

November Feature Presentation

MIDWESTERN MAGIC

By Travis Beard – Edited by Donna Zibley & The Newsletter Team

Donnie and Marie, Brad and Angelina, Bill and Hillary—we all know who these famous singers, actors and politicians are, just by their first names. Now, we North Star Scrollers can add another famous couple to that list, and we are thrilled to know them *personally*:

Dirk and Karen. Yes, Dirk and Karen Boelman, the Wisconsin couple who are known throughout the world as experts on scroll sawing, made their way to Minnesota on Saturday, November 2nd. In their awesome, low key, user-friendly manner, they wowed us with their knowledge and talent in the field of scrolling.

Seminar attendees ranged in skill from beginner to expert, but everyone certainly learned many valuable tips and tricks of the trade. Not just happy to present and demonstrate, this delightful pair encouraged a free exchange of questions and answers.

They have presented seminars to various groups everywhere you can imagine, from our little old Knights of Columbus Hall in scenic Minnesota, to the bright lights and concrete canyons of New York City. Their goal simply is to help others improve their art.

Karen and Dirk have recently worked with military veterans, and found that to be very rewarding. Karen mentioned that the number of women participating in scrollsawing is increasing and noted that our club reflects that participation. Dirk mentioned that interacting with varied people with varied abilities in sawing has caused them to expand their own experience with different methods and materials. Dirk and Karen brought boxes and boxes of patterns, sample projects, tools, and materials for our hands-on class.

In a nutshell, we learned the following:

Basic Tips for Scrollsawing:

- Load that blade with teeth to the front and correct side up
- Each person should determine the blade tension that is best for them: listen for that telltale “twang”
- Remember that leveling the saw table doesn’t ensure that it’s square to the blade – you must also **square the blade**.



- Some precision-ground blades (PGT) will not require adjusting the angle of feed.
- Rate of feed is another technique that we develop with experience. Adjusting the speed of the saw will also help in obtaining the optimum feed rate.

- Obtain experience to help with improving your technique: try out different blades in different materials.
- Drop-cloth tape made by Painter’s Green was also mentioned in addition to the blue tape used to cover your wood.
- Be extra careful when fingers are close to the blade.
- Bad things can happen when you’re tired and are trying to force things. Sometimes it’s best to “step back and take a break.”



Scroll Saw Blades - Sizes, tooth styles, usage:

- Their handout has a good description of the main blade types. It also shows the burr edge, which is the aggressive side; you should always angle your cut to this side. The second page of the attachment shows blade terminology for dimensioning for thickness, kerf, width, and spacing, including gullet.
- A blade-test pattern was also included in our class handout. Use this as a pattern to cut different materials with different blades. Record the blade type on the pattern for each cut. This method will assist in determining your own blade preferences.



Curing common problems:

- **Top-of-blade bent.** This usually occurs on small blades like #2 or smaller and on saws that have a top blade holder that moves (floats). The top of the blade can be bent when tightening. Try to hold the blade more stationary as you tighten.
- **Blade pops out.** If you have a thumb screw or nut type of blade holder, it may have a burr or may be very shiny (slick). Use sandpaper or rub the holder on a rough surface to ensure the holder is flat and non-slick. This method will help the holder grip and hold the blade. Also, the blades may have oil on them from packaging; if so, wipe them off and use sandpaper as necessary for a good grip.
- **Rounding the back of blades.** You do this so that the blade can turn tight corners easier. Just hold a file stone to the rear corner edges, for just a short time, while the saw is running.
- **Reverse tooth blade used on outside edge of a project.** This sometimes results in a rough edge which is readily apparent. The fix for this problem is to switch to a double-tooth blade.
- **Cutting materials other than wood.** In general, use smaller, skip tooth blades (more teeth per inch) for metals. For plastics, use a larger blade to keep the temperature lower and prevent melting.

Working With Patterns:



- Patterns enable one to make just about anything on a scroll saw. Always set aside a clean master copy of the pattern for future use. Beware of distortion of your pattern when using a copy center. Discuss what you want with the copy technician and determine what freehand adjustments you might have to add after the copy is made.
- Use a square edge of your project (may have to cut it on a table saw beforehand) to line up the pattern reference edge. Use a red pen on the pattern if a reference line needs to be adjusted. Always make ALL your copies at the same time, on the same copier. Just to be safe, make at least one more than you think you'll need.
- Also, for many intricate patterns there are many "holes" (waste material that is cut out), it's wise to color the waste holes with black or red ink to keep track of the waste side of the many lines that must be cut. This method will also assist in deciding where to drill small holes for inserting a saw blade for cutting.
- When planning for the frame for your project, thinking outside the box is sometimes necessary. Should your pattern/project not fit a standard size frame (e.g., 10" x 12"), it may be easy to extend the side, top, or bottom of the pattern to fit your frame.

- Multi-page patterns may present a problem when cutting the project. Take the different pages of the pattern and line them up prior to attaching to the wood pieces. Ensure the lines of the patterns line up exactly; if not, red-line the pattern to match it up.

Sawing Tips and Techniques:

- Once the pattern is properly affixed to the wood, the fun part starts. With a properly selected blade that is square to the table, precision saw cutting can commence. Karen and Dirk provided some guidance to help us achieve the necessary precision.
- One handout provided is the “Star Pattern,” which helps in sawing sharp corners and tips/ points. Completing the entire star pattern will provide practice in cutting straight lines to sharp corners and points. This pattern was available to us during the classroom portion and is a very good, but sometimes humbling, training pattern for some of us rookies.



- Another sawing tip covered by Karen and Dirk is called veining or definition lines. Veining lines are often used on flower or leaf parts of the pattern and are kerf cuts in the project. It is usually important to use a thin thickness blade, and you have to be careful in choosing the place to drill an insertion hole for the blade. Even if a very small diameter drill bit is not available, choose a good location for the insertion hole and go with it.
- Dirk pointed out (no pun intended) that it’s a good practice to always use an awl to make a small indentation in the wood for the drill bit. This will help prevent the drill bit from jumping off track. Karen and Dirk use a drill press when feasible for making these drill holes. It’s also helpful to use a backer board below the project board to prevent tear out. Also, if a drill press is not used, ensure that you make a vertical drill hole.

Assembly:



- An important part of successful assembly of project parts is to have flat faces for joining. Use a table saw to cut the base and parts that mate to the base. If that isn’t possible, and a scroll saw cut must be used, sanding the mating faces flat may be necessary. This might be part of your project planning.

- Dirk gave some suggestions for fastening. He wipes glue onto the wood as a pre-coat; lets it penetrate into the pores, wipes it off, then re-applies glue for the fastening. He also recommends making a jig with 90-degree sides to assist in achieving square sides for the project. Additional support blocks may be needed for a project with tall sides. Always do a dry fit first.

- Another suggestion from Karen and Dirk is to be careful in planning for a clock project. The pattern hole diameter for the clock on

the pattern may not correspond to the actual diameter of the clock to be used. When possible, purchase your clock first, measure it, and compare the measurement with that of the pattern. Forstner bits can be used for most clock diameters, but you can also do the cut with a scroll saw.

There are some workarounds to use if you do wind up with a mismatch between a drilled hole in the project and the actual clock diameter. One method is to use an overlay. Use a contrasting color and make an overlay to hold the clock. If the hole and clock difference is small, another fix that may work is to use a shim using tape, string or

another material to keep it tight. When the sawed hole is too small, but close to being the right size, a sanding sleeve or sanding drum might work to enlarge the hole. Otherwise, one can make a circular template of the right size, then mark the project and saw away.

- Dirk also elaborated on the assembly process for attaching an upright to a base. He suggested three different methods that can be used. One is making a groove in the base; the groove width matches the upright width. Another method is to cut grooves in both the base and the upright and use a spline for joinery. The last suggested method is to use screws. Decide where to place the screws. Consider placement that might prevent the wood from warping or help prevent another structural problem.



Finishing:

- Dirk recommends applying the finish **after** assembly, if possible. He likes to use *Watco Danish Oil*. Small projects, such as ornaments, can be dipped. He uses a Minwax clear poly spray as a final coat. He then rubs out the finish for several coats and utilizes a crumpled brown paper shopping bag for final sheen.

Other Types of Scrollsawing Projects:



- Karen and Dirk mentioned several types of projects and provided several examples plucked out of the boxes they brought:
 - Segmentation
 - Stack cutting
 - Circular mashed pieces (like a basket)
 - Brass
 - Parchment paper
 - Velvet board backing

All in all, we couldn't have had a better day of listening, learning, and sawing. Those other couples mentioned earlier may be more famous, but none of them could be more genuine, patient, talented, or approachable than Dirk and Karen. It was an honor and a privilege for the North Star Scrollers to learn at the feet of these wonderful masters. They work magic with a scroll saw as well as in teaching. What an absolute pleasure!

[Check out the two Slide Shows AM and PM Here](#)



Boelman Class Participants
November 2, 2013