Mine cars of the Bellevue Mine
Michael Mott
Another year ending and new beginnings to look forward to. The Forum has seen a surge in members this year, I believe this is because the type of model work that occurs among the group that frequents the forum is more about having fun with vehicles that run on rails. In a hobby that so often resorts to nitpicking about whether the whatsit is in the right position on the left hand side of the sproching wheels.

The Gn15 format seems to attract a modelers that enjoy the freedom to freelance with almost wicked delight. And those that also enjoy depicting the often forgotten small industrial lines that were so much a part of the 20th century’s industrial development. There are many temporary narrow gauge lines that are used today in the work carried on under modern cities building new infrastructure. I also think that the nature of modeling small windows or vignettes of rural and industrial narrow gauge lines offer a medium that can be completed with a minimum of space tools and time. It probably accounts for the success of Gn15, There are not too many areas of the model railway hobby that can provide such an opening into the hobby that is so unrestricted that just about anything goes, how many times have I read that “there is a prototype for everything” I think that it is this spirit that keep helping Gn15 to grow as a venue for fun experimenting and sharing. In the museum business one of the things that exhibitors pay attention to, is the perceived effort by the visitor when they come up to an exhibit, in other words “what will it cost me to engage in this exhibit/activity” if the perception is little cost big gain, then the exhibit wins the visitor gets engaged, I think the same thing is happening in Gn15.

Finally I would like to wish everyone a healthy and prosperous new year.

Ed.
Machining polystyrene is pretty similar to machining brass, the concern for the material heating up and the tool loading up are the primary consideration for both materials.

As you can see in the first photo, I am using a 3/8 inch two flute end mill to plunge cut a pocket in a .225" thick sheet of polystyrene. I was machining side frames for a internal combustion critter that is a sister lokie of the one shown in second photo,
The polystyrene piece was mounted on a sacrificial fixture, fixed in the jaws of the milling vise.

![Image of milling setup]

The mill used is a Harbor Freight/Sieg X2 mini bench mill. The endmill is a standard high speed steel (HSS) two flute endmill, and the coolant used during the operation is nothing more than Dove dishwashing liquid and water in a spray bottle.

I don't have a firm idea of what the ratio of dishwashing liquid to water is, my rule of thumb is it has to been a slick, filmy feel between the finger and thumb.

This machine does not have a power feed connected to it, so, the table is fed into the cutter at a slow steady pace, trying not to dwell at all (don't want too much friction), alternating between the spray bottle and brush, making sure the chips stay clear and the endmill lubricated.

The spindle rpm was just under 1000, and the depth of cut between .06" and .100".

The end result was a messy machine and nice square, accurate pieces ready for the rest of the fabrication process.
This months feature Locomotive

Model of smallest Hunslet ever made
Works No.551 of 1891
Length: 6'5" (1955mm)
Gauge: 2' 2 3/4" (679mm)
produced for M Cardenosa of Seville.
As well as being tiny the Loco's gauge was unique. I can find no record of such a gauge in Spain though 2'3" was not uncommon on UK NG railways.
History of Loco unknown.
The model is based around a Duncan Boiler Kit mounted on Plasticard footplate with non powered chassis from an old Triang "Nellie". Crossheads and connecting rods are HO Fleischmann and most other parts are scratch built using Plasticard. Painted with an Matt Black Acrylic car paint.

Pictures & text courtesy
Gerry Bullock
Dieser Karton enthält 24 Flaschen

Lausitzer Leinenöl

Ölmühle Glitsch & Sohn

DIMARail Modellbauzubehör  1 : 22,5

Print artwork by Michael(600mm)
The Bellvue Mine in the Crowsnest Pass in southern Alberta used these coal wagons which were originally pulled by horses.

I have done this line drawing as a general guide for building a wagon like this. The gauge at the mine is in the 24 inch range, I did not measure the gauge when I was there but I have used 24 inch as the basis for the drawing. I think that an adaption of this wagon could work for 15” -18” gauge
Making rusty corrugated iron sheeting

Article and pictures. by Michael Mott

This article came about as a result of trying to get a convincing looking sheet of corrugated iron. A set of limitations that included not using printed textures and simple materials. The sheets show in the picture to the right were accomplished using:
1. Soft grey cover stock paper
2. Rembrandt soft pastel chalks
3. Coarse coffee grounds
4. Isopropyl alcohol
5. Brown ink
Tools include:
1. Knife
2. Coarse file, for powdering chalks
3. Blending brush
4. Crimping tool

Step 1

The first step is to sprinkle some coarse coffee grounds on the work surface, this will determine the amount of more or less how many holes you want in the sheet.

Step 2

This is followed by laying the sheet onto the grounds and then sanding the paper until the bumps caused by the coffee grounds get worn away. The coffee grounds work very well for this step because they are partially crushed and do not cause the paper to tear.

This step can be repeated a few times with fresh grounds to get a more textured sheet.
Step 3

Next the paper is brushed with the brown ink diluted with the alcohol. The paper is worked across the middle two thirds to provide stiff edges for handling. When this step has dried it is ready for the application of the chalks.

Step 4

By rubbing the chalk back and forth across a coarse file the colour can be controlled very easily. The file gets loaded and then the excess falls onto the paper. If you want to keep the colours separated, a few different files each used for a specific colour will save the amount of chalk that you use. Another method is to rub the chalk stick directly across the paper. This in fact was done to the opposite side of the sheet.

Step three can be eliminated and the chalks can be used on their own as in the sheet to the right. This has the advantage of not adding any need to wait for the sheet to dry and there is no wrinkling of the paper. Both sides can be coloured with different chalks. One other thing that is easier when doing the work dry is to sand both sides of the sheet and to press hard with your fingers when blending the chalks. You will notice that some of the coffee grounds just caused depressions and did not result in holes. The textures as a result are subtle.
The picture on the right is the result of working dry and illustrates the shallow depressions formed by the crushed coffee grounds. Working the chalks into the paper with your fingers also causes some of the depressions to be skipped over adding to the variations in colour. This is where you can have fun trying different combinations of colour to create sheet material that can be used for other aspects of construction instead of corrugated. I can see this step being saved for side of locos.

Step 5

Back to our corrugated sheets. After you are satisfied with the colour and texture trim the sheet and cut your paper to represent the sheet sizes that you want to use. Do some tests to determine how much the sheet will be reduced in its width as a result of the crimping. The height of course doesn’t change.

Step 6

The sheets after they have been run through the crimper. I personally find it better to put the smaller cut sheets through the crimper than to cut the larger sheets afterwards. After a little practice it produces very consistent sheets. These sheets on the right are not going to be seen from both sides so only one side was coloured.
Step 7

The last step before the sheets are ready to use is to colour the edges of the individual sheets. This is easily accomplished by running one of the chalks along the edges.

I hope this method proves to be helpful finally two examples of the way I am using this process. One sided on the roof and both sides for the fence. The wood for the fence was brushed with floquil grey then chalked with a white Rembrandt chalk, The wooden posts and rails were glued with thick ACC, The paper sheets were also glued with ACC.