CARVEWRIGHT™
WOODWORKING SYSTEM
TiPS & TRiCKS

How To Make Your Own Corbels

by Michael Tyler of www.CarveBuddy.com

This month I'll take you through the steps of creating your own corbels with your CarveWright/ CompuCarve machine.

Some of you may not be familiar with the term "corbel". Basically, it is a fancy shelf bracket or support, but corbels are also used for a variety of other decorative architectural ornaments such as under roof cornices, fireplace mantels and so forth.

Decorative Shelf Corbels

This tutorial will get you started with an easy method for laying out your own corbel projects. Feel free to experiment, improve on the design or customize the technique to make your corbels suit the project at hand!

This particular corbel project was designed to be used with 1"x10" or 1"x12"shelves. I have made available the ready-to-carve Corbel Project (mpc file) which you can download for free at:
http://www.carvebuddy.com/FreePatterns/ Corbel_Project1.zip

(The file is zipped, so you'll need to save it to your hard drive, then unzip it before you can open the mpc.)

The entire project uses just the two bits that come included with every machine - the 1/8" cutting bit and the 1/16" carving bit. The instructions included here will show you how I created the project.

I used the line drawing tools in Designer to create the inside and outside shapes of the corbel, and used the rectangle tool to draw the corbel molding pieces.

In this design, a single corbel consists of four pieces that are glued together. All four components for each corbel can be carved and cutout from a board with the following dimensions:

27" Long x 9.25" Wide x 0.75" thick

You'll need two of these boards to make a paired set of completed corbels.

The actual physical board dimensions stated above already include the extra 7" length added to the layout so that the board will be kept captive by the rollers during the entire carving and cutout procedures. This is very important.

See the Dec. '07 issue of TiPS & TRiCKS for details on recommended project setup procedures. You can download and read a copy of it if you want to make sure you set up your projects for trouble-free operation:

http://www.carvebuddy.com/PDFs/CW_Ti psandTricks_Newsletters/CarveWrightTips &Tricks_Dec07.pdf

STEP 1

Start the Designer software and create a new "virtual" project board with these dimensions: 20" x 9.25" x 0.75" thick... or change the dimensions/thickness according to the stock you use (remember -you make your "virtual board" 7 inches SHORTER than what your actual "real carving board" will be!).

Now, use the "Line Segment Tool" to draw a 7"x9" right angle near the top left-hand side of the board, with a ½" Grid and "Snap to Grid" turned on. Then, while the right angle is still selected, choose the "Spline Tool" to draw a curve profile. Start by connecting the curve at the lower left point of the right angle and continue drawing the curve towards the top right, but do not connect the last point of the curve to the right angle (press the "Esc" key on your computer keypad to stop drawing the curve about ½"short of the upper right line end as shown in Fig. 1a).

fig. 1a
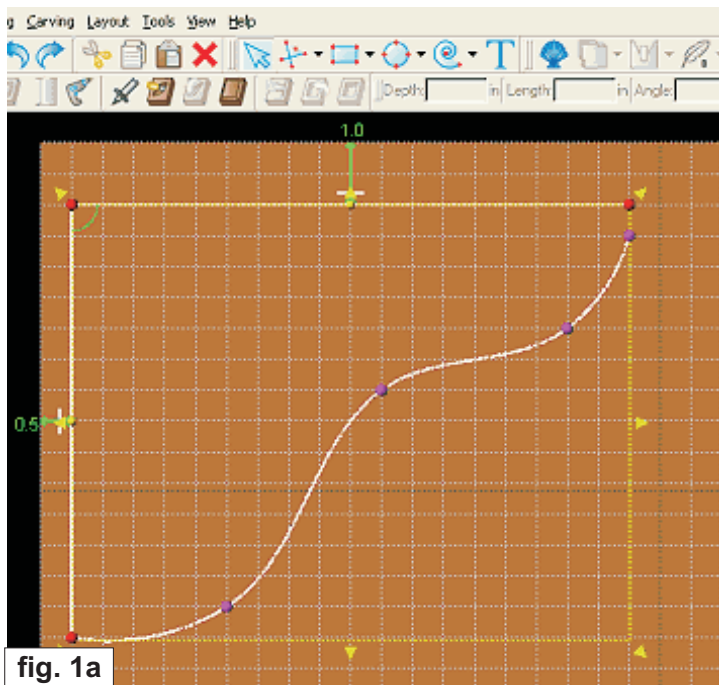
Now, re-select the "Line Segment Tool" and draw a short line to connect the curve and right angle ends together at the upper right-hand corner (Fig. 1b).

Draw a short Line Segment here to connect the curve

fig. 1b
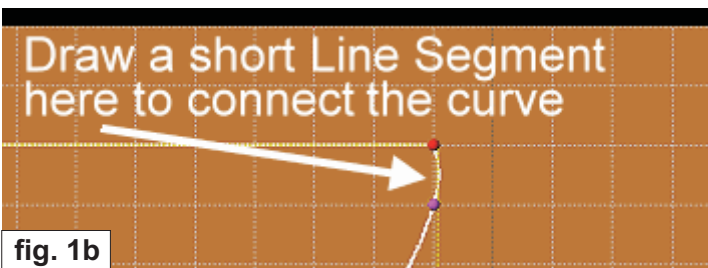
STEP 2

To create the inside shape, copy the outline profile you just made and paste it onto the board. Reposition the straight lines (with "snap" still on) and manipulate the curved line (turn off "snap") to fit inside the outer shape to create a border of approximately ½" width all around as shown in Fig. 2.

fig. 2
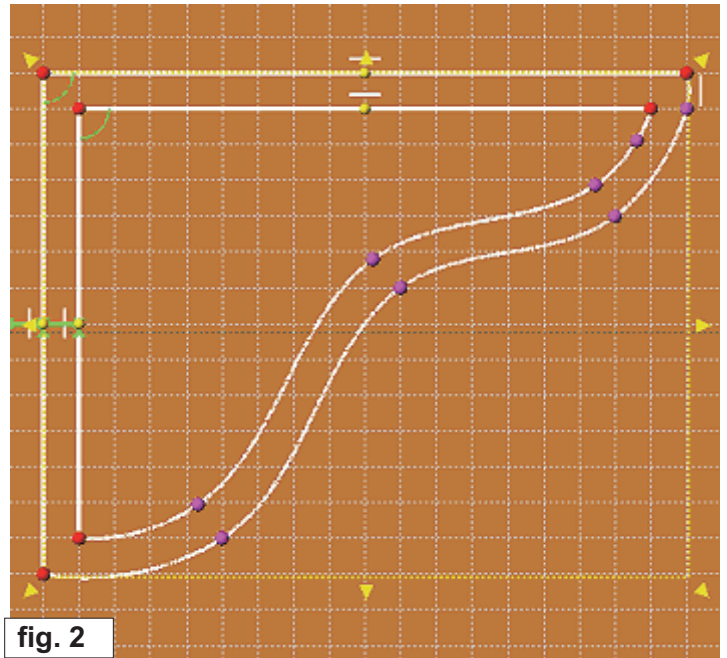
STEP 3

Turn off the grid, select the inside shape and make it a Carve Region set at .25" depth (Fig. 3).

Carve Region .25" Depth

fig. 3
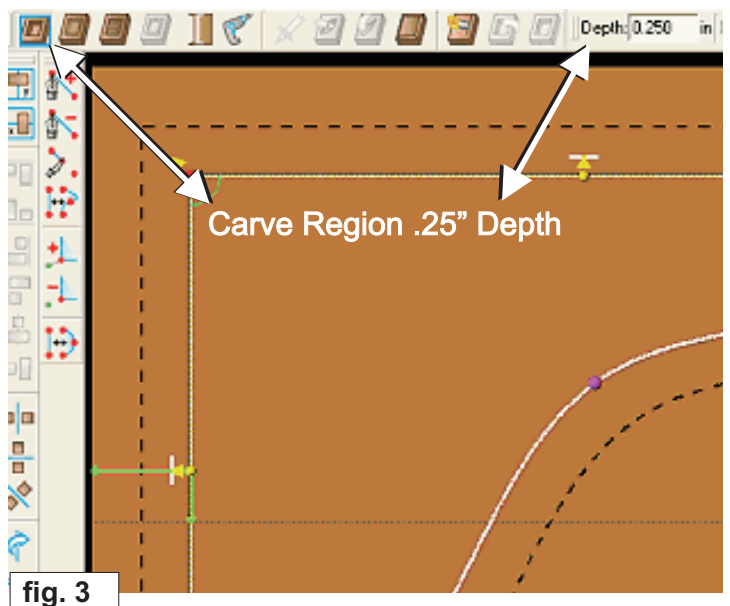
STEP 4

The filigrees in this design are a couple "stock patterns" that are included with your Designer software. However, you can use whatever patterns you wish. Drag Filagree 01 and Filagree 04 onto the board, remove the feather on each, then rotate and resize the patterns to fit in a pleasing manner within the carve region (see Fig. 4). Both patterns have a depth setting of .25" to match the depth of the carve region.

fig. 4
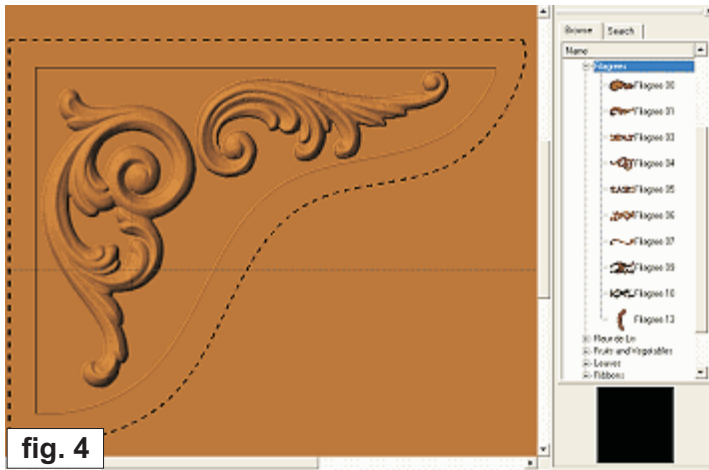
STEP 5

Now select everything, right-click (or ctrl-click on the Mac) and choose Mirror/Mirror Horizontally from the contextual menu. You will now have an exact mirrored copy of the design (see Fig. 5)

fig. 5
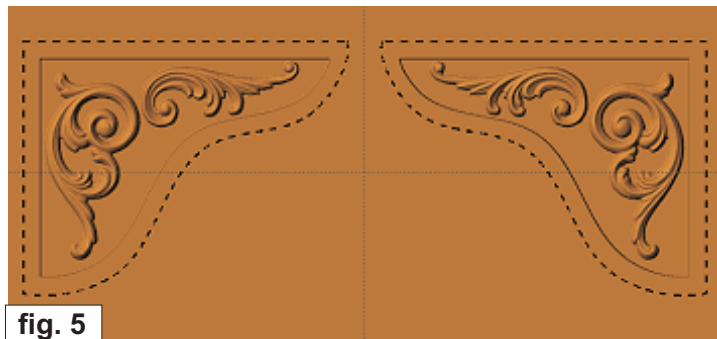
STEP 6

To create the molding pieces, you will draw six rectangles using the "Rectangle Tool". Go to the Layout Menu, select "View Grid", set the grid Snap Interval to 0.125" and select "Snap to Grid". Click "OK". Select all the original corbel components and move it to 5/8" from the top of the board (the mirrored version will move along with it).

Draw three rectangles with the following dimensions:

Rectangle 1: 8.125" x 2.25"
Rectangle 2: 7.5" x 2.00"
Rectangle 3: 7.25" x 1.75"

Make Rectangle 1 a Carve Region/Depth .25".
Make Rectangle 2 a Carve Region/Depth .125".
Make Rectangle 3 a Carve Region/Depth .00".

Move Rectangle 1 to fit comfortably between the corbel shapes. Move Rectangle 2 to the horizontal center of Rectangle 1, and position it ½"away from the left edge of Rectangle 1.

Move Rectangle 3 to the center of Rectangle 2. This completes the first molding component.

Draw three more rectangles in the remaining blank area of your board with the following dimensions:

Rectangle 4: 9.625" x 2.25"
Rectangle 5: 9.375" x 2.00"
Rectangle 6: 9.125" x 1.75"

Make Rectangle 4 a Carve Region/Depth .25".
Make Rectangle 5 a Carve Region/Depth .125".
Make Rectangle 6 a Carve Region/Depth .00".

Center rectangles 4, 5 and 6 both horizontally and vertically to each other. This completes the second molding component.

Turn off the Grid Lines, and your board should now look like this (see Fig. 6).

fig. 6

STEP 7
Select the outermost outline of each corbel shape and make a Cut Path. You may need to "Flip Cut" to make sure that each corbel will be cut out on the <u>outside</u> of the lines.

Now select the outline of **Rectangle 1** and **Rectangle 4** and make a Cut Path for each. You may need to "Flip Cut" to make sure that the cutout is performed on the <u>outside</u> of the lines. This is important! Your board will now look like this (see Fig. 7).
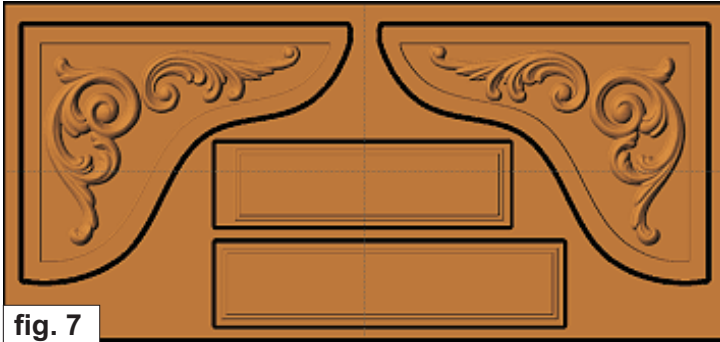

fig. 7

Step 8
Save your project, then upload it to your memory card. NOTE: During upload, you will get a false error message, warning you about possible interference with the aux roller and asking if you want to Manual Jig or Auto-Jig or Ignore. You should click "Ignore" and DO NOT select Manual nor Auto-Jig. A **minimum** 1/2" clearance on the top of the board is the only area you need clearance on for a cutpath. You do NOT need any cutpath clearance at the bottom or sides of the board at all. The bit cannot hit anything at those edges when performing a cutout, so you are perfectly safe. This assumes your actual board will have the extra 7" length and that you select "center on length" when you do the project setup at the machine. Here's what the "false error" message looks like....
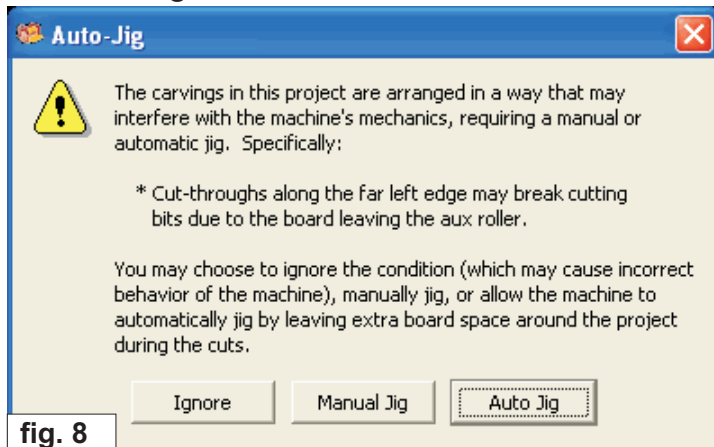

fig. 8

Turn on your machine and proceed with the standard project setup as follows:

You will see "Project Menu" on your LCD display. Press "1" *or* the green ENTER button then scroll through the list (if any) to select your corbel project.

• **Stay Under Rollers** - press 1) YES

• **How to place on Length** - press 1) Center On Length

• **Cut Board to Size?** - press 2) NO

• **Load Bit:1/8" Cutting** - load your cutting bit then press the green ENTER button. The machine will go through a series of homing steps automatically.

• **Select Carving Bit** - press the green ENTER button. The machine will move the bit holder to the center of the machine in preparation for the bit exchange.

• **Load Bit:1/16" Carving** - take out the cutting bit, then load your 1/16 carving bit, then press the green ENTER button. The machine will go through a series of homing steps automatically.

• The machine will now proceed with the carving process for the entire board. **After it is done carving, you will be prompted to load your 1/8" cutting bit.**

• Take out the 1/16" carving bit, then load your 1/8" cutting bit, then press the green ENTER button.

• The machine will now proceed to cut out each part, in several passes as it moves around the outlines of every component. It leaves little tabs to hold each part in the board.When the machine is finished, remove your board (see Fig. 9a)

Now separate the pieces free from the board using a utility knife or razor blade. You can sand or Dremel off the little "tab-nodes" left on the edges of each cutout part. Glue the corbel sides together to form the 1.5" thick corbel. When cured, sand everything to a smooth finish on all sides. Glue the molding components to the corbel shape to complete the corbel unit.
(see Fig. 9b and Fig. 9c)
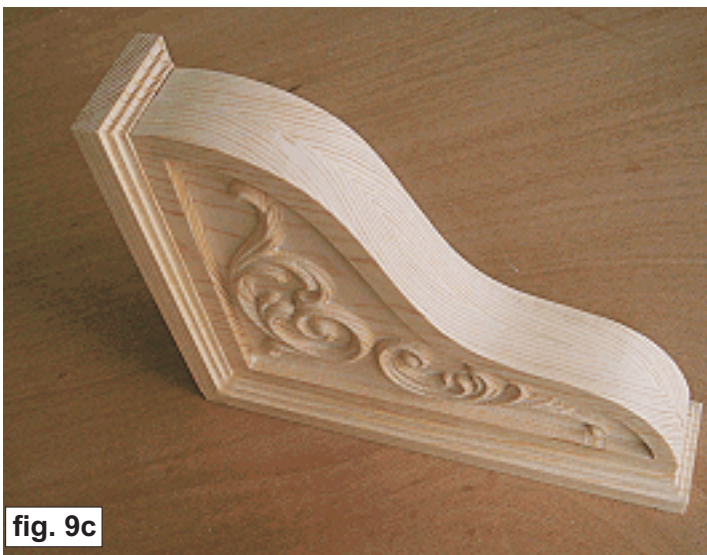
fig. 9a

fig. 9b

fig. 9c

IN CONCLUSION

Apply your final finish (stain, paint, gold-leaf, etc.) to suit your personal preference.

I think you'll enjoy this project and I hope you'll be inspired to create your own custom corbels! Make your corbels thicker by cutting out profile blanks and "sandwich" them between the outer carved profiles. You could even make the inside "sandwich" piece(s) slightly recessed to create a grooved line(s) on the corbel's front edge. There are numerous design variations to have fun with (such as making towel racks with a dowel between the corbels)!

This particular design was created entirely within the Designer software with just two patterns already included with every machine. No "outside" software was used to create this corbel project.

**Special thanks to Michael Tyler of
www.CarveBuddy.com
for providing
the content for this issue of
CarveWright TiPS and TRiCKS.**