

» **Gimp** Open source image-editing software you can get your teeth into

Gimp: Decay in

Even experts can learn something new. **Michael J Hammel** shares his experiences using a Wacom tablet with *Gimp Paint Shop*.



Our expert

Michael J Hammel is a contributor to the *Gimp* project and the author of three books on the subject, including his latest, *The Artist's Guide to Gimp Effects*.

Last month we explored a little-known but powerful feature of *Gimp* known as Tool Presets. This feature enables users to configure *Gimp* for specific purposes such as simulating pen drawings or working with oils. The introduction of *Gimp Paint Shop*, a collection of presets and associated brushes, is opening up this powerful feature to more users.

Beginning users usually see *Gimp Paint Shop* as a tool used to create drawings from scratch. Advanced users know this is just the tip of the iceberg. Presets enable you to do digitally what matte paint artists have done in Hollywood for years – change the mundane into the extraordinary. Being the ever inquisitive guy I am, I wanted to see what more I could do with *Gimp Paint Shop*. Using the specialised configurations with a mouse seemed a little hokey. So after many years of avoiding it, I finally dropped the cash on a Wacom tablet, a Bamboo model (www.wacom.com/BambooTablet/bamboo.php). This is the low-end model from Wacom so I didn't have high hopes for its quality, but by the end of this project I was more than pleasantly surprised.

Urban dystopia

This project started with two goals in mind:

- 1 Find out what I can do with the Bamboo tablet.
- 2 Try to emulate another high-end tutorial.

In this case the tutorial I used for inspiration is called 'Making

of Urban' by Pierre Fabre of France (www.cgarena.com/freestuff/tutorials/photoshop/urban/index.html). The idea is to take a city landscape and add urban decay to the extreme by integrating elements of water, fire and earth.

In this month's column I'll show you how I learned to use the Wacom Bamboo tablet with *Gimp Paint Shop* to produce my own Gimped-up version of the Making of Urban design, which I call Decay.

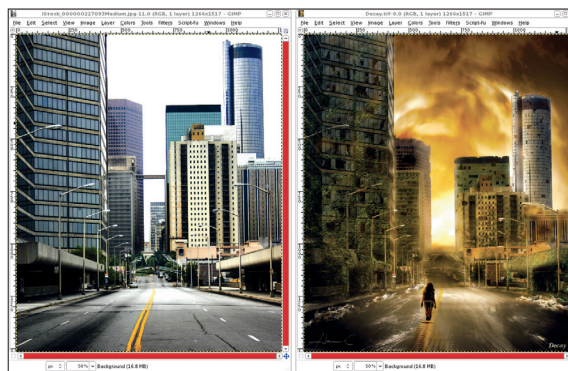
The project required five stock images: the city landscape, two photos of water, one photo of a woman, and one photo of vines. The final version consists of 73 layers, 51 with layer masks, and three paths. The total time to produce the final image was a little over 12 hours.

Most of the work centred on doing hand-drawn blackouts for windows in the buildings. While I was working on these I learned that the Detail Brush preset for the Paintbrush and the Digital Airbrush preset for the Airbrush were the two most useful configurations provided by *Gimp Paint Shop* for a project of this type.

The Wacom Bamboo, Linux and Gimp

The Wacom Bamboo tablet comes with a small black tablet with a USB connector and a stylus pen with a holder. The tablet has four buttons and a circular pad between them at the top and a 5.8x3.7-inch drawing area below it. Though it seems small, I found the drawing area completely sufficient for this project.

The Wacom is recognised out of the box as soon as it is plugged in with most modern Linux distributions, however it is not fully functional. Only the stylus side of the pen and the pen buttons function. To get the other side of the pen (the eraser side) working, along with the buttons and circular pad, the `xorg.conf` file must be updated (details of my specific



» The original city landscape image comes from the stock photo collection at iStockPhoto.com.

» **Last month** We exposed the hidden treasures of the *Gimp Paint Shop*.



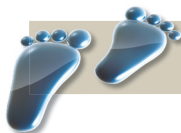
the city

xorg.conf tweaks can be found on the **LXF DVD**. Once updated, the *X* server must be restarted. If you don't know how to do this manually, just reboot the machine.

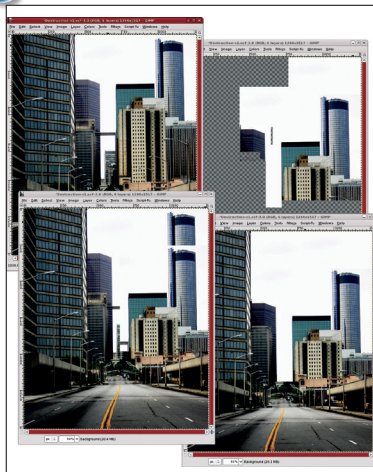
The **xorg.conf** settings will enable the features of the Bamboo (or other Wacom tablets) but those features must then be mapped to keystrokes to be of any use in *Gimp*. This is done using the *wacomcpl* tool. Some distributions include this in the **linuxwacom** package (also available at <http://linuxwacom.sourceforge.net>), though Fedora 10 does not have a package that includes it. In this case, and since I'm a Fedora user, the **linuxwacom** package must be downloaded and compiled from source.



» It's small, but as it turns out you don't need a big tablet to do even very fine detail work.



Step by step: Unleash hell!



1 Unclutter the skyline

Now it's time to get down to business. The first problem with the source photograph is the lack of background sky: the buildings are too tall and there are too many cluttered walkways and partial buildings in the centre of the image.

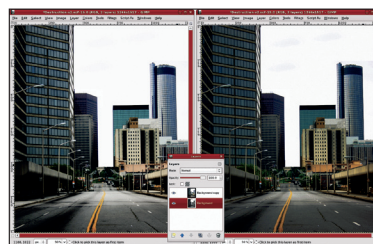
The height of the buildings is easily fixed by making a selection of the buildings up through the top of the sky, copying it and pasting to a new layer. The new layer is then dragged down to shorten the perceived height of the buildings. This process was easy with this photo because the bottom edge of the selected buildings closely matched their respective counterparts of the original image so that there was no apparent seam.

Additional patches of sky were selected and placed over buildings and walkways in the centre

of the image. This allows the sky to shine through the centre area without the buildings cluttering the view. The whole process required five layers to shorten the buildings and provide more area for the sky, and using the original sky for patching will allow easier selection of the sky later for a mask.

This collection of layers was then flattened to produce a new cityscape image with no layers. I should note here that I later added a few more, small patches specifically to remove flat white walls on the right of the image.

The bottom edge of the selected buildings lined up perfectly at their new locations. A series of patches, including the tall building on the left by itself, were required to produce the final patched version (shown here in the bottom-right).

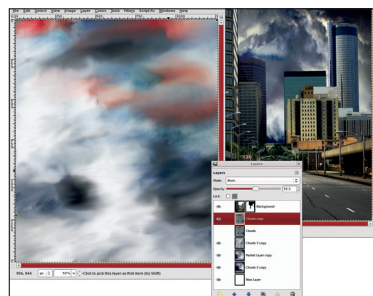


2 Colour-correct buildings

The next step is to colour-correct the image. Overall, the original photo was too bright with a high contrast level. To adjust this I duplicated the layer in the new cityscape image and desaturated it. I then used the Levels, Curves, and Brightness-Contrast dialogs to adjust the desaturated layer. Then the desaturated layer was moved below the cityscape layer and that layer's mode was set to

Colour. The results are shown here. The results of this may not be as obvious in print as they are on the screen, but reducing the contrast brought out more details in the image.

Note the missing and misplaced lamp post lights on the right. This is a result of the shortening of the buildings that I missed and would not fix until much later in the project.



3 Evil sky

The nearly solid-coloured sky was easy to select using the Fuzzy Select tool. I added a white layer mask to the cityscape layer and filled the selection with black in the mask. I then added several layers of stock cloud images and arranged them so that they were below the cityscape layer. Originally I had painted a sky background using various presets provided by *Gimp Paint Shop*, but the result was

too tame. I opted instead for stock images of clouds that I then flipped (Flip Tool) and whirled (Whirl and Pinch filter). Colour was added as an afterthought before the end of the project.

The original painted sky (left) was fun to do and helped me get a better feel for using the Wacom tablet, but it just wasn't menacing enough for what I had in mind. »

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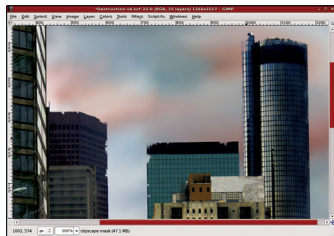
4 Add building decay

The most-time consuming part of this project came next: adding vegetation to the buildings and breaking out windows and walls. I started by adding to the mask of the sky on the cityscape layer, simulating damage to the tops of distant buildings. I used *Gimp's* Airbrush tool for this, using the Digital Airbrush preset from *Gimp Paint Shop*, and applied varying pressure with the Wacom stylus.

The damage to the top of the buildings was just a proof of concept at this stage. Adding to this damage actually occurred later, but it makes sense to talk about it now. I made rough selections of each building, copied and pasted the selection as a new layer, then deleted the layer's contents. This gave me a layer with bounds at the edges of the building, in which I used the Paintbrush (Detail Brush preset) and Airbrush

(Digital Airbrush preset) to draw blackouts of various windows. Again, this was all experimentation on my part, so I started this process on the distant buildings doing small blackouts, and it worked well enough to try the closer buildings. In some sections, as shown here, I completely blacked out a block of windows and then drew in hanging wires, metal fragments and broken frames using the Detail Brush preset and a white foreground colour. I then went back over those lines with the same brush but with different colours with the Paintbrush tool's Mode set to Overlay.

These rough blackouts look better behind the vines I'll add in the next section. Later, I revisited these with the Detail Brush preset to draw thin lines to simulate cracks to go with completely broken out windows.



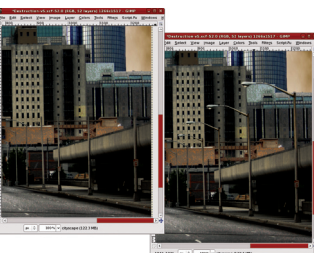
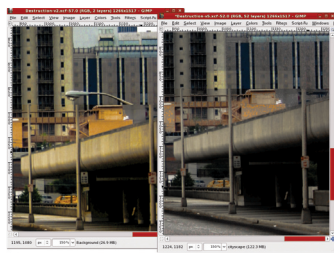
6 Lamp-post fixes

The next step was to patch the lamp-posts. To get this just right I made a detailed selection of the closest lamp-post on the right-hand side of the original image using only the Quick Mask tool. This was very time-consuming and I had to zoom in close to make sure I got a good selection. Four lamp-posts had to be fixed, and one partial post left over from shortening the buildings had to be removed. The removal was handled by making a selection of the area to be removed, moving the selection up slightly in the original image, then copying and pasting this as a patch layer. The patch layer was then moved down over the offending lamp-post. The patch is coloured from the original

image while the area that the patch was applied to is coloured after I'd colour-corrected the buildings. This was addressed by covering the area later with vines and some building destruction.

With that patch in place, the copy of the lamp-post from the original image was pasted into the image and moved to line up with the first lamp post on the right. A layer mask helped blend the patch into the image, though the colours are still off.

The lamp-post patch layer was duplicated and resized three more times, once each for the remaining lamp-posts that required a patch. Each new layer was moved into position and blended with a layer mask.



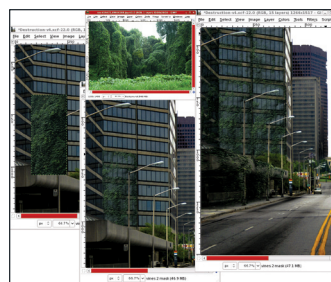
5 Earth elements

Next came experiments with vegetation growing on the buildings. I made a selection from a stock image of vines and pasted it into the image as a new layer, then added a layer mask and used the Airbrush to mask out random sections. This layer was duplicated numerous times with the layer mask modified, with each layer higher up on the building getting a larger area masked out to reduce the visible plant growth.

A different selection from the vine source image (upper-middle) was used for the concrete covering

over the sidewalk and for the various other buildings. The pasted selection was also scaled down so that the vines appear further away when applied to distant buildings. In some cases, an Unsharp Mask was applied to the pasted selection.

Vegetation was added to only three buildings, plus the cement coverings over the sidewalk on both sides of the image. I could have added more, but I imagine that some buildings don't provide a good medium for growing clinging vines.



7 Flowing water

There were several steps involved in creating the water effect. First I made a selection from a stock image of water, pasted a copy of the selection into the project window and moved it just above the cityscape layer. I then motion-blurred it vertically, which essentially removed the foam but left a nice colour wash in its place. This was a very large layer, which enabled me to use the Perspective tool to closely align the motion-blurred colour wash with the street. A layer mask cleaned up the layer so it visually fit snug against the edges of the street. Finally, the Ripple filter added some distortion to the water.

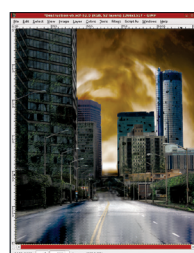
This water looked glassy, like it was frozen. There are good reflections (a lucky result of the motion blur that has nothing to do with the cityscape) but the road beneath it is not distorted.

The same process was repeated a number of times to darken the water and add more waves

and ripples, and I realised that duplicating the road itself and applying a ripple to it would remove some of that glassy appearance of the water.

In order to simulate the appearance of flowing water I needed to add water splashing on the sides of the road. I made additional copies from the stock images of water then copied, resize and positioned them in the project image. This changed the water's appearance, but not enough to look right.

So I added additional streaks of white splashes in random places around the street, made from yet more copied selections from the stock water images. Masking helped blend these splashes into the water and completely removed the glassy appearance of the water. A few splashes on the sides of the road and some white streaks in the middle changed the water from a frozen pond to a running river.



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8 Mood

The image up to this point was a little dark but otherwise provided no coloured mood – think of the green tints of *The Matrix* or the blue tints of *X-Men*. The first change I made was to brighten the sky and water but not the buildings. A radial gradient from white to transparent was used for this, along with a mask of the buildings. Above this I added a transparent layer and drew in white highlights on parts of the buildings.



Above this, another radial gradient added the yellow glow that permeates the image. I'm very fond of autumn colours and you'll find them in many of the images I create.

The highlights in the water (upper-left) become more evident with the two layers of white highlights (lower-middle). But the mood is set by the yellow glow (upper-right) that gives the feeling that the sun is just about to set.



9 Humanity

Making of Urban has a man walking with a dog, but the stock archives I use didn't provide me with a decent image of a person walking away from the camera.

I found an image of a girl but the image was very bright and hardly seemed appropriate. I made an accurate selection, again using Quick Mask, and copied, scaled and positioned the girl in the middle of the street. I had to play with the Hue-Saturation, Brightness-Contrast, Levels and Curves dialogs to darken her up without losing too much detail such as the colour of her legs.

I duplicated this layer and blurred it, placing the duplicate above the original layer. I duplicate the layer again but this time removed the contents of the layer and replaced it with hand-drawn highlights, mostly along the left-hand side of the girl.

The last piece of the human puzzle comes from two layers in the water. The first is a bit of coloured water that gives a very soft shadow of the girl. This layer went below the layers of the girl. Above this shadow layer I copied in a copy of a splash from a rock thrown in a pond.



Summary

The end result of this experiment was a good understanding of how to use my new Wacom Bamboo tablet (along with a genuine fondness for how it feels to use) and a much better understanding of how to make use of the many presets available in *Gimp Paint Shop*. Even though I used only a small portion of those presets, I have a better appreciation for their potential.

The final image was well received by those I showed it to, but I can see many places for improvement. For one, I realise now that patches need to be made from the best possible source. In most cases I made them from the original image when instead I should

have made them from a copy of the colour-corrected buildings. Fortunately, these colour problems hid themselves beneath vines and mood colouring.

Another issue is purely aesthetic. The composition of the image is not nearly as good as the inspirational source. The picture lacks some of the depth that *Making of Urban* gets from the use of a road angled from left to right. And of course the blown-out windows are not as realistic.

Still, as an experiment I'm quite pleased with the result. My wife thinks I should sell prints of images like this. I think anything that lets me play with the Bamboo and *Gimp* is a good idea. **LXF**

» **Next month** After the apocalypse, the phoenix-like rebirth from the flames!