Penturner's Corner

Have you ever wondered how a pen would look with a certain species of wood or acrylic? Or, do you wish you had a way to preview the look of a pen before it was made. Well, now previewing is possible. Check out the new software on the Penn State website. The software is called "Pen Design Studio".

Here is how it works. First, a pen choice is made. Next, the metal plating for that pen is chosen. Your next choice is the the material to use for the pen. Several wood choices are currently available. The wood choices seem to be some of the more popular woods used by most of us to make pens. I do hope PSI has plans to add more woods later. Or, you can choose from an array of acrylics. Even some alternative materials are available: snake skin, water buffalo horn, and corn cobs. Maybe more materials will be added also.

Once these choices are made the pen is displayed. Click on the "rotate" button and the wood on the pen's barrels rotate to show the blank from all sides. Next, of course, is the option to purchase the kits and blanks since the Pen Design Studio is a sales tool. But, here is the fun part. Pen Design Studion can be used to preview even if no purchase is made.

Wait just a minute...I know what you are thinking. The pen Design Studio just displays PSI kits, right? Right! But, several of the PSI kits are very similar to the kits sold by other suppliers. Ah Ha! A slimline is a slimline....a cigar is a cigar...a sierra or sienna or gatsby is just a … Well, you get it, right? The PSI kits have cousins being sold by the other suppliers. Give "The Pen Design Studio" a test drive. I found it fun as well as functional. Check it out at htt://www.pennstateind.com and click on the test drive button at the top left of the homepage.

While you're on PSI's website checkout the new art deco pens designed by David Broadwell. I've made the art deco ballpoint which is designed around the majestic squire. I like it. It is a cool looking pen. I look forward to making the other art deco pens. Thanks PSI for giving us more higher end kits to make.

A cabinet maker friend asked me if I had made pens from zebra wood. He had a customer considering cabinets from zebra wood and he had a board as a sample. He brought it to me and in this article I will pass it on to my readers....as a trio of pens. But first, I wonder how many of us used zebra wood as one of the woods for our first pens. I don't really know why but I seem to see a lot first pens made

from zebra wood...and slimlines at that. Is a zebra wood slimline a required first pen? I was just wondering....

Now, let's make a pen. I've chosen to make a modified slimline. The modification is an easy one to make and a really nice looking modification. **Figure 1** shows the slimline modifcation made from Bethlehem olive wood. Now, how is that made?

Figure 1

Let's Make a Pen

This article will kill two of those proverbial birds with one stone. First I want to show how cutting blanks from same board can make stickingly different pens depending upon how the blanks are cut. **Figure 2** shows the zebra wood board I was given from which these three pens were mde.

Figure 2

The blanks on the left were cut straight grain. The middle set was cross cut and the set on the right was cross cut at a 45° angle. Notice the grain rings on the two cross cut sets. **See figure 3** for a picture of the 3 sets of blanks.

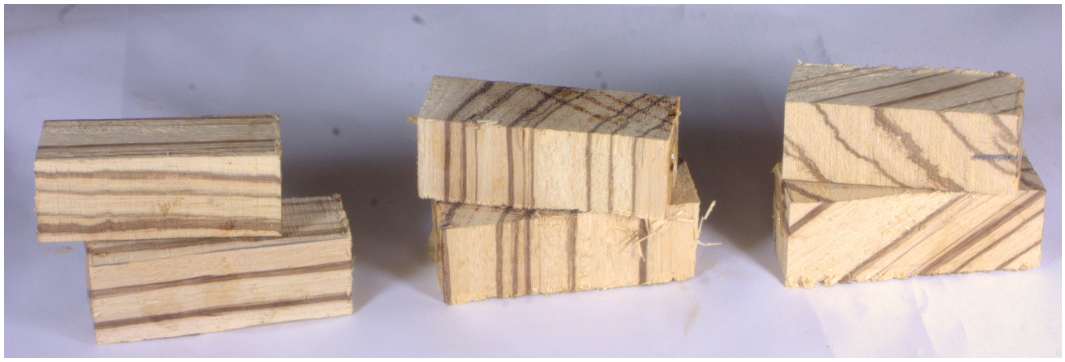

Figure 3

Also, for this pen style I don't use the center band. The lower blank is cut longer than for a standard slimline. I cut it longer by the length of the center band, about 3/16 to ¼ inch, to make up for the missing center band. Play with different lengths for the lower tube. The slimline will work fine with no center band but the pen will be shorter than normal. The longer the lower tube exceeds the length of the centerband, the further the transmission will have to be pressen into the lower barrel. Press a little and check for proper seating. Continue pressing and checking until the proper seating depth is achieved. Cutting the lower blank longer that normal presents a problem with the brass tube. One solution is to purchase tubes for the euro or designer pen and use the longer lower tube for this pen. Another solution, and the one I use, is to purchase 7mm tubes in 10 inch lengths anc cut my own tube for the lower blank. Several kit suppliers sell 10" tubes.

Once the blanks are cut, the tubes are glued into place and the ends are squared the pen is ready to be turned. I use the following dimensions for making these three modified slimlines. These dimensions can be modified somewhat. Use my dimensions or settle in one your own diameters. The diameter of the nib end of the lower barrel is the same as for a standard slimline. The other end of the lower barrel has a diameter of 4.35 inches. For the upper barrel, the clip end is turned to the diameter of a normal slimline and the other end has a diameter of 5.17 inches. Again, the centerband diamter of the upper barrel can be a little larger, but getting too large will distort the clip or make the clip non functional as clip. The blarger limit of the upper barrel diameter is somewhere close to 5.3 inches. This diameter may change from one manufacturer to another. Again, experiment with the slimline kits you use. The centerband end of the upper tube does need to be larger than the centerband end of the lower tube. Or, I should say that they need to be at least the same diameter. I have made this pen by placing the two blanks together and making the centers meet with the same diameter, but I prefer the upper barrel larger than the lower. Experiment!

The next tricky part is to add the blackwood or ebony centerband. Other woods can be used but these two have become my favorites. They look good with most any other wood...bacic black, you know. Actually, the centerband is not that difficult. I use a 2 or 3 inche blank drilled with a 7mm bit. Insert a brass tube and use a pen mill to square one end. When squared, cut a slice to be used for the centerband. **Figure 4** shows the 3 used on these pens. They are not all the same width. Again, experiment with different widths. I especially like the thin ones.

Figure 4

Turn, sand, and apply your finish to the lower barrel. Nothing special for the lower barrel. Set it aside. Be sure to keep them in some order. Two of them look a lot alike.

Turn the upper blank round. The center band end needs to be turned so the diameter is smaller than the diameter of your penmill. This is to get a good joint between the centerband slice and the upper barrel. If the centerband end of the lower barrel is larger than your pinmill diameter then the joint will not be acceptable.

The centerband end of the upper barrel needs to have some wood parted off to make room for the wooden centerband. Use a thin parting tool and part off about 1/8 inch off the centerband end of the upper barrel. Once again, this dimension is subject to personal taste. Part off a little more or a little less. Experiment and find the width the you like. Glue the centerband slice in the space left from parting off the end. Use your glue of choice and press the two pieces together until the glue has set. Square the new centerband end with a penmill. Be sure when parting off the end of the blank that the parted surface is perpendicular to the tube. This will insure that the interface between the centerband and the barrel itself is seamless. **See figure 5.** Complete turning the upper barrel. Sand and finish with your

finish of choice. Now, repeat this process for the other two pen tops. The pens are now ready to assemble.

Figure 5

Assemble the pen. Sounds easy, huh? It is, with one small hitch. Remember, the lower barrel is longer than normal ? Pressing in the transmission to its normal place will not work this time. The refill will not propell when the transmission is twisted. The transmission must be pressed in further than normal. I suggest to press it in a little, then test the refill to see if it will protrude when the transmission is twisted. If not, press the transmission in a little further then test the refill. Continue pressing and testing until the refill protrudes as it should. **Figure 6** shows all three pens I mde with this modification. The three pens in figure 6 are the pens made from the blanks shown in figure 3. Can you tell which pen in figure 6 goes with the blanks in figure 3? The top pen was made from the cross cut blank. The middle pen was made from the straight grain blanks and the bottom pen was made using the 45° cross cut blanks.

Figure 6

The straight grain pen was the easiest to turn. The cross cut blanks were a bit more of a challenge. The cross cut blank was more difficult to turn than the 45° cross cut one. Turning cross cut blanks is much the same as turning a bowl. The rotation is different but I was still turning endgrain, then side grain, the end grain again, then side grain. Then it started all over again. I tried using several tools: bowl gouges, scrapers, end grain tools such as the termite and the Hunter tools, spindle gouges, roughout gouges, and skews. The tool with which I had the best luck was my skew. I took light cuts and kept the skew sharp. Every tool I tried worked to some degree. But, my trusty skew worked best for me.

New tool alert: PSI has introduced a new tool that may be of interest. It is called the "Mandrel Saver". The mandrel saver is a live center with no point. Instead of a point, the mandrel saver has an insert through which the mandrel can be passes. The insert has a shoulder that mates against the bushing on the live center end. The live center is advanced against the pen blanks and bushings and tightens it all together just as the brass nut does. I've not tried the mandrel saver. Those who have either really like it or hate it. Comments about the mandrel saver can be found on the IAP website using this link to the thread: http://www.penturners.org/forum/showthread.php?t=59062 Also, one guy made his own and that thread can be found here: http://www.turnedoutright.com/ The mandrel saver can be found on the PSI website.

I hope to see some of the readers of this column at the Utah Woodturning Symposium. I will be doing a couple of demos but not sure exactly when or where. Look me up if you are attending.

Do a good turn daily!
Don