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Calendar of Events

February 19	Board Meeting	Little Italy	8:15 AM	All members welcome
March 1	General Meeting	Yacht Club	7:00 PM	
March 26	Board Meeting	Little Italy	8:15 AM	All members welcome

Board Meeting Highlights

The board met on January 22 and the following is a summary of the meeting.

The new position of Wood Operations Manager will be established to oversee of all aspects of log procurement, kiln operation and wood sales with a three-year term.

The club will no longer accept monetary donations with contingency of "pass-thru" to other organizations.

March general meeting program will be exotic wood jewelry making and shopping cart price comparisons in April.

Club picnic will be on September 21 at Tugaloo Beach Pavilion.

Our Place recognition dinner is on March 5; Bob Brown, Dick Hoffmann, Lloyd Donnelly and their spouses will be representing the club.

Carl Hagen would like to hand over the reins of the newsletter to another club member.

General Meeting

The evenings program was the “Battle of the Finishes”. Ten members of the club received 6 different wood types to evaluate different wood finishes. The 6 wood types were cherry, walnut, white oak, red oak, poplar and plywood. The following are the members and the finishes they evaluated:

Shellac: Jim Kurowski

French Polish: Ron Comtois

Epoxy: Vince Evans

Mineral Oil: Bob Fagerlin

Boiled Linseed Oil: Ben LaPointe

Crystallac: Stu McFadden

Polyurethane: Bill Buelow

Lacquer: Dave Breen

Tung Oil: Carl Hagen

Danish Oil: Tom Feil

Dave Brunson, Jack Ernst, Bill Nance, Lloyd Donnelly, Dick Hoffman donated the wood for this program.

Jim Kurowski provided a powerpoint primer on shellac, where it comes from and how to use it. His presentation can be found at the end of this newsletter.

Dues need to be paid by April. Those not renewing their membership will be stricken for the roles

Tony Grenis reminded us that there are two types of epoxy: table top and casting. It is important to use the correct type for the job. Table top is best for flat surface coating with less than ¼ inch depth. Casting epoxy is less viscous and can be used to fill in defects up to 2 inches deep but takes 2–3 days to fully cure. Contact Tony if you have any questions.



Some Finish Samples on Display

One of the more unusual finishes we saw was French Polish presented by Ron Comtois. French Polish can provide a very glossy surface with deep color and depth.

It requires many coats but time between coats is very short. The finish is soft and not very resistant to water or alcohol but can be repaired easily. Some more perspective on French Polish later in the newsletter.

We also were introduced to a on-line tool to assist in the selection of an appropriate finish based on whether its for interior or exterior use, the type of effect you are trying to achieve and the degree of protection you want to finish to impart.

The YouTube video explaining the tool can be seen at this link:

[Wood Finish Finder Tool Video](#)

If you want to just go directly to the tool, follow this link:

[Wood Finish Finder Tool](#)

Show and Tell



Walnut Stump Bowl – John Theobald



*Beads of Courage Jars – Chuck Kulka
Elm and White Oak*

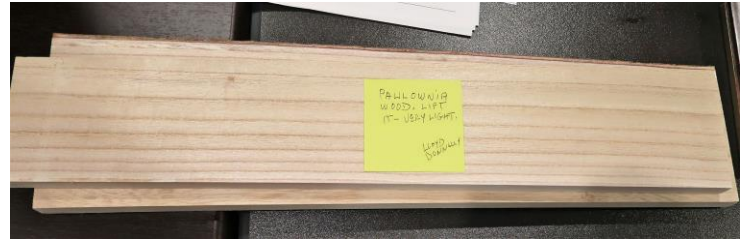


*Intarsia of Horses – Randy Brabant
Walnut, aspen, cedar, ebony*



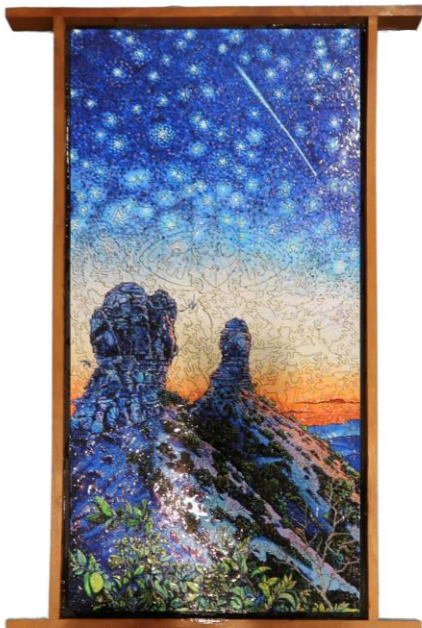
*Amish Butter Mold – Ron Comtois
Mahogany body, cherry handle
Friction wax w/ mineral oil and beeswax*

Did You Know?



Lloyd Donnelly brought in some samples of paulownia wood to our meeting. It is extremely light weight - it has an air-dried density of between 0.25 and 0.3 grams/cm³. Its density is only second to balsa wood at 0.11. Despite being light, it has the highest strength to weight ratio of any wood in the world. It is rot and warp-resistant and has been used for duck decoys and musical instruments such as dulcimers and guitars.

It is a very sustainable tree with a short growth-to-harvest cycle and regenerates from the stump rather than requiring replanting. It does have some stricter growth requirements, well-drained soils and adequate summer rainfall. But it has a deep root system, which allows it to withstand winds and grow on highly-sloped terrain.



*Puzzle – Chris Campbell
Framed and mounted with epoxy*



Cross section of over 40-year old oak tree and 5-year old paulownia

New Club Tools



Pin Nailer with 1 3/8-inch pin capacity
contact Bob Brown

level because the alcohol will evaporate. Before the next use top off the alcohol - critical you maintain the 1/3 ratio. I use a new cotton cloth with every application as shown below.



Some photos of Ron's projects finished with French Polish.



8 Inch Dado Set – contact Don Schmid



French Polish

The formula for French Polish from Ron Comtois:

- 1/3 Boiled Linseed Oil
- 1/3 Bullseye Shellac
- 1/3 Denatured Alcohol (high purity)

Mix in equal amounts. Never make more than 9 oz at a time. You have to shake or stir before every application. It separates quickly. At the end of each use mark the



Hindu Mandir built and finished by Ron

2021 In Review

The following is a summary of our club's activities, growth, and finances for the past year.

Community Service

No Data Submitted

Financials (YE2021)

Club Operations	\$ 534.64
General Reserve Func	\$6259.19
Kiln Reserve Fund	\$8745.37
Wood Operations (Net	\$415.67
T4T Holding Fund	\$0.00
Miscellaneous Charity	\$1329.20
Fund	
Ending Balance	\$17287.07

Wood Sales

Kiln Sales	5 sales	4323 BDFT
Non-kiln Sales	2 sales	1183 BDFT
Total	7 sales	5506 BDFT

Membership

End of 2020: 217
End of 2021: 225
Dues: \$20

Programs

January: No meeting: Covid
February: Dick Hoffman: Inlays (via Zoom)
March: Show and Tell
April: Tool Swap
May: Jigs
June: Spring Challenge - employ a new technique
July: Dennis Stanczuk - tapering jig: Glenn Neif - wood hinges
August: CrystaLac finishes
September: Club-owned tools (part 1)
October: John Jason - cutting logs on bandsaw
Field Trip to West Penn Hardwoods (Dennis Stanczuk)
November: T4T presentation
December: Club-owned tools (part 2)

Mentoring Program

<u>Skill Set</u>	<u>Mentors</u>	<u>Mentees</u>
Cabinet Construction	3	4
Carving	1	2
Convex Curve Cutter	1	5
Keepsake Boxes	1	4
Scroll Saw Basics	1	2
Segmented Turning	1	6
Sharpening of Tools	1	7
Sketchup Training	1	8
Tool Maintenance	1	2
Veneering	1	3
Woodturning	1	6
Total	14	56

Toys for Tots

52 Toymakers	
Woodworker Contribution (toys & wood products)	306
Fantasy of Trees	134
Loudon County Sheriff	172
Loudon Country Sheriff (Cash donation)	\$500
TV Resident Unwrapped Toys	407
Helping Hands Ministry	120
Good Samaritans Lenoir City	252
Loudon County Sheriff	35

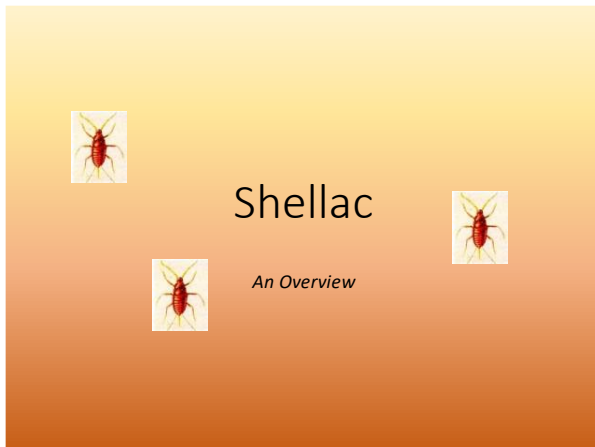
Tool Committee

New Tool Purchases
HPLV spray gun
Bandsaw blade tension meter
Pin Nailer
Dado Set

Tool Sales

Five Sales
Hinze 2/5
Peterson 3/26
Marotta 6/25
Lethen 8/27
Hageman 9/24

Jim Kurowski Shellac Presentation



What is Shellac?

- It is the secretion of the Lac beetle *Kerria lacca*, primarily found in the Assam region of India, and Thailand
- It is one of the oldest wood finishes, brought from Asia by Marco Polo, and was in common use in Europe by the 17th century
- Its first mention in US books appeared in 1827
- Is offered as dry flakes or buttons, but is more commonly found premixed in a can
- Naturally occurs in a gamut of colors from pale yellow to deep garnet, largely determined by the sap of the tree the beetle fed upon
- Can also be bleached for a nearly clear finish

How is Shellac made?

- Historically, and in the higher end shellacs of today, it is made by hand
- First, the shellac is scraped from the bark of trees, which contains some bark, insect parts, and other impurities
- Next, the so called sticklac is placed in long canvas tubes, like socks, and heated, where the shellac liquifies and seeps out.
- It is then hand stretched, like pizza dough, and dried to form thin sheets. These, in turn, are broken to form flakes. Some is reheated, which polymerizes the shellac to form a more scuff and abrasion resistant finish, and is sold as buttons. Other material is further processed to lighten the color
- Finally, it is diluted in very pure ethyl alcohol to form liquid shellac



About Shellac

- All natural– FDA approved for food, and kid safe
- Gloss finish– rub out for less sheen
- Naturally has some wax (35%), and is available dewaxed (<0.2%)
 - use dewaxed for a seal coat under a dissimilar finish
 - use waxed if shellac is going to be the final finish
- Shellac wax is 2nd hardest wax after Carnauba wax
- Shelf life of flakes is 3 or more years, but solution is 6 months in ideal conditions (Zinsser claims up to 3 years, but test first!)
- Keep both flakes and solutions in a dark and cool place
- Super fast dry time– typically minutes, but wait a few days before rub out

About Shellac (cont'd)

- Non yellowing/non darkening
- UV and water resistant resistant
- Sticks to glossy surfaces and finishes
- Easy to touch up—a new coat “melts” into an existing coat
- Can be applied by brush, pad, or sprayer
- It is used in different viscosities, measured in “cuts”. A one pound cut is one pound of flakes dissolved one gallon of very pure (95% pure) ethyl alcohol. A good starting point for finishes is a 2# cut. For a wash coat on “splotchy” woods, like cherry or pine, before dyeing or staining, experiment with a one pound, or half pound cut. For nasty knots, try a 3 or 4 pound cut.

Shellac Uses

- Everything! (not really)
- Sanding sealer, splotch prevention, final finish on wood, stain blocker, odor blocker, knot sealer, ingredient for French Polishing, holding diamond gem stones when grinding facets, pharmaceutical and candy coatings, sealing transformer and motor windings, as a fabric dye, in the toes of ballet slippers, and in musical instrument manufacture and repair, to name just a few
- Ironically, shellac fell out of favor as efforts to synthesize it produced better resins for many of its uses, including nitrocellulose lacquer, and the first of the oil based polyurethanes for wood finishing

About shellac (cont'd some more)

- Most premixed shellacs are a three pound cut (Zinsser)
- Zinsser batch numbers are the encoded manufacturing date
 - The batch code should always be a 6 or 7 digit number, beginning with a letter. For example: S01231D
 - The first number after the letter will be the last digit in the year of manufacture
 - The second character will correspond to the month; O, N or D for October, November or December, otherwise the single number for the month.
 - The third and fourth numbers will relate to the actual day of the month.
 - For example, a batch code reading S01231D will have been made in the year 2020, in the month of January, on the 23rd day.

Tips

- 95% pure alcohol, or specially formulated shellac solvents, like Bekhol, are expensive and hard to find. Use 190 proof grain alcohol from your corner liquor store instead. If in doubt about a solvent, read the MSDS. Do not rely on the info on the can!
- Use plumber's Teflon tape to wrap the threads of your shellac jar... You then have a fighting chance of reopening it
- DIY shellac requires straining after the flakes are dissolved. Use a paint strainer, followed by an old tee shirt
- To test if shellac is “too old”, put a couple of drops on a piece of glass. If the shellac is not rock hard in 15 minutes, it is gone.
- BUT WAIT! Don't throw it out! Use it to make tack cloths.

About shellac (finally, the end)

- Diluting shellac – The ratio of the existing cut of shellac, and the amount of alcohol to add, do not follow a general ratio formula, since you are working with the weight of one substance, shellac, in a volume of another, alcohol (apples and oranges)
- This article has a table for diluting one cut of shellac to another.
<https://www.finewoodworking.com/project-guides/finishing/mixing-shellac>

Wood Sample Preparation

- Machine sanded with 100, 120, 150, and 180 grit in sequence
- Hand sanded with 220 grit, then the grain was raised with distilled water
- Nibs were knocked off with 220 grit sandpaper
- 2 coats of a 2# cut were padded on, then scuff sanded with 320 grit steared sandpaper (zinc stearate is a lubricant)
- Repeated twice more for six coats total, but the final coat was smoothed with 0000 steel wool lubricated with mineral sprits