

# Photographing 2-Dimensional Artwork

A lesson produced by [www.webphotoschool.com](http://www.webphotoschool.com)



Lighting and photographing two-dimensional objects such as framed paintings and prints so that they look professionally rendered can be considerably more challenging than in other types of photography. The challenges have mostly to do with lighting issues and camera perspective, but once you're aware of how to tackle the potential hazards of two-dimensional copy work, you'll be surprised at how easy it can be.

This lesson demonstrates what to do, and more importantly what not to do, when it comes to photographing two-dimensional artwork.

## Topics Covered:

- The limitations of built-in flash
- Controlling perspective with different lens settings
- The limitations of using household lighting
- Creating an even light source
- Balancing the light
- Creating 3-dimensional look to flat artwork
- Changing out artwork

## Equipment Used:

### Camera/Media

- Olympus E-20N digital camera
- Olympus USB dual slot media reader
- Olympus 128MB SmartMedia card
- Manfrotto Carbon Fiber tripod with a G1276 head
- Adobe Photoshop 6.0

### Lighting Equipment

- Photoflex Litestand 2214
- Photoflex Starlite Kit Medium

In this example, I mounted a framed watercolor painting to a white wall and made sure there was a little bit of room on either side to accommodate my lighting set up. I then mounted an Olympus E-20N digital camera to a tripod and raised it to where the lens was the same height as the center of the painting to prevent any linear distortion, or "keystoning", from occurring (figures 1 & 2).

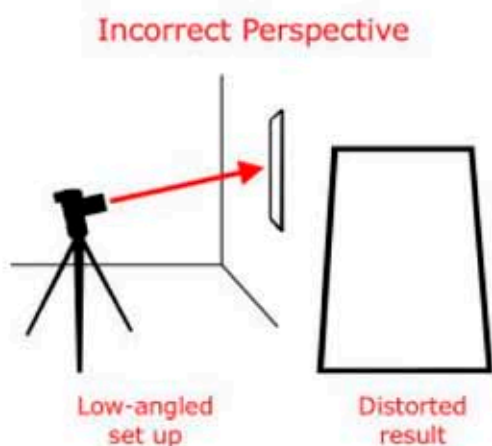


Figure 1

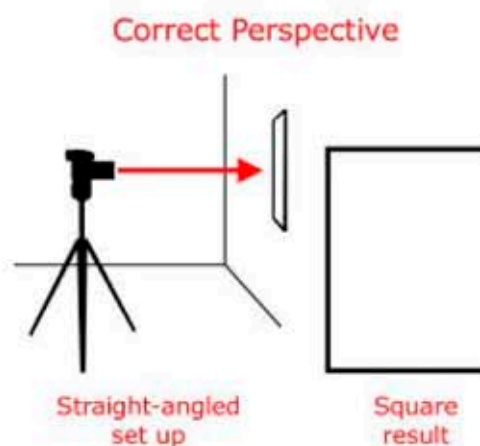


Figure 2

For comparison purposes, I decided to first demonstrate some common lighting techniques that you should try to avoid when photographing flat artwork. First, I started out by activating the built-in flash, setting the camera settings to Program mode (automatic) and taking a shot (figures 3 & 4).



Figure 3

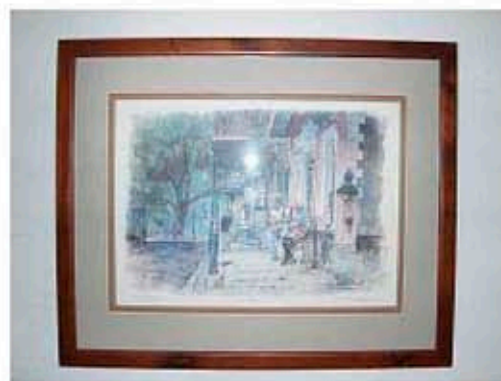


Figure 4

The result illustrates two common problems right away.

The first noticeable problem is the distorted shape of the frame. Because the close proximity of the camera to the painting required me to set the lens to a wide angle to capture the entire painting, the straight lines of the frame become curved. I'll demonstrate how to correct for perspective later on in the lesson.

The second problem has to do with the lighting. Since the only light source for this image is the built-in flash of the camera just above the camera lens, the light from the flash is reflected off the glass and back into the lens, creating a white reflection in the middle of the painting. And because the light is reflecting directly off the glass, the color saturation of the painting becomes washed out.

To eliminate the reflection, I disabled the built-in flash, set the White Balance in the camera to Tungsten to match the color temperature of a household lamp, and placed a desk lamp clamped to a LiteStand to the left of the painting in order to illuminate it from the side. I set the aperture to f/5.6, set the shutter speed to 1/5th of a second to render a good exposure, and took another shot (figures 5 and 6).



Figure 5



Figure 6

While the content of the painting is more clearly visible now that the flash has been disabled, the lighting is still not great. Notice the dramatic light fall-off from left to right? I could compensate for that somewhat by placing another desk lamp to the right of the painting, but that would only solve part of the problem. Since the light source is so small in size, it cannot evenly light the left side of the frame.

To solve this issue, I replaced the desk lamp with a [Photoflex Medium Starlite Kit](#). This lighting kit is comprised of a Tungsten lamp that bounces off the silver walls of a SilverDome soft box and through two layers of diffusion to create a soft, even light. And since the face of the SilverDome is 32 inches tall (8 inches taller than the height of the painting), the spread of light will therefore be even from the top of the frame to the bottom. Remember to match the size of your object - be it a painting or a person with the size of your soft box to render even lighting from top to bottom.

Since the Starlite Kit puts out much more light than the desk lamp, I adjusted the shutter speed to 1/30th of a second and took another shot (figures 7 & 8).



Figure 7

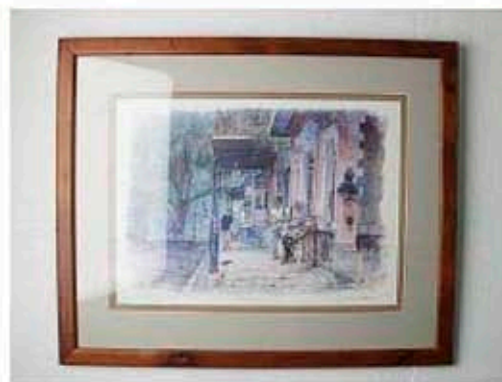


Figure 8

Now the light is much more even along the left side, but now the face of the Starlite Kit is positioned too far forward, as it is reflected in the glass. To fix this, I simply positioned the Starlite Kit further to the side, angled it close to 90-degrees of the painting, and took another shot (figures 9 & 10).



Figure 9



Figure 10

The result shows that the reflection is gone, and that the light along the left side of the painting is much more even. However, there is still some light fall-off from left to right. To balance this out, I simply set up another [Medium Starlite Kit](#), positioned it directly opposite the first Starlite Kit, and took another shot (figures 11 & 12).



Figure 11



Figure 12

The result shows a tremendous improvement in the lighting of this painting. The color saturation is full and the light falls evenly across the painting. If you look closely, you will notice that the top and bottom sections of the frame are slightly darker than the side sections, but for most people, this lighting is more than adequate.

(Note: if you wanted to be even more discerning with your lighting and have the tone all four sides be exactly the same, you could place another Starlite Kit on a Photoflex Boom above the painting and another one on a Photoflex Background Stand below at similar angles.)

Finally, I decided to correct the distortion that was occurring in the frame. As was mentioned before, the close proximity of the camera to the painting required me to set the lens to a wide angle to capture the entire painting, making the straight lines of the frame appear curved.

To correct this, I simply moved the camera back about ten feet and zoomed all the way in on the lens to fill the frame. Depending on the size of the object, linear distortion can be minimized, if not eliminated all together, when you shoot with a longer lens, or zoom lens setting.

I refocused the lens, and without any other changes to the camera settings, I took a final shot (figures 13 & 14).

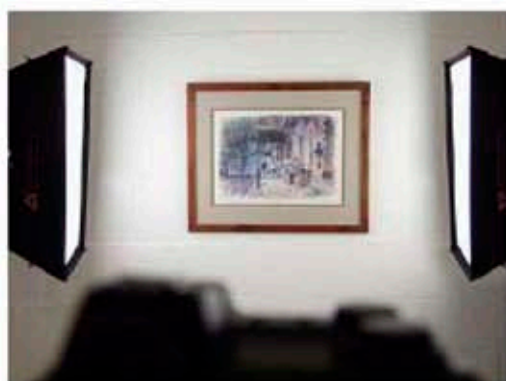


Figure 13



Figure 14

Now there is no distortion in the lines of the frame and the image is ready to be stored, printed or posted to a web page. Once you have taken the steps to light artwork professionally like this, you can then add some digital finishing touches to give it a more three-dimensional feel to it.

For example, after I downloaded these images from the SmartMedia card onto my computer, I opened up this final image in Photoshop, cropped out the background, duplicated the layer, increased the canvas size to create a white background, applied a drop shadow to the top layer of the painting, and then flattened the image (figure 15).



Figure 15

(For a more detailed look at how to create drop shadows, check out the lesson entitled "Drop Shadows Made Easy" located in the Digital section of WebPhotoSchool)

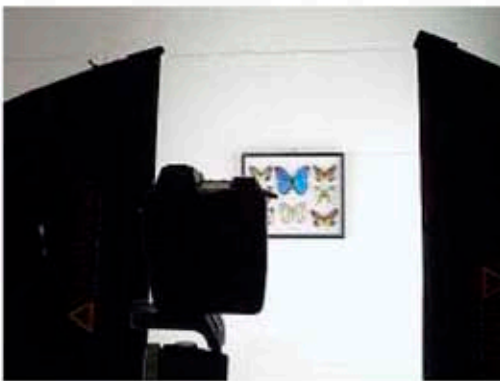


Figure 16

Keep in mind that once you have your lighting set up, you are then easily able to photograph many pieces of work in a relatively short amount of time. In this situation, I replaced the watercolor painting with this framed case of Malaysian butterflies and within a few minutes, I had another professionally lit shot of an otherwise difficult-to-photograph object (figures 16, 17 & 18).



Figure 17



Figure 18

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### Recommended Links

- To learn more about the cameras, go to [www.olympus.com](http://www.olympus.com)
- To learn more about Photoflex equipment, go to [www.photoflex.com](http://www.photoflex.com)
- For more tips and techniques on lighting and cameras, visit [www.webphotoschool.com](http://www.webphotoschool.com) and sign up for access to the Member Lessons.



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