

Linton Cement Works

ANDREW SHILLITO explains why he chose to build a 3mm scale industrial layout and how he created his miniature masterpiece.

PHOTOGRAPHY: MARTYN BARNWELL

I am often asked why 3mm scale and why industrial. The answer to the first is that at the age of 18, after many years of model aircraft building and being a bad amateur musician, I wanted a new hobby and I decided to go back to model railways. I got out my old three-rail Trix Twin and bought a few magazines and realised that life had moved on. 'TT' interested me so I went to my local model shop (Jennings of Bexleyheath) and looked at what was available and saw a Tri-ang 'TT' set containing a 'Jinty' and two coaches. Although crude by today's standards this to me was the right size, a decision I have never regretted.

By this time steam had effectively disappeared from the main lines in Kent but I found that there was still plenty of industrial steam in cement works and paper mills. This engendered a love of small locomotives and light railways. My first locomotive was a Hawthorn Leslie based on dimensions taken from one used at Swanscombe, built as the instructions in *Model Railway Constructor* by Tony East. This tank, now 32 years old, still runs on Linton Cement Works albeit repainted and with a new chassis.

About this time I joined The 3mm Society - one of the best decisions I have ever made, being a constant source of components, advice and friendship.

Development

I had built a number of the usual branch line terminus layouts but I wanted somewhere to display my growing range of industrials. I built an engine shed and then thought that this could be expanded by adding an exchange siding and finally an industrial complex. Linton Cement Works was thus born.

I had originally considered the time period to be fairly flexible, covering the 1950s and 1960s. However, I have developed a great interest in diesels, particularly small industrial types and as time passes the period is becoming ever more flexible and now I would say stretches into the 1980s and perhaps who knows it might even go further than this in due course.

You might ask why a cement works? Well, this is very typical of North Kent - the area being dotted with quarries and at one stage there were a large number of cement works all being operated by railways of one gauge or another. These require that coal comes into the complex and is used in the kilns so we therefore have incoming loaded and outgoing empty coal wagons. The raw material is chalk and this is dug out of a quarry 'off stage' and transported to the kilns - also off stage - in internal user open wagons. I would have liked to have modelled both the quarry and the kilns but the sheer size mean it is not feasible.

The outgoing product goes out in bulk cement wagons such as Presflos or bagged product in vans. To add interest we have made the assumption that the cement works locomotives also service an oil depot, scrap metal yard and an import-export bulk timber operation. This allows plenty of variety of stock coming in and out of these facilities. While

not entirely typical of Kent works, it did happen on occasions and at least it gives us more variety to operate.

I made one mistake in that the locomotive shed was completed before being incorporated into the layout. This does not allow easy access to this section as it is obscured by struts. If anything goes wrong it is difficult to gain access and sort out the problem. The saving grace is that normally there is not much activity in the shed, but plenty of activity elsewhere and the shed does what it was designed to do; display models. In fact I have become so addicted to locomotive sheds that it has become a standing joke with all my friends who want to know where I am going to put the shed on each of my new layouts.

Solid base

At 700mm the baseboards are too wide and are fairly heavy. I will try to avoid this in the future as it makes the layout cumbersome to move and operate since it is difficult to reach the front of the layout.



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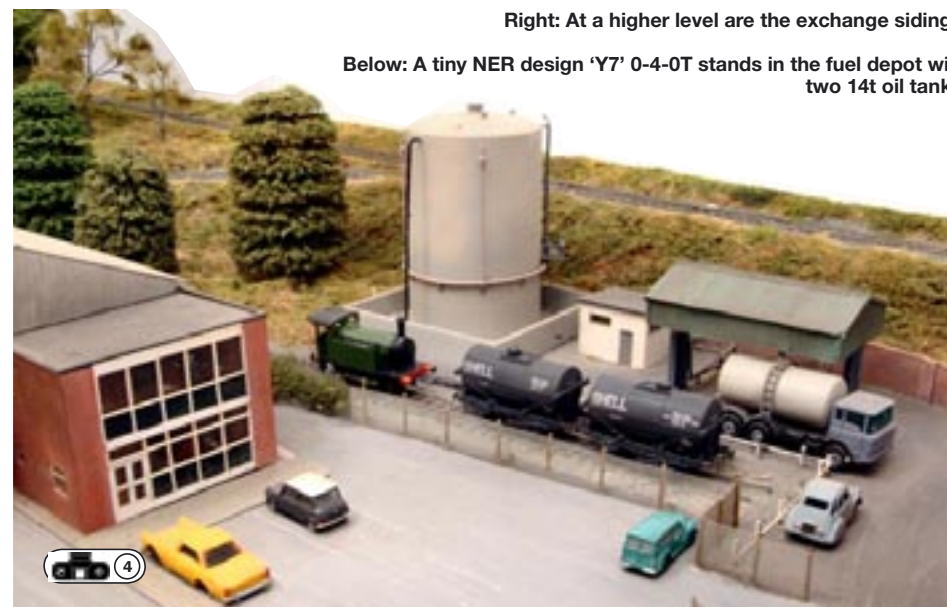
Above: The cement works buildings are scratchbuilt in Plastikard and based on typical industrial facilities in North Kent. In the background, Presflo hoppers are being loaded from the silo.

Top: The locomotive shed is home to an eclectic selection of steam and diesel industrials.

Above: With the exchange sidings in the background, a Ruston 165DS 0-4-0 drops down the incline into the main cement works area with a couple of 5-plank wagons.

Right: At a higher level are the exchange sidings.

Below: A tiny NER design 'Y7' 0-4-0T stands in the fuel depot with two 14t oil tanks.



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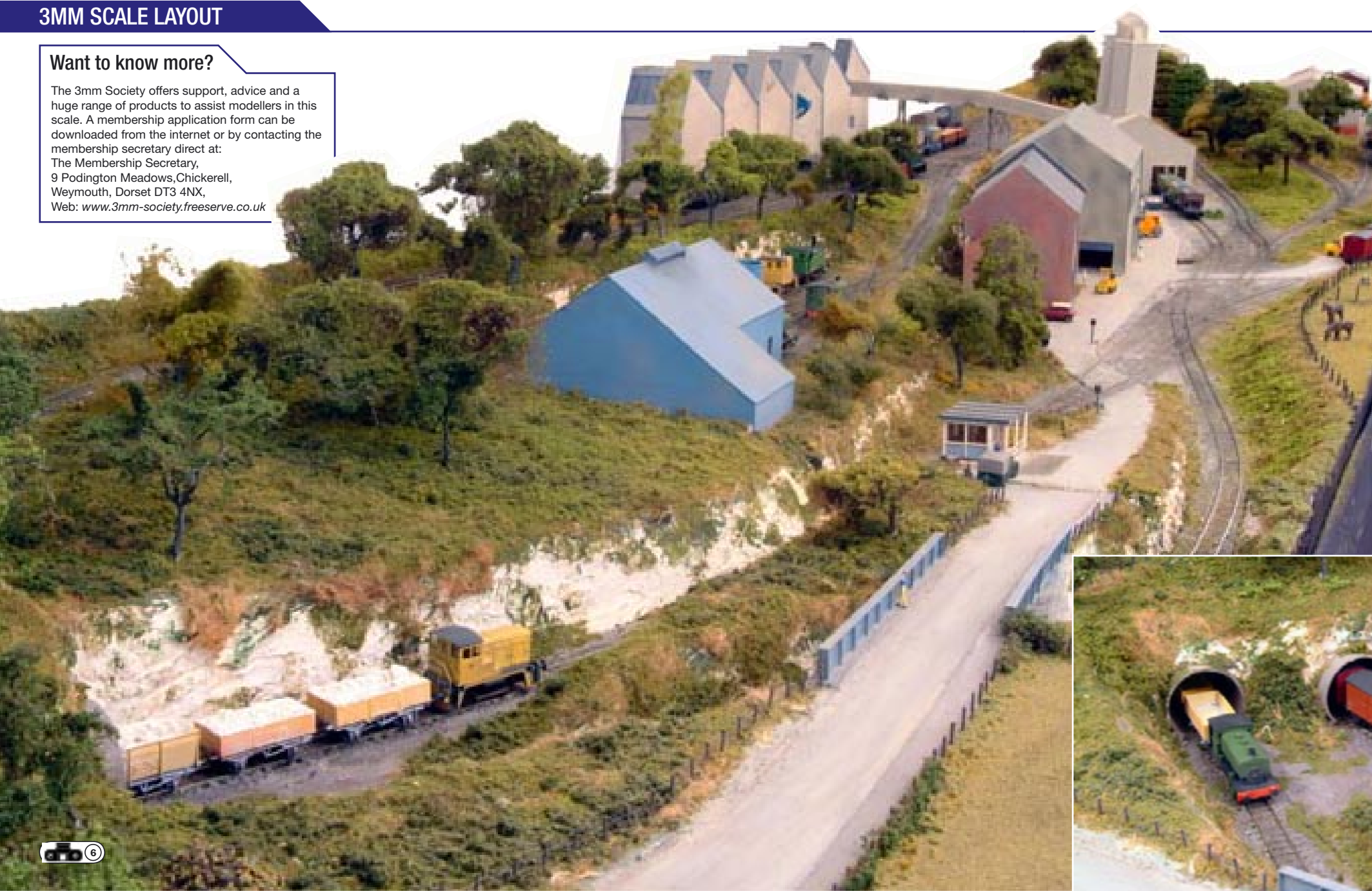
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To save weight the third baseboard uses extruded polystyrene as a base. This has the advantage of being stable and weighing next to nothing, plus, it doesn't warp. It worked in this instance because there were no point motors or other impediments below the boards, but when used on a later layout it was a problem to fix things into it and since it is 35mm thick it was difficult to set point motors within the thickness of the board. I would suggest that if all controls and wiring are on the surface it is ideal.

The end baseboard is a purely scenic area incorporating the village and the church. I had contemplated making this a quarry but decided that it would not work and therefore the quarry and kilns are in fact off the scenic part of the ①

Want to know more?

The 3mm Society offers support, advice and a huge range of products to assist modellers in this scale. A membership application form can be downloaded from the internet or by contacting the membership secretary direct at:
 The Membership Secretary,
 9 Podington Meadows, Chickerell,
 Weymouth, Dorset DT3 4NX,
 Web: www.3mm-society.freemove.co.uk



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layout and are in fact the fiddle yards. The fiddle yards themselves originally used a cassette system but space was very restricted and it did not work on this occasion. I therefore laid permanent track and we shuffle the stock around by hand; it's a bit cumbersome but this doesn't really seem to cause us any problems.

The track was built using PCB sleepers and Code 65 rail in solder construction, laid to 12mm gauge using a 'rologauge' (no modern NMRA type gauges available at the time) it was ballasted with granite chippings in PVA. Points are operated by the much-missed H&M motors together with a number of RJH solenoid point motors which are made of plastic and which work in the same way as the H&M motors. Sadly these are no longer available either.

I like push-button switches so a geographic control panel was made incorporating push-buttons and switches on a colour coded track plan connected with multi-core cable and 'D' plugs to the layout. Experience has shown that not enough section switches were installed and Steve Moor, my regular operator at shows, insisted that more were put in and as a consequence it is much more flexible now.

Operations

Operationally the layout uses two controllers (either AMR or KPC) and is divided into three sections, industry on the lower section, the exchange sidings on the top with the original locomotive shed in the middle. Either controller can operate any section;



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A Yorkshire Engine Co. 0-4-0DH (BR Class 02) joins the elderly steam tanks on shed.

the usual procedure being one operator to work the exchange sidings with the other working the industry and we pass wagons back and forth.

On the subject of wagons they are all 3mm Society products with Society underframes and wheels. With over 60 to choose from, plenty of variety is possible. Couplings at present are KTG, Sprat & Winkle or bent wire; all of the hook and bar type. I have found that when using uncoupler

Joining the 3mm Society is one of the best decisions I have ever made.

magnets there are problems with wagons that have hooks at both ends. I find two hooks tend to get in each other's way and impede operation. Hooks at one end would be fine but the locomotives have insufficient space underneath for the counter weight for the hook. Therefore wagons must have hooks both ends. The ultimate solution is to go to B&B couplings but they are a pain to assemble. When I have enough made I will make the great changeover. Trials have proved that they are the solution but time will tell. Unfortunately no coaches are required, which is a shame as I have developed a liking for DMUs and have a large selection of Worsley Works DMUs and EMUs. On occasion we run a DMU into the exchange sidings on a enthusiast special and then do a brake van special around the layout.

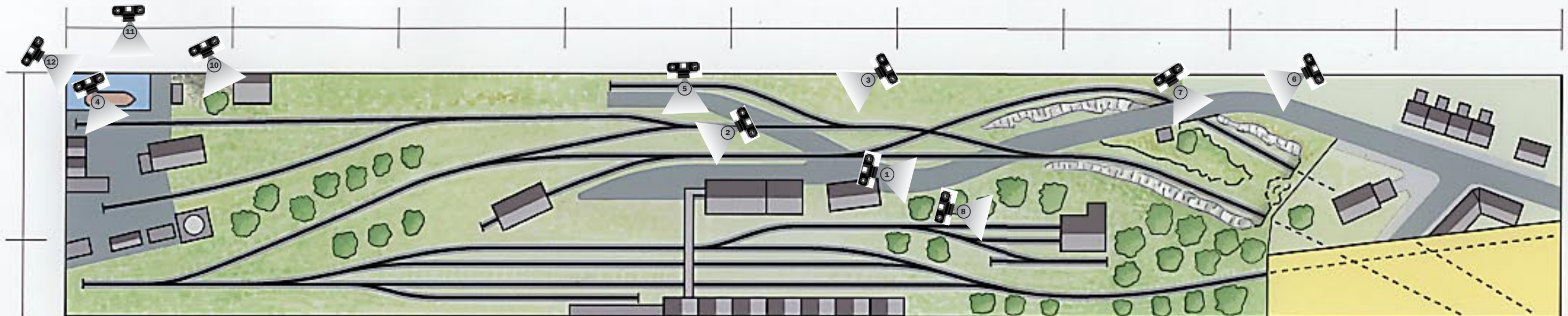
Making it all work

A list of locomotives would be out of date by the time you read this, but the fleet includes my original scratchbuilt Hawthorn Leslie, which



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Above: A Yorkshire Engine Company 0-4-0 diesel threads the chalk cutting - typical of north Kent - with another load of chalk destined for the cement works from the 'off-scene' quarry. Inset: An Andrew Barclay 0-4-0ST (left) and a Hunslet 0-4-0T emerge from the tube tunnels heading for the works.



was followed by two Andrew Barclay locomotives and a Hunslet. All of these have done so much genuine mileage that they are now worn out and are effectively compensated. Recent additions include the Class 02 and 04 from Worsley Works and a Judith Edge Ruston 165DS. Many more kits yet to be built from the same sources plus two Class 03s which are old MTK kits available from Bruce Smetham (Geoff Gamble Books).

Finney & Smith kits include LNER 'Y7', 'J79' and 'J69' which are reductions of Connoisseur kits and like all kits from this stable are good and relatively easy to build.

When gearboxes are used - the earlier models did not have them - I usually used Branchlines two-stage slimline boxes. The new high level gearboxes from Finney & Smith, as used in the 04s, are a recent introduction and my experience is that whilst both do the job and both have their good points and work well, perhaps the F&S 'box runs more freely from the start whilst Branchlines gearboxes take a little running in.

Wheels are mainly Sharman although some Alan Gibson wheels are used. Both are good and reliable.

All rolling stock is air-brushed as I find it difficult to get a satisfactory finish with a brush. In truth they should be more severely weathered but I cannot bring myself to do so and therefore all are in a relatively clean condition.

Structures

Buildings are all typical industrial units and the village is typical of streets in North Kent. All excluding the church have been made from

Plastikard (I cannot get to grips with card). The church is a ply base with the stones scribed into a layer of DAS modelling clay and the stones painted individually. This is time consuming but, it must be said, a very satisfying operation.



Above: By the wharf is a small scrapyard, served by its own private siding.

An 0-4-0ST of American origin shunts the quayside siding.



Scenery is 'Mod-Roc' on expanded polystyrene covered with polyfilla and finished with flock, rough areas have carpet underlay stuck down and torn off and finished with flock.

Have I regretted doing this in 3mm? Never. Perhaps doing it again I would go to 14.2mm finescale. It would certainly be easier to build than 12mm gauge in some respects. The extra width between the frames would allow motors to fit lower but as I had so much 12mm stock already built it was not feasible to change for this layout.

3mm scale is now a viable alternative for any layout but it has to be said that it is a builder's scale. Very little ready to run can be bought and what is available is

now over 40 years old and inevitably secondhand. It still runs well but standards have moved on.

In some respects the need to build everything (or almost everything) is an advantage. In contrast to 4mm and 'N' gauge layouts, everything is your own work which can be very satisfying. If Paddington or Kings Cross is your desire then forget 3mm, but if you want something more modest which is in every respect yours, then 3mm is for you. It is supported by an active Society and energetic and keen traders some of whom have been mentioned above.

One of the great pleasures of my modelling activity has been my association with The 3mm Society. It has been a constant source of kits and materials and through the various Area Group Meetings I have made the acquaintance of a large number of like-minded people. I never cease to be amazed at the number of people who carry out their modelling in isolation. I am not a 'club' person but I do find that meeting other like minded people at both area meetings and increasingly in a social situation is very helpful. MR

A variety of industries in the same area provides plenty of operational interest.

