

From Concept to Publication

Part 2: Photo Composition and Tips

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In last month's installment, we studied the basic mechanics of model photography. Let's now set the scene for composing a great photograph. Unlike many activities we may have photographed in the past, model photography allows us to control the environment by manipulating various elements such as subject placement, setting, and lighting. The first rule of good composition is simplicity — remove every distraction from the subject, including background objects, which may include the surface on which the model is photographed. After all, how many of us have seen that ubiquitous “snapshot” of a model sitting on a dining room table only to realize we're suddenly studying the grain of the table's woodwork?

Both Right: These two photos illustrate the most basic wrong and right of instructive photography. By creating a clean environment and removing all the distractions, we've made it easy to focus on the subject.



While we don't need to go to the lengths of a professional portrait studio, we can create our own makeshift studio using nothing more than a tabletop with an adjacent wall. We also don't need expensive portrait-style backdrops, nor would I recommend them — the “busy” weave throughout the fabric can be distracting at best. Instead, construct

Both Below: A simple studio can be made from several sheets of poster board or lengths of solid-colored fabric hung behind and placed on the tabletop, providing an inexpensive distraction-free environment.



Both Below: To understand how contrast relates to photo composition, we need only study these two photos of a caboose truck. In the first photo, the dark-colored truck blends into the background, while in the second photo, the truck stands out against the light-colored background.



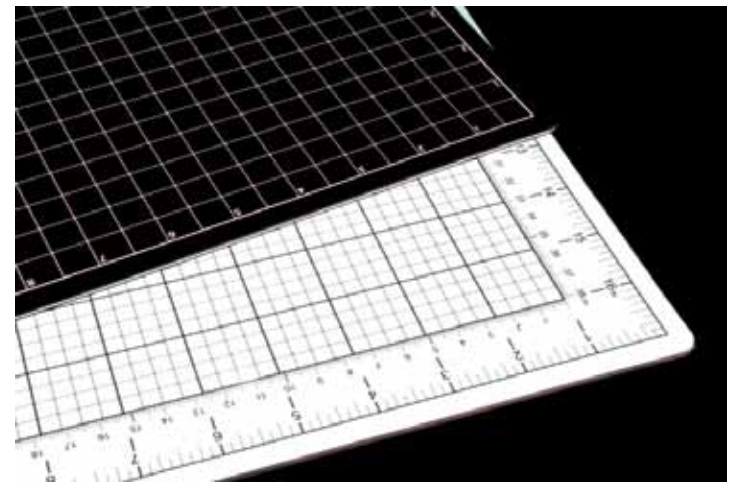
a basic studio from several sheets of poster board placed on the table top and hung from or stood up against the wall to form a clean surface and backdrop. Yet another option that enables a longer seamless backdrop is to use a solid-colored fabric that has a tight, plain weave such as cotton. Two pieces of matching remnant fabric have served as my “studio” for years. One remnant acts as a table cover and the other is a removable backdrop that hangs from the layout fascia, hiding the layout and shelving while projects are being photographed.

Let's now look at the second rule of composition: contrast. Our goal is for the subject to stand out against the background. I recommend keeping both a light and dark background on hand, using the one that contrasts with the item being photographed. For example, when photographing a project that uses light-colored styrene (e.g., white) use a dark-colored background (e.g., black) for maximum contrast. Contrast prevents the subject from blending into the background.

Finally, let's explore the most important component of the basic studio environment: lighting. While we can turn to costly lighting packages designed for semi-pro photographers, the same can often be accomplished using inexpensive clip-on style lights with incandescent bulbs or even small



Right: While semi-professional photography equipment provides one option for lighting, we can often achieve acceptable results by improvising with clip-on lights or construction-style light towers that are substantially cheaper.



Above: One easy way to provide contrast while simultaneously showing scale is to use light- and dark-colored cutting mats with inlaid gridlines, enabling quick changes from dark to light backgrounds.

portable lighting towers with halogen lighting commonly found in hardware stores.

Whatever lighting style you choose, there are several rules to follow. The first is safety — all lights put out heat and have the potential to warp plastic models. Lights also present a fire and burn hazard, so they should be kept a safe distance from any flammable materials, the model and your clothing included.

The second rule of lighting is not to aim it directly at the subject. You may recall during your last professional portrait studio visit that the photographer aimed the lighting away from you. Metallic-colored umbrellas then reflected this light back at you. This roundabout way of lighting a subject prevents harsh highlights and shadows referred to as “bleaching.” The “bleaching” process is similar to what we see when using a flash. One low-budget solution requiring no additional equipment is to “bounce” the light onto the subject by aiming it around or

above the model, allowing the light to reflect and provide basic overall lighting. Once the overall lighting has been established, it can then be tweaked to lighten dark areas and eliminate shadows by repositioning, adding additional lighting, or by directing light to a specific area on the model using a reflector made from white poster board or styrene sheet.

The third rule of lighting, and a requirement of layout photography, is to



Both Above: These two photos illustrate direct versus indirect lighting. In the photo on the top, the light was aimed directly at the boxcar, leaving a bleached effect. The photo on the bottom had the light bounced, making the lighting even without bleaching out the color or obscuring details.

Both Right: These photos illustrate good and bad shadows in the context of layout photography. In the first photo, the lights were aimed in different directions, creating unrealistic shadows on the boxcar and covered hopper. In the second photo, the lights were all faced into the scene at a 45-degree angle, creating realistic shadows and a visually appealing photo.



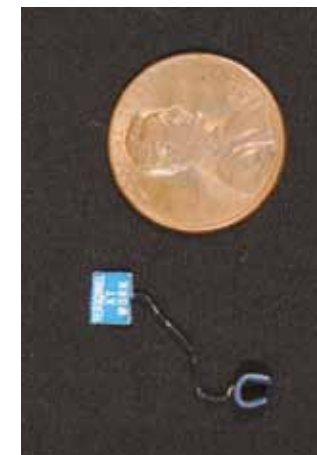
Below: A simple reflector can be made from a sheet of white styrene, then used to aim light into dark areas of a model such as the underframe and trucks.



try to keep all the lighting facing the same direction. In simple terms, lighting creates shadows, and we want all the shadows to face the same way. In instructional-style photography you will find times when cross lighting may be necessary, and in this instance the additional shadows will only provide a minor distraction. On the other hand, shadows facing multiple directions on a layout can immediately destroy the photo.

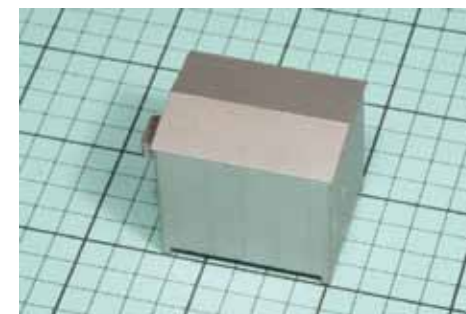
Lastly, remember that White Balance setting on the camera? Don't forget to match the camera setting to the temperature of your lighting to avoid viewing the world in red and blue!

Now that we have mastered the camera and have our homemade studio, how do we plan and set up each photo? Last month, I raised the question of who our target audience would be. Keeping that audience in mind now, we can begin documenting each step of the project, creating a pictorial in which the photos tell the story.



Above: This photo of aftermarket details combines both the roof and hood into one photograph by raising the camera slightly then shooting downward at an angle.

Right, Above and Corner: Another method for increasing clarity is to show size by placing the work alongside a scale or standard ruler, a cutting mat with printed grid work, or a common object of a known size such as a penny or dime.



Above: A pointer can help direct the viewer to a specific item within a busy photograph, such as the antenna on the roof of this genset.

Both Left: One of the best methods for increasing clarity is to simplify the photo by including only the area being discussed. In the context of describing the pilot details of this locomotive, the photo on the bottom provides a better view of the subject because zooming in removed the clutter — the portion of the locomotive not being discussed.



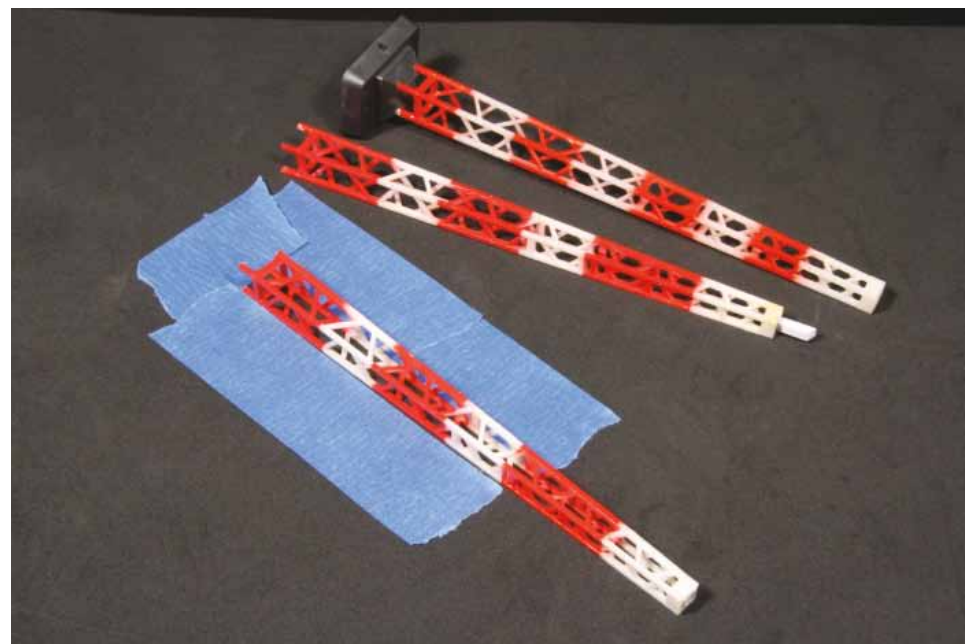
While setting up each photo, we must first approach the photography (and subsequent text of an article) as if your audience has no knowledge of the subject. While it's easy for us to assume that everyone has the same modeling aptitude and subject familiarity that we do, our hobby is wide ranging, both in interests and skill levels. This means we must document each step in order (including disassembly when necessary), without eliminating steps or jumping around assuming the reader will be able to fill in the voids.

Second, we must understand how to maintain a balance between documenting each step and creating a reasonable number of photographs. Even a simple project can generate dozens of photographs. An effective method for reducing the number of photos is to combine multiple simple steps

Right: One of the most invaluable tools a model photographer can have is a simple third-hand device that can be used to hold tools, pointers, or even model parts while taking a photo.



Below: One method to show comparison is to take before and after pictures by placing two models side by side.



into a single photograph whenever possible. For example, a piece on diesel detailing can use one photo to show all the details applied to an area of the model, rather than using an individual photo for each detail.

The third concept of how-to composition is clarity. One method to increase clarity is to zoom into the area you are refer-

ring to, removing as much of the remaining model from the photo as possible. A second method is to show size by placing either a ruler or a common object of a known size such as a penny against or adjacent to the work being photographed. A third method is to use a "pointer" — a sharpened pencil tip, painted toothpick, or thin rod held against the model to direct the viewer to an exact location or part.

One aid I have found invaluable for model photography is an inexpensive "third hand tool" purchased at a discount hardware store. Consisting of a base with a rod arm and alligator clips, this device is excellent for holding all sorts of photo props such as pointers, hobby screwdrivers, and X-ACTO knives, none of which can be held by hand during the long exposure times required in model photography.

Finally, another method especially useful for kitbashing projects to increase clarity is through comparison. Whenever possible (and practical), I try to obtain a second model that will remain unaltered. This allows me to show the before and after, placing the models side by side in the same photograph. Even without a second model, we can still create before and after images. However, this requires setting up the same shot twice with the exact same positioning. While this may sound impossible, once the before photo has been taken, mark the location of the model's edges with blue painter's tape. It can now be removed and returned to the exact location using the tape as guidelines that are easily peeled away prior to taking the after photo.

Keeping these ideas in mind we can now set up our shots and start making our photographs using bracketing — a requirement for publication work and an overall good idea due to the variances within camera electronics. Have you ever viewed a photo that looked fantastic on the camera's LCD screen but once it was downloaded, it was too dark or too light? Bracketing is simply taking the same photo multiple times, each with a different exposure time, insuring we are left with a quality usable photo.

Many digital cameras offer bracketing as a built-in option, automatically creating one exposure on each side of the light meter's zero mark; however, my personal rec-

Below: When a second model is not available, we can still create before and after photos with the same model; however, each photo group must be identically composed. Marking the edges or outline of the model with tape will allow the model to be removed and returned to the same location.



Three Left: This group of three photos illustrates the concept of bracketing. The first photo is underexposed, the second photo is properly exposed, and the third photo is overexposed. By using the bracketing method, we are generally assured of at least one usable photo.

ommendation is to manually bracket your photos. I prefer to create no less than three each of the positive and negative sides of the zero mark, which has always assured me a usable photograph — even in the oddest of conditions. Simply find the light meter's zero setting, then decrease the exposure time by several settings and take the first photo. Now just increase the exposure time by one setting for each subsequent photo until the series has been completed.

By now I imagine you may be saying "that's a lot to take in." Well, I can offer one more tip that will greatly simplify putting the final product together once all the photos have been taken: photo cards. We've all sat down and looked through an album or online gallery trying to remember a location or person in a photo to no avail. Constructing a how-to piece can present that same issue, except this time instead of names and places, its specific steps, drill bit sizes, and parts complete with part numbers. One easy way to remember the idea behind each photo is to write a brief description of the step you are showing along with the part numbers and any relevant tools used (such as No. 73 bit) on an index card, then photograph the index card with the model as a reference to that specific step. This will leave you with a progressive record and parts list that can be used to develop the corresponding article's text.

So let's once again pause, this time to try several of the techniques I've described. Consider documenting a simple project such as mounting a Kadee coupler while experimenting with composition and lighting, then save your work for our final installment: how to assemble the article. 📷



Above: Steps, tools, and part numbers written on index cards can be photographed next to the model, providing a record of the project that can be used to develop the text.