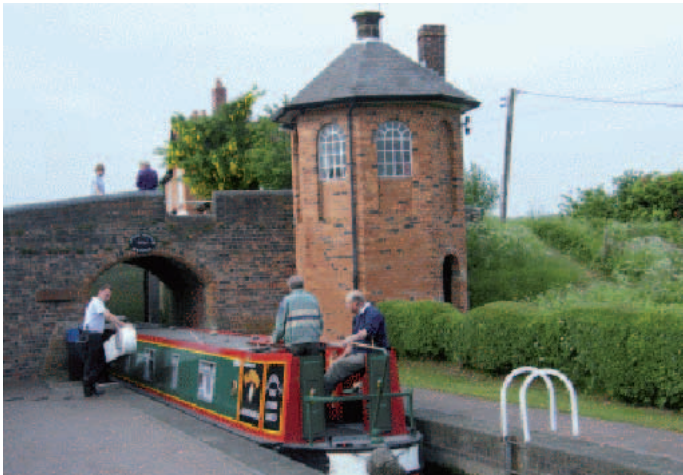


BUILDING WORKSHOP

By Robbo

The Toll Tower and Lock Keeper's House

The buildings were inspired by a couple of photos found on the Internet when I was researching images for the Canal Lock recently completed (*see illustrations below*).



It was always intended to incorporate 2 buildings on the Lock, this model build outlined here, and another yet to be started — an old historic Pub!

As most of you know, I have a OO9 Railway Layout and these projects are all going to eventually be installed onto the layout, which is halfway completed.

So to start — **THE TOWER** was to be very loosely based on the photo, which was in reality, a Toll House. Whether it was for the canal alongside or for the bridge above I don't know, but I thought it would be a good subject to model.

The Lock keeper's House was also based upon a photo of an existing building — the photo is titled "Bath Toplock Lock Keeper's House" and suited my purpose admirably because there were some

features similar to some of the Linka stone moulds that could be used.

I always like to go direct to the build without worrying about any plans, admittedly not everyone's cup of tea. The "tower" was to be either hexagonal or octagonal — I thought if I made it hexagonal there would be a lot less mitering of corners to be done to the tiles — of which there would be quite a few.

The style was to be a combination of "brick" and "stone". I wanted to use stone for the foundation and steps, with brick for the remainder so that I could have "sash" windows rather than stone surrounds.

I came up with an idea to be able to quickly mitre the tile corners mechanically, rather than by hand. I used a belt sander clamped onto a work bench and cut a piece of timber for the mitre angle and clamped that also, so it could be used to rest the tile at the correct angle and slide down to the sanding belt (*see photos below*).



From memory the angle for the hexagonal mitred pieces was 30° — the trick was to hold the tile firmly so it didn't get "bitten" by the belt and pulled out of my hands. I sanded each mitre to the inside extremity of the "tongues" on the tile — this governed the size of the tower diameter and also gave me a distinct line to sand to!

Suitable pieces were chosen — door, windows, etc and carefully all pieces were sanded, allowing for extras due to breakages/spoils in the build.

To start, a cardboard template was made of the floor plan and 3 base pieces were laid up to this and assembled and glued — this step was repeated for the other 3 pieces and they were allowed to dry before assembling into the completed 6 sides. It was then greatly simplified to complete the height of the tower by assembling the other tiles into position. Once glued and allowed to dry, the insides were fortified by strips of balsa to strengthen the corners, making sure they did not encroach into the window areas (*see photo*).



Having had problems painting AFTER a structure was completed, I decided to paint doors and windows as I progressed. This proved to be the best idea because it made painting a single tile so much easier than trying to hold a completed model in my hand and painting fiddly areas where frame joined brickwork. I used a water based paint for the windows and door because I wanted to use HUMBROL enamel for the walls — more of this later!

The next part was the roof — again a little tricky because here I had to first decide the height of the roof and then work out the angle of each segment — it turned out easier than I anticipated.

Again, I had cut a cardboard template of the hexagonal shape, allowing for the roof overhang (about 4 or 5mm) — stuck a dressmaker's pin into the exact centre to the height I wanted

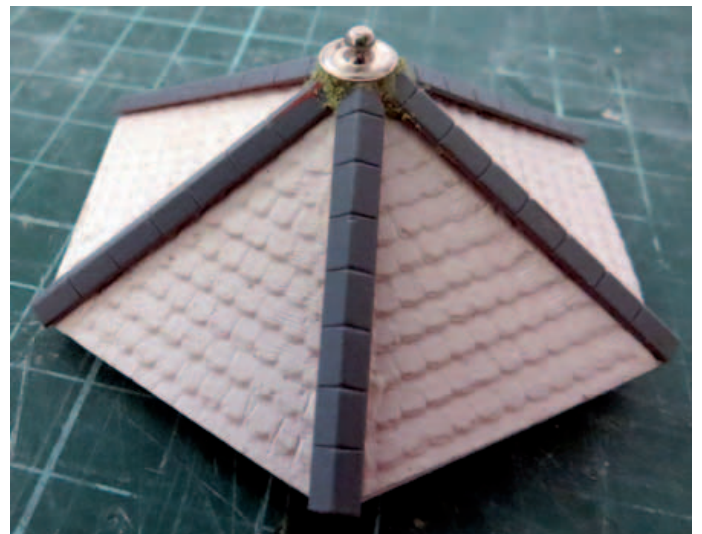
and measured from the pin to the very edge of each corner. Using those measurements and the width of the segment I was then able to produce cardboard templates to make a “dry run” and also to use when cutting my plaster roofing pieces.

PR2 – Half Round Tile.

I broke a few pieces when cutting, but lost only 2 from memory. I used a fine toothed modeller's saw to cut these pieces. I also have some XACTO fine tooth saw blades that fit into one of the XACTO blade holders. Using a combination of both it was a matter of “softly, softly” and carefully cutting, again allowing extra for breakage.

I substituted the dressmakers pin for a toothpick glued into the centre of the card roof template and used this to assemble the roof segments to. The edges of each segment were chamfered to allow for a good fit, but it was not to any exact angle — I figured each joint would eventually be covered with ridge capping so any mistakes would be hidden!

I fitted the first segment, and allowed the glue to dry before trying to fit the next one. This gave me a firm edge to glue to and the entire roof piece was assembled. To hide the hole at the centre, I used a “press stud” as a style of “finial” (*see below*).



WILLS produce a “Building Detail Pack” which contains roof capping. At this point I was not aware that Tony was producing these on his 3D printer so I didn't use them on my Tower roof. The gaps where the capping fitted up to the press stud was filled with MILLIPUT and allowed to set.

Once everything had thoroughly dried I then painted the remainder of the Tower. I mentioned earlier that I chose to use HUMBROL enamel for the walls and not Watercolour or Acrylics (*see photo on next page*).

I was able to have a very “runny” wash thinned down with turps, so that the paint would “run”

into all the mortar areas and along the window and door joints. I didn't worry about first using a light colour for the mortar as a base because I was going to use a weathering powder for that AFTER I had painted.

When painting (both stone and brick) I started with a light base colour and then whilst still wet I used darker colours to add "texture" and "highlights and shadow" detail to the walls, building up my colours until satisfied with the results. The photo shows the 3 colours used for the stone!



The BRICK wall sections and STONE courses were painted in a similar fashion to the stone "foundation", using shades of red, red-orange and orange to achieve the colours that I wanted. I had seen images on Google of old Tudor style buildings and the brickwork were these beautiful rich and vibrant colours (*see photo next column*).

The steps were assembled and painted and then attached to the main tower building. I did this AFTER I had painted because there would be areas near the door that would have been too difficult to be able to paint properly!

THE LOCK KEEPER'S HOUSE — With the tower completed I moved on to the main building. For this "stone" was going to be the choice of building material so that similar style windows to the building in the photograph could be used.

Also, I thought I would "bite the bullet" and have a "hipped roof" rather than the usual style I have done before — a choice that I am happy I made because it again follows the photographic image.

Following the painting success with the tower, I first painted all windows and doors whilst they were still single, unglued tiles. How easier this is



in making a good, clean finish rather than trying to paint them with the building fully assembled — I certainly will be using this process in all my future builds!

The usual method of building was followed, but I raised the level of the building by having 2 courses added to the base. I wanted the windows to be at a higher level from the ground and stairs going up to the door. The building was assembled — and then I realised that it would have to be higher again because of the hipped roof and the overhang that would be over THE BAY WINDOW!

In hindsight I should have realised this was going to need more height to allow for the roofing OVER the bay window. It doesn't pay to rush into a build when THERE ARE NO PLANS! It all must be clearly thought out PRIOR to starting, then there would be no pitfalls for the unwary!

So, another 2 courses were added around the tops, needing some stabilization with scrap pieces on the insides of the walls because these areas were not as strong as they should be.

With the "bay window" I wanted to create my own because of the style of window needed. I was lucky here because I could use the same mitre

angle as used on the tower and it took no time on the sander, the only thing I had to be careful of, being a “half width” tile it would be harder to hold when sanding. (See photo).

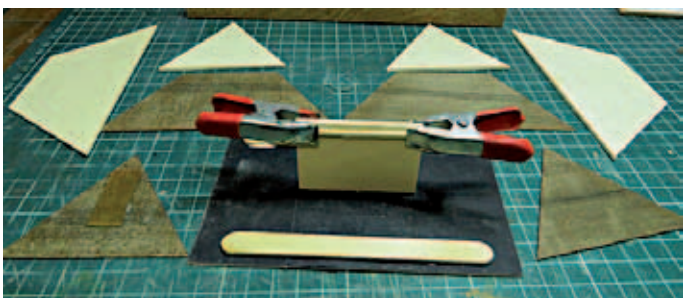


The roof for the bay window was completed and to hide the joints instead of using the WILLS plastic roof capping I used a few pieces of stiff card created to simulate the capping, once painted the appearance was quite satisfactory.



Now for the **HIPPED ROOF**. This needed a bit of thinking out because of the compound angles and the pitch of the roof. Similarly to the roof on the tower, I first cut a rectangle of mounting board allowing for a 4mm overhang all around the building, this was then the base to assemble my roof. Roofing used **PR2 – Half Round Tile**.

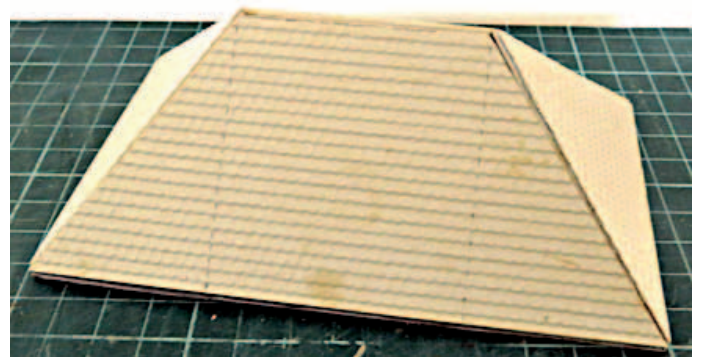
For a centre support for the 2 main sides I used some balsa strips cut to the length and height for the 2 side roof segments to lean against, as well as 2 paddle pop sticks to help hold the base edges of the roof (see photo below).



With this tacked with “blue tack” into position on the building, I could then easily measure from roof line to each corner to determine the angle and length and base width for each roof segment — both the end pieces and the side pieces — then I made card templates to “test fit” and was very surprised that it was practically spot-on with a good tight fit when assembled!

To give added strength for the plaster roof pieces I used scraps of thin “veneer” as supports, gluing the plaster pieces to these BEFORE assembling, making sure that I had left sufficient space for the THICKNESS of the plaster (the veneer pieces were smaller than the plaster to allow for this). It needed some prior thought before the first cut!

The roof segments were “chamfered” on the edges to give a good close fit, but again, these joints would be hidden by the roof capping so if there were small discrepancies it didn’t matter. The roof was assembled using my favourite glue (WELDBOND) and left to dry overnight.



To hide the roof edges I used some EVERGREEN ANGLE as a FACIA BOARD around the edges, making for a much neater finish rather than “raw plaster edges”. This also made it easier to attach Tony’s fantastic GUTTERING MATERIAL produced on his 3D printer! Well worth the minimal cost he charges!

Having finished the main roof I wanted a DORMER WINDOW at the front of the building. For this I used the tiles from moulds B4 (SKYLIGHTS) and R1 (SLATE ROOFING) to achieve the results I wanted.



Once I had this assembled, including the roofing, I added some “finessing pieces”. Again I used the EVERGREEN ANGLE STRIP, Tony’s GUTTERING, some fancy GINGERBREAD FACIA BOARD (plastic bits from a HELJAN N scale Engine House) and a FINIAL that I had turned in my DREMEL TOOL.

Once everything had completely dried I painted it with matching colours used for the doors and window frames, then fitted it to the main roof section. For the CHIMNEY I used the moulding from the S5 tile mould and for the CHIMNEY POTS I used some white metal castings purchased from SCALE LINK LIMITED in the UK.

Talking of which, there are so many great castings available to not only use on buildings, but also for adding those fine details to your building projects when adding scenery! Well worth a look at <http://www.scalelink.co.uk/acatalog/sitemap.html>

I had purchased some of Tony’s ROOFING TILE/ CAPPING STRIPS and I used these on all the edges of the roof. **NOTE: BE CAREFUL here** — there is a *RIGHT WAY* and a *WRONG WAY* to fit them — I fitted them the **WRONG WAY!!!**



I had the tile OVERLAPS facing upwards, they are meant to face DOWNWARDS, in the real world the water would flow OVER the overlaps — very embarrassing when Tony pointed it out to me!

With the roof basically finished I then painted and weathered it in the usual manner. I find that I am forever researching things on GOOGLE IMAGES to look at what colours to use and how to simulate fungus and “weathered” areas — it’s a never-ending source of inspiration!

I also finished the painting of the main building — then realised I hadn’t built an “out-building”/ tool shed — hence the photo with painted and not painted building sections.

For the roof of the outbuilding I used some scrap pieces from the same HELJAN Engine House that I had used previously (see photo next column).



With roof and building painted and complete it was time to marry roof to building. For a strong join I chose to use a 2 part epoxy to give strength to the bond.

To finish off the site I wanted to have some pathways surrounding the complex — I chose to use the CRAZY PAVING from the PS4 plastic mould. First, I figured where the two buildings were to be positioned and then cut the “crazy paving” to fit the areas concerned. These go from the front and around to the back of the main building, encircling the tower and including rounded steps at the front door of the building (see photo).



It was then a matter of trial fitting the building, to make sure everything fitted correctly and the stairs were correctly positioned at the front door.



When I started painting the crazy painting, the first colour I laid down was the main red/orange colour for the paving stones, and then put it aside to dry.

This was then followed by a grey/white colour for the mortar lines. Whilst it was still reasonably wet I carefully wiped it over with a barely moistened soft cloth to remove colour from the paving stones and still leave the mortar (*see photo below*).



With everything assembled and fitted, painted and finished both buildings were glued down onto the core board that was used as a base for the scene.

For me the hard part was over and the fun parts were to begin — adding the scenery!

By now, you probably know how I like to create miniature scenes with my Linka builds — this one was no exception. I chose the “little people” I wanted to use — the lady of the house chatting to the gardener; the lock keeper discussing fees with a prospective canal user; and the resident Dalmatian cleaning the front steps at the Toll Tower!

Along with a garden full of fresh flowers; lovely lawns with speckles of wild flowers; grass tufts throughout that the gardener will have to remove (eventually); a water butt and pail out the back; with pumpkins ripening on the roof of the outhouse! Oh, and a large pine tree which has grown rather close (too close according to the Keeper’s wife!) at the back —**which will be the subject of a “How to Create Trees” article coming soon!**

You have probably noticed that some of these photos are “out of sequence” in terms of finish and painting, but I wanted to try and keep things in a more regulated step-by-step sequence to make the build easier to follow, so please accept my apologies for seemingly incorrect order!

