

Modelling Prototype Locations

I have a strong personal preference for modelling prototype locations rather than invented ones. Almost all my favourite layouts are either of real locations or are composed of elements taken from several real locations within a small geographic area. They can capture the feel of a locality in a way invented settings rarely do – I love to see a layout from a distance and immediately know where it is set.

Some layouts give me the impression that rather than modelling the real railway they are models of other layouts, with elements – some inaccurate or implausible – seen before on many other models. Having a prototype forces you to make the track plan, buildings, and scenery match a real place – you don't have the easy way out of buying an RTR building that is “about right” but actually for the wrong railway company or the wrong size for such a location. It takes more effort, but then we are railway modellers! Real locations are rarely as complex and busy as the ones modellers invent so there is less to build.

If you choose to base your model on a real location you will have to research it and the rest of this article talks about sources of information. For me this research is an enjoyable part of modelling and another reason for liking modelling prototypes. The more recent the period modelled the more information will be available and the easier it will be. Not only is more of what you are modelling still in existence, but in the last 25 years digital cameras and the internet make taking and publishing photos almost free. In the 60s film cameras become commoner and cheaper so there are more photos than from the 50s and earlier, and they are often in colour. At Farnham MRC we have built a model of Wickwar on the Bristol-Gloucester line in the 1950s, I've used our research to illustrate this article.

Books are perhaps the most important source. There are series of books each covering a short section of line in detail with plans of each station. These are very good for narrowing down your choice of location if you decide you want to model a particular area or line. Other books have photos of a particular region and time.

The internet will produce more photographs, often from a local history group who are likely to be keen to help if you contact them. They may be able to provide you with copies of old photos that their members have, or put you in touch with someone who worked on the local railway.

A visit to the area will let you photograph the location. If you model a recent period much will still be in place and unchanged, but even if the line went years ago there will be some buildings and bridges. Take photographs of buildings from square on if possible, preferably with someone you know in the picture to give a height reference, or measure say a door with a tape measure. Measure things like the width of roads and heights of embankments, and estimate the slope of cuttings, roads, etc., as best you can (this is very much easier to judge in person than from a photo). Contact the local history group; visit the local library and see what books and old records they have. If there is an industrial building you want to model the owners might be able to help you. The brewing company in Wickwar not only gave us access to historical architectural drawings of the brewery but gave us a tour, found some old photos, and sent us 2 cases of beer!

Videos and films sometimes show details not on still photos as the camera pans, and often show more of the composition of trains than a still which may only show the loco and first few wagons or coaches in detail.

OS maps are invaluable: the large scale ones (6" to the mile or now 1:10,000) show track in detail, down to where slips etc. are. You can buy copies of older maps, or you may be able to copy one at the local library. The railway companies produced maps of the track and adjacent buildings and roads

Aerial photographs can be found in books or bought from several different companies on the internet, who usually have an online index of what is available. They can show obscure corners that were not otherwise photographed, and are good for determining road markings – or more often the lack of them as roads in the mid-50s or even the 60s had hardly any compared with today. More recently Google Earth and similar give you aerial views for free of any current location. A map enlarged to be the same scale as the model is very handy to work from.

Railway societies covering the area or period you are modelling can provide further photos and plans, as well as railway documents. If someone has previously modelled the same area get in touch with them: they may have additional material they will share.

Look at a business directory for the place and time such as Yellow Pages or for earlier periods "Kelly's Directory", copies of which can be bought on CD. It will tell you what businesses were operating in the area and so what goods might have been shipped by rail. It will identify the use and owner of many of the buildings you are modelling, for example the names of the local coal merchants who had offices in the coal yard and names of local shop keepers.

You will need to find what trains ran on the line, apart from photos useful sources are:

- A working time-table (WTT) of the line lists all the trains that normally ran. Copies can be bought, but there are internet sites and email groups with scans of many different timetables
- "Working of Carriages" notices say what types of coach each train was composed of, including parcels trains – again sometimes available online.
- Locomotive shed directories will tell you what locomotives were resident in the area.
- Local enthusiasts often kept a detailed log of what was seen on a particular day. Even if from a station along the line, these are still invaluable in showing what mix of locos passed through on a typical day.
- Many private owner wagons were registered with the railway company, the Historical Model Railway Society PO Wagon Steward keeps a database of this information and can tell you what wagons are recorded as registered at a particular station.
- The National Archives at Kew contains many old railway documents which can be examined. There is an online index of what is available.

While you may not want to run an exact copy of the timetable, knowing what did run each day will help you run a representative mix of trains.

A prototype track plan makes the layout feel real, and frequently adds interesting quirks that complicate operations in a way that the "perfect" model plan avoids. Even if you are not modelling a real location, look at plans of similar locations and try and adapt one rather than making it all up. The track plan for Wickwar has several interesting features:

1. There are no facing points on the mainline. Facing points were always avoided if

possible, but some companies like the Midland made it a religion.

2. The goods sidings have a point at each end to a dead-end “headshunt” section so that a run-away wagon in a siding cannot run onto the mainline. This (or a trap point) was a legal requirement, though many models miss the point out.
3. As the site is a steep hillside the goods yard is very compressed with short sidings and a three way point. Most country goods yards are the opposite and very spread out.
4. The siding into the brewery is Y shaped, with only enough space for one van to move through it, and no chance of a loco shunting it directly. It was probably shunted by hand (using poles under the wheels to move the wagons), or by horse (the siding was removed around 1950 so not modelled).
5. The goods shed is over the loop off the down (Bristol) line. As locos were not allowed through goods sheds this raises interesting questions about how trains were shunted, and the loading platform on the other loop where wagons might be left adds further complication. Interestingly the daily pick-up goods travelled in the up direction, on the far line.

While you would like to reproduce the original location exactly, some compromises may be needed to fit the model into the space available. A common one is to shorten trains and distances. A six foot long 12 coach train may look good on a 30 ft long layout, but can look too long on one with only 8 foot of scenic length: an 8 coach train will still look very long on such a layout. Reducing by 25 – 30% is usually OK, any more can begin to spoil the effect. It is common to compress the ends of the layout rather more in order to get particular features in. Wickwar compresses both ends so as to fit in the tunnel mouth and a road bridge.

You may similarly need to simplify some of the pointwork. If there are four goods sidings you might want to reduce it to 3, it is likely to still give the right impression. Our model of Basingstoke though set in 1965 has the simplified post-electrification layout which misses out 2 long crossings that span the main lines: this does affect the model as not only were they very distinctive but it makes certain operations like getting locos to the shed difficult. You may need to change the alignment of the tracks, on Wickwar the track which is level on the model should be on a 1 in 200 slope, and should curve gently away from the viewer at each end but curves a little the other way to allow it to connect to the return loops.

It is useful to make a small scale model of your final model. This enables you to check viewing angles and to decide just how much to include, and can highlight areas where you need more information.

This gallery of photos on the research and building of Wickwar illustrates some of the above, including the LMS track plan, plans of the brewery building, and a small scale model we made of the area:

http://farnhammrc.org.uk/?page_id=399&wppa-album=18&wppa-cover=0&wppa-occur=1