

Hamilton Woodturners Club

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Terry Scott  WOODTURNING 
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MICHAEL DOYLE turned this really snazzy lidded pot from a choice block of Tasmanian blackwood. Superb smooth finish.

TUTOR'S COMMENT

SANDING SEALER: Many thanks to **EDDIE Pettley** one of our TT readers who has provided some more information about sanding sealer.

EDDIE gets his supplies from Versatile Products Unit 1/67 Duke Street 07 846 6612.

To create a large supply for the Guild members Eddie mixes four litres each of Mirrortone Sealer and GP thinners....puts this mix into small bottles and sells them for \$10.00 each.

All customers so far are happy with special sanding sealer recipe.

Thanks EDDIE, The Hamilton Wood Turners Club appreciates your support with this matter.

CHIEFS Footy: *A tired- looking team that played so poorly last Saturday evening that they were lucky to get nil.*



JOHN BAKER with his small handled basket which has been rim-threaded with coloured strip leather. A perfect steam-bending job for the handle is a special achievement.



BILL discovered a big beam of Kauri wood in a recycling centre that someone had ditched. Our Bill turned some of this rare find into a high-quality lidded pot. This is an excellent effort for a club member taking part in his first wood turning course. Goodonya Bill.

SUPER SPECIAL WORK



DENIS had a shot at off-centre turning. Australian hardwood was a great choice of wood for the job as its solidity allowed for sharp edging to accentuate the odd shaped stem. A top job! A standard-sized brass candle holder has been added to the top. Methinks a wider base platform would increase the safety factor.



GARY has been on home duties for a while now but he hasn't been workshop idle.

Here's his latest creations with a revisit to making spherical shapes. He reckons it's easy once you get the hang of it.



RICHARD shows us another idea to apply to woodturning projects. No, it's not a ceramic pot with a wooden lid. The pot has been painted with a non-firing glazea product called Duncan's Granite Stone.

A highly effective enhancement.



Some of the Thursday night session celebrate the successes of another 10-week course.

Left to right: COLIN; STEPHEN; DAVID; MURRAY; GRAEME; SIMON; TONY; TREV

Next courses start next week.

Shellac (information about product)



Some of the many different colors of shellac

Shellac in alcohol

Shellac is a resin secreted by the female lac bug on trees in the forests of India and Thailand. It is processed and sold as dry flakes and dissolved in alcohol to make liquid shellac, which is used as a brush-on colorant, food glaze and wood finish.

Shellac functions as a tough natural primer, sanding sealant, tannin-blocker, odour-blocker, stain, and high-gloss varnish. Shellac was once used in electrical applications as it possesses good insulation qualities and it seals out moisture. Phonograph and 78 rpm gramophone records were made of it until they were replaced by vinyl long-playing records from 1948 onwards.

From the time it replaced oil and wax finishes in the 19th century, shellac was one of the dominant wood finishes in the western world until it was largely replaced by nitrocellulose lacquer in the 1920s and 1930s.

Shellac is scraped from the bark of the trees where the female lac bug, secretes it to form a tunnel-like tube as it traverses the branches of the tree. Though these tunnels are sometimes referred to as "cocoons", they are not cocoons in the entomological sense. This insect is in the same superfamily as the insect from which cochineal is obtained. The insects suck the sap of the tree and excrete "sticklac" almost constantly. The least-coloured shellac is produced when the insects feed on the kusum tree

The number of lac bugs required to produce 1 kilogram (2.2 lb) of shellac has variously been estimated as 50,000,^[5] 200,000,^[6] or 300,000

The raw shellac, which contains bark shavings and lac bugs removed during scraping, is placed in canvas tubes (much like long socks) and heated over a fire. This causes the shellac to liquefy, and it seeps out of the canvas, leaving the bark and bugs behind. The thick, sticky shellac is then dried into a flat sheet and broken into flakes, or dried into "buttons" (pucks/cakes), then bagged and sold. The end-user then crushes it into a fine powder and mixes it with ethyl alcohol before use, to dissolve the flakes and make liquid shellac.

Liquid shellac has a limited shelf life (about 1 year), so is sold in dry form for dissolution before use. Liquid shellac sold in hardware stores is often marked with the production (mixing) date, so the consumer can know whether the shellac inside is still good.

Shellac naturally dries to a high-gloss sheen.

Colours and availability

Shellac comes in many warm colours, ranging from a very light blonde ("platina") to a very dark brown ("garnet"), with many varieties of brown, yellow, orange and red in between. The colour is influenced by the sap of the tree the lac bug is living on and by the time of harvest. Historically, the most commonly sold shellac is called "orange shellac", and was used extensively as a combination stain and protectant for wood panelling and cabinetry in the 20th century.

Shellac was once very common anywhere paints or varnishes were sold (such as hardware stores). However, cheaper and more abrasion- and chemical-resistant finishes, such as polyurethane, have almost completely replaced it in decorative residential wood finishing such as hardwood floors, wooden wainscoting plank panelling, and kitchen cabinets. These alternative products, however, must be applied over a stain if the user wants the wood to be coloured; clear or blonde shellac may be applied over a stain without affecting the colour of the finished piece, as a protective topcoat. "Wax over shellac" (an application of buffed-on paste wax over several coats of shellac) is often regarded as a beautiful, if fragile, finish for hardwood floors. Luthiers still use shellac to French polish fine acoustic stringed instruments, but it has been replaced by synthetic plastic lacquers and varnishes in many workshops, especially high-volume production environments.

Shellac dissolved in alcohol, typically more dilute than French-Polish, is now commonly sold as "sanding sealer" by several companies. It is used to

seal wooden surfaces, often as preparation for a final more durable finish; it reduces the amount of final coating required by reducing its absorption into the wood.

Historical

In the early- and mid-twentieth century, orange shellac was used as a one-product finish (combination stain and varnish-like topcoat) on decorative wood panelling used on walls and ceilings in homes, particularly in the US. In the American South, use of knotty pine plank panelling covered with orange shellac was once as common in new construction as drywall is today. It was also often used on kitchen cabinets and hardwood floors, prior to the advent of polyurethane

Until the advent of vinyl, most gramophone records were pressed from shellac compounds.^{[20][21]} From 1921 to 1928, 18,000 tons of shellac were used to create 260 million records for Europe.^[9] In the 1930s, it was estimated that half of all shellac was used for gramophone records.^[22] Use of shellac for records was common until the 1950s and continued into the 1970s in some non-Western countries.

Until recent advances in technology, shellac (French polish) was the only glue used in the making of ballet dancers' pointe shoes, to stiffen the box (toe area) to support the dancer en pointe. Many manufacturers of pointe shoes still use the traditional techniques, and many dancers use shellac to revive a softening pair of shoes.

Shellac was historically used as a protective coating on paintings.

Sheets of Braille were coated with shellac to help protect them from wear due to being read by hand.

Shellac was used from the mid-nineteenth century to produce small moulded goods such as picture frames, boxes, toilet articles, jewelry, inkwells and even dentures. Advances in plastics have rendered shellac obsolete as a moulding compound.

Shellac (both orange and white varieties) was used both in the field and laboratory to glue and stabilise dinosaur bones until about the mid-1960s. While effective at the time, the long-term negative effects of shellac (being organic in nature) on dinosaur bones and other fossils is debated, and shellac is very rarely used by professional conservators and fossil preparators today.

Shellac was used for fixing inductor, motor, generator and transformer windings. It was applied directly to single-layer windings in an alcohol solution. For multi-layer windings, the whole coil was submerged in shellac solution, then drained and placed in a warm place to allow the alcohol to evaporate. The shellac locked the wire turns in place, provided extra insulation, prevented movement and vibration and reduced buzz and hum. In motors and generators it also helps transfer force generated by magnetic attraction and repulsion from the windings to the rotor or armature. In more recent times, shellac has been replaced in these applications by synthetic resins such as polyester resin. Some applications use shellac mixed with other natural or synthetic resins, such as pine resin or phenol-formaldehyde resin, of which Bakelite is the best known, for electrical use. Mixed with other resins, barium sulfate, calcium carbonate, zinc sulfide, aluminium oxide and/or cuprous carbonate (malachite), shellac forms a component of heat-cured capping cement used to fasten the caps or bases to the bulbs of electric lamps.

Current uses

It is the central element of the traditional "French polish" method of finishing furniture, fine string instruments, and pianos.

Shellac, edible, is used as a glazing agent on pills (see excipient) and sweets, in the form of pharmaceutical glaze (or, "confectioner's glaze"). Because of its acidic properties (resisting stomach acids), shellac-coated pills may be used for a timed enteric or colonic release.^[24] Shellac is used as a 'wax' coating on citrus fruit to prolong its shelf/storage life. It is also used to replace the natural wax of the apple, which is removed during the cleaning process.^[25] When used for this purpose, it has the food additive E number E904.

Shellac is an odour and stain blocker and so is often used as the base of "solves all problems" primers. Although its durability against abrasives and many common solvents is not very good, shellac provides an excellent barrier against water vapour penetration. Shellac-based primers are an effective sealant to control odours associated with fire damage.^[citation needed]

Shellac has traditionally been used as a dye for cotton and, especially, silk cloth in Thailand, particularly in the north-eastern region.^[26] It yields a range of warm colours from pale yellow through to dark orange-reds and dark ochre.^[27] Naturally dyed silk cloth, including that using shellac, is widely available in the rural northeast.

Wood finish: Wood finishing is one of the most traditional and still popular uses of shellac mixed with solvents or alcohol. This dissolved shellac liquid, applied to a piece of wood, is an evaporative finish: the alcohol of the shellac mixture evaporates, leaving behind a protective film.^[28]

Shellac as wood finish is natural and non-toxic in its pure form. A finish made of shellac is UV-resistant. For water-resistance and durability, it does not keep up with synthetic finishing products.

Because it is compatible with most other finishes, shellac is also used as a barrier or primer coat on wood to prevent the bleeding of resin or pigments into the final finish, or to prevent wood stain from blotching.



The WEDNESDAY team celebrated the closure of a 10-week course too.

Clockwise starting with the arrowed person: ALEX; CLIVE; EBBIE; RIC; MELISSA; LYNDALE; MITCHELL; LEIGH; (Jim, a visitor); DON; MALCOLM

New 10-week courses start next week.



These are “buds” shed each year by deer stags . Their antlers are removed in the “velvet” stage and the buds are left behind but eventually they drop off and are gathered by keen lathe turners. Buds somewhat resemble ivory with a similar colour, hardness and able to be turned on a lathe.

You might need to sharpen your gouges more often but they do turn out mighty fine project work.

Here’s a few stag “buds “ that have been transformed into very clever projects by COLIN MCKENZIE.

“Buds” will be on sale next week @3 for \$10.00



Well, that’s the lot for this week’s TT.

I’ll give the CHIEFS just one more chance to redeem themselves in tomorrow’s game in Hamilton.

GO THE CHIEFS

Cheers CLIVE