Real World Panoramas II

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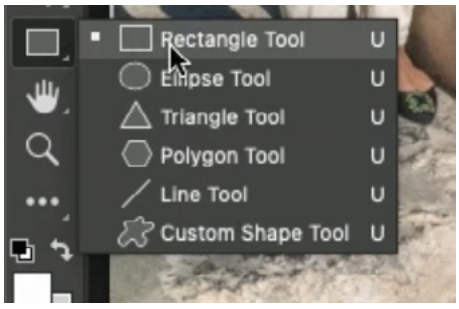
In a previous lesson, we started to cover some techniques for handling situations where things can go wrong during a panorama merge. If you have not seen that lesson, you can find it here:

Link

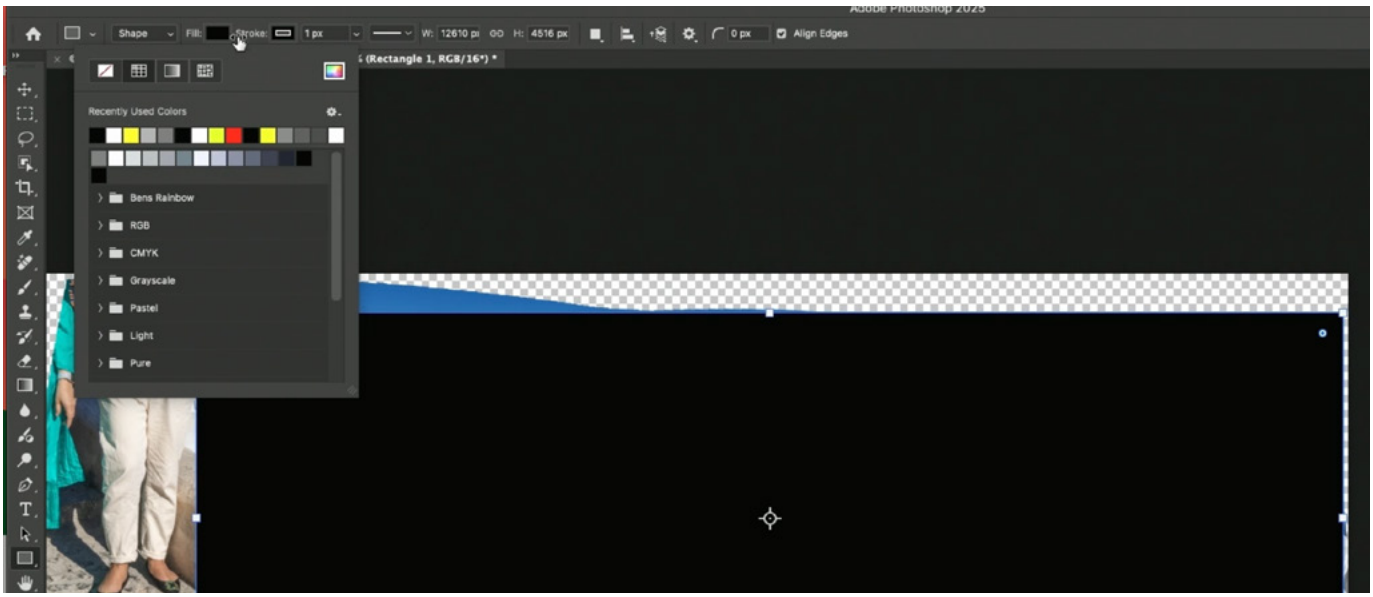
Define Final Cropping

For this set of fixes, we're going to start by defining what parts of the panorama we're actually going to keep. That way, we don't spent any extra time retouching or correcting areas that are eventually going to be discarded. You can see that there are some people cut off on the left and a random bag on the ground near the bottom. I don't want these things in my final panorama.

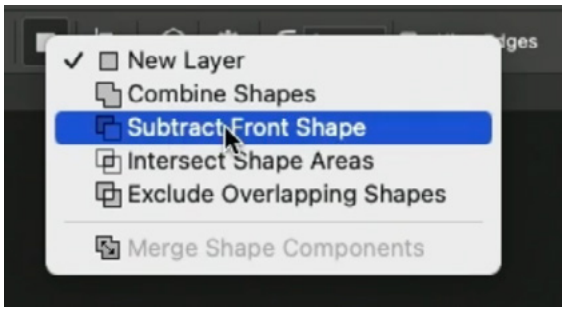
We'll use the Rectangular Shape Tool to define the frame of the final pano. When this tool is active, we'll make sure that the menu on the left side of the Options Bar (above the image window) is set to Shape. Then we'll drag out a rectangle over the part of the image we want to keep. While dragging out a shape like this, you can hold down the Space Bar to reposition the shape as a whole (without resizing).

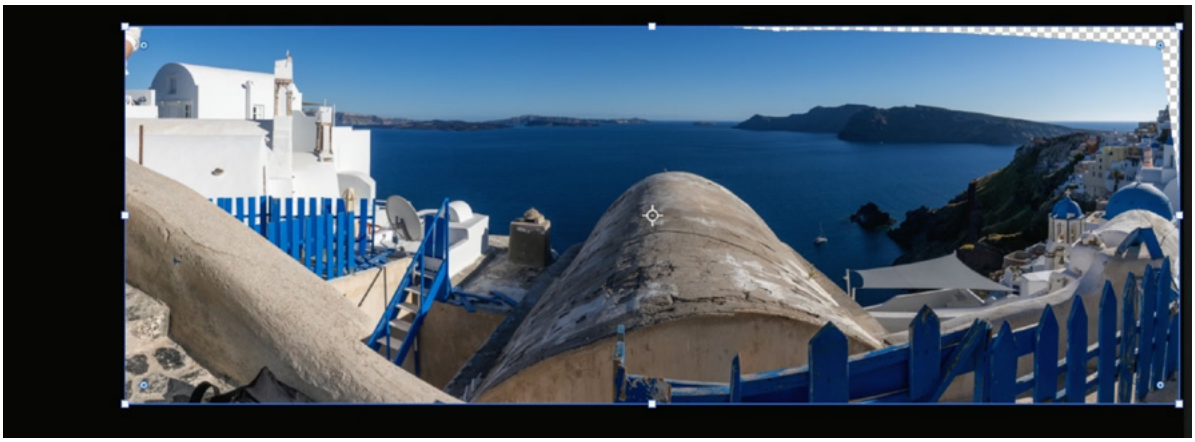


When we release the mouse button, the shape appears on the image and you can see the new Shape Layer in the Layers Panel. Some settings will appear for the Shape Layer in the Options Bar. I like to click on the Fill menu and set the fill color to black.



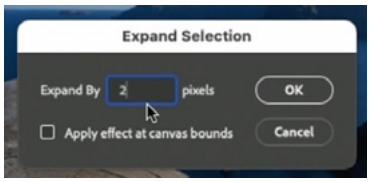
There is also a menu that defines the purpose of the shape. I'll click on that menu and choose Subtract Front Shape. This will invert the shape so it is essentially creating a hole. This way, we're only viewing the part of the pano that we're going to use in the end.





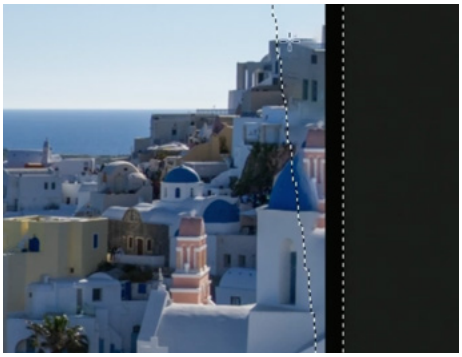
Fill Empty Areas (Timestamp 3:38)

We still have some empty/transparent areas around the edge of the pano so we're going to fill those. (Note that Photoshop's Panorama Merge dialog has a check box for filling empty areas. If you had that turned on, you may not have any areas that need to be filled.) We'll temporarily turn off the visibility for the crop layer and we'll activate the photo layer, which contains all of the individual pano frames in one Smart Object. We'll select the contents of the layer by holding down the Command key (Ctrl on Win) and clicking on the layer thumbnail. We actually want the opposite, so that only the empty areas are selected, so we'll click on the Select menu and choose Inverse. The area that we want to fill is now selected, but in order for Photoshop to better match the colors and content around the selection, we actually need a tiny amount of the picture to be included in the selection. To get that, we'll click on the Select menu and choose Modify > Expand. In the dialog, we'll tell it to expand by two pixels and then click OK.



Now we can use Content-Aware Fill to fill the selection, but the problem is that it won't work on a layer that's a Smart Object. We'll create a new, empty layer above the image layer so the content can be placed there instead. We'll click on the Edit menu and choose Content-Aware Fill. The Fill window will take over the interface, we'll leave the default settings and click the Apply button. Photoshop will attempt to fill in the selection based on the surrounding content.

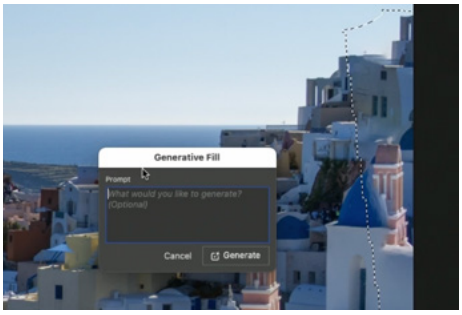
It's important to be critical of the results, but remember that much of the fill area will not be inside the crop. We'll turn on the visibility of the crop layer so that we can see how much of the filled area will actually be visible in the end. The sky area looks great, and it's only a small wedge on the right (where there are buildings) that we'll need to touch up.

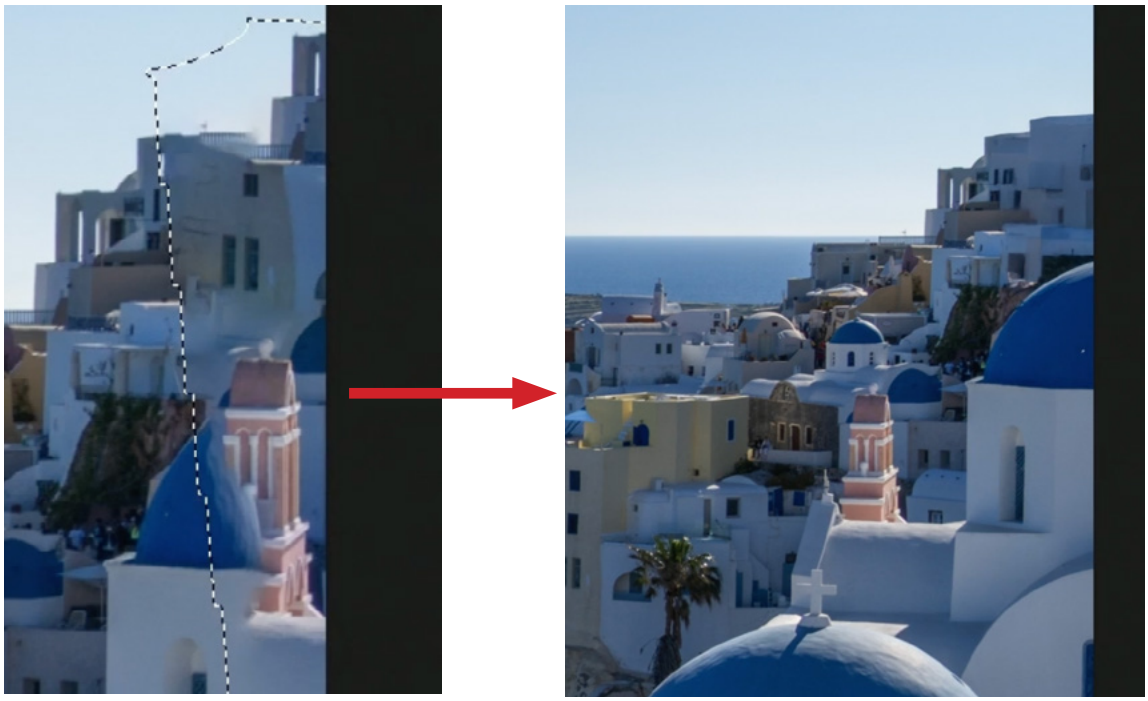


Retouch Fill Area (7:55)

To retouch the area on the right, we'll try to use Generative AL, but we don't want the sky in the selection. To remove an area from the selection, we activate the Lasso Tool, hold down the Option key (Alt on Win) and drag a shape around the area that we don't want selected. By holding that key down, we are deselecting instead of selecting.

We'll again turn off the visibility of the crop layer so it doesn't try to blend the area with that black frame. We'll click on the Edit menu and choose Generative Fill. The fill dialog will appear and since we'll just click the Generate button. For this area, it did a very good job of filling the area.



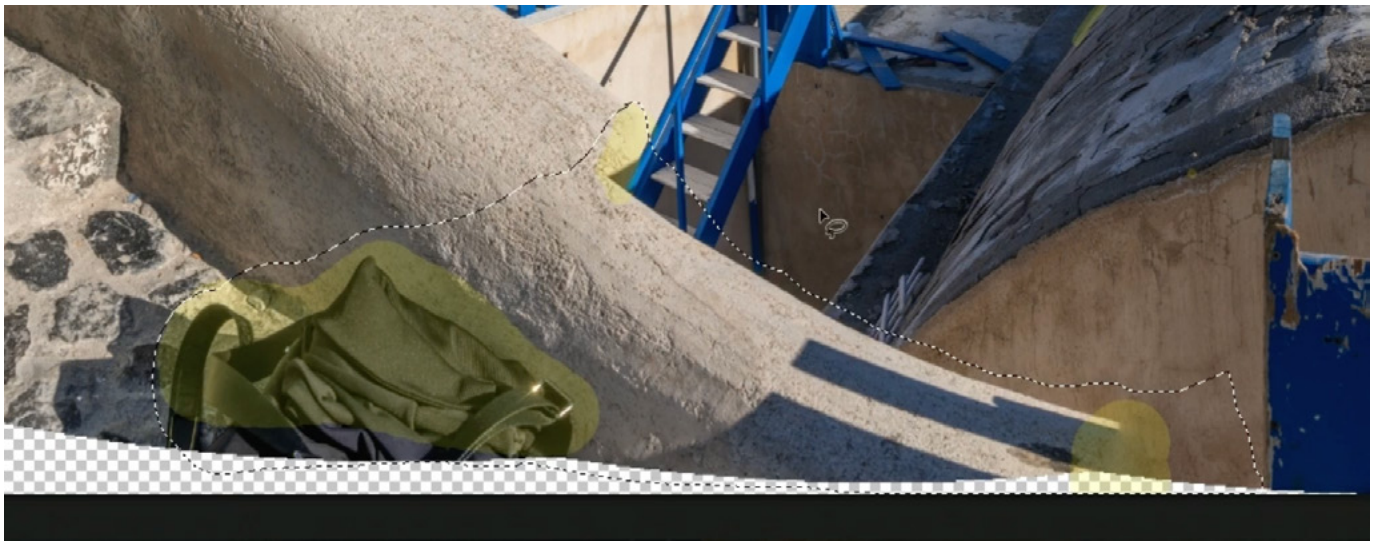


Individual Retouch Areas (12:02)

In the previous lesson, I had created a Solid Color layer that highlights areas that need to be retouched. It is used like a literal highlighter would be used on paper. This layer is contained within the Smart Object and is not currently visible. We'll double-click on the Smart Object thumbnail and the contents of the Smart Object will open in another window. Here, you can see the individual layers and we'll turn on the visibility for the Color Fill layer. In the lesson video, I had not highlighted the bag in the foreground or the arm on the left side of the frame, so I painted with white on the layer mask in those areas. This reveals the yellow color layer and therefore makes the highlight visible in those areas.

Now we can go in and retouch any areas that have the yellow highlight. We'll create a new empty layer on which to place the retouch work and we'll activate the Remove Tool. Since we're working on an empty layer, we'll make sure that the "Sample All Layers" check box is turned on (in the Options Bar). We'll turn off the highlight layer when applying the retouch work and then we'll paint over the individual areas that need to be retouched. For a panorama, this is commonly repeated elements that appear along the seams between the individual frames. For areas where there are lines that don't line up, we can also use the Clone Stamp Tool in order to have more control.

For areas that have larger problems, you can resort to using Generative AI. In the bottom of the frame, we have a concrete wall that is dramatically misaligned between frames. For Generative AI, we need to start with a selection, so we'll use the Lasso Tool to create a selection that includes that part of the concrete wall along with the bag we want to remove (since it's nearby). Then we'll click on the Edit menu and choose Generative Fill. In the dialog box, we'll leave the Prompt field empty and click the Generate button.

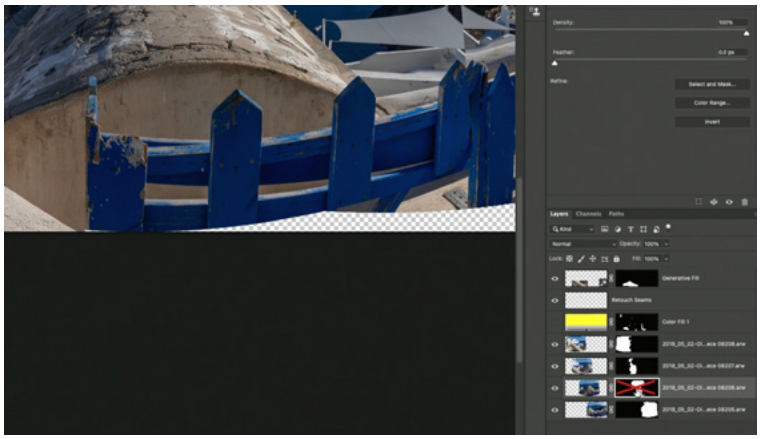


Photoshop will analyze the area and attempt to fill it. Whenever you use Generative AI, it generates three options, which you can click through in the Properties Panel on the right. In this instance, I think the second option did the best job.

Paint on Layer Masks to Correct Edge Areas (23:40)

Some problem areas can be corrected by adjusting the layer masks that are attached to the individual pano frames. In this example, we have one of the fence slats that is partially cut off, but it appears right along one of the seams between image layers. You can view an overlay of a layer's mask by making the mask active and then tapping the backslash key (\ ). By doing this, we can see that the slat appears right along a seam. This tells us that we can probably reveal the hidden part of the fence slap by painting on the layer mask.

You can temporarily turn off a layer mask by holding down the Shift key and clicking on the mask thumbnail. By doing that, we can see that the entirety of the fence slat is intact on that layer. Knowing this, we can reactivate the mask and then paint with white on the mask to reveal that hidden slat.



At this point, we're done working on the individual image layers, so we can save and close the Smart Object document. Back in the main document, the image will update to reflect the changes made to the individual layers.

Finally, I will save the image, close it in Photoshop and return to Lightroom, where we originally started. The last thing we'll do here is actually apply the cropping that we had defined using that black Shape Layer. We'll open the image in the Develop Module and use the Crop Tool to match the cropping defined by the black guide.