

Beale Buffing Demonstration

Demonstrated by Damon for the INW Woodturners Association

1 - Introduction

2. About the demonstration

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- b. Types of wheel set ups
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A. What is the buffing system -

Buffing is a two or three part method of getting silky smooth finish on your piece of wood. It consists of buffing wheels, aka mops, compounds and a moderate speed. Buffing can give you a satin, semi gloss or high gloss finish. Can be used with a variety of finishes.

B. Wheels types and sizes

- mandrel with three wheels, pros and cons
- individual 8" wheels pros
- bowl buffs, 4" wheels for smaller pieces
- spindle extension, gets piece away from headstock
- what the wheels are made of (linen, linen/cotton, cotton)
- Recommend three separate 8" wheels with a spindle extension to start with

C. Types of compounds

- Tripoli for coarser buffing, removes fine scratches, used on linen wheel
- White Diamond - polishing, used on linen/cotton wheel, most commonly one I use
- Bees wax - finish, used on cotton wheel
 - I never use wax because its a short lived finish
 - easy to smudge, hard to fix, leaves finger print
 - I use the cotton wheel bare for final clean up, may use rennissance wax and hand buff

D. Safety Considerations

- Respirator, there is a lot of fine compound powder and linen dust in the air
- Faceshield - keeps compound and fabric dust out of your eyes, protects from pieces that get away
- Static shock - builds up quite fast, I use a grounding strap on my wrist when buffing
- Place covering over bed to cushion piece if it gets away, to keep compound dust off bed

E. Types of finishes

- penetrating oils - includes danish oil, tung oil, penetrating varnishes.
 - retains the feel of the wood,
 - can be buffed to satin, semi gloss or high gloss
 - because the oil is in the wood you can't burn through the finish
 - very forgiving finish, can be used in a variety of temperatures
- layered finishes - includes lacquer, polyurethane and varnish
 - does not retain feel of wood, give plastic look
 - usually is buffed to a high gloss finish
 - Wet sanding and buffing can help to eliminate the 'orange peel' on layered finishes
 - can risk burning through the finish if not careful
 - these finishes must be used in set temperature ranges
- Bare wood
 - no waiting time required
 - wood can usually be buffed to a semi gloss
 - careful on porous wood like oak where compounds can become imbedded
 - very forgiving.
- Other considerations
 - no matter the type of finish be careful around pores or other inclusions as compounds can become imbedded and almost impossible to get out. Includes bark.

F. Curing time

- Ensuring that the applied finish is cured is critical. While it may feel dry to the touch that does not mean the finish below has fully cured. If the finish is not cured you can smudge the we finish and then you will have to start over, and replace the buffing wheel
- penetrating oils - let cure 10 days minimum, ideally 14 days from last application
- walnut oil - let cure a minimum of 30 days, ideally 45 days before buffing
- layered finishes - 10 days minimum, 14 or longer (depending on number of coats) is better
- bare wood - no waiting time
- mineral oil - never buff as it does not cure dry

G. Setting Up

- use coarse sand paper on wood to get loose strands out of wheel
- use the same or the edge of a board to condition wheel between uses (removes dried compound)

H. Wood presentation & Technique

- lower half of wood
- caution against edges, top half of wood
- caution with voids
- keep moving piece at all times, do not hold piece steady
- make mental reference on piece of start/finish point
- light application to the buffing wheel, no heavy pressure is needed, will build up heat and burn/smudge
- look for excessive residue buildup and buff it away before moving onto the next wheel

J. Mistakes to avoid

- don't stay in one place too long
- stay focused and know where your piece is against the wheel
- don't get impatient, let the finish cure a proper amount of time. Waiting two weeks is much easier than having to remove the finish and start over, or potentially losing the piece altogether.

- do not use your wheels on metal as the wheels will turn black and transfer to your next piece of wood. Use separate dedicated wheels for metal items
- remember that not every item may be appropriate for buffing either due to size, inclusions, wood type or other

K. Summary and Questions