

MAY THE (Mentoring) FORCE BE WITH YOU

by Jeff Clunie

The purpose of this article is to share with Guild members my recent experience of going through a woodworking mentoring program with another more knowledgeable and experienced member of the Guild who was willing to share his knowledge with others. As a result of going through this mentoring experience, my woodworking skills were significantly enhanced, although they were relatively minimal to begin with, and my appreciation for what is entailed to make a good piece of furniture has increased.

Introduction

In January 2015, Don Michael and Jim Russell told me that they planned on building a “Portsmouth Table” and asked if I wanted to participate in the effort. I looked at the pictures and drawings they had of a Portsmouth Table and I was not favorably impressed with what I saw as it appeared rather ostentatious. The table has a top which is approximately 17 inches square, it is 29 inches tall, has a single drawer, and one shelf. It is the embellishments, however, that are eye popping. This table includes all of the following: stringing; bookmatch veneer top and shelf; side banding around the sides of the top ; scallop skirts around the sides of the shelf; sawtooth banding around the base of the scallop skirts; veneer inlays on the tops of the legs; stringing around the veneer inlays on the legs; cross banding veneer on the front of the drawer; an elliptical veneer inlay on the front of the drawer; cock beading around the edges of the drawer; turned legs that included horizontal beading and tapered feet; and vertical reeding on the bottom half of the leg.



It is a furniture project that is on embellishment steroids and my initial reaction was that if I could actually build it, I would not want something so garish in my house. I was however attracted by the opportunity to work with Don and Jim so I decided to accept their kind offer and participate.

I should state that my own woodworking experience at the time this project started was limited to the two week course at North Bennett Street School on the Basics of Fine Woodworking and the creation of some rectilinear furniture I could construct by pushing boards through the table saw. This Portsmouth Table was way beyond anything I had ever done or had even considered trying to undertake, I had never attempted any of the intricate turning, manufacturing of banding, inlay of veneer or reeding that this project required. I agreed to undertake this effort with Jim and Don with the following expectations on my part: 1) the social part of getting together once a week would be enjoyable; 2) I might learn some new woodworking skills that I could apply to other things that I might try to build; and 3) I would never actually finalize the table itself. It turned out that I was correct on two of the three original expectations.

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It is also important to point out that the entire effort covered an eleven month period from start to finish because of the approach that Jim followed as a mentor. Jim would show us a new woodworking technique at his shop and Don and I would then return to our own shops to practice the technique on scrap pieces before actually applying the technique to the table itself. This method of teaching was extremely beneficial in terms of learning and semi-mastering numerous new techniques, but in order to properly implement it, it required an extended period of time. The lessons I learned I have applied to other projects and this was a great way to learn things. While the eleven months may sound like a long time to make a small table, it was the new techniques Jim taught us that were the most important outcome of the effort, not the table itself.

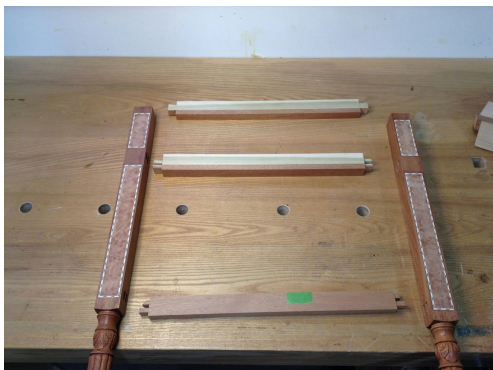
To help give an idea as to the types of things that Jim provided mentoring on, Jim prepared a list of the techniques that he passed on to Don and me during the eleven months. A summary of that list is attached to the end of this article.

Getting Started

Efforts on the project began in January 2015. We initially discussed rotating the site of the meetings amongst all three of our shops in order to reduce the amount of driving that any one person would have to perform. That notion was quickly abandoned when it became clear to all three of us that all of the experience, knowledge, skill and required tools resided at just one location: Jim Russell's shop. Jim took on the role of mentor (much like Yoda, particularly when he said things to us like, "This tool, sharpen you will") and Don and I became students, although neither of us were ever likened to Luke Skywalker. Jim had spent a considerable amount of time and



effort reading articles, watching Youtube videos and practicing all the skills and techniques that would be required during the production of the table. Even though I had to drive two and one half hours round trip for each weekly session, I found this approach of going to Jim's shop was very helpful and beneficial to me as Jim's grasp of the basic woodworking techniques became invaluable over the next eleven months. I spent much more money on gasoline than I did on wood and it was the best money I have expended in all of my efforts to increase my woodworking knowledge.



We all purchased the mahogany lumber and various types of veneers that we would need to complete the project. Jim and Don had previously made the sawtooth banding of ebony and holly so I was spared both the cost of having to buy ebony wood which would have required a third mortgage on my house and the aggravation of trying to learn how to make sawtooth banding. Jim and Don were generous enough to provide me with the four pieces of sawtooth banding I needed for my shelf skirts.

MAY THE (Mentoring) FORCE BE WITH YOU

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Throughout the eleven month process, Jim continued to emphasize proper basic woodworking skills such as posture and stance for planing boards flat and square, the proper techniques for using chisels, planes and hand saws and the importance of a sharp tool. These are lessons that will be invaluable for anything I do in the future.

The efforts for the table began by cutting out the four legs and turning the bottom half. I fell a bit behind Jim and Don at this point as I did not own a lathe but I decided to sell that second kidney of mine and used the proceeds to buy a midi-lathe with variable speed. It was at this point that Jim began teaching his most important basic lesson: Practice, Patience, Sharp Tools (“PPST”). When I tell people that I am an advocate of PPST they think I am referring to a malady from which I suffered when I returned from a tour of duty in Viet Nam. However, Jim quickly demonstrated the financial wisdom of practicing woodturning techniques on a piece of poplar rather than a piece of mahogany that cost five times as much. As I am impatient by nature, I struggled to learn to be patient but I eventually discovered that I could get much better results by slowing things down and allowing glue to dry, sharpening a tool before using it, and letting hide glue properly dissolve in liquid before applying it to veneer.



Turning the legs had one other unintended benefit: how to repair your mistakes. I learned how to replace missing corners of shoulders that had been torn off by a too aggressive approach to turning. The first time I knocked off a corner on a leg, I thought that I would simply make that a back leg. I eventually ended up with four back legs. I also learned that accurately duplicating the turning on all four legs was a desired but not necessarily a practical goal for an initial project of this type and that reducing the wattage of the lights in which the table would reside to 15 watts per bulb was not a bad design feature.

Jig Making

After the legs had been turned, Jim introduced us to another critical part of the learning process: how to make jigs that will help reduce, but not eliminate, the number of mistakes one makes on a project of this type. We would eventually construct numerous jigs before the table was completed. The first jig we required was necessary for doing the vertical reeding on the bottom half of the legs. This necessitated the following: 1) making a round wheel with seven equal distance notches on the perimeter that could be placed on the chuck of the lathe; 2) making a scratch stock cutting tool from an old band saw blade in the shape and size of the reeds; and 3) making a device from wood that would hold the scratch stock and that could move horizontally along the base of the lathe while cutting out the reeds. I learned from Jim that if one carefully constructs the correct jigs, the proper application of such jigs is not terribly difficult.

In order to keep the length of this article to something shorter than Tolstoy’s “War and Peace,” I will not go into similar detail on the many other jigs that Jim designed but they include the following:

- 1) Cutting mortises for tenons and double tenons using a hand held router. This jig proved to be far more accurate than my Powermatic mortising machine
- 2) Guides for cutting dovetails on the stretcher and drawer sides
- 3) Excavating the mahogany for inlay of veneer

MAY THE (Mentoring) FORCE BE WITH YOU

by Jeff Clunie

- 4) Excavating the legs and top for stringing
- 5) Cutting the leg top and bottom to final length
- 6) Cutting the four notches for the bottom shelf so the shelf would fit tightly around the four legs
- 7) Different sized and configured shooting boards – an absolute must for any shop

While the aforementioned jigs were made specifically for this table, their basic concept will be invaluable for application to the construction of future projects. Plus, Jim was able to look at a Lie Nielsen jig costing \$225 and duplicate its function by using some MDF or scrap wood, a sheetrock screw or two, and maybe a scratch stock. Bill Karp's contribution of MDF proved invaluable in the jig making process.

Veneering

This table required a considerable amount of veneer work – a technique with which I was not previously familiar. We spent some time discussing veneer selection, design of bordering stringing or banding, veneer flattening and various application methods (no vacuum presses present). The top and the shelf both had bookmatched half sheets of veneer; the upper front leg sections had two veneer inlays; the mahogany drawer front had a curly mahogany crossband veneer plus an elliptical burl veneer inlay applied into the mahogany. Furthermore, the manufacture of the banding that was applied on the upper part of the legs and the sides of the top required more work with veneer.

The application of the veneer in turn required learning how to make and apply hide glue and liquid hide glue and the proper way to glue things together using the two different types of glue. I have to confess that prior to this project, I did not understand the difference between hide glue and liquid hide glue but Jim demonstrated the pluses and minuses of each product. For any reader of this article (assuming you got this far) who is similarly

unaware of the difference, hide glue has an EXTREMELY short set up time and must be applied using a hammer veneer approach. Liquid

hide glue is hide glue which has had salt added to it and has a longer set up time and can be applied using cauls and clamps. The major advantage of either type of hide glue over yellow glue is that you can go back and apply a hot steam iron to the veneer and correct any mistakes you may have made during the initial application. Based on the number of mistakes I made, I became a true advocate of using hide glue and a



MAY THE (Mentoring) FORCE BE WITH YOU

by Jeff Clunie

readily available steam iron for veneer application. (Jim will be doing a seminar on hide glue for the Guild's May meeting.)

Jim is a proponent of hide glue because he is proficient at hammer veneering. I did not like the short set up time and preferred liquid hide glue because I was not proficient and needed more time to get my pieces of veneer in place.

Finishing

Many Guild members with whom I have spoken share my abhorrence for finishing a piece of furniture. I am unable to number the times that a project of mine has changed from "Not Completely Awful" at the woodworking stage to "What a disaster" after I had tried to finish it. It turned out that one of the keys to a good finish was Jim's advice to, "Patient you must be."



One of the positive aspects of this project was that it involved mahogany and highly figured and burlled veneers so no staining of the wood was required. One of the challenges of this project was that it involved mahogany and highly figured veneers that were open grained with lots of gaps and dips in the veneer.

With hindsight, I should have used some type of filler on the mahogany but as this was a learning experience, we proceeded with a one pound cut of dewaxed shellac. I would apply three coats of shellac and then sand with 320 or 400 grit sandpaper. I did this six times for a total of 18 coats of cut shellac in an effort to fill the grains of the mahogany and veneer. This required a great deal of patience on my part (pat myself on the back at this point). I then applied three coats of an oil-based urethane to the top, shelf and drawer front in order to provide protection from liquids and glass water rings. Following the final application of the oil, I waited ten days before starting to finish the finish. This involved the application of mineral oil as a lubricant to the following grits of sandpaper: 400, 600, 1000, and 2000. This was then followed by the application of mineral oil and rottenstone before a final application of paste wax with a 0000 steel wool pad. This was a true test of my patience and I almost succumbed to the dark side, but with Jim's encouragement I hung in until the end.

It turns out that I am glad that I listened to Yoda and waited for the finish to properly dry and set up before starting the final finishing steps because this project has a better finish than anything I have previously done.

Summary

The table is done. My wife is not pleased with the 15 watt bulbs I placed in all the lamps in the living room but she is starting to feel her way around the room.

I am extremely happy with all the things that I learned along the way and this is a great testament to the mentoring program the Guild offers and the woodworking and teaching skills of Jim Russell – plus an infinite amount of patience on his part. Good teacher he is.

MAY THE (Mentoring) FORCE BE WITH YOU

by Jeff Clunie

To gain a better understanding of all the things that Jim taught during the process, presented at the end is a summary Jim prepared of the different lessons he taught during the eleven months.

3rd Party (Don's) Addendum

We started this project, all feeling that the original, an 18th century table in a house museum in NH, was as gaudy as a table could be, but, as Jeff noted, offered many, many opportunities to try techniques that we either had never done before or had not mastered. We started making three identical copies, but as the project developed, started modifying the original to our individual tastes so that the final products are (or will be when I finish) similar but unique. Each table has three bandings, but at least 6 different bandings were constructed. We used different veneers on the legs and table top, from crotch mahogany to quilted makor, burl to birdseye maple, and made practice pieces with tiger maple and curly cherry on substrates of MDF and plywood. Jim carved a portion of his table legs. The number of reeds on the legs varied according to taste. Each variation, though small, provided lessons for all three of us that added to the value of the group process.

It did take a long time to do this project, but that's largely because Jeff and I started off so ignorant and Jim had to spend extra time case-hardening the hammer he used to pound things into our thick skulls. Actually, a lot of the techniques were new to Jim, too, though he took upon himself the initiative to do whatever was necessary to be ready for each "class". I want to reiterate Jeff's thanks to Jim for his patience, which was often sorely tested, and the time he put into this. Like a professor, I'm sure he spent several hours of preparation for each session, researching and experimenting with techniques so that each group session was as efficient as the absorption rate of the students would allow. The small group (which we have named 3-Guys Woodworking Co.) helped because everything was seen with three sets of eyes, stimulating questions and discussions that would have been missed even in a one-on-one arrangement.

Though (where have you heard this before?) my table is still a pile of parts each 80% complete, I do intend to complete it and am looking forward to the next adventures of 3-Guys Woodworking.

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Skills and Jigs Used in Making the Table

This project called for a lot of very precise joinery and fitting. In many cases, we opted for hand tools like chisels, planes, and shooting boards to make the fit. This project reinforces how hand tools produced very accurate and reliable results.

General Purpose Jigs and Methods

Make and use story poles

Make Mortising Jig

Build a flexible jig for mortising with a plunge router. Developed methods to make very accurate and repeatable double mortises.

Make Tenon gauge

Built a dedicated tenon gauge and table saw setup to make regular and double tenons matched to the mortises produced by the mortising jig

Make shooting boards

Method for making a template to accurately size internal pieces that are captured on all sides. Used for the lower shelf.

Turning

Turn tapered legs. Build a shop made steady rest to aid in turning the long thin legs. Turn teeny weeny beads. None of us knew anything about turning so this took a LOT of time and LOT of practice.

Reeding

Reed the tapered legs using scratch stock

Made an indexing jig to position the legs for reeding

Made platform and scratch stock holder to guide the reeding process.

Made scratch stock to perform the reeding

Faired all the reeds and carved the tops and bottoms of the reeds to blend with the center section

Drawer

Size drawer parts to existing openings

Make the drawer using hand cut dovetails, half blind in the front and full in the back

Fit the finished drawer to the table

Embellished drawer

Veneering

Flatten highly figured veneer like crotch and burl. Mixing up the formula in the shop.

Veneer using hide glue and a veneer hammer

Veneer using a shop made press with curved cauls and liquid hide glue

Bookmatching crotch or highly figured veneer

Make Banding and Inlay

Build small sled with a jig for repeatable cutting of small parts

MAY THE (Mentoring) FORCE BE WITH YOU

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Dye wood for colored banding

Glue up a bazillion small parts into banding logs for several different bandings

Make a table saw jig for slicing repeatable thin slices of banding from the log

Embellished the legs

Inlay a burl veneer

Inlay a banding around the burl inlay

Build dedicated jigs and gauges to guide the Dremel to precisely excavate to fit the bandings

Embellished drawer

Hammer veneered a mitered mahogany field

Made an elliptical burl inlay with holly trim and installed it on the drawer front

Make cock beading with a shop made scratch stock

Build a small dedicated mitering sled used to fit and install the cock beading

Embellish the top

Bookmatch veneer the top with crotch mahogany. Veneer the back of the top with backer veneer. Surround the top with solid mahogany mitered in the corners. All fitting was done with planes and shooting boards.

Inlay stringing at the joint of the center field and the surrounding mahogany.

Inlay banding around the side perimeter of the top.

Finishing

Uses and application of dewaxed shellac

Application of oil varnish

Rubbing out of topcoat.