“Bring Your Layout To Life” – Session Notes

These notes are to be read in conjunction to the presentation titled ‘Bring Your Layout to Life’. While the presentation uses two small dioramas to demonstrate what can be done on a larger scale to a layout in order to ‘Bring Your Layout to life’. The presentation seeks to stimulate your imagination to develop a number of related scenes that can easily be incorporated into any layout, and following some preparation, and then perspiration, these few simple scenes will enhance your basic layout scenery providing a visual sensation. A number of potential scenes will be covered and a number of simple steps associated with each scene that will help to move a basic layout towards being classed as a highly detailed layout with many small highly detailed scenes that can be further enhanced over time. Two identical diorama modules will be presented, the ‘before’ and the ‘after’, and via a Powerpoint presentation the step by step progression to the ‘after’ diorama will be brought to life.

This textual based version of the notes will supplement the Powerpoint presentation and describe via words in detail and show examples via pictures how to achieve some of the points presented in the Powerpoint presentation.

It can be considered quite easy to enhance a piece of baseboard with track on it to have basic scenery. This should be considered what every modeller needs to strive for as a minimum. But this is only a starting point towards a highly detailed model that has been brought to life.

However, many people may consider it beyond the abilities of a normal Joe Blow modeller to take the basic scenery to a much higher level of detail and in doing so – “Bringing Your Layout to Life”. My answer is Rubbish! Any modeller with an eye for detail, and a willingness to try something new can “Bring their layout to life”.

To break this type of work down into the various components on the layout that need to be worked on, let’s start with the following:-

- Scenery Contours
- Track
- Greenery.

Once this has been mastered then we move onto the super detailing of the layout through the topic ‘Detailing the Scenes’.

Scenery Contours

It is my opinion that before you lay any track on your layout, you must have a basic idea of what the scenery around the track will look like.

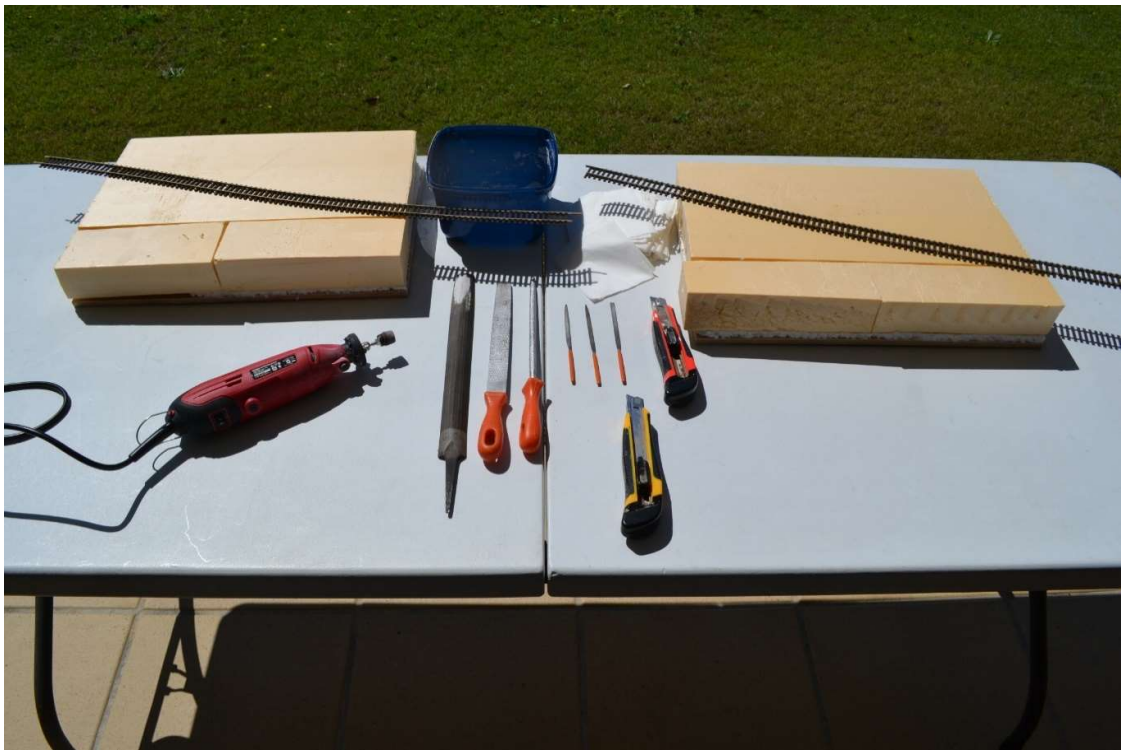
Contrary to what many nay-sayers believe, the world is not flat. Yes readers, the world is three dimensional. So maybe we need to replicate this on our layouts. Build the scenery up above the track. Let the scenery go below the track. An easy way is to lay the track on a block of 50mm high density foam so it is easy to build and shape the scenery below track level.

Normally there may be a reason for these contours around your track. Maybe there is a water course that runs through the area, or a mountain with some rockwork or a cliff face. These scenic features can be added and are a delight to view, let alone fun to make.

Maybe there is a road through the scene?

So how do we make these things? Layers of scenery height can be built up from layers of high density foam sheets glued on top of each other with PVA glue or with foam suitable builder’s adhesive. If you can’t get the high density

foam, good old polystyrene foam can also be used, but it makes a much bigger mess, when it is carved when making the various scenery contours.



These are examples of high density foam and the tools needed to carve and contour them into the basic layers of scenery.

If you don't use high-density foam, you can use polystyrene foam. This example shows that carving of the foam blocks has commenced and a roadway is taking shape running down towards a soon to be level crossing.

The foam layers can then be contoured with a rasp or a knife. It can get messy, so ensure you work in small areas at a time and clean up as you go. If possible do this "terra forming" work outside, as it may save vacuuming up the foam offcuts or beads upon completion. After the basic contours have been made, the foam should be covered, and there are many techniques to do this. Some people will use paper towels or tissues dipped in plaster, applied in layers to the foam. An alternate but very similar method is to use paper towels drenches in dilute PVA glue and laid over the foam.

In the above photo, the foam hillside has been covered with plaster soaked tissues. It will get another layer of plaster soaked tissues and then it will be painted and covered in dirts and coloured scatters to represent a hillside.

The same scene as above just from a wider angle demonstrating how large the hillside is in this area is.

Another example of a large area that was contoured with foam, then plastered over.

Once your scenery cover is dry, it should be given a good paint of a base water colour paints that tries to hide the stark whiteness of the scenery cover. You can use many different colours, it doesn't need to be same colour for the whole layout. Have you not realised that different localities around our homes and suburbs have different soil colours? This is just simulating this phenomenon.

This photo shows a combination of base foam, and some more that has been plastered and then painted a dirt base colour.

On the subject of cliffs and rockwork, these can be simulated with rocks made out of plaster in a small mould. The simplest mould is to use alfoil scrunched up and then expanded and flattened back out and with the edges turned up to form a four sided dam. This can be filled with wet plaster and allowed to dry. The plaster as it is about to dry, is then pushed against a vertical wall and the alfoil can then we peeled off the plaster and the resulting plaster looks like a rock cliff. This can then be painted with a variety of colours to look like the various strata and textures of rockwork.

This is an example of an alfoil based rocky outcrop made via the method described above.

The above photo shows an example of below track scenery and above track scenery.

Track

After the basic contours have been roughed in, the track can be laid on the layout. This may take some time. I firmly believe that you need to run the track for a considerable period before you start detailing it. You must ensure that there are no kinks, and trains do not derail, and that everything is in its correct place, before you start down the path of super detailing the track. You don't want to have to rip something up, because you need to add some more sidings, or more something a few centimetres in one direction after you have detailed an area.

Once the track is bedded in, I find it quite easy to detail the track. This can take a number of forms. Firstly the track can be painted the standard colour it is in real life. That is a brown/rust colour. I know many people use a spray gun to paint their rails. But there are now paint pens available of various colours at hobby shops. This is an avenue for those without access to spray gun to weather the track. I use a similar method, which is most likely much cheaper to accomplish. I use a whiteboard marker of a brown/rust colour available from a newsagent or an office supplies company. It is just as easy to use. I just wipe the whiteboard marker along the web of the rail. It may take more than one wipe to apply enough ink. But the process is fast and simple. Once the ink dries, another wipe will deposit more colour onto the rails. It will not come off.

The photo here shows the track that has been coloured by a brown whiteboard marker. Additionally ballast has been added and some details added. A walkway has been made out of old sleepers and the local fettler crew has left some replaced sleepers around the yard. A few weeds have also popped up in this view. The ballast in the closest track contains a much higher dirt content just to the left, underneath the cement wagon.

Curves on a piece of track can be super elevated and this is quite eye-opening when you see trains running around on a layout through a series of superelevated curves. A small piece of paper or cardboard, or 0.010" styrene can be slid under the outer rail of a curve to achieve super elevation.

One of the last tasks that I recommend you do on a layout is the ballasting. Yes – it can wait. I would suggest that you do this after all the other scenery is completed. The makeup of the ballast will depend upon the track being modelled. Is a mainline in a city or a cheap branch line in the country. A mainline will almost certainly will be laid with high quality ballast. But other types of track work may well be laid with smaller ballast sizes, with a lower quantity of ballast, and quite possibly the ballast will almost be a sand consistency. Some branch lines could be laid

with ashes as ballast. I have tried to represent mud holes within the mainline by changing the ballast consistency within a scene.

Above is shows the mainline and station yard area of my layout. The colours and types of ballast differs between the various tracks. The track to the right at the bottom of the photo is the head shunt and it has a very high dirt content.

Again this photo shows a siding that has been laid with not much ballast, but a lot of dirt. This is the right most track in the above photo. There is even quite an amount of dirt on the track to the left of the dead end siding. Various weeds are also seen growing in the yard at this location.

Now to finish off the track, detail items can be added, such as point rodding, point lever frames and so on. Maybe there are walkways across the track, for workers to safely navigate the track as part of their day jobs. Maybe there is a take off for track maintenance vehicles. But my favourite piece of enhancement to the track is to add loose sleepers to the track. Black and almost rotten sleepers that may have been recently replaced, or ones that may be new and about to be inserted to replace those soon to be removed. New sleepers are most likely to be of a different colour to the old decrepit ones. The old ones may not be whole. They may have been half rotten, and then half the size of a new sleeper. A wire brush can be used to reduce a sleeper made out of balsa wood or bass wood. I stain my old sleepers with a mixture of ink pad ink and methylated spirits. I know others use diluted India Ink. New sleepers are stained with methylated spirits and a some orange paint pigment to represent a newly cut hardwood sleeper.

Another trick I use in track sidings is to plant toothbrush bristles from an old toothbrush in the track secured in a hole made by a drill. The toothbrush bristles are secured in the hole by white glue. This has multiple benefits. It makes the track look overgrown, as well as allowing individual vehicles to be left on the track and have them not roll away when the track is on a grade. The bristles just brush against the couplers and the wheel axles and provide a retarding effect. A wagon being towed through the sidings by a locomotive will just push the toothbrush bristles out of the way.

The photo above shows a yard area with many sidings. The third track from the left has some toothbrush bristles coming up through the track to help hold single wagons without a loco attached in the siding, as this yard is on a slight slope. More toothbrush bristles are on the left most track in the bottom foreground.

Another way to enhance your track is to paint each sleeper a slightly different shade of faded wood. I have seen no better examples of this than on the layouts of Committee members of this Convention, Arthur, Peter and Bob. The end result is tremendous.

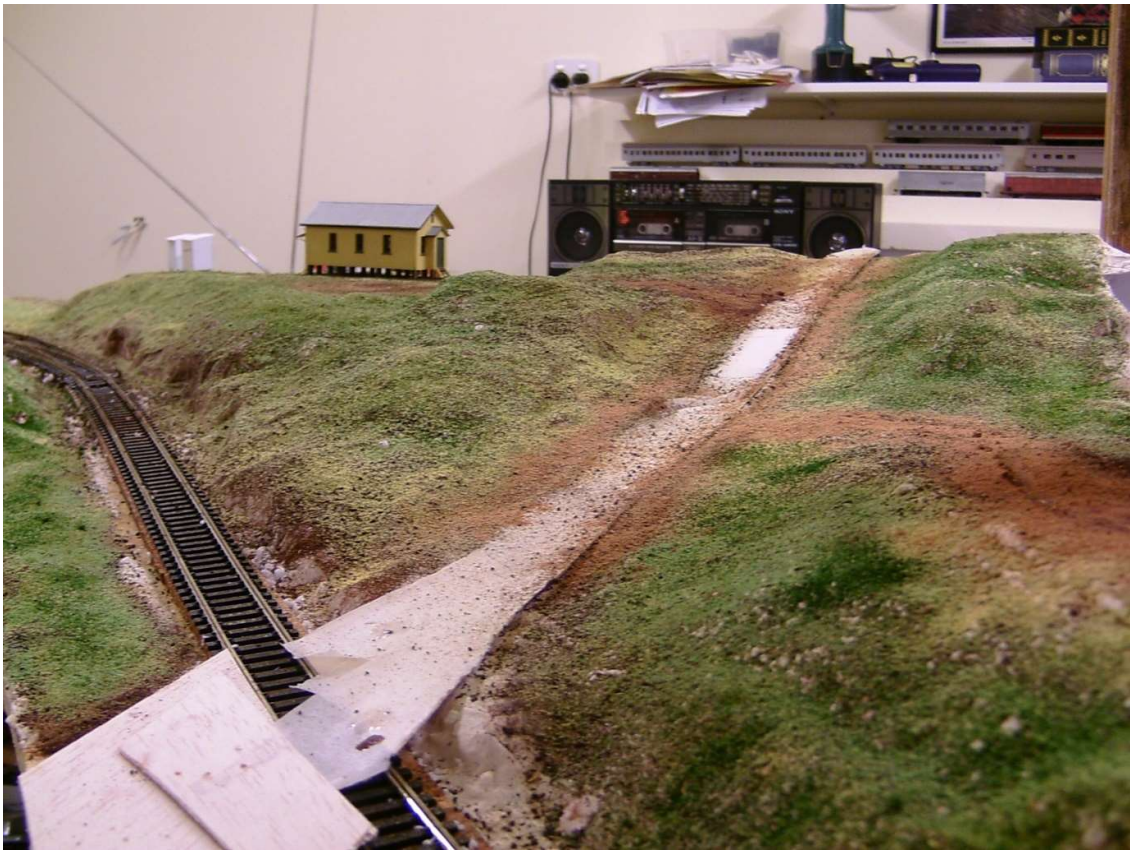
Greenery

Depending upon what you are modelling, the term greenery may not be correct. If you are modelling the Nullarbor, then you need a different base colour. If you are modelling a very sandy area, there may not be any greenery around also. In today's hot dry drought effected climate there is also very little green. It is mostly browns, fawns and typical Australian outback colours. But it depends upon what you are modelling. So my term for greenery is any type of ground cover that is built up above the painted covering on the foam.

To get started, from the painted scenery area I sprinkle the areas that I am working on with actual dirts, dusts and clays. You can also use various coloured tile grouts to get a base colour. After these are sprinkled on the baseboard, the are covered with a squirt bottle filled with a white glue and water mixture. This mixture, can be a fairly diluted mixture with something down to a 4 parts water and one part glue. This can also have a few drops of dishwashing liquid in the mixture as well. The dish washing liquid break the surface tension of the water-glue mixture and allows it to spread out on the baseboard and not bead up. So it allows it to soak into the surface much quicker. I then add more dirt material or various colours and then more glue mix from the squirt bottle is applied. The colours that I use, are blacks, browns, reds, whites, greys and pinks. All together forming my preferred under grass colours.

The next layer that is made is then the colour of the actual ground covers. I use a mixture of various ground covers, that have a colour similar to what I'm trying to achieve. Australian outback colours can be very light brown and fawn. Too green and it will look like an English countryside with a high rainfall total in that area.

There are many Australian type colours in the Oz Flock range and Woodland Scenics ranges. I have collected many suitable colours over the years. But I mix many colours in different areas, and still have light greens, dark greens, yellows, and fawns.



This scene is the progression of the contoured foam from Page 2, with a road way down to the level crossing installed and then masked up to prevent damage from the next layer. Various dirts and ground covers have then been applied.

Detailing the Scenes

Up to this stage, we have a base covering over the whole layout. So having completed the above tasks, you are likely to have a fairly well detailed model. But you can go further along your path to 'Bringing Your Layout to Life'.

Buildings can give the layout a sense of purpose. Building can fall into two categories, railway related and non-railway related. Of course items under the category of railway related, can be station buildings, goods shed, various perway or fettlers sheds, signal boxes, and loco or carriage sheds. This category can also extend to staff barracks and other types of buildings that basically are within the railway right-of-way boundaries or have railway tracks leading to or past them. For buildings within the right-of-way we do not need to model anything outside the right-of-way. Some of these buildings especially those behind the railway tracks can be modelled in low relief. Thus only the front façade of the building needs to be modelled. This can add depth to the scene and also makes the building a whole lot easier. We can build various bridges in low relief over and or under the railway line. These just stop at the backboard or at the front of the layout and the viewers imagination continues them on beyond the layout. Also some stations have bridges for passengers to move from platform to platform clear of the railway lines. These ideas present many opportunities to detail your scenes. If railway goods sheds or railway industries are included, lots of clutter around them is a must. Things likes scrap bins, fork lifts, truck trailers and lots of drums and pallets. If we are modelling the outback instead of a suburban area, then the water tank will be a feature on many houses and sheds.

Along the railway right-of-way you will also see telegraph poles. These can be purchased or they can be scratch built. I like to run various types along the railway line in all of my scenes, as these appeared in the areas and era in which I model.

Above is an example of good shed, in low relief. The other half is in low relief on another part of my layout. The tracks has been ballasted and there is lots of clutter around the building and on the platform itself.

Another example of railway buildings is above. The ubiquitous fettler's sheds. This is the large hilled area as shown on Page 3. Again ballasting and then detail items like water tanks and lots of new and old sleepers are present. A few trees are starting to be planted in this area.

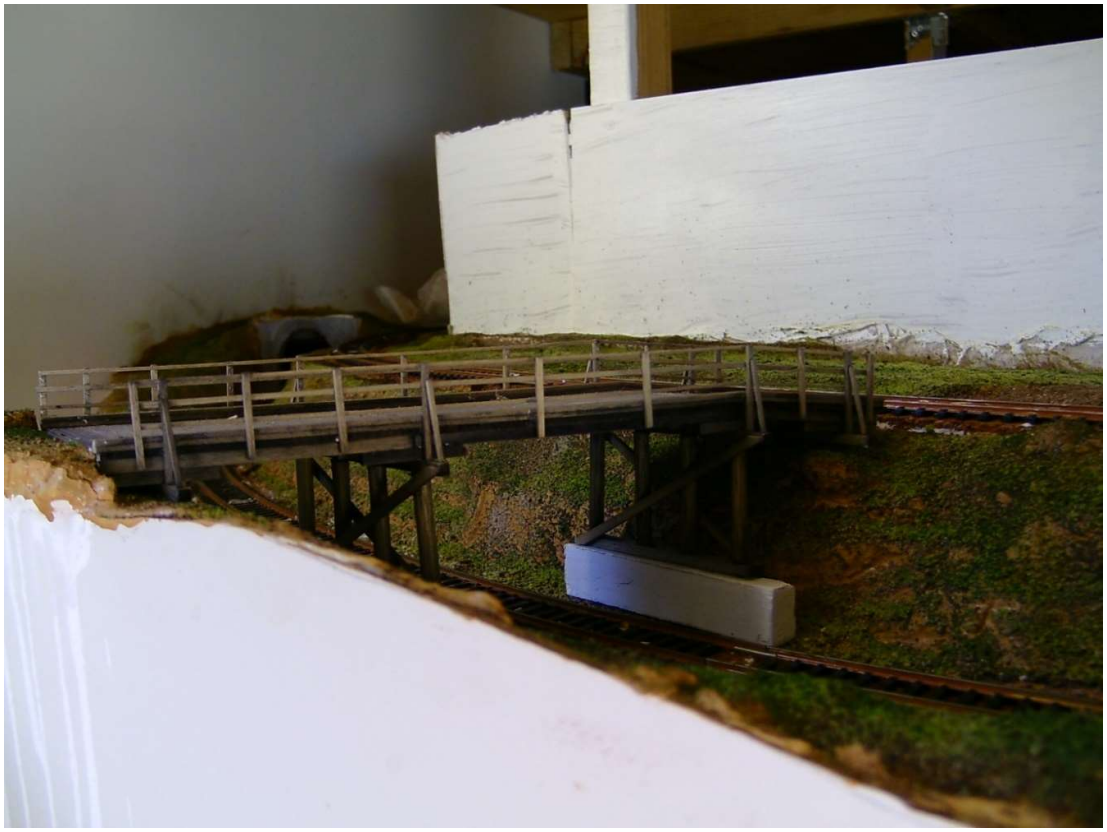
This photo shows the platform, with a staircase up to an overhead station building which is next to a road overbridge. On the platform are some luggage carts and some empty flower planter pots. Again the track has been ballasted and some signalling detail items are on the left hand side.

Non-railway category buildings are those that I classify as being outside the railway right-of-way. This category can account for whole suburbs of construction. Houses with backyards, farm houses with paddocks, industries that are not railway served and the old corner store or old fashioned garage, all fall into this category of building. If we are going to model houses with backyards, these have fences and normally in the backyard, there are sheds, gardens, junk piles, and cement paths. Don't forget the swing set, the BBQ and perhaps a chick coop. Depending upon the era being modelled, we might still have the backyard dunny to model. These items are fun to model and be built from styrene or scale lumber. There is no right or wrong model. There was never two built the same. So just go with photos or your imagination. The front yard, could have a separate carport, or car garage. There would normally be items like a path to the front door, concrete driveway tracks, a front fence with a letter box and of course all of the access points will most likely have gates. As most of these types of buildings as they are beyond the

railway right-of-way, they will need to access for the peoples of this miniature world to get on with their lives. So this will enable us to expand the types of details we can have on our scenes. If we extend from the railway area, we will start modelling more roads. Of course any type of suburban road, will have things like gutters (made from styrene 'L' shape), maybe a drain, even maybe a manhole cover in the road. Only the highly super detailed model will have these items, so why not your layout? Along the footpath outside the yard, there is most likely a concrete path surrounded by grass. Again the houses will need power, provided via overhead power poles etc. Who knows, this might be a modern era layout, and the lower hanging Foxtel cables might have to be modelled as well. Of course the postman needs a letter box and maybe the milko needs a box to put the milk inside.

I enjoy buildings road over rail bridges out of various wood and scale lumber. These structures can be used to tie together the scenery on both sides of the railway line. The surrounding scenery needs to be brought up from track level to above track level to allow the roads to get to the bridge. Of course once we have a road, we can expand our detailing process to include street signs, road side signs, speed signs and even road markings. Not all roads are straight and if you have some sharp curves, you might need to include some guard rails around the corner. In an open road, there might also be some guide posts either side of the road made from 1mm styrene strip. A road is not just a road. Most roads have a camber to them, this way water runs off the road when it rains and makes it safer to driver on. Did I mention gutters? These capture the water and allow it to go down the drains and head towards your creeks. You can have a whole ecosystem on your layout. Your roads, particularly if you are modelling a multi-lane road, needs to have a camber to it. The high point being in the middle of the road and lower on the sides.

A road over rail bridge placed into the scene. The road has been placed at either end, made from balsa wood stained with ink diluted with methylated spirits.



Another road over rail bridge on the layout, this time starting at the very edge of the layout fascia. This phot was taken soon after the bridge was installed.

To make roads, I like to use balsa wood sheets that are about 100mm wide and can be 1mm to 1.8mm thick. The sheets are up to 900mm long. I stain these with a mixture of ink pad ink and methylated spirits. You can make the balsa go different colours by varying the amount of ink in your staining mixture. Newer bitumen is darker in colour and old bitumen is a lot greyer. The sheets of balsa are being laid as the road, and can be curved to even form the road camber. This is done by gluing a piece of balsa strip down the middle of the road and curving the balsa over this middle stip. The road could be a single piece of balsa or two pieces – one for each side. I apply glue to the middle and the two edges of the road and the balsa can be weighted down and the glue allowed to dry.

The same bridge as above. This time, the Farm has sprung up behind the bridge and we have road signs and much detail added.

Some roads are also equipped with road markings. To make the road markings, I do not paint them on. I can never get a line thin enough to represent the size of scale line markings and any hand drawn line will not be straight. These I find are big draw backs in presenting a nice scale highly detailed model. To make my road linings consistence, I use strips of styrene. In particular, 0.010" x 0.030" styrene strip for the road lines. These can be bent around curves. I use styrene glue to 'weld' the styrene to the balsa. You can make solid lines, double lines and even broken lines.

Above is an example of road markings around a railway level crossing. A guide post can eb seen on the side of the road to the left.

Another level crossing. This is a model of an actual crossing at Hotham Street in Casino. The concrete footpaths are currently just paper, but will eventually be 0.005" or 0.010" styrene strip or sheet cut to length.

Many simple kits are available for roadside signs, but they are just as easy to construct from scratch from a photo, printed out and attached to a piece of fine wire with superglue and placed on the side of the road.

The simplest signs to make are the railway crossing signs, using code 40 rail for the post and styrene glues to then for the crossing sign and the warning triangle. The words are printed out on a computer and glued to the styrene. Other kits can support the detail that we are trying to show.

I feel that a less modelled component of the railway environment is the line side fencing. This can take the form of many types. Again, it will depend upon if we are in the country or in the city. You also have to know what era you are modelling as an old fashioned scene from the 60's may not look correct with a 6 foot steel post railway fence. However, the opposite is quite probably and can add character to a scene.

If we are going to have roads, then they are most likely going to be habituated with cars. But it is no use having a modern car in a 1960's steam layout scene. The supporting cars and trucks also need to support the era we are modelling. The Road Ragers and Cooee Classics brands of vehicles available at many local model shops are some detail items that can support our local roads, as well as now, Auscision Models has some reasonable modern car packs (basically for their car carriers) to assist us. There are plenty of American outline cars, but they are all left-hand drive. The British scene has many versions of cars that ran on our road from yesteryear, but they are usually a different scale, being 1:76 or 1:72 instead of 1:87 for HO. But some can be placed in the distance and compliment our scenes quite well.

Of course, if we have buildings with cars and trucks, we might need to have scale people available. These can be purchased from the local hobby shop, from many manufacturers and populated around the layout. Be aware that some from British firms could be a different scale again – 1:76. This scale difference might make the people up to 6 inches to 1 foot taller. Now that should not be an issue, as people come in all shapes and sizes.

The most obvious locations for positioning people are driving our diesel and steam locos, inside passenger carriages, or if the era suits, hanging out of a guards van. A station platform would seem bare without people, as well as some seats and maybe the odd pot plant or luggage trolley. People working in a set of shops, walking down the road towards the corner store, hanging out the washing, painting a house or bridge, or even out in a field with our four legged detail items, like cows, sheep or horses, etc. No farm scene is complete without the farmer's trusty dog. If

we are in the city, there will be birds up a power pole, sitting in a tree, while in the more rural areas, we are likely to see a kangaroo, a wombat, koalas up a tree, a crow eating some roadkill, and maybe a snake slithering along beside the road.

This scene is a of a farm house taken from behind. There are sheds, an outdoor dunny as well as water tanks. Of course there is the clothesline. We can even see a wheelie bin, wheel barrows, and the mower under the house.

If we have farm animals in a scene, we know that they need to eat and drink. Maybe there will be water troughs, bales of hay, sheds housing bales of hay that have been stockpiled. Again the various paddocks will be divided off with various types of fencing with gates between the paddocks. This allows some to be growing, while others are available to be eaten by the animals. Most likely supporting equipment will be in the paddocks, like tractors, and trailers, and other farm equipment like ploughs.

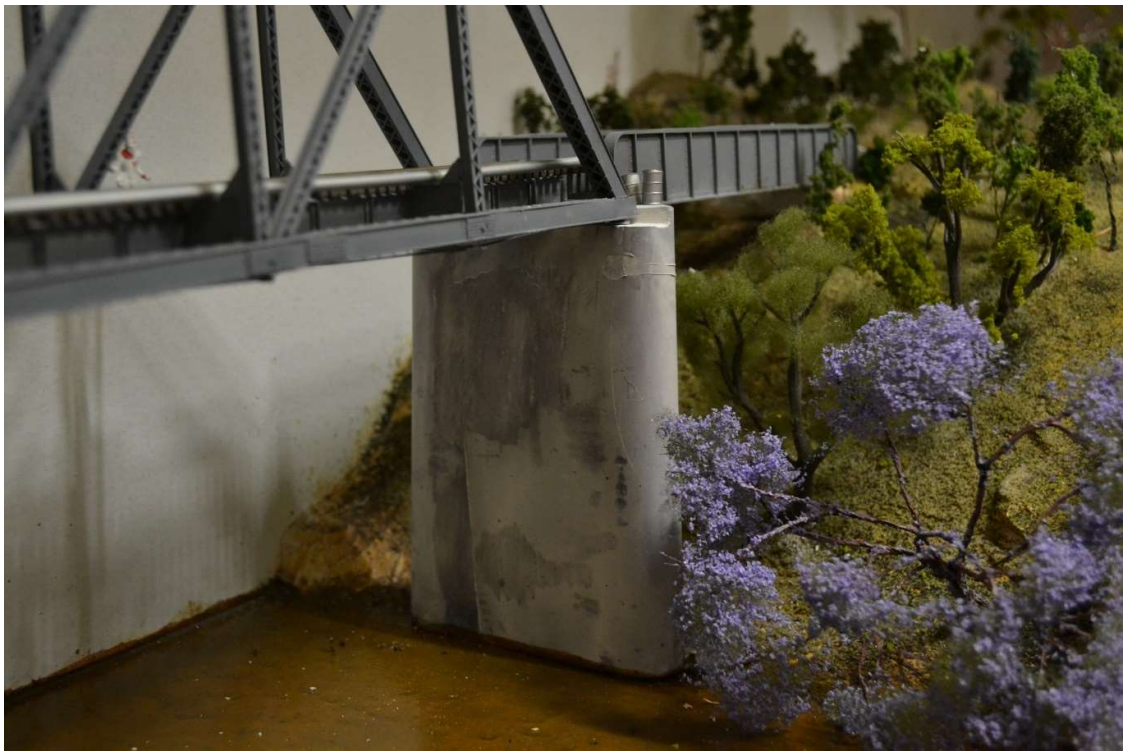
This farm scene has the farm checking something on his tractor, as a couple of cows go about their business. In the background there is a fettlers camp on the other side of the railway.

Another scene with cows in some low relief pens for the loading of cattle. While most of the grass has been eaten, there are some flowering weeds and a few damp spots following some rain.

Another scene with farm equipment interacting with farm animals. The trough has water in it. The abandoned jeep has met its match with a tree.

This farm scene is shot from the opposite side of the layout to that on the top photo on Page 16. This farmer has a caravan, a boat and a trailer, along with standard fare for a farmer – a tractor and an old classic car. The farmer's son is swinging in a tyre hung from the tree in the rear right of the photo.

If we are going to go to the trouble to have some sort of creek or river under the railway line, we better have water in it. I have had some success with Timber Clear finish used for water. Both in a farm trough (previous page), laying in a low area within a field (cattle pens previous page or the bottom photo on Page 7), or in the bottom of the creek or river, this item can be painted on to create water affects. Bridges over the water courses can be either built from a kit, kit bashed from a kit obtained from the local hobby shop, or if you are eager enough – scratch build your own.



This scene shows a kit bashed bridge with many scratchbuilt components, the girder bridge to the right is scratchbuilt as are the piers that the bridge rests upon. We even have a clown climbing on the bridge.

This happens to be the other end of the bridge on the previous page and is a model of the bridge over the Richmond River at Casino. Some water divers are looking for someone that seems to have had a mishap in the river.

Water can exist in lots of other places besides creeks and rivers. Around this area, there seems to be a few pools of stagnant water visible in this photo.

Other items that really bring a layout to life are lights and sounds. Lighting on a layout can take the form of many things. Maybe there are lights that illuminate the baseboard. I use strips of LED lights that are hung from underneath the pelmet. This looks very nice when turned on as it projects the lights onto the layout highlighting the layout. Maybe there are lights inside shops, buildings, and houses, on cars in the form of headlights and stop lights. Maybe a working set of level crossing flashers or a set of traffic lights that change colour can be a fantastic scenery addition. Light can also take the form of a flashing light on a high building or tower. Light can also take the form of many colours and a bush fire made up of yellow, red and orange lights can be a great scenery effect. I really like to install incinerators with a flickering LED inside it and them located at fettlers camps or in a backyard.

Having various sounds emanating from your layout can be a very soothing feeling. Maybe there are birds chirping, water running, or even sounds coming from an industry like a welder, or the hitting of a hammer on metal from the fabricators building. Your options are endless. If you have a station and modelling a suburban scene, you can have like one of the Convention organisers, and have the 'Stand Clear, Doors Closing' message able to be played as an QR electric train is about to leave the platform.

There are very many items that usually support the track that are hard to get. So why not make them? These include bridge piers, as shown in the photos on the bottom of Page 18 and the top of Page 19. These are created by making a mould and pouring plaster into it and allowing it to dry.

I have also cast all my tunnel portals from plaster from a mould that I made out of wood and styrene. I do imbed some wire into the plaster as it is poured to act like reinforcing and hopefully stop the plaster from cracking over time.

The above scene shows some plaster bridge piers and in the distance is one of my plater tunnel portals.

The only item that we have not yet covered is the item that people will most expect to see on a train layout. It is the tree. Trees can be purchased from your local hobby shop in different shapes, sizes and types. They can also be different colours depending upon the season being modelled. I guess people will assume that my layout is set in the October period as the Jacarandas seen in the various photos are all in full purple bloom. There are a few points to state about trees. Not all trees are the same size in both height and width. There are many smaller ones.

Additionally not all trees are alive. Yes, model a dead tree or two. Model others fallen over due to a storm that might have come through. You can also hang lots of items off a tree. A tree house for example! That happens to be my next project. I just need to find a suitable tree on the layout to start with. I have seen people swinging off rope into a creek from a tree. I have tyres hanging from a couple of trees on my layout as makeshift swings.

Trees are an item that I think really finish off on a scene, and certainly brings it to life. You might be able to place a bird or a koala up a tree on your layout. Trees come in many price ranges. You can buy cheap ones, or you can buy expensive ones. You can make them from scratch from twisted wire, 'No-more-gaps', paint and commercial foliage.

The above scene actually has over 70 trees of varying shapes, sizes and colour within it. It is still not complete and along with a bushfire (an application of light on the layout) will go along way towards completing this scene. What is not shown here is a creek running down the middle of these scene with water in it. It also has a rock cliff, fences, telegraph poles, a short rail bridge over the creek, a tunnel portal, lots of sleepers ready for installation and trees that are dead and alive as well as some that have been cut down. The track on this sweeping curve here is super elevated for added effect.

The last thing to add to your layout is some sort of backscene. These can be photo qualify available from many suppliers, or you can construct your own via installing a selection of photos behind your buildings or trees. Alternatively, you can just paint your own backscene with the help of imagination and good quality paints and brushes. But that is a whole separate topic.

Hopefully these supporting notes along with the presentation have inspired you to "Bring Your Layout to Life".

---oooOOOooo---