Modelling Cane Railways

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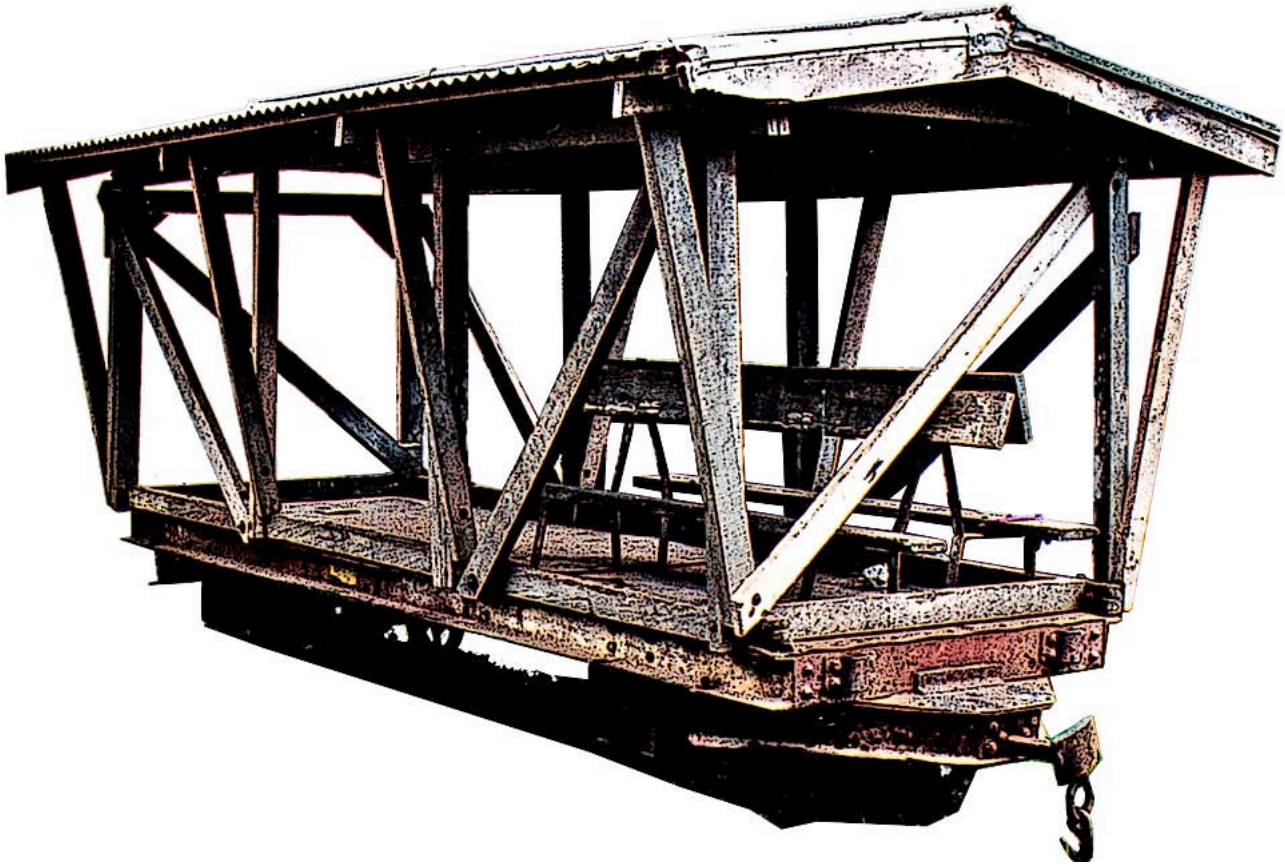
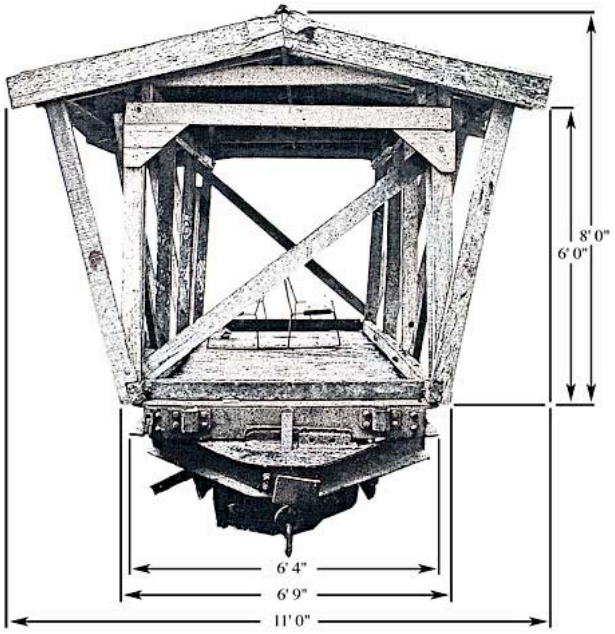
Navo (Fiji) Navvy Car

CaneSIG: http://www.zelmeroz.com/canesig

Building the Navo (Fiji) Personnel Car





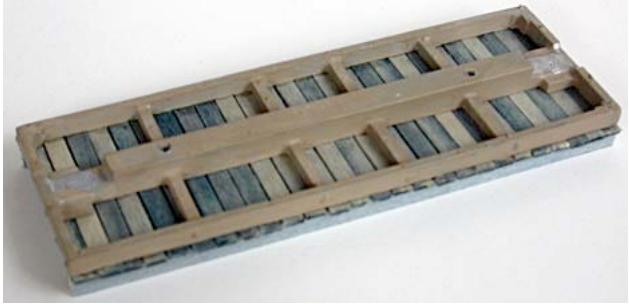
The Fiji Sugar Corporation personnel car (above and left) was photographed at Navo in 2006, and is typical of the home-made wagons in use there. The dimensions shown have been scaled from the photo and assume the underframe is 6' 4" wide (see text). Images created from Brad Peadon photos.

I fell in love with this car when I first saw a photo of it following a railfan trip to Fiji in 2006. The Navo personnel car is unusual and a modelling challenge, but it's typical enough of Queensland practice that it wouldn't look out of place on my freelance cane railway. The fact that its width makes it too wide to operate on almost any layout is another matter, and has been ignored.

Brad Peadon's photos were manipulated in Photoshop as the first step in developing the model. The simplified images allowed me to identify all of the major timber elements and to establish proportions.

The scaled dimensions are based on an assumed underframe width, the width of the O scale (1:48) *Mountain Blue Miniatures* underframe (MBM-033) which I intended to use for the model.

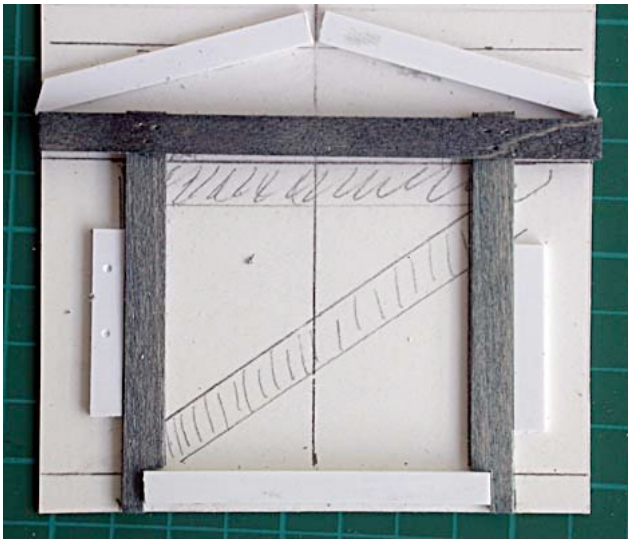
I started modelling back when you always had to construct your own car underframes, usually out of wood. They were relatively light, seldom ended up very square, and had minimal detail. I had recently purchased a cast metal *MBM* underframe which appeared ideal for a model with as little weight in the superstructure as this personnel car. The casting isn't absolutely square either, and also has minimal detail, but it's heavy and reasonably free of flash, readily accepts a *Kadee* #5 coupler pocket, and can be drilled and tapped for fixing the bogies.



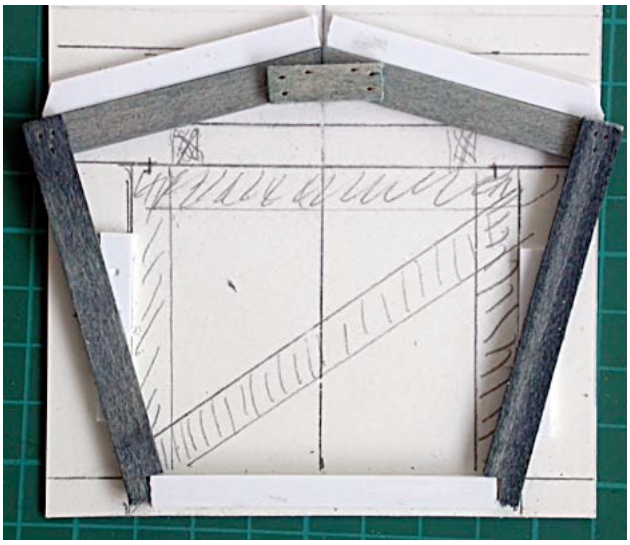
The underframe after the bogie screw holes have been drilled and tapped and the 2 x 6 timber decking added. *Kadee* coupler pockets will be superglued to the grey pad areas.

The deck, right side up, with 2 x 6 decking and the 4 x 8 superstructure timbers superglued in place.

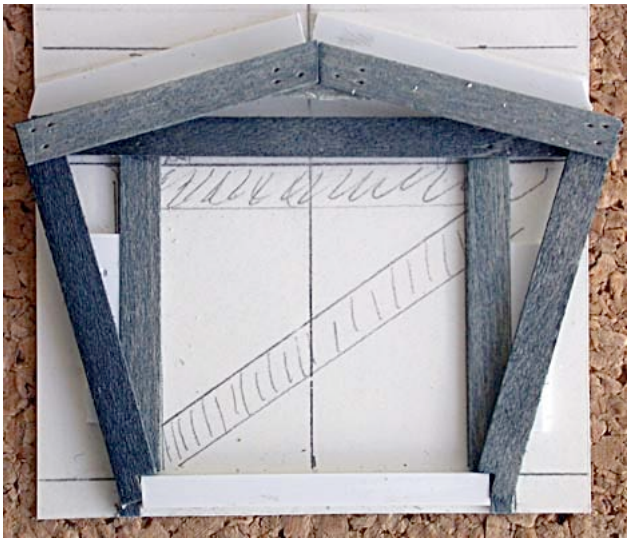
The timber is mostly *Mt Albert* O scale lumber, with a small amount of *Northeastern* HO scale lumber, and was stained with watercolour paints (Payne's Grey and Burnt Umber) prior to assembly with gap-filling superglue gel.



Simple jig 1 with 2 x 8 timbers for internal superstructure being superglued. Note nail holes where timbers join.



Simple jig 2 with roof support timbers being superglued. Nail 'holes' have been added with a sharp pick and later will be highlighted with weathering.



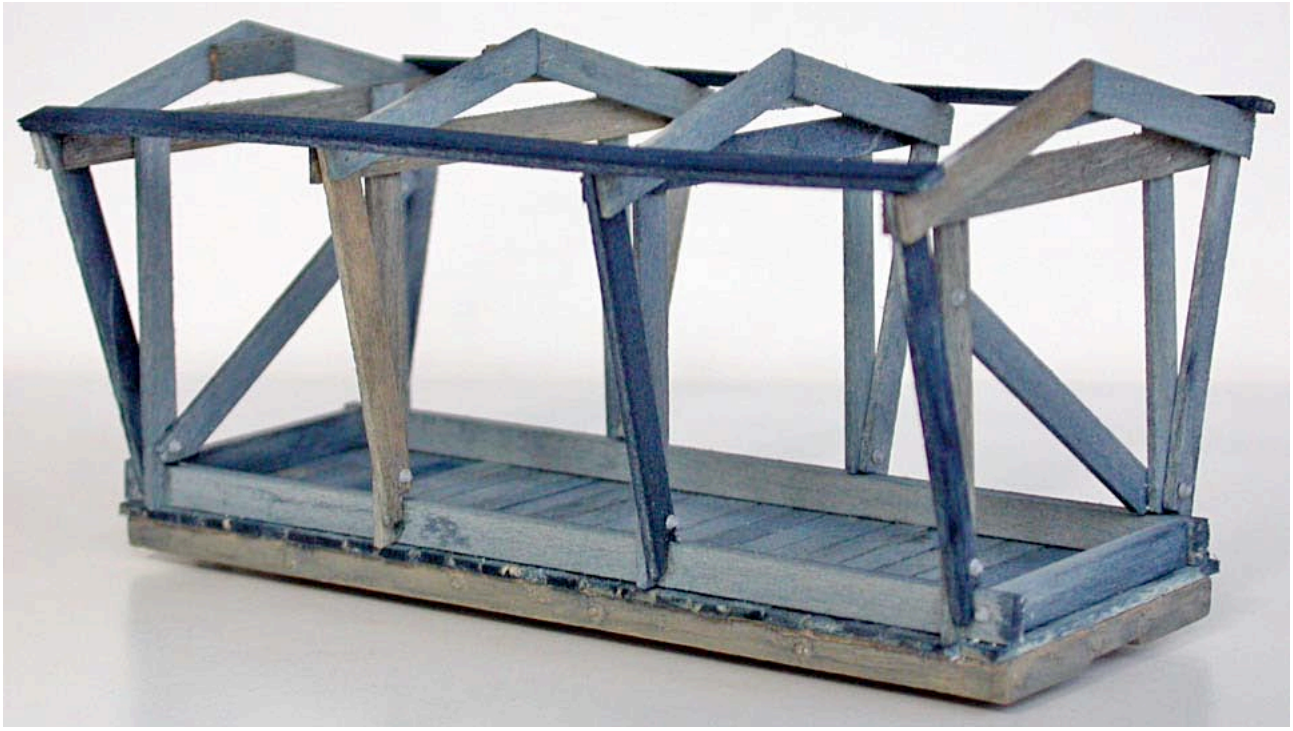
Simple jig 3 with superstructure timbers being combined to form internal uprights and roof supports. Nut/bolt/washer castings will be applied to simulate bolting together.

Building the jog required considerable thought and some trial and error. The first effort had the cross-beams located lower where the pencil shading is on the jig. However this didn't seem like economical carpentry practice, so I raised the uprights and used the cross-beams to tie the roof framing together.

In assembling the car I tried to keep the internal frame vertical, giving the out-rigger roof supports a slight slant. The two end frames have the diagonal brace. I also added one diagonal brace on opposite ends of each side as the original construction could have been unstable in an accident or a heavy wind.

Cosmetic-only *Grandt* Line plastic nut/bolt/washer castings were added where they seemed necessary, but with due attention paid to economical practice.

With these variations the model differs from the original but the variations are effective and mirror normal, albeit low-budget, construction methods.



Superstructure assembled with two roof stringers holding them in place. Two more stringers were added to each side of the roof before the corrugated iron roofing was added. The original car appears to have horizontal stringers inside the top of each side. The construction used here would have been more economical while serving the same function. Nut/bolt/washer castings have been added but not yet painted.

Completed Navo personnel car with detailing and crew. The bench is a 32" x 5' 17" high wooden box, sometimes used for storing tools. Details include three barrels, a fire extinguisher, two petrol cans, and a 'begging' setter dog. I still have to apply dry weathering colours to tone down the colours and age the woodwork.