

# Finding Middle Gray (and then some)

A Definitive Guide to Understanding  
Your Camera's Light Meter and Histograms

by john strazza

*If you can understand the concept of middle gray, then you are going to find using your camera - and photography in general - a whole lot easier.*

*Middle gray is THE centerpiece of photography, in terms of exposure, for color and black and white photography, digital or film. John Strazza*

## Forward

Ever since photography was made available to the consumer, camera companies have taken a “let us do it all for you” approach. It was their experience that the average consumer would not understand the foundation on which getting good exposures, and hopefully good pictures, was built. Middle Gray is that foundation. Without Middle Gray, everything falls apart, so to speak.

I believe that with a little time and study, anyone can understand this foundation and in turn begin to see how good exposures are achieved. I also believe it’s simple. I’m not surprised to find that pretty much anyone who has read this text has come back to me with something like, “you’re kidding, it’s that simple?” These are every day people like you, who have a camera, but still don’t get the results they want from it. Automatic exposure is a wonderful thing, but if you don’t know what’s going on behind it, you will never have control as you might like too. You may never know why your snowy scenes are very dark and your beach shots look so bad.

By reading this little book you will easily get acquainted with Middle Gray and begin to take more control over your photographs as far as exposure is concerned. With Middle Gray in your grasp you can concentrate on getting great photographs.

## **Table of Contents**

### **So, What is Middle Gray? 1**

Finding Middle Gray 3

Is there just one middle gray? 5

OK, so how does this metering thing work? 8

Metering Experiment 13

Metering (a detailed look) 21

Two basic ways to meter light 25

Reflective Metering 26

Incident Metering (my favorite) 31

### **And Then Some ... 37**

That Tool is the Histogram 38

Live Histograms (my other favorite) 46

Some Final Thoughts 53

# So, What is Middle Gray?

Simple. If you think of a photograph in terms of the lightest white to the deepest black, then middle gray would be in the middle of those two extremes in that photograph. Here is what's important to know—that your camera (or your camera's meter to be more precise) “sees” only middle gray. It wants to average all the light it reads in a scene and give you the most usable setting to get a “correct” exposure. This is THE premise of all the exposure modes, auto or manual, that your camera has. The premise being, to average the various light levels in a scene to determine the correct exposure setting so your photograph will not be too light or dark. Today's cameras meters do a fine job of it too, and they are becoming more complex every year, but the basic idea is the same; finding middle gray!

## Why does this matter to me?

Well, if you know how to find middle gray, you will start to have some control over what's going on in your camera and the outcome of your photographs. At the very least, it will aid in not getting overly light or dark images that leave you with unusable photographs. It will also help you understand why some of your images do not work

really sees when you point your camera at a scene and why it suggests a certain exposure setting. You should also know your meter can misinterpret a scene. The more you know about what and how your meter sees things, the more you'll be able to decide how to expose your photographs, especially in difficult or extreme light.



South Street Seaport, NYC

First, here is a photograph of the wall, gray card and computer case all together under one light source. I used an incident meter (explained later in this book) to read the light and it gave me a natural looking photograph. We have three very different objects and tones from almost white to almost black with the gray card right in the middle. All the tones look as they should here.



Let's move on to our white wall. Again, I used my camera meter and metered only the wall and nothing else. As you can see we have a photograph that looks quite gray and nothing like the white wall in our first photo. Our meter was faithful again and gave us a middle gray setting.



*White gallery wall*

## Metering (a detailed look)

Reading light. Measuring light. Light metering. No matter how you say it, this is THE part of the photographic process where most people either live or die (photographically speaking) and find success or failure (technically speaking).

Metering light is the art of measuring the brightness or intensity of light. You measure the light to decide what aperture and shutter speed to use for a good exposure, or at least for the exposure you want; even if that means an exposure that's not natural looking. It's your creative choice!

When you meter the light of a particular scene you are looking for a good sense of where middle gray is. You are also deciding what kind of image qualities might be important to you, like depth of field or how much you might want to freeze action or not freeze it.

For example, if your meter gives you a reading with a slow shutter speed and average f-stop, you may not want that slow shutter speed. If this is the case you can simply adjust your meter to a higher shutter speed and it will automatically give you the f-stop that works with that shutter speed.

you use it. Let's move on to my favorite metering method, Incident metering!

## Incident Metering (my favorite)

Before you go run off thinking that reflective center weighed or spot metering is the cat's meow, give ear to what I have to say next. In my opinion and experience it's not—incident light reading is! I'll tell you why and you can decide for yourself.

Incident metering is my favorite way to read light. The bad news is that cameras do not offer built-in incident type metering so it's usually only done with a handheld light meter. In fact this is where I think the handheld meter really shines. Incident light reading is so easy it's almost ridiculous.

You have all seen fashion magazines or movies, showing a fashion photographer holding a small meter, with a little white sphere on it, right up close to a super model's face. You have probably seen cinematographers and movie makers holding a similar meter up close to an actor's face. This is an incident light meter. It's the little white sphere on the meter that reads and interprets the light source as middle gray and will give you a very accurate exposure.

In closing this section I have to say that I use all styles of metering light. Center weighed, spot reflective type and Incident type. They all work and have their place. Now it's up to you to experiment with them and see what you like.



Hudson River from Hoboken

## And Then Some ...

In this section I am going to explain some of the newer methods of metering and exposure. This section applies mostly to digital camera users that have tools like the Histogram and Live View at their disposal. These tools are unique and they use middle gray to provide you with metering information that is completely amazing. I find myself using these more and more. I think you're going to like these additions to what we already know.

Don't misunderstand, middle gray is still the premise that digital camera meters are based on. It's just that other information is now provided that will help you gain the most control over your exposures.

Let's get started with one of the most helpful tools to come along since middle gray and through-the-lens metering!

This histogram below is from the photo I took of my black, gray and white objects in our metering experiment earlier. It's easy to see where in the graph each object is represented. Left side peak is the almost black object. The middle peak is our gray object and right side peak is our almost white object.



## Live Histograms (my other favorite)

Now for something fun. The Live View Histogram, in my thinking, changes everything. With it you can preview the exposure in the form of a histogram while looking at your scene before the shot is taken, not after. You can change your f-stop and shutter speed and watch the histogram change in real time, assuring that your photograph won't over or underexpose. This is a fantastic addition to metering.



Oddly, as I came to the close of this book I photographed a scene which was so gray that my histogram almost look like I metered a gray card. This photograph has been post processed to add some contrast believe it or not. Thanks for reading this little book. I hope you are on your way to mastering the photographic process.



I hope you enjoyed this little preview of Finding Middle Gray (and then some). I believe in my heart of hearts that this topic, Middle Gray, is the most important stepping stone to greater results from your camera gear, digital or film. John Strazza

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