





Master layout of a MASTER BUILDER

Michael Hart climbs his O gauge Everest

by Roger Carp | photos by William Zuback

ONE OF THE MOST notable changes in the toy train hobby over the past 10 to 15 years has been the emergence of businesses that design and build layouts. Companies under the direction of an imaginative leader oversee construction of O and S gauge railroads for individuals as well as museums and other public institutions.

Some of the finest layouts created by Dunham Studios, East Coast Enterprises, Layout Design & Construction, Layouts by Cardiff, and Model Railroad Custom Benchwork have graced the pages of *CLASSIC TOY TRAINS* in recent years. Count Scale Model Technologies, Arts & Trains, known better by its acronym SMARTT, among the most creative.

This firm, the brainchild of Michael Hart, has handled work on many great layouts and has conquered all challenges, but one look at the accompanying

photographs will tell you why he considers this O gauge layout his Mount Everest.

Guidelines to start

Every builder I've talked with over the years – Don Danuser, Clarke Dunham, Vernon Peachey, Rich Roman, Naim Shah, and others – has said that he begins with what the owner of the layout wants to achieve. No matter the size of the layout, whether 50 square feet or 5,000, it is essential for everyone involved to understand its purpose.

◀ **1.** Two freight trains slice through the dense vegetation and rugged limestone cliffs on Ralph Muller's mind-blowing 22- by 54-foot O gauge layout that was built by Michael Hart. The yellow-and-green Lionel no. 18218 Susquehanna Dash 8-40B bursting out of the tunnel blends into the autumn landscape. Note that the placement of the many trees as well as the small, vault-like structure in the foreground prevent you from noticing that the two tracks are nearly on top of each other.



▲ 2. Modeling the forested mountains of the eastern United States is a specialty of Michael's. A colorful Reading freight train glides over a series of eye-popping bridges and viaducts. Those features, along with the backdrop, make this a scene that no one who visits Ralph's great layout ever forgets.

And that point holds true even if you are building your own layout. Confusion and disappointment result if you don't know what you want to accomplish.

"Spend some time thinking about what you want from a layout," Michael advises. "Look over the trains you own and are planning to buy. Consider the amount of time you have to devote to planning and construction of the layout. Decide the locale and era you want your railroad to model and the extent to which it should be a realistic depiction."

But Michael cautions against stopping with these basic matters. For example, ask yourself whom the layout is for. Will you be operating it alone? Will kids be playing with it regularly? Do you intend on organizing operating sessions for hobbyists?

Another key issue is how much effort do you want to put into the design and construction of your model railroad. Maybe you love making scenery but hate benchwork. Or laying and ballasting track engages you – wiring accessories leaves you terrified.

► **3.** The scenery in the Southwest area of Ralph's layout is noticeably dustier than in other areas. Michael partly achieves this rugged look by using plenty of browns in the landscape and by paying attention to the structures – in this case, keeping them to a single story and constructing them of masonry instead of wood. An MTH Santa Fe GP9 road switcher leads a short freight train through a hamlet that clearly has seen better, more prosperous days.

The answers to such dilemmas vary. Some people hire experts to handle areas that they wish to avoid. Other hobbyists like the challenge of striving to overcome a weakness. They plunge ahead by reading about scenery techniques and then learning from their own errors.

Michael, like every other successful builder, does plenty of listening at this early stage. He has already introduced his firm and explained what SMARTT has done for others. Having won the confidence of the client, he's ready to sit back and take notes.

The starting point for Michael is getting to know his client, whether it is an individual seeking the layout of his dreams or an institution, such as a museum. Builders refrain from pushing their clients to do more than what is really desired, particularly where space and money are concerned.

Satisfying the client is paramount, which means working within the guidelines set up at the beginning of the relationship. "In this way," Michael adds, "we establish a budget and a schedule so that both of us feel comfortable and we end up with a layout that achieves what our client hopes for."



Layout at a glance

Ralph Muller's O gauge layout

Dimensions: 22 by 54 feet

Track: GarGraves flextrack, O-96 diameter

Switches: Ross Custom with Tortoise switch machines

Motive power: Lionel, MTH, Weaver

Rolling stock: K-Line, Lionel, MTH, Williams

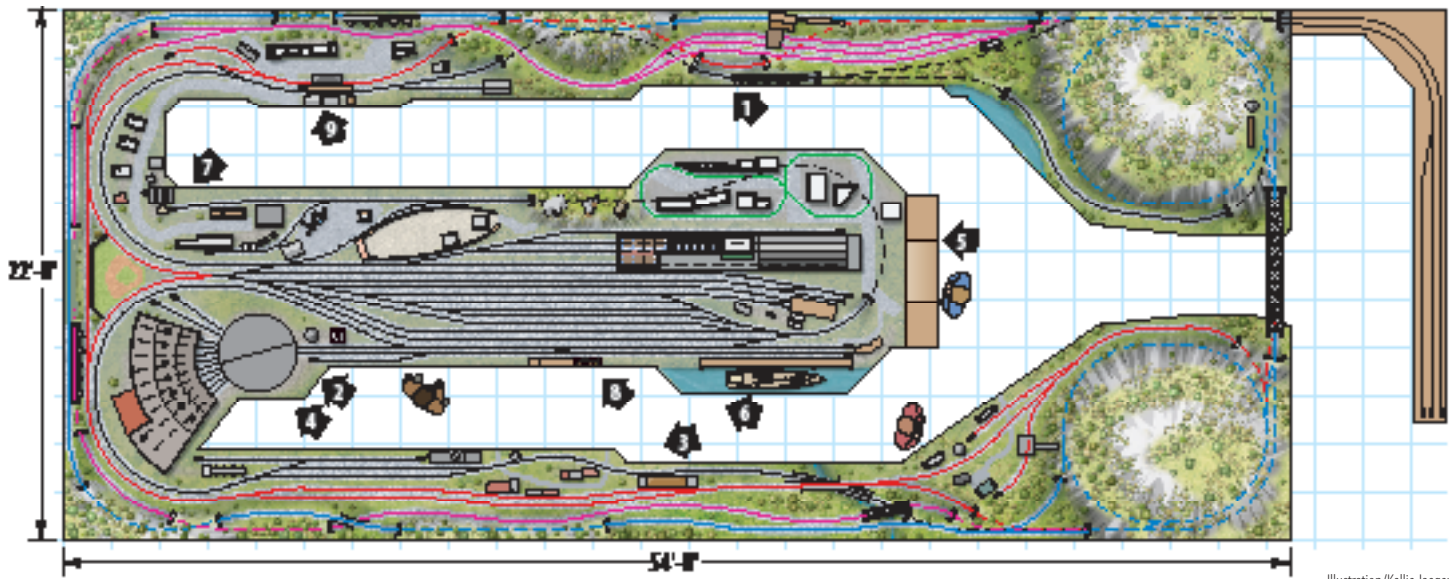
Controls: MTH Z-4000 (2) with TrainMaster Command Control

Signals: Custom, MTH

Structures: Korber, Overland, Plasticville, scratchbuilt

Vehicles: Corgi, K-Line, Lionel, Solido, Vitesse

Figures: Artista



Illustration/Kellie Jaeger



▲ 4. A reinforced concrete viaduct on the old Lackawanna Railroad inspired this stunning scene at the far end of Ralph's layout. A Weaver 4-8-4 Northern brings Southern Pacific *Daylight* cars west. Passengers on the upper train wave to folks heading east on a Chesapeake & Ohio streamliner below.

9 details that Michael Hart never overlooks

- 1 Paint the ties and outer rails of track
- 2 Line the interior of tunnels to hide construction details
- 3 Erect buildings or trees next to the backdrop
- 4 Put weeds around sections of track
- 5 Install lights inside some structures and cover windows
- 6 Add realistic backdrops
- 7 Populate scenes with figures
- 8 Weather all bridges and other railroad structures
- 9 Scatter debris, litter, and other signs of "disorder" in busy areas

A strong relationship also challenges Michael and his team to stretch their imagination and make the most of their skills. The designers, artists, electricians, and others employed at SMARTT like being asked to do more than they have been asked before. They want each layout to be better and more captivating than the previous one.

Meet the client's wishes

An example of how high an ambitious client – especially one with strong ideas of what he wants to achieve – can raise the bar occurred in 1998. Michael was introduced to Ralph Muller, who was eager to have an O gauge layout constructed in a large room adjacent to where he kept his antique automobiles.

Ralph appreciates the superb trains that Lionel and MTH have been putting on the market since the 1990s. He owns dozens of locomotives and passenger sets, along with an enormous roster of modern-era freight cars. With so many trains piling up on shelves, he knew it was time to construct a layout that would reflect his hobby interests.

Those interests are diverse – that was something Michael picked up from his initial conversation with Ralph. “Unlike other O gauge layouts that we have built,” explains Michael, “which had a



▲ 5. Construction of a new office building moves ahead in the bustling metropolis. Note the different styles of urban architecture and the various forms of transportation (streetcars, buses, and more) – just as you might see along a real city street.

▼ 6. Michael Hart and his crew of artists have created a spectacular world of mountains and bridges, towns and industries, all linked by a complicated network of three-rail track. Ralph has the pleasure of running Lionel and MTH trains across this wonderland.





▲ 7. The place to be on a spring afternoon – a ballpark next to main lines. Gathering speed along left field is a Texas & Pacific train with K-Line heavy-weight cars. Going the wrong way toward home plate is a Lionel Erie-Lackawanna SD40 fresh from the wash rack. Ralph, who lists softball as among his many pastimes, asked Michael to add a baseball diamond to the layout. It has been aptly christened Muller Field.

somewhat narrow geographical focus, Ralph’s would be expansive.”

Ralph wanted scenes that would come from across the United States, the West as well as the East. There should also be a large, modern city, along with small towns locked in the not-too-distant past.

And there were what we might call the “usuals.” As Michael points out, “Most guys insist on having a passenger terminal, a mine or mill, a big freight yard, and a roundhouse with some kind of locomotive-servicing facility.

“We took care of those locales for Ralph, but were able to make them larger and more detailed than you typically see. Then, of course, we added a lot of surprises – scenes, buildings, and details that he never expected to find.”

Rather than describe those additional elements, we’ll let these pictures show you what glorious work Michael and his team have accomplished. His studies in architecture and engineering, as well as his training as a model maker, benefit his many clients.

Another advantage is an ability to attract talented individuals to the team. Looking over Ralph's layout, Michael credits Tom Kapatelis (general manager at SMARTT) and such others as Mariela Lhomy, Ojars Mucenieks, Raymond Potter, and David Strong.

The adage that "it takes a village" is appropriate when understanding how an O gauge layout as grand as this one takes shape. Yet the seed of this magnificent project is always the vision of the person with the trains. Ralph has much to be proud of. **CTD**

► 8. Laborers have chores to do on this fall morning, but they can't help sneaking a peak at the Weaver Santa Fe 4-8-4 Northern nicknamed the "Blue Goose." Clean as a whistle, this steamer awaits its assignment next to a weatherworn Overland sand tower. Check out the painted outside rails on the GarGraves track to the left – a SMARTT touch!

▼ 9. Lionel New Haven (left) and Pennsylvania F3 diesels meet at the highway crossing into town. The business district is made with a range of commercial structures, all painted and weathered to look as though they haven't changed in decades.

