

Steve Hales explains the background to a notable American layout representing an actual location. *Photographs and diagrams by the author, or as credited.*

Mauch Chunk, Pennsylvania

Part 1 – beginnings

Mauch Chunk, PA. has, for most of its existence, been a real ‘club layout’. It was built in the Merseyside Model Railway Society’s premises where it was permanently erected, and it operated almost continuously. It was a stalwart of club open days and was popular with visitors. It was built initially by club members of the American HO group, though the modellers changed slowly over the fourteen-year period of its residency.

Background

The thing we are most often asked (mainly by Americans) regarding the layout is: “How do you Brits come to be modelling a railroad based on a small town in rural Pennsylvania?”. This seems like a good place to start:

Back in the 1990s I was travelling to the USA on business a couple of times a year and after a while a recently retired colleague and HO modeller, the late Eugene Mones, invited me to stay for a week at his daughter’s house out in Carbon County, Pennsylvania, near a little town called Jim Thorpe. Previously called Mauch Chunk, this proved to be a picturesque historic tourist town aligned north-south on the banks of the Lehigh River. The old town was built in the 19th century and located between two “hills”: Flagstaff Mountain to the south and a smaller hill (a foothill of Mount Pisgah) to the north. For me, most interesting was a railroad station and tourist line along the Lehigh River front. I took a lot of photos and thought little more of it.

In 2002 a group of former P4 modellers in the Merseyside MRS were looking for a new project and, thinking back to my trip, I suggested a model of Mauch Chunk, PA., set in the 1940s/50s – the transition era from diesel to steam in this part of the US. With a river in the foreground, hills at each side, and historical buildings throughout this seemed to fit the bill. After some serious consideration in the local hostelry, this was unanimously agreed and the project was started, with modellers including the late Chris Bennett , Paul Rees, David Williams, and myself, with others, among them Derek Jones, Alisdair Macdonald, and Ian Clark, contributing.



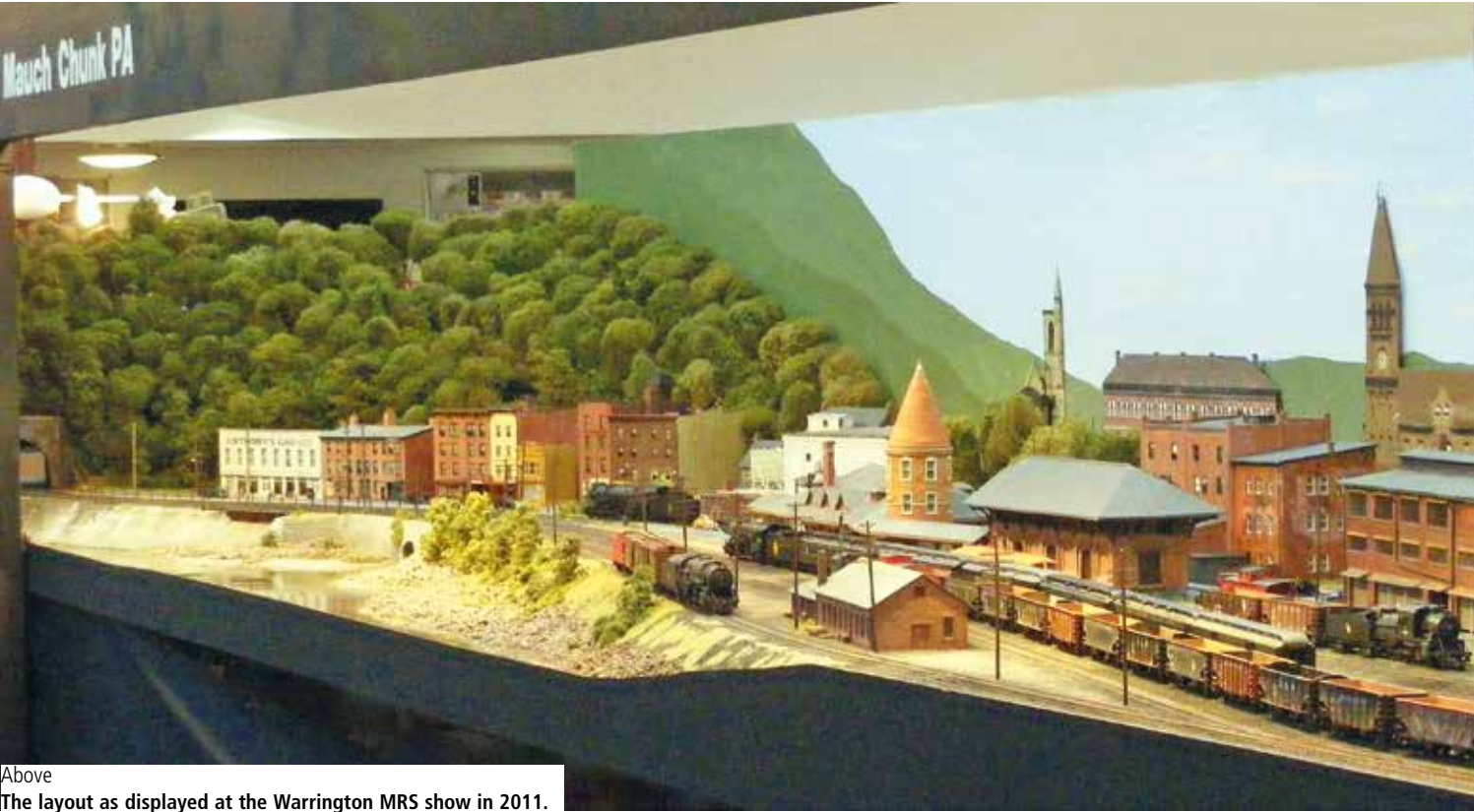
A substantial website (www.homauchchunk.co.uk) was prepared and used to showcase the material as we collected it, including photos and plans. A number of American helpers found the website and came on board to supply plans and many photographs, which made a huge difference to the possibility of accuracy. This website has continued to grow and gather support.

Starting

The layout was to be continuous run on a solid 21' x 5' base made up of ten individual boards, supported on trestles. This only allowed for a very narrow fiddle yard of four tracks each way and unfortunately tight curves (24" radius on the ends) with short turnouts in the yard.

A track layout was planned that slightly narrowed the prototype arrangement with fewer tracks but with relatively little end-to-end compression. Operation would be from the ends of the layout as the backscene was planned to be 2' high to give a theatrical effect.

Above
Aerial view of Jim Thorpe (formerly Mauch Chunk), PA., probably in the 1950s/60s.
Photo: from the Jim Thorpe visitor centre.



Below
Card buildings were used during construction to get a feel for their positions.

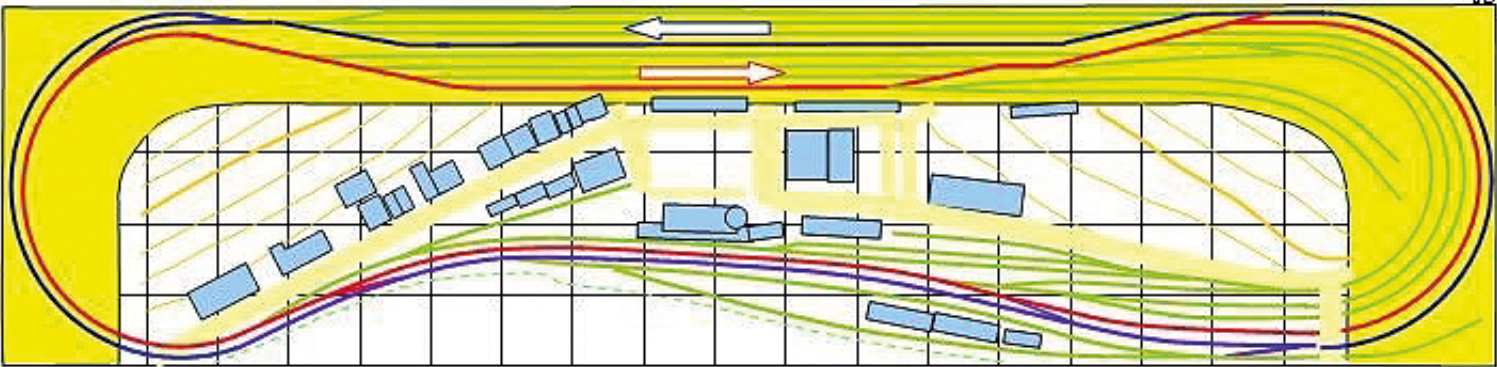


We opted early on for DCC control of locomotives (NCE) but analogue point control with two control panels – one for each end where two operators would each operate a single direction.

The prototype was operated by the Central Railroad of New Jersey (CRRofNJ or CNJ). In the 1940s/50s the CNJ had been mainly a coal road, carrying full coal hoppers down to ‘tidewater’ for transfer to shipping and bringing the empty hoppers back. As well as this and general freight, there were also passenger movements – expresses (rather slow by UK standards) through to Scranton and beyond and also stopping, and even terminating, trains. This offered many opportunities for operation.

Stock

The CNJ was sufficiently obscure for stock to be a bit of a problem in model form although, of course, much generic east coast freight stock could be used. eBay was a godsend for purchasing appropriate items from the US, and stock was gradually acquired at a reasonable cost.





Above
Trees (almost) everywhere in this view taken at the Warrington show in 2011.



Below
Budd railcars wait in the platform road at the Merseyside MRS show in 2010.

Inevitably, initial purchases focused on the more readily available ‘plastic’ diesels rather than brass steamers. In Mauch Chunk, the main coal hauling locomotives were 2-8-2 Mikados and ‘camelback’ 4-8-0s, both with wide Wootten fireboxes.

Buildings

Buildings proved to be the biggest challenge and largely dictated the pace of construction as we had opted to go down the prototype route. Scale plans were prepared from the photos we were accumulating – some needing to be ‘undistorted’ with software. I am very happy to acknowledge that the late Chris Bennett built the three standout buildings – the Hooven Mercantile (white building), the station, and the goods shed (my favourite).

It took us several years to complete the buildings as modelling was often slow and not helped by the all those involved holding significant committee roles in the Merseyside club which kept taking us away from modelling!

Two large backscene buildings – the Navigation Building (a bank) and the Town Hall – were made up from a mosaic of photos carefully aligned and then printed commercially on A1 paper. These were supported on a card frame as an ‘interim’ measure that, after adding a little more depth, became permanent.

The high backscene was painted in a fairly abstract style showing the hills and trees disappearing into the distance – as they do in real life.



Track and scenery

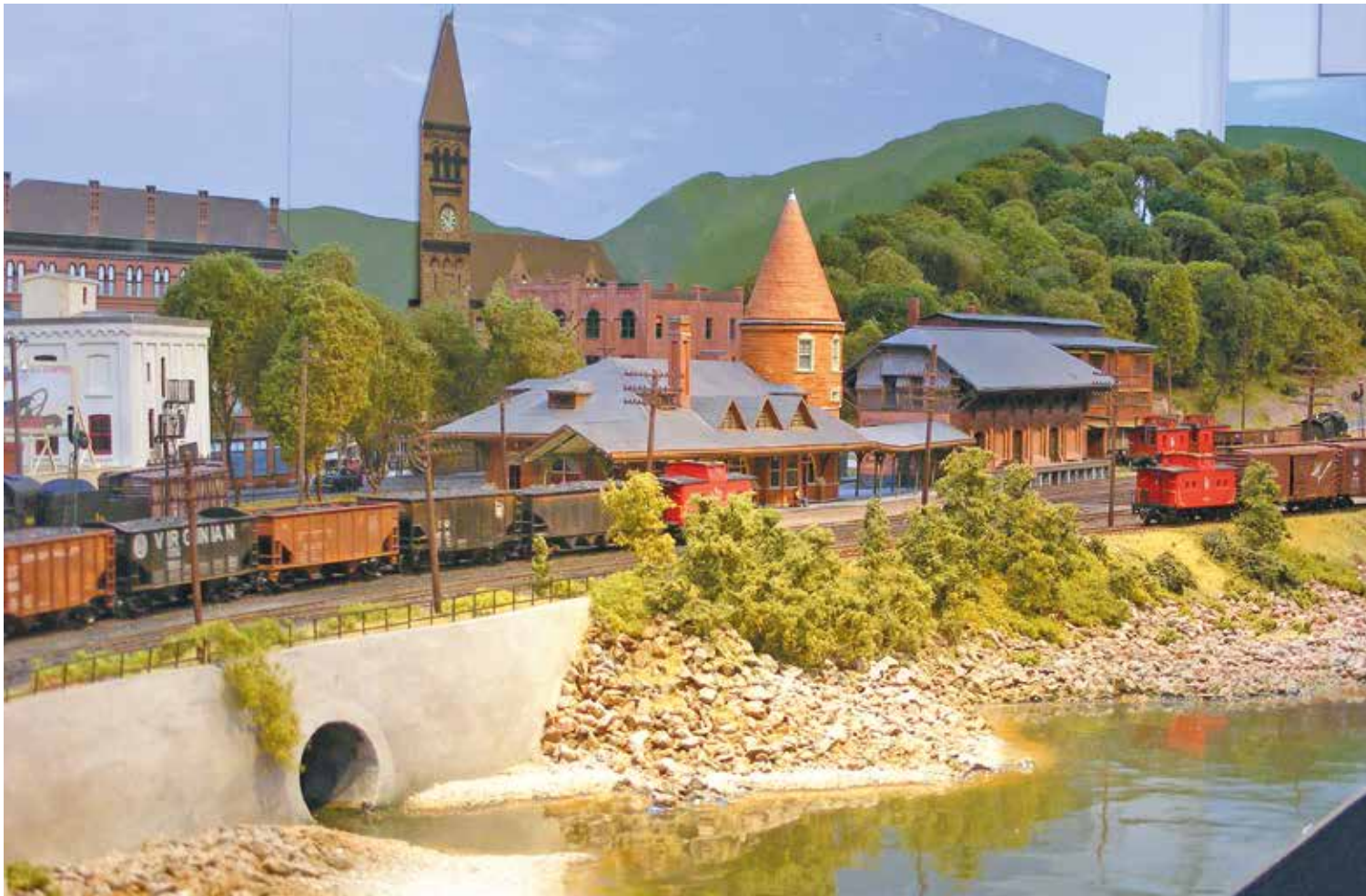
We took the option of using Peco code 75 track and turnouts, with many handbuilt examples in the scenic area. However, we made considerable efforts to hide this origin – I think successfully – cutting the tie ends randomly and painting all the plastic sleepers and track sides.

Peco point motors were also used, and provide a strong positive ‘click’ – reassuring or annoying depending on your preference.

Above
The Mauch Chunk depot is quiet on an overcast day.

Below
Susquehanna Street with a Mikado waiting by the Hooven Mercantile building.





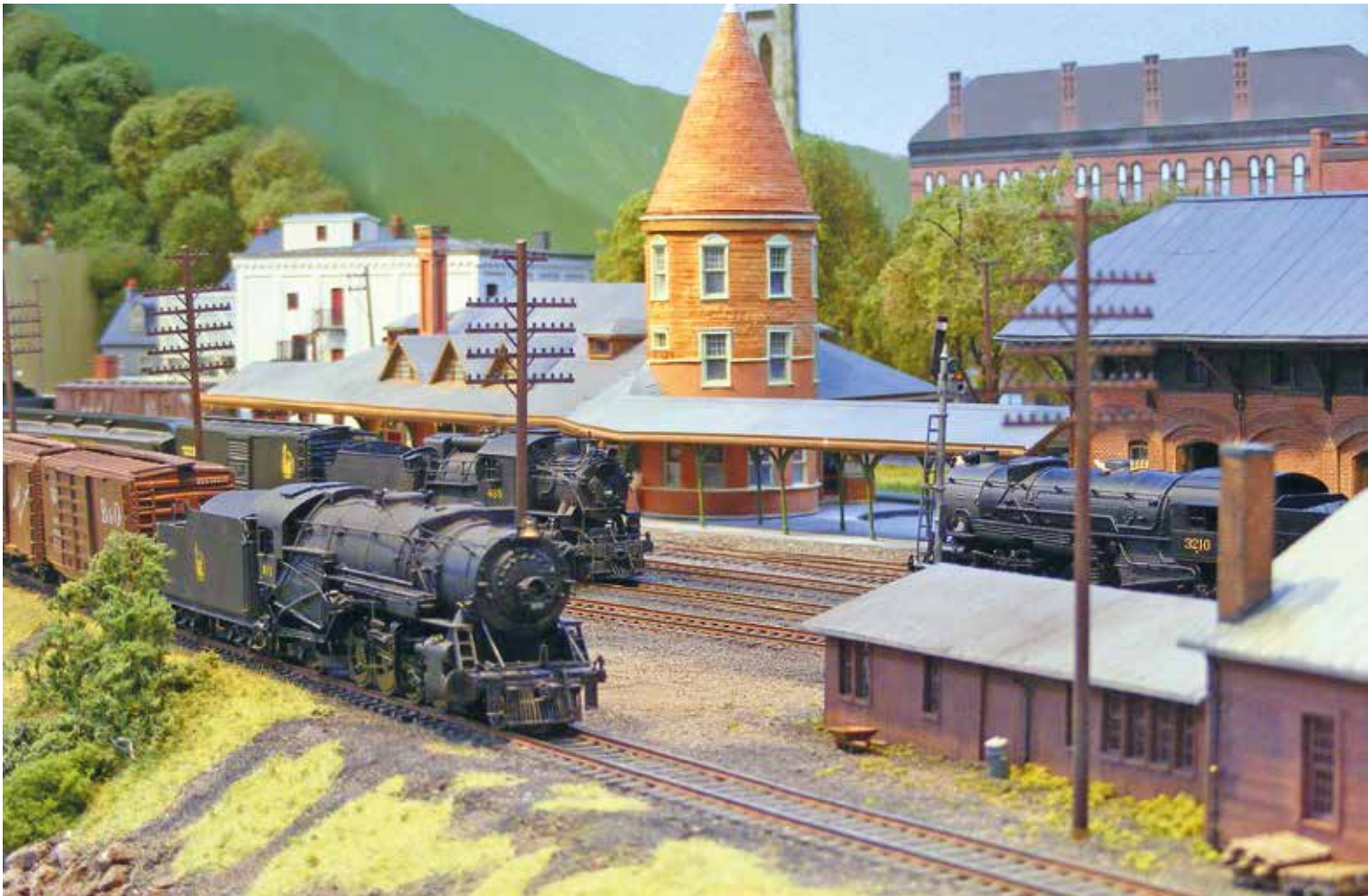
Above
**The now much greener
Mauch Chunk depot.**

Below
**The Lehigh riverside
under construction.**

Below right
The ballast is fine coal.

More unusually, based on the many photos, all track was ballasted with fine coal, collected and sieved, sometimes with a mix of oven-dried soil. To make this work the ballast has to be wetted with isopropyl alcohol (IPA) before diluted PVA is added. We applied both with fine plant sprayers and this allowed a good quality finish to be obtained in a fairly short time. Some of the coal ballast was then weathered with lighter powders to tone down the intense black.

A similar 'natural and budget' approach was taken to the many trees which were built up individually on a natural framework of dead heather, astilbe, sedum, or other twiggy plants. The next layer was theatrical 'hair', brown crepe, to simulate the canopy, and finally flock in various shades of green attached with hairspray. The overall effect was pretty good even from a short distance. SuperTrees (Scenic Express) were used at the very front and for other specimen trees.



Grass was a mixture of the old – bleached carpet underlay, and new – static grass, and weeds were made up from more theatrical crepe hair, with coarser flock.

For roadways we used Artex repair compound, coloured to shades of grey before use, and smoothed it out when nearly dry with our fingers. This provided a wonderful finish. Sidewalks were made from plasticard 7mm paving sheets and suitably painted.

Operation

It was a real 'clubhouse layout' at this stage: Throughout construction, stock was run continuously throughout (almost) every modelling session in our clubhouse, and this attracted frequent visitors to view progress. Some were allowed to operate and one club member, who liked to treat it as a racetrack, on one occasion managed to launch a selection of stock (fortunately none of it too valuable) into the air from one of the tight bends!

By 2008 we felt ready to show *Mauch Chunk, PA.* to the world. An interim lighting solution was devised as we realised we had a real problem supporting lights at the front of what was, essentially, a 5' wide board with a 17' viewing window at the front. We reluctantly opted for a central pillar.

The layout attended the Merseyside show for its first exhibition outing in autumn 2010, and proved popular with the public, winning the Visitors Cup. Despite this, problems caused by the short points in the fiddle yard and stock meant that by the end, only a very limited number of trains were

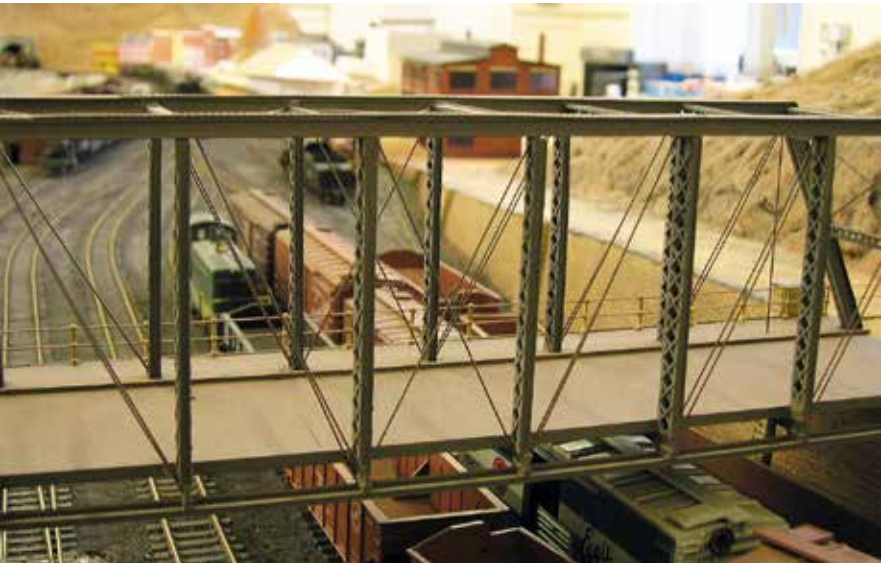
operating. I suspect most of the problems were invisible to the public but were very frustrating to operators.

A new modeller, Gordon Young, joined us at this point. Scenic work continued, much greenery being added in particular, and we also found a solution to the lighting/fascia support so that the central pillar could be dispensed with.

In this slightly modified form, the layout successfully attended the Warrington show in autumn 2011, and much fun was had!

Above
**Mikado M2as #892,
K1as 4-8-0 camelback #435
and a 'foreign' Mikado.**

Below
**The view eastwards
during construction
through the road bridge
scratchbuilt by Chris Bennett.**



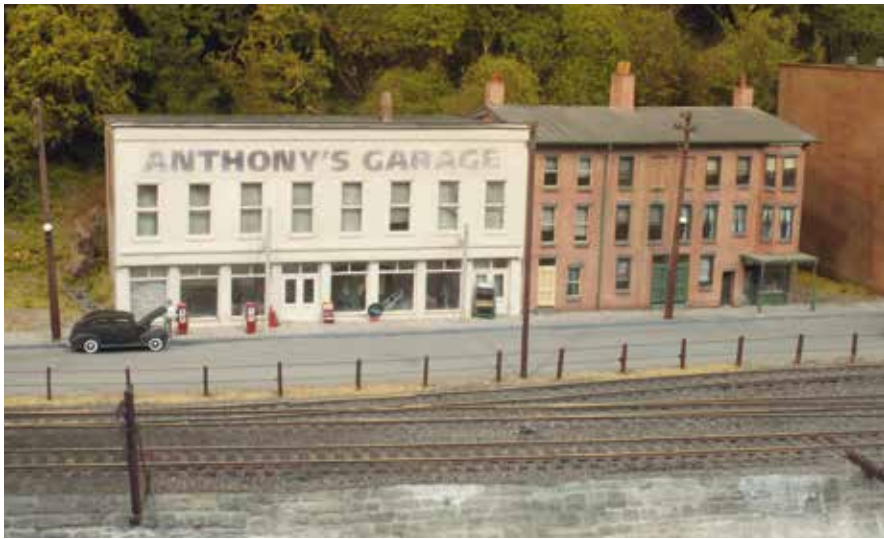


Above
Behind the scenes at the Merseyside MRS exhibition in 2010 – Bill Fry operating the clockwise route with the aid of CCTV.

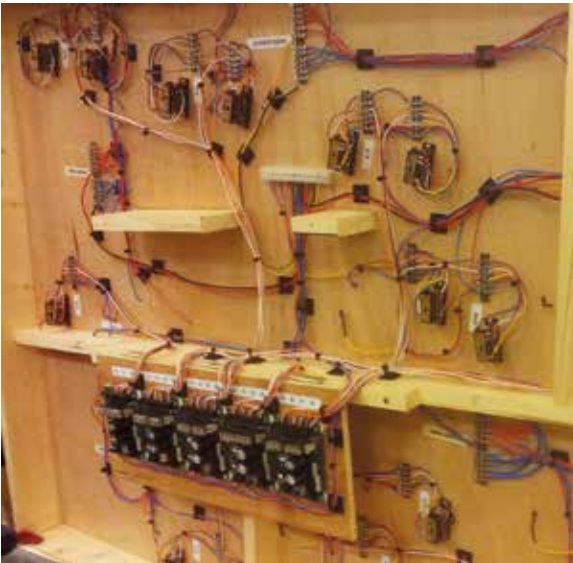
Expansion

After two exhibitions with this initial ‘compact’ version, we felt the need to remedy some of the weaknesses – particularly the small fiddle yard and the tight end curves. Also, the boards were heavy to transport, and trolleys were prepared. The team had changed and now included Gordon Young, Doug Wishart, and me. Chris Bennett was unwell and so not able to contribute as he would have liked, and in August 2013 he sadly passed away – the end of an era for the layout as he had been a key driving force. The solutions to the problems were seen as a rebuild with a substantial fiddle yard and a central well giving us much wider radius end curves and points. This meant a lengthening to 27’6" with a total depth of 9’2", which fortunately would fit in our new clubhouse. The existing fiddle yard was literally ‘cut off’ the backs of the scenic boards and the front/back pairs were permanently attached together giving 4’ square boards. Two smaller orphan boards continued the scenery at each end giving a total scenic length of 20’.

Below
The Big Bear software mimic panel in use in the Merseyside MRS clubhouse.



Digital point control
For point control we decided to go digital. We intended to continue using Peco point motors – with their simple technology and reassuring click! – and to add digital control to these we embarked on the MERG route. Each MERG circuit board controls four points and these were duly mounted under boards and connected to a new ‘point bus’ that was wired all round the circuit. For actual control, the ideal solution would support duplicate (or more) identical mimic panels. Eventually the option of multiple PCs (laptops) linked together through an (optionally wireless) network by TeamViewer (free for this sort of usage) which duplicated the screens, was chosen. An added advantage is that TeamViewer can also be run on tablets and smart ‘phones – useful if a wireless option is available. We settled on Big Bear software (www.bigbearrail.com) which was free to try and cheap once chosen. The Big Bear layout control software was originally developed by Peter Thurston and Dominic Moore for *Moore Street TMD*. It provides a mimic panel and can also be used to control the trains (which we did not, except to check we could!). An article in *Hornby Magazine* (July 2018) gave full details of setting up and using Big Bear and TeamViewer for *Mauch Chunk, PA*.



Above and right
The structures along the road are all accurate models of the various commercial and residential buildings. Photos: editor.

Right
The railroad side of the Hooven Mercantile building, which faces across the road G.Thomas Grocery & Feed, the Pennsylvania Hotel, and American Stores. Photo: editor.

Below
A battery of MERG boards controlling Peco point motors under the end yard board.



Particularly useful was the ability to programme ‘routes’ so that, for example, all the fiddle yard points for a yard track could be aligned with the click of a single button. With our NCE DCC system, Big Bear worked pretty well, the minor and very occasional problems all caused by oddities in the

interface provided by NCE. Later adoption of a Lenz system solved all these – to come in part 2. In this form, *Mauch Chunk, PA*. continued to run well in the Merseyside clubrooms until late 2016. ... to be continued.

