

## **Armed Virginia Sloop - Part 2 – Planking The Hull**

You have probably spent much more time getting your hull ready to plank than you originally anticipated. In Part 2, you get to finally see the framework take on the appearance of a real vessel. While it can be a very satisfying stage in the construction, it can also be one that the newcomer to ship modeling finds most confusing and intimidating.

As you will see, I decided to single-plank my model. There are a couple of reasons for this. First, much as I enjoy planking, I find that after doing it once, I don't much like the idea of doing it all over again on the same model. Second, I prefer to paint anything on a model that would have been painted on the real vessel, so I don't worry about the look of the planking wood. As the instructions say, however, if you choose to single plank, you will have to purchase additional planking material.

There are some reasons you might choose to double plank. If you are new to the hobby, chances are, your first planking job may be something less than perfect. By double planking, you can gain some experience on the first layer that should enable you to do a better job on the second. Of course, if you plan to leave your hull finished naturally or largely unpainted, then you'll have to double plank. There is one caveat to be aware of if you're double planking -- it won't be possible to follow the planking layout shown in the plans. I've talked to two very experienced modelers who have built and double-planked this kit. One modified the planking layout in order to use the kit-supplied materials. The other purchased wider second-layer planking stock so that he could follow the planking layout in the plans.

In the end, the choice is yours. I've seen the completed model both painted and finished naturally and both options make very handsome models. There are two additional things you might consider. If you plan to finish the model naturally, your second layer will have to be very well done. Paint and a bit of filler can hide a multitude of errors and that's not such a bad thing for the first-time modeler (or even an experienced one!). Second, if you use a natural finish, you will really want to consider adding false treenails for all the hull planks. This is a fair amount of additional effort and may be something you want to reserve for a future model. On the other hand, if you double plank and decide in the end that you are not quite as happy with the result as you'd hoped, you can always paint the hull. In any case, now is the time to decide which way you're going to go.

### **Planking the Counter**

As the instructions suggest, I began with planking the counter. One slightly confusing bit is that the bottom plank is supposed to be even with the bottom of the wale. However, you haven't installed the wale at this point. Trying to take a measurement off the plans is a bit trickier than you might think. There's an easy solution though. The rabbet and bearding line at the sternpost end just at the point where the counter planking should begin (see Photo 1). This is also the point where the bottom of the wale is located.

You'll want to hold a small square along the stern post so you can make sure you lay the first counter plank exactly perpendicular to it.

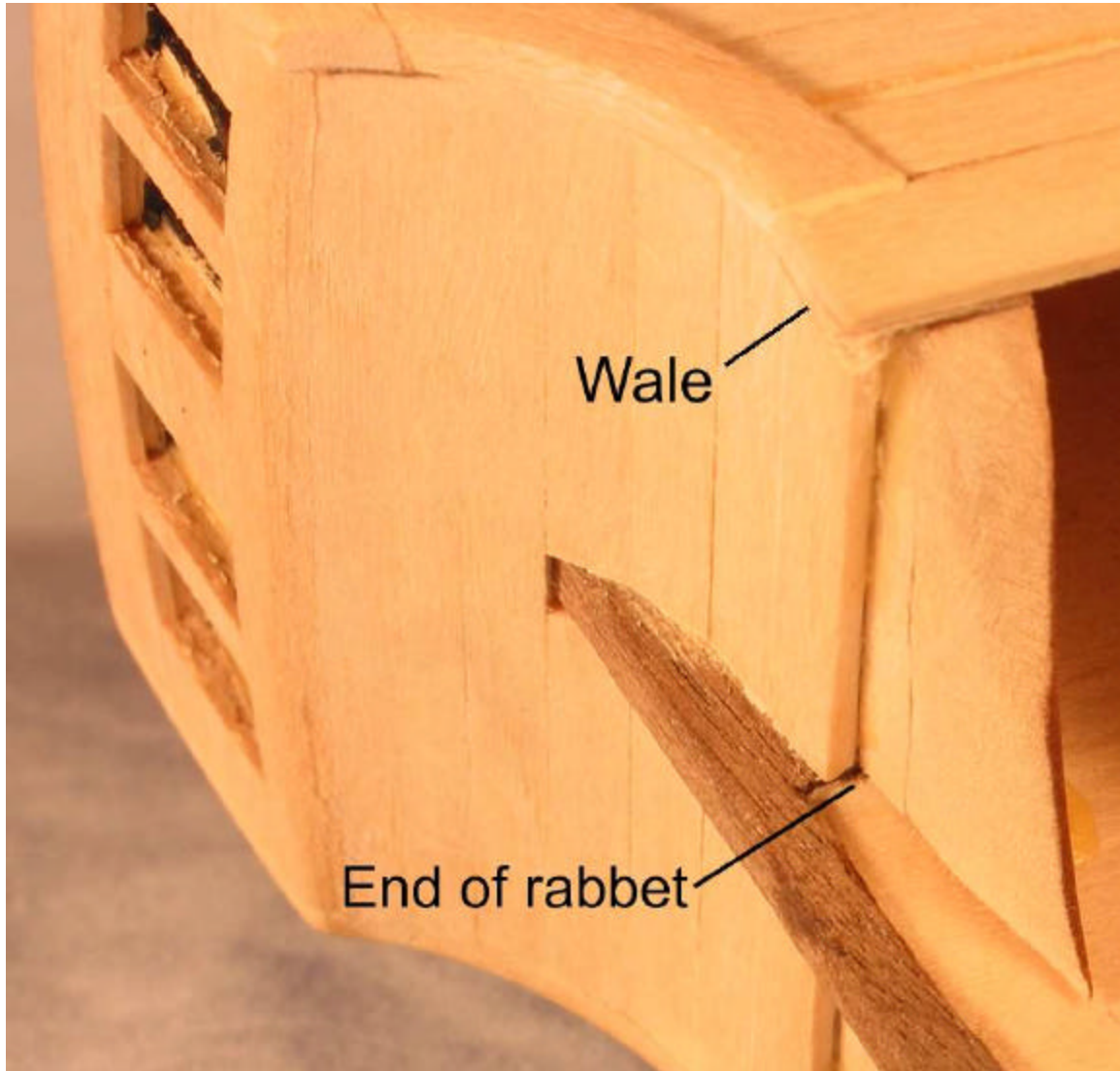


Photo 1. Starting point for lowest plank on counter is where the rabbet ends

Note that you'll want seven, equal-width planks to cover the counter. The simplest way to figure the plank widths is to lay a narrow strip of paper along the counter from the stern post up to the transom (this piece of paper is typically called a tic strip and we'll use one again later when planking the hull). Make a pencil mark on the paper at the point where the first plank will start and another mark at the top of the counter. Divide this space into seven equal segments and you have the width of each plank. The tic strip is necessary because the counter curves in an arc. If you simply measured the space straight across between the bottom of the first plank and the top of the counter with a rigid, straight ruler, your planks would come out too narrow. The top plank will have some width taken off its outboard ends due to the curve of the transom, but the center of that plank should be the same width as the other six.

## Planking the Transom

Even though most of my hull is single planked, I double planked the transom because of the way it extends beyond the hull. I used three wide, straight planks for the first layer to provide a solid base. As seen in Detail 2-J, there needs to be 6 planks for the transom. The planks are all of equal width, so it's pretty easy to figure out how wide each plank needs to be by measuring the overall height of the transom and dividing. No real need for a tic strip here. The planks need to have the curve cut into them.

The easiest way to get a consistent curve for all 6 planks is to make up a template. I copied the profile from Detail 2-J on Plan Sheet 2 onto a piece of scrap material from the bulkhead sheets. I sanded the scrap to the proper curve and then used that as a guide for my hobby knife to cut out each plank from a large sheet of basswood of the proper thickness (see Photo 2). Note, in Photo 2, that I drew a line down the center of the planking material and a line at the center of the curved template. That enabled me to set the template in the same spot each time so that the curve would be the same on each plank.

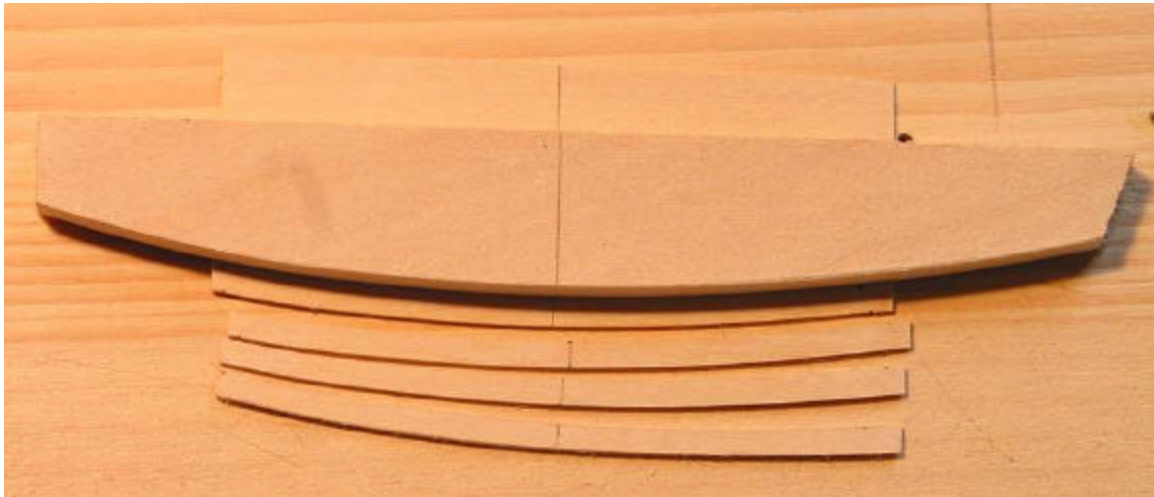


Photo 2. Cutting the planks for the transom

I started at the top of the transom and applied the first two planks, which got me to the top of the window openings. I applied the third plank all the way across the window openings, then once it was dry, I cut out the openings for the windows, leaving a bit of extra for later final trimming. I followed the same procedure all the way down with a full-width plank below the window openings.

As you can see in Photo 3, I left a very small gap between each plank. This is deliberate – not the result of poor measuring. When you paint a planked model it's common for the paint to make individual planks largely disappear. If I am going to go to all the trouble to do scale planking on a model, I would like the individual planks to show even though they are painted. I find that if I leave a small gap, the paint will fill in the gap but be slightly indented, allowing the individual planks to still be obvious. Other modelers simply bevel the edges of the planks to achieve a similar look. You might try this on some scrap material before you begin planking to see if you like the look or not. If you

do, you'll probably find it easiest not to try to measure for the gap – simply sand the edges of the planks a bit before applying them and be sure to leave the gap as you lay the planks down.



Photo 3. Transom planking

### **Installing the Wale**

Although the instructions call for installing the fashion pieces before installing the wale, I wanted the wale as a reference point for shaping the fashion pieces. So I installed the wale first. If you are single planking as I did, the wale is supposed to be 1/8-inch thick. This is a fairly hefty part to try to bend around the curve of the bow, so you might consider double planking the wale as in the instructions. I made the wale in one, continuous length from stem to stern since the aft end can be easily shaped after the wale is in place. Although the instructions suggest it may be necessary to spile the wale, I didn't need to on my model.

Correct placement of the wale is important since so many other parts of the planking relate to its placement. The top of the wale needs to follow the top of the waterway. If you haven't yet installed the subdeck and waterway, it will be a little harder to mark the wale location on the bulkheads. You might want to make up a small block from scrap, the same thickness as the waterway (and subdeck if that's not installed yet), that you can place on the tops of the bulkheads to help locate the position of the wale on each bulkhead. Mark the location of the wale on each bulkhead. When you apply the wale, you'll have to taper and pre-fit the forward end where it slides into the rabbet. Also, as you're gluing it in place, make sure it runs in a nice, fair curve from stem to stern (regardless of any marks you made for it on the bulkheads). The wale affects the

placement of the subsequent planking, so if the run of the wale doesn't look good to the eye, neither will the rest of your planking.

With the wale in place, I then made up and applied the fashion pieces. Planking above the wale needs to butt into the fashion pieces at the stern.

## **Installing the Black Strake**

I made my black strake from three separate pieces – one long enough to encompass all of the scuppers plus one piece to fill in the remaining space toward the bow and another toward the stern. It would be really difficult to make the black strake from a single piece and get everything to fit correctly. As shown on the plans and discussed in the instructions, the kit uses two 3/64" planks to make up the black strake. Since I single planked, I used one 3/32" thick piece of material.

Before you start working on the black strake though, you want to give some thought to how you'll handle the top, outboard edge of this strake, which is supposed to be rounded over to simulate a piece of quarter-round molding. If you like (and you plan to paint your model), you can actually use 1/16" quarter-round molding for this. The molding can usually be purchased at shops selling dollhouse supplies and is also available from online suppliers. You'll need to cut a rabbet in the black strake for the molding. Do this to your raw stock before you bend it to fit the curve of the bow. If you're using two 3/64" planks for the black strake, just make your second layer plank 1/8" high instead of 3/16" and that will leave space for the molding.

Another option for single planking would be to make the black strake only 1/8" high. Then, round over the edge of separate piece of strip wood 1/16" x 3/32" and use it to make up the remaining 1/16" height of the black strake. Of course, you'll need to wait until later (when you paint the hull) to add this small strip and don't forget to leave space for it when adding planks above the black strake.

The main reason for using a separate piece of molding instead of simply rounding over the edge of the black strake is that the molding needs to be painted gold while the rest of the black strake is black. If you simply round over the edge of the black strake, you'll have a very hard time masking the area that needs to be painted gold. By using molding, you can paint the molding before applying it to the hull.

Another aspect of fitting the black strake properly is to make sure it sits tightly against the wale. On my model, the wale is positioned so that it is not parallel with the center keel (due to the curvature of the bulkheads). The black strake, however, is closer to being parallel with the center keel. The bottom edge of the black strake needs to be sanded at an angle so the outer edges of the black strake and wale come together. Diagram 1 illustrates this principal as well as showing the rabbet for the quarter-round molding.

## Black Strake Molding Options

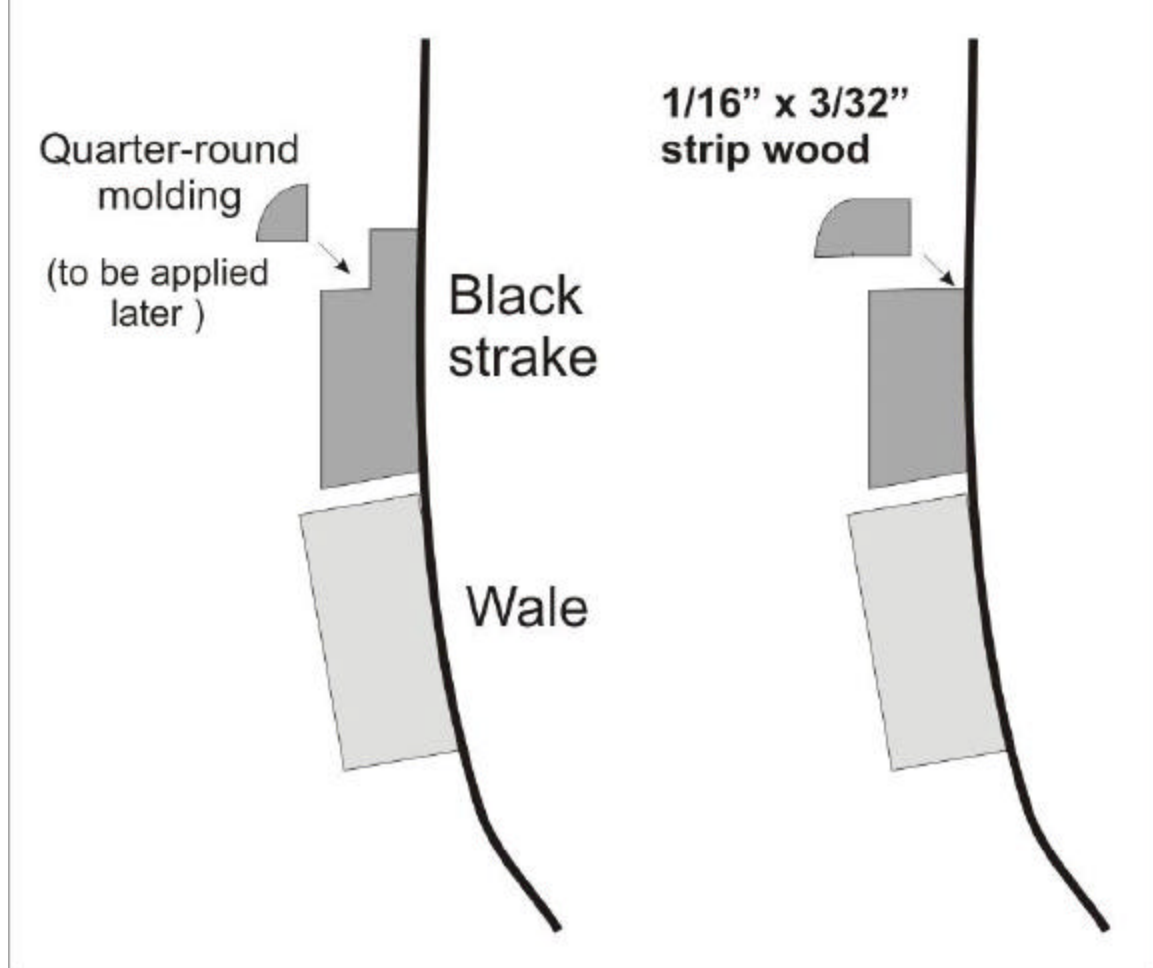


Diagram 1.

### Planking Above the Black Strake

In general, you should find this part of the planking job pretty easy. You'll want to add the sheer strake first. The bottom of the sheer strake should be 10mm above the top of the black strake for most of its length. It defines the top edge of the gun port openings. At the bow, the sheer strake is only about 9 mm above the black strake. Refer to the planking profiles on Plan Sheet 2. At the stern, the plans show the top of the sheer strake meeting the joint between the fashion piece and the wing transom. Regardless of what the plans show, it's more important to have a nice, fair curve to the sheer strake. If you set your wale with a nice fair curve and place the sheer strake 10mm above the black strake, then the sheer strake will have a fair curve as well. Whether or not it meets the joint

between the transom and the fashion piece exactly is of less importance. At the bow, be sure to run the sheer strake all the way forward on both sides and bevel the two ends to fit together nicely with the joint centered over the stem piece.

As you can see from the plans, there's another sheer strake along the cabin top. Note that this piece has a pronounced upsweeping curve to it. So take that into account when you're marking the bulkheads and fitting the piece.

You'll also see that the cabin sheer strake needs to extend forward of bulkhead N. It should stop at the break of the quarterdeck. You'll quickly discover that there's nothing forward of bulkhead N to glue the sheer strake (and the planks below it) to. Add a piece of filler material made from scrap forward of bulkhead N before you glue on the sheer strake. You can see this filler in Photo 4. Note that in this photo, I had not yet trimmed off the ends of the sheer strake and planks. I waited until the inboard planks were added. You might also consider gluing a filler strip along the outer edges of bulkhead O. When you get around to planking the inboard side of the bulwarks, you'll find there is nothing on bulkhead O to hold the aft ends of the planks. See Photo 4.

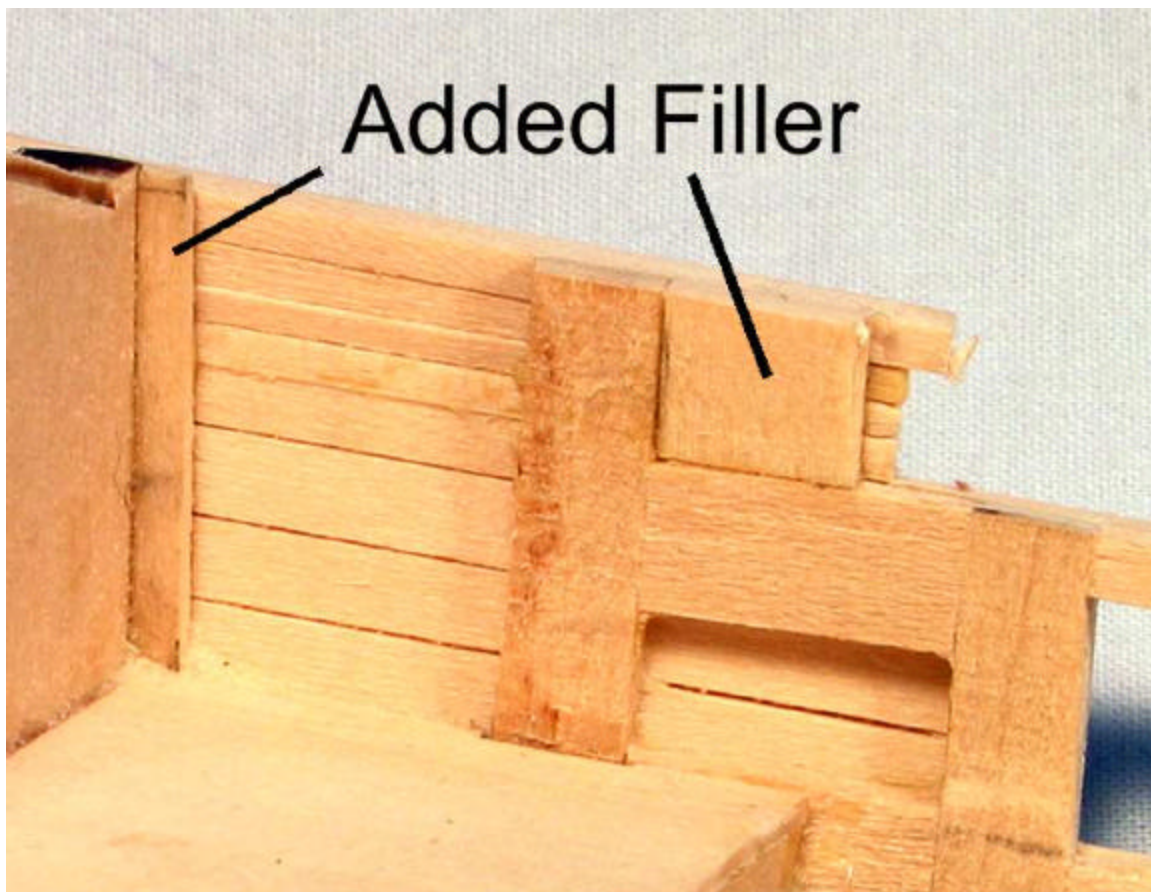


Photo 4. Extra filler material added for the planking above the main sheer strake

The three planks immediately above the black strake are all the same width. I applied mine in pieces, fitting them around the gunport openings, leaving a bit extra there for

later trimming. From the forward-most gunport to the stem, the strakes will have to be tapered a bit. The amount of taper should be the same for all three planks. I ran my planks all the way to the stem and joined the ends even though there will be a hole cut there eventually for the bowsprit. Try to make the planks on the port side of the boat match the size and location of the planks on the starboard side. As with the transom and counter planks, I left a small gap between each plank. Again, this is a look that I prefer but it may not suit you. Hopefully, you made up your mind about what you like when you planked the transom.

Above the sheer strake at the cabin, you'll need to add a false rail before planking. I made my rail extra wide. When I fit the main rail on later, I can sand the false rail down so it blends into the main rail exactly.

At this point, you're ready to tackle the main planking job, the hull below the wale. We'll address that in the next installment. If you would like to see additional pictures of my AVS both under construction and completed, you can visit my web site at <http://modelboatyard.com>. If you have any questions on building the model feel free to send me an email at [jhearl@modelboatyard.com](mailto:jhearl@modelboatyard.com).