MODELLING THE RAILWAYS OF QUEENSLAND CONVENTION

Modelling Notebook

Jacaranda Trees

This note on modelling Jacaranda Trees resulted from a demonstration by Kerry Hayes at the 2016 Brisbane Model Train Show where she was helping promote the 2016 MRQC. Kerry and her grandson are in the photos, Lynn Zelmer is the photographer unless otherwise indicated.

The demonstration resulted in about 30 Jacaranda trees destined for an exhibition layout designed around the Grafton Jacaranda Festival. However with minor changes in colouring and materials the same techniques can be used for almost any deciduous tree.

Jacaranda Trees

The Jacaranda *mimosifolia* is a sub-tropical tree native to south-central South America and has been widely planted around the world. They can reach a height of 10-15m (114/172mm in HO scale), spread out about the same size, and bloom in spring and early summer. Flowers can last for up to two months, dropping to colour the surrounding ground, and are replaced by woody seed pods with flat winged seeds. The bark is relatively thin and grey-brown in colour, getting rougher and darker as the trees age.

Jacarandas have been widely planted in Australia, notably on the University of Queensland campus and similar public sites. Grafton in the Northern Rivers area of NSW holds an annual Jacaranda Festival late October to early November.

Know Your Tree

This article describes the making of Jacaranda trees in their flowering phase. Other trees will have different trunk, branch and leaf structures/colours, and likely quite different dimensions/profiles and ground coverage. Collect photographs of the type of trees you are modelling and note their distinguishing features—size, shape and colour (bark and leaves), etc., in both individual trees and in groups.

It may be necessary to selective compress some aspect of the trees you are modelling. Modellers of the tall cedar and fir trees of the USA's Pacific Northwest, for example, sometimes model only the underbrush and lower trunks of their trees, with a valance to hide the lack of tree tops.

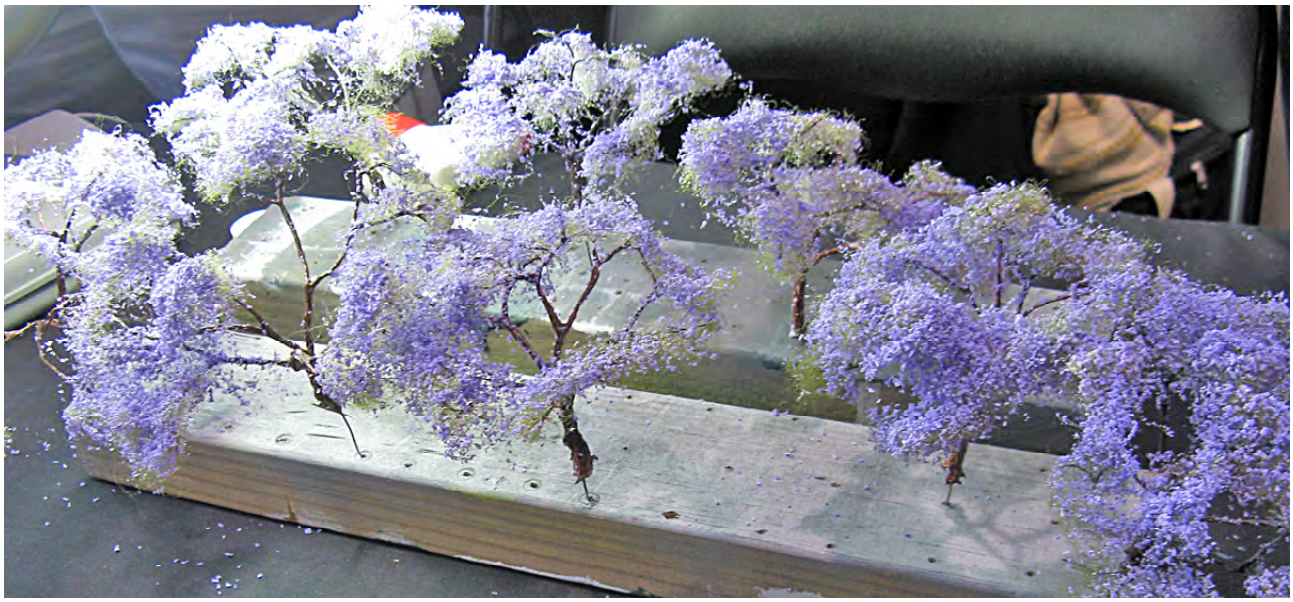
Armature Technique

First, locate a source of stranded copper wire. This can include old power leads, industrial multi-strand wire and welding cable, purchased or reclaimed. The finer the individual strands the better for smaller scales as the ends of the strands represents individual twigs on branch ends.

When the outside sheathing has been removed the copper strands will be in one or more bundles which can be separated for use. Handle these bundles with care to avoid tangles and separated strands.

Cut one or more bundles to a length of twice the height of your tree, fold in half and twist the folded end to form the base and trunk of the tree.

Jacaranda trees in Grafton, Northern Rivers NSW, November 2007. Photo from http://pete-n-pam.com/main/041_060/page055.htm. Note the bark colour and texture as well as the profusion of flowers and the differences between individual trees.



Some of the roughly 30 trees completed at the Brisbane Train Show. The wire armatures had been prepared in advance (sitting in front of the TV for the most part) and two individuals added the poly-fibre while answering questions about the technique from the public. The lilac 'leaves' were then added to the completed structures towards the end of the day to minimise gluing mess and clean-up.

Evolution of a tree armature starting with a single bundle of wire (top centre) and the beginning of a tree structure through twisting and splitting (top right). The remaining three examples started with a doubled length of wire and a stiff wire, pin or nail soldered on to assist in 'planting' the tree on the layout. The branch structure is still being finished on the bottom right armature, while the bottom left is complete.

The final armature (top left) has been spray painted with an etch primer, then finger painted with *No More Gaps* or equivalent, and finish painted with inexpensive dark brown and burnt umber water-based paints.

Armature Technique (cont)

Next solder a small piece of stiff wire, rod or a nail to the base of the folded bundle to assist in mounting the tree to your layout.

Determine the length of the trunk and start separating and twisting the wire into big limbs, then into smaller branches and out into twigs to shape your tree. The photo (top) shows a variety of trunk lengths and trunk thicknesses. While it's true that you can probably always find a tree in nature that resembles your effort, your trees will be more realistic if they have a structure typical of the tree being modelled. Looking at photos and seeing the trees in a natural setting will improve your results.

The *Australian Model Railway Magazine*, June 2014, Issue 306, Vol 26 No 9, has a great article "Why not Model Gum Trees?" by Ross Hurley which has tree diagrams and will assist you greatly in forming a typical gum tree.

Close-up of the completed armature from the previous image. Note that the fine 'twig' structure at the ends of the branches are painted well enough that the copper colour doesn't show. This is a relatively smooth barked tree, thus the trunk has been smoothed with just enough texture to ensure that it doesn't look like a dowel or other circular form.

Spray tree with an etch primer, particularly the outer ends of the limbs to hide the copper colour/shine. Apply *Selley's No More Gaps* or a comparable product to the wire, dabbing it on to give the bark texture. A few drops of water will thin the sealant as required and assist in making the trunk smoother.

The use of a flexible material such as *No More Gaps* means that branches can later be bent as necessary and/or re-formed after being crushed or damaged on the layout. Do not use a silicon-based material as silicon will generally not accept paint.

Paint the trunk, branches and limbs a grey/black colour, cheap water base paint is great. Kerry used a dark brown and burnt umber.

Foliage Technique

A series of holes in a length of timber provides support for trees under construction. These trees have their foliage base completed using *Woodland Scenics* green *Poly Fiber* and are waiting for their Jacaranda 'flowers'.

The foliage base is a fine fibre such as *Woodland Scenics Poly Fiber*, stretched thin and strung onto the branch tips almost like a spider's web. Alternatively use a product such as *Heki-flor*, which has some leaf material already applied to the poly fibre. The required flower/leaf structure can then be applied using coloured ground foam or a commercial leaf material.

For our Jacaranda trees Kerry and her helpers bent the armature branches out into a realistic tree shape and fanned out the painted copper tips. They stretched individual tufts of *Woodland Scenics* green *Poly Fiber* quite thin (she wanted to be able to see through the top once the flowers had been added) hooked them over the branch tips.

Once the fibre stage is completed spray with *Woodland Scenic Cement* or a diluted PVA glue, soaking the fibre base, and sprinkle on the flower (or leaf) material to the required density. Spray again to soak the flower/leaf material so the poly fibre will stay on the branch tips and we don't lose any leaves/flowers. Kerry used a recycled *Spray n'Wipe* hand sprayer which fit the cement bottle.

Sprinkling on the Scenic Express leaf material after soaking the poly fibre with a clear drying liquid cement.

Kerry has previously used lavender *Flower Soft*, available from cardmaking suppliers (30ml tubes cost about $9.50) but the trees illustrated used *Scenic Express SE6563 Lavender Leaf Petals* less expensively available from hobby shops which stock scenery supplies.

Placing a tree in the 'spray booth' in preparation for soaking a second time after applying the lavender coloured leaf material.

Finally, set the trees aside to dry before adding to your layout.

A Poinciana tree made using similar techniques on the Giligulgul exhibition layout. Note also the fallen flowers.

As mentioned earlier, this technique works equally well for a non-flowering tree. Use at least two green leaf shades for some variety/highlights in your tree and consider lightly spraying the tree from underneath with a grey or brown paint to add extra shade effect.

Completed armature with poly fibre flower/leaf structure completed (left) and a similar armature with the flowers added (right). The flowered trees have sufficient foliage to look good in clumps or in a row of trees, but an isolated tree might look better with a second coating of the flower material. Remember to scatter some of the flower material on the ground around the trees when placing them on the layout. Root structures can also be added by forming the wires around the base before soldering the mounting rod/nail.

HO scale Gum trees made with similar techniques on the Giligulgul exhibition layout. Given the height of the trees on the photographic backdrop a few more mature (taller) trees would fit the scene and not block the track view too much. There is always a judgement call with selective compression but likely well proportioned trees with a height of 20m (228mm in HO) would be acceptable in this scene… noting that, unlike the Jacarandas, the crowns on the gum trees in the backdrop are more dispersed (and layered) so that the crown doesn't extend out the same diameter as the height of the tree.