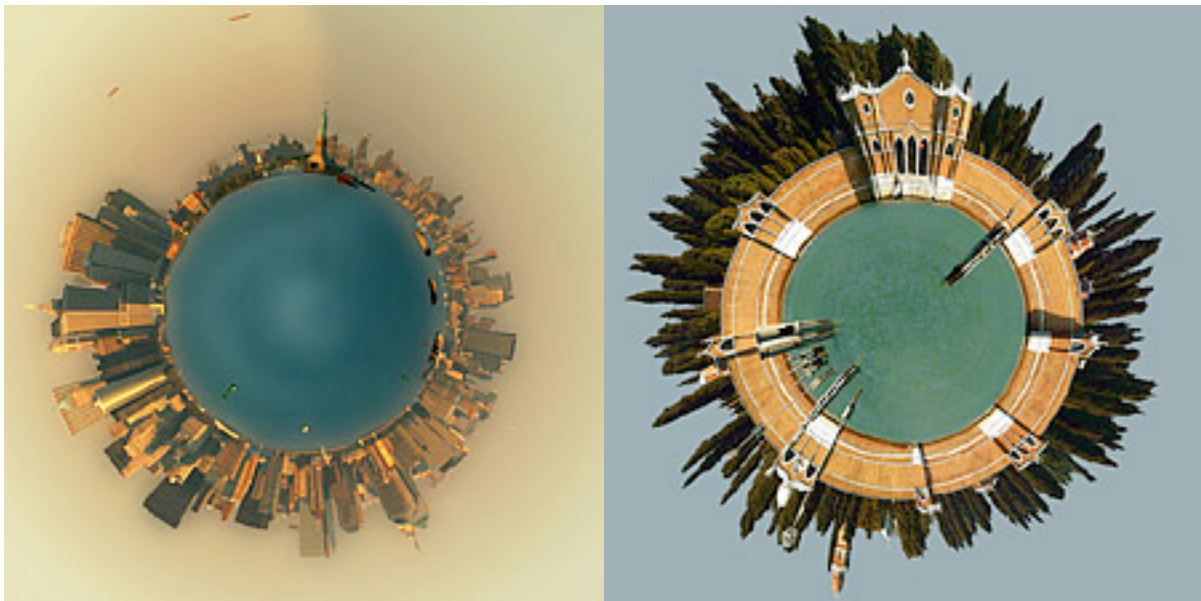


From the creative folks at [www.photojojo.com](http://www.photojojo.com)  
**How to Create Your Own Planets  
Using Your Panoramas**



*Two samples:*



Looks cool, and it's easy to do! Let's get started.

## **SELECTING A SOURCE PHOTO FOR YOUR PLANET**

When selecting a photo to start with you should keep the following things in mind:

- Panoramas or landscapes cropped to have an aspect ratio at least 2:1 (the width should be at least two times the height) work best. Wider photos are better.
- The bottom area (bottom 25% or so) of your photo should have very little detail (e.g. sand, asphalt, water). This area will become the center of your planet and will be distorted the most.
- The upper area (upper 25%) of your photo should also be light on detail— preferably just one color (e.g. blue sky, night sky etc.)
- The left and the right edges of your photo should match, or come close to matching, each other. (Always the case for a stitched 360 degree panorama.)
- The horizon must be exactly horizontal. Since the left and right edges of your photo will be joined, if they are at different heights your planet will have a big crack in the surface. (Again, a non-issue for a properly executed 360 degree panorama.)

We're going to go through two examples: the first uses a simple panorama, the second a landscape shot that we'll crop before going on.

## STARTING SIMPLE: PLANET SAN FRANCISCO

It's simplest to work with a 360 degree panorama, so let's start with this panorama shot of San Francisco taken from the Coit Tower:



### STEP 1: RESIZE AND ROTATE

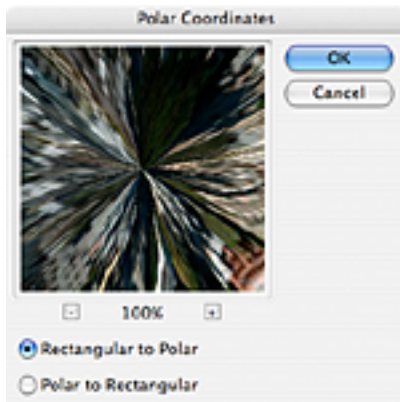


The first thing we need to do is prepare the image for the Polar filter. We do this by stretching the height of the image so that the image is a perfect square.

Select Image>Image Size from the menus. Uncheck 'Constrain Properties' and set the "height" to the same value as your "width". Next, rotate the image 180 degrees. (Image>Rotate Canvas>180)

You should end up with something like the image to the above.

## STEP 2: APPLY THE POLAR FILTER



Next, we'll apply the Polar Filter to wrap our image into a sphere.

Choose Filter > Distort > Polar Coordinates from the menus and in the resulting dialog box, select the "Rectangular to Polar" setting.

(If you're using The Gimp the command is Filters > Distorts > Polar Coords.)

As you can see we're 90% of the way there.



Easy cheesy, right? Now for some finishing touches...



### **STEP 3: ROTATE AND CLEAN UP**

The rest is just a little digital darkroom work: Rotate the planet to your liking, adjust the contrast and colors, clean up the sky and the edges where the left and right border of the image came together. (The clone stamp and healing brush may be handy here.) That's it, we're done!



## **MORE ADVANCED: PLANET VENICE**

Planets work best when created using panoramas, but for this second example we'll use the following landscape photo of San Giorgio Maggiore Island in Venice. Islands are especially well-suited for planetization because the left and right edges of the images are easy to match up—you only have to make sure the horizon is level.



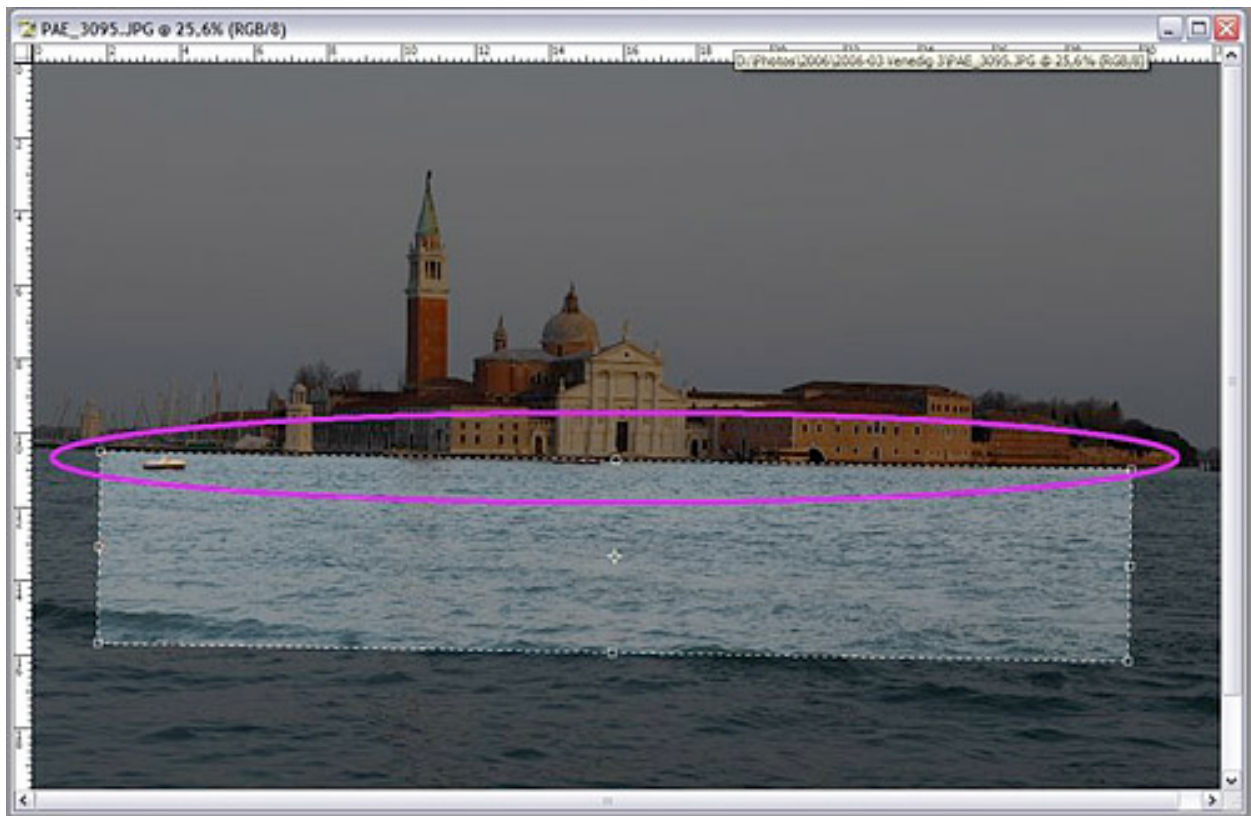
### **CROP AND STRAIGHTEN**

Because we're not starting with a 360 degree panorama, we'll need to do some extra work before we can follow the steps above.

First we've gotta crop and straighten the image to make the horizon absolutely horizontal. Using the cropping tool of PhotoShop we can do both in one step:

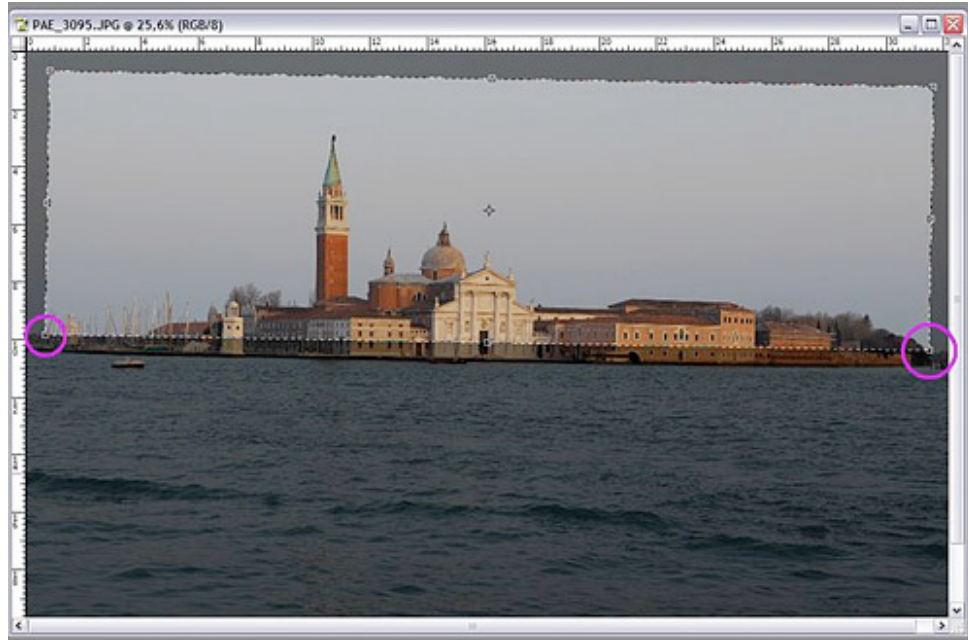
First, we must ensure that our crop selection is parallel to the horizon. Choose the crop tool and select a flat rectangular area of the photo. Move the cursor just outside of an edge of the selected area so that the cursor changes to two arrows pointing left and up. Click the mouse button and you can rotate the cropped area.

By moving the top border of your selection to the horizon of the photo you can inspect the rotation closely. Move and rotate the crop selection until the top border and your horizon are parallel, but don't crop your photo yet.

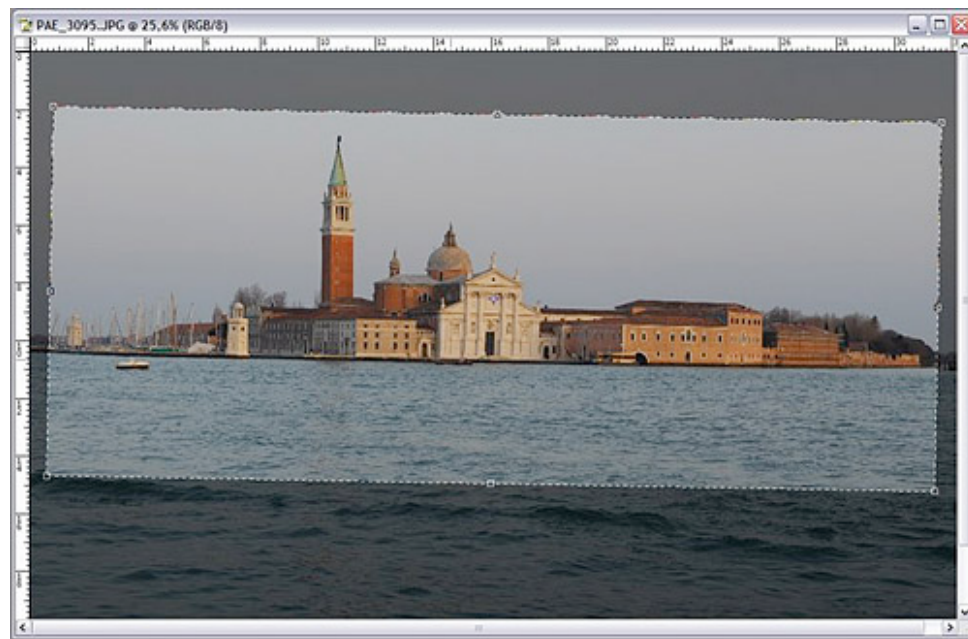




Now we want to make sure the left and the right borders of the image fit together. Look for areas on the right and the left where the buildings have the same height:



Move the right and left borders of your selection so that the edges will match up. Finally, adjust the top and bottom of your selection so your waterline is roughly in the middle of the cropped photo:





Double-click your image to commit the crop and you're ready for the transformation! Just follow steps 1-3 as in the example above.

Here's the final result:

