Lake Charles Woodworkers Club, Inc. April 2003

Bubba Cheramie, President
Dick Hopes, Sec. / Treasurer

Officers and Directors

Barry Humphus, Editor, Brent Evans
George Kuffel, John Marcon, Chuck Middleton

MARCH HIGHLIGHTS

George and Nancy Kuffel were our hosts this month at George's shop. The theme this month was Show and Tell. George and Barry Humphus have been creating a dining room table for the beach house. The old table had seen much better days and had started to sag in the middle.

The new table was built from red oak selected from the stock at George's shop. The partially completed parts were on display. See the complete build later in this issue.

Lots of great items were brought by members. Chuck and Charlene Middleton brought some interesting items: a couple of turned pens—one of purpleheart and one of bloodwood. Chuck also showed how he stores his scroll saw blades—in glass cigar tubes. You can mark the tubes and see the blades. Chuck showed some stick-on reading lenses. They can be placed on your existing glasses or attached to your safety goggles. They make working with a scroll saw or other fine work a breeze.

John Leonard Fontenot showed off a couple of beautiful turned lamps of sinker cypress. He claimed that he didn't make the shades! Eltee Thibodeaux brought a religious icon of cedar. Eltee is showing off his skill at engraving.

Bob Patin brought a mesquite bowl. It was especially nice and thin. The problem with mesquite is getting it and finding a large enough piece to work. Bob also showed some turned balls.

Gary Rock also brought us some bowls. The three bowls made of sweet gum varied considerably in color though were from the same tree. To decorate the bottoms, Gary carves a stipple pattern. It looks good and hides the fixing of the chuck. Gary also brought a wonderful doll cradle made of pine.

Lee Frazier mostly builds outdoor furniture. But in his "spare" time, he makes innovative decorative items. The one he showed was really great—an Infinity Light. The unit consists of a couple of mirrors mounted in a frame box with small lights. The result has got to be seen. Lee reported that the only problem he ran into was that in high humidity conditions, a fog forms inside the box. Lee also said that sinker cypress is available at about $2.50 per board foot from a number of area suppliers.

Leonard and Theresa Wilfret told us about the school they will be attending this coming Summer. They are planning a trip to the American Sycamore Retreat. Located in Cloverdale, IN, they offer woodworking vacations in up to 10 day workshops were the guests build furniture and learn about woodworking from a master crafts person. The Wilfrets will attend a 5 day class on furniture making followed by a 2 day private class on jointery.

Besides the new dining table, George Kuffel is building a rocking chair. While its the first one he's built, he's done what George does best—build a jig. The jig is made specifically to bend the rockers from laminated oak. The jig is made from MDF and provides a means of bending the thinly cut oak into the proper shape for chair rockers.

You can see the items shown at this meeting on our web page at http://woodworkers.lightwire.net. Click on the Gallery.

Coming Up . . . Saturday, April 12, 9:00 a.m. at Knotwood Vinyl Products with Ray Wood who will show us the future of fences and gates.

BUILDING A TRESLTE TABLE

The old dining table at the beach house had seen better days. It was purchased used more than 20 years ago. But the drop leaf mechanism had sagged until it was no longer usable or repairable. So George Kuffel and Barry Humphus were "volunteered" to build a new table.

After considering several design ideas, they decided on a trestle style table. The traditional trestle has advantages over four leg tables such as being able to seat more people as there is no leg at each corner. Another advantage is that it is both easy and interesting to build.

The design choosen was a modification of one found (and on the cover) in Dining Tables by Kim C. Graves (Tauton Press, 2001). The advantage of Graves' design is that it is a knock-down version. That is, the legs and stretcher can be detached from each other and the top so the table can be transported. They wanted this feature as the table would have to be transported to Galveston.

They began by selecting red oak stock from the pile behind George's shop. The stock choosen had been quarter sawn and the grain pattern matched well as it was from the same tree. This wood had been air dried for three years, and the stock was moved into George's climate controlled shop for six weeks to dry a bit more before surfacing and squaring.

After running everything through a surface planer to 3/4" thick, they let it "rest" another week in case they got any cupping or twisting. Next they squared the sides using a table saw and screw-on straightedge. They thought that jointing the edges with the jointer was going to make squaring easy for glue-up. The problem was that the boards were 80-84" long. This length made it all but impossible to use the jointer unless they built lots of level supports and other jigs, feather boards and so on. They decided to joint the edges by hand using a jointer plane.

After squaring was accomplished it was simply a matter of edge gluing the seven boards into a panel of about 37 inches wide using a plate jointer. After 24 hours drying, the glue beads that had been squeezed out were removed with a paint scraper and block plane. The panel was then cut to length allowing for an extra inch on both ends for a breadboard end. A little sanding and careful smoothing plane use made the top and bottom smooth and flat.

The breadboard tendon was formed using a straightedge clamped to the panel and routed along the edge of the panel on both sides to a thickness of 3/8". The breadboard itself was created by selecting matching stock and using a dado blade to form a mortise in the breadboard. A little shaving with a block plane and chisel allowed a snug fit of the mortise and tendon. As breadboards move differently than panels, we blind dowled from the bottom of the panel, elongated the holes and glued only around the middle dowel as well as glued each dowel only at its point of contact. This allows for movement between the breadboard and the panel. Once the panel was completed, they routed the edges with a 1/4" round-over bit.

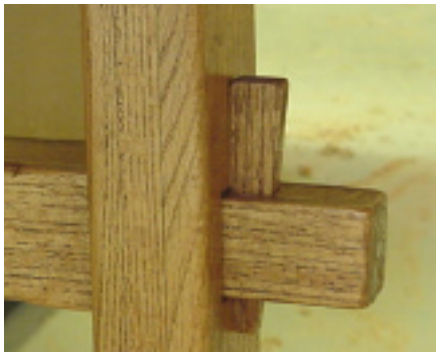
The legs, stretcher, feet and cleats came next. The stock had been planed to 3/4 inch and were made up by laminating three boards to achieve a total of 2-1/4" thickness for the cleats, feet and stretcher. Full size drawings were made for the feet and cleats. As these are symmetrical in shape, only a half drawing was needed. George made a cut-out jig by gluing the drawing to a 1/2" piece of plywood with spray-on adhesive and cut this out with a band saw. The jig shape was transfered to the stock and cut with the band saw and shaped with an occelating sander. Mortise and tendons were used to attach the leg posts to the cleats and feet. As the three pieces that made up each part were 3/4" thick, they cut the middle 4" out of the center laminations before glue-

up. This left a 4" x 3/4" mortise in the cleats and feet. The leg posts were made the same way, leaving the center lamination long enough to fit through the mortise created in the cleats and feet. After glue-up, the formed tendons of the leg posts were cut to fit the mortises with a back saw and trimmed to fit with a block plane and chisel.

After sanding, a mortise was cut with a dado blade 3/8" deep and 3/8" from the top on both sides of the cleat. These mortises would provide purchase for cabinet buttons to secure the cleats to the underside of the top. The cabinet buttons were made using the table saw and drilled for 1-1/4" screws.

A 2" x 4" mortise was cut through the leg posts through which a tendon at the end of the stretcher would fit using a combination of a Forstner bit and mortising chisel mounted in the drill press. The sides of the mortises were then smoothed with a chisel. The leg assemblies were then glued up and checked for squareness after clamping.

The stretcher, like the other support parts was made from three laminations of 3/4" stock. The laminations were oriented so that the edges would be up when installed. This gives it much more deflection strength than having the faces up and down. The stretcher tendons were cut "loose" so that they could slide into the mortises cut in the leg posts. A 1/2" mortise was cut into the tendons at each end of the stretcher. This mortise was cut at an angle to receive a wedge shaped key that holds the stretcher tight to the leg posts when assembled.



At each stage, when parts were completed, they were dry fitted. For example, when the legs and stretcher were completed, they were dry fitted to make sure everything worked before proceeding further.

The finish was selected after much debate about the look and durability, given that the table would live in a high humidity area and be used by lots of different people during the year. George had built a small end table for the beach house from red oak several months ago and he wanted to make the table look about the same and have the same durability.

To soften the natural red oak color, they used a mahogany wipe-on stain. The technique, after testing on scrap, was to wipe it on and immediately wipe in off with a clean shop rag. Adjustments to the stain color was accomplished by wetting a clean rag with mineral spirits and wiping more.

The final finish was also a great debate. Originally, Barry wanted to do an easy to apply finish he has used on many pieces of furniture: VLO polyurethane (i.e., Watco). Watco is a combination of a little polyurethane and lots of boiled linseed oil and drier. It goes on very easily with a rag but you have to do many coats to get a deep, durable finish. A downside is that it is not as resistant to dings, scratches or moisture as higher polyurethane products. The upside is that it is very easy to repair if you have a scratch. One possibility was another favorite: 1/3 polyurethane, 1/3 boiled linseed oil and 1/3 turpentine. This works very well as you don't need a dust-free shop and can be wiped on using a cloth or paper towel wetted in the solution. But George wanted only medium oil polyurethan for its durability. The downside of medium oil polyurethane varnish is that it requires a low dust environment and very careful application as bubbles can form which may not release during the curing process.

Instead of these, they compromised on multiple coats of very thinned medium oil polyurethane. According to Understanding Wood Finishing by Bob Flexner (Reader's Digest Books, 1999), a very hard finish can be achieved by using multiple coats (3 to 4) of a thinned polyurethane varnish. While it is brushed on, the thinned product easily releases any small bubbles formed by the brushing as long as the brushing is done correctly and tipped off at the end.

The first coat must be very thin at 50% with subsequent coats at 10% to 20%. As the coats require 24 hours to harden before the next coat is applied, this took a few days to complete. Sanding between coats is not necessary with thinned applications other than to remove any dust nibs or fibers from the brushes. The only time you need to do light sanding is when the coat is more than a week or two old between subsequent applications and the varnish has already cured.

After three full coats on every surface, they decided there were enough and had run out of time. Had they used full strength polyurethane, straight from the can, they would have needed to wait several days between coats plus sanding.

When the finish had hardened, they assembled the legs and stretcher and centered it, then pre-drilled holes for the cabinet buttons. The buttons were screwed down to a "firm" fit. Running the screws down hard may mean that the cleats do not allow the top to move with changes in moisture content. After taking a few photos (including photos by neighbors), they disassembled the 76" x 37" 30" table and loaded it into George's vehicle for transportation to the beach house.

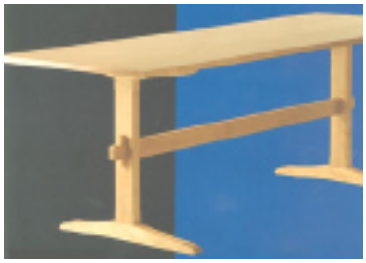


Photo from the cover of Dining Tables, by Kim C. Graves, Tauton Press, 2001.