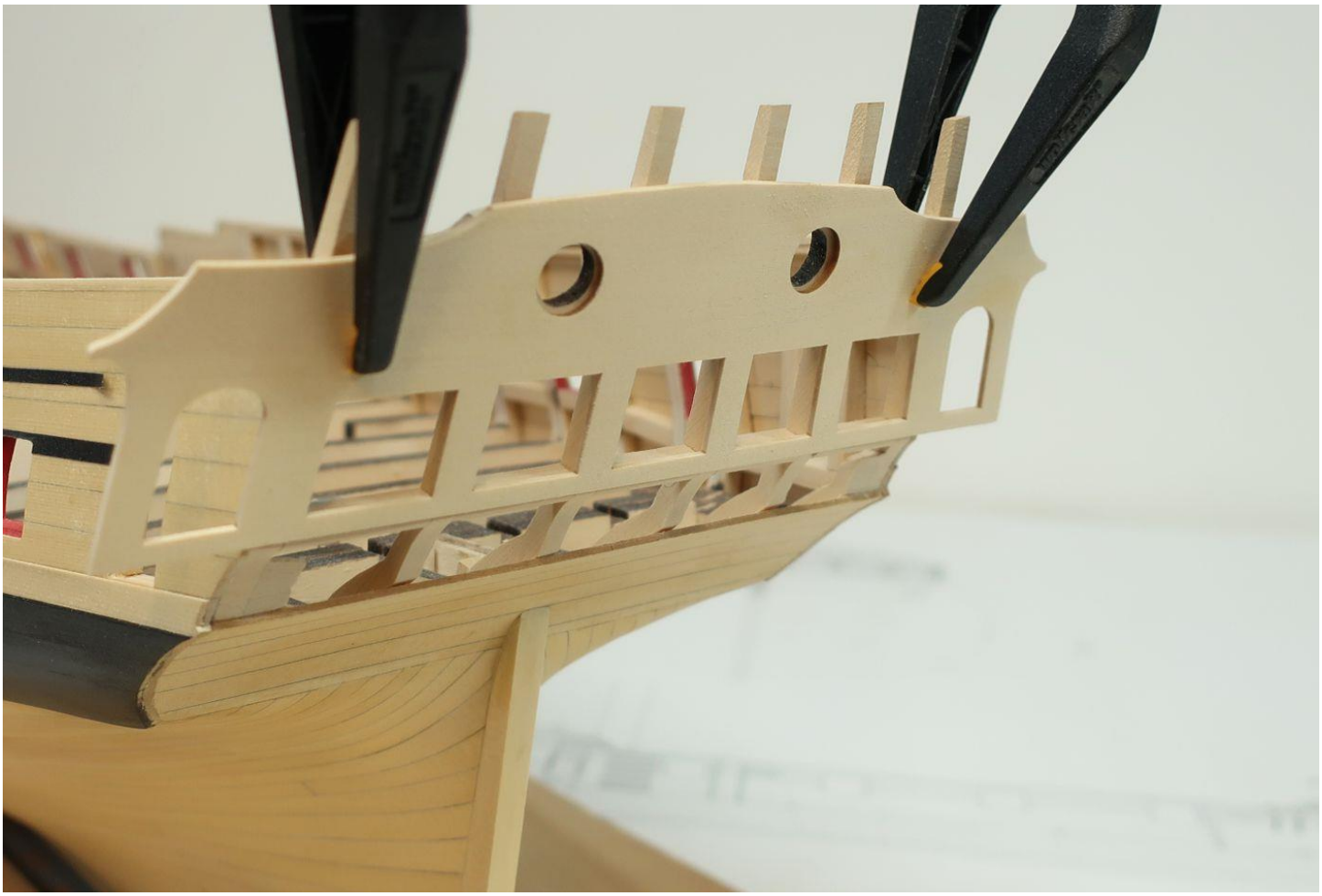


*View of the model with the transom clamped in position.*

# Chapter Three

**Work begins on the Transom and Quarter Galleries…**

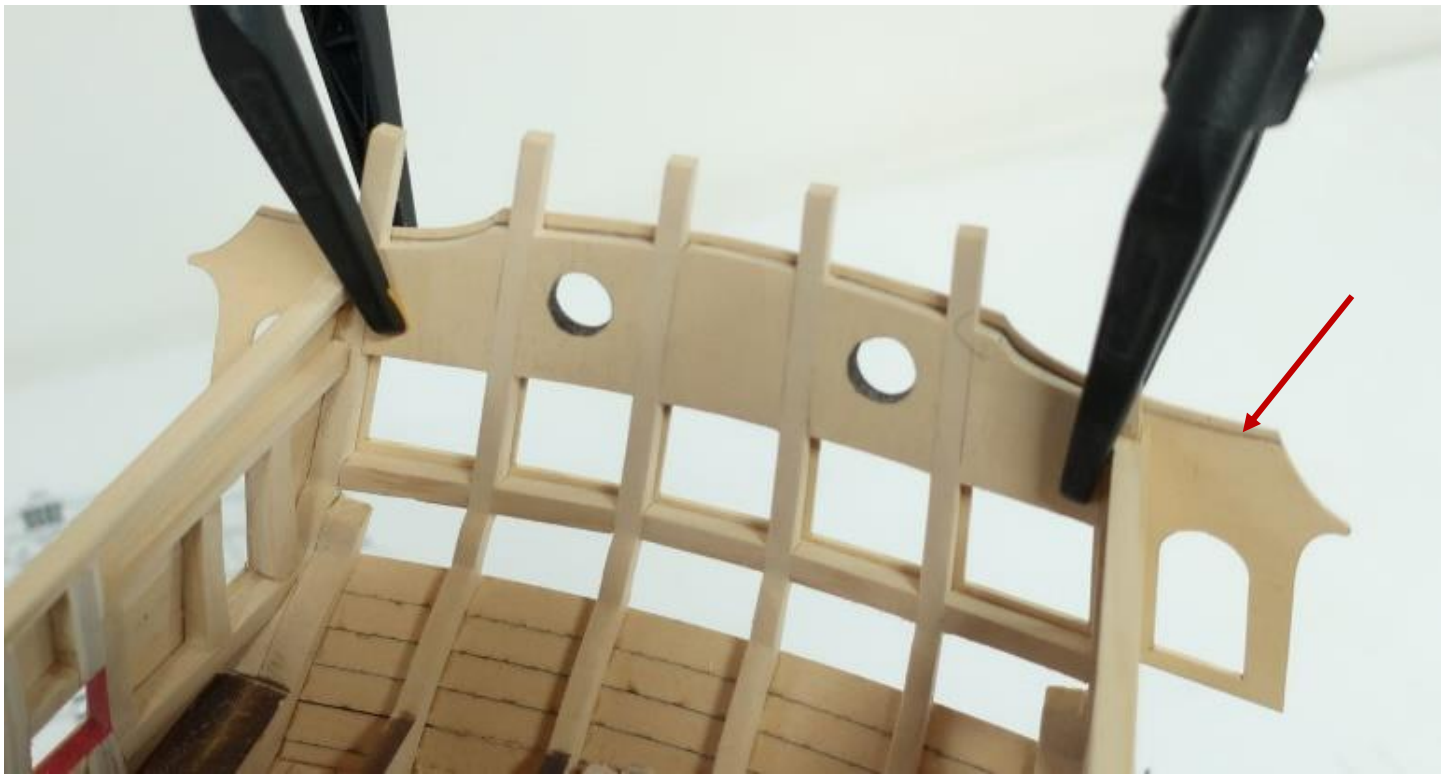
We will start this chapter with installing the transom. This is 3/64" thick. Placement of this transom is incredibly important! So take your time with it. If its position more to one side than the other your quarter galleries will be affected. For now, position it with clamps and look at it carefully.

Examine the space on the port and starboard sides so you are certain it is centered.

The same is true about positioning it at the proper height.

The laser cut transom piece was cut a bit taller than needed. This was done on purpose because there will no doubt be some variations from builder to builder. It depends on where you placed those stern frame fillers. Some may have placed them a bit higher or lower. The best way to judge the placement of the transom is not the outboard aft side as shown in the photo above. You must examine the inboard side carefully once clamped in position.

Note the lips around each stern window opening from the inboard side. These will in all likelihood not be very consistent. That is OK. That is how I designed it. You will be able to push the windows into position and move them a bit so



they look good from outboard. Basically you will center them in the space. That lip allows you to do that. This is what you should keep in mind while adjusting the transom. When you have a good orientation where the lips around each stern window are good (examine the plans as this is shown on them), you will notice how the top of the laser cut transom sits above the stern frame fillers a little bit. This is also OK. The photo above shows the placement within the window openings to be perfect. Yet the transom height is not. This is again done purposely.

It is not a problem because you can mark the true height with a pencil as I have done in that photo and sand the top of transom to fit your own model before gluing it into position. I hope that makes sense. The top of the transom should be flush with the top of your stern filler pieces. Run a very sharp pencil along the tops of your filler pieces while it is clamped in the final proper position. Also notice in that same photo how I extended that pencil line across the top of the entire transom on both sides. See the red arrow pointing to my pencil line. Reduce your transom height to this line.

Another thing to keep in mind is the quarter gallery window openings. There will also be a lip around those. Make sure it is consistent on both the port and starboard sides. You dont want one side bigger than the other after you glue it on. Don't shift it more to one side than the other.

I prefer to glue the transom on the model first. Many might find it easier to plank the upper counter first. But because all the window openings are crucial, I thought it best to glue the transom in position first. This will of course leave a nice consistent measurement for your upper counter as shown in that first outboard photo on the first page. Once the transom is glued on permanently, you can plank the upper counter.

**The upper counter**....I used 3 milled strips rather than laser cut these. In all likelihood the width of the upper counter may vary from model to model.....just a wee bit. I used three 7/32" x 3/64" cedar strips to plank the upper counter. You will need to bevel the edges against the transom and lower counter. You should also pre-bend these edge-wise, because although it is hard to see in the photos, there is a substantial curve to the

upper counter. Make sure you leave these strips extra-long so they extend a bit more beyond the side of the transom. You can see that in the picture below. Maybe even longer than I show it below just to be safe.

In that same photo above you will see that the round ports of the transom are larger than those in the filler pieces. These ports can be filed and enlarged to match the transom at any time.

**Then, I took these two 3/32" thick laser cut quarter gallery pieces…**

These are glued to the forward side of the transom where the quarter galleries will be. But it's not that simple. It never is right? As usual they are laser cut slightly over-sized. You must first bevel the side that sits against the hull planking. It will need some careful beveling. You also need to take enough material off of that side so it also leaves a consistent lip around the window on each side. Just like the other stern windows. This is so we can push those window frames into the opening so it looks centered from the outboard side.

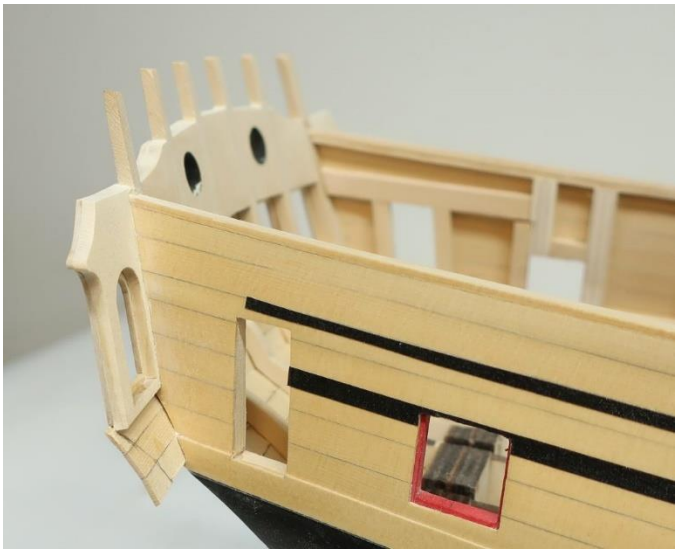
This will be tricky!!! Trust me!!! Try and sand enough away to give you a decent consistent lip on both sides of this window opening.

But what about the "up and down" placement? It is just as tricky. The little tab that sticks out on the side of the piece also needs to be beveled on the bottom edge. It sits on the sheer which is angled. You must angle the bottom edge of the tab so the piece sits nicely on top of the sheer. This will of course make it sit lower against the transom and hopefully allow you to test the laser cut window in the opening. How does it fit? Look at it from the outboard side. My guess is you will have a bit of tweaking to do. That is to be expected. But keep tweaking until that laser cut window sits in the opening and looks centered from the outboard side.

Only after you achieve a good opening for the window placement…..should you sand the outer edges to match the profile of your transom. It is also easier to sand the outside edges flush with the transom after this piece is actually glued into position.

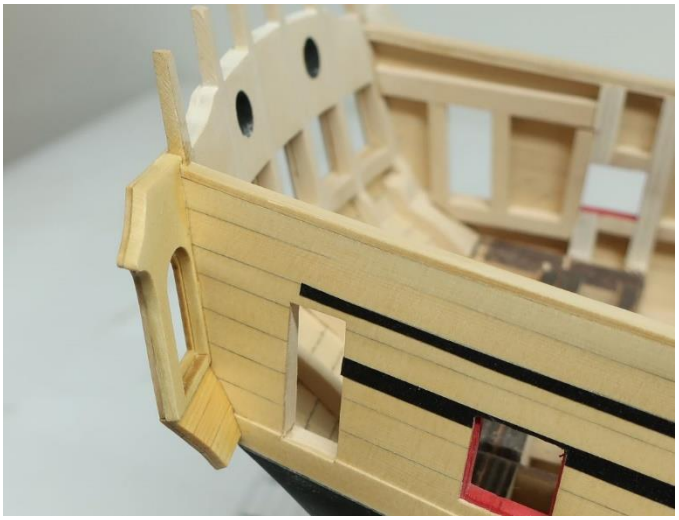
You should have the laser cut window frames on hand. Periodically test them in the opening to see how it looks from the outboard side before you commit to gluing these on permanently.

The photo below shows it finally glued into position. Note how the top edge has a smooth run that flows into the stern filler pieces. Everything looks nice and even along the top edge.



Eventually the sides of the upper counter planking will be shaped like I show it above. See the pencil line that shows the typical shape and angle? But before we do that, we need to double up the planking thickness on the upper counter (under the 3/32" piece we just added). I used some scrap 1/16" thick strips. It doesn't have to be fancy, this will all be covered up later. But we need to make this area of the upper counter thicker.

Then you can sand the sides of the upper counter to shape like the pencil line indicated...



The sides of the upper counter have been sanded in the photo above. Notice the added thickness. The side of the counter was sanded flush with the transom on the top....but it angles narrower to give you the right shape along the bottom.

How will you know how wide to make the bottom of the counter? It should be 7/16" away from the hull. Measure before you sand!!! And draw a straight line from top to bottom so you have a reference line to follow when sanding the edge of the upper counter to shape.

Once done...it will be time for the final test fit of those laser cut windows for the stern. They are very, very fragile so handle them with care. Now the edges do have laser char on them as you might expect. You might not like it much and be tempted to sand it off each little thin edge. DO NOT try and sand this stuff off. **DO NOT**. The frames are way too fragile for that. They will certainly break. I can almost guarantee it.

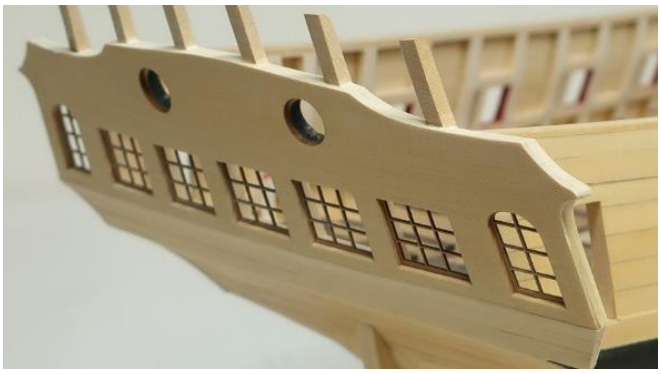
These frames should fit perfectly between the stern frames and the quarter gallery opening. If they are slightly small that is fine. Just slide them around until they are centered when viewing them from the outboard side.

If they are slightly too big and do not fit in the openings...DO NOT FORCE THEM. Do not try and sand the edges of each window so they fit. Sanding will break them. Instead, use a metal straight edge and a sharp #11 blade. Hold the metal ruler firmly on top of the window and press down firmly so the window won't move at all when you slice with the blade. Just slice a small tiny sliver from the edge if needed. Use several light passes of the blade to cut the sliver from the edge. Even though these are just 1/32" thick and you might be tempted to slice the edge in one pass....NOT a very good idea. Take your time and make 4 or 5 light passes. Hopefully you won't have to do this and the windows will fit perfectly.

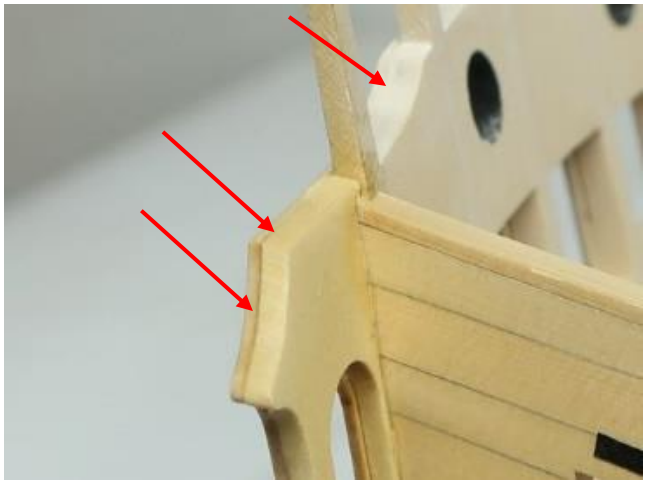
These windows will not be glued in at this time. That will be done much later. They are too fragile to glue into position now. Although the two

quarter gallery windows will be added next as you will soon see.

Here is a photo showing how the stern windows fit as a test on my model. Everything fits beautifully. Remove them and place them somewhere safe once you test them.



**Time to clean up the top edge of the transom…**

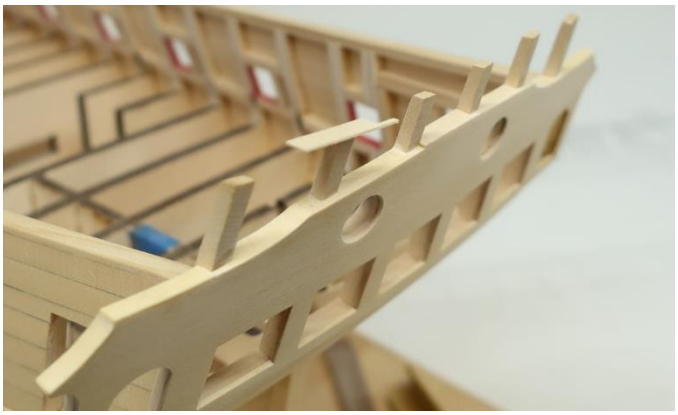


It is just a small detail, but it is an important one. The image above shows the transom and quarter gallery filler. Notice the top edge of the transom. We are only concerned about the top edge. You can see all of the layers and this is not very desirable since this area outboard will be left bright and visible. It looks ugly. To clean this up, we need to add a strip along the top edge. This will create a cleaner finished look. But it is full of curves and also has the stern frames in the way. This could make it tricky to cut a strip that fits on the top edge that is notched out for all of those stern frames.

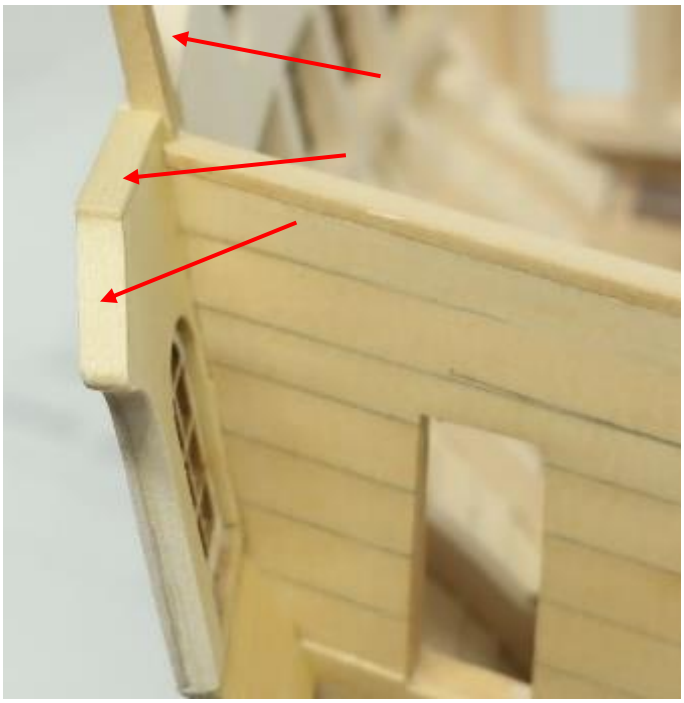
I wouldn't try doing this in one piece using a continuous strip that needs to be notched out around the stern frames. That would be nuts considering the compound curves.

So I decided instead to add the cap of the transom in sections which proved to be much easier and really not that difficult at all. The cap is going to be very thin. In fact the thinner the better. I milled a 1/64" thick strip of Cedar that was 3/16" wide. Such a thin strip of any wood is very flexible. But Cedar in particular is crazy flexible and very strong. To demonstrate this, I literally milled a strip on my Byrnes saw and then tied it into a knot. I didnt apply any heat or water. The photo below shows the strip after I took it directly off the saw and tied it into a knot.

Of course I cut a new strip!!!! Then I cut it into segments as shown below to finish the top of the transom so it wouldn't look so ugly. The fancy molding on the transom will cover the seam outboard and the top surface will also look nice and clean. You can see I have a few sections left to finish it up.



You can see in this image below that the layers can no longer be seen. You shouldn't do the side of the transom....don't put a strip there. Only the entire top edge gets the strip segments. The side will be completely covered with the figure that will eventually be placed in there. You won't see those layers.



We are almost ready to start framing out the quarter galleries. But before we do that, we must take care of those stern windows on the transom. I am only referring to the one in the quarter gallery that is actually a "dummy" window. This window was actually boarded up on the inside of the qgalleries. I am not even sure if it had an actual piece of glass in it. Needless to say I added the laser cut acetate window pane. This is something that just makes the stern look more consistent in my opinion. But you can leave it out if you prefer. Let's examine how to do it!!

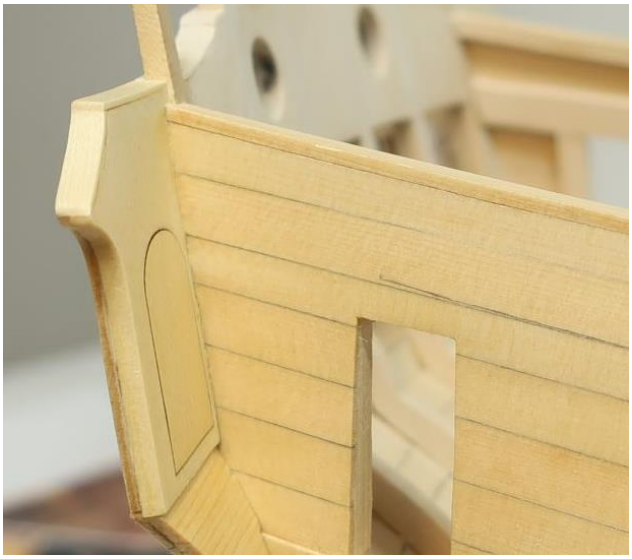
**So there are three layers...**

-First the laser cut window (light).
-Then the acetate pane
-Lastly the laser cut 5/64" thick insert.

The aft side of this insert should be painted a dark gray. Try and avoid a pitch black. See below.

The three layers are inserted from the forward side. You don't have to glue the window unless you need to move it around for the best fit. Check it from the outboard side to be sure. Also dont put any glue on the acetate. Just push it against the window and let it sit there. The acetate may be brownish in color from the laser cutter burn. Just wash it off with some warm water.

What you want to do is just apply a little glue to the edges of the wood insert and position that last. It will hold your window and acetate in position just fine. Then sand the surface of the insert so the forward side of the qgallery is all flush and neat.



Remember that the other five stern windows are not glued in yet. Mine will probably break or get lost but it will be easy to just cut another set. For you guys that would be a bit more problematic. So just set them aside.

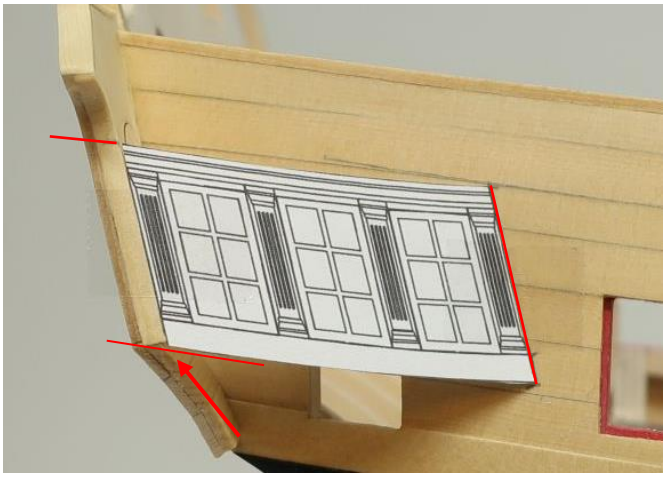
**Framing the Quarter Galleries…**

This is some real tricky business. There are so many angles to contend with. You must establish the correct slope/angle of the qgalleries. This is the hardest part. We will be constructing the "stool" of the gallery first. This is the extension of the upper counter as it wraps around to form the base of the qgallery.

As is be typical with most kits, you can't begin by just grabbing the laser cut pieces and gluing them onto the model. The angle of the stool is crucial to every additional laser cut part for these galleries. If the angle is off, none of the windows will fit etc. So measure twice and then measure again. So let's do some planning and measuring.

To assist with this, I have created some paper templates for you. This is nothing new. Many of you have used this technique before.....see the photo above on the next column.

You can download the quarter gallery templates and print them out. They are on the chapter 3 parts sheet on Model Ship World. Or just print out the last page of this chapter. If I remember to add that page when I convert this to a PDF.

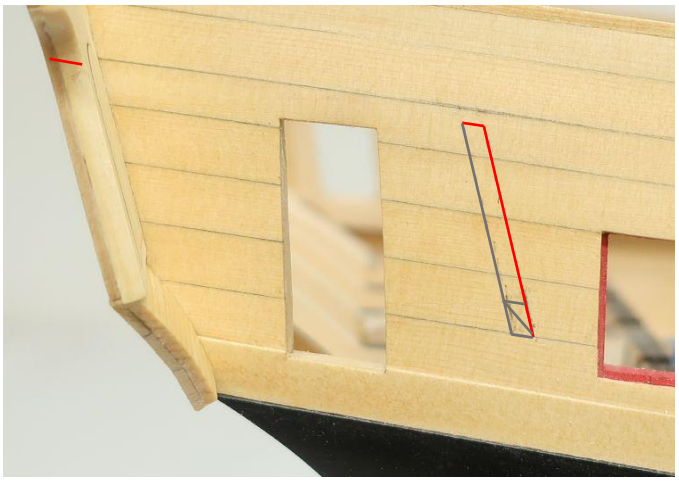


I have seen many of you make a crucial error when using templates like this. You dont want to place the template on the hull planking. This will result in your quarter gallery having the wrong angle and NOT follow the run along the hull you desire. Instead, you need to cut the template out carefully and tape it to the outside/outboard edge of the transom. See the photo above. Get this perfectly against the transom neatly. In fact you will notice that it is placed just a hair lower than the bottom of the transom. This is because if you follow the bottom edge of the template aft, it will intersect with the aft edge of the transom which is a bit lower because of the angle. This is important and I hope that makes sense. See the red arrow.

The 1/8" wide strip on the bottom of this template represents the frame for the top of the stool. You need to mark the forward edge of the template with a sharp pencil....the whole edge.....

Also mark the aft side which will reference the top of the qgallery along the transom edge. The top left of the template. They are marked in red.

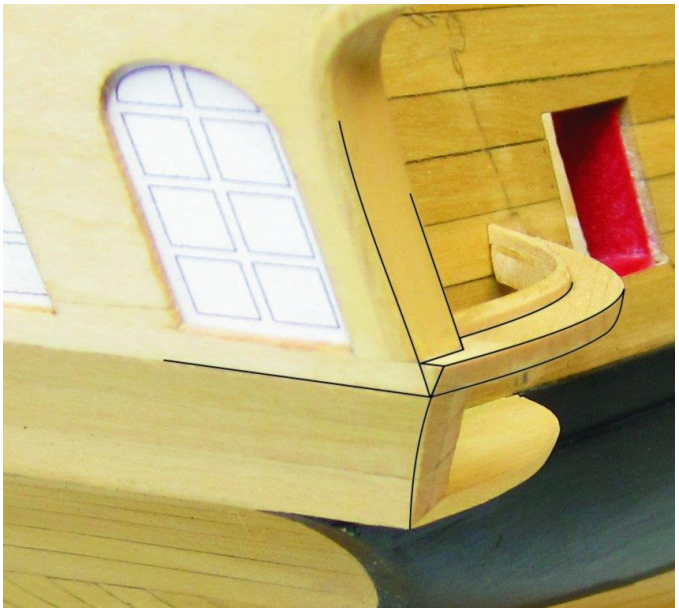
When you pull the template off, it will look like this below.



Well actually you will just have the forward pencil line. Shown in red. Then you need to add another line about 3/64" aft of it. This represents the shell thickness of the qgallery. Also note how I defined the 1/8" frame at the bottom. This will be the first qgallery timber we add to the model. That was the wide strip on the bottom of your paper template.

**Let's start actually framing the galleries…**

The continuation of the upper counter is of course first. This is the stool of the quarter gallery. Use the reference marks from your template. The top frame is 1/8" thick as I mentioned. The top frame needs to be beveled to sit properly against the transom edge. The photo below shows this frame best. You can see



the bevels and fairing outboard. It is a complex beam. If you bought the laser cut pieces for this chapter you will find this beam on sheet "J".

You need to glue this beam in position first. Note in the photo below how the forward edge is angled as well. I have given everyone two sets of these laser cut pieces just in case you need to give it another try.

That same photo shows a very thin curved strip glued on top of this 1/8" beam. It is glued to the inside edge. This is 1/32" thick. You can find this piece on laser cut sheet "F". Also check the photo to the left where you can see that thin curved strip. This will be very important later.

Lastly, there is a pie shaped piece that forms the lower framing or bottom of the stool. This is 1/16" thick. You will find this on laser cut sheet "E". The aft edge is beveled to fit under the edge of the upper counter. In the above photo, you can see how this lower pie piece follows the same angle as the top frame.

Once these frames are glued in position, the outside edge must be faired just like the hull would be. This is in preparation for the planking that will be glued to form the upper counter as it wraps around and forms the qgallery base. The planking is actually just one piece and it has also been laser cut. It is on sheet "K". Again… it was

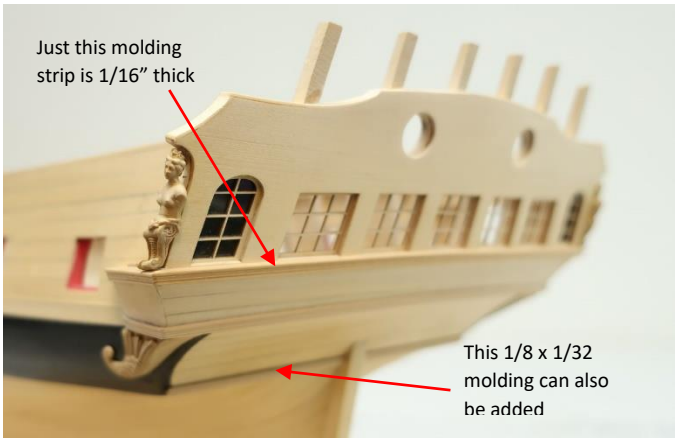
made a bit over-sized because everyone's model will be slightly different. It is 1/32" thick. Once glued on, you can sand the top and bottom edges flush with the framing. (Also the aft edge) The photo below shows it all sanded and completed.

IMPORTANT....You will have to bevel the forward edge of this 1/32" thick planking shell before you glue it on....this is done so it fits snug and tight against the hull planking.

Finally, you can add the fancy molding that defines the upper counter. These are made from boxwood strips supplied with the chapter 3 installment of parts. They should be 1/8" wide and 1/32" thick. All of the strips were scraped in their usual way to form the molding profile.

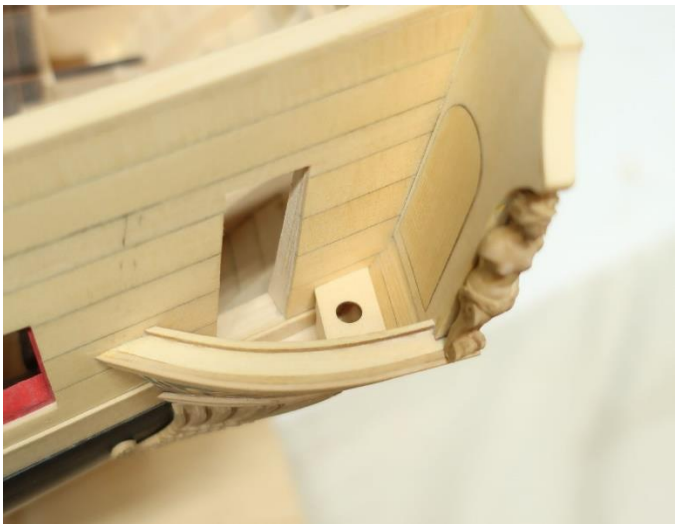
The one thing I would mention which is an exception....the upper molding along the transom is actually 1/16" thick. This is the only one that is thicker. We need it to be thicker so it stands proud of the transom to support all of the columns and carvings between the windows. But I used the same scraper to make this one that I used for the thinner strips.

In addition, I also scraped the fancy molding that is shown on either side of the stern post. These define the bottom edge of the lower counter. It has a slightly different fancy profile but is also 1/8" wide. It finishes off the lower counter quite well and neatens it all up. It separates the hull planking and any messy ends of those planks you might have been less successful with. Just cover the seam slightly to hide any defects. See below.




In the photo above you can also see that I tested the resin drop in position under the stool as well as the figure that sits on the end of the transom.

If you wanted to....you could add the drop permanently at this point but there is no rush to do so. Dont glue the figures on yet because I was just testing them to see how they fit. In addition, I thought I would test how well the friezes fit and what they would look like. These are also NOT glued on yet. They are just lightly tacked on so I could see how they look. I wanted to see the color and shape of these and if they actually fit. They fit just fine. You can always download them and print them out as well. But they could get damaged as you build the other quarter gallery and transom parts. It is best not to glue them in position permanently yet.



**The facilities…**

I have put the seats in the galleries. Once completed you can start closing them up. The seats are made of two laser cut pieces that are 1/32" thick. The front panel and the top. You still need to bevel and tweak the edges for the best fit. They were laser cut slightly larger because of the differences in each of your models. And remember, the figure is just lightly tacked into position and not permanently glued in yet in the photo above.

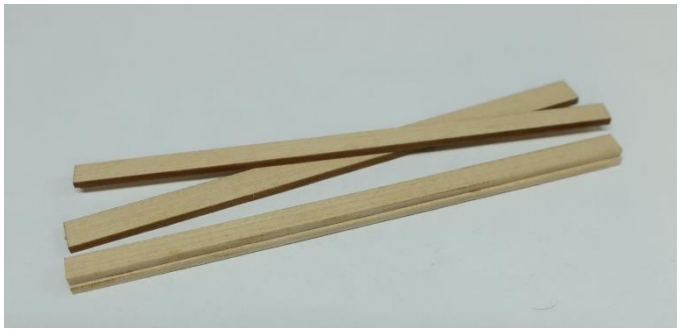
**Closing up the Quarter Galleries…**

To close up the qgalleries, I started by adding the top. This is laser cut (1/16" thick). It is important to create the same angle as the bottom. This was marked with the paper template earlier. You can see my tick marks in pencil. Getting this angle correct is crucial just like the bottom of the Qgalleries. Otherwise your windows won't fit well. The aft edge also needs to be beveled to sit flush against the transom.

Before you move any further along, you should view the quarter gallery head on from the side. It wouldn't be hard to tear it out at this point if the angles are all wrong. The outside edge of the quarter galleries should follow the run of your planking as close as possible. If it's not perfect that is OK because your planking run might also be a bit off. It should however be very close.

The plans show the angle of the qgalleries best. Note the head on view and you will have to get low and even with the qgalleries on your model to view and check this angle.

Next we need to put in the uprights between each window. These are made with two layers of 3/64" thick laser cut strips. The bottom layer is slightly wider than the top layer. This forms a rabbet on both sides when glued together as shown below. You will need four of these on each side. Clean the laser char off each layer before you glue them together. Each laser cut strip will supply two columns.



You should also paint the top face of these blue before you start shaping them. Yes you will need to touch these up later but this helps. I am using cerulean blue acrylic paint. It is a pretty good match to the friezes. You can see these four pieces glued into position below. One note.....the two outside pieces don't have a rabbet on the outside edges. They were sanded away. The rabbet is used to catch the windows when they are inserted later. In fact, how do you know where these should go so they are spaced the proper distance apart so the windows fit. Use the laser cut windows as a guide. I started by gluing the two outside pieces on first. But only with a

few spots of glue so they were just temporarily tacked in position. Then I placed a laser cut window temporarily so I knew where the next column would go. I marked the position in pencil. Do this carefully so all your windows fit. It's good to do a dry fit first of all the pieces. Use rubber cement to temporary hold the uprights in position while you tweak them for their best position. See below.

You can leave the columns longer so they stick out above the roof for now after you establish the angle for the bottoms. Once you have them positioned correctly and glued on permanently you can sand the tops flush with the roof.

If you bought the laser cut package for chapter 3 I provided an entire sheet of quarter gallery windows. The same three are provided that I used on each gallery along with a bunch of extras which were cut at slightly different "skewed" angles. I have provided these just in case the angle of your qgalleries is slightly different than mine. Feel free to try them all in each opening to get the windows that fit best. Make sure you mark them when you find one that is a good fit.

Another important note....the forward upright has a very drastic bevel on its forward edge so it fits snug against the planking.

You will also notice that these uprights stand proud of the transom edge....that is OK and by design. It should stand proud by one layer or 3/64" along the transom.

You can insert the tops above each window once staisfied. Remember that there are two layers? But you seriously only need to put the outside layer on. It's OK to leave a gap between the roof and the outside layer because the shingled roof will cover those gaps. I used 7/32" wide x 3/64" thick strips. This is wider than you will need and will stick up above the roof. But after getting the angles correct and they are glued in position, you can sand the tops down flush like the uprights. These are not painted.

Lastly....we need to add the fancy molding along the top edge of the Qgallery. It is scraped like the others and is 1/8" wide and 3/64" thick.

You will need to bend this to get it to lay against the surface properly. I also had to file out the aft edge of the molding so the figure would fit. I actually used a sharp miniature chisel after the molding was glued into position. I think you can

see what I did so the shoulder of the figure would fit. The figure is still not glued on permanently. It is just used to shape that aft column and molding for a good fit.

To finish it up, I added the fluted columns to the QGalleries uprights. The top and bottom of the columns were done using a scraped strip of boxwood. Basically you scrape the strip like you would make a profile molding. Then cut off tiny pieces that become the top and bottom of each fluted column. You still must file the angle/shape of each side to finish it off. This was done using a 3/32" x 3/64" boxwood strip.

Then the fluted column was added between these two pieces to complete each column. These are laser cut from .025" thick boxwood. They have laser etched flutes. You may have to adjust the length or angles on each end for the best fit. They were cut a bit longer than needed.

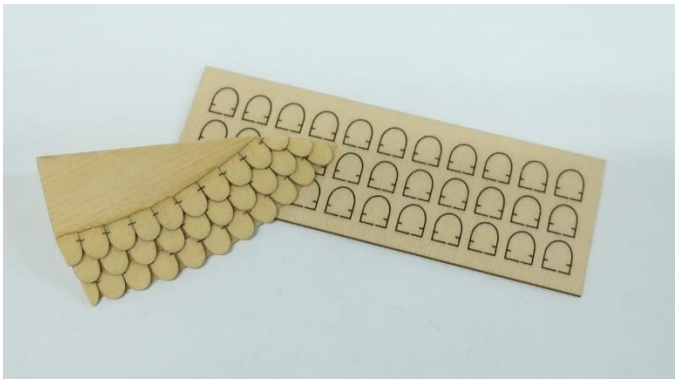
Note how just a small strip of blue remains on each side of the columns.

**The shingled roof…**

The roof is laser cut and 1/4" thick. It has a laser etched reference line to show you where to bevel it to the "sloped" shape needed. The cedar is soft so it shouldn't be too difficult.

Then use some laser cut shingles and add them to the roof. Three rows as is typical for a frigate even though the contemporary model shows four. Start with the bottom row. Pay careful attention to the angles so it looks good with the shingles consistently spaced. I sanded the shingles very thin….almost paper thin. Even though these are laser cut on very thin boxwood sheets they are not thin enough and will look out of scale. Trust me on this. Spend some time thinning them down a lot. The upper edges were actually sanded flush with the roof's surface to accept the next row on top of them. Then I repeated it this with each row….until completed.

You might want to draw reference lines for the rows in pencil before you begin.



Note that the little etched lines in each shingles are not on your laser cut parts because that turned out to not be a good idea. They were added to give a reference for how much of an overlap on each row of shingles was needed. Just do your best to overlap each row so they look best and consistent.

Then the roof and tiles was painted black. But the tiles are more of a dark slate gray. So I

weathered them a bit so it wasn't a stark black. Then I added a thin curved molding on top as you can see. This is also laser cut but it also needs to be sanded thinner. 1/32" is too thick. I sanded it to about 1/64" thick after it was glued in position.

At this stage, I still haven't glued the shingled roof in position. So resist the urge. The fancy rail along the top of the roof still needs to be added as well. But that is better done after the friezes are glued to the sides of the hull. So I want to add those first along with the molding on the sides of the hull. Adding the friezes now will make it so you will get a nice crisp edge around the tiled roof. It would be pretty difficult to cut the frieze to fit cleanly against those tiles after the fact.

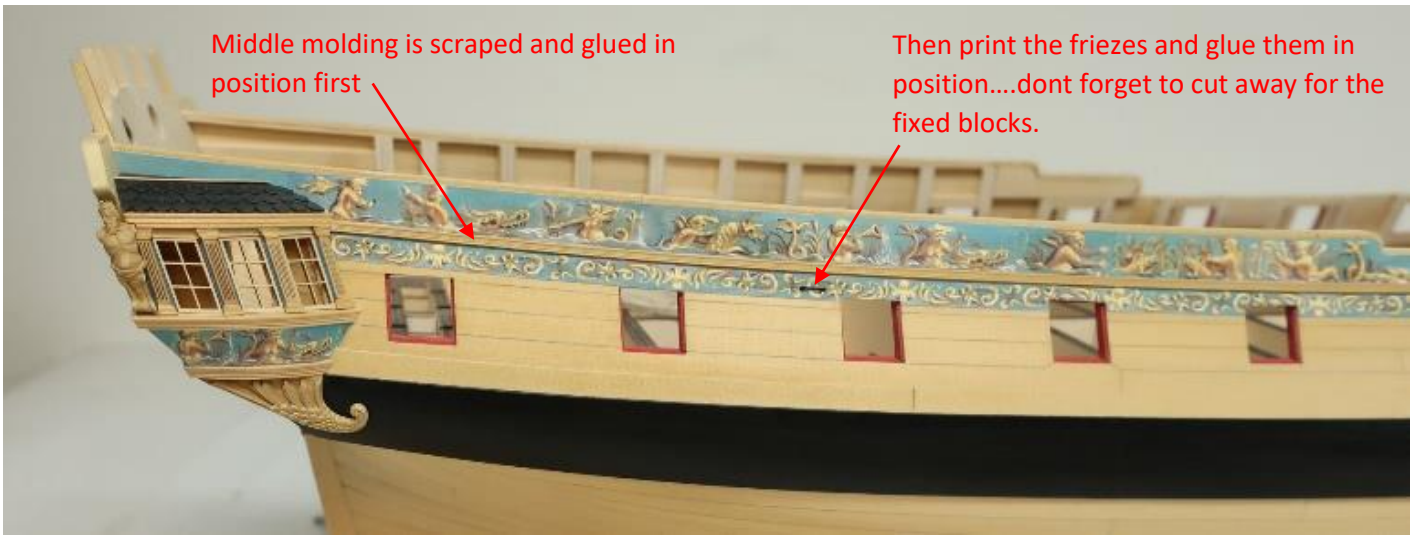
**Adding the molding and friezes…**

To begin…the 3/32" wide 1/32" thick fancy molding must be scraped and glued on the hull. This will be our guide for the friezes. I am just talking about the middle/center molding strip for now. Once glued in position, you will be able to sit the frieze on top of it as shown in the photo below. The thinner lower frieze can be butt against it along the bottom edge as well.

Then to finish it off you will be able to use the friezes as a guide to place the remaining lower molding in position. Once this is completed I will then get back to finishing the fancy rail on the roof of the quarter gallery.

Note in that photo how a thin gap remains above the top frieze. This is about 3/64" wide. This is where we will eventually glue the upper molding later.

Once this is done on both sides of the hull, I will finish up the quarter galleries. You can test the quarter galleries on top of the friezes to make sure it covers them on all sides to give you that clean neat look. You can even trace the shape of the qgallery onto the side of the hull first before you add the frieze.



You can print the friezes out on your ink jet printer and spray them with matte fixative. This will protect them after they are glued onto the model.

Remember, the middle molding goes on first. It is a scraped 3/32" wide molding strip. It establishes the proper sheer run. Then you can add the friezes above and below that molding strip. You should do this without the qgallery roof glued into position. It is done this way so the roof can cover the friezes (be glued on top of it) and you will get a nice clean edge. This way you want have to cut the frieze around the roof and shingles.

The lower molding is also scraped in the traditional way. It is also 3/32" wide. It has a different profile than the middle molding. Check out the plans before you make your scraper for the molding. You can see the different profiles. Cut the short lengths that need to be added between each port. In addition, you will need to cut the frieze around each port. I found this easier to do after the frieze was glued on and covering the gun ports. Use a very, very sharp xacto blade. Go slow!!! The blade should follow the edge of each port to give you a nice clean cut. Make sure the friezes are dry and the glue is dry before cutting the port openings. I used an Elmers glue stick to adhere the friezes to the hull.

Once dry it was easy to cut the port openings.

Then finally, locate the fixed blocks which are now covered by your frieze. To do this, poke a drill bit through the sheave holes from the inboard side to puncture the frieze. Then carefully cut the frieze away to reveal the sheave slots. I ran a sharp pencil in the sheave slot to clean it up and make it neat afterwards. It also darkens the sheave.

Then glue the top frieze into position. Try and position the seams between each segment over a busy part of the design. This will strategically hide the seam. You would be very hard pressed to find the seams on my model. The frieze will not go all the way to the sheer. It will be about 1/16 - 3/64" below the shear. This is to accommodate the top run of fancy molding.

This upper molding is not scraped. It is laser etched and cut for you from boxwood. I did this so I could also match it to the scrolls (volutes) along the waist. I think it looks pretty good and mixing traditional scraped molding with a laser cut one is a good approach. Especially for those folks who would not be comfortable carving their own scrollwork from scratch.

Be very careful with the scrolls when you sand them....they are extremely fragile at only 1/32" thick. The first thing you should do is lightly sand the top surface with some 320 grit sandpaper before you remove them from the sheet. Then remove them from the sheet afterwards. Use a

light touch and then remove the laser char from the edges. As you do so, remember to support the scroll between two fingers so it doesn't break along the grain. Again use a light touch. Don't try and clean the char along the inner edges of the swirled scroll. It will certainly break. To finish them up, round off the top and bottom edges slightly. The same can be done with the lengths of laser cut molding so they match the scrolls and can be glued together so you can't see the seams between them.

Don't try and scrape the char from the laser etched grooves. It just won't work out well and if you just leave it as is, it will look great. This is what I did with mine.

When you are all done...this is how it should look at the bow. See photo provided. Take note of where the molding ends. Once I finish the other side, I will paint the bollard timbers black. You could do this ahead of time as well. Probably easier that way. Everything above the bottom molding will be painted black at the bow. You can't really tell the difference between the laser

cut and etched molding and the scraped molding in that close up above!! It's just a little darker where the char sits in the grooves.

With the friezes and molding completed, we can finally get back to finishing up the quarter galleries.

For the most part, all of the wood that makes up what you see on the qqallery is boxwood. It

blends in really well with the cedar. All of the molding, the fluted columns etc. You get the benefit of the cheaper price of the cedar so you can use it for the hull planking and the frames and other big stuff. Then, like done here you can switch to the ever more expensive boxwood for the finer details and other fittings. In fact, most of the deck fittings and molding will all be done in boxwood as well as we move forward.

The fancy qgallery roof rail is all laser cut from boxwood. You basically have to evenly space the four uprights which are at an angle leaning aft. There is also a nice etched detail on each of them. These are super….. super tiny at only 1/16" wide give or take and 1/8" tall. Then the top rail is added afterward on top of these. This is laser cut with an etched detail along the bottom edge to give it some depth. I sanded off the laser char and rounded off the edges a bit. Then I glued it on top of the four uprights. Yes it a bit longer than needed as usual so you can adjust it to fit your model perfectly.

The roof is still not glued into position. I found it easier to add these small details by removing the roof to do it but continually placing it in position to check their fit and position. I wanted to make sure they would sit against the transom at the best angle and the forward most upright would sit against the planking tightly. In fact, that forward upright must be beveled quite a bit at an angle so it sits flush against the hull planking.

Lastly, the three laser cut fancy "flowers", for lack of a better description, were glued into the spaces between each upright. These are fragile. Only 1/64" thick and again soooo tiny. Dont even bother trying to remove the laser char from the edges. They will certainly break. Just glue them in position. That is what I did. They look just fine even with a bit of laser char.

This completes all the work for the starboard side as described in chapter 3. Now to repeat this on the port side!!! Try and make all of the port side elements a mirror image of the starboard side. That is not as easy as it sounds.

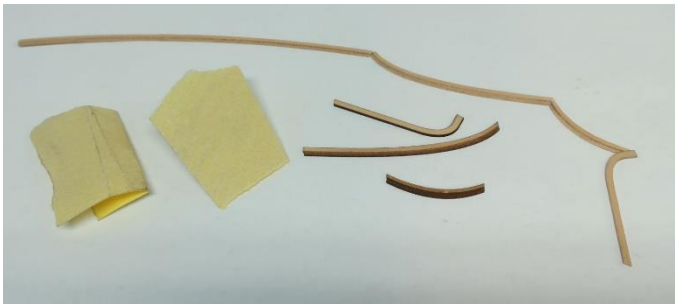
Note the black strip sitting on the shear in the photo (left). This is just a test to see how it will eventually look. The cap will not be added until much later. Not until we plank the inboard bulwarks. But this will show you that the cap will be painted black and it finishes off the look nicely. It really helps accentuate the molding and qgallery details.

Here is a look at my port side qgallery and molding and friezes.

**Starting work on the transom details….**

Work on the transom details has begun. The first thing to tackle was the fancy molding around the top edge of the transom. It's a very typical shape which makes scraping them a bit difficult. These are curved molding segments which are prone to breaking. It's also hard to scrape the profile against the grain when that occurs.

So since I was happy with the results of the laser cut/etched molding on the sides of the hull, I decided to try and make these with the laser cutter as well. Its a simpler profile but it meant laser etching the bottom half of each molding segment.



In the photo above, you can see the molding that is finished above a few pieces that weren't. I sanded off the laser char with some 320 grit sandpaper along the bottom half of each segment. By folding small pieces of sandpaper and cutting a curved sharp edge on the paper made it easier. It allowed me to clean up the face of the etched area. You will never get it all off. Don't worry about that. Get most of it clean and what remains will give a good effect when you apply some poly as a finish. You can also see a few pieces I havent sanded yet in that same photo.

In the next photo you can see I have added the molding to the transom. Try and get some tight joints between each segment. But before I glued them into position, I had some painting and prep work to get done as you can see.

First - you must paint the top of the transom black along with the stern frame extensions. The outside of the transom top edge (port and starboard) is left unpainted as shown.

Second - paint the insides of the two round ports red.

Third- You can paint the upper transom blue. Cerulean blue to be exact. Paint it above the cove and windows for now so after adding the molding you get a nice clean edge.

Now I know some of you hate the thought of painting. It will also be hard to match the blue of the friezes exactly. So I also provided a paper backing to match the friezes. Personally I would prefer to paint this area but I did use the paper version instead. Just leave a small gap all around the perimeter so you can glue the molding and coves on and still get a clean edge. You can see the paper version in that photo and the nice clean edge you get when the molding is glued on top of it. If you have to touch up the paint on the round ports just be careful. When you cut the paper around the ports you will probably mar the inside of the ports a bit. But no worries as the wreaths will cover any paint mishaps. Just as mine did as you can see.

*When adding the transom molding I started with*

First - the two segments port and starboard with no etched detail.

Then I added the center piece on the top of the transom and worked my way out towards the sides. This is important because of the way the etched molding intersects with the non-etched pieces along the sides. Hope that makes sense.

Then I needed to make the cove which is what the carvings sit on. It is a laser cut piece that still needs a bit of carving work.

**But before I describe that, let us talk a bit about those wonderful carvings.**

Those building this model will of course have the option to carve all of these figures themselves. But there are two other options. You can buy a set of carvings cast in resin from Syren or buy a CNC milled boxwood set from cncshipmodel.com.

My friend and colleague Jack has done a marvelous job producing cnc milled wood carvings for this model. See an example of the wood CNC carved figurehead below.

I have decided to use the resin carvings for my model. They are cast in a tan resin using the CNC carved versions shown above. They would look terrific if used as is but after removing any flash you can apply a light finish to make them even more beautiful.


In the photo above you can see the resin set. You will notice that the drop in the lower left corner is slightly different.

If you prefer a more natural wood look then apply the Old Masters gel stain (fruitwood) with a brush. Then wipe it off immediately after about 30 seconds. This really makes them pop and is what I will be doing to them all. This is something I would definitely do if you are building the cherry version of the model. Just apply a few more coats and leave the stain on longer before brushing it off with a clean dry brush.

In all of the photos you have seen, the resin figures have been treated this way.

**Let's get back to the stern detailing….**

The photo above shows the molding added around the transom edge. You can also see that the resin figures on either side of the transom were finally glued into position. They were treated with the Old Masters Gel Stain first. These two figures sit in the alcove created on the corners of the qgalleries. But they may not sit perfectly against the back edge. In all likelihood, you will first need to file a small notch down the back of the resin figure so it sits in position nicely. You may have to chisel away some of the fluted column as well. Doing this carefully is what will set your model apart from many others. Take your time getting the best fit. File and sand the back of the figure so it sits in place and looks good.

The drops have been glued permanently in position as well.

Then I needed to make the cove which is what the carvings sit on top of. It is a laser cut piece that still needs a bit of carving and shaping. See below. I will explain the steps.

The photo above shows the cove in stages. The top shows the untouched example straight off the laser cutter. Notice the laser etched line to indicate the molding along the top edge. There are also some handles on either side which will eventually be removed. They are convenient for holding the cove while you shape it. In addition, along the bottom it is notched out so you can add a strip of wood which will become the molding along the bottom of the cove when you are done shaping it.

The first step is to take a chisel, or in my case a sharp #11 blade and bevel the inside up to the etched line. Do this slowly. You are basically creating a straight bevel under what will be the molding along the top. It should thin down to

about 1/32" thick along the bottom if not even thinner.

Step two is to use some 320 grit sandpaper or even a curved chisel to sand the inside round or concave. The cove is only 5/64" thick so it won't be too rounded and it won't take that long to do. Just try and maintain a consistent molding along the top. Try and define that molding pretty sharply across the top edge. The bottom image in that photo above shows the cove shaping completed. It is somewhat concave. I cleaned it up with some fine sandpaper so I could paint it red next. The trick is to try and define the top molding and make it slightly concave. The center was painted with red acrylic paint. I used "Crimson" straight out of the tube.

I tried to leave a consistent width molding along the top. It worked out pretty good actually. By the way this is cedar so it's soft and sands and carves like butter.

To finish it up....you need to add a 3/64 x 3/64 strip of cedar along the bottom edge. Glue it on securely. But this molding is thick.....height-wise. So I sanded it to around 1/32" thick so it wouldn't appear too heavy on the model. Then cut off the two handles on each end and sand them clean as indicated by the etched lines. The photo above shows the carvings glued on top in the center.

A few additional notes on the cove which is actually a very complex piece!!! The top edge must be beveled. If you glued this on now the top edge would be sloped downward in the wrong direction. The top edge actually needs to follow the slope of the deck believe it or not. So you must sand an angle or bevel it down towards the back edge. But do the best you can with this so your carvings will sit properly on top of it.

In the photo below, you can see that I have glued the cove into position. But before I did, I also glued the wreaths and center medallion in position. This helped me position the cove properly almost right up against them.

Then I added the smaller coves above the false lights and the small lengths that connect them. These three pieces are also laser cut. Vut they are really just molding pieces or strips. They are thicker than what you need so you can really sand off the char and get them clean. But make sure they are the same thickness as the molding along the top of the painted cove when you are done. They need to look like one continues and consistent molding strip across the entire transom. Hope that makes sense. They are also not as deep as the center cove. I only finished one side so far in that photo above.

Try to not use too much glue so the paper background of the frieze doesn't get too sloppy. Most of the paper area will be covered up by other carvings but it always ends up getting


messed up where it will not be covered. So use only a small amount of glue so it doesn't squeeze out onto the blue paper. If you just painted this area then it doesn't matter…you can just touch it up as you go.

With those pieces completed, you can add the other carvings. This may sound easy enough but there is some prep work to do. The reclining figure for example. Note how the hand and clothing hangs over the front of the cove. To do this, you must file a slot or notch on the back side of the carving. Be careful.....these are small and delicate.

In addition, note how the head intersects with the molding also. Rather than file the back of his head, I cut away the molding instead. This takes careful planning. You must do this in order to have the figure sit properly otherwise it won't fit.

Finally, because CNC machining is a violent process, some of the elements on these figures were left thicker than needed so they wouldn't break during the manufacturing process. This is true of the castings as well. So you should thin down the trident he is holding so the handle is rounded and delicate. It is too thick and chunky as is. I probably should have thinned it down even more delicate. But this is delicate stuff. You may also want to round off the back edges of the legs and other areas so they arent so flat. I am talking about the back edges. Look at the arms and legs on your carvings. This thins them a bit and also creates an undercut of sorts to help the illusion of a fully rounded figure carving. The machining process does have some limitations and doing this small amount of finish work on the pieces makes them even better.

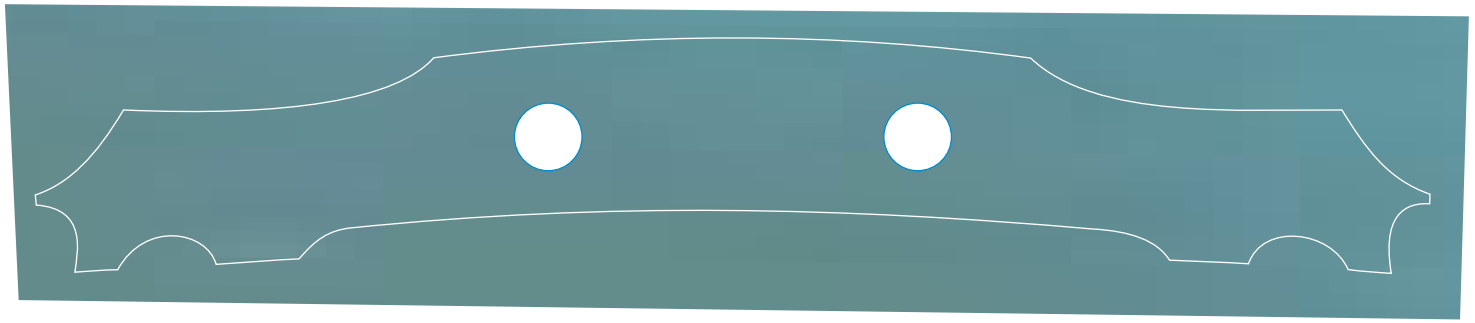


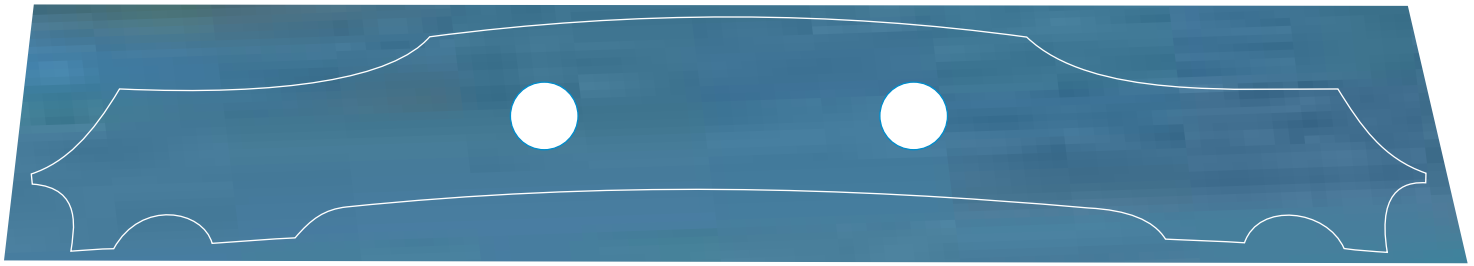
The stern transom details are now completed....along with chapter 3. The columns on the transom were added to finish it off. These were done exactly like those on the quarter galleries. The outside face of each upright between the windows was painted blue first. I was careful not to get the paint on the sides of the uprights. The top and bottom of each column was cut to length from a strip of 3/32 x 3/64" boxwood. This strip was first scraped to create the profile needed. Once I cut and angled each piece I used a needle file to also shape the ends to match the profile. Then the center fluted


column which is laser cut and etched was glued between them. I just removed the char and then tweaked the length for a tight fit.

Lastly, the two small figures were glued to the front of those wider columns. That really finished off the look of the stern. You may have to chisel the thickness of the base of each fluted column first. This needs to be done first so the figures will sit flat against them. The color of the resin carvings was tinted a bit as previously mentioned with the gel stain.

Remember!!!! Slow and steady. No need to rush through any of these steps. You will be so much happier with the results.



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