On Pipe Photography Image-making

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Image-making is a big part of what I think makes A Passion for Pipes unique and meaningful. The images create a context for the stories and information that is presented. Over the years I've worked hard to gradually improve the quality of images that are here. I want your experience–and every reader's experience– to be as vivid and pleasurable as I can make it.

I haven't always had such great images. Early on, they were more than a little mediocre. Check out the photo of the Dunhill Prince below. I couldn't even get the white balance correct (the background should be white, not blue.) Thankfully, I've gotten encouragement, some good advice, and have had some great mentors over the years who have helped me improve.

Adjacent to it is a revised, properly-processed version of the same photo. Same image out of the camera; a very different experience for the viewer, however.

I've also invested heavily in lighting, equipment, hardware, and software to support image-making. A pipe maker needs a lathe. This blogger needs photo equipment.

If you've been a reader here awhile, you can instantly recognize my approach to image-making. I present images that are isolated in white, grounded in a shadow or a reflection. I came to this approach because I wanted the pipes presented to be easily seen and their shapes and details vivid and compelling.

Compare and contrast these two images of the same pipe: a John Crosby Roma. I shot the first image a number of years ago against a charcoal gray background. I used atmospheric lighting, but I had the aperture setting wrong. The aperture was set at 4.5, way too open to keep the entire pipe in focus. You can see that the pipe stem is really out of focus. Compare that image to the same angle, isolated against a white background with the aperture setting at 22. The entire pipe is sharply in focus. It's much easier to see and appreciate the pipe's details and shaping in the second image.

Images tell stories right alongside words. Good images are better storytellers than mediocre images. I don't kid myself that my images are the best out there, but I try to make them as good as I can. It takes time. It takes focus. It takes intention, but it brings me great joy.

It is a common misconception among many people that good photographs come out of the camera, and that a great photographer doesn't do any image processing – that it's all done in-camera.

That's bunk.

In my real job, I often hire first-rate commercial photographers, professionals who are paid far more than I am. They all post-process their images after the shoot or pay a professional image processor to do it for them, especially product photographers. That's essentially the sort of photography we do when we photograph pipes: product photography.

While there are some image types that can be made nearly perfect in-camera, most can't and most aren't. Some images take more time than others depending on the effect or look that is desired.

Before digital photography, people like Ansel Adams did their processing work in the darkroom. Adams' darkroom routines were so complex and took so long to get right that it sometimes took him weeks to get the effects and look he wanted. That's why his prints sell for astronomical sums. Each print represents weeks of strategy building and experimentation in the printing process to achieve Adams' vision. That same tinkering happens in digital photography. The tools, the processes, and the time taken are different.

I work for a contemporary, clean, and revealing look. My goal is to present the object with as much juice as possible. I want the image to represent all the beauty inherent in the pipe, absent distractions like dust spots, chromatic aberrations, noise, lens distortion, dirt, and other schmutz.

I shoot with a full-frame, digital single-lens reflex camera, a Canon 5D Mark II. The camera allows me to use interchangeable lenses. I shoot pipes with a 100mm macro lens which allows me to capture detail far beyond what the human eye can see.

This is both a good thing and a bad thing. I can capture extraordinary detail in smooth and sandblast grain. I can capture minute details like the grain in ivory or details in other decorative materials. Unfortunately, I also capture unwanted details like dust particles, fingerprints, and lint. These unwanted details are ugly distractions from the look of the pipe. They have to be edited out.

I have heard people say that using Photoshop or other image editors is tantamount to trying to make a pipe look better than it really is, as if the camera had a moral center or a conscience that the photographer does not.

An image is a reflection of camera settings. When one shoots in RAW format, one has all the digital information the camera captures. Working with a RAW processor, one essentially adjusts the camera settings after the shutter as opposed to before the shutter. So, using an image processor is akin to revising digital settings that could have been adjusted in-camera. That, and using some tools to clean the image up, ridding it of dust, lint, and dirt, etc.

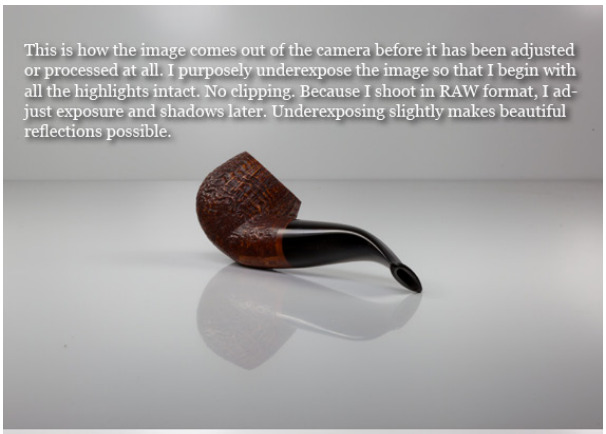
Of course, one certainly can use image editors to deceive, but that isn't my objective. My intention is to use them to remove things that shouldn't be there because they are distractions and to use the tools to reveal pipe traits that are very present in the pipe.

One doesn't have to have an expensive SLR to make their pipe photographs much, much better. A skilled software user can do a lot digitally with a mediocre image to make it shine. All that is required is to know what to do. In this tutorial, you'll learn several skills that will make it possible for you to take an average image and make it much, much better.

I can't begin to write every step necessary in this tutorial. I have to assume that someone who will make use of this information has at least an advanced beginner's grasp of Photoshop and also knows something about photography.

More than a few people have asked me for help to improve their pipe photography. I decided to make this tutorial post to try and give back some of the great coaching I've gotten over the years.

I hope it is helpful.



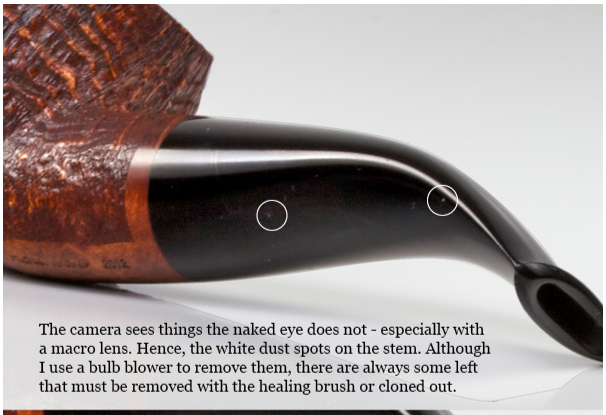
This is how the image comes out of the camera before it has been adjusted or processed at all. I purposely underexpose the image so that I begin with all the highlights intact. No clipping. Because I shoot in RAW format, I adjust exposure and shadows later. Underexposing slightly makes beautiful reflections possible.

Using Photoshop's pen tool, I create a clipping path around both the pipe and reflection so that I can select the area and paste it into a new layer.

I adjust exposure up, but only so far as to preserve the clarity and color saturation present in the pipe's reflection.

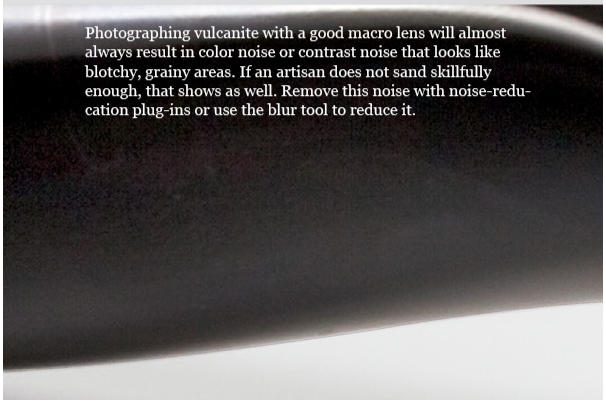
Carefully outline the contour of the sandblasted wood to preserve the character and shape of the sandblast contours.

Because I want the viewer to see the sandblast texture and grain at the base of the bowl, I adjust the shadow slider to brighten the shadow areas. This does not affect highlights.



The camera sees things the naked eye does not - especially with a macro lens. Hence, the white dust spots on the stem. Although I use a bulb blower to remove them, there are always some left that must be removed with the healing brush or cloned out.

There are also dust spots visible in the stem's reflection that must also be removed. Photoshop's cloning tool or healing brush will easily remove these spots, but it takes time.



Photographing vulcanite with a good macro lens will almost always result in color noise or contrast noise that looks like blotchy, grainy areas. If an artisan does not sand skillfully enough, that shows as well. Remove this noise with noise-reduction plug-ins or use the blur tool to reduce it.

When the pipe and reflection are completely enclosed in a clipping path (Notice the area between the pipe and reflection is also enclosed), use the copy and paste commands to place the pipe and reflection on a separate layer. You will want to work with the pipe and the background using different strategies.

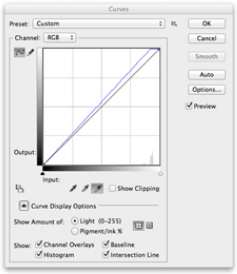
This pipe was photographed against a brightly lit, brilliant white background, but there is always tone in background unless one "blows it out" with rear-firing flashes. I find this strategy makes the highlights on the pipe clip, so I deal with editing the background in post-processing.

Even on a white background, there is color in the background tone. That color subtly interferes with focusing the viewer's eyes on the object. I remove the background color by desaturating the background completely. It makes the background essentially black and white. Remember, we have preserved the color in the background reflection by cutting and pasting it onto a different layer.

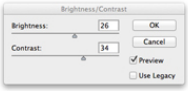
The pipe and reflection are isolated on their own layer, absent background. Notice that all the dust spots have been removed.

Erase or select and delete all the background areas that do not contain the pipe's shadows. Preserve the shadow area both outside the pipe and reflection area and between the pipe and reflection. The shadows help ground the image, keeping it from looking like it's floating in space.

Use Photoshop's curves tool to adjust the grays and whites still present in the background. By carefully using the white eyedropper sampler, you can preserve subtle shadow gradients that make the shadow edges disappear naturally, leaving the darker grays and blacks present in the shadow.



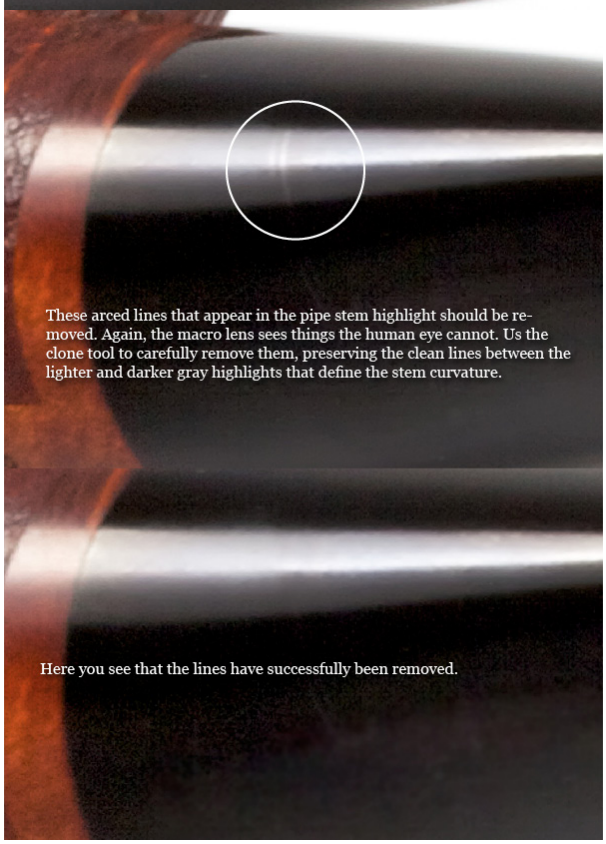
If the shadows need further adjustment, use the brightness and contrast slider to pull the shadows back and make the gradients from light to dark more subtle and natural. You want to focus the eye on the pipe and reflection, not on the shadow. The shadow is there to ground and contextualize the image.



This closeup of color and contrast noise in the vulcanite makes the blotchy, grainy quality obvious. Leaving it there is a distraction.

I use the paint brush tool in Quick Mask mode to paint the area that I want to select. Make sure the brush is in soft-edge mode so that the selection is feathered. You want a natural edge on your selection.

When the "marching ants" show up and your selection is live, use the blur tool or noise reduction tool to eliminate the blotchiness. Here you see the stem close up after I've removed the graininess in the image.



These arced lines that appear in the pipe stem highlight should be removed. Again, the macro lens sees things the human eye cannot. Us the clone tool to carefully remove them, preserving the clean lines between the lighter and darker gray highlights that define the stem curvature.

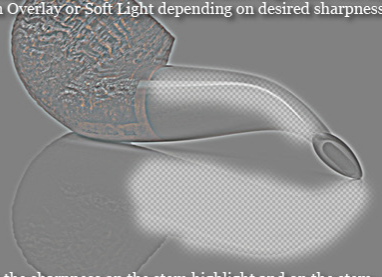
Here you see that the lines have successfully been removed.

I use the Viveza filter from Nik Efex to increase the structure and saturation of the reflection. I want the detail to be clear and vivid.

The sandblast detail Mike Lindner achieves is remarkable. To see it in a small web image, the mid-range contrast level must be increased. Here you see the photo before the adjustment is made...

...and here you see it after the adjustment is made. There is a subtle difference, but the detail really pops when the image is printed at high resolution or when the image size is reduced for web display.

Finally, I sharpen the image using Photoshop's high pass filter. The settings will vary depending on the resolution of your image.Take great care not to over-sharpen. To use the high pass filter, duplicate your background layer, then select High Pass Filter from Filters>Other>High Pass. The layer should be set on Overlay or Soft Light depending on desired sharpness.



Notice that I erase the sharpness on the stem highlight and on the stem reflection. I find that softer lines in the deep blacks look more natural and realistic. (Set the eraser at 50% opacity to get the right softness.)

Here we see the final image. The reflection is vivid; the pipe's grain is showcased; and there are no unsightly distractions from the beauty of the object.