

Basic Model Railroad Photography Clinic

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This clinic is supported by a slide show with images that demonstrate the ideas presented. It is in fact a clinic on basic photography as applied to photographing scale models.

Camera

A 35 mm single lens reflex is recommended for taking model photos
In this clinic I will use a Nikon D200 with an internal metering system.

Lens

Wide Angle 5 mm to 35 mm
Normal 45 mm to 55 mm
Telephoto 60 mm to 400 mm

I use an Auto Micro Nikor 35mm macro lens with a "X" tube

The "X" tube has no glass while a tele-converter has a lens that multiplies the focal length of the lens

Film

35mm Slide Film was the standard for color if you want to publish your color photos
Black and white is film may be used and prints sent in for publication
Digital imaging has all but replaced the use of film today.

Lighting

Daylight
Tungsten
Fluorescent
Electronic flash

Filters allow the use of one type of film with a different type of light while most Digital cameras allow for setting the type of light or automatic adjustments.

Types of light

Key light
Fill light
Hard light
Soft Light

Measuring the amount of light

In camera meter

Incident light meter

Spot meter

“The Meter is a Moron”

Bracketing: When in doubt take a few exposures $\frac{1}{2}$ f stop over and under and if you wish 1 stop over and under

Lighting the scene

Lighting ratios

1:9, 1:4, 1:3, 1:2, 1:1.5, 1:1

Focus

F- Stops

Full Stops

f-1.4, f-2, f-2.8, f-4, f-5.6, f-8, f-11, f-16, f-22, f-32, f-48, f-64, f-96

Note the difference in depth of field between the f stops underlined. The larger the f number the smaller the aperture and the greater the depth of field. Also the larger the f stop number the more light you need to get to the film to make the exposure. This may be done by adding light, or by allowing the light more time to expose the film. (Slower shutter speed) An alternative to more light is a higher speed film or pushing the film speed which will lead to grainier images.

Topics for review and discussion:

How much equipment do you really need? What are the advantages of a camera with manual control and interchangeable lenses?

Tripod or bean bag, can you support the camera during a long exposure?

Lighting should you use single or multiple lighting units, incandescent, strobe or daylight?

Depth of field, do you want to see the whole area or do you want to direct the attention to one small area?

How do you use your shutter speed and f-stop to control the depth of field? Just what does that mean?

How can you use exposure control to show motion or do you want to freeze the image?

What kind of composition will you use for a given photo?