

Stairs à la Escher





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Steps toward the impossible

On a sultry day wandering the cobblestone streets of Trinidad, a provincial Cuban capital, I came across the ornate belfry of a building that had formerly been a church.

Now a museum dedicated to the Cuban Revolution, the tower was closed to visitors. I bribed a guard with a few pesos and was allowed to go up the rickety wooden stairs.

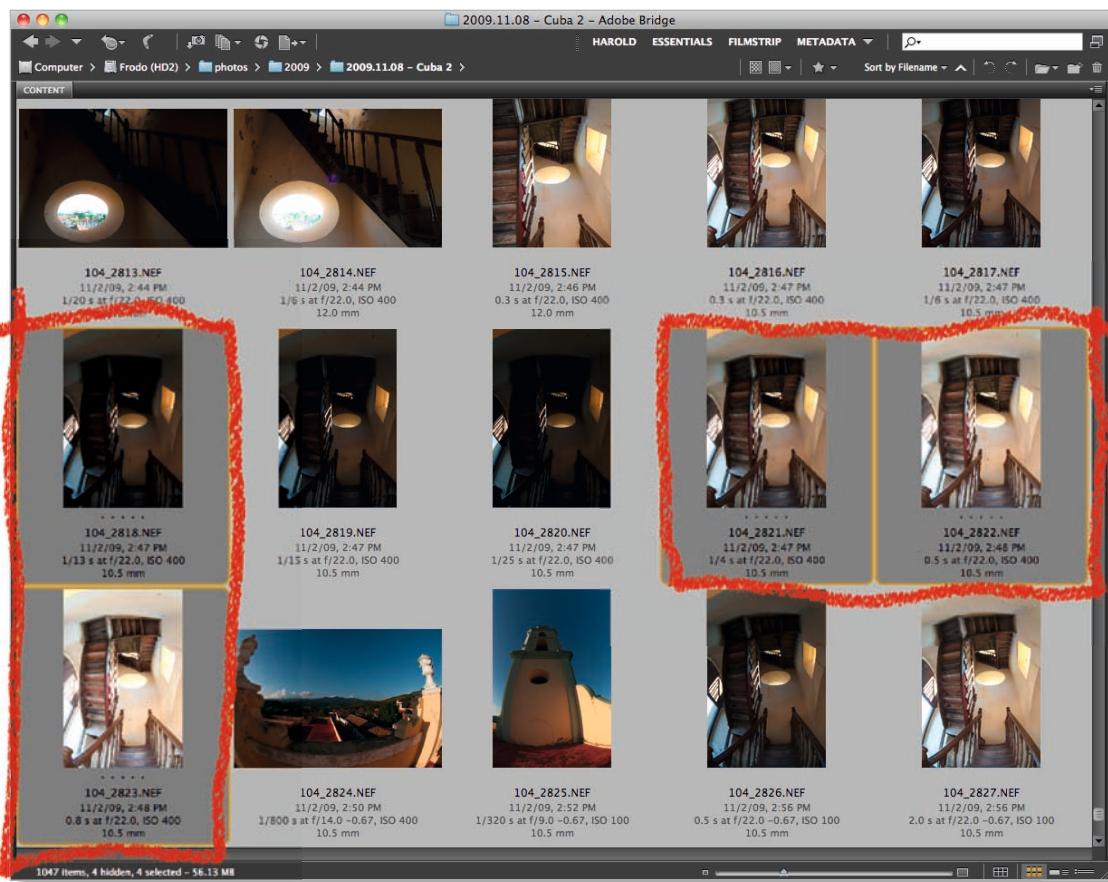
What most interested me was a view from underneath the stairs looking up as you can see in the sequence shown below in Adobe Bridge.

Since there was a great dynamic range contrast between the bright sunlight coming into the bell tower and the dark shadowed areas of the stairs, I shot eight exposures at shutter speeds ranging from $1/3$ of a second to $4/5$ of a second, a 20x range (each exposure

was shot at $f/22$ and ISO 400).

I used a 10.5mm digital fisheye lens to capture as much of the staircase as possible. Using a fisheye lens resulted in considerable distortion and curvature which I liked.

Four of the eight exposures were used in a Hand-HDR blend (see pages 108–121 for details about this technique). The results of this blend can be seen on page 164.



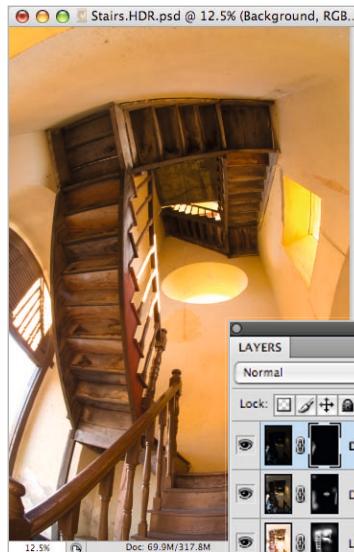
The Hand-HDR stairway

Looking at the results of my HDR composite, it became clear to me that the interesting part was not the foreground stairs with a hand rail. Rather it was the stairs further back that seemed to twist their way up into the bell tower. My goal was to exaggerate and emphasize the twisted nature of these stairs. By the way, if you look closely at the image, you will see that you are looking at the underneath of the stairs rather than the steps that anyone would walk on.

To create the twisted and unreal stairs shown on pages 160–161, I started with the “more real” image shown to the right:

- As I’ve mentioned, I used Hand-HDR to create an extended dynamic range version of the original image.
- Next, I cloned out the bottom part of the stairs with the railing that I wasn’t particularly interested in. This left me with a free-floating somewhat-twisted staircase in the air.
- Using the free-floating staircase as the base, I duplicated the image, copied it on top of itself, scaled the versions, skewed them, and cloned in portions as necessary to create the images shown on pages 160–161.

I needed 37 saved files, or checkpoints, for these operations with a total of approximately 425 layers spread out through the files. While it is impossible to show you each of these layers, I will show you the most important steps along the way.



1



2

This is the “Lightest” layer and layer mask



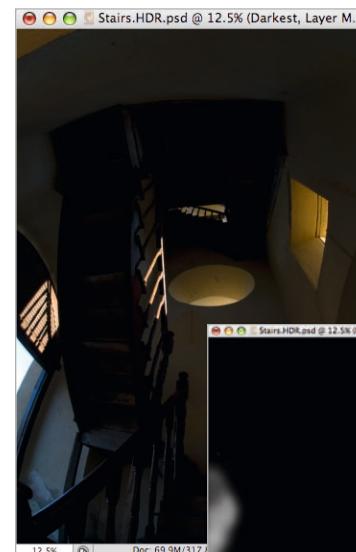
Here’s the “Background” layer

This is the layer stack for the Hand-HDR version



3

This is the “Darker” layer and layer mask



4

This is the “Darkest” layer and layer mask

Turn the page to see the finished Hand-HDR stair