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# Young age, hard lesson

As with many of you, the model railroad bug bit me hard when I was in high school. There wasn't an aspect of the hobby or prototype railroading that didn't fascinate me. It was the golden age of publications, and I'd spend hours poring through *Model Railroader*, *Railroad Model Craftsman*, and other hobby magazines.

Hard lessons are often the ones we remember most, and I was fortunate to get my first one early. During my junior year of high school my dad approached me and said, "We really aren't using much of the basement. You can have half of it for your model railroad. I also have some extra lumber you can use for the benchwork." We're talking about half of 800 square feet. (Spoiler alert, there's a phrase for this situation, it's called "having enough rope to hang yourself.")

I jumped in full force. I had limited skills and absolutely no defined scope for the project, but I wanted it all! What could go wrong? By the end of the first weekend I had a relatively massive spaghetti bowl of a track plan whipped up. I wanted this to be a top-flight effort, so of course I wanted mostly handlaid track. The fact that I hadn't ever touched a spike didn't deter me—off I went.

The benchwork went up quickly, crude but functional. Next was the track. Several weekends were spent attempting to handlay about a foot of track. One foot down and only 150 more to go! Weeks went by without getting remotely close to being able to run a train. Slowly the magnitude of

what I had bitten off came home to roost. Progress ground to a halt and eventually the entire venture collapsed. The only factor that provided even the slightest tap on the brakes was that I had very little money to dig an even bigger hole for myself.

I've now been a model railroader for more than 40 years. The poorly planned venture of my high school years was certainly not my last case of less-than-perfect planning. Over the years I'm sure I've made every design mistake discussed in this book and then some. My hope is to pass on some of those hard-learned lessons so you don't have to repeat them.

By profession I'm both a full-time layout designer and a custom layout builder. It's an occupation that gives me a unique perspective of working with a lot of people with varying hobby experience, giving me a real-world understanding of where model railroaders struggle and get hung up during the design process. As a builder, I'm acutely aware that, "what I draw I, and I alone, must build." That position emphasizes the importance that a design be grounded in reality, not fantasy, and ultimately be "buildable."

## Applying lessons

I now see the same oncoming headlight when working with other modelers and clients, especially those just entering the hobby. They have, as I had, a lot of pent-up enthusiasm. Many have just retired and have been waiting a lifetime to start their layouts—often having built dozens of structures and other models over the years

while waiting for their dream layout. Adding fuel to the fire, many also have money and a *lot* of space. That sounds fantastic, but left unchecked, it can be a recipe for disaster.

The missing elements? Self-awareness as it relates to their true interests and what they want to get from the hobby, along with a lack of a defined strategy and not having a well-defined project scope. There is often no reality check—there's a lack of recognition that beginners have beginner-level skills and a lack of understanding of how long different construction tasks take. They don't yet have an awareness of where the design and construction landmines and pitfalls are. In short, the beginner is handicapped by not having made enough mistakes. This can all lead to a really rough entry into the hobby. As I write this book, a big part of me is still that 16-year-old trying to pass on those hard-learned lessons of my youth.

## Planning vs. design

A primary goal of this book is to differentiate between planning and design—they aren't the same. Planning is an overarching strategy. It's more important and needs to come first. The design is the resulting roadmap for executing the strategy. Not understanding the difference greatly reduces your chances of success.

I'm very sympathetic to the desire to jump right into the X's and O's of drawing sketches and track plans. Taking that shortcut, however, puts you at a very high risk of "correctly drawing the wrong layout." That is, getting a





## CHAPTER ONE

# Defining a “good” layout design

### Planning a model railroad is far more than developing a track plan

**My CSX Miami, Fla., East Rail HO layout benefited from having much more clearly defined goals than my previous modeling ventures. I learned from my past mistakes in all facets of the design, with thorough planning from track plan to scenery and structure details.**

Before we start to design a model railroad, we need to know the end game—what we’re aiming for, **1**. That target, with apologies for such a generic term, is a “good” layout or model railroad design. But what is “good”? Our success, ultimately, is in how we define it.





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**This Christmas 1968 scene of Washington's Union Station is as compelling as they come. It's also very complex, with lots of intricate trackwork and overhead wire for electric operations. Choosing to model something like this should be entered into with one's eyes wide open.**

*Paul Dolkos*

dreams. Sometimes such ambitious projects never get to the point where trains can run, let alone having any finished scenes.

### **Maintenance and progress**

Modelers often grossly underestimate layout maintenance. Layouts—especially large ones—are complex machines with many moving parts. Components wear out and fail, and dust accumulates on rails, structures, and scenery. Lumber expands, contracts, and shifts, and along with that the track above, creating kinks and other issues that need to be adjusted. Scenery colors fade and water effects become dull. You must ask yourself if you truly understand what will be involved in maintaining your project (assuming you even get it built).

Also, in order to maintain enthusiasm, you need to see progress, to see a portion of your vision come together. How long are you prepared to wait for this? Track is one thing; ballast, scenery, and structures are another. It may take an experienced



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**The complex trackwork at St. Louis Union Depot would make an impressive model scene. It would also require a tremendous amount of space and take a lot of time (and skill) to build. Here a Gulf, Mobile & Ohio train backs into its track at the train shed in 1950.** *Don Sims*



