



# BACK TO SCHOOL

*Colonial Chair Company Classes*

**By Ken Kupsche**



**A CHAIRMAKER'S SUCCESS.** *The Colonial Chair Company class stands with their completed continuous arm Windsor chairs at the end of the back to school weekend.*

## Windsor in a Weekend

**LIKE MOST WOODWORKERS,** I'm willing to try to make anything once. But there's always been something about chairs that scared me away. Thirty years ago I made a leather sling chair in a carved frame that was interesting to look at, but very uncomfortable to sit in for more than 10 minutes. Since then I've made a few kits, but never got up the nerve to try one from scratch. I knew that Windsor chairs were complicated, but having read Michael Dunbar's Windsor chair book years ago, I also felt that they were sort of a flexible work in progress. When I found out that Michael Herrel

from Colonial Chair Company was going to be in town giving a Windsor chair class, I jumped at the chance.

Mike's class is a little different from the weeklong sessions at some schools. When you expect to finish the class with a complete chair, and you only have Friday, Saturday and part of Sunday to do all the work, you know that some of the pieces have to be prefabricated. That was okay with me. I can turn spindles on my own time, what I wanted to learn was the assembly process – how to set up the angles and align the spindles, how to carve and drill the seat blank, all the tough stuff.

### Getting started

This was a Continuous Arm Windsor class, held at my local Woodcraft store, with seven participants and Mike. On Friday, after a quick review of the schedule, we got right to work. Each student had a bandsawn poplar seat blank, green-turned maple legs, rough shaped oak spindles and a squared, steam bent piece of oak for the continuous arm. Mike provided most of the tools, but recommended that you bring your own spokeshave, block plane, files and carving tools. The first order of business was to get all the parts prepared for assembly. We split into two groups, one working on their back spindles, the other shaping their seats, with Mike wandering from bench to bench offering advice and talking us through the process.

Working the seat blank was physically the toughest part of the job. Standing on the blank, we cut and shaped the seat with a short handled adze while

PHOTOS: BOB EITNER

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referencing a finished chair as a pattern. Progressive steps of cutting with an inshave, carving tools, spokeshave, files, curved scrapers and power sanders resulted in a pretty comfortable plank.

The white oak back spindles were slightly over-sized and had to be slimmed down to their proper diameters. This involved using a tenon cutter to size the seat-side of the spindle and a steel dowel plate



**A COLONIAL CHAIR COMPANY STUDENT** works the seat blank during the first day of class.

on the arm-side. The short taper from the wide part of the spindle to the seat tenon was smoothed and cleaned up with a spokeshave while the long side of the spindle was done with a combination of block plane and spokeshave. All the while, a basic wooden go/no-go gauge was used to check spindle diameter.

After gluing a block onto the end of the continuous arm, it was cut on the bandsaw and shaped with files into an arm pad. At this point, if anyone had time left, all their pieces got a final once over and quick sanding.

### Day two

The second day began by placing the tenon end of all the legs and spindles in buckets of heated sand. This was to draw out some of the moisture and shrink the tenon's diameter slightly before glue-up. While drying, we began to drill the leg holes in the seat blanks. This turned out to be a three-person job, one to drill and two to visually align the bit to the jig. This is what I had been waiting for, the process of drilling a precisely angled hole for the legs. This complicated process was greatly simplified with a simple plywood jig with angled sides. When clamped in the right spot on the seat, all you had to do was align your bit with the jig and drill. As first timers, it helped to have assistants telling you to adjust slightly this way or that, but once the first hole was drilled, I could see that this was easily a one person job.

With the legs temporarily inserted in the seat, holes for the stretchers were drilled, stretchers were cut to length and then assembled. The through tenons were trimmed,



**MAKING A DIFFICULT PROCESS EASIER,** this jig allowed students to align and drill for the perfect angle.

split slightly with a chisel and then locked with a small walnut wedge. Drilling the leg holes with a freehand jig virtually guarantees misalignment. This was evident after leg assembly when we all put our seats up on the benches for review. A few had one leg splayed out more than the other while some were perfectly aligned. Mind you, we were being pretty critical; the average observer would never have picked up on the minor differences that we were beating each other up over. We chalked this up to experience and moved on to trimming the legs to length.



**DRILLING HOLES FOR THE LEGS** turned out to be a three-person job, one to drill and two to visually align the legs.

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**WORKING TOGETHER** *these two students carefully cut the legs for a wobble-free stance.*

Having repaired furniture and cut new legs to length in the past, this was one of those eye-opening, why didn't I think of that, moments. Mike put a seat on the bench and started to shim under each leg with pieces of scrap until the seat looked to be the right height front and back, and level side to side. He then took a measurement from the seat to the bench, subtracted the proper seat height, and started looking for a piece of scrap that was equal in thickness to the difference between the two. In this case, about 1½". With scrap and pencil in hand, he drew a cut line around three legs. After trimming each leg with a back saw, the seat went back up on the bench with the still-too-long fourth leg hanging over the edge. After butting that leg tight up to the bench's edge, Mike took the thinnest kerf Japanese saw we had, laid it flat on the bench and proceeded to trim the last leg. This was one of those simple exercises that guaranteed a chair that sits flat on the floor without a wobble.

### Last lessons learned

Day three was spent drilling spindle holes and assembling the backs. Once again, an ingenious jig was used to align the back to the seat. After anchoring the back, the spindle holes were spaced out and once again drilled freehand. Gluing

up the back, with its 16 components, was an eight-handed process. Everyone pitched in to align parts, apply glue and clamp down.

One of the interesting benefits from this class was how we all managed to learn from each other's mistakes. We had a couple of seat blanks split, holes drilled in the wrong place, tenons cut crooked or off center – you name it, we managed to foul it up. Each time it happened, Mike showed us how to fix the problem and move on.

The final discussion was on finishing, something we would all do on our own after the class. Using General's Country Colors, I ended up applying a base coat of cranberry, topped that with black, rubbed through the finish to bring out some of the red undercoat and finished it all off with a clear satin poly acrylic.

We each walked out of the class with a beautiful chair, plans for all the jigs we used, and a pretty strong knowledge of Windsor chair construction. For those who wish to build chairs on their own, Mike

offers individual components, complete kits and videos through his Web site at [members.aol.com/colonialchairco](http://members.aol.com/colonialchairco) where you'll also find an upcoming schedule of Colonial Chair Company classes across the country.

— Ken Kupsche is publisher and editor of Woodcraft Magazine.



**ASSEMBLING THE BACKS** *was made easy with another "ingenious jig." Many of the students left with plans for the jigs used over the weekend.*



**GLUING UP THE BACK**, with its 16 components, was an eight-handed process. Students help each other make the perfectly spaced back to this continuous arm chair.