## **Pen Making Demonstration**

1.	There is a	a difference between pen turning and pen making -			2.		powl of water before just before
	we are go	ping to go over the difference which is 5 to 15				tubing to	create the bonding
	minutes p				_		activate the glue
		Pen turning is spindle turning		3.			tle and heat up when turning,
2.	2. Get a pro	Is it usable or a work of art cess/flow that works for you		4.	but still g	ooa. p filling C/	4
2. 3.		short to worry about flaws - time is too valuable		4.	1.		ou are in a hurry
0.	1.	if you make a mistake, start over. don't spend			2.		e an accelerator
		time trying to fix	11.	Inserting	tubes		
4.	Safety			1.			n any grit sandpaper
	1.	face shield or safety glasses		2.			nate materials - drill out just
	2.	dust collection while drilling, turning, sanding			before in	0	and the metavial frame
	3.	Dust mast 1. respirator for turning acrylics			1.		ents the material from og and preventing the tube from
	4.	Nitrile gloves for gluing and finishing				going in	ig and preventing the tube norm
5.	Kits					1.	tipsy turnings
	1.	Buy the best/quality kits you can afford.		3.	for acrylic	c blanks	
	2.	Go for metal vs. plated.			1.	make su	re the tube does not show
	3.	Sources				through	
		Stores     Penn State Industries			2.		tube or the inside of the blank the color of the blank
		3. Craft Supplies				1.	or paint it black to get contrast
		4. Exotic Blanks		0	Squaring		of paint it black to get contract
		5. Dayacom - really high end		0	oquanng	Diamo	
		6. There is a chart for kit comparability on		0			
_		www.penturners.org			1.	Pen Mill	
6.	Blanks	Dury the best blends you say offered				Felliviiii	
	1. 2.	Buy the best blanks you can afford Sometimes the best blanks are free					
	2. 3.	Match the blank to the finish on the kit.					
	4.	do not use green wood - dry it				1.	use except for laser blanks,
	5.	If you have a weak blank - stabilize it				2.	then use then sander be gentle
	6.	Sources				3.	using in the drill press or
		1. Exotic Blanks.				0.	cordless drill
		1. Brooks				4.	match the tube to the mill
		<ol> <li>Woodturningz</li> <li>Ebay</li> </ol>					<ol> <li>they make mills or</li> </ol>
		4.					sleeves for almost
7.	Put the tu	ube in the best spot in the blank.				F	every kit
	1.	Take your time and mark the best grain or pattern.				5.	Keep sharp, only sharpen the back with a diamond hone or
	2.	What is going to make this pen and blank look the					stone
		best.				6.	New one at Woodcraft made
0	3. Marking (	Grain match the blank					by Whiteside is very sharp
8.	1.	and Cutting Minimize the kerf so the grain or pattern lines up		6.	Disk sand	der with jig	3
	1.	between the sides		0			
	2.	make sure to use reference lines to match up the			1.		great care, can't put material
		sides			2.	back buy or m	ake
9.	Drilling			8.			of the blank before turning
	1.	Think of this as an important process.		0.	Sharmor		
	2.	Tools 1. Use a center punch so the drill bit won't	1	Tools			
		<ol> <li>Use a center punch so the drill bit won't skid</li> </ol>	1.	1 001S 1.	skin the r	oen toole	except maybe the skew
		2. Drill Press with pen vise		1.	зкір іпе <sub>р</sub> 1.		
		3. PSI pen blank drilling chuck			2.	vibrate	1
	3.	Dril from the kerf cut side so the interface always		2.	roughing		
		meets up		3.		0	dius square R2/R4
	4.	If you watch videos, people drill fast. Don't			1.	0	e straight square is
	5.	Drill slow. If you drill fast you will polish the inside of the hole and get a bad glue surface			0		essive and will destroy blanks
	6.	This is a quality part of the product.			2.	Sources 1.	Easy Woodtools
10.	Gluing	the is a quality part of the product				2.	Woodchuck tools - Pen Pro
-	1.	Seal ends before gluing				3.	Captain Eddie
		1. potato		4.	skew		
		2. apple		5.	bowl gou	-	
	~	3. wax	~	6.	Dennis to	ool	
	2.	If you have time, poly glue is better.	2.	Mounting	on Lathe		

- If you have time, poly glue is better.
   because it expands and creates a shock absorber, especially in wood

1. use a pen mandrel 1. if you use a pen mandrel, use a mandrel saver

## **Pen Making Demonstration**

- 2. This will prevent the mandrel from
- bending 3.
  - Sources 1.

2.

- Penn State Industries www.penmandrel.com (best)
  - threads on to 1.
    - headstock
    - 2 precision made
- replace the mandrel shaft often, they are 4. inexpensive
  - 1. keep an extra on hand
- 2. do not try to straighten
- 2. turn between centers
  - put bushings between two 60 degree 1. centers
- Turning 3.
  - 1. Always use the same process
  - 2. Turn fast, sand slow
  - 3. Pen needs to have same curve as parts
  - 4 Bushings are not for precision work
    - They are to get you close to the right 1. size
    - 2. subject to manufacturing tolerances
    - 3. so is the kit you are using
    - will get bigger and small as you use 4. them
      - Sanding/finish 1.
    - Use calipers they are a transfer mechanism
  - know if your bushings are bigger/smaller than your 6
  - kit and by how much
    - replace when they are not longer good 1. for estimating size
    - 2. Better bushings are available
  - under-size the blank to the final diameter 7.
    - allow for sanding/finish 1.
  - 8. Trick - See #17, parts 1 & 2 below
- Sanding 4

5.

- buy sandpaper as a high quality product 1.
  - Abranet 1.
  - 2. Mirka
  - 3. Vinces
  - 4. Festool padded
  - 5. Klingspor
  - This is where the \$\$\$ is made
- 2. pay attention when you are sanding 3.
- 4. sand as slow as possible
- sand through all grits 5.
- 6. Micromesh on acrylics (wet)
- Sand with the lathe turning 7.
- 8. follow up and hand sand the length of the pen
  - start and stop at the same place
    - 1. make a mark on the madrel or bushing
    - 2. use a unique spot on the blank
- 10. clean up the sanding between grits using a piece of paper towel and only use it one time
- Finishes 5.

9

1. Wood and alternate materials

3.

- 1. use a finish that is durable 2.
  - clean up blank before you start
    - 1. denatured alcohol
    - 2. mineral spirits
    - get the oil out of an oily exotic 3. wood blank
  - CA thin only
    - medium sometimes 1.
    - many methods 2.
      - CA/BLO with paper 1. towel
      - 2. CA only on paper towel

- some people use 3. foam applicator or platic baggy
- 4. pick the one that works for your material
- 5. There are a few new CA pen finishing kits out there
- 3. When finishing Antler, sand with CA glue to seal
- lacquer 4.

5.

1.

- spray on or off lathe 1
- 2. dries quick
- Other Finishes
  - 1. Friction polish - shellac and
    - wax this will patina over time
  - 2. Poly - spray on
  - 3. lacquer dipping
  - Penn State has a lacquer 4.
    - based friction polish system
- 2. Acrylic
  - Micromesh (wet)
  - Plastic polish 2.
  - 3. remember to clean up with a new paper towel between coats
  - 4 **Renaissance Wax**
  - apply and buff out with lathe on 5.
- 6. Assembly

7.

8.

9.

Presentation

1.

2.

1.

2.

Kit-less pens

1.

Other tips

velvet sleeve

on this size piece

pen box

2 types

2.

- under-size pen slightly at the edge with calipers 1.
  - Then hand turn to final diameter with a pen mill this is all this pen mill head should be 1.
    - used for 2. should only take off a small thread of material
    - 3. keep checking with calipers for final diameter
- 3. Finish the edge (optional)
  - Rub the bevel of the blank on the lathe 1. bed at 40 degrees to break the hard corners
  - 2. alternate is to sand with a very high grit
  - 3. Sanding mill from Rick Herrell on IAP
- website 4. Use a pen press, vise or lathe vise to press
  - together
    - 1. make sure not to damage the
      - components use a covering material on the press or vise
    - 2. do not over press and crack the blank
- Throw out the refill that comes with it and replace 5. it with a quality refill
  - Private Reserve ink and refills, Parker, 1. Schmidt, Montaverde
  - 2. This way the person can find the refill at their office supply store
  - 3. It will write better, especially at a show for selling

if you make a pattern or segmented blank it must

if you are going for perfect and it is not, it will show

be absolutely perfect or completely random.

Refill sources below 4.

## **Pen Making Demonstration**

- turned and threaded. 1. 2.
  - turned with a bic or other insert. Looks
- like the old feather pen.
- There is a good article on Kurt Hertzog's website
- 2. 10. Fixing Mistakes
  - pen disassembly kit 1.
    - buy the punch set from Harbor Freight 2.
    - **PSI** Gripper 3.
    - carefully take apart 4.
  - 5. may need to use spare parts
- 11. Casting/Making your own blanks
- 12. Sources
  - 1. Sandpaper

## Ì. www.Vinceswoodnwonders.com

- 2. www.klingspor.com
- 2. blanks
  - 1. www.exoticblanks.com
  - 2. www.turntex.com
  - 3. www.penturners.org
  - 4. check classified section
  - 5. ebay
  - 6. www.woodheadz.com
  - 7. swamplandtackle.com
  - 8. www.indy-pen-dance.com
  - 9. www.penblanks.ca/home.php?cat=16 0

  - 10. www.yafaoutlet.com
  - 11. monteverdepens.com
  - 12. www.lazerlinez.com Mutt-Blanks on IAP
  - 13.
  - 14. www.knbpenblanks.com
  - 15. www.woodenwonderstx.com 16. Victor
- 3. pen parts
  - Rio Grande for silver 1.
  - 2. www.silverpenparts.com
- refills 4.
  - 1. www.exoticblanks.com
  - www.levenger.com 2.
- 5. Multiple Items
  - www.classicnib.com 1.
  - 2. www.pennstateind.com
  - 3. www.beartoothwoods.com
  - 4. www.arizonasilhouette.com
  - 5. www.bereahardwoods.com
  - 6. www.woodpenpro.com
  - 7. www.penturnersproducts.com
  - www.smittyspenworks.com 8.
  - www.pendisplaykits.com 9.
- 6. Tools
  - www.woodchuck-tools.com 1.
  - 2. www.penmandrel.com
  - 3. www.eddiecastelin.com
  - Rick Herrell on IAP website 4.
- 7. Videos
  - Penturning with Rex and Kip 2 videos 1. and related Book
  - Barry Gross videos 2.
  - 3. Captain Eddie on Youtube
  - **Russ Fairfield**
  - 4.
- 8. Websites
  - www.penturners.org (IAP) 1.
  - 2. www.penmakersguild.com
  - 3. www.kurthertzog.com
- 4. 9 Books
  - Pen Turners Bible Richard Kleinhenz 1.
  - 2. Pen Turners Workbook - Barry Gross
  - (Fox Chapel Publishing)
  - 3. Turning Pens - Mike Cripps