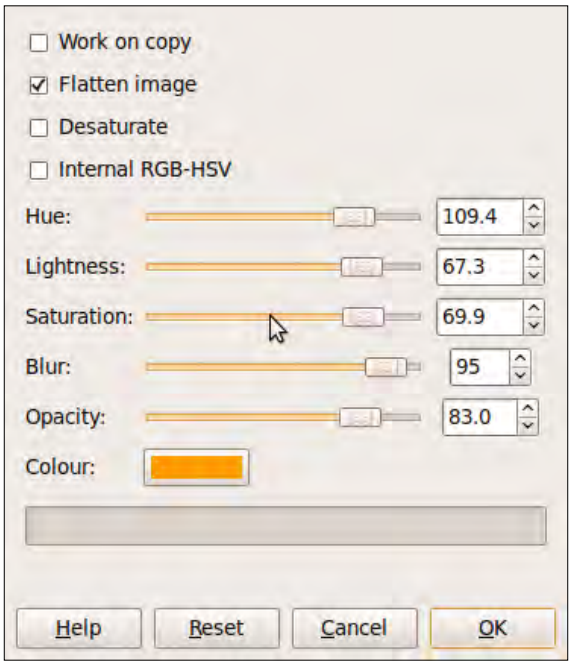
To install this script, download and move the `.scm` files into you `scripts` folder. Check the right path from **Edit** | **Preferences** | **Folders** | **Scripts**. Restart GIMP if it's already running.

## How to do it...

Load an image into GIMP to which you wish to give a sepia effect. I used the following image:

1. Open the **Midnight Sepia** window by going to **Filters** | **Artistic** | **Midnight Sepia**.

2. Adjust the parameters as you need. The **Work on Copy** checkbox is useful if you want to keep working on the original image.



Following is the final piece:

# Using the Star Scape script

This script renders a sky full of stars with the colored background of your choice. Download it from `http://registry.gimp.org/node/297`.

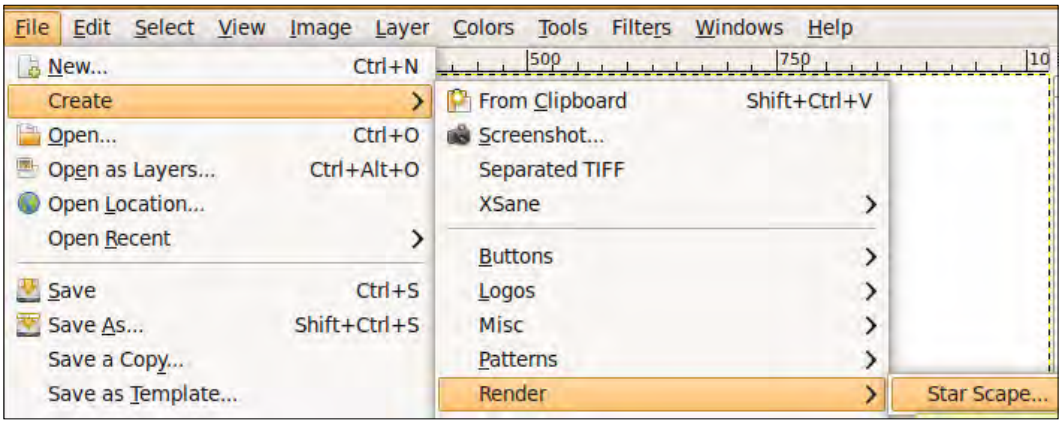
## Getting ready

To install this script, download and move the `.scm` files into your `scripts` folder. Check the right path from **Edit** | **Preferences** | **Folders** | **Scripts**. Restart GIMP if it's already running.

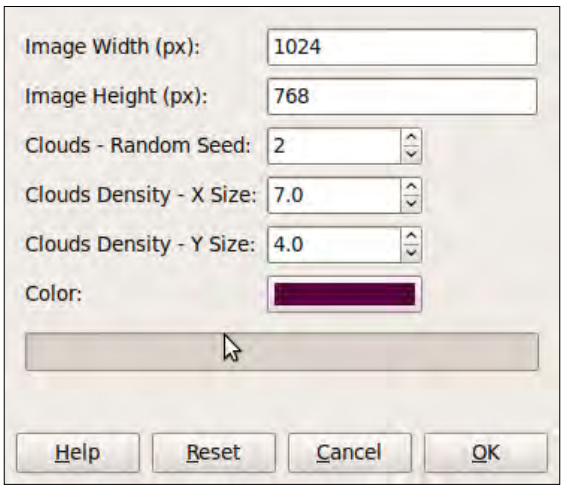
## How to do it...

Carry out the following steps to create a star scape:

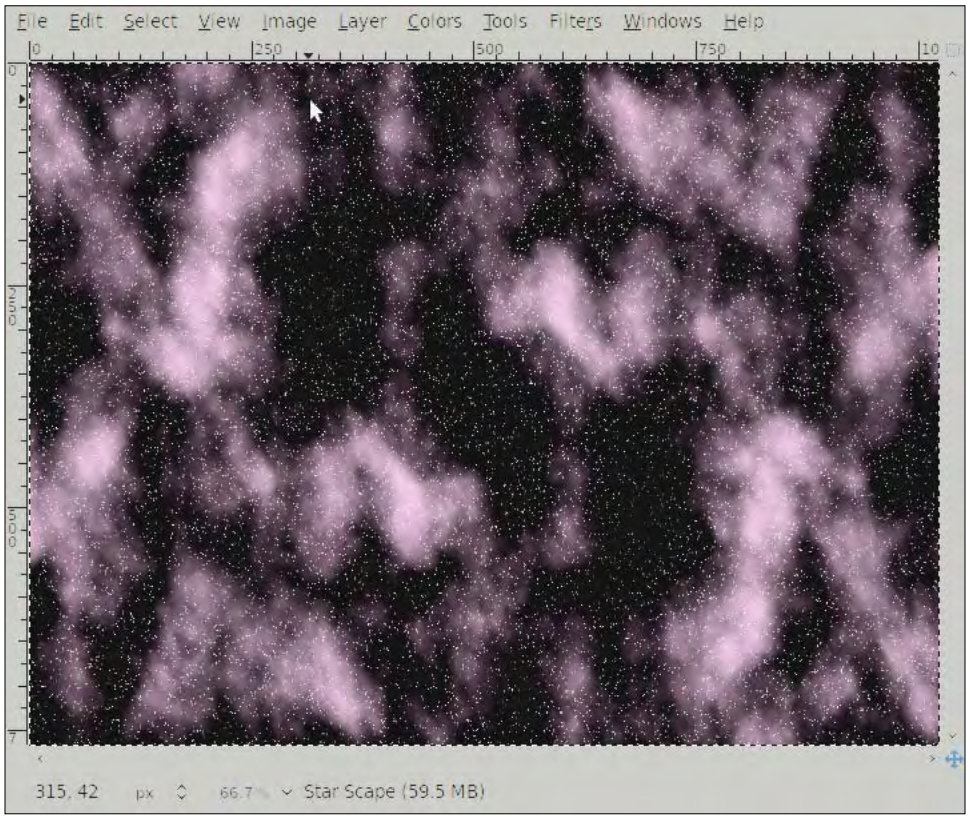
1. Since this script renders a new image, you have to search for it in the **File** menu. Go to **File** | **Create** | **Render** | **Star Scape**:




2. Adjust the parameters. The following are the parameters I used:



Following is the final piece:




# Using the Antique Photo Border script

This script adds a rounded rough border to a picture, simulating a very old photograph. Download it from `http://registry.gimp.org/node/9329`.

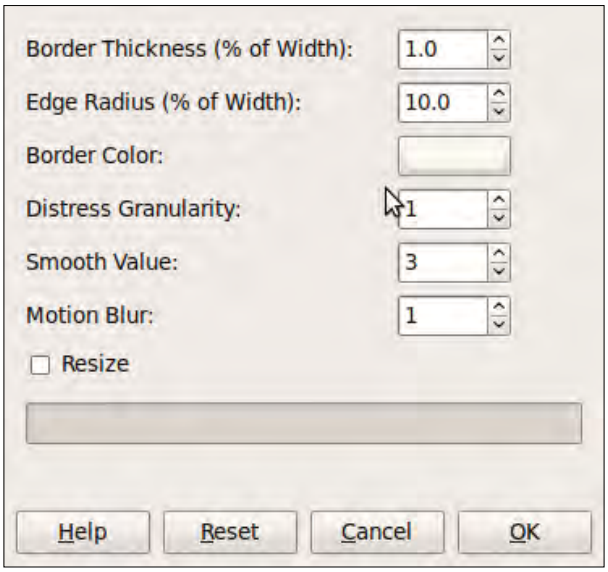
## Getting ready

To install this plugin, download and move the `.scm` file into your `scripts` folder. Check the right path from **Edit** | **Preferences** | **Folders** | **Scripts**. Restart GIMP if it's already running.

## How to do it...

Load an image into GIMP to which you wish to give an antique photograph effect. I used the following image:

1. Open the **Antique Photo Border** window by going to **Filters** | **Decor** | **Antique Photo Border**:



2. Change the parameters, and experiment a little here. The **Distress Granularity** value changes the roughness of the place where the photo and the added border meets. The **Motion Blur** value sets the amount of blur to apply to the new border.

   Following is the final piece:

The border is created in its own layer, so you can continue editing the original file, perhaps adding some texture to it to improve the old look effect.

# Using the National Geographic script

This script simulates a high quality photo such as the ones we usually see in the famous magazine. It's originally for using with portrait photography but I found it comes handy when you want to quickly color-correct any photo. Download it from `http://registry.gimp.org/node/9592`.

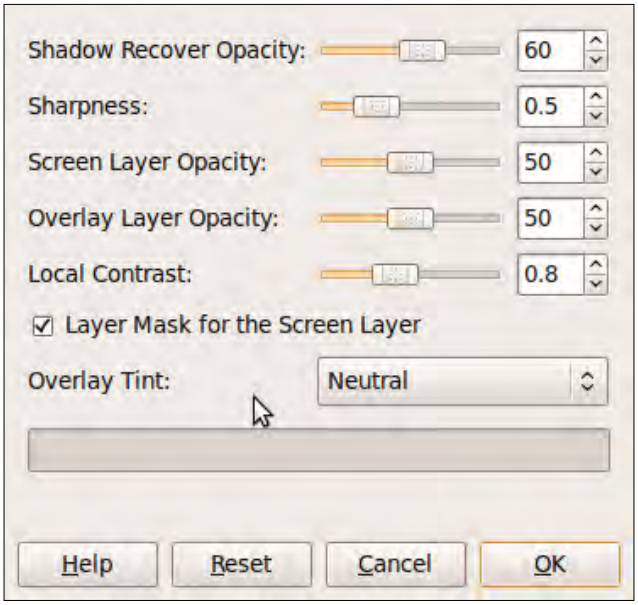
## Getting ready

To install this script, download and move the `.scm` file into your `scripts` folder. Check the right path from **Edit** | **Preferences** | **Folders** | **Scripts**. Restart GIMP if it's already running.

## How to do it...

Load an image into GIMP, I used the following image:

1. This plugin works on the active layer, so if you want to keep working on the original photo, make a duplicate of the layer and lock it before you start working with the script.
2. Open the script options window by going to **Filters** | **Generic** | **National Geographic**, and try different settings. The **Local Contrast** value can really enhance colors and make them stand out.



Following is the final piece:

# Using the Watermark script

This script adds customizable text inside a photo, which is useful when you want to create a high-quality portfolio, and you want to be sure that nobody uses them without your permission. Download it from `http://registry.gimp.org/node/6703`.

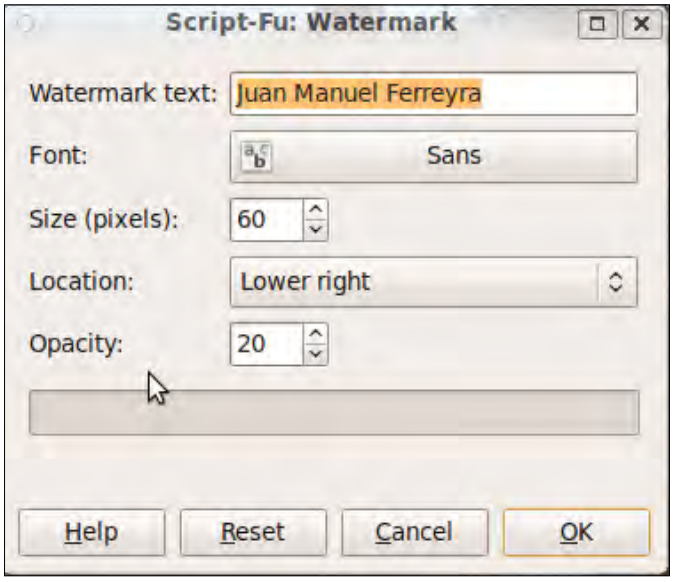
## Getting ready

To install this script, download and move the `.scm` file into your `scripts` folder. Check the right path from **Edit** | **Preferences** | **Folders** | **Scripts**. Restart GIMP if it's already running.

## How to do it...

Load an image into GIMP. I used the following image:

1. Open the **Watermark** option window by going to **Script-Fu** | **My Scripts** | **Watermark**. You can customize the font, text, size, position, and opacity of the watermark. In my experience, I've tried to avoid using bold fonts.




Following is the final piece:

2. If you want to position the watermark in another place after applying the script, then go to **Edit** | **Undo Flatten Image**. The text will be in its own layer that you can position anywhere you like or adjust the opacity.

# Using the Save for Web plugin

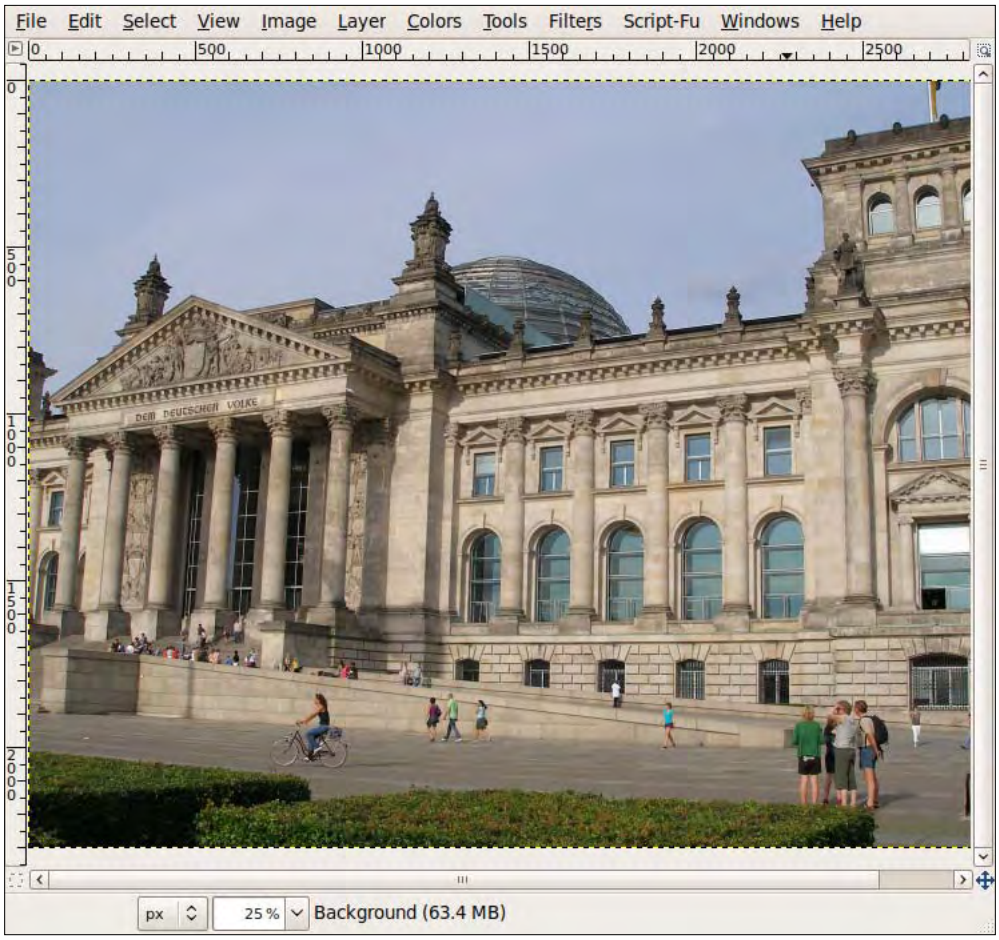
This plugin enables you to optimize high-resolution images, and save them for web use without losing much quality. Download it from `http://registry.gimp.org/node/33`.

## Getting ready

This plugin can be tricky to install, especially in Windows. Have a little patience, and follow the instructions given in the README file that comes with the file you downloaded.

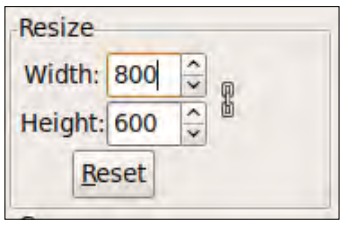
## How to do it...

Load an image into GIMP. I used the following image:

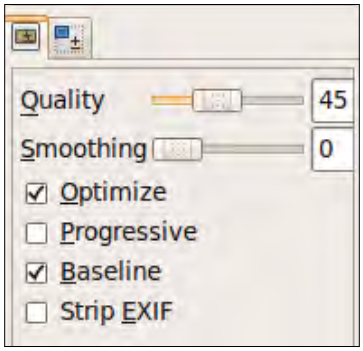


1. Go to **File** | **Save for Web**. The image I am using as an example is way too big for the Web, so click the tab on the right:

Here you can set the new image size; for my example I used 800 x 600 pixels. At the bottom of the window, you can see the approximate file size after the image size has been changed:




2. Don't save it yet! Select the image format you want and go back to the tab on the left, shift the **Quality** slider, and watch the approximate file size change:




3. Click the **Save** button, choose the destination directory, and the plugin will generate your optimized-for-web file in it.

# Using the DBP Plugin

This is a powerful plugin that can save you lots of hours of mechanical work. Think when you have to edit, resize, rotate, or apply different filters to many files. With this plugin, you can select them, configure which operation to perform, process and save them with the same filename or in another folder. Download it from `http://members.ozemail.com.au/~hodsond/dbp.html`.

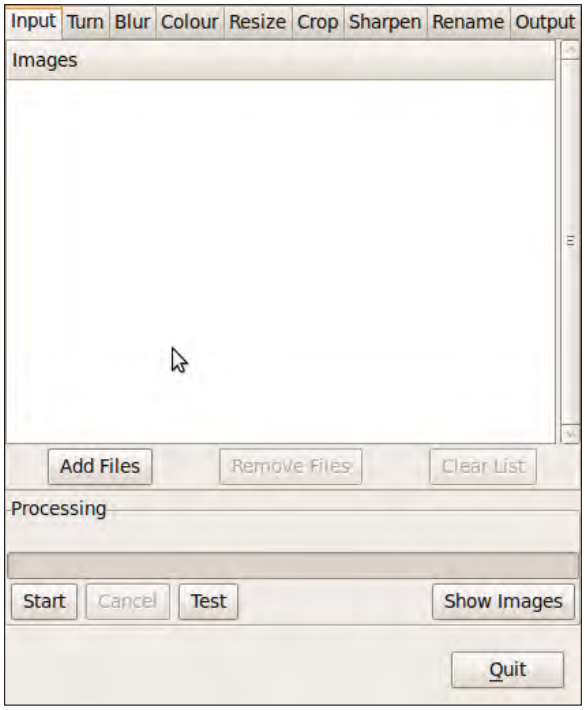
## Getting ready

You will have to compile this plugin to install it. Also in Linux you will need to install gimptool to install the plugin without any manual work—check the plugin documentation.

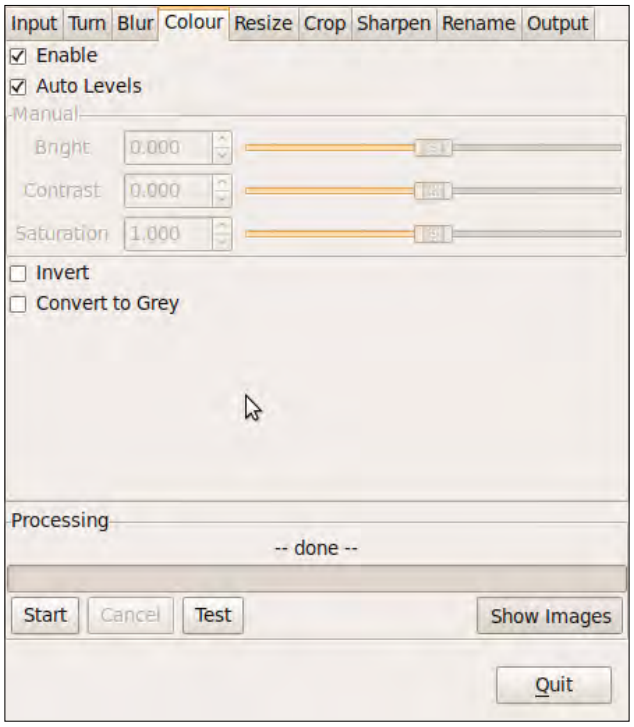
## How to do it...

The following steps show how to use the DBP plugin to process many files:

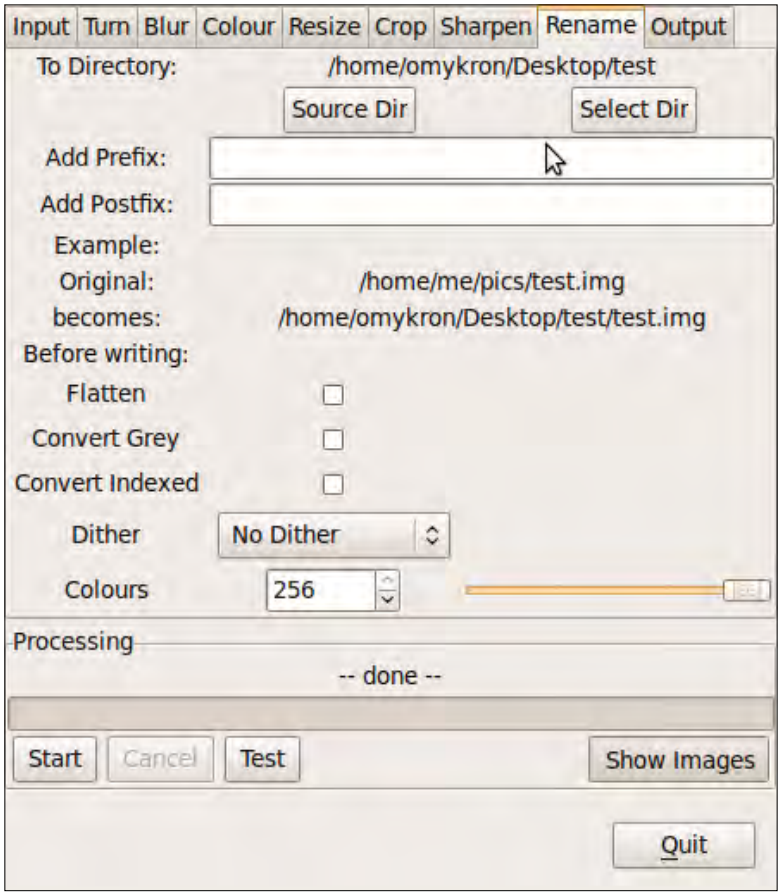
1. Open GIMP and bring up DBP's option window by going to **Filters** | **Batch Process**:



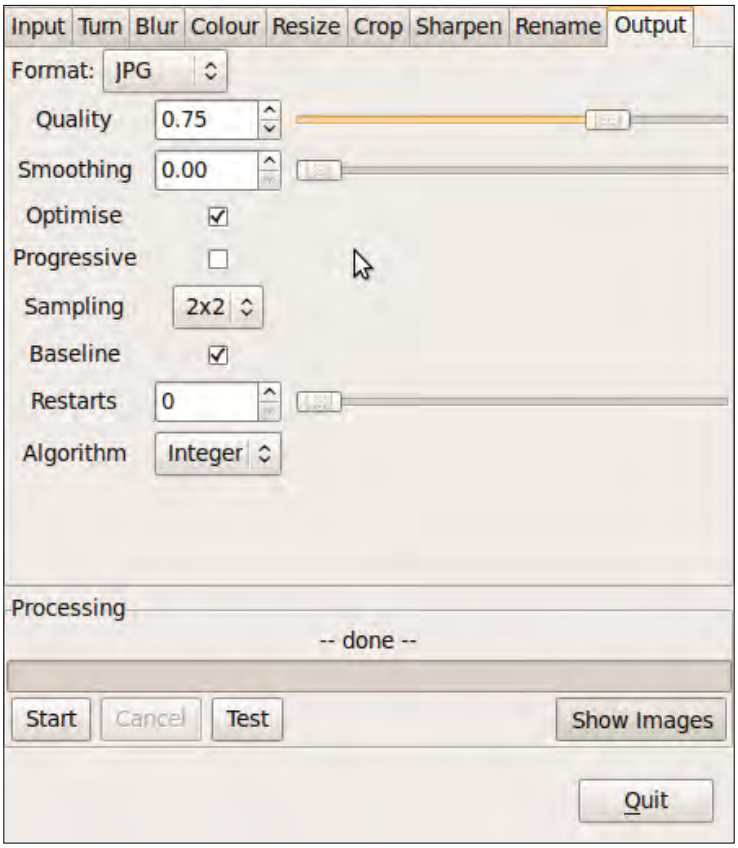
2. Click the **Add Files** button to load the files you want to process.
3. There are a lot of operations that can be done with this plugin. Here, we are going to auto-level the colors for each image, so click the **Colour** tab. Select the **Enable** and the **Auto-levels** checkboxes:



4. If you want to keep the original files intact (I recommend you always keep them!), click the **Rename** tab, and click the **SelectDir** button to choose a path where the processed files will be created. You can define how you want these files to be named by entering a prefix and postfix text.




5. Click the **Output** tab to select a file format for the processed files:




6. Click the **Start** button to process the files.

Following a similar procedure you can run any process on a group or batch of files.

# A
# Beyond GIMP

In this chapter, we will cover:

- Beyond GIMP
- Platform-specific projects
- Useful links

## Beyond GIMP

GIMP is distributed under a GPL, which means that anyone can download and use the program for free (of course there are some limitations on this. Check GIMP's license page for details: `http://docs.gimp.org/2.6/en/legal.html`). It also enables anyone to download the complete source code, modify it, and build new projects. There are a few different projects out there that were created with specific goals. This appendix provides information about two different projects: GIMP Paint Studio (or GPS) and CinePaint.

### GIMP Paint Studio

GPS is an interesting approach on GIMP modifications. It's not a completely separate entity than GIMP, as the home page says:

> *"GPS is a* **collection of brushes and accompanying tool presets** *intended to speed up repetitive tasks by avoiding the need to manually reset tool options after each change. Tool presets are a simply saved tool options, a seldom discussed but highly useful feature of the GIMP."*

However, GPS is not only a collection of brushes and tool presets:

> *"The goal of GPS is to* **provide an adequate working environment for graphic designers and artists** *to begin to paint and feel comfortable with GIMP from their first use. Later the user will change these settings based on his own workflow preferences and understanding of GIMP."*

GPS is basically for digital artists who don't find GIMP's default setup easy to work with for creating any kind of illustrations. There is also an active user base that share experiences, ideas, and artwork.

### There's more

Check the following links for more detailed information on GIMP Paint Studio, how to install and use it, and some example artwork:

- Home page: `http://code.google.com/p/gps-gimp-paint-studio/`
- GPS video tutorials: `http://code.google.com/p/gps-gimp-paint-studio/wiki/GPS_Video_Tutorials`
- Detailed information and how to install: `http://code.google.com/p/gps-gimp-paint-studio/wiki/Introduction?tm=6`

## CinePaint

CinePaint started in 2008 as a fork from the GIMP version 1.0.4, and it is considered one of the most-used open-source tools in motion pictures. It's even been used in mainstream movie productions like Scooby Doo, Harry Potter and the Philosopher's Stone, The Last Samurai, and many others.

Its primary use is for individual frame editing and retouching, and runs only on UNIX platforms. It has many features and allows the user to work with 8, 16, and 32 bit-color channels, CMYK editing, and several high dynamic range file formats as OpenEXR and Cineon and DPX that allow working with highcolor fidelity.

Keep in mind, this is not a movie editor, CinePaint handles individual frames and lets you work on them separately. There are a few tools that enable the user to work with more than one frame at a time (like onion skinning and the frame manager).

### There's more

You can refer to the following links for more information:

- Home page: `http://www.cinepaint.org`
- Sourceforge project page: `http://sourceforge.net/projects/cinepaint/`
- Documentation: `http://www.cinepaint.org/more/docs.html`

# Platform-specific projects

Historically, GIMP's main platform is Linux, but as the source code is available, with time and some patience, any user can download it and compile his/her own GIMP binaries for a specific platform. Luckily, there are a few platform-specific GIMP communities that build their own versions of the software to try and make GIMP available on them, and make more and more people use it without having to spend lots of time trying to install or dealing with source code. There are more than one of these implementations for each platform (some of them are updated, a few others are abandoned or inactive). I will introduce just one of them here for each of the main operating systems.

## GIMP on OS X

This is an active community that builds universal GIMP binaries (both for PC and Intel-based Macs) for OS X 10.4.x (Tiger), 10.5.x (Leopard), and 10.6.x (Snow Leopard). You can get it at `http://gimp.lisanet.de`.

They also provide a selection of very useful photo-editing plugins and they have an active forum at `http://sourceforge.net/projects/gimponosx/forums` for discussing releases, help, and development.

## GIMP-WIN

This site provides GIMP installers for Microsoft Windows. Check their frequently asked questions section (`http://gimp-win.sourceforge.net/faq.html`) to learn more about this project and download the files from `http://gimp.lisanet.de`.

# Useful links

Here is a list of useful GIMP related links:

- Main page: `http://www.gimp.org` (which has also a few very useful tutorials)
- Official documentation home page: `http://www.gimp.org/docs/`
- Main plugin repository: `http://registry.gimp.org/`
- Getting involved with the project: `http://www.gimp.org/develop/`
- Development home page: `http://developer.gimp.org/`
- Development frequently asked questions: `http://developer.gimp.org/faq.html`
- Plugin development documentation: `http://developer.gimp.org/plug-ins.html`

- Official user interface redesign page: `http://gui.gimp.org/index.php/GIMP_UI_Redesign`
- User interface brainstorm: `http://gimp-brainstorm.blogspot.com/`
- Tip of the day: `http://gimp-totd.blogspot.com/`
- The artist's guide to GIMP effects: `http://www.graphics-muse.org/artistsguide/`
- Video tutorials for the GIMP: `http://meetthegimp.org/`
- GIMP user community: `http://www.gimptalk.com/`
- Tutorials, community and contests for GIMP: `http://www.gimpusers.com`
- Flickr GIMP group: `http://www.flickr.com/groups/gimpusers/`

# B
# Release Changes

In this chapter, we will cover the most important changes introduced in GIMP 2.6: a few interface changes and some tool functionality.

## Introduction

GIMP has a consistent developer base that improves it, not only by fixing potential problems with the software, but also by investing time and effort in designing new features to keep it on top of any other open-source photo manipulation and drawing software. GIMP 2.6 has one of the first open-source implementations of the GEGL library that will allow, in future versions, the ability to use high big-depth and non-destructive editing.

Keeping this in mind, it's not strange that the current latest version (version 2.6) is considered as a transition towards the big GIMP v3.0 launch.

Besides this, there are a few changes made to the user interface to solve some issues reported by the user community.

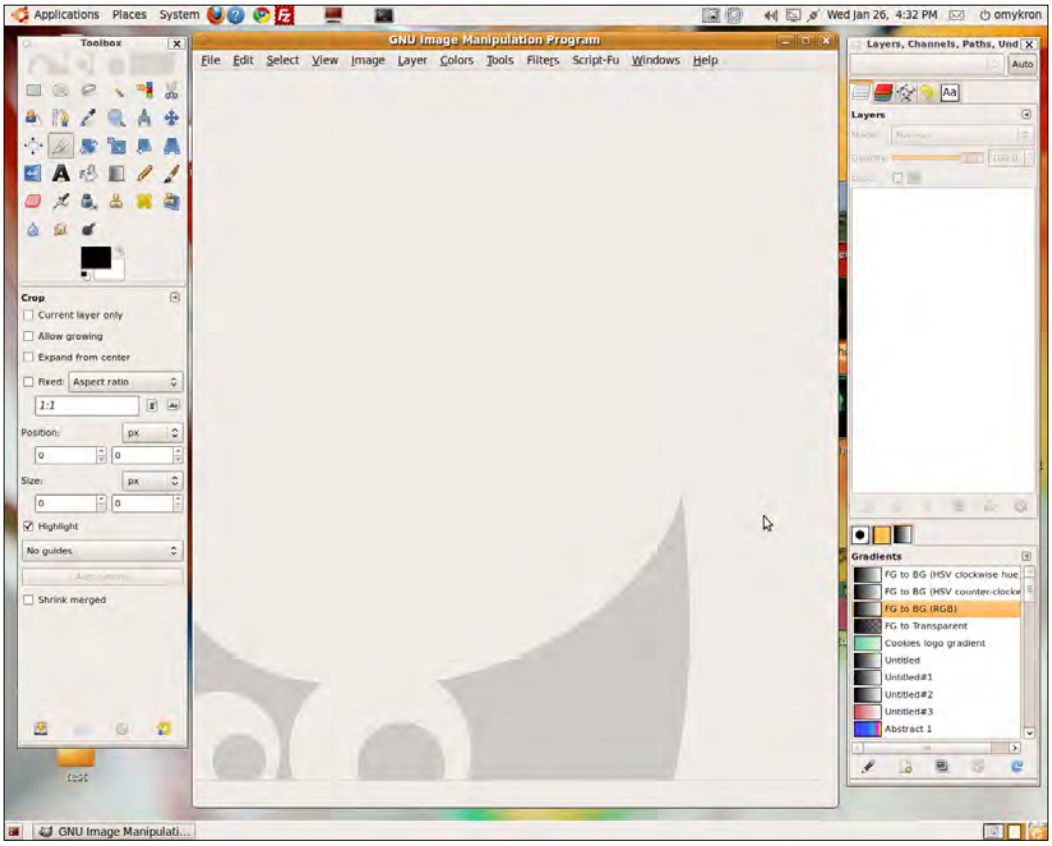
## Interface changes

A few interface and tool changes were introduced in GIMP 2.6. They are not only cosmetic, but intended to improve usability.

## Toolbox menubar removed

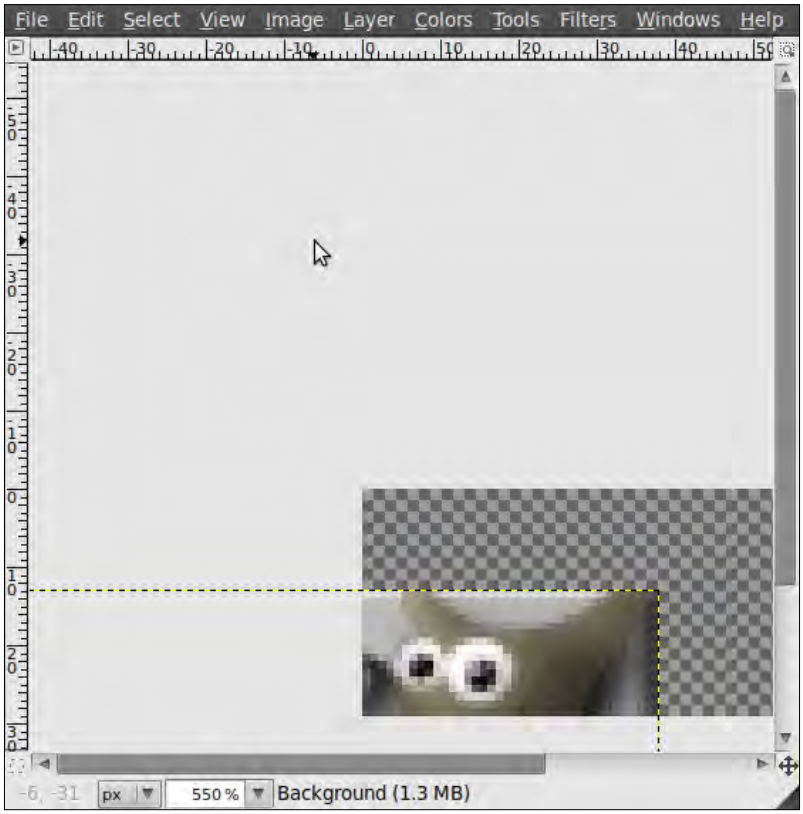
A new "Empty image window" is created to host the menubar when no image is open. It allows you to drag and drop files to open them.

Toolbox and Dock bars now are tool windows better prepared to stay on top of the main windows, not appearing in the taskbar, improving the on-screen organization. This is the default GIMP interface just after starting it.



## Scrolling beyond the image border

Now you can pan the image beyond its border when a utility window covers a portion of the image or when you paint on the border of an image that fills the entire window:




There are a few minor interface changes that are worth mentioning here because they improve usability:

- The **Dialog** menu is now named **Windows**.
- History of recent closed Docks, and the ability to reopen them.
- The zoom ratio can be manually entered in the status bar.
- If you use the context help function from the **Help** menu, you can click on an item in the GIMP about which you want more information, and it will connect you to the GIMP website via the GIMP browser or a standard web browser.
- Tabs can be locked on Docks to prevent accidental moving.

# Tool changes

Two important changes were introduced. Polygonal selection was added to the **Free Select Tool**, and the ability to use pressure and/or velocity with brushes was introduced. To use the new polygonal selection, use the **Free Select Tool**, and instead of clicking-and-dragging, just click once. This creates an anchor point. Move the mouse pointer to draw a straight line, click again to insert another anchor point, and click the fist one to close the selection. You can also combine free-hand and polygonal selection.

## Select Tool

The **Select Tool** now supports polygonal selection by enabling the use of polygonal segments with angle-constraints and combining it with free hand segments.

## Brush dynamics

This feature allows GIMP to detect and use values as pressure and velocity to modify brush parameters such as size, hardness, and opacity, which are crucial to the painting process of any illustrator or animator. This also works as a feature in stroking paths, where GIMP assigns values of pressure and velocity along the length of the stroke.

There are also a few minor changes:

- Automatic wrapping inside a resizable box for the **Text Tool**.
- Resizing boxes now wrap on the outside of blocks that are too small to include them. (Like when we want to resize a rectangle that is too thin.)
- The size of the brush for the **Smudge Tool** can now be scaled.
- The PSD import plugin has been improved.
- The **Desaturate Tool** now has a preview.

- The color tools now allow preset loading and saving, namely, allowing reusable color balances.
- The **Flame** plugin now has 22 new variations.

# GEGL

Non-destructive editing has become one of the objectives for the state-of-the-art image processing community. This involves algorithms that not only perform modifications to an image, but also extract complex data from the original file to allow a potential rollback of each operation, and also to accelerate tedious tasks such as scaling an image by modifying proportions. Since version 2.6, GIMP has a tentative GEGL implementation which will be gradually improved to a final version that will come out on the future GIMP v3.0

# Plugin changes/news

GIMP Plugin development is a non-stop project that involves countless people beyond the development team improving and creating new ways of expanding GIMP. This includes the language to build plugins and procedures which can now give detailed error descriptions and the error can be propagated to the user. Script-Fu was cleaned up and many bug fixes were implemented.

For a complete list of the API's please check:

`http://developer.gimp.org/api/2.0/libgimp/libgimp-index-new-in-2-6.html`

# Backwards compatibility

There were some issues with GIMP 2.4 plugins that were solved. GIMP should run scripts since versions 2.0 and 2.2 without problems.

# Known problems

Some problems still exist in GIMP 2.6. The following are the known problems:

- The **Hint** utility window only works well within GNOME or Windows starting from GIMP 2.6.1.
- The **Text Tool** is still being optimized and the plan is to have it working fine for GIMP v2.8.
- When compiling GIMP, if you don't have GVFs support you need to add a `–without-gvfs` to the configure script to be able to open remote files.

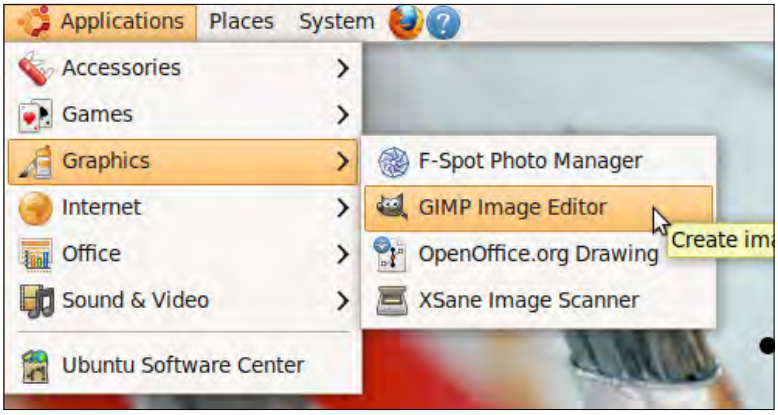
# Running GIMP for the first time

GIMP is not a simple piece of software; each tool has many options and settings—ways that you can use to perform different things. This is why as a reminder for the experienced user or as an introduction for beginners, we are going to cover the basics of the software quickly.

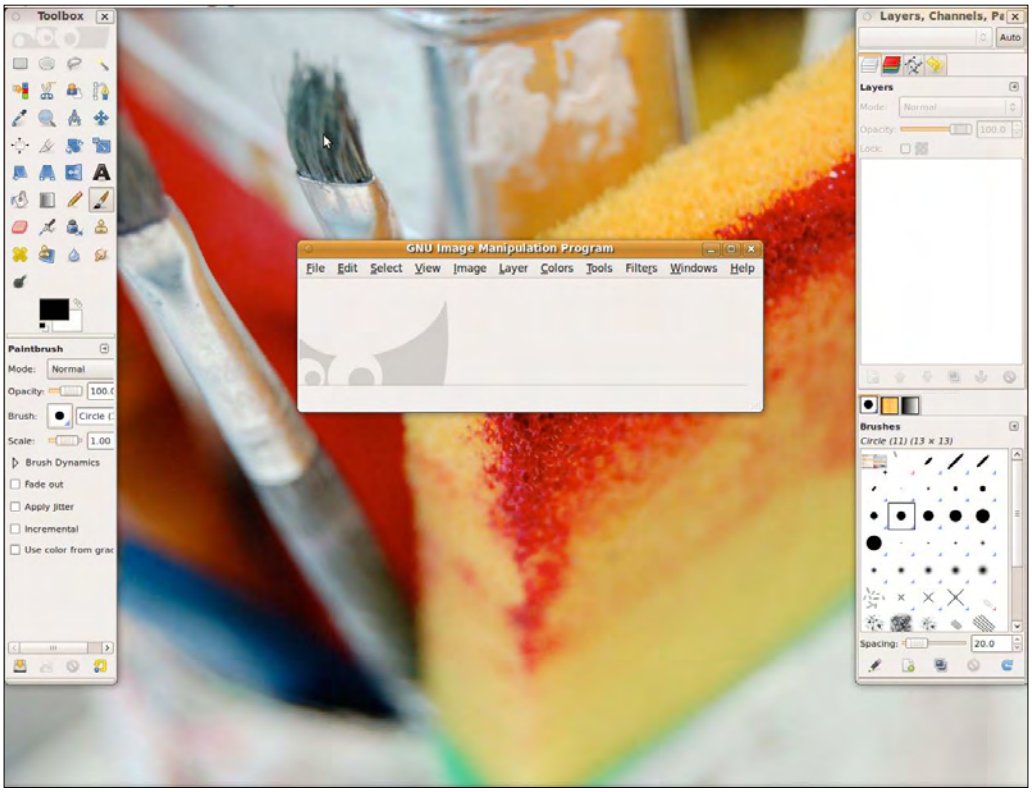
GIMP runs in many languages and platforms; each one has it's own installation procedure. My point in this book is not to give a tutorial for installing GIMP on each one, but to show you the general options and guide you to run it without trouble, so you can get to work in no time! The open software community has been working for years and years developing reliable operating systems and applications (such as Linux and GIMP!) that have nothing to envy commercial products. The screenshots and examples you will see throughout all the book are taken from Linux, one of the most powerful and most-used, open operating systems in the world. GIMP was originally developed for it.

GIMP runs on many platforms; usually you start it by clicking on an icon or by typing `gimp` on a command line (you can add a filename or a list of filenames after the program name to open the file(s) in GIMP automatically). If your operating system supports it, you can also associate GIMP with any graphic file extension (such as PNG, JPG, and others) to open the file with it quickly.

A typical Ubuntu Linux main menu with GIMP preinstalled looks like the following: you can see Wilber there, GIMP's official pet!




It doesn't matter how you start it. The following is the GIMP 2.6 main screen running on Linux:




# Command-line arguments

GIMP can be run with no command line at all, but a few of them are useful when you have to process more than one file—this is called a batch job. There are many tasks that can be automated with GIMP, from basic operations such as applying a filter to complex tasks.

| | |
|---|---|
| `-?, --help` | Display a list of all command line options. |
| `--help-all` | Show all help options. |
| `--help-gtk` | Show GTK+ options. |
| `-v, --version` | Print the GIMP version and exit. |
| `--license` | Show license information and exit. |
| `--verbose` | Show detailed start-up messages. |
| `-n, --new-instance` | Start a new GIMP instance. |
| `-a, --as-new` | Open images as new. |
| `-i, --no-interface` | Run without a user interface. |

| | |
|---|---|
| `-d`, `--no-data` | Do not load patterns, gradients, palettes, or brushes. Often useful in non-interactive situations where the start-up time is to be minimized. |
| `-f`, `--no-fonts` | Do not load any fonts. This is useful to load GIMP faster for scripts that do not use fonts, or to find problems related to malformed fonts that hang GIMP. |
| `-s`, `--no-splash` | Do not show the splash screen while starting. |
| `--no-shm` | Do not use shared memory between GIMP and plugins. |
| `--no-cpu-accel` | Do not use special CPU acceleration functions. Useful for finding or disabling buggy accelerated hardware or functions. |
| `--session=name` | Use a different `sessionrc` for this GIMP session. The given session name is appended to the default `sessionrc` filename. |
| `--gimprc=filename` | Use an alternative `gimprc` instead of the default one. The `gimprc` file contains a record of your preferences. Useful in cases where plugins paths or machine specifications may be different. |
| `--system-gimprc=filename` | Use an alternate system `gimprc` file. |
| `-b`, `--batch=commands` | Execute the set of commands non-interactively. The set of commands is typically in the form of a script that can be executed by one of the GIMP scripting extensions. When the command is `-`, commands are read from standard input. |
| `--batch-interpreter=proc` | Specify the procedure to use to process batch commands. The default procedure is Script-Fu. |
| `--console-messages` | Do not popup dialog boxes on errors or warnings. Print the messages on the console instead. |
| `--pdb-compat-mode=mode` | PDB compatibility mode (`off\|on\|warn`). |
| `--stack-trace-mode=mode` | Debug in case of a crash (`never\|query\|always`). |
| `--debug-handlers` | Enable non-fatal debugging signal handlers. Useful for GIMP debugging. |
| `--g-fatal-warnings` | Make all warnings fatal. Useful for debugging. |
| `--dump-gimprc` | Output a `gimprc` file with default settings. Useful if you messed up the `gimprc` file. |
| `--display=display` | Use the designated X display (does not apply to all platforms). |

## Batch mode

To process the same operations on a set of files, GIMP provides a command-line batch mode that works with the Script-Fu scripting language. Using the `-b` parameter GIMP enters in interactive mode. Here's a simple script to apply the **Unsharp Mask** filter to a file and overwrite the original:

```
(define (simple-unsharp-mask filename
                             radius
                             amount
                             threshold)
  (let* ((image (car (gimp-file-load RUN-NONINTERACTIVE
                                     filename filename)))
         (drawable (car (gimp-image-get-active-layer image))))
    (plug-in-unsharp-mask RUN-NONINTERACTIVE
                          image drawable radius amount threshold)
    (gimp-file-save RUN-NONINTERACTIVE
                    image drawable filename filename)
    (gimp-image-delete image)))
```

Select the file with a `.scm` extension inside the `~/.gimp-2.6/scripts` directory and call it with the following parameters:

```
gimp -i -b '(simple-unsharp-mask "foo.png" 5.0 0.5 0)' -b '(gimp-quit
0)'
```

`foo.png` is the file to which you want to apply the **Unsharp Mask** filter. There are a few numeric parameters that are specific for the filter after the file name.

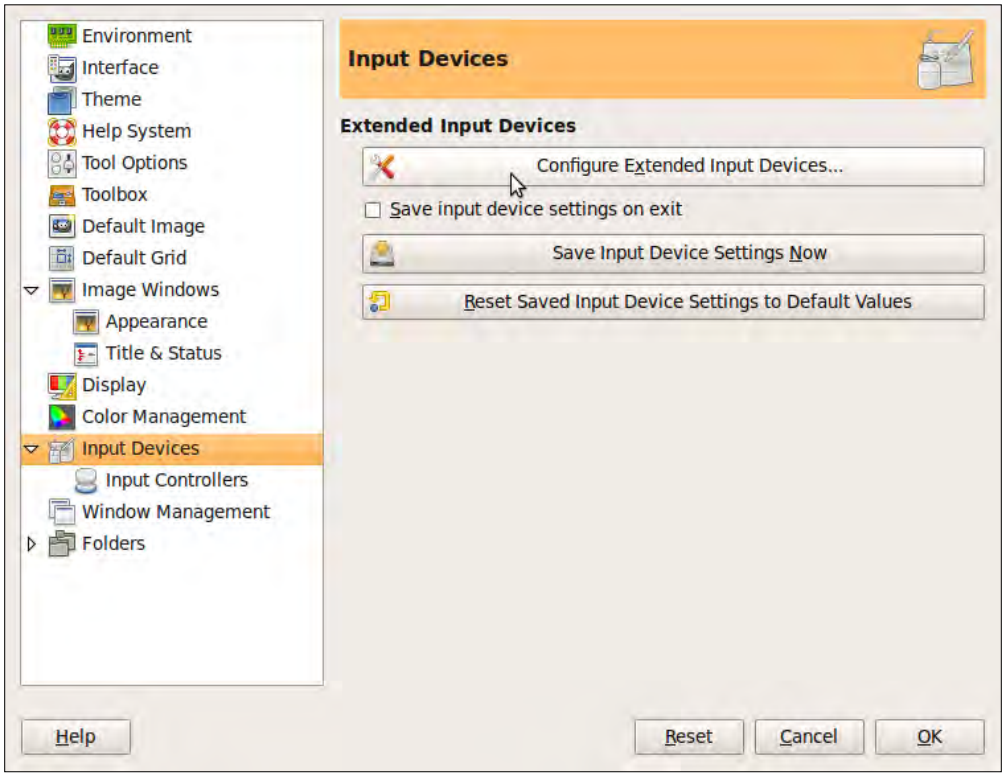
# Adding tablet support to GIMP

Graphic tablets are an essential part of any professional's arsenal when working with graphics in a computer. They allow the user to draw and paint in a similar way people draw and paint with a pencil, a pen, or a brush.

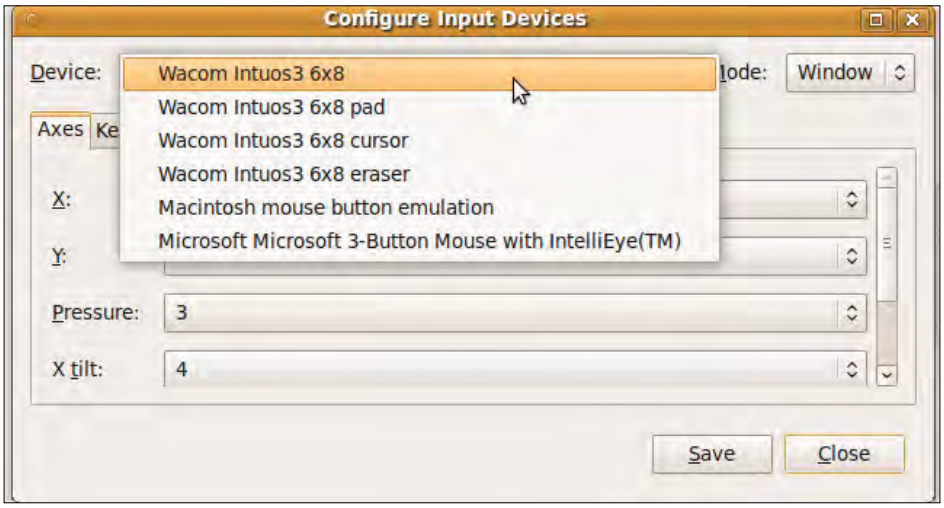
Lots of beautiful, professional-looking pieces of artwork can be created with just a mouse, but only with the use of a tablet is the full capacity of a software like GIMP unleashed.

The installation of the tablet driver in the operating system or your windows manager goes beyond this book, but once you have it working, this is how to tell GIMP to use a graphic tablet:

**Edit** | **Preferences** | **Input Devices** | **Configure Extended Input Devices**



A list should appear where you can select from several options:




This is just an example, pay attention to the following words:

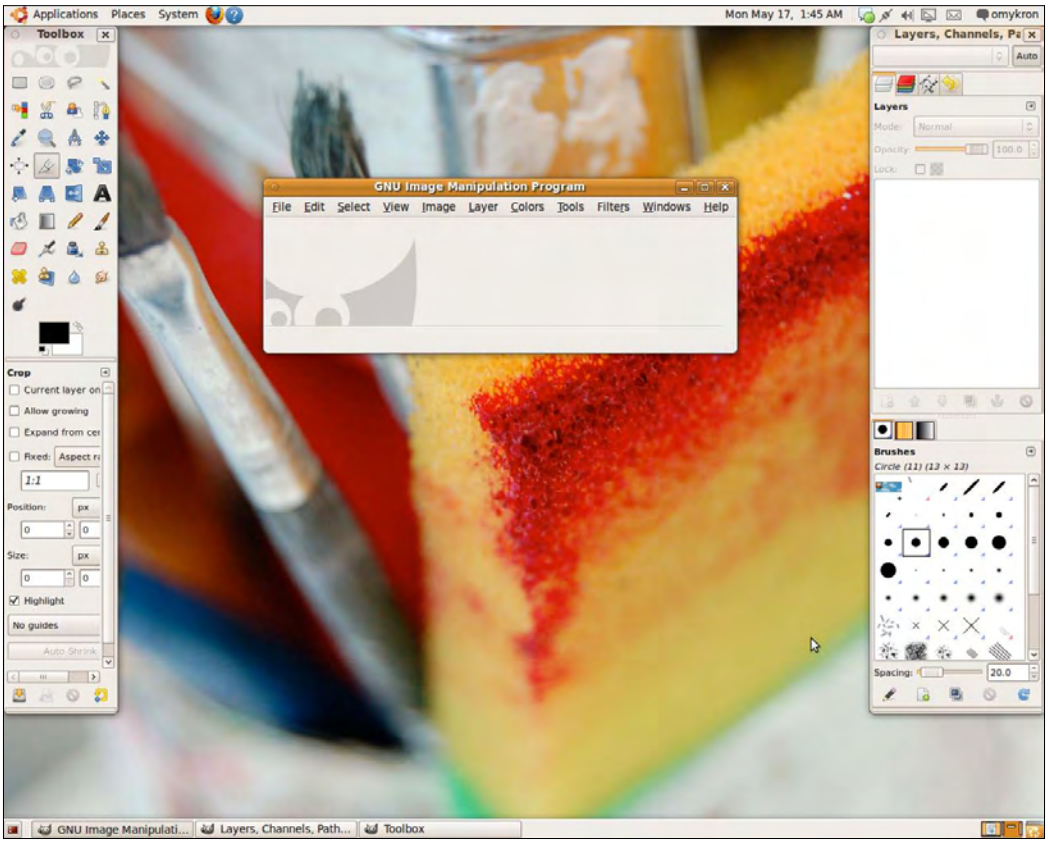
- **stylus** refers to the tip of the pen
- **pad** refers to the buttons and sliders on the tablet
- **cursor** refers to the mouse that sometimes comes with the tablet
- **eraser** refers to the back tip of the pen

A few other devices can appear but these four are the main ones that allow you to use your tablet with GIMP fully. Set all but the **pad** device to **Screen** mode. If you are using Windows, just set **Preferences** | **Input Devices** | **Input Controllers** to **DirectX DirectInput** in the **Active** column.

You should restart GIMP to be sure all settings are configured and your tablet is ready.

# The windows and their arrangement

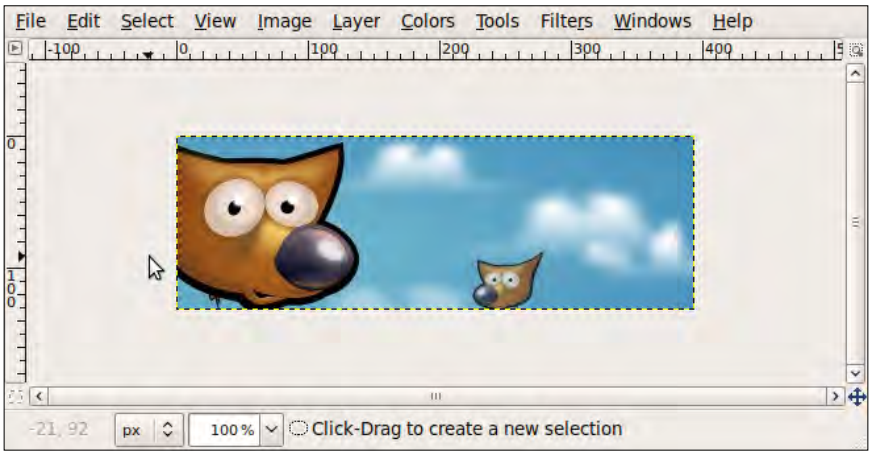
This is the default workspace when you open the GIMP for the first time:




The window on the left is named the **Toolbox** window, where all the main tools can be quickly selected, (you should also learn their shortcuts!). Below the toolbox are the **Tool Options**. This is where you can find all the options for the currently selected tool.

When started, GIMP has the brush as the default selected tool, along with a color and a pattern, but you can keep the ones you had when quitting your last session by clicking on **Save input device settings on exit** inside the **Preferences** | **Input Devices** menu.

On the right side of the screen, you can see the **Layers**, **Channels**, and **Path** window. The **Layers** tab is one of the most important accessories, because it's where you can view the structure of the image while you are working on it. Below it you can see the **Brush**, **Patterns**, **Gradients** window. On the center of the screen is the Image window. Each image you open or create is shown on a separate image window; it also holds the main Menu. You can access it by right-clicking it as well. The image window holds a series of components with which you should familiarize yourself:

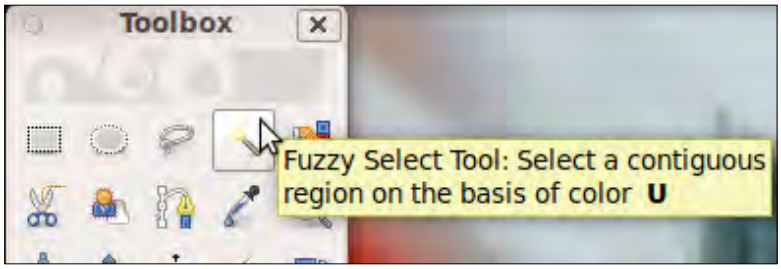



This is the default layout that you get when you open GIMP; there are many other windows, but most of them can be opened and closed as you need them.

# Getting started with the tools

You can find all the main tools inside the **Toolbox**:

It's divided in two sections, the top part is where all the different tool icons are located. Clicking on a tool icon will select the tool. Also, if you hover with your mouse over a tool, and hold it there for just a moment, a tooltip will appear showing the tool name with its hotkey:

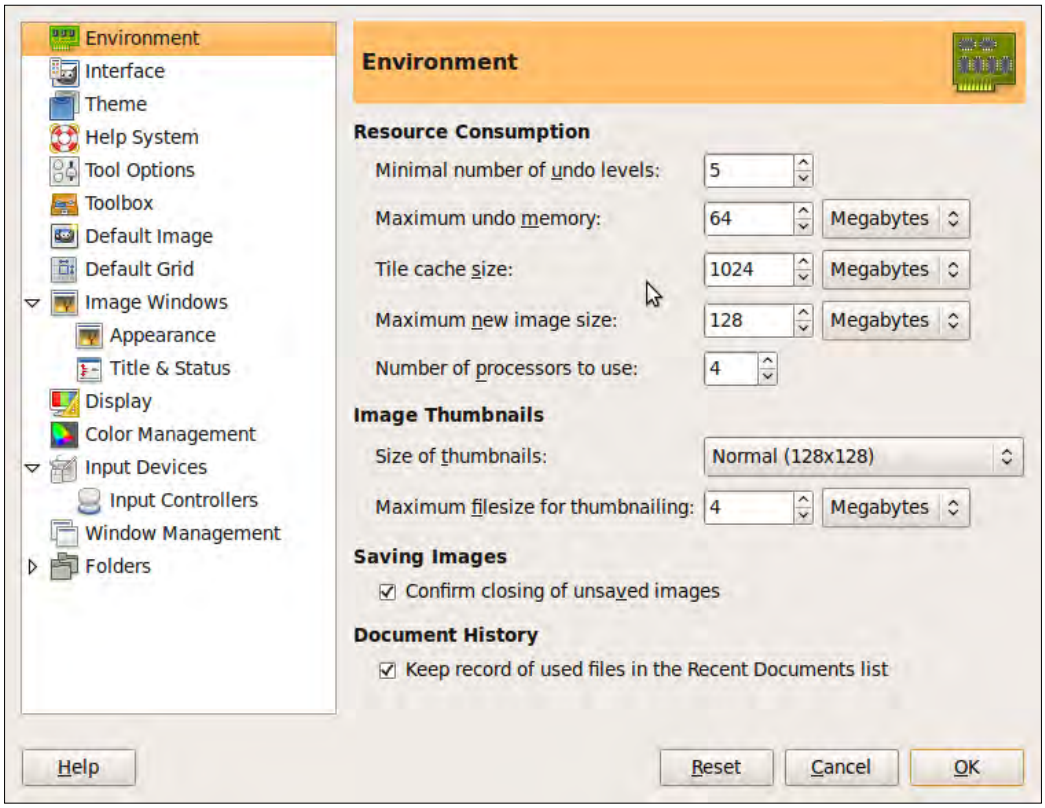


Using hotkeys is a great way to change tools without moving the cursor from the image window.

To open a file quickly, just drag it into the **Toolbox** window, but be careful! If you drag a file inside an image window, it gets loaded inside the already opened file. Don't be afraid, this is a just a minor error, and GIMP has wonderful undo and history capabilities; just keep reading!

# Using Undo

The undo operation can be applied almost to anything in GIMP. You can access it by clicking **Edit** | **Undo**, or by it's hotkey *Ctrl + Z*. If you want to restore the last operation after undoing it, just hit *Ctrl + Y* or **Edit** | **Redo** to redo it. There is a way to keep track of what were the last operations applied to an image. Just look at the **Undo History** dialog. Keep in mind that this history is *not saved* when you save your image to disk. The length of the **Undo History** can be changed inside the **Edit** | **Preferences** | **Environment** window:




Check the **Minimal number of undo levels** and the **Maximum undo memory** options. The first one sets how many undo levels GIMP will maintain, regardless of how much memory they consume. The second option sets the maximum amount of memory GIMP will use for the undo before it starts deleting the oldest undo operations.

There are a few things that cannot be undone:

- Closing the image.
- Reloading the image from the file.
- Complex manipulations. For example, working with the **Intelligent Scissors** tool means you have to create a path and create a selection. Clicking undo will not get you back to the path creation, only to the starting point.
- Filters and plugins can be undone, but that depends on how each operation they perform is implemented. If it's not, that can corrupt your undo history, deleting not only the last but all the history. That can also happen if you cancel a plugin/filter operation before it's done. The filters and plugins that come with GIMP are fully tested, but you should check the documentation of any filter or plugin you get from anywhere else to avoid running into any kind of problem while working.

# Index

## Symbols

**3D Screenshot script**
about 344
downloading 344
installing 344
using 344-346
**3D text**
creating 111-114

## A

**abstract art 313**
**abstract background**
creating 313-317
**Add Bevel filter 77**
**Add Border filter 78**
**Alien Glow filter 96, 97**
**Alien Neon filter 98**
**alpha to logo filters**
about 96
Alien Glow 96
Alien Neon filter 98
applying 96
Basic I and Basic II filters 98
Chalk filter 99
Frosty filter 100
Textured filter 100
**Antique Photo Border script**
about 351
downloading 351
installing 351
using 352, 353
**ARGYLL**
URL 144
**artist guide, GIMP**
URL 370
**artistic filters**
about 73
adding 73
Canvas filter 74
Canvas filter, applying 74
Cubism 75
Cubism, applying 75
**Art Nouveau 265**

## B

**backgrounds**
about 313
abstract background, creating 313-317
green time-machine background, creating 319-326
light spikes background, creating 326-331
removing, from image 205-210
retro dots background, creating 332-339
**background settings**
brush 285
orientation 286
paper 284
placement 287
presets 284
size 286
**Basic I and Basic II filters 98**
**batch job 377**
**black and white pictures**
coloring 194-197
**black and white postcard**
creating, with color touch 182-188
**Blend Tool 7 106, 252, 262**
**blogs 251**
**blog template, Art Nouveau based**
creating 265-278
**Blur effect 47**

**blur filters**
about 47
applying 47, 48
Gaussian Blur, applying 48
Motion Blur, applying 50, 51
Pixelize, applying 52
Selective Gaussian Blur, applying 49, 50
**Blur/Sharpen Tool 222**
**Brush Tool 28**
**Bucket Fill Tool 10, 107, 256**
**Bump filter 80**

## C

**Canvas filter**
about 74
applying 74
**Chalk filter 99**
**CinePaint**
about 368
features 368
URL, documentation 368
URL, home page 368
URL, Sourceforge project page 368
**Clone Tool 198, 200**
**CML Explorer 88**
**colorize tool 197**
**color management menu 144**
**Color Picker Tool 16**
**color profiling 143**
**colors**
blending 15-18
**command-line arguments, GIMP 377**
**command-line batch mode 379**
**company logo**
creating 104-110
**compatibility issues, GIMP 2.6 375**
**Crop Tool 146**
**Cubism**
about 75, 76
applying 75
**Curve Bend**
about 54
applying 54
**custom glossy buttons**
creating 260-264

## D

**DBP Plugin**
about 362
downloading 362
installing 362
using 362-365
**decor filters**
about 76, 77
Add Bevel filter 77
Add Border filter 78
Round Corner filter 79
**default layout, GIMP 383**
**default workspace, GIMP 382**
**development home page, GIMP**
URL 369
**Difference Clouds filter 83**
**diorama 163**
**diorama effect**
creating 163-166
working 167
**DISPWIN**
URL 144
**distort filters**
about 53
applying 54
Curve Bend, applying 54
Emboss filter 55
Emboss filter, applying 56
Engrave filter 57
Engrave filter, applying 57
IWarp filter 59
IWarp filter, applying 60
Lens Distortion filter 61
Mosaic filter 62
Newsprint filter 62
Ripple filter 63
Video filter 64
Waves filter 64
Whirl and Pinch filter 65
Wind filter 65
**Dodge/Burn tool 236**
**Dodge layer mode 318**
**Dodge Tool 19**
**Drop Shadow filter**
applying 68

## E

**edge-detect filters**
about 72
adding 72
Neon filter 72
Neon filter, applying 73
**Ellipse Select Tool 6, 110, 164, 193, 261**
**Emboss filter**
about 55
applying 56
**Engrave filter**
about 57
applying 58, 59
**Eraser Tool 26, 138, 186, 188, 220, 300**

## F

**facial imperfections**
correcting 238-249
**FAQs, GIMP**
URL 369
**fiery text**
creating 131-135
**filters, GIMP**
about 45
alpha to logo 96
artistic 73
blur 47
decor 76
distort 53
edge-detect 72
light and shadow 66
map 80
noise 69
render 82
web 90
**Flickr GIMP group, GIMP**
URL 370
**Flip Tool 108, 148, 264**
**Fractal Trace filter 81**
**Frosty filter 100**
**Fuzzy Select Tool 38 187, 262**

## G

**Gaussian Blur**
about 47
applying 48, 49
**GEGL 375**
**GIMP**
3D Screenshot script, using 344
3D text, creating 111-114
about 191, 367
Antique Photo Border script, using 351
backgrounds 313
backgrounds, removing from image 205-210
black and white pictures, coloring 194-197
blog template based on Art Nouveau, creating 265-278
CinePaint 368
color management menu 144
command-line arguments 377
command-line batch mode 379
company logo, creating 104-110
custom glossy buttons, creating 260-264
default layout 383
default workspace 382
effects 45
facial imperfections, correcting 238-249
fiery text, creating 131-135
filters 45
fonts, installing 103
glowing text effects, creating 115-118
gold text, creating 123-126
GPS 367
graffiti, adding to picture 222-230
headers for blog/website, creating 303-310
icy cold text, creating 127-131
impressionistic template, creating 279-302
license page 367
objects, cleaning from picture 230-237
objects, removing from image 197-205
paper cutout text, creating 136-139
platform-specific projects 369
red eyes, removing from picture 192, 193
rubber stamp text, creating 139-141
running 376
shining plastic text, creating 118-123

surreal picture manipulations, creating 211-222
tablet support, adding 379, 381
undo operation, applying 385, 386
Web 2.0 style web design layout, creating from scratch 252-260
Midnight Sepia script, using 346
National Geographic script, using 353
plugins, installing 342
scripts, installing 342
Star Scape script, using 349
Watermark script, using 356
**GIMP 2.6**
backwards compatibility 375
GEGL 375
interface changes 371
known problems 375
plugin changes/news 375
tool changes 374
**GIMP documentation**
URL 343
**GIMP filters.** *See* **filters, GIMP**
**GIMP on OS X 369**
**GIMP Paint Studio.** *See* **GPS**
**GIMP plugin**
installing 342, 343
**GIMP plugin registry**
URL 342
**GIMP plugin repository**
URL 341
**GIMP related links**
development faqs 369
development home page 369
documentation home page 369
Flickr GIMP group 370
main page 369
main plugin repository 369
plugin development documentation 369
user community 370
user interface brainstorm 370
user interface redesign page 370
video tutorials 370
**GIMPresionist plugin 76**
**GIMPressionist filter**
using 284
**GIMP-WIN 369**
**glowing text effects**
creating 115-118
**gold text**
creating 123-126
**GPS**
about 367
features 367, 368
home page 368
installation info 368
reference links 368
video tutorials 368
**Gradient Flare filter**
about 66
applying 66
**graffiti**
adding, to photo 222-230
**green time-machine background**
creating 319-326

## H

**HDR 167**
**HDR photography**
working 181
**HDR photos**
creating 167-180
**headers, for blog/website**
creating 303-310
**Healing Tool 239**
**High Dynamic Range.** *See* **HDR**

## I

**icy cold text**
creating 127-131
**IFS 87**
**image**
cropping 146
flipping or rotating 147-151
**Image Map 90**
**image scaling**
about 144, 145
working 145
**impressionistic template**
creating 279-302

**interface changes, GIMP 2.6**
about 371
scrolling beyond the image border 373
toolbox menubar removed 372
**issues, GIMP 2.6 375**
**Iterated Function System 87**
**IWarp filter**
about 59
applying 59, 60

## J

**Jigsaw 88**

## L

**Lasso Tool 206**
**Lens Distortion filter 61**
**license page 367**
**light and shadow filters**
about 66
Drop Shadow filter 67
Drop Shadow filter, applying 68
Gradient Flare filter 66
Gradient Flare filter, applying 67
**light spikes background**
creating 326-331
**liquid rescaling 158-162**
**low-light images**
improving 152-157
**LPROF**
URL 144

## M

**main plugin repository, GIMP**
URL 369
**Map filters**
about 80
Bump filter 80
Fractal Trace filter 81
**Midnight Sepia script**
about 346
downloading 346
installing 347
using 347
**Mosaic filter 62**
**Motion Blur effect**
about 50
applying 50, 51
**Move Tool 12, 108, 196, 256**
**Multiply layer mode 318**

## N

**National Geographic script**
about 353
downloading 353
installing 354
using 354, 355
**Neon filter 73**
**Newsprint filter 62**
**noise filters**
about 68
Pick 70
Pick, applying 71
RGB Noise filter 69
RGB Noise filter, applying 70

## O

**objects**
removing, from image 197-205
**objects, in photos**
cleaning 230-237
**orb**
about 5
creating, different paint tools used 5-14

## P

**Paintbrush Tool 160, 214, 338**
**Paint Tool 160**
**paper cutout text**
creating 136-139
**Paths Tool 13, 194**
**Path Tool 160**
**Pencil Tool 208, 258**
**person cartoon**
creating 25-42
**Perspective Tool 111, 225**
**photo manipulation**
black and white postcard, creating with color touch 182-188
diorama effect, creating 163-166

HDR photos, creating 167-180
image, cropping 146
image, flipping or rotating 147-151
image scaling 144, 145
liquid rescaling 158-162
low-light photos, improving 152-157
**Pick**
about 70
applying 71
**Pixelize**
about 52
applying 53
**Plasma**
about 83
applying 84
**platform-specific projects**
about 369
GIMP on OS X 369
GIMP-WIN 369
**plugin changes/news, GIMP 2.6 375**
**plugin development documentation, GIMP**
URL 369
**project, GIMP**
URL 369

## Q

**Quick Mask tool 205**

## R

**Rectangle Select Tool 252, 261, 332**
**Rectangle Tool 255**
**red eyes removal**
from photograph 192, 193
**Render filters**
about 82
applying 83
CML Explorer 88
Difference Clouds filter 83
Iterated Function System 87
Jigsaw 88
Plasma 83
Plasma, applying 84
Solid Noise filter 85
**retro 332**
**retro dots background**
creating 332-339
**RGB Noise filter**
about 69
applying 70
**Ripple filter 63**
**Rotate Tool 12, 141, 149**
**Round Corner filter 79**
**rubber stamp text**
creating 139-141

## S

**Save for Web plugin**
about 360
downloading 360
installing 360
using 361
**Scale Tool 42, 224**
**scripts, GIMP**
3D Screenshot script 344
about 343
Antique Photo Border script 351
installing 344
Midnight Sepia script 346
National Geographic script 353
Star Scape script 349
Watermark script 356
**Seam Carving 158**
**Select by Color Tool 215**
**Selection Tools 160**
**Selective Gaussian Blur effect**
about 49
applying 49, 50
**Select Tool 215, 253**
**Semi-Flatten filter 92**
**shining plastic text**
creating 118-123
**silhouette layer 308**
**sky**
painting 18-24
**sky copy layer 220**
**skyscape**
creating 18-24
**Slice 94**
**Smudge Tool 17, 131, 204, 222**
**Solid Noise filter 85**
**Star Scape script**
about 349

downloading 350
installing 350
using 350, 351
**surreal picture manipulations**
creating 211-222

## T

**tablet support**
adding, to GIMP 379, 381
**Text Tool 104, 224**
**Textured filter 100**
**toolbox**
using 384
**tool changes, GIMP 2.6**
about 374
brush parameters, modifying 374
select tool 374

## U

**undo operation**
applying 385, 386
**user community, GIMP**
URL 370
**user interface brainstorm, GIMP**
URL 370
**user interface redesign page, GIMP**
URL 370

## V

**Video filter 64**
**video tutorials, GIMP**
URL 370

## W

**Watermark script**
about 356
downloading 356
installing 357
using 357-359
**Waves filter 64**
**Web 2.0 style web design layout**
creating 252-260
**web filters**
about 90
applying 90
Image Map 90
Semi-Flatten filter 92
Slice 94
**Whirl and Pinch filter 65**
**Wind filter 65**

## X

**XCALIB**
URL 144

## Z

**Zoom Tool 13, 29, 133, 186, 208**

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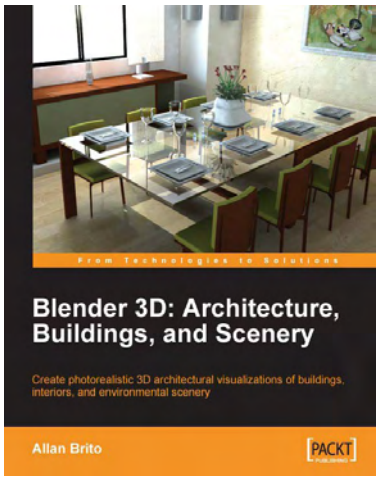


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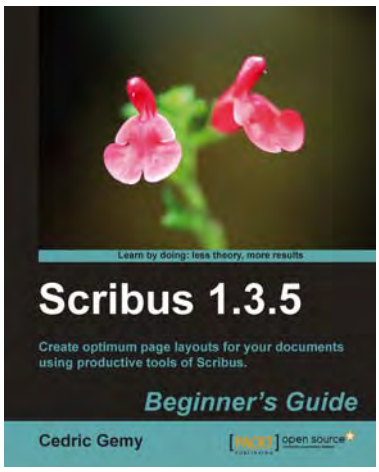


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