sentative of those small locomotives that now can now be found shunting or heading navvy trains but once performed more glamorous duties.

Four wheel petrol/diesel locomotives and chopped cane bin (Malcolm Moore, left, 4 ton bin, center, and Comeng-built, a locomotive taller than it is long, right)

Chopped cane bins, just as the wholestick trucks which preceded them, are likely to be as wide as they are long. They may be taken into the fields for filling directly from the cane harvester and will often have at least part of their trip from mill to field and back again by tractor- or truck-hauled trailer.

Other small wagons are used for navvy duties: crew wagons, ballast and cane mud wagons, compressors and welding gear, etc.

**Structures and Scenery, Track Power and Electronic Control**

The physical setting for this fictitious railway museum is Central Queensland. A mix of temperate and tropical vegetation sets the scene, with buildings inspired by local construction methods and materials. Since this is a display layout the backdrop posters are used to help set the scene.

The choice of regular DC power, rather than DCC (Digital Command Control) helped minimise costs. DCC would have the advantage that two trains could operate independently but the fixed points limit potential operation.

**Costs**

The cost of building a model railway is a direct function of how much work you do yourself! Wagons, for example, can often be built for little more than the cost of trucks and couplers, while ready-to-run versions are much more expensive. Likewise, mass-market locomotives are far less expensive than an imported brass locomotive with sound and individually controlled lights.

**Other Resources**

The best resource for modelling sugar cane railways, regardless of scale, is the CaneSIG web site (www.zelmeroz.com/canesig). The site includes modelling tips, 'how to' articles, plans, photographs and industry information.
6" (1067mm) gauge track, while many of the shire and sugar cane railways settled on 2' (610mm) gauge.

There are a variety of common scale/gauge choices available for modellers. Someone who is modelling long freight or passenger trains, for example, might choose N scale (1:160) with its 9mm track gauge or HO scale (1:87) with its 16.5mm track gauge while a railway in the garden might use G (45mm) track. On30 (1:48 or 1/4"=1' with 16.5mm gauge) scales out to 2' 6" gauge for narrow gauge modellers who want reasonable sized models (big enough for convenient handling but small enough for transport) with a good range of commercially available items. Many On30 modellers scratchbuild some of their models, but kits and ready-to-run models are also readily available. On2 (1:48 with 1/2" gauge) might be more accurate for modelling Queensland's sugar cane railways but the On2 modeller must scratchbuild almost everything.

**Layout Design**

On30 models are large enough that detail is readily visible, but small enough that a reasonable layout can be built in the kind of space typically available in an Australian home. Most modellers build something larger than a micro-layout but a very large space is not required.

Designing a layout is similar to developing a business plan—it requires you to know what you want to accomplish and the resources available to do that.

- What is the purpose of your railway? (Industries? Operation? etc.)
- What geographic area and time period? (Local/overseas? Modern/historic?)
- What space and financial resources do you have available?

The two end modules are 20" x 24", with the centre module 16" x 24". Minimum radius is roughly 8.5", ensuring that only 4 wheel equipment can operate on the micro-layout.

The CSR Museum layout has an operating oval so that museum visitors can have a train ride; it has an engine servicing area, and tracks for displaying museum artefacts (models). The choice of foamcore board in picture framing was made to minimise weight for transport.

**Track Options**

Hand-laid track and points on sugar pine sleepers (scale 5" x 7" x 6') are used for most of the layout. In some places rails are soldered to sleepers cut from printed circuit board to ensure that the track gauge remains fixed. Points (switches) are all fixed, hopefully ensuring smooth exhibition operation. Other options include commercial On30 track with plastic sleepers (more costly and less flexible), burying standard HO track in scenery to hide the sleepers (one section of track on the module has been installed this way), or carefully removing every other sleeper from standard HO track to make it appear more like narrow gauge track.

**Locomotives and Rolling Stock**

Although the newest cane railway locomotives are converted mainline locomotives, cane locomotives have traditionally been quite small compared to their mainline counterparts. The locomotives chosen for the layout are repre-