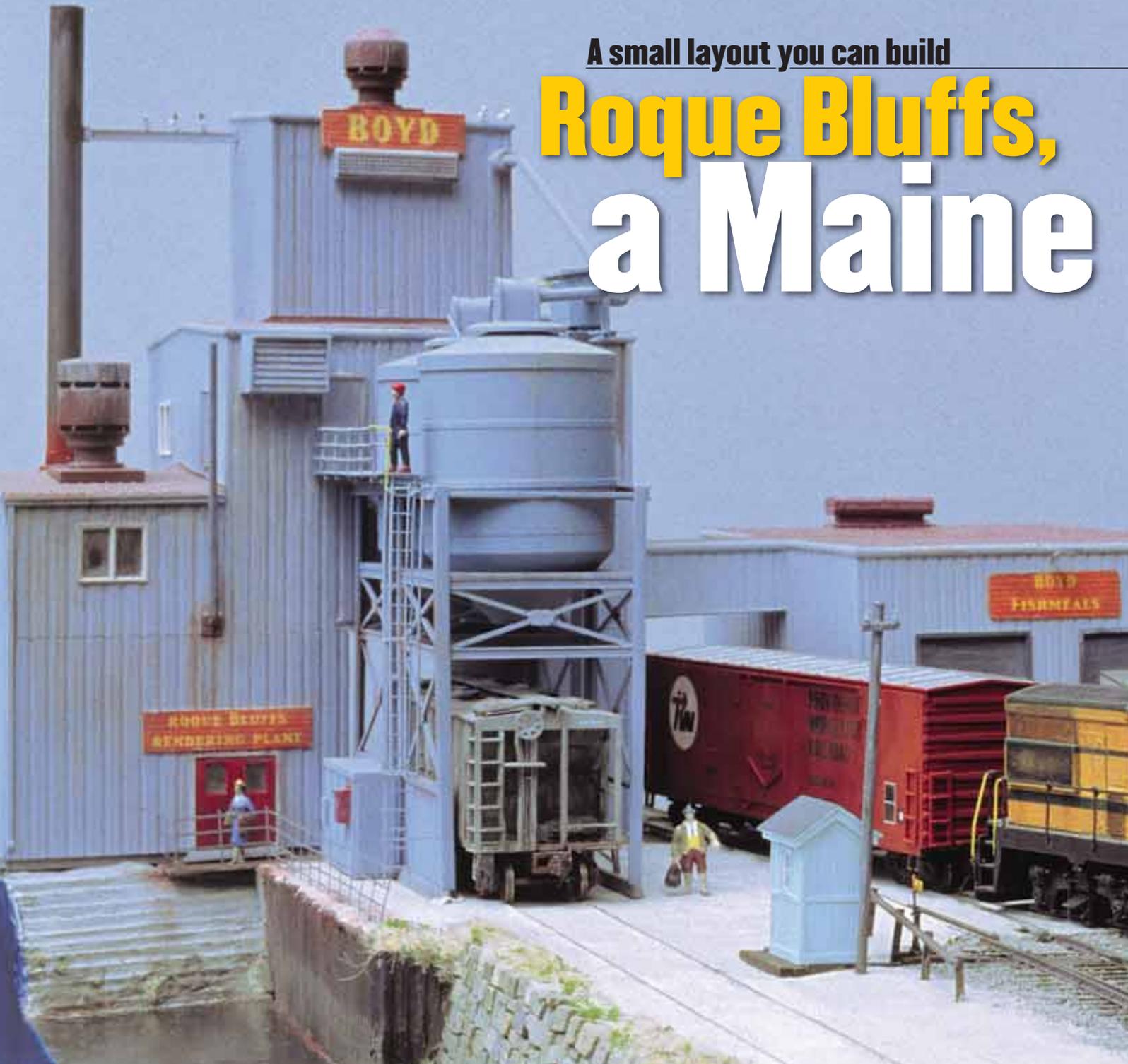


**A small layout you can build**

# Roque Bluffs, a Maine



## Planning a “no room for a layout” layout

**By Iain Rice**

Photos by the author

**T**he various MODEL RAILROADER project layouts built over the years have assumed many shapes and sizes, and several have introduced new concepts and techniques. This project layout is one of the smallest yet, and the first to be conceived and executed outside the United States.

Those of us living outside the U. S. have had to become adept at squeezing a lot of visual and operational interest into very small layouts. Many of our layouts are also portable and make use of lightweight construction materials.

These are all concepts relevant to a growing number of U. S. modelers.

Our Roque Bluffs (pronounced “rock bluffs”) project layout has a U. S. setting but explores many European layout ideas, including the use of Proto:87 (P:87) HO track and wheel standards that are closer to actual 1:87 scale prototype dimensions. P:87 is also similar to the British Protfour system.

Commercial P:87 products, notably NorthWest Short Line’s superb wheels, are now widely available, and most aspects of fine-scale modeling can be

# Seaport



accomplished with familiar techniques. Our Roque Bluffs project shows you just what is entailed in building a layout to P:87 standards, but it can also be easily adapted if you wish to build it to normal HO practices.

## Site? What site?

Roque Bluffs is a “no room for a layout” layout. It sits in a gap between the upper and lower bookshelf units in my home office. This tight space allows a total layout size of 1½ x 12 feet, with height restricted to 17”.

Roque Bluffs is one of five layouts that I’ve built to fit this space, enabling me to overcome one of the main drawbacks of small layouts – lack of scope – by changing the entire layout. The other layouts are my P:87 1950s Dutch steam tramway, two different British railway terminals in P4, and a French-prototype HO meter-gauge layout. And no, they’re not all finished!

All the layouts are sectional and portable. With the exception of the Dutch tramway, they also all require an add-on staging board. My staging is

1. Watched by a row of curious Sheepscot gulls atop the rendering plant, Maine Central U18B no. 403 makes a rare appearance at Roque Bluffs, our 1½ x 12-foot shelf railroad built to Proto:87 fine-scale standards.

designed around a cassette system, which allows me to use a common staging board for the various layouts with trains that rest on movable cassettes (see “Staging solutions” in the April MR). However, conventional staging would work just as well for Roque Bluffs – it would just need more space than I have available.

The display slot in my office has a permanent backdrop and built-in lighting. It is situated 44” above the floor, a good viewing height. All my layouts use the same basic control system.

When my layouts are not in use, I store them on racks in my basement utility area. My layout-building bench is also in this area. I have an additional bench in my workshop (an 8 x 12-foot garden shed). This arrangement ensures that I keep messy work out of the living areas of our small home. It also allows me to have two layouts “on the bench,” one set up in my office and two more stored on the racks.

As a self-contained portable layout, Roque Bluffs and its cassette staging board can be set up in any 12-foot-long space. I designed Roque Bluffs to be the kernel of a larger model railroad as it can be easily extended at either end.

## The joys of stub terminals

A stub terminal with a fiddle yard is a very popular subject for compact layouts in Europe. First, it needs a single set of staging tracks as there’s only one way out of the dead end. Feeding the end of a branch line direct from staging means that trains always depart the same way, avoiding any problems of orientation. Second, terminals often have more interesting track layouts and more complete facilities than through stations, with runarounds, extra spurs, engine terminals, and so on. Finally, they are more interesting to operate – no one gets to highball right on through!

Terminals take many forms. In Europe, the country branchline terminal has long been popular with modelers, but many of these are quite large and difficult to compress. More recently, cramped city, industrial, and harbor terminals have become common small-layout subjects.

Roque Bluffs is the terminal of a fictional branch inspired by the real Eastport Branch of the Maine Central (MEC), which ran south-eastward from



2. A lighthouse is a signature structure of any Maine coastal town. The Roque Bluffs Light is an altered Builders in Scale model of Brandt Point Light on Nantucket Island.

the main line just south of Calais in northern Maine. Roque Bluffs is a real place – although not much of one – about 40 miles south of Eastport on Maine’s scenic and rocky coast. The Franco-English name is enigmatic: the bluffs bit is clear enough, but “roquer” in French is the act of castling in a game of chess! One suspects a French corruption of the English “rock.”

The oddity of its name aside, Roque Bluffs lies, most appropriately in this case, on the shores of Englishman’s Bay. However, the real Roque Bluffs never had the benefit of rail service.

### Essential fiction

For my purposes Roque Bluffs has assumed a new importance. According to *Rice’s Alternative History and Geography of the United States* (fictional, of course), Roque Bluffs has an excellent harbor – not large, but accessible at all tides, sheltered, and largely ice-free. This became the home port to an active fishing fleet which led, in the early years of the 20th century, to the establishment

of a considerable fish-processing facility there – a complex of smokehouses, canneries, fish-rendering plants, and cold storage warehouses.

Alongside these industries there grew associated enterprises in marine bunkering, boat building and repair, chandlery, and fishing-gear manufacture. And so Roque Bluffs grew, and the construction of a four-mile spur connecting to the MEC main line from Bangor to Calais was a matter of course.

As has been the way for such places, a combination of factors led to a slow decline of the fishing trade. By the late 1970s we find the fish business mostly restricted to a specialist operation making canned clam chowder and lobster bisque, together with a large rendering plant producing fish oils and meal from low-grade catches. Fresh shellfish for the gourmet restaurant trade is still landed in modest quantities by the handful of local boats not contracted to the soup factory.

But new trade has come to Roque Bluffs, and now elegant pleasure craft

compete for moorings with battered work boats. The yard that once was busy keeping the fishing fleet at sea now also handles fine work on leisure craft. The fish meal plant was extensively rebuilt and modernized less than a decade ago and dominates the harborside with its mixture of storage hoppers and new sheet-metal structures. The canned-soup plant occupies a range of older brick buildings.

All that is in contrast with the old port of Roque Bluffs. It’s a classic Maine Coast mix of picturesque timber structures – fishermen’s sheds and houses, net-lofts, the harbormaster’s office – enlivened by the bustle of the boatyard. Presiding over all is the red-and-white-striped and shingled tower of the Roque Bluffs lighthouse. This is an aspect of Roque Bluffs that attracts the newest users of the port, the weekend fishermen and leisure sailors escaping from their city offices.

There was a time when the smell from the fish-meal plant rendered the whole place less than pleasant, especially when the breeze was onshore. Modern technology has tamed the odor even if it can’t do much about the anti-social habits of the seabirds that wheel about the harbor.

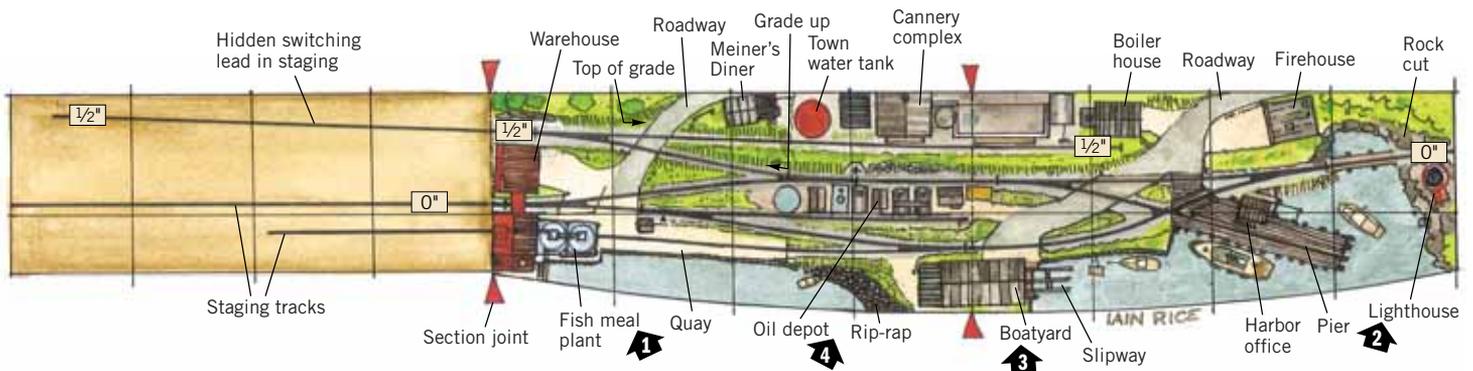
### The relevance of the rationale

The history of Roque Bluffs is an important aspect of layout design. As with all successful works of fiction, you need a good, strong story line. Without a clear idea of the why and wherefore of the scene you’re trying to create, it’s too easy to end up with something that’s a collection of nice bits and pieces rather than a convincing whole.

A detailed rationale not only tells you the track, equipment, and structures you need to model, it also suggests finer details such as the age and degree of weathering of the elements in the scene, the accessories needed to set them off, and the type of activity that will be taking place. And that, in turn, forms the basis of the railroad’s operating system, determining train service, car types, and working methods. A properly thought-out rationale is a fundamental design tool for any layout that doesn’t faithfully follow an actual prototype.

### Track plan

You’ll notice that I have yet to mention those magic words that figure early



Extended version 8'-0" x 14'-6"

Compact version 1'-6" x 12'-0"



Careful detailing of track and equipment and a well thought-out operating plan bring a Maine sea-port community to life on Iain Rice's HO project layout.

### ROQUE BLUFFS

Minimum turnout: No. 6  
 Maximum grade: 3 percent  
 Minimum curve radius: 33"

## A BRIEF HISTORY OF PROTO:87 WHEEL AND TRACK STANDARDS

**P**roto:87 (P:87) wheel and track standards for HO scale are very close to true prototype dimensions reduced to 1:87 scale. The standard was first set out as long ago as 1966, when the Anglo-Australian Model Railway Study Group (MRSG) produced workable true-scale standards for a number of popular model railroad scales. Two MRSG standards have found widespread favor in Britain: 4mm/ft, 1:76 (known as Proto-four or P4) and 7mm/ft, 1:43 O scale (Scaleseven or S7). In North America and parts of mainland Europe, the related 1/4" O scale standard, 1/4 AAR or, more recently, Proto:48, has also been taken up. These standards have been well-proven in three decades of use.

Proto:87 has a much shorter history. The most notable pioneer was British modeler Brian Harrap, who built a complex HO triple-gauge Austrian-prototype layout in 1989 using the standard. Brian was followed by other groups and individuals in Europe who decided to experiment with the MRSG dimensions; in the Netherlands, the Anglo-Dutch Scalefour Society set out to build an ambitious Dutch P:87 layout, Portiershaven.

In the process of evolving their layouts, the Dutch modelers commissioned British manufacturer Alan Gibson to produce commercial P:87 components such



Proto:87 standards use wheel and track dimensions that are close to 1/87 of prototype dimensions.

as locomotive and rolling stock wheelsets, and wheel and track gauges. The availability of these critical components led others to take an interest.

In the U. S., P:87 modeling started with the launch of the P:87 Special Interest Group Web site, which attracted interest from around the globe. Ideas were exchanged, and various individuals set out to see how P:87 would work in a U. S. context. Canadian modeler Rene Gourley produced some of the first P:87 North American models, which included a Canadian National SW12 switcher and

modern freight cars converted from commercial models, together with scratch-built 1890s-era equipment.

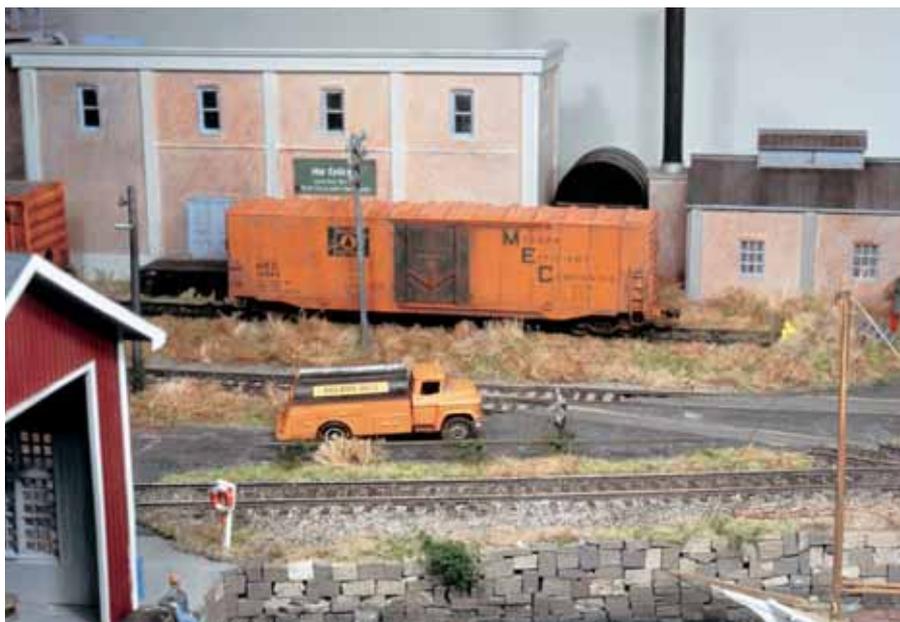
Discussion within the SIG covered a wide range of topics, but it was the fusion of the European experience with well-established National Model Railroad Association procedures and proven modeling techniques that led to practical solutions and put the MRSG P:87 standard firmly on the path to becoming a worldwide norm. P:87 became a viable option for North American modelers with the arrival of commercial components and gauges. Roger Miener, a P:87 SIG member, persuaded NorthWest Short Line to produce P:87 wheelsets, while member Ed McCamey designed and had NMRA-pattern P:87 gauges laser-cut in stainless steel.

Paul Dolkos covered P:87 in his November 1998 MODEL RAILROADER article, "Proto:Scale – Standards based on the prototype lead to greater realism."

Recently, Kadee has started to produce its close-to-scale no. 58 coupler, with other couplers arriving from Sergeant, McHenry, and Accurail. – Iain Rice

### More on our Web site

To read the November 1998 "Proto:Scale" article by Paul Dolkos, visit our Web site at [www.modelrailroader.com](http://www.modelrailroader.com)



3. A truck belonging to Dolkos Oils leaves the tank farm to deliver early fall heating oil.

in every layout project – the track plan. Sure, it's important, but it's only one element of a complex process that considers all aspects of the proposed model including the rationale, the practical constraints of site, scope and budget, appearance and operation, as well as the less-tangible factors such as how you feel about the prototype and what the rest of your family thinks about the railroading hobby! Nevertheless, when you've gone through all this, you will still need a plan from which to work.

My layout has an odd and somewhat awkward track arrangement and that's quite intentional. If you have only a limited amount of space and track to play with, then you need to pack the maximum of interest and operating potential into those few yards of right-of-way.

Real railroads hate tight, awkward situations like the one I've created here, but they often have to live with them. Facilities like these weren't carefully planned. They evolved and grew as the needs of the area changed, resulting in short leads, awkward wrong-way spurs, tight curves, and limited clearances. A yard like this is a pig to switch, but what might be a drawback to a real railroad intent on maximizing efficiency is a boon to a modeler wanting the most entertainment from his layout.

It is also designed to maximize the layout's potential, either for a modest expansion as a self-contained model or as the kernel of a larger layout in the future. So, while the current version of the scheme uses staging at the left-hand end as both the departure point and to

provide an off-scene switching lead and siding capacity, the design can easily be extended. The current staging board can be replaced with a further scenic section containing other industries and additional harbor and railroad facilities, with the track past the lighthouse becoming the main, heading off by way of a curved approach section into staging relocated at right angles to the main layout. The expanded version is shown in the thumbnail plan on page 57. But the layout is still eminently workable in its basic configuration.

### Visual trickery

I've used a number of visual devices to disguise the small size of Roque Bluffs. First, the tracks are led off-scene by means of scenic elements that block the exit from view. This helps to suggest that the scene continues beyond the boundaries of the layout and makes it easy to add extra sections without ending up with unlikely pieces of geology or civil engineering. So the fishmeal plant and the rocky bluff and lighthouse serve to hide the holes in the sky by which trains leave the scene.

The second device is another old favorite, the foreground view-block, a boatyard in this case. This obstructs the view of trains moving along the yard and has the effect of dividing the scene into two areas – which, in turn, makes it look larger as the eye finds it more difficult to take in the whole thing at once. The train disappearing behind the shed also disguises the shortness both of the trains and the distances being run.

The third visual device is the careful arrangement of structures and other landscape features to disguise the rear



edge of the scene and to avoid obvious and unconvincing joints where the foreground meets the backdrop. The backdrop is simply plain sky, as it has to serve the needs of several different layouts. So the roadways lead out of the scene at acute angles rather than meeting the backdrop square on, while the landscape at the rear of the scene is broken in outline and carefully conceived so that it looks self-contained rather than chopped off. Fences, bushes, large clumps of grass, utility poles, and signs help disguise this back edge.

Although the main rear-of-scene structure – the cannery – is a half-relief model, this fact is disguised by flanking it with full-relief models. The boiler house and water tank ensure that the point where the cannery wall is chopped off at the backdrop isn't too apparent. I've also tried to avoid the dead-straight line of structures that often characterize the rear edge of layouts by setting



4. A Maine Central S1 delivers a tank car of heating oil. A carefully thought-out track plan makes the most of limited space.

Meiner's Diner and the firehouse forward of and at a slight angle to the main line of the cannery.

### Practical design

The basic layout is designed in two sections, each four feet long. This gives a modeled scene eight feet by a maximum of 18" wide, while allowing room for the 45"-long staging board. That doesn't sound like much, but it is enough for a switcher with up to four 100-ton Center Flow hoppers (53 feet long) and a cabooses, or three 40-foot and two 50-foot cars and a caboose. The whole layout was carefully designed around these maximum train lengths to ensure that no space was wasted by a mismatch between staging yard and runaround capacity.

The 48"-section size resulted in quite a number of tracks crossing baseboard joints. The joints haven't caused trouble as the rail ends are solidly anchored and carefully aligned, and the sections are bolted firmly together.

### A scenic jigsaw puzzle

I have a few pet hates, such as hard, rectangular shapes, too many parallel tracks, and section joints that show like ruler-straight geological faults. I've gone to considerable lengths to disguise the fact that this is a sectional layout.

Disguise needs to be incorporated into the design at the outset so that, for instance, there are no joints in watery areas. Hiding joints has long been a requirement and several years ago led me to a somewhat-unusual style of layout construction that I call "jigsaw."

The basic idea of jigsaw is to get away from visible straight-line joints by making elements of the scenery into

removable jigsaw pieces that overlap the joints between base sections. The outline of each piece follows "natural" boundaries like building lines, fence lines, and road edges.

Roque Bluffs did not warrant full jigsaw construction. The scenic work is mostly conventional with the exception of three jigsaw pieces that span the joint – the boatyard, the roadway with the oil depot office, and the cannery.

### Final design

The final design of Roque Bluffs is shown in the plans. Next time out we'll look at the benchwork together with the layout site, backdrop, and lighting. ☐

*Iain Rice, a resident of Great Britain who travels extensively in North America, is a regular contributor to MODEL RAILROADER. Iain is also the author of Mid-Sized and Manageable Track Plans, published by Kalmbach Books.*