

Modelling Palm Trees

John Henshaw has found an easy and inexpensive method for modelling palm trees. As he explains:

I was searching in the garden for something suitable for foliage and found that we have several wattles (Cootamundra Wattle, Acacia Baileyana) which provide what I can only describe as miniature palm fronds.



Construction is proceeding on John's new Toolebuc Sugar Tramway with several of his palm trees temporarily in place. The micro-layout is 500mm square.

So, I tried pipe cleaners for trunks, bending over the last 5mm or so a couple of times to bulk-up the top of the tree. I cut off the bifurcated tips of the leaf branches so that I had pairs of fronds. I lay these upside down on my bench and arranged them in a circular pattern (lightly pinned to a piece of balsa) so that the fronds overlap.

I liberally coated the top of the trunk in PVA and pushed this down onto the centre where the fronds converge. I left this to dry, upside down of course, then, using more double fronds and some long single fronds, glued these around the head of the trunk, slightly below the first layer.

Next I used some grey/green/brown poster colour to colour the trunk and sprayed the whole thing with hair spray. This did two things: first, and I hope this works, it fixes the plant life so that, over time, it won't dry off, change colour and moult. Second, it deepens the grey-green natural colour of the wattle to a deeper and, more importantly, glossy green.

I improved my technique by pre-colouring several trunks, by adding further fronds on the top to hide any apparent joins, by using the tiny flower buds as foliage under the fronds. In a couple of hours I had a veritable forest of palm trees.

I am going to experiment with these materials to try and make tree ferns for the shady gullies. These will need some sort of dye to make the fronds darker and simply a darker trunk.



One typical variety of palm tree seen in Queensland. Such trees often have curved trunks from leaning away from the prevailing winds. The rings on the trunk are annual growth marks. The frond structure is very similar to a feather duster, with old and dying fronds hanging off the bottom.

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Tips cut from Acacia Baileyana (Cootamundra Wattle). Notice how the very end ones are paired. Use these in preference to the single ones which attach below the paired end tips.



Three pairs of "fronds" arranged radially. Pre-stained trunk bent over twice at top. Use a liberal application of PVA glue. Use pins to secure temporarily if necessary.



Second layer of paired fronds in place.



Third layer of fronds in place, some of which can be singles. If necessary, add further detail below the fronds to represent the sort of foliage that is seen there.

Spray completed tree with hair lacquer to preserve foliage and give a glossy look.



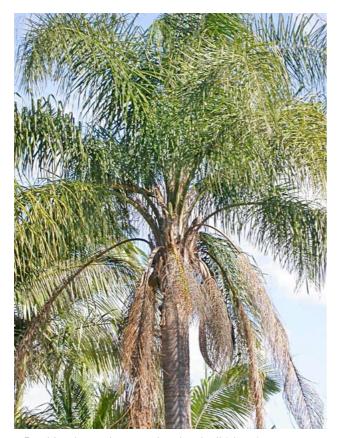
A group of completed trees.

Editor's Comment

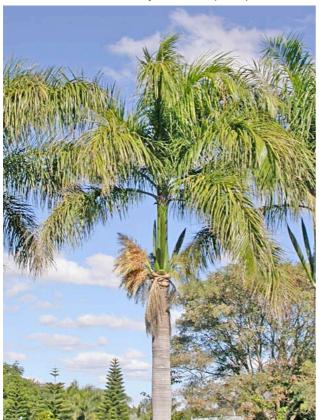
While similar trees in plastic or fabric are available commercially, John has provided a great technique for scratch-building one type of palm. However, there are dozens of different kinds of palm tree, with different types of frond, distinctive shapes and heights, and often fairly unique trunks and fruits. Consult a tree guide, paper-based or on the web, for details of specific types.

Model palms will look best when planted in small, irregularly clusters consisting of an odd number of trees, rather than in a straight line. Try to vary the heights within each cluster, even when modelling a plantation, with at least some of the smaller trees planted under/among larger trees.

In the wild some palms will likely stick well above the top of surrounding trees and will often be in an area with lots of undergrowth. Even within a plantation other crops (forage, pumpkins, etc., but obviously not sugar cane) may be planted in the partial shade of rows of palm trees.



Dead fronds are almost ready to break off (above).



Palm flowers at the top of the main trunk (above and top right) provide a distinctive appearance that is quite different from the old, dying fronds which are ready to fall off.

Palms are grown in domestic gardens for their decorative value. Commercially they are primarily grown for coconut and palm oil production.





Ripe 'King' coconut ready for harvesting (above) as a safe, refreshing drink. Other coconut varieties have a green fruit when ripe, while other palms have clusters of dozens of similar shaped, but much smaller fruits.



Variations in the base of palm trees in a landscaped garden setting (above and next page). In the wild the variations would likely be more extreme and root systems, barely visible on the right side of the tree above, are often exposed, especially on sandy ground.

The rings visible on the trunk are comparable to the concentric rings in conventional trees and are formed as dead fronds drop off. Palm trunks can be used as posts but cut timber has little strength.



A grove of palm trees at the Bundaberg Botanical Gardens (below). Note the variations in size, shape (especially the trunks) and colour.

Editor's Comment (cont)

A wire armature, covered with a flexible gap filler or putty, is a common technique for making tree trunks, especially in the larger scales. This could also be effective in creating tapered palm trunks.

Acknowledgments

Text, tutorial and model photos by John Henshaw; palm tree photos by Lynn Zelmer.

Further information on John's *Toolebuc Sugar* layout can be found in the model/member section of the CaneSIG web site.

