CARVEWRIGHT

WOODWORKING SYSTEM

PROJECT BASIC DIFFICULTY

PROJECT TUTORIAL

Baroque Corner Shelf

Designed for CarveWright™ by Michael Tyler - www.carvebuddy.com

Turn a plain corner in your home into a focal point with this corner shelf project featuring a classic Baroque-style scrolled design!

The two quarter-circle shelves provide a nice way to exhibit decorative items of all kinds.

The finished project dimensions are about $12\frac{1}{2}$ " wide x 9" deep x 28" tall.

The project is carved and cut out using just the two bits that were included with your machine - no other bits are required.



Bottom Angle View

Main items you will need:

1) The 3 Project Files (included)

- LEFT Side.mpc
- RIGHT_Side.mpc
- Shelf_Shapes.mpc

2) Boards with the following dimensions:

LEFT Side: .75" x 11" x 36"
RIGHT Side: .75" x 11" x 36"
Shelves (1 board): .75" x 9.25" x 22"

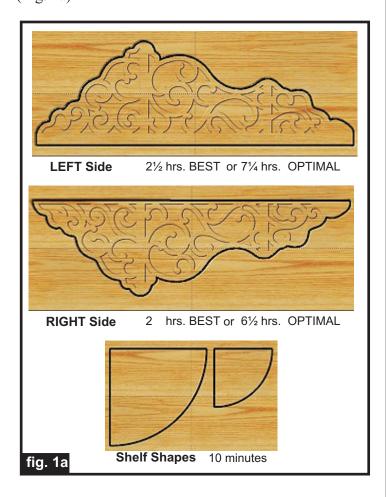
NOTE: Do <u>not</u> use boards that are smaller than specified above!

- 3) Thirteen 1" or 1¼" long #6 Wood Screws, picture wire and a couple small screws
- 4) Sandpaper, hand drill or drill press, wood stain and/or paint and clear finish
- 5) A Dremel-type rotary tool with assorted sanding wheels and bits to sand small details and speed up preparation for finishing.



STEP 1

Start your Designer software and open the .mpc files. (Fig. 1a)



All you need to do at this point is upload the project files to your memory card. (File/Upload). When you upload, you may or may not get a pop-up window with an "Auto-Jig" warning message (Fig. 1b)



If you do see the message, you may safely click on "Ignore" because our actual boards will be large enough that it won't cause any problems at all. After each project is compiled, select "Best" or "Optimal" for the File Quality setting.

Click "OK" and upload each mpc project file to your memory card. Insert the card into your machine and load a board that measures the appropriate dimension specified for each particular mpc (see page 1 for board dimensions). Turn on your machine and proceed with the standard project setup in Step 2...

STEP 2

You will see "Project Menu" on your LCD display. Press "1" then scroll to the **LEFT_Side.mpc** and press the green ENTER button to select it. Then follow the additional prompts....

- Stay Under Rollers press 1) YES
- DO NOT RESIZE or SCALE any projects! If ever prompted, always keep the original size. No scaling!
- How to Place... press 1) Center
- Cut Board to Size? press 2) NO
- Select Cutting Bit: 1/8" Cutting Press ENTER. The machine will move the bit holder to the center of the machine in preparation for the bit installation.
- Load Bit:1/8" Cutting -Insert your 1/8" cutting bit, then press the green ENTER button.
- Select Carving Bit: 1/16" Carving Press the green ENTER button. (Moves to center of machine.)
- Load Bit: 1/16" Carving Remove the 1/8" cutting bit, and insert your 1/16" carving bit, then press the green ENTER button. After homing and finding surface, the machine will begin the carving process.
- After it is done carving, you will be prompted to load your 1/8" cutting bit. Take out the 1/16" carving bit, clean the chuck (at every bit change), insert your 1/8" cutting bit, Vacuum out excess sawdust debris, then press the green ENTER button. Cutouts are always performed last, after all raster carving is done.

(cont.)

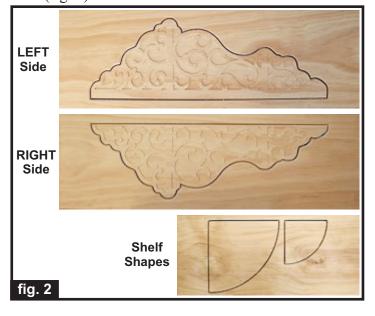
STEP 2 (cont.)

• The machine will now proceed to perform the cutouts as it moves around the component outlines. It leaves little tabs to hold the parts in the board. When the machine is finished, remove your board and clean your machine of excess sawdust.



REPEAT the aforementioned steps for the RIGHT Side.mpc

- At the "Project Menu" Press "1" then scroll to the Shelf Shapes.mpc, load your board and press the green ENTER button. Then follow the additional prompts....
- Stay Under Rollers press 1) YES
- How to Place... press 1) Center
- Cut Board to Size? press 2) NO
- Select Cutting Bit: 1/8" Cutting Press ENTER. The machine will move the bit holder to the center of the machine in preparation for the bit installation.
- Load Bit:1/8" Cutting -Insert your 1/8" cutting bit, then press the green ENTER button.
- The machine will now proceed to perform the cutouts as it moves around the component outlines. It leaves little tabs to hold the parts in the board. When the machine is finished, remove your board and clean your machine of excess sawdust. Your boards will look like this...(fig. 2)



STEP 3

Separate all the pieces from the boards with a utility knife or hobby saw, sand off the tabs then sand all the components to remove any fuzzies and undesirable tool marks. (fig. 3a)



Use a Dremel-type tool to make the job go faster. I used a thin, pointed grinding bit for tight spots and 3M Radial Bristle Discs from www.mcmaster.com to safely remove fuzzies from carvings without loss of detail.

I stacked 3 discs (McMaster part #4494A18, 220 grit) on a 3/32" dia, mandrel (part # 4494A44) for this project. (fig. 3b)



STEP 4

You have the option of simply nailing and gluing all the components together and apply a finish, or do as I did, and apply the finish first, then assemble the components using wood screws and pre-drilled pilot holes. I have outlined the steps I took for assembly of my own corner shelf...

Set the right side onto the **BACK** of the left side and mark a pencil line along the length to make a visual reference for the area where the pilot holes will be drilled. fig. 4a (fig 4a)



Measure and mark five evenly spaced drill locations, centered within this area: i.e., place two drill marks about 3/4" from the ends and three more marks spaced evenly between the two end marks. (fig. 4b)



STEP 4 - (cont.)

Using a #6 countersink bit, drill the five holes through the back, countersinking the appropriate amount for the length screws your are using. I used 1" long brass wood screws and countersunk the holes about ". (fig. 4c)



Align the two halves over your workbench edge and use an awl or nail to mark through the first countersunk hole into the edge of the mating half (the right side). (fig. 4d)

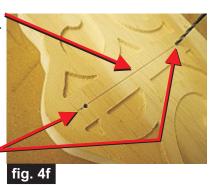


Drill a hole into the edge of the right side using a 3/32" bit and drive in a screw to hold the sides together at that end. (fig. 4e)



While the sides are held together with the one screw, drill the remaining four holes into the edge using the pre-drilled countersunk holes of the left side as a guide. Insert a screw, one at a time, *as each hole is drilled* to maintain alignment of the two halves. When done, disassemble by removing all five screws.

Mark a centered pencilal line along the length of the shelf areas on the two sides. Now, using the 3/32" bit, drill two pilot holes all the way through (from the front through the back) for the shelf areas of both sides. (fig. 4f)





Flip the sides over and use your #6 countersink bit to countersink the holes on the back. (fig. 4g)

fig. 4g

Reassemble the sides using five screws. Hold each shelf in place to drill pilot holes into the shelf edges using the countersunk holes as a guide. (fig. 4h)

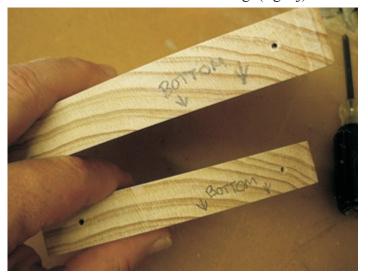




As each hole is drilled, drive in a screw *before* the next hole is drilled, to hold the shelf securely in position as you drill. (fig. 4i)

STEP 4 - (cont.)

Disassemble all the components and mark the direction of the bottom of the shelves on a hidden edge. This is so the pre-drilled pilot holes will line-up properly when the unit is re-assembled after finishing. (fig. 4j)



STEP 5 - Finishing

Apply stain/paint and clearcoat of your choice. Here's what I used on my Baroque Corner Shelf made from Select Pine wood:

- One very light coat of thinned Bullseye Sealcoat (2 parts sealer/3 parts Denatured alcohol)
- Sanded again with fine sandpaper and 3M wheels
- Cabot Stain (Brown Mahogany # 8134) applied with a small paintbrush by hand for the dark background areas (took me about 3 hours).
- Applied MinWax Stain (Golden Pecan # 245) over everything when the background stain was dry.
- Four coats of MinWax water-based Satin polycrylic, spot-sanding some areas with 400-grit wet/dry sandpaper between coats.

STEP 6 - Reassembly

When your finish has completely dried, re-assemble the shelf unit and use picture wire and a couple small screws on the back of the unit to create a means to hang on a nail or screw in the corner of your choice!

Make the wire just long enough that it just barely pokes above the unit so it is not too noticeable. You may have your own method of mounting the shelf unit, so feel free to use the method you prefer.

IN CONCLUSION

An alternative to applying the dark background stain by hand is to spray paint the top surface of each of the two halves (mask off the edges of the sides, if desired, leaving only the top surfaces exposed for painting).

When the spray paint is fully dry, you can sand off the paint from the flat, raised scroll areas with a belt sander if carefully executed. This is a technique many folks use for a quick and easy way to have a contrasting colored background without the fuss of applying a background color with a small brush by hand.

Another possibility I considered for my shelf unit was to stain the entire project a dark stain, apply the clearcoats, then apply gold leaf paint (using a gold leaf marker) to the raised scroll areas. This would give a nice contrast and I think would be very attractive, as well.

I hope you enjoy your Baroque Corner Shelf for many, many years!

Happy Carving!

Muchael

Additional Resources

RESOURCES...

There are numerous resources for the CarveWright/CompuCarve owner to make their experience with these machines much more enjoyable.

Every owner should join the <u>CarveWright User Forum</u> (http://forum.carvewright.com/index.php) where fellow users share their experiences and knowledge with these machines on a daily basis. It is a FREE service that you will surely appreciate. A handy Search Feature helps you find answers to any questions you may have.

