

APPRECIATING SCALE

by Brian Champion

You may have noticed that a license is required to do many of the things we take for granted. To own a car, drive a car. watch television and, of course, to get married you will need a license. At one time you even needed a license to own a dog (unless it was a farming or guide dog).

We modellers do make extensive use of license however: modellers license. This is a three dimensional version of artistic license, and is given as an excuse for all sorts of diversions from strict adherence to the prototype.

When it comes to scenic, or, landscape modelling, this license is more frequently abused than in any other model making discipline. The commonly quoted palliative, "If it looks right, it is right! ", can be overdone, but often has justification. As mentioned above, modellers license is three dimensional. One problem is that many modellers think, to a large extent, in only two dimensions. The ability to think and plan in `3D' has been given an apt name by the Disney Organisation, they refer to it as imagineering.

A model railway usually starts with a track plan - 2D: The baseboards are often flat decked - 2D; and the biggest problem to be addressed is length - 1 D. Train length and makeup, station platforms, run rounds, head shunts, fiddle/storage yards are all primarily concerned with length. When space is limited another phrase comes into play, "selective compression"; again this refers to one dimension.

Width, the next dimension, has importance, but apparently as it is the second dimension has secondary importance. Height, the third dimension. is seldom considered at the planning stage. apart from bridge and tunnel clearance etc. Unless the model is the Fens of East Anglia, where, you can stand on a cow pat to get a better viewpoint, this seems strange to me. However, the vogue open framed base boards gives a greater freedom for vertical modelling. Both above and below track level.

There are now several layouts on the exhibition circuit, that use height as a visual feature. Many onlookers are impressed by these layouts, but often do not realise what it was that was different. Even when told, a glazed response indicates lack of comprehension.

Take a 60' coach; this is 240mm long in 00 gauge. Stand it on end , and it is 60' high. It obviously looks ridiculous, but, the point is, it is the same height as a 60' tree and about as fat as a Lombardy Poplar. A 60' Poplar is common, but, a model tree, accurate to scale looks wrong somehow. There are many reasons for this, some requiring an intimate knowledge of trigonometry to understand. One simple reason is the question of viewpoint.

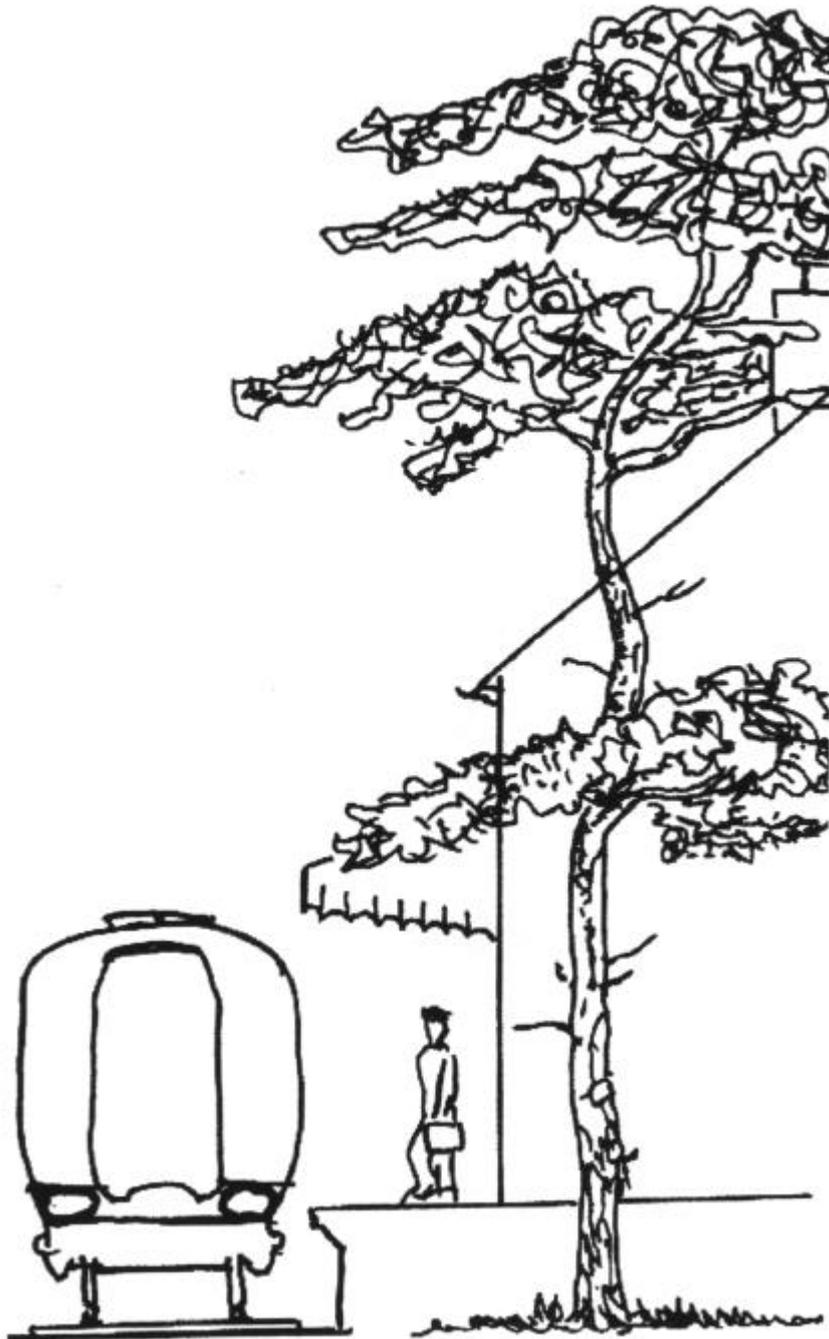
For decades the average layout height was in the region of 1 metre, or 39". The average distance of an adult eyeball above this layout height is 700 - 750mm. At 4mm/ft (00 gauge), this represents a viewpoint of approximately 175', or 58 meters above the layout, or a good 15 stories up a tower block! If you can get up to that level and look out, you will find that you are looking down on almost everything, and, this has a foreshortening effect, selective height compression. There is a psychological effect to this; modellers receive the vertical as their `minds eye ' sees it.

In recent years, some layouts, have been built higher, to be viewed at near average eye level. This has caused some grief to some smaller viewers, even with the advantage of 'help ups', and of course the wheelchair bound. The reason is often that the whole scene looks much more realistic, and is the alternative to crouch down to view lower height layouts to the same effect. If, the viewers height is about 20mm above the track, they are seeing it. as would an average height 00 person.

Buildings act as view blocks, so, the moving train is glimpsed, rather than be visible the whole time. Under these conditions, scale height can be used to effect. At this height, buildings and trees tower above the viewer, as they do when seen in real life from ground level. Scale height and spread, full grown trees are still rare, simply because of their great size. High level layouts, often have a letterbox proportioned viewing `window' maybe only 450mm (1' 6") or 112.5 scale feet. This is where three dimensional selective compression is used to make the scene appear correct.

A commonly used visual comparison, is to have trees just a few feet higher than surrounding 2 storey pitch roof buildings - 10 meters/ 33 feet or 130mm in model form. In the next issue a selection of common trees will be discussed; Elm, Horse Chestnut, Larch, Lombardy Poplar,

Oak, Scots Pine, Silver Birch and Sycamore. Fully grown examples of these can be from 16 - 50 meters (50' - 150') high. As an appetite whettener, the accompanying sketch shows trees in outline top the same scale as a coach, station building and passenger; within the confines of the A5 Journal page (210mm high x 150mm wide, which is only 52.5' high). If this generates a few thoughts, even letters.. Great! See you in the next issue.



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