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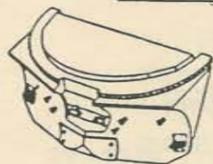
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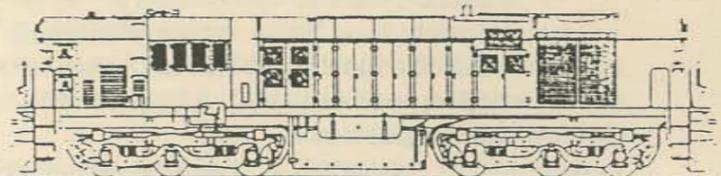
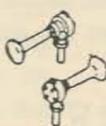
AUSTRALIAN, AMERICAN, NEW ZEALAND, BRITISH VIDEOS.

N-GAUGE MAGAZINE, MODEL RAILROADER, RAIL MODEL JOURNAL, PACIFIC RAIL NEWS, TRAINS, NARROW GAUGE GAZETTE, AUSTRALIAN RAILWAYS, ROUNDHOUSE, BULLETIN, AUSTRALIAN MODEL RAILWAY MAGAZINE, PACIFIC RAILWAY, RAIL AUSTRALIA, RAILWAY DIGEST, MAINLINE MODELLER, RAILWAY MODELLER, CONTINENTAL MODELLER.

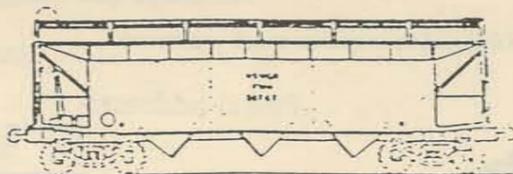
#### SNOW PLOWS



#### AIR HORNS



#### COOLING FANS

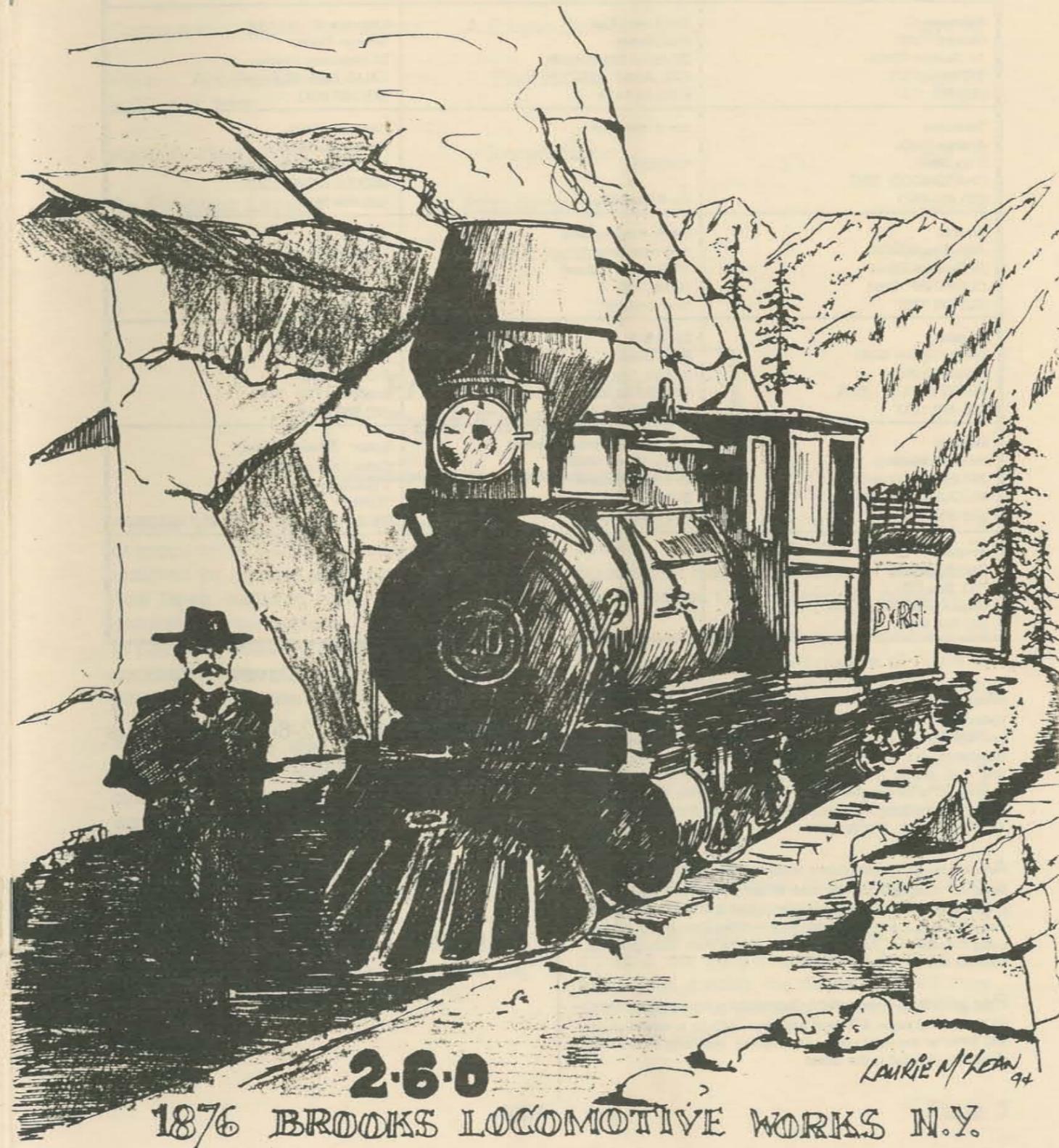


#### NUMBER BOARDS



# Main Line

National Model Railroad Association Inc Australasian Region  
Volume 11 Number 2 April, May, June 1994  
Registered By Australia Post Publication # PP241613/00080



## Australasian Region Directory

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### Main Line

Main Line is the official journal of the Australasian Region of the National Model Railroad Association Incorporated. It is published four times per year in approximately February, May, August, and November. Articles, letters, members classified advertisements and club notices are solicited from the membership and are considered to be donated free for the benefit of the hobby. They should be mailed to:- THE EDITOR, Main Line, 7 Booralie Road, TERREY HILLS. N.S.W. 2084.

Articles can be submitted on a computer disk (IBM) 3.5" or 5.25". Most WP packages can be read at this time. This magazine is prepared on a 386SX(25) computer (105M & 40M HD's) running under DOS 6.2 and prepared on a BJ10ex Bubble Jet printer using Wordperfect For Windows 6. Adobe Font Manager and Drawperfect 1.1.

Paid advertising is welcomed. Current rates for four issues are \$130 for a full page, \$70 for a half page, \$40 for a quarter page and \$150 for the back cover. All enquiries regarding advertising should be directed to the Editor.

### On The Cover

An early D&RGW 2-6-0 drawn for us by Laurie McLean.

### Deadline For The Next "Main Line"

The closing date for the next issue is

**30th JUNE 1994.**

## Waybill

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### President's Report from Kevin Brown

Results of the Reginal AGM saw some changes to the BOD, a number of members returned for another term, along with a few new faces, including mine. I would like to congratulate the outgoing BOD on a fine job, in particular Sowerby Smith as President, in completing the maximum two terms, as stipulated under the NMRA rules.

Reading through the Retiring President's Report highlights many significant events over the past two years. I hope in my term we will acheive as much.

This May will be our first mini-convention held outside Sydney, register now and support interstate friends make this event a success. Still on the subject of conventions, Gary Spencer-Salt has been appointed the Convention Chairman for Sydney '95.

Any suggestions you may have for a suitable venue, clinic presentations, or layouts that may be available for inspection. Please advise Gary as early as possible.

One aspect of the hobby I would like to encourage over the next couple of years is a 'hands-on' theme to our General Meetings.

At the February meeting a number of people brought models along to display, creating much interest and disscusion. After all we are all modellers, regardless of the prototype we follow.

In bringing your models to a meeting, others will have the opportunity in seeing how a kit looks when built - it doesnt need to be a full diorama, nor does it need to be painted. So, bring your models for display, we all may gain impetus to get away from the TV and enjoy our modelling.

## Regional Meeting Schedule

### 14th May '94

Mini Convention  
Somerton Road,

Bulla,

Melbourne  
Victoria

The Convention will be held at the Bulla Community Centre, Bulla. First of all is for you to know where Bulla is. Those driving from NSW will turn off the Hume Highway just before the massive Ford Motor Works, into Somerton Road, 15 minutes and you are at Bulla. For those who will be flying to Melbourne, its only a 10 minute taxi ride from the airport towards Sunbury. There are a number of good cheap hotel/motels within walking distance.

There will be four layouts (On3, HOn3, N, HO) at the convention as well as clinics, trade stands, modelling and photo contests. A quality evening meal has been planned to end the day. A guest speaker has been invited to give the "after dinner" talk.

There will also be information for activities on the Sunday, although these are not part of the Mini Convention. Visit Puffing Billy, Eltham live steamers, Melbourne Train Museum, Ride a Tram or just return to Sydney via Bendigo and see their historic trams.

7th May  
Peter Weller-Lewis  
2.00pm

**NSW/ACT Queanbeyan**  
2 Hayley Close  
(06) 2978232

The Buffalo Creek & Gauley typifies the C&O and Western Maryland railroads. A clinic will be given during the afternoon - "Weathering Cars & Locos".

4th June  
Mal Smith  
2.00pm

**ACT Isabella Plains**  
18 Collyburl Crescent  
N Scale

Clinic: Digital Control for the computer illiterate, its benefits, costs etc.

18th June  
Bill Cooper  
2.00pm

**NSW Cheltenham**  
2 Mason Ave  
(02) 86 1724

The Fern Valley Railroad is a freelance HO layout Built on two levels joined by a 2ft high spiral, with beautiful scenery and plenty of detail.

25th June  
Graeme Nitz  
2.00 pm

**VIC North Balwyn**  
20 Alpha Street  
(03) 857 6959

2nd July  
Tony Payne  
2.00pm

**ACT Weetangara**  
24 Darbody Street  
HO Freelance layout

16th July  
Keith Pratt  
2.00pm

**NSW Kanahooka**  
45 Exmouth Rd  
(042) 611439

Just south of Port Kembla, on the F6 look for "Dapto next two exits" sign then take the "Kanahooka Rd Exit", turn left onto this road and then right into Exmouth Road.

23rd July  
Henk Mollenkamp  
2.00 pm

**VIC Upwey**  
26 Birdwood Avenue  
(03) 752 5031

27th August  
John Gillies  
2.00pm

**ACT Lyneham**  
14 Earl Street  
HO Burlington Northern  
Clinic - Layout Planning, view the new layout room.

17th September  
Mike Hallinan  
11.00 pm

**NSW Rankin Park**  
15 Cheshire Close

Mike's layout is an outdoor G scale layout that runs through local bushland. The locos are all radio controlled and the track is all handlaid as are the stub turnouts.

24th September  
Laurie Green MMR  
2.00 pm

**VIC Sunbury**  
20 Nambour Drive  
(03) 744 5188

15th October  
Lyndon Spence  
2.00 pm

**NSW Figtree**  
53 Springfield Street  
(042) 71 5386

The HO Scale "Pacific Seaboard Railway" is a Western Pacific style railroad set in 1952 which connects with the Santa Fe. A track plan of stage 1 appeared on page 18 of the Apr/May/June '92 issue of the **Main Line**, since then , a further 4.8 metre long stage has been added.

12th November  
Gerry Hopkins MMR  
Opposite the Shops  
Laurie McLean  
Park in Abbott Road

**NSW Double Header**  
**Terrey Hills**  
7 Booralie Road  
**South Curl Curl**  
25 Griffin Road

You have seen both Kennebec County and Durango at exhibitions but now they both form part of home layouts each measuring 7m x 4m. Members who live north of Sydney Harbour/Parramatta River may arrive at Gerry's at 2.00pm. Those who live south of this "line" may go to Laurie's at 2.00pm. Between 3.00 & 4.00 members can move on to the next layout. We have done it this way because we are both narrow gauge modellers and our houses are also "narrow gauge" (maps in next issue)

26th November  
Paul Ritchie  
11.30 pm

**VIC Ballarrat**  
28 Ascott Street South  
BBQ (053) 32 1138

10th December  
Ian Hopkins  
1.00pm

**NSW Thirlmere**  
"Toad Hall" 18 Mason Street  
Xmas Party

Visit the Train Museum until 1.00 then walk 150 metres to Ian's Weekend retreat and partake of a "gourmet sausage sizzzzzzle". More details in a later issue.

Queen's Birthday Weekend  
June 1995

1995 Convention - Sydney

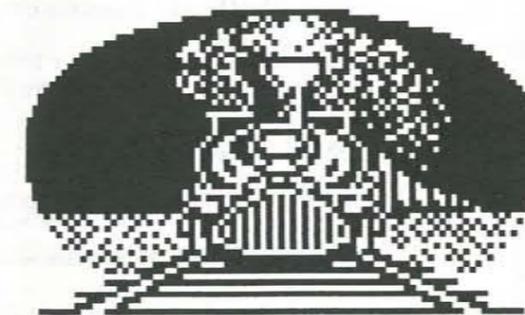
Guest Speaker  
Allan McClelland of the Virginia & Ohio

## Division 2 Report by Peter Weller-Lewis

I would like to thank all those members who help with our recent Exhibition. Those members that did participate did a sterling service in helping Jenice and I, to move and erect the NMRA stand as well as my layout. A thanks also to those who supplied models for the display case. The contributions and joint efforts of John Gillies and Tony Payne were exemplary to say the least. Once again thank you.

The only "downside" to quote and oft used Americanism was the very poor response to the manning of the NMRA stand. I had five tiome slots and only two volunteers. This made life just a little more difficult for Jenice and I. Running a layout and trying to answer questions about it as well as giving out handouts for the adjacent NMRA stand was too much for two persons (indeed often only one operator!) I trust that next yewar will have members showing a little more enthusiasum to man the stand.

The enthusiasum to offer ones home to host a meeting has been very good. I still require volunteers for the latter months of the year. I would also like some feed back from members in relation to a proposed visit to the Goulburn Club's layout and to Dave Watkin's shop in Goulburn .."Junction Hobbies".

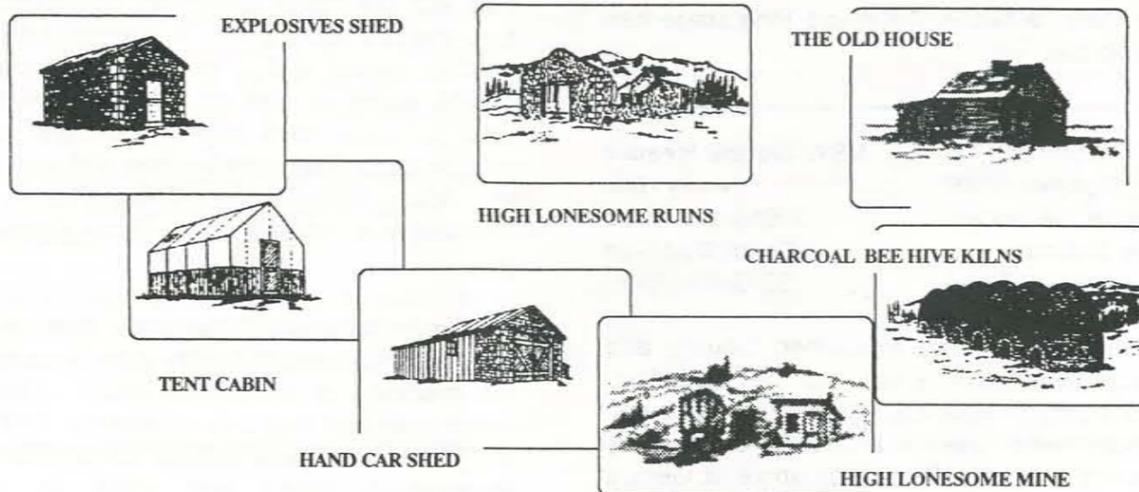


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This range of buildings and accessories feature a level of detail that is amazing - A little painting will yield structures and accessories that leave fellow modeler's breathless.



The complete Morse line is available thru  
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Seeking for a range of small to medium size building ,retaining walls and abutments to complete that township or scene on your model railroad

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### Ground Foams - \$6-25/ bag

20 different colours of ground foam , featuring 15 graded shades of green to allow almost unlimited blending.  
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This material is actual , fine stone impregnated asphalt pressed into a sheet less that a 1/16" thick.

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24 realistic colour's of selected natural/man made fibers to allow you to create the most realistic weeds, tall grass that you have seen Blending will create a unlimited range of colour's. This product is the missing link in creating some of the most realistic scenery possible.

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Showroom - Unit 4 / 47 Bedford Road , Blacktown

Showroom opens - Thursday 5 p.m. - 9 p.m. / Saturday 9-30 a.m. - 4-30 p.m.

## SO, WHERE WERE YOU FOR THE 93' CONVENTION ?

By Phil Morrow

Friday, May 14,1993

An afternoon of mixed emotions stirred the group. The last day, the last hours, the last discussions, questions and directives. It had been a long three weeks for us all. Hard work, forcing the brain cells to absorb every technical detail of that serious issue, protecting man and his environment, while providing society with better tools for protecting our food production. I would be the first to leave, even before the official end of the workshop.

Hot, noisy and everyone checking their watches. 2:54pm, 2:54:30. I have to go !... Franz signalled..... We were leaving.

*..A practicality of the sustainable development concept..*

I said my goodbyes from the work platform, some sixty feet above the 1200 degree xenobiotic toxicant destroying furnace. Goodbyes .... just by where the electrostatic scrubbers blasted their gasses up the two hundred foot stack.

Exhaust air, not just legally clean but recording merely a few percentage points of the clean air limits. Except for the nitrous oxides. Clean,

yes, but always at the upper quartile of that legal limit. A practicality of the sustainable development concept. The level could be reduced, yes, but at a cost. Not just dollars and cents..... Energy generation costs. Did the environmental deficit of producing the energy needed to lower our legally acceptable NOx levels, exceed the environmental deficit of those levels ? How can we be sure ? We're still looking.

Goodbyes .... to new friends, old friends, partners and committed colleagues. Sadness .... at the end of fine camaraderie. Happiness .... in starting the homeward journey.

3:07pm. Luggage and gifts bundled into the waiting cab. Final directives. Reports, schedules, objectives, more work, less freedom. The cabbie mumbles, waiting time ticks then the boom gate sets us free. Friday afternoon traffic. Not bad, but its already 3:13 and my flight is scheduled for 4:10. We stick to the freeway as long as possible as it should be quicker.

The pavement beside my window has few cracks in it. My dependable Seiko chronograph reads 4:23 pm. The shortish grasses beside, sway in the breeze, then jump aside in a vain attempt

to escape the buffeting pressure from those wondrous five bladed Pratt and Whitneys of the Fokker F50. I smile, the journey home has really started. But my emotions are in conflict, for there is sadness with this pleasure.

*.....I have missed the convention.....*

The most spectacular convention that the Australasian Region of the NMRA has put together. Inspiration and friendship missed. Tony Koester, author of "Trains of Thought", the first read each month as MR arrives, I have not met. The Friday night session is already over. My modelling mates will be headed home, eager and expectant for the next two days. I have missed out. Bloody work again ! My commitment to my career has got in the way again. I could not but agree to be denied this weekend of modelling inspiration. A weekend of talk and lesson, of trains and scale and friendship.

Unmoved, the crystal seconds of my Seiko march ever closer to 4:24pm. And those wondrous five bladed Pratt and Whitneys punch the KLM Cityhopper off the Mullhouse tarmac.

Basle, Switzerland and its chemical industries on the Rhine River fall behind. The Fokker strains to seek the

light and warmth above the clouds of this sunless European spring. The Pratt and Whitneys vibrate the whole being of this KLM Cityhopper as we set course for Amsterdam. I'm going home. But not without some pleasure. Not without some friendship. Not without some modelling inspiration. So I smile, relaxed and anticipating a great days model railroading tomorrow.

I knew in February that I wasn't going to make it to the 1993 NMRA Convention. I agreed then that I would give up the opportunity of meeting my monthly mentor from the pages of MR. But I never give up on modelling trains.

---

*...there was no way  
I could return to  
Australia in time!...*

---

Again, I was in Switzerland. A special meeting, at which it was decided that a training program would be held. And of all the weeks in the year, it had to be the week before the best ever, Australian Regional NMRA convention. There was no way I could return to Australia in time.

You know, I wasn't surprised at the loss. It was almost the realisation of some sixth sense. I had always had a doubt about this convention from the very start. When the convention plans were announced, I thought of doing a bit. But I hesitated, unsure. I had done a very

small bit for the '92 mini convention, could I repeat the commitment? I had doubts. Could I make a contribution, or did I just want to get on with some modelling for myself? So I shunned involvement in the '93 Convention.

Now friends, don't waste sympathy on me. I really don't deserve it, nor do I seek it from this article. I have a philosophy on life, denials and losses. If I can't get to do things that are enjoyable, I'll just try harder to get something a little more enjoyable. So I'm at ease in this KLM Cityhopper over Europe as you slept toward the start of your convention. For my Amsterdam transfer is not for Sydney tonight, but to continue west across the Atlantic.

It's taken some planning. It's taken some good fortune. I've scoured the flight timetables and tallied the fare. This little black duck, toy train fan is headed Stateside. This HO scale pilgrim is focused on a visit to the best model railroad in the world.

---

*...this little black duck,  
toy train fan,  
is headed Stateside....*

---

Sometimes the Gods smile. As the cityhopper disgorges us into Schipol Airport, the loudspeakers demand I and fellow travellers attend gate F-05 for KL 643 already boarding for New Yorks,

John F Kennedy.

I'm amazed that my Seiko keeps up with these changes. As if in some game of global monopoly, a chance is taken; go back five hours. It's no longer 3:00am in Europe. It's 10:00pm on the east coast of the US of A, and the inter terminal transit, treks me toward American Eagles last flight for the night to Boston, Massachusetts.

At 2:00am Boston time, I snuggle clean in my hotel bed and smile for a morning of model railroading. It was 4.00pm in Sydney. Tony Koester would have been addressing you my modelling colleagues. But I don't mind. I've bedded down after a 22 hour day, and I'm anxious for to-morrow to begin.

---

*...George Sellios lives  
in this town....*

---

**Saturday, May 15, 1993.**

Inevitably, jet lag awakens me after only some three hours sleep. Time drags until I gingerly nose my Avis Buick onto the Saturday morning melee of downtown Boston traffic. The wrong side of the car, the wrong side of the road, and lousy signage stresses my overtired brain cells. A few mistakes, wrong turns, detours and backtracks, eventually lead me to Storrow Drive, I-93 North, Route 1 and on to 128 North. Familiar territory, this

is my second visit to the Master.

Exit 43, Lowell Street to Peabody, takes you straight into Main street. On the right is **Number 45, Fine Scale Miniatures.**

It's a small doorway in an unobtrusive grey, wooden, two story building. Excitement fills my heart as I bound up the rickety stairs. At the top, a set of railroad cross bucks flash a familiar red. An arrow points, "To the Trains" in front of a brown door.

"Knock loud", another sign, and a youthful faced George Sellios, gum chewing, black moustached friend, merchant and fellow modeller opens his HO world, **The Franklin and South Manchester**, to this jubilant wanderer. I haven't missed out on anything.

---

*....Words....  
...can't describe it....*

---

How can I share with you the majesty of the Franklin and South Manchester? Words can't describe it. Photos of it only give that momentary snapshot of a life. Like photos of our wives and children, they evoke feelings and memories, but can never tell absolutely everything about them. My photos do the F&SM no justice. But if you drag out your old copies of MR, RMC, Mainline Modeller, NG&SL Gazette, as well as the 1993

edition of Great Model Railroads, I may be able to help bring those photo essays to life a little more.

Modellers everywhere will benefit from George choosing to live a lifestyle of dedication to this hobby. He works most of the year at creating one exquisite, limited run kit. This becomes available in time for Christmas. It usually graces a full page colour ad in the January issue of Model Railroader Magazine.

After despatching these kits he turns his efforts from kit construction, to layout construction. George is able to devote most of his day for three or four months to progressing the Franklin and South Manchester.

The F&SM occupies the first floor of his Fine Scale Miniatures factory. There are a couple of shops below. The layout is I guess about one third done in area at least, but not necessarily in construction effort. His future plans, are immense yet achievable with time.

As you walk into the F&SM world, you are greeted by a panorama of the city of Manchester. Sky scrapers touch the ceiling almost relegating heavy 4-8-4 steamers to a diminutive size. The colouring of the buildings is George's masterful touch. These brick and concrete skyscrapers are mostly made from plaster filled moulds. George prefers the way plaster absorbs paint and gives a

dulled flat appearance. Epoxy resin casting on the other hand is non absorbent and paint shine is more difficult to overcome. Many of the more recent buildings are now cast in metal.

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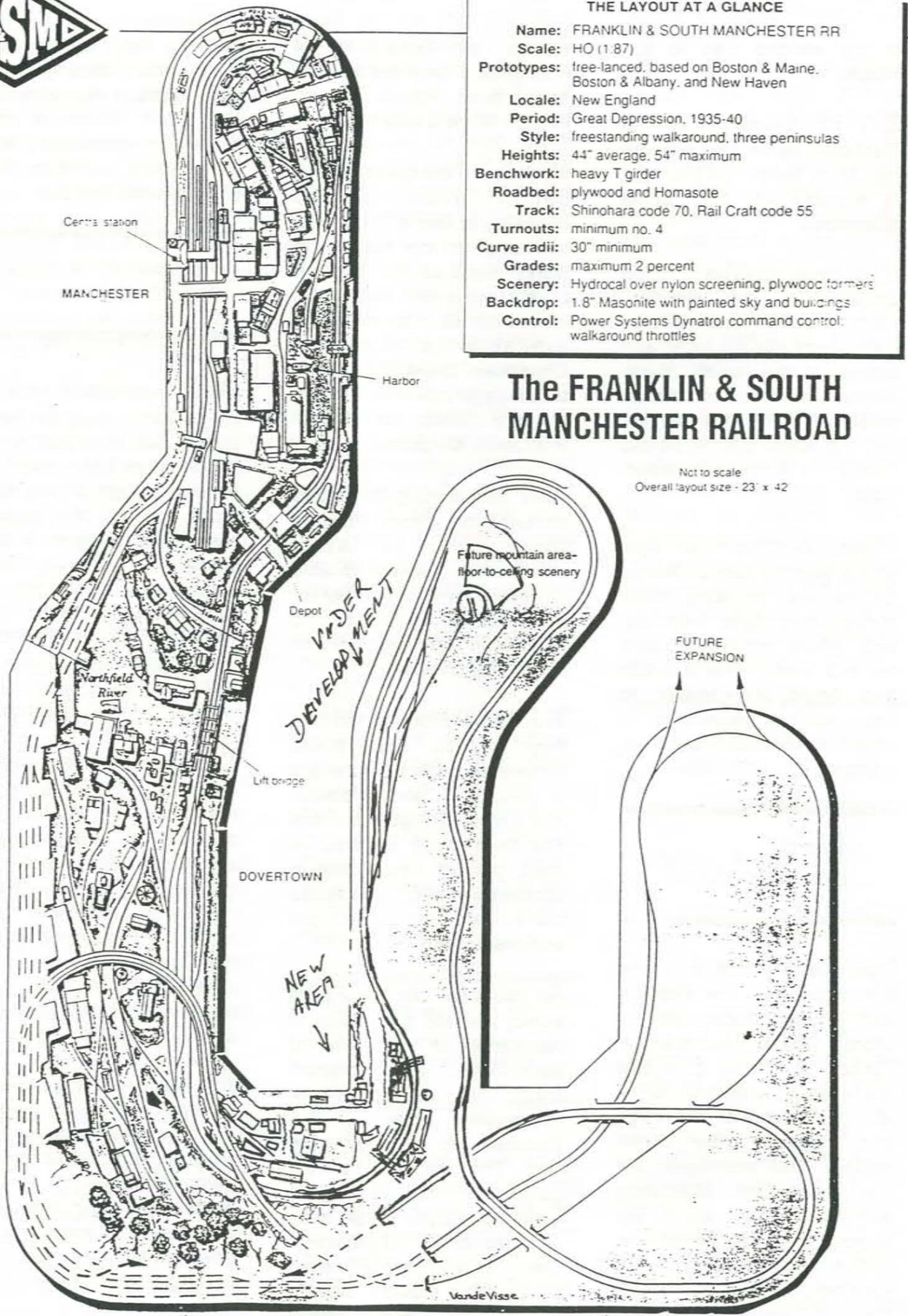
*...typical of America's  
New England area...*

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Many plastic kits from the European manufacturers also grace George's layout. These have been modified / bashed to less ornate styles more typical of America's New England area. A close study of these buildings, guessing at their origins, is excellent for modelling ideas. The bulk of the buildings though are original designs built from combinations of wood and metal castings.

Of course the greatest attraction of this layout for me is the super detailing with a myriad of detail parts, junk, structure and roof line gadgets, vehicles and a population explosion more akin to a third world society than a model railroad. Now sure it's easy for a kit manufacturer to come up with an endless supply of 'goodies', but it's not outside the realm of the average modeller either. I suggest you buy a few goodies each week or month from your toy train, (whoops!) I mean modelling budget. Keep at it, and over the years you will be surprised just how much you have for your layout.

In 'Great Model Railroads



**THE LAYOUT AT A GLANCE**

Name: FRANKLIN & SOUTH MANCHESTER RR  
 Scale: HO (1:87)  
 Prototypes: free-lanced, based on Boston & Maine, Boston & Albany, and New Haven  
 Locale: New England  
 Period: Great Depression, 1935-40  
 Style: freestanding walkaround, three peninsulas  
 Heights: 44" average, 54" maximum  
 Benchwork: heavy T girder  
 Roadbed: plywood and Homasote  
 Track: Shinohara code 70, Rail Craft code 55  
 Turnouts: minimum no. 4  
 Curve radii: 30" minimum  
 Grades: maximum 2 percent  
 Scenery: Hydrocal over nylon screening, plywood formers  
 Backdrop: 1.8" Masonite with painted sky and buildings  
 Control: Power Systems Dynatrol command control, walkaround throttles

**The FRANKLIN & SOUTH MANCHESTER RAILROAD**

Not to scale  
 Overall layout size - 23' x 42'

REPRINTED FROM "GREAT MODEL RAILROADS 1993" BY PERMISSION OF KALMBACH PUBLISHING ALTERED BY P. MORROW.

1993' (GMR93), from Model Railroader, there is a track plan correct for mid 1992. I've reproduced that here and amended it for the changes I noted in mid 1993. I've also highlighted the progress on the F&SM since the GMR93 article. Basically that covered about 15 sq feet of completed layout area around the suburban industrial area of Doovertown including an unusual Doovertown station.

The Doovertown station area lies within a semi-circle curving along a river bank and framed by ceiling high mountains. The area is at the base between two peninsular of the F&SM layout. The right hand edge of this area is featured on the cover of GMR93. Several of George's Fine Scale kits are featured in this area. They include "Chester Rawlings Co" from 1983, and "Starkeys Coal Co" both of which are built as per the original kit design. Others have been modified and include the main building from "Wilfred J Bramble Co", "Chippy Hollow Hardware" as the Biddle-Gaumer Co, and his more recent "Roadside Delights" diner/restaurant.

..typical Sellios charm with a timber octagonal tower..

These are complemented by the attractive station building of Doovertown. The design is typical Sellios charm with a

timber octagonal tower cum ticket office, steep diamond slate roof with several attic windows and a covered pedestrian overpass to an island platform. This station is viewed only from several feet away and a city block, across the industries.

This scene of intricately detailed industry is complemented by a fairly plain but large warehouse on a prominent foreground street corner. This two story building with a T-shaped gable roof proclaims to be the "Isiah Shalom Co", and its external detail is limited to stairs and small platform. The delightfully victorian Biddle-Gaumer Co building sits next on the road out of town. Evidently there is good fishing in the stream across the road, but I didn't see the fellow catch anything while I was there. Patient chap though, just stood in the one spot all morning. Must have been entranced by the harmony of birdsong in the trees. I was.

....entranced by the harmony of birdsong....

The next area being developed is the division point yard and engine facilities as noted on the plan. Behind this will be the commencement of floor to 'Everest' mountains typical of Colorado railroading. This area will be adjacent to the trestle which is depicted in the photo of George on page 9 of the GMR93 article.

George had a well known photo of Colorado mountain railroading beside the trestle depicting his chosen prototype for this scene.

I'm always inspired by visits and photos of the Franklin & South Manchester. Should you ever get to the US, it is well worth the effort to visit Boston for a charge of modelling drive. I hope in some small way these few words get you into some more modelling achievement.

As for my missing last years convention, well, now that I've seen the video, I'm not too far behind. And now Alan Keller has a video on the F&SM, so you can experience some of it's magic without the burden of an airfare and accompanying jetlag.

**'93 Convention Videos**

A video tape of the layouts on the layout tour is available from the Company Store. The tape is well done and each layout is introduced by John Saxon. Train sounds have been added to the sound track and Kevin Brown has the sounds matched perfectly.

The other tape is of the three presentations made by Tony Koester. This tape is very informative and has plenty of humour. At 3hr 15min the tape is well worth the money.

Gerry Hopkins



# Computers in Model Railroading

A C Lynn Zelmer

## Introduction

Welcome to the first in a series on the use of computers in model railroading, an update of a series which helped fulfil the criteria for my AP 'author' award.

**Background:** The idea for the original series started at a PNR Divisional meet in Alberta. After arguing that computers were quite useful for model railroaders and whinged about the lack of clinics on their use I somehow ended up writing a series of articles for the PNR's *Switchlist* about the same time as I moved from Canada to Australia.

I hoped to explain both mundane and exciting computer uses for modellers, including preparing schedules and articles, track planning and layout design, dispatching, train control, equipment inventories, etc.

I promised to try to keep the technical explanations simple enough for the novice and the content interesting enough for the computer fanatic. I also intended to use the electronic networks to transfer my articles to Canada without going through the 'snail mail' (postal) system.

The 14 articles which ran in the *Switchlist* from January 1990 to November 1992 met many of these objectives but, as with most topical articles on computer applications, became out-dated very quickly. I was therefore unwilling to allow the *Mainline* editor to simply reprint them but have agreed to update, and perhaps even extend, the series.

I have also asked to have full control over the layout and design of the articles, thus the special format for this article. This will enable me to include graphics (such as the logo from

my mid-sixties letterhead above), printouts, and other samples to illustrate the applications.

**What Computer?** In this first article I begin discussing the type of computer which is useful for modelling... and I start by saying that there isn't any absolutely *right* kind of computer, although there may be some wrong kinds. Some computers ARE better for some kinds of activities. For example, our track planning colleagues would probably use a graphically oriented Macintosh or Windows-based computer. Alternatively, those interested only in text applications (word processing, equipment inventories, scheduling, etc.) or communications via modem could use almost any basic machine.

Unfortunately these different computers cannot always easily talk to each other, and a program (software—instructions which tell the computer how to perform your application) developed for one machine will likely not work at all on another.

The real trick is to decide just what it is that you really *need* to do with a computer. Once you have decided on the tasks to be accomplished you must estimate the amount of work you will be doing for each task.

The needs, and the estimate of the scope of each need will provide the criteria to select a range of computer software that is appropriate for your needs.

The computer (the hardware) is essentially just a dumb box until the software tells it how to move your data (text, numbers, graphics, pictures, etc.) around, manipulate it, and display it out in a form that is useable.

Your budget, dexterity, and just plain personal preferences can then be used to select a computer that will run the applications software that meets your needs.

Just remember, the newest and flashiest product isn't necessarily the best. Computer technology changes so quickly that the newest products are sometimes introduced before they are ready for the average user.

**What do I have?** I teach about basic computer applications and thus am not typical of most computer users, let alone model railroaders using computers.

The system I use most often combines a 'notebook' sized Macintosh and an ink-jet printer, but I also have a basic dot-matrix as well as a laser printer and both Macintosh and Windows desktop machines. I have a small graphics tablet for freehand CAD work, a modem to connect with my office when I work at home or travel and CD-ROM drives for data storage and multimedia use.

I also still have a ten-year old 'luggable' computer (a Kaypro) that sees occasional use when I need an extra word processing machine and an even older desktop computer that could be expanded to control my layout provided I never have to move it (computers in the late seventies were versatile but very heavy).

**Coming Up:** In the next article I will look more closely at several different computers and their use. In the meantime, I hope that you get more time for your model work than I do—computers are probably even more addictive than other modelling activities—and write *c/- Mainline* if you have a specific question for me.

## What ! Another Layout, in "S" this time.

by Paul Ritchie

When I was attending the '93 Convention in Sydney I obtained some Sn3 items (my normal scale is HO).

As this scale is one I have had an interest in, this seemed a good size comparable with HO, and, as the Ballarat Exhibition was coming up in June '94, it was decided to construct a small layout in Sn3.

This layout was not to get out of hand like the RhB layout. The original size was to be 2' 0" x 4' 6" sections with continuous loops behind.

Looking through some of my "Gazette" magazines, I came across a photo in Jan /Feb 1980 edition, page 26, showing 3 levels of track in Lead, Deadwood.

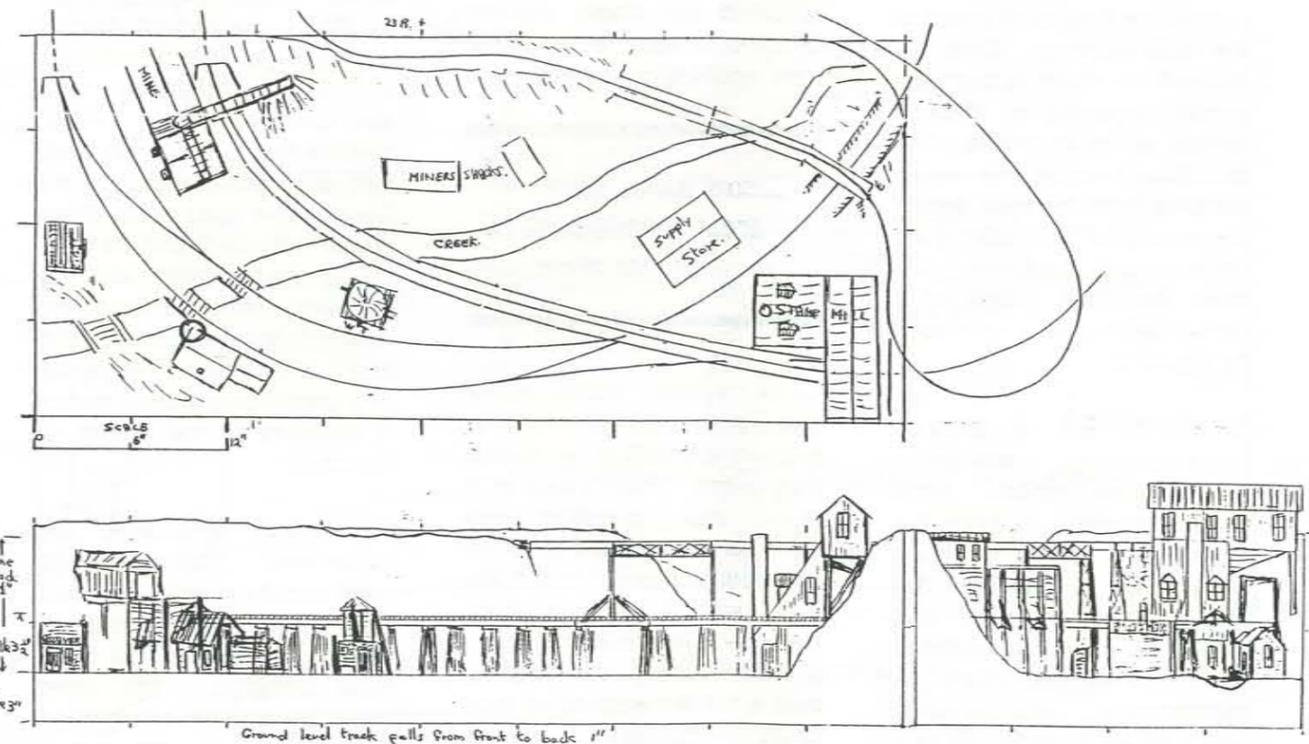
At ground level a 3' track, on a trestle above crossing the lower track another 3' track, and behind and still higher, the Homestake mining tramway on a steel trestle [ a 22" gauge track - Ed].

It was decided to go compact, make a diorama style layout with a single scene.

3 levels -- 3' at ground level, dual gauge 3' & 3' 6" on the trestle above, with a mine tram on the highest level using HOn30" crazy track which equals 20-22" in "S" scale. All this is to fit in an area 4' 6" x 2' 0"; continuous loops are behind the diorama, with continuous loops this is only 7' x 4'.

The frame was to be builder's bracing ply braced by 2" x 1" pine. The right side and the back are 12" high, the front and left side 3" high. The plan shows the track and scenery details and location of buildings.

All 3" track will be handlaid using code 70 rail, sleepers of Northeastern Timber on plywood and Homosote. Scenery is aluminium flywire wire with cornice cement on top for a strong base. Progress will be reported in due course.



The air in a coal mine was foul. Coal mines contained considerable quantities of methane gas. The atmosphere in coal mines became poisonous and explosive with considerable loss of life. To maintain cleaner air and help minimise explosions, mechanical ventilation was used. The traditional means was to suck the air through the mine employing large exhaust fans. These fans were often located at the top of shafts sunk just for that purpose. The fans

...to suck the air through the mine....

pulled air through the mines in a pattern caused by doors or "traps" that were designed to control the flow to all areas of the mine workings. Clean air entered the mine through the primary opening or through special audits or shafts. The fan house could be some distance from the main facility depending on the reach of the underground workings. A cross sectional sketch of a typical fan house is provided as Figure 2.

Coal mines employed considerable machinery. Maintenance shops were always provided to keep the tools sharp and pumps in good order and to maintain the rolling stock of cars and sometimes battery or overhead wire powered electric locomotives. Maintenance could all be included in one building or separate buildings

could be provided for car and locomotive maintenance, carpentry shop for woodwork, blacksmith shop with forge for sharpening tools, electrical shop for motor repairs and rewinding, and even foundry for casting required parts.

Supplies were purchased in bulk and required warehousing and storage. Supplies used by the mines included tools, machine parts, bolts and nails, rail dogs, pipe, wire, timber, stationery and office supplies, and an assortment of other goods. Usually sheds were provided as warehouses. They were often obsolete or older building and seldom were well maintained. Most mines had an assortment of sheds in various stages of decay used to house materials suited to the limited environments the buildings still provided. If a dormitory was provided for single miners, facilities to receive and store food would also be needed.

....coal mines used great quantities of timber props....

Coal mines used great quantities of timber props to support the ceiling as mining progressed. Round logs of 4 to 8 inch diameter and squared timbers of the same size both of a length to suit the mine, say 4 to 8 feet long, were usually stacked in piles outdoors ready for loading onto small flat wagons so they could be efficiently transported into the mine workings.

Sleepers for the surface and underground rail network were also stacked outdoors. Likewise, pipe and rail would be piled in the mine area.

Coal mines could require pump houses to remove the great quantities of water that accumulated in the mines. Often the pumps were placed underground and the only evidence of their existence was the ever-running stream of water from the mine entrance or from pipes extending into the mine workings. A small building with a pipe entering through the side could suffice as a pump house.

....incompatible with methane gas....

Many mines had a lamp house and shower facility where miners obtained their underground gear, dressed for their shift, and scrubbed the black coal dust from themselves following the day's work. Miners originally used candles in the earliest days of mining but quickly found them somewhat incompatible with the methane gas. After, carbide lamps worn on hard hats and later electric battery power were used. The lamp house stored the hats and lamps and mining clothing between shifts, serviced the lamps, and replaced and charged batteries. The layout of a typical lamp house/shower is provided in the sketch at Figure 3.

Coal was dislodged by explosives. The explosives were usually stored in a small shed located, just in case, a safe distance from the main mine complex. The shed could be a small windowless brick, stone, or even wood

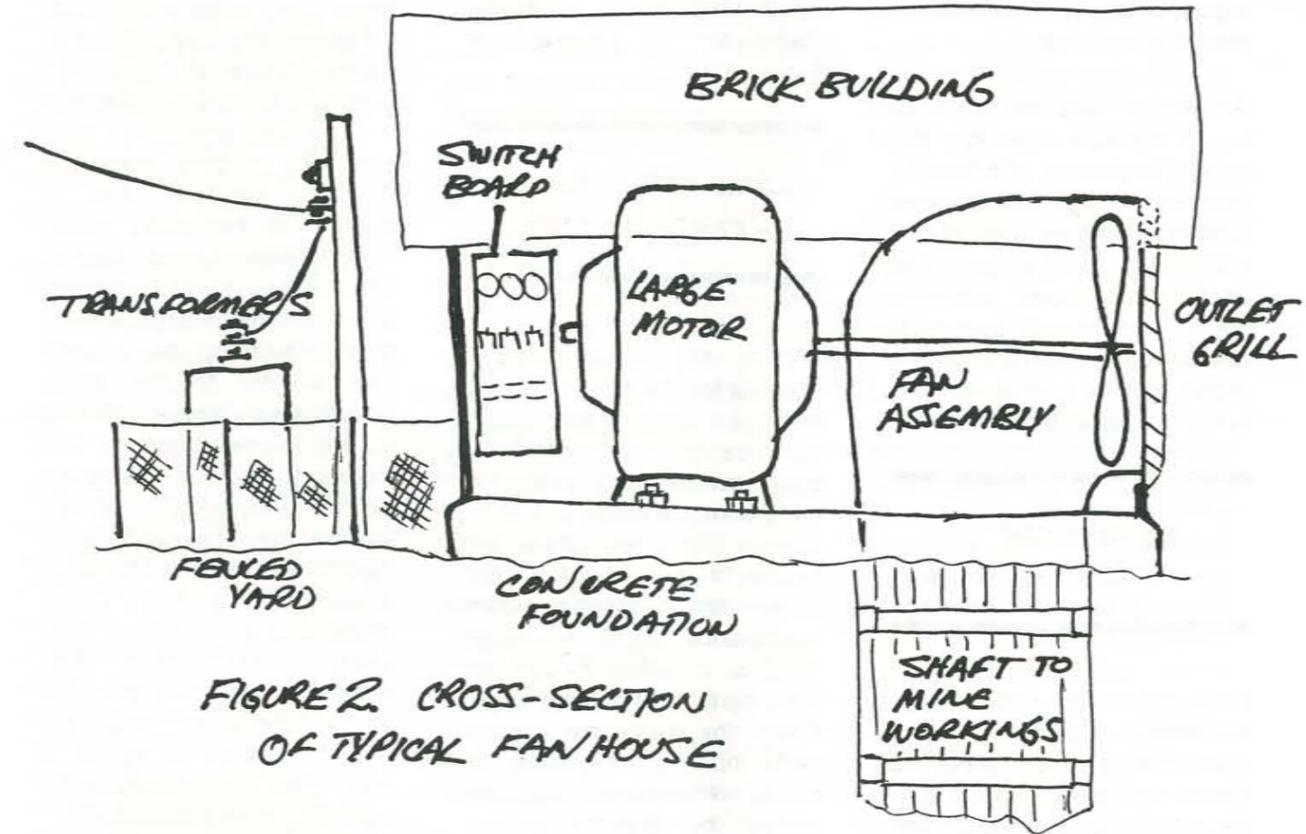


FIGURE 2. CROSS-SECTION OF TYPICAL FAN HOUSE

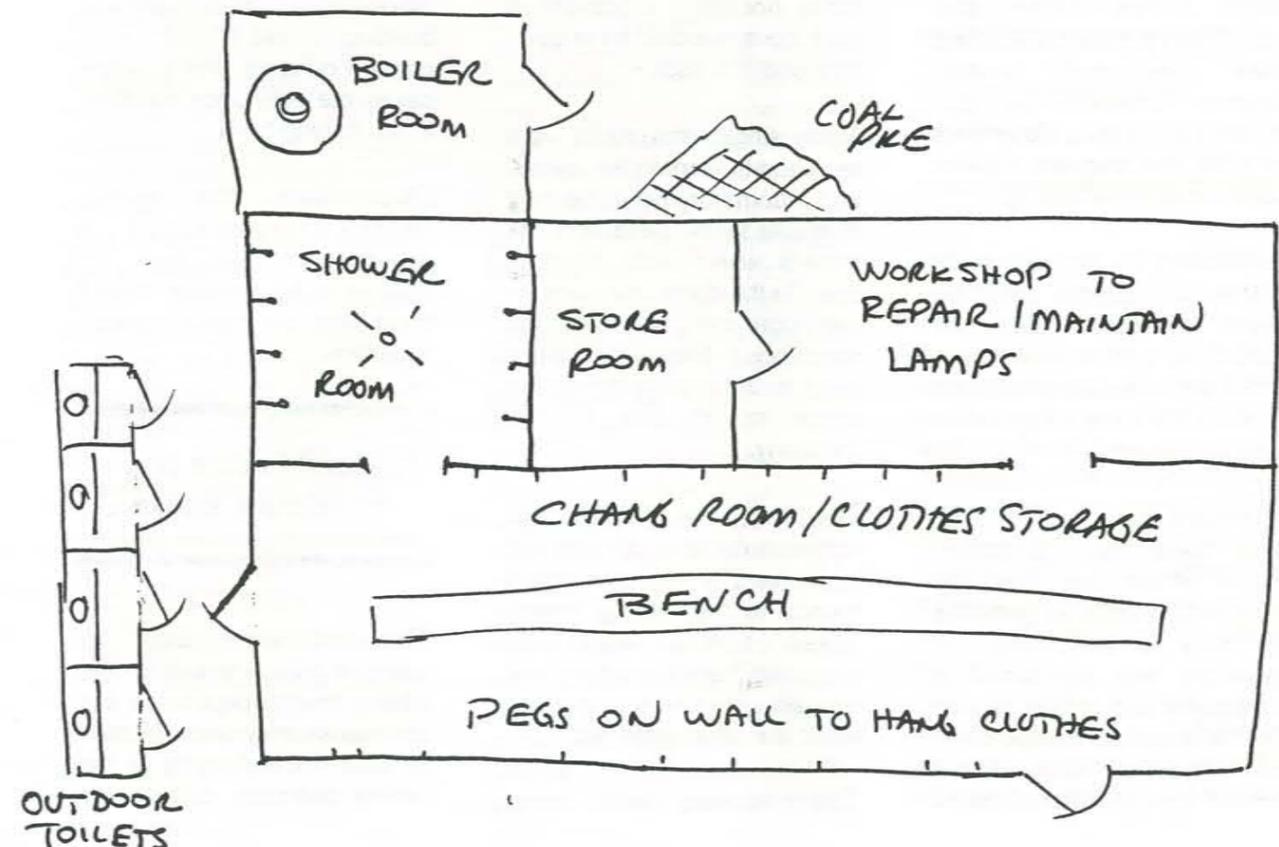


FIGURE 3. LAMP HOUSE LAYOUT

shack with a crude wood door. Its only function was to keep a relatively small quantity of explosive dry until needed in the mine workings.

An office was required to house the mine manager, the mining engineers, and provide facilities for administrative functions such as purchasing, accounting, and paying the miners and other workers. Miners were usually paid on a piece rate basis. When a miner filled a coal wagon he hooked a small brass tag with

---

**....the paymaster tallied the tags....**

---

his number stamped on it to the wagon. When the wagon was unloaded in the tippie the brass tag was removed and sent to the paymaster. The paymaster tallied the tags to determine the miner's pay. Some of these mine offices were simple sheds, but for most mines large and sometimes substantial buildings were constructed. Another function provided by this building could be a dispensary to treat the frequent injuries common to early mining.

Depending on the degree of automation, stables could be found in which mules that pulled the coal wagons were cared for. In such cases barns to store the mule's hay would also be common.

A electric mine in a remote area could have a power-house where coal from the mine was burned to generate electricity for machinery. If electricity was purchased, a substantial sub-station to step the transmission voltage down would be found. It would be a fenced area with transformers

and circuit breakers in the enclosure. A sketch of a power sub-station from the April 1960 issue of Model Railroader is provided at Figure 4.

---

**...long rows of homes ... exactly the same...**

---

Almost all mines provided housing for the miners. Long rows of homes of exactly the same design and often without paint trailed from near the mine complex along a road or stream. In a few cases the houses were mere shacks, but miners were usually recent immigrants prone to large families, therefore the houses were by necessity quite large. Often the company houses were built as duplexes or semis. Houses were usually served by dunnies behind each. Coal, supplied by the company, was piled high in each yard and was used as the heating and cooking fuel in these houses. Electricity in such houses would have been rare until the 1950's.

Many single immigrants were recruited to work in the mines, and a dormitory would be built to house them. Several of the miner's wives were hired to operate the dormitory, cook for the single men, and clean the dormitory. Money for these services was withheld from the single miner's pay by the company.

The mine manager, and occasionally other officials, had larger and better constructed homes in the mining towns. These homes would be separated from the others and occasionally were painted when the other were not.

The houses and mine

buildings created a sizeable company town. Before automation a medium sized mine could employ 500 men. To service the town, almost all mining companies organised a supply subsidiary that operated a company store. The store sold food, clothes, hardware, toiletries, furniture, and all manner of household goods and supplies to the miners. Often business was on a credit basis with the mining company then forwarding the miner's pay directly to the store. Miners were often so indebted to the mining company that moving to another job was out of the question. During hard times some mining companies paid miners in script only good at the company store. Prices charged at the company store were often higher than elsewhere, but, due to a lack of transportation and the remote location of mines, it was often not practical for miners to shop elsewhere.

In many cases the mining office referred to above was combined with the company store into a substantial building. It was often the only painted building, and in some cases the only brick building, in the mining town.

Occasionally the mining company provided a schoolhouse for use by children in the company town if there was not one otherwise available.

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**...churches were built by religious groups...**

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Churches were built by religious groups to service the mining town's population but sometimes they were located on land not belonging to the mining company outside the

town.

Although not common, social clubs were constructed by some mining companies. Such clubs contained libraries and recreation facilities. Company towns were known for the absence of alcohol and did not include saloons.

---

**....saloons...brothels.. churches..shops....**

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The nearby church on private land and the absence of alcohol in the company town often combined to spawn a satellite town. Saloons, brothels disguised as hotels or dance halls, churches, and shops to compete with the company store formed a strange alliance to serve the various needs of town folk not readily accommodated for in the company town. Mining companies did not appreciate either the competition for their store nor the influence of alcohol and "fallen" women on the productivity of the miners. As the mining company usually had considerable political influence, the satellite towns were not well treated by local officials. Such satellite towns were raided, buildings burned and proprietors run out of the district. Some satellite towns did manage to survive, however, as the coal mining era was one of rough and ready places that attracted a tough, resilient, and resourceful breed of people.

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**....streams were polluted with sulphuric acid....**

---

Mines usually had water tanks, dams, or water supply lines. Coal mining quickly destroyed local sources of water. Streams were polluted with sulphuric acid from mine run off and took on an orange hue. Underground mining drained natural springs and lowered ground water. As water was needed it often had to be imported. Some mining companies used water trains in dry spells to insure a reliable supply. The East Broad Top narrow gauge line in Pennsylvania used modified box cars for their water train. Cisterns, tanks or small dams were used to store the water at the mine.

---

**....as the mine progressed....the gob heap grew....**

---

Another non-building feature of a coal mine that cannot be overlooked is the gob heap. The waste remaining after coal was cleaned, called "gob" in the Pittsburgh area, was mostly a black slate-like material. After separation during the cleaning process, it was removed to a nearby point where it was dumped. The result was an immense black heap of waste. As the mine progressed the gob heap grew and grew. It was not unusual for the mine manager to periodically be bothered with finding new places to dump the gob. There was little incentive to move it far as it was of no value. The mines near Pittsburgh were originally located along streams in narrow valleys at the point where the coal outcroppings were located. Often this was on a hillside. As the mine grew, the gob became the source of fill material to provide a level area on which

to build new mine structures. Such a gob heap accompanied every coal mine but is seldom modelled. A coal mine without a gob heap is like fish without chips and the gob heap should not be overlooked if realism is to be achieved.

The other important factor to consider is the nature of the railroad serving the mine. As mentioned above, buildings were often unpainted. The mine was seen as a temporary facility built to support the removal of the coal and would be of little value when the coal was worked out; therefore, money spent in constructing the mine and the town was limited to that necessary to achieve the desired purpose. Likewise the railroad was seen as temporary. The tracks were often quickly constructed on a poorly graded road-bed with severe curvature and grade. Little ballast was used and rail was often second hand and light. Passenger trains were rare. Travellers rode in a dilapidated coach on the rear of a coal train or even

---

**....passenger trains were rare....**

---

in the caboose. Trains were infrequent, traditionally once per day, and speed was restricted. Hoppers loaded with coal spilled part of their load as the outward journey began and the track near the mine appeared to be ballasted with coal. Often only the rail head could be seen with sleepers buried under the unsavoury mixture of coal, coal dust, mud, and sulphuric acid laden water.

As a minimum, a coal mine should include the main receiving, cleaning, sorting,

and loading structure, the tipple; machine shop; storage building(s); prop piles; and a gob heap. We can always rationalise that the mine office, fan house, explosive shack, company store, and miner's homes are located "just over the hill" if space is limited. A coal mine could be the most significant source of traffic on a model railroad empire; therefore, it would be a focus of attention. With a bit of extra work it could very accurately depict the substantial complex we intended to model.

If a coal mine is part of your layout plans, I suggest a little research before starting construction. Additional sources of information on coal mines can be found in the model press articles listed below.

Several recent books which deal with railroads serving coal mining operations can be a good source of information on mining structures, and they are also identified below.

Copies of the reference material are available from the NMRA Library, some from the Regional Library, or I may be able to help. I also have a small collection of old and new books, papers, and photos on period coal mines that could be of assistance if you need information.

Additional references:

Model Railroad Craftsman, July 78, pp 67-75, "Coal Mine and Preparation Plant"

Model Railroad Craftsman, Feb 78, pp 44-47, "Friend of Frencha Mine"

Model Railroad Craftsman, Dec 77, pp 80-85, "Thoughts on a Typical Tipple"

Model Railroad Craftsman, May 82, pp 58-64, "Hard Coal, Part III"

Model Railroader, Oct thru Dec 59, "How to Build a Coal Mine"

NMRA Bulletin, June 1980, pp 50-52, "Coal Mining at Lethbridge, Alberta"

East Broad Top- To the Mines and Back, Grenard & Kramer, Carstens Publications

East Broad Top, Rainey & Kyper, GoldenWest Books

Along the East Broad Top, Heimburger, Heimburger House

Buffalo Creek & Gauley, Warden, Ed Crist, Inc.

Gunnison, Richard L Dorman, RD Publications, Inc.

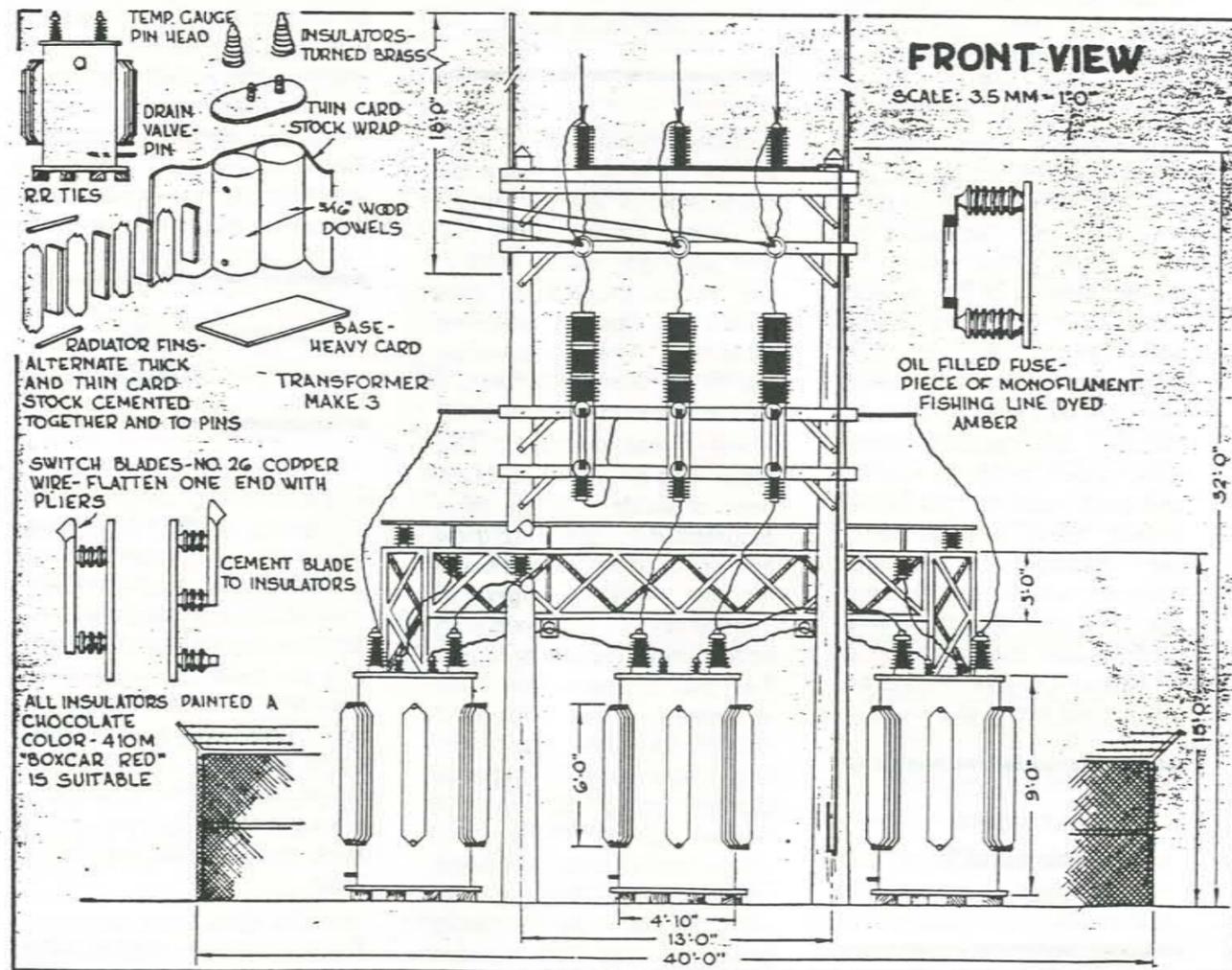


FIGURE 4. POWER SUB-STATION (FROM MODEL RAILROADER, APRIL 1960)

## On Exhibition Layouts from John Saxon MMR

During March, whilst attending the **Canberra Model Railway Exhibition**, I was asked to head up the panel to judge the seventeen or so layouts on show to the public. As I had not been warned in advance, I did not have the NMRA AP rules with me and so, accompanied by Ken Bowen (the artist) and local modeller Graeme Clancy, we sat down to define the parameters for the contest.

...Namely Operation, Realism,  
Authenticity and Presentation...

We decided that we should independently mark each layout between one and ten points for each of four categories, namely Operation, Realism, Authenticity and Presentation. We proceeded to do this and when we concluded our judging, found that we were unanimous on the first three place getters with less than ten percent between our individual markings. Very reassuring!

I had planned at the Sunday night barbecue in announcing the winners, to detail what we three had looked for in awarding the marks, but the night was cold and some wanted to get their children home, so I promised the organisers I would cover it in an article in our own Main Line. So here it is for interest and comment if any reader should so wish.

...a very special place  
in the Hobby...

Our view was that model railway exhibitions have a very special place in the Hobby. The layouts on display and the modellers who work them ARE the model railway hobby to

the general public who pay good money to attend. If we leave the public with a good impression we just might lift our image and maybe even encourage others to join us BUT, if we give them a poor impression, we not only disappoint the paying public but perhaps also give the Hobby as a whole a bad name.

We can do what we like with our home layouts as we only have ourselves to please. At home, and perhaps at the club, it doesn't matter:

= How we dress, if we turn our back on our visitors, scowl, swear or are unshaven, ignore questions or engage in conversation with our friends to the exclusion of the interested public.

= If the layout lighting is poor, there is dust on the trains and buildings, and gaps between modules have not been properly disguised.

= If we have to thump the table or push the locomotives to make them run or have to keep re-railing rolling stock.

= If there is little activity going on, or the same train continues to orbit the layout in the same direction (Boring! Boring!) without at least some other form of activity taking place such as switching at the FRONT of the layout where the action can be appreciated.

= If we run a mix of national prototypes, or mix the latest diesel with old-time rolling stock (and steam with container flats or Hi-cubes), or confuse even the motor vehicle era's on the layout.

= If we display unpainted (or unweathered) plastic buildings, locomotives or rolling stock, if we don't paint the rail sides, if the tree trunks sit ON the ground rather than in the ground, if the structures are not level or are not properly fitted into the terrain or the grass or foliage is too bright.

= There is no, or too low, a back-scene, if the layout legs are exposed, if the unscenced fiddle yard with its collection of tools and soldering irons is visible or if the entrance/exit to the yard is not disguised by a tunnel, overbridge or the like.

= If there is no information displayed as to prototype, era, builder(s) or the purpose of the freelance layout or history if a particular prototype is modelled.

---

.....BUT IT DOES MATTER  
AT THE EXHIBITIONS!.....

---

The final results saw **Kennebec County** of Gerry Hopkins MMR and Lauris come first both in the judges and the public's opinions and **Die Nebenstalbahn** of Phil Knife MMR placed third by the judges. Gerry, Lauris and Phil are of course, NMRA members. Tony Kociuba's **Manuka**, an excellent Victorian prototype layout with prototypical signalling including miniature working lever frames, was judged second.

The layouts of members Phil +Badger and Peter Weller-Lewis also did well.

The seventeen layouts all scored reasonably highly but the winners succeeded because they had all paid attention to how their layouts would be viewed and appreciated by the public. The first and third layouts exhibited none of the problems identified above and of course, Kennebec County also provided background sound and additional animation. Due to the automatic operation, both Gerry and Lauris were able to mix with public and answer questions from the outside of the layout.

A final point. Note that we did not allocate any points for scratch-building of structures or rolling stock as we may have done in an NMRA contest.

---

.....Our view was that the  
**OVERALL** effect was all  
important to the paying  
public.....

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### Assembling the Intermountain Canadian Cylindrical Grain Hopper.

By Rob Nesbit

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Having assembled eight (so far!) of the **Intermountain** Canadian Cylindrical Grain Hopper models, and managing to reduce the assembly time down to 4 hours (from my original 9 hours), I would like to share some of the tricks I have developed.

Reviews of the model are in **MRC** (Nov 92), **MR** (Nov 92), whilst prototype notes and a diagram can be located in **MRC** (Mar 92) and **MR** (Feb 94).

#### Please note

(1) The magazine reviews were of the "Canada Grain" car or the undecorated kit, both of which the plastic used are moulded in the correct colour. However, some recent variations, for instance the CN grey version, are painted.

(2) In the tips below, the letters in brackets refer to the part number in the kits instructions.

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#### THE TIPS

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1) The model consists of over 100 parts, some of

which will tax the eyesight. It is vitally important that you have adequate lighting, particularly with the CP Rail version, which is black - finding black holes on a black body isn't easy!

---

...finding black holes  
on a black body  
isn't easy...

---

2) Use **Plastrut** cement. An unfortunate (or fortunate) accident on my first model caused a drop of Plastrut cement to fall squarely on the side of the hopper. I made no attempt to remove the cement, and once dry, the only damage thankfully was a "shiny" spot.

Upon completion of the model, after a coating of Dullcote, I cannot tell where the offending drop was. Plastrut cement also appeared to allow bonding through the CN Grey paint.

3) Add weight to the inside of the underframe. I have used 1/2 oz, but 2 oz would bring the weight to the **NMRA** standards. However, with free

running trucks, and similar weight in each car in a train, I am not convinced that the extra weight is needed. Add the weight before starting work on the rest of the hopper.

4) Drilling the holes. Most of the kits holes are quite adequate without drilling, so this step (as recommended in the reviews) for the majority of holes is probably a waste of time. However, some areas do require drilling.

These are the holes used for the brake details. Be aware though that not all holes should be drilled through, i.e. the air hoses (u), and the underframe locating tabs.

5) Fit the brake details before adding the underfloor. This allows gluing of some parts from below.

6) The last item to the brake detail is the triple valve (g6). If the triple valve is fitted earlier, it makes the fitting of the brake lines more difficult.

Unfortunately, I have no words of wisdom with prevention of breaking the

---

....use an extremely  
sharp knife..  
..with care....

---

fragile brake air lines,

other than use an extremely sharp knife, and use utmost care.

7) Roof hatches (i), and ring eyelets (h). These are best tackled prior to installation of the roof on the hopper body. Unless you require operable hatches (it can be done), remove part of the ring eyelet clip that grips the hatch lid bracket into position. This will make fitting of the hatch on the roof much easier. I apply the eyelets using tweezers, and cement from below. However, before the cement has a chance dry, I move the hatch cover into position. The hatch is then secured, also from below. Once all hatches are in place, the rood can be secured to the hopper body.

8) Roof modifications. An unmodified roof will tend to bow up at the ends. This can be cured with simple filing to narrow the width of the roof, and reduce the height of the end sills.

9) Roof walk supports (k). There are 32 individual roof-walk supports, each of which should be modified.

a) Remove the roof walk positioning lug from each of them, as these lugs (if left on the support) will not align properly, and thus prevent the roof-walk (j) from sitting properly

on the supports. The lugs should be removed with a sharp knife whilst the supports are still on the sprue.

b) Clip the supports in position, 4 to 6 at a time. Use tweezers, first clip the support into the body hole, and then into the roof hole.

c) Secure with Plastrut cement. Don't worry about marking the surface of the plastic, as **Dullcote** will (as mentioned earlier) disguise this.

10) Roof Walk (j). I have used both Plastrut cement and 5 minute epoxy to secure the roof walk.. I much prefer the epoxy. The long grab irons (t) should be fitted and then secured with Plastrut cement.

11) End ladder detail (m). Fit all the parts prior to fitting the end rails and ladders.

a) Brake wheel housing (n). File the positioning lugs off as I could never get the housing to sit nicely on the ends (m).

b) Enlarge the hole in the end platform (p) for the brake wheel chain (q).

c) Fit the short grab irons (s)! If this isn't done now, it's most frustrating later

12) Air lines (g&f). Eliminate some length of the air lines when cutting from the sprue. This is to allow them to sit easily on the bogie bolster. However the lower line of the double line must be reduced still further, to prevent it fouling the wheels of the bogie.

13) Couplers. I use Kadee #5s, with one ear removed to avoid the air hose (u). I typically secure with small screws from compact cassettes, which hold the coupler firmly, without protruding too far into the end sill.

14) Bogies. I don't worry about the brake beams.. ...they can't be seen anyway and offer nothing to the operation of the bogie, which roll extremely well. I have not experienced any derailments, on **Peco** or on hand layed pointwork.

To sum up, I am extremely happy with the Intermountain Canadian Grain Hoppers, and whilst definitely not a "shake the box" kit, the four hours assembly time is quite acceptable, and may possibly be further reduced by assembling the kit in batches.

I hope this information has been of some use in assembly of Intermountain Canadian Grain Hopper kit.

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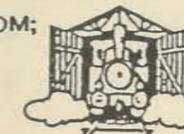
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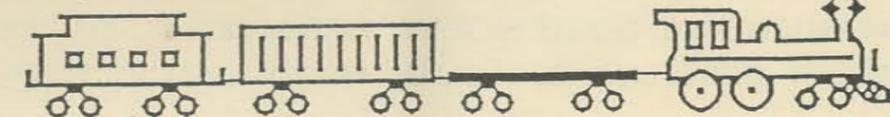
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