



# SHADOW BOX LAYOUT DESIGN

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PHOTOS BY THE AUTHOR

**I**F YOU HAVE been to a museum and seen a display in a shadow box you may have noticed how you tend to look only at what the builder wants you to see. You even may spend time looking at it more closely than you do a larger display and notice details you otherwise might have missed. Those are some advantages of shadow box displays. So I want to explain how to adapt that concept to a layout.

Even if the idea initially seems to have little appeal I urge you to read more before you make up your mind.

Many years ago I read an article about building shadow boxes and ever since have thought they have distinct advantages over typical layout construction. After all, we

already build valances and hang curtains to frame a layout. A shadow box merely takes that idea one step farther.

Besides, most of us never will have the space or time to build a huge layout. Using the shadow box approach may be an excellent compromise because you could build several different scenes in an area large enough for only a small layout. Yet, over decades in model railroading, I never had seen a true shadow box model railroad until recently, while visiting family and friends in Southern California, I saw Jeff McKee's new layout.

My friend, Jeff, is building an On3 layout in his garage depicting the D&RGW. Garage layouts are common in Southern California because few people have basements or spare rooms.

## Overcoming Problems

Jeff's layout is in the early stages of construction but a couple of scenes are complete enough to show what he wants to achieve. The finished layout will comprise six individual scenes, each in its own shadow box and each independent of the adjacent scene. Hidden track or a detailed scene such as Jeff's corner trestle will connect them.

If you look closely at the photos of Jeff's two nearly complete shadow boxes on the this page you will notice the trestle scene



in the corner has tan-gray rock while that in the adjacent scene is reddish brown. Jeff explains the two scenes represent areas miles apart. The use of shadow boxes makes that credible. It would be unacceptable with a traditional layout approach.

The shadow box approach also helped Jeff minimize the negative effect of a water heater, something very difficult to hide with typical

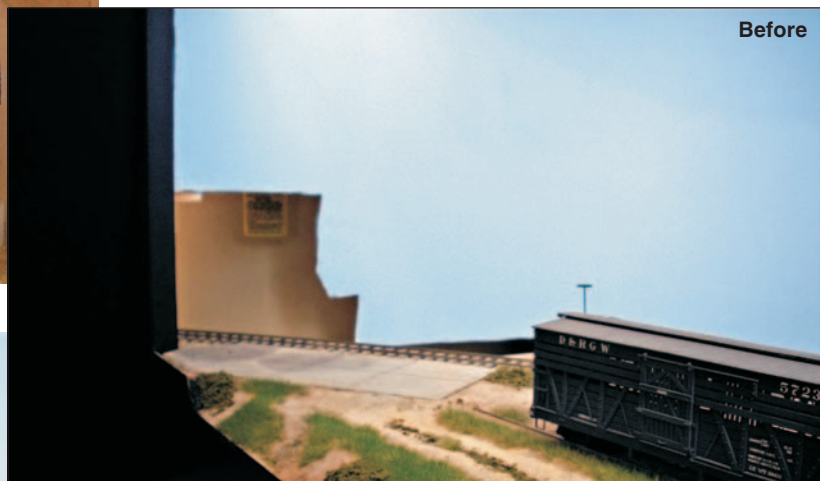


layout construction. As the photos on the lower half of this page illustrate, Jeff was able to build around the appliance (without losing access for maintenance) by locating a length of hidden track between the corners of two shadow boxes.

How do you disguise the opening between shadow boxes? One way is the ubiquitous tunnel. But in the case of a scene with some kind of settlement you could use structures instead. Jeff built a small tank farm to block the opening.

### Construction Suggestions

The basics for constructing a shadow box are the same as those for building a modular layout. You still need a frame, sub-roadbed, track, structures, and scenery. The difference is that each shadow box is an individual scene



independent of the next so, after you have built the basic benchwork, you must add sides, a back, and a top to complete the box. I suggest using 1/2-inch thick plywood for those components. 1/8-inch thick Masonite works well for the fascia and valance. Since the valance attaches to the front edge of the top, even a long section should have no sag. For extra support behind the valance you could add small metal angles.

The scene with the red rock is the longest on Jeff's layout; it measures 12 feet long by 2 feet deep by 27 inches high. The 27 inch height includes the framing and valance. The actual top-to-bottom viewing window is 16 inches and it works well. You could, of course, build in more height but anything greater than about 24 inches might destroy the shadow box effect. A scene could be as shallow as a few inches or as deep as three feet. Anything deeper could make access a problem. Essentially, within reason, size is of no consequence.

A shadow box offers unique opportunities for



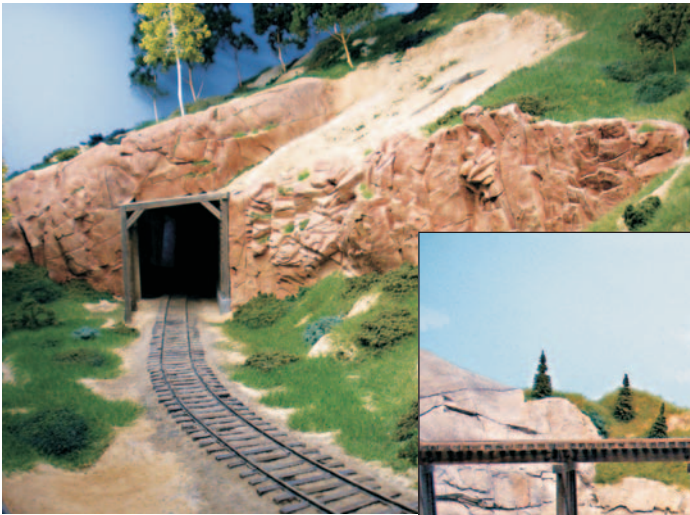
shadow box design could be free form. Thin plywood construction allows the freedom to create virtually any shape. Also a shadow box may be double sided to contain more than one scene as is common on traditional layout peninsulas. Finally, each shadow box is a section in itself so it becomes easier to disassemble a layout should you have to move it. And you may reassemble the sections in any

lighting. That subject is beyond the scope of this article but I will mention that some rope lights have very white LEDs and provide even illumination. You may use a dimmer to control them, an important factor in shadow box design.

The lighting between units may differ as may the season you represent. One section may present a bright, sunny summer day and another the gloomy overcast of winter. A dimmer helps to produce such effects.

While Jeff built his shadow boxes as rectangles, the front edge or entire





installation and removal easy.

A shadow box layout may be unsuitable for some hobbyists. But, if the focus of your layout is to show off detailed models, to display a variety of scenes, or to allow portability, shadow box construction might be the answer.

order you want. That kind of flexibility is unique to shadow boxes.

Dust and dirt plague every layout. Since each shadow box is self-contained it offers more dust control options than most other layout designs. For example Jeff's layout will have plastic covers; Velcro will secure them when the railroad is not in use. The shadow box design makes

