

# WOODTURNING FUNDAMENTALS

American Association of Woodturners  
November 2019 • Vol 8 No 4

*Getting started  
with color*



**22 Holiday ornaments to make!**

**November 2019 Vol. 8 No. 4**

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AAW teachers share holiday projects

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*Cover: John Lucas applies marker color to solid-wood chain-finial ornament, page 6 and 45.*

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# AAW teachers share projects for holidays

We're delighted to deliver this project-filled issue of *Woodturning FUNDamentals*. All of the holiday projects in this issue came from the AAW's Demonstrator Direct service. Back in August, we emailed a select group of these fine folks to ask for holiday projects they use while demonstrating and teaching. As you'll see, we received a Santa sack full of great ideas.

As usual while assembling each issue of *FUNDamentals*, I tried a few of the projects

myself. I particularly enjoyed Carol Hall's easy approach to color, page **45**, and Larry Hasiak's no-hollowing approach to making a hollow ball-and-finial, page **9**. Larry's method makes the whole thing from one billet, maybe simpler and quicker than separately turning finials to glue on.



The photo shows my own efforts, turned from local black cherry. They're hollow and light enough, but my finials, so clumsy alongside the beauties on pages **5**, **15** and **48**. No biggie though; I'll get better at it, and the finials perhaps a bit more graceful, after a dozen repetitions for my gift list. Almost Thanksgiving, gotta get started!

## About that baton...

Well my whole career has been a bit like turning multiples. I've been writing, editing, and publishing magazines and books about woodworking and turning, ever since 1975. Coming up on 45 years, egad. Create and gather the material for each edition, get it all cleaned up nice and out the door on time, whew. Then do it again. And again. Each time around, try to write more clearly, take sharper photos, manage more details, deliver more value to readers. That's the routine we taught ourselves at *Fine Woodworking* magazine 45 years ago, and that's been my two years as editor of *Woodturning FUNDamentals*. Eight hefty issues, almost 400 pages.

It's been a huge pleasure for me to come out of retirement to manage AAW's digital quarterly. It's given me new opportunities to meet so many skilled turners and devoted teachers. And here's my secret sauce: while I work with them to shepherd their ideas and information into print, I also soak it up for myself, to use in my own workshop. Big fun!

But all good things do end. After this issue I'm returning to joyful retirement and my own workshop. I'm deeply grateful to Josh Friend, editor of *American Woodworker*, Phil McDonald and the AAW office staff, and all of the board members I've worked with.

Don McIvor, woodturner-editor from Twisp, WA, [editormcivor@woodturner.org](mailto:editormcivor@woodturner.org), will pick up the baton and go forward. We've been working together on this issue, and I'll leave it to Don to introduce himself in the February 2020 edition of *Woodturning FUNDamentals*.

With all best wishes,  
John Kelsey, Lancaster PA



[tiny.cc/JohnKelsey](https://tiny.cc/JohnKelsey)

## EXPLORE!

Click the blue box or scan the QR code to follow the link ... but it only works when you are also logged into the AAW website, [woodturner.org](http://woodturner.org)

# Pyrography decorates poplar ball

by Janice Levi

I am a fan of simplicity in the finial (which I think should complement the globe) while making the globe the primary feature of the overall ornament. This globe is made of poplar while the finials are African blackwood. I often choose the somewhat soft poplar if my plan is to use pyrography to enhance the globe. Following are a few of the steps:

Turn the globe approximately 2" (5cm) in diameter with a 1/2" (12mm) hole drilled all the way through.

Loosely dividing into thirds, the bottom finial will be about 4" (10cm) long with a 1/2" (12mm) tenon. I go further and divide the finial itself into thirds with the bottom two-thirds being fairly void of design while the top one-third flows out to allow the eye to be drawn into the globe.

The top finial is about 1" (2.5cm) in height and the turned elements will be similar in design to the elements in the lower finial.

This particular ornament is a study in black and white—no color. All the woodburned surfaces were accomplished by varying the temperature of the burner. The embellishment was applied before gluing the finials to the ornament.

I drew the design onto the globe in pencil. I do occasionally use patterns that are available online and in woodburning books but I usually prefer to draw straight onto the wood. I always work on raw wood sanded to 320 or 400 grit.



Using a ball writing tip, I outline the major elements. To give depth to the designs, I vary the temperature of the woodburner to simulate highlights and shadow.

With all the major elements burned, I use the same ball tip to stipple the background dark black.

After burning and assembly, I apply a spray finish (usually acrylic) to the entire ornament.

*Janice Levi discusses finial design in the October 2019 issue of American Woodturner. She is a frequent demonstrator and teacher, [janicelevi.com](http://janicelevi.com).* □

# Chain finial makes quick ornaments

by John Lucas



I make a lot of ornaments. I donate many of them to our club to raise money for local charities. I've done a lot of hollowed spheres with finials and a lot of single-piece ornaments. I was looking for something that would be very quick to make but was a step above a simple solid ball, and would sell for a few dollars more. Finials are always slow to make, but what about using chain instead of wood? It worked great, they are very popular, and sell fast.

**1. Roughing the blank** — Start with a 6" (15cm) piece of wood about 1-1/2" to 2" (5cm) in diameter. If I'm going to do a lot of coloring I use woods that don't have a strong grain pattern, and light-colored woods like holly. I start between centers and turn it round, and then cut a tenon to fit the scroll chuck.

**2. Turning the shape** — Put it in the chuck and simply turn a shape. Since these are so fast to make and do not require hollowing, I play with the shapes a lot. You can really explore one shape and try to nail the perfect curve.

**3. Drilling for chain** — Leave the upper portion fairly thick but turn the bottom end to a point. Then I use the skew on its side to cut a starter hole for the drill. I bore about 1/2" (12mm) deep with a 7/64" bit, which fits my chain. Now I sand the piece to prepare it for texturing.



**1. Roughing the blank**



**2. Turning the shape**



**3. Drilling for chain**

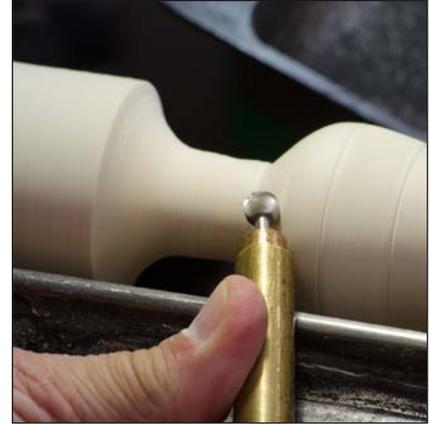
## PROJECT: Ornament with chain finial



**4. Texturing tool**



**5. Mini spiral tool**



**6. Elf-type tool**

### **4, 5, 6. Texturing tools**

I think the ornaments look best with just one or two textured bands. I use the Sorby texturing tool, the mini Sorby with a spiraling cutter, the Henry Taylor Elf, and my shopmade chatter tool.

**7. Coloring** — I like to color the texture to make it stand out, and the colors are brighter when applied over a finish. Finishes applied on top dull the colors, and may cause the colors to run. So I apply a friction finish now, before coloring. I use Hut Pen Polish.

I like Tombow or Calligraphy brand markers, but Sharpies also work. Ideally you want archival inks so the colors won't fade.

**8. Crisp lines** — To get really crisp lines I prefer to use a paintbrush and calligraphy inks. This came from my early archery arrow-making days. The calligraphy ink comes already mixed to the right consistency. It's easy to make narrow or wide bands of color with crisp edges using this technique. Just dip the brush in the ink and gently touch

the turning while it's spinning at a slow speed. It's almost magical and it makes a nice colored ring.

### **9. Turning the finial**

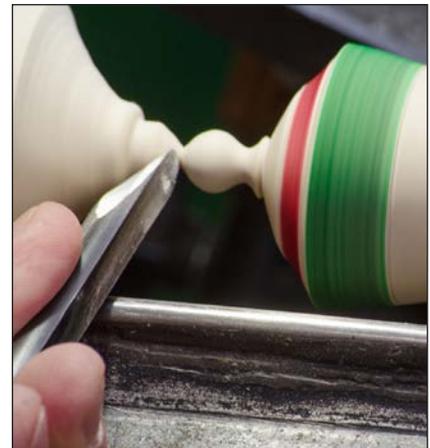
After texturing and painting it is time to finish turning the top of the ornament. I turn it down fairly small and then bring up the tailstock to just barely touch the drilled hole. This extra support lets me sand and polish aggressively. Then I gently cut off the ornament and polish the last bit on top.



**7. Coloring**



**8. Crisp lines**



**9. Turning the finial**

# PROJECT: Ornament with chain finial



## 10. Wooden bangle

### 10. Wooden bangle

Crosses are popular at Christmas, but sometimes I make a wooden bangle, rather than store-bought jewelry, using the scrap left on the lathe. Start by drilling the chain hole. Then turn the shape you want, sand it and cut it off.

Now to apply polish, I mount the drill chuck in the headstock with a broken 7/64" bit as a mandrel. This is a very short drill, it won't bend under pressure. Mount the small top finial on the drill bit and apply friction polish. It takes a gentle touch to keep the bangle from stalling but it's doable. If the friction polish is too challenging try a CA finish.

### 11. Stiffening the chain

It can be very frustrating to get the chain in the hole. Reminds me of an old joke, the city man is driving down the road and sees a country man dragging a chain, so he asks, "Why are you dragging that chain?" The country man says, "Have you ever tried to push one of



## 11. Stiffening the chain

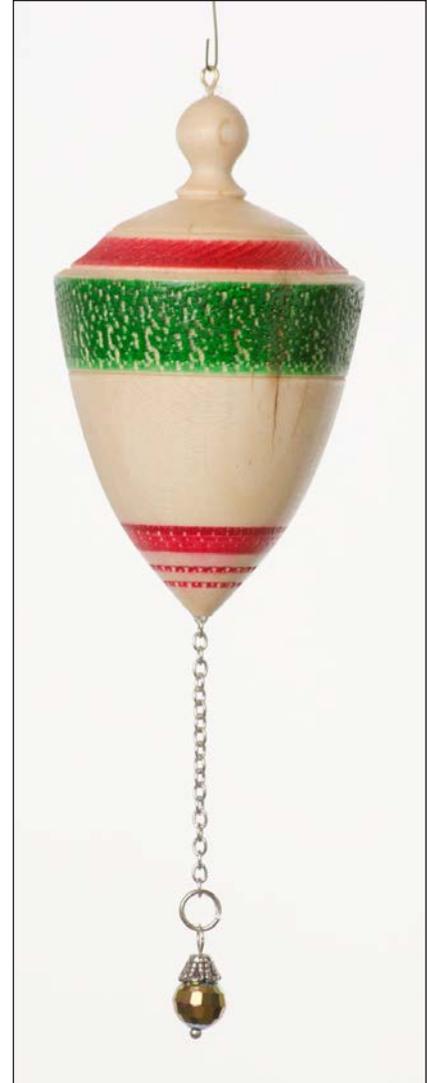
these things?" The solution is to make about 1/4" to 3/8" (6-10mm) of the chain rigid, using medium CA. Just start it on the chain and drag the drop on down. Then spray with CA accelerator and let dry.

Now you have a stiff chain that goes in the hole very easily, and if a ball of glue interferes, just squeeze it with pliers. Once you know it fits, apply a few drops of CA in the hole and push the chain in. Let it dry.

### 12. Add the bangle

Attach whatever bangle you want to the free end of the chain. You may need to buy some jump rings, or split rings, to attach a jewelry piece. For the top I use eye pins that are in the jewelry-making section of the craft shop. I cut them to length and drill the proper size hole using my Dremel. Then simply glue them in with medium CA.

That's all there is to it. These are so fun to make. I made ten of them yesterday while



## 12 . Add the bangle

preparing this article. As the day progressed I got faster, the last one took me only 15 minutes. So if I were selling them they would be quite profitable. I will be making many more to contribute to our tree. I hope you will too.

*John Lucas is a retired photographer living in Cookeville, TN. He has been turning wood for 35 years; his favorite items are hand mirrors and Christmas ornaments. John is a frequent contributor to Woodturning FUNDamentals.*

# No-hollowing technique for hollow ball-and-finial

by Larry Hasiak

One distant Christmas past I made some one-piece solid-wood tree ornaments. They were so heavy they wouldn't stay on the slender tree branchlets. To make them lighter I found an easy way to hollow the balls. I turned the rough shape of a Christmas ball, cut it in half, scooped out the two halves, and glued them back together.

## The blank

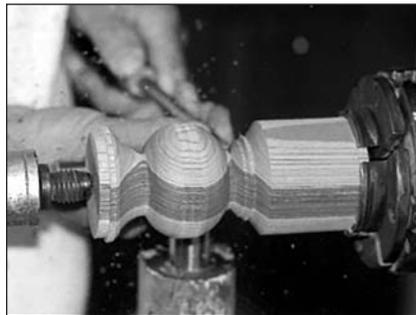
Start with a blank 2-1/2 to 3" (6-7cm) square by about 6" (15cm) long. You can use almost any kind of wood — I've been enjoying colored woods laid up in holiday themes.

Mount the blank between centers, make a cylinder and cut a chucking tenon on one end. Now mount the blank in your scroll chuck, bringing up the tailstock for additional support.

Next, cut a tenon on the tailstock end, so that later you can remount that portion

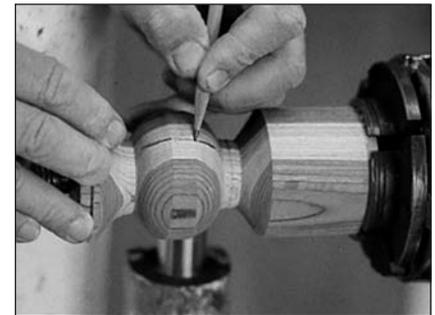


**Part, hollow and glue** — Colorwood ball was parted along the central burn line so the halves could be hollowed like two small bowls, then it was glued back together. Integral finial was turned last.



**1. Round the ball** after making a second chucking tenon on the tailstock end.

of the parted blank for hollowing. The tailstock end will become the top of the ornament, so turn a rough ball shape (1) closer to the

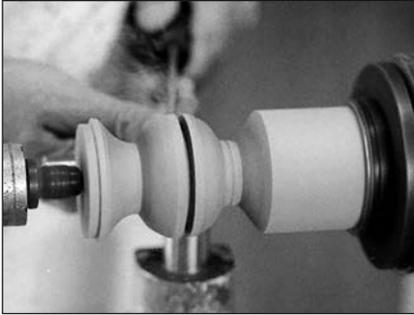


**2. Reference line** across the high point will help reassemble the ball later.

tailstock than to the chuck. Stop the lathe. Draw a line across the ball at the high point (2), to give you a reference for regluing later.



# PROJECT: No-hollowing ball & finial



**3. Part** the ball using a narrow tool.

## **Part to hollow**

Part the ball in two with a narrow parting tool (3). If the parting tool goes in at an angle, it will create two cones, which will fit together much easier than straight edges. Pull the tailstock out of the way and hollow the half of the ball still mounted on the lathe (4), leaving the walls about 1/8" (3mm) thick. You could use a round-nose steel or carbide scraper, or a small bowl gouge. Next mount the other half, which will become the top of the ball, and hollow it the same way.

## **Rejoin the halves**

To glue the two halves together, put a bead of medium-thick instant (CA) glue on the edge of the ball in the headstock. Slowly turn the ball with one hand, so the glue does not drip off. Put the other half in place, lining up the marks drawn earlier. Hold the halves together while you bring up the tailstock and use it as a clamp.

Once the glue has set, you can remove the waste and rough



**4. Hollow half** of the ball, as if it was a wee bowl. Then mount and hollow the other half.

out the finial (5), using a skew, spindle gouge or a scraper. At the same time, true up the hollow ball, being careful not to turn through the walls.

## **Emphasize the defect**

You will now see a very disturbing cut-and-glue line in the middle of the ball. Here is where you use the old rule: "Don't try to hide a defect — emphasize it." Use a very sharp pointed tool to cut a couple of very shallow grooves on either side of the cut, and the cut itself. Next, hold a thin stainless steel wire on each groove until friction burns the wood (6). You will now have three dark rings around the ball and the cut line has disappeared.

## **Shape the finial**

The finial is completed next. It might have lots of beads and coves or it may be very simple, as mine are. Finally, remove the excess wood at the top of the ball.

Sand the ball very carefully, as it is now pretty fragile. At



**5. Turn the finial** after regluing the half-balls back together.

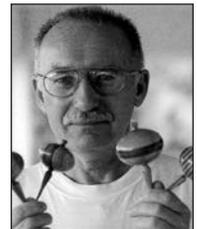


**6. Disguise the join** with lines burned by a stainless steel wire.

this point you may apply your favorite finish while the ornament is still on the lathe, or remove it for finishing.

The final step is to drill a very small hole and insert the smallest brass screw eye you can find.

Larry Hasiak lives in Tarpon Springs, FL and has served two terms on the AAW Board of Directors. An earlier version of this article appears in American Woodturner for Winter 2000.





## Fancy ornaments with glued-on sides

by Steve Mellott

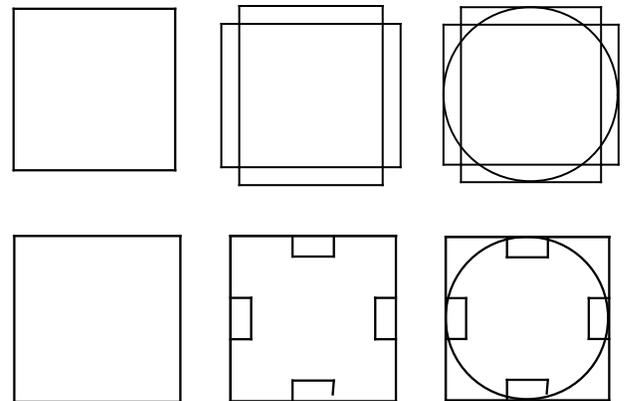
If you start with a square spindle, glue different-colored wood sides to it and then turn it round, the resulting object will show the different wood colors. The wood sides can be simple, as sketched at right, or they can be complex inlays.

Instead of gluing sides to the square spindle, you can recess shapes into it, bottom sketch. If you turn it round, this resulting object will also show the different wood colors.

A good size for the core spindle is 1-5/8" (4cm) square. If you have a jointer and planer, use them to square up the blank, and for safety sake be sure to make it at least 12" (30cm) long.

When you cut the blank into ornament bodies, give each an extra 2" (5cm) for the turning process. Mark the end centers as precisely as possible.

Make the laminated sides about 1/4" (6mm) thick, the same length as the ornament body, and nearly as wide. Use wood glue, not CA.



Mount the glued assembly between centers and turn round, without removing any unnecessary wood. Cut a tenon on the waste end of the blank, reChuck, bore 5/8" (2cm) for hollowing, and form the ball.

You can turn the top finial and bottom icicle from the same or contrasting wood. The blank should be 6" (15cm) long and 1" (2.5cm) square.

*Steve Mellott lives in McDonough, GA, and is a frequent demonstrator at local clubs.* □

# Hollow ball with glued finials

by Michael Gibson

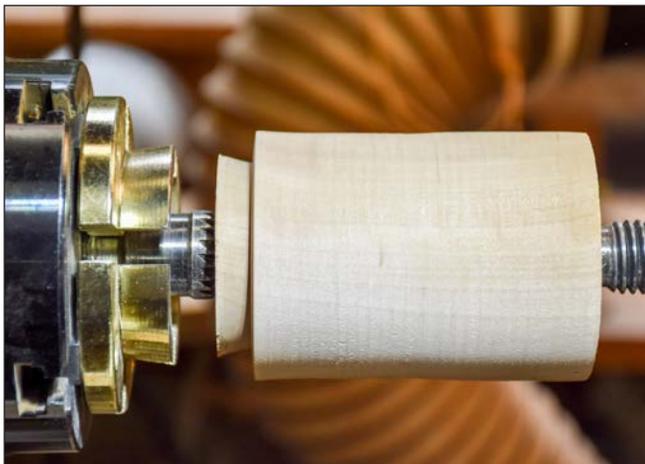
Making a holiday ornament is a good way to use up those odd blocks lying around from other projects. Hollow-ball ornaments with glued-on top and bottom finials are fairly simple and quick to make, once you have made a few.

For this project I selected a block of Bradford pear approximately 2-1/2" x 3-1/2" (6x9cm) to make an ornament around 2-1/4" (5.5cm) diameter. The wood needs to be dry but the exact size is not important — I have made ornaments anywhere from 1-1/4" to 3" (3-7.5cm) in diameter. Your ornament can be any shape you desire: sphere, donut, teardrop, oval, experiment.

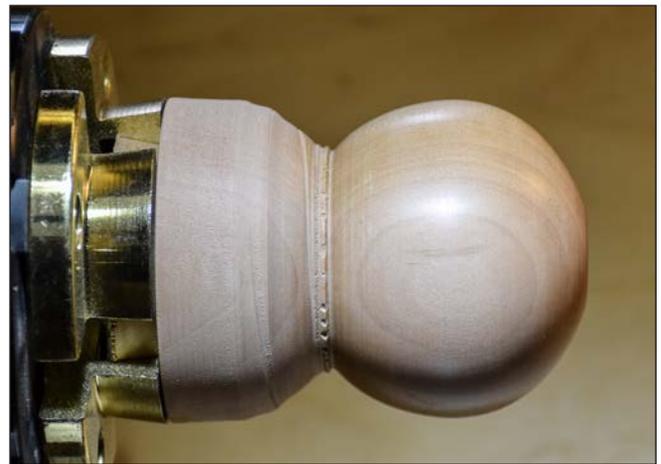
*Michael Gibson, of Hoschton, GA, demonstrates and teaches at state and national events.*



**Gloss finish** always looks good on ornaments.



**1. Tenon the blank** — Turn between centers until the block is round and make a chucking tenon on one end.



**2. Rough ball** — Use the spindle gouge to shape the sphere, but don't make the neck smaller than the chucking tenon.

# PROJECT: Hollow ball & finial



**4. Bore** using a 1/2" (12mm) bit in the tailstock chuck. Slow the speed down, clear the chips frequently, and hold the chuck when withdrawing. Bore through the ball into the tenon, beyond the bottom of the globe.



**3. Flat** — Make a flat spot for the finial, much easier than trying to fit it to the curve of the globe. Cut a dimple to give the drill bit a start.



**5. Hollowing tools** — A simple steel scraper, top, can handle the hollowing. I like the new carbide-cup tools. After boring the starter hole, use the straight tool to open it up and make room for the bent tools.



**6. Gauges** — As you hollow, check the wall thickness with a thickness caliper or a simple gauge bent from coat-hanger wire.



**7. Measure** — With the caliper points touching the wood inside and out, the free end shows thickness. Make hardwood about 1/8" (3mm) thick; light-weight woods can be thicker.



**8. Wire gauge** — With one end bearing on the inside, the free end indicates thickness without scratching the outside.

**9. Complete and part**— Be sure to stop turning 1/8" (3mm) away from the bored hole. Sand and part off, leaving a flat where the top finial will sit.



# PROJECT: Hollow ball & finial



**10. Finial size** — *The rule of thirds usually will generate a pleasing proportion, so make the bottom finial about twice the height of the ball, and the top finial a third the ball height. I like to start with a blank long enough for both finials.*



**11. Finial blank** — *Choose dry, straight-grain, knot-free wood, big enough once it's rounded to cover the flats on the ball. Stick with the rule of thirds to design the finial elements and details. Mark the mounting tenon and major divisions on the wood.*



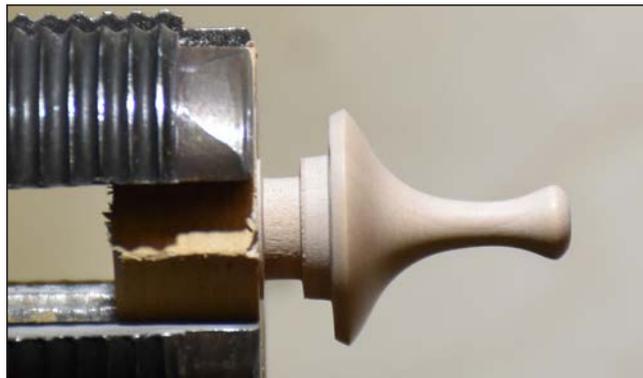
**12. Underhand grip** — *Detail the finial with a spindle roughing gouge, 3/8" (10mm) spindle gouge, and a small curved skew, or equivalent carbide tools. With the blank in pin jaws, you can use an underhand grip to steady the thin spindle; if you are a novice, uncomfortable, or do not have the correct chuck jaws, use the tailstock for support.*



**13. Tenon** — *Measure the hole in the ball and turn a small plug tenon before parting off. There's enough wood left in the chuck for the top finial.*



**14. Top finial** — *Clean up the face and bore a small hole for a screw eye or hanging string.*



**15. Angled edge** — *Again keep in mind to follow the rule of thirds when turning the top finial. I like to angle back the edge that is closest to the ball, it seems to make the fit look better.*

## PROJECT: Hollow ball & finial



**16. Assembly** — There are many surface treatments you can apply to enhance the globe, including pyrography, paint and dye, or leave it plain. This one is dyed red, with two finials, one colored with black shoe dye, which gives it the look of ebony when finished. For assembly, use epoxy or regular wood glue, not super glue, because if it runs it can ruin your finished work.



**17. Stands** — The stands can be purchased online or you can make your own, using steel wire from the hardware store. My wire came coiled in a tight circle about 6" (15cm) in diameter, so I cut about two-thirds of the circle and bent the hanging loop in one end. For the base, turn a block, bore a hole at an angle the size of the wire and attach. You can alter the height for different length ornaments by gently pulling or pushing.



# Hollow ball with contrasting insert

by Thomas Irven

This hollow-ball ornament has a turned and colored medallion set into the holes that were bored for hollowing.

Starting between centers, turn a spherical shape with a chucking tenon on one end. Leave a mostly flat surface on the opposite end for drilling.

Chuck up the sphere by the newly created tenon and drill a 1-1/4" (3cm) hole, or whatever size you want for your inserts.

Hollow the form through the hole just drilled. Be careful not to drill through the back wall and don't try to make the walls too thin — 1/4" (6mm) is thin enough for this project. Use your measuring tools and check often.

Turn a small (1/16"-ish) flat around the drilled hole. Sand this flat and sand the sphere, and remove it from the chuck. If you have left a long enough tenon, it is easy to part the ornament body from it.

Now turn the sphere around and expand the chuck jaws into the drilled hole. Drill another hole the same size as the first hole. You can tweak the inside of the ornament at this point if you need or want to. Turn a narrow flat to match

the flat on the opposite side, and sand as needed.

Apply a finish to the outside of the ornament body and remove the sphere. It is best to apply a final finish and buff all the pieces before assembling the ornament.

## Decorative Disk

Using a contrasting wood, turn two disks to fit into the holes created in the previous step. Start with a miniature bowl blank about 1-1/2" (4cm) square and 2" (5cm) tall. Grip the square blank in the scroll chuck and turn a 1-1/4" (3cm) tenon to fit the ornament body hole. Turn a small bead next to the tenon, sand this bead, and part off the disk. You will need two disks or medallions for each ornament.

Grip the tenon in the chuck jaws, complete the turning and sand the disk. Decorate with the Elf tool or a chatter tool. Stain or bleach and apply a finish. It is much easier to finish these disks before they are glued to the ornament.

A top and/or a bottom finial may be added to the ornament to suit yourself; you will need to at least add a hanger to the top of the ornament.



If you are going to add a bottom finial, drill an appropriate sized hole on the bottom of the ornament and glue in the finial. I'll leave the cranked finial shown here for another day.

Thomas Irven lives in Bellaire, TX: [thomasirven-art.net](http://thomasirven-art.net). □



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# Snow persons for beginners

by Peggy Schmid

The first step in turning a snow person is to find wood that is stable with a clear grain pattern. Maple is usually good but you can also find scrap pine, also well suited. Both woods are kiln dried so they will hold their shape and will not warp easily.

## Mounting the blank

Cut the wood into square blanks about 8" (20cm) long (1). I generally use 8/4 (2", 5cm) maple to make a good-sized snowman or woman.

Start by finding the center on both ends of the blank (2). Mount the blank into the lathe using a center spur drive and a live center (3, 4).

I use a Robert Sorby Steb drive and a Oneway live center with the pen-turning point. This gives me a bit more room to work at the tailstock and secures the wood at the headstock. The Steb center has spring tension in the center pin, which creates a bit of pressure to keep the turning wood from coming free.



1. Square blanks



2. Find center



3. Steb center



4. Live center

## Round and tenon

Turn your blank round and smooth. Use a bowl gouge, a roughing gouge, a skew, or a carbide roughing tool. Be comfortable with the tools you choose.

Create a tenon on one end using a 1/4" (6mm) parting tool, so that it can be mounted using a scroll chuck (5). Cut the tenon long enough to hold but not so long that it bottoms inside the chuck.

## Body and head

Place the blank into the chuck (6) and use a parting tool or a bedan tool to measure out the body of the snowperson.

For starters I suggest you only make one large ball for the body, and another about half as tall for the head and hat (7). Whatever the size, make the body first (8) and then size the head accordingly. If you make the head first, you're likely to make it too small.

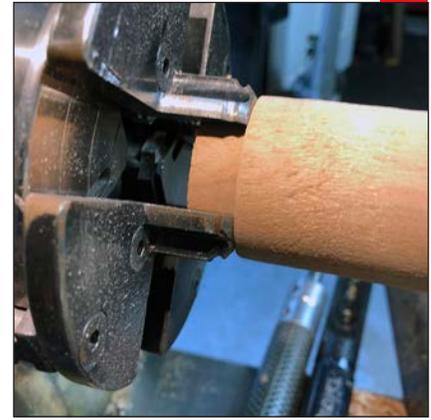
## Design the hat

Now you must design the hat (9). You can make men's and women's hat styles, and exaggerated designs are perfectly ok. You could use a bedan, skew, spindle gouge, or carbide tool to get the bulk of the wood removed and shaped. Clean up your cuts with a detail gouge (10).

Round over the body of the snow person and round the



5. Turn round, cut tenon



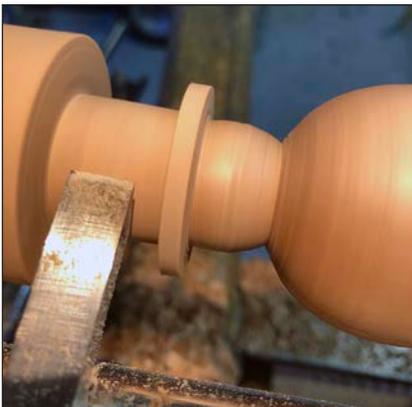
6. Remount in chuck



7. Bedan roughs head



8. Gouge shapes body



9. Hat and head



10. Detail gouge

head where it meets the body. I prefer to only round the top of the head a bit where it meets the hat, so that the hat appears to sit down on it.

It will take some practice to get the rounded shapes of the head and the body, so be patient and take small cuts. You will roll the detail gouge as you round the corners and





**11. Sanding**



**12. CA finish**



**13. Marker colors hat**

slice the wood gently. Vary your shapes of the body and do not just make the same old snowmen. If you are at a loss for design ideas, watch kids after the first snowfall and see how many different shapes are out there.

### *Sand, finish, part off*

Once you have the shapes you like, you can sand and color or leave plain (**11**). I apply a light coat of thin, no-odor cyanoacrylate (CA) to seal the wood (**12**). I paint the hat or maybe use a marker or burn the hat darker by rubbing with a piece of Micarta (**13**). So enjoy having fun with it and do not be afraid to use color.

Now part off the last little bit of wood holding your snow person. Start at the piece at the tailstock and gently cut down to part it off (**14**).

Hold the globe carefully while it is spinning and cut the other end at the headstock free (**15**). Sand both ends and apply finish or color as appropriate.



**14. Part at tailstock**



**15. Part at headstock**

### *Accoutrements*

As a fun part of this project I buy blocks of polymer clay in orange and in black. The orange is for carrot noses and the black for coal buttons. Make many at a time and follow the baking instructions on the package. Attach the nose and buttons to the snow person with a dot of thick CA glue.

Egg cartons work well to hold the snow person face down overnight while glue and paint dry completely.

Ribbon can be used as a scarf

and twigs can be used as arms. You will find many fun ideas out there to enhance your new Christmas ornament.

The very last step is to put the ring eyelet in the top of the hat. Place it so that when you add a hook the snow person faces forward so you can see its front view.

*Peg Schmid, [peggyschmid.com](http://peggyschmid.com), lives in Cumming, GA, and is a frequent demonstrator at club and regional events, including the 2016 AAW symposium.*



**1. Snowman posse** heads for the craft fair.

# Fencepost snowman

by Scott Hampton

Photos by Jayce and Maddox Johnson

The fencepost snowman is a fun project for learning about spindle turning. Folks really like them; last year I sold more than 50 snowmen at just one fall craft fair (**1** & **2**).

The snowman is made from 4x4 fence posts, either bought at the local big box hardware store, or recycled fence posts obtained free from a local contractor. Look over the fencepost to select a straight-grained section with no knots or only a few small ones.

This project uses only four woodturning chisels: 1-1/4" (3cm) spindle roughing gouge, 1/2" (12mm) spindle gouge, 3/8" (9mm) detail gouge, and 1/8" (3mm) parting tool (**3**). You can make most of the shapes with the spindle roughing gouge, with the other chisels for small details. Using the parting tool, you will make



**2. Snowmen** looking good with striped hats, googly eyes and painted noses.



**3. Tools:** parting tool, spindle roughing gouge, detail gouge, regular spindle gouge.

# PROJECT: Fencepost snowman



**4. Layout.** Mark the division between head and body, and the brim of the snowman's hat.



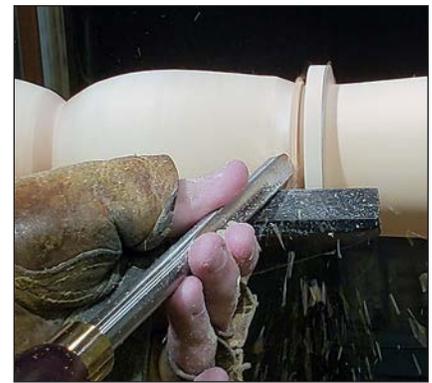
**5. Parting.** Grooves cut alongside the hat brim indicate final turning depth.



**6. Shaping.** The large spindle roughing gouge removes material accurately and quickly.



**7. Detailing.** Wing of roughing gouge cuts the quirk between body and head.



**8. Tight spot.** Detail gouge slices down to a tight corner.

cuts for the hat, head, and body of the snowman (4 & 5). With the roughing gouge, you will learn about turning a square blank to round, how to make peeling and planing cuts, and large convex curves (6 & 7). The 1/2" spindle gouge is used for finishing the curves of the body. The detail gouge will be used to create the curve under the hat brim, as this is a tight space (8).

Once the cutting is finished, a quick scrub with 120- or 180-grit sandpaper is all that's needed to take off some of the rough edges, or if you

prefer, no sanding for a more rustic look. I like to paint the hat with milk paint, or use a propane torch to create a zebra-striped look (9). You can now add decorations such as eyes, buttons, and whatever else you feel your snowman needs to make him festive for the holidays.

This is a fun holiday project that both beginning and well-seasoned woodturners will enjoy making.

*Scott Hampton, of Visalia, CA, frequently teaches and demonstrates on the West Coast, woodburner@comcast.net.*



**9. Burning.** Propane torch chars wood to make striped hat.

# Fir post dyed green is popular Christmas tree

by Brad Dinwiddie

This 10" (25cm) Christmas tree was made from a 4 x 4 fir post. I have been making and selling these for several years now. Initially I made a few to display in my booth at craft fairs to help people to start thinking of Christmas. Well, people kept asking how much and so I made more. Being fir, it can be tough to get a super smooth finish, but the roughest ones have a rustic feel, which isn't so bad. The rough finish can be a challenge in sanding, so watch your fingers.

Start with a piece of 4 x 4 (10x10cm) fir or cedar cut to about 1" (2.5cm) longer than the desired tree height. Mark and punch center on each end of the blank and mount it between centers. Turn the tenon on the base, which will be used to re-mount the blank in a 4-jaw scroll chuck. You can rough-turn the tree now, or wait until you mount it in the chuck jaws. Most of the tree will be about the same diameter, with just the top 2" or 3" (5-8cm) tapering to a point.

After creating the basic shape, I go from top to bottom forming its limbs. I don't measure the spacing, because real trees aren't regular. Be sure to leave enough space at the bottom for a base.

Light sanding from 120 to 240 grit is generally enough, then I apply a water-based green dye. Originally I was dyeing the base too, but now I usually leave it natural. With a 1" (2.5cm) brush, apply dye onto the tree rotating on the lathe at a very low speed. Then separate the tree from the tenon with a parting tool and pull-saw, and sand the base smooth.

I use a parting tool for making the tenon and



parting off the tree at completion; much of the shaping is done with a skew, the limbs with a skew and spindle gouge. A larger spindle gouge or bowl gouge could take the place of the skew, but I like the finish I get with the skew.

I make the trees in several sizes and they look good in small groupings. I've had several people buy them in consecutive years to increase their collections.

*Brad operates [frogpondwoodturning.com](http://frogpondwoodturning.com).*





# Bird house ornament

by Michael Kehs

This bird house ornament is assembled from four easy-to-turn parts. Although you could certainly decide to turn only one bird house, this project lends itself to a production approach, so I will batch out a few dozen of these as the holiday season approaches.

When turning multiples of the same components, jigs make the stock preparation process move smoothly and ensure consistency among the elements. Starting a production run with identically sized blanks means that the cuts that I make end up being very similar among all the pieces. Using commonly sized drill bits also helps the finials fit consistently.

If you do decide to make a production run, turn all similar components before moving on.



**1. Prepare the blanks** — Sizing for the bird house is flexible; the tops are 2-1/2" square x 1-1/2" (6cm x 4cm) long, bodies are 1-1/2" square x 2-1/4" (6cm) long, finials are 1/2" diameter x 4" (13mm x 10cm) long. Here are enough tops, bottoms, and finials for 40 bird houses.



**2. Create a tenon** — Start with the roof, creating a tenon to fit the chuck jaws on what will be the top of the roof.



# PROJECT: Bird house ornament

**3. Undercut the roof** – Reverse the blank and secure the just-cut tenon in the chuck. Round the blank, true the face, and then create a concave recess that will overhang the body.

**4. Hollow the roof** – Drill a recess in two stages. Start with a 1-1/4" (32mm) Forstner bit and drill a hole about 1/8" (3mm) deep to receive the top of the body. Switch to a 1" (25mm) bit and continue advancing the hole. The object is to remove some of the weight from the roof, but leave material for shaping the slope on the exterior.

The difference in diameters between the two bits should leave a flat surface for referencing the spigot jaws.

**5. Shape the roof line** – Reverse the blank, using the spigot jaws in expansion mode, and shape the roof exterior. Remember the center is hollow, and you don't want to see that part from the outside. Avoid making the tip of the roof too pointy. A small flat spot on the top will serve you well at the next step.

Drill a hole for the wire hanger in that small flat spot at the peak of the roof. I have a bit holder that allows me to do this freehand, but a Jacobs chuck works too.

**6. Hollow the house** – With the roof complete, I chuck the body blank and use a Jacobs chuck to drill the bird house interior. I advance the hole to a depth of 1-3/4" (44mm). This leaves 1/2" of wood in the bottom.

I switch to a 1/4" (6mm) drill bit and finish drilling completely through the body. I will turn a 1/4" tenon on top of the finial to fit this hole.



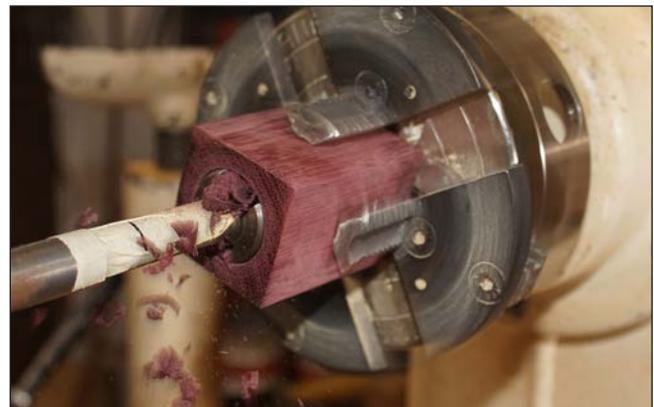
**3. Undercut the roof**



**4. Hollow the roof**



**5. Shape the roof line**



**6. Hollow the house**



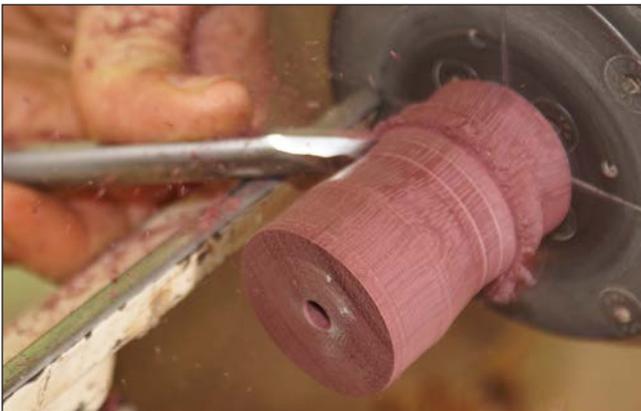
# PROJECT: Bird house ornament



**7. Tenon the body top**

**7. Tenon the body top** – Use a parting tool to cut a tenon on the top of the body to fit the recess in the roof. It is easy to over-shoot the diameter, so sneak up on the fit. Stop the lathe and check the roof recess against the tenon.

Calipers are handy for transferring measurements. Outside calipers can be used with the lathe running. Vernier, dial, and digital calipers should be applied with the lathe off or a nasty catch will result.



**8. Shape the body**

**8. Shape the body** – Reverse the blank in the chuck with the jaws in expansion mode and shape a shallow concave curve on the side of the house. A 3/8" spindle gouge works well for this task.

**9. Cut a tenon** – Create a tenon around the bottom opening with a parting tool.

Cut a sloping shoulder at the lower end of the house. The shoulder should meet the top of the tenon.



**9. Cut a tenon**

**10. Create a bead** – Convert the tenon into a bead. Roll the bead with the 3/8" gouge, working from the center of the bead and cutting downhill toward the bottom and the top.

**11. Drill an entry hole** – Drill the entry hole for the bird house. I make a jig for this step by turning a tenon on a short length of dimensioned scrap wood to fit the base of the bird house.



**10. Create a bead**



**11. Drill an entry hole**



# PROJECT: Bird house ornament

**12. Drill for the perch** – Drill a hole for a perch. The perch is a toothpick, cut to length and colored. A dowel placed in the bird hole helps me visually center the perch.

**13. Shape the finial** – Begin at the tip and work towards the headstock. A skew chisel leaves the best surface, but a spindle gouge works, too.



**12. Drill for the perch**

**14. Cut a tenon** – Cut a tenon on the base of the finial to fit the bottom of the bird house.

**15. Apply a finish** – I like to finish each component on the lathe with Mylands friction polish. This batch is ready for a flock of tiny birds, or a tree to decorate proudly.



**13. Shape the finial**



**14. Cut a tenon**



**15. Apply a finish**

*Michael Kehs, of Upper Bucks County, PA is mostly self taught and has been carving and turning wood since 1981. He demonstrates and teaches turning and carving, and has written widely.*

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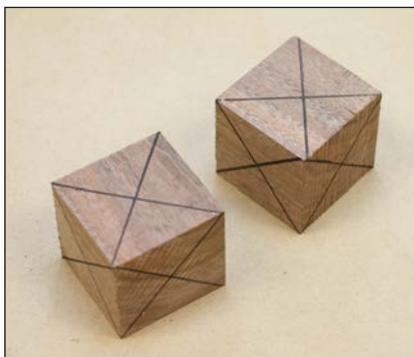
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# Birdcage ornament

by Walt Wager

If you have ever admired an inside-out turning but considered the task beyond your abilities, you will love this birdcage ornament. It's bored from four sides before turning so it's easy to make but leaves people wondering, *How do you do that?*

The bird is a purchased item, but the hollow at the center of the ornament can be used to frame other turned or constructed objects. A turned ball, another tiny ornament, or any other small seasonally appropriate talisman could be highlighted on this tiny stage.



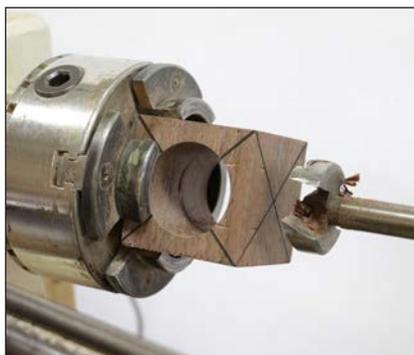
**1. Square blank** – These are 2"x2"x2" (5cm) cubes. Draw diagonal lines to locate the middle of all six sides.



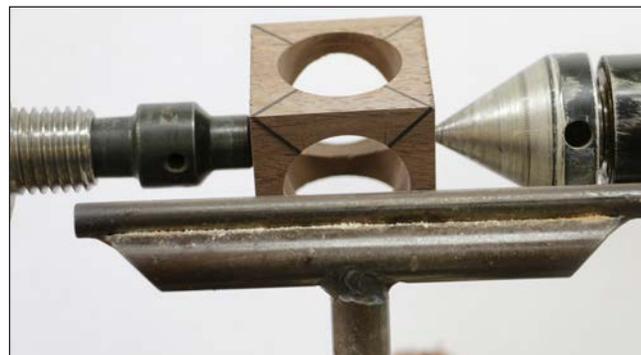
**2. Mount the blank** – in a scroll chuck with side grain facing the tailstock. Use a 1-3/8" (35mm) Forstner bit to bore about 1-1/4" (32mm) deep.



A drill press offers an alternative to boring on the lathe. Secure the blank in something other than your hand.



**3. Drill the sides** – Bore holes in all four side-grain sides.



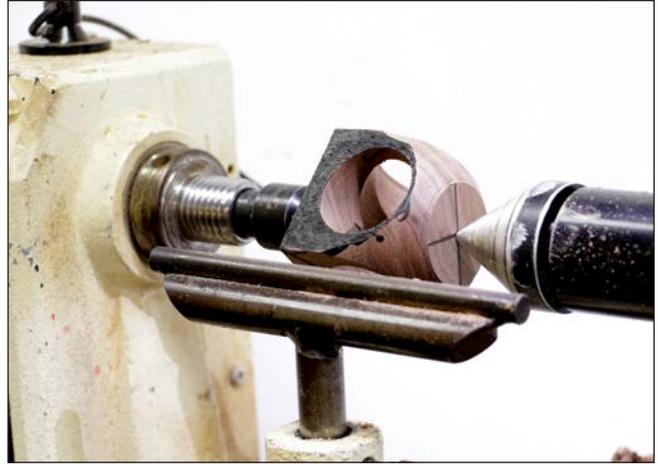
**4. Mount between centers** – The cup drive in the headstock will allow the blank to slip if there should be a catch or too much force while cutting.



# PROJECT: Birdcage ornament



**5. Round the corners** — *The blank is small and you will be cutting air a good part of the time, so a lathe speed of at least 1200 rpm improves the cut surface. Round off the corners to make a sphere using a 3/8" (10mm) spindle gouge.*



**6. Color the side** — *To judge the evenness of the cut, color one side of the square black with a marker. The black will reveal where material needs to be removed. It still pays to stop the lathe frequently to check your progress.*



**7. Rub the bevel** — *Start the cut with the bevel on the wood. Check tool presentation with the lathe off and you will be less likely to get a catch.*



**8. Cut downhill** — *Continue shaping the right and left sides to round the cube. Remember to cut from the largest-to-smallest diameter, cutting downhill toward the tailstock or cup drive.*



**9. Sand** — *Start with 100 grit and move through 400 grit. A foam pad backing the abrasive will save your fingers and sand the corners evenly.*



**10. Bore holes** — *Drill a 3/8" hole on the top and bottom of the cube for the finials. With little for a chuck to grip, this is a good operation for the drill press.*



**11. Sand again** — *Sand the inside of the birdcage by hand.*

## **Finial**

*A decorative element used to adorn architectural elements such as gables and steeples. They also decorate furniture and turned lids and ornaments. Some turners have made the finial into its own art form. Finials teach tool control and are a rite-of-passage for every turner.*



# PROJECT: Birdcage ornament



**12. Taper the spindle—** Mount a  $\frac{3}{4}$ "-square x 6" (2cmx15cm) blank in a spigot chuck and taper it toward the tailstock with a spindle roughing gouge.



**13. Shape the tip —** Shape with a small spindle gouge or skew. An underhand grip and light touch minimize vibration.



**14. Shape the "onion"—** Smooth the long transition from the tip, then shape a bulb. Finials are developed by completing elements from tail end-to-headstock.



**15. Turn a cove —** Use a  $\frac{3}{8}$ " spindle gouge to turn a cove behind the onion.



**16. Cut a tenon —** Sand the finial to 400 grit and apply a finish while it is on the lathe. Cut a  $\frac{3}{8}$ " tenon behind the bottom of the cove. Part off the finial.



**17. Check the fit —** The tenon should fit the  $\frac{3}{8}$ " hole drilled in the cube.



**18. Top finial —** Make a second finial for the top of the ornament, again making a  $\frac{3}{8}$ " tenon to fit into the hole in the top of the cube. This finial is about 1"- (25mm-) long. Sand and finish the finial on the lathe.



**19. Dry fit the pieces —** The ornament so far, but don't glue it up yet; apply a finish to the cube first.

## PROJECT: Birdcage ornament



**20. Pose the bird** – The perch is made from a piece of bamboo skewer or toothpick, and some craft wire and a small bird sold in craft stores.



**21. Check the swing** – The completed bird and perch should swing freely on the wire.



**22. Drill the tenon** – to receive the wire holding the perch.



**23. Measure the wire** – Fully insert the wire into the hole in the top finial to see that the bird sits where you want it. Clip or redo as needed.



**24. Assemble** – Complete the birdcage and finials, applying finishes and any buffing before gluing in the perch.



**25. Glue the perch** – Add a drop of CA glue to the top of the hanging wire.

Walt Wager has been an AAW member of the North Florida Woodturners since 2002. He is the coordinator and woodturning instructor at Camelot's Woodworking Studio in Tallahassee, FL. His website is [waltwager.com](http://waltwager.com); his e-mail is [waltwager@gmail.com](mailto:waltwager@gmail.com)



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# Tackle multi-axis turning with a turkey toothpick holder

by Peg Bellamy

The Web can be both a distraction and a source of inspiration. Looking for ideas, I happened upon a turned turkey posted on a German woodturner's page. The challenge became developing the steps to create the project, recognizing it would require turning on two axes. After much research, including multiaxis techniques posted online by Barbara Dill, and some experimentation, I produced my first turkey toothpick holder.

Multiaxis turning makes it possible to add visual interest to a project by adjusting the turning center at either end of the blank. This creates challenges as well, but the result is rewarding. This project makes a great introduction to multiaxis turning because it involves shifting one center at the tailstock end.

## Prepare a blank

Start the project with a 3" x 3" x 7" (8 x 18cm) blank. Dark timbers are more appropriate to the subject, and for this example I used mahogany.

Mount the block between centers. True the blank by turning it round with a roughing gouge (1). Turn a tenon on one end almost as long as the depth of your chuck jaws. Remove



D.E. McIvor

## 1. Prepare the blank



## PROJECT: Multiaxis turkey

the blank from the lathe and mark a second turning center (2) 1/4" (6mm) from the edge and at the end opposite the tenon. Aligning the new center with the long grain direction will produce a stronger neck. Register the mark with a punch or awl so the tailstock center has an indentation in which to sit.

### **Turn the neck and head**

Mount the blank by placing the tenon in the loose chuck jaws and inserting the tailstock center into the off-axis mark (3). Tighten the tailstock and chuck jaws.

Position the toolrest so it is closest to the off-center end of the work and parallel to the angle of the neck you want to create. Rotate the blank to assure it clears the toolrest.

Start the lathe at its lowest speed, slowly increasing rpm until your lathe starts to vibrate. Back off the speed until the vibration stops. Make light cuts, removing about 1/16" (2mm) at a time with a sharp 3/8" (10mm) bowl gouge. Gradually work the tailstock end down to form the neck and head of the turkey (4).

Tool control is critical while turning off-axis pieces. Support and control the bevel through the entire cut so the tool does not bounce on the back of the turkey. A firm grip pays dividends. Anchor your index finger under the toolrest whenever practical, thumb pressing down, remaining fingers gripping the tool steel.



**2. Mark the second turning center**



**3. Mount the blank off-center**



**4. Turn the neck**



### **Practice, practice, practice**

Mark each of three blanks with a new off-center axis, gradually moving further from the central axis. Practice first with the smallest offset and work up to the largest. By the time you turn the third blank, you'll have three interesting pieces of firewood and the skill to tackle this project.

## PROJECT: Multiaxis turkey



**5. Control the tool**



**6. Form the head and neck**



**7. Turn the body**



**8. Bore a hole**

Hold the handle snugly against your body (**5**). In this rigid position, use your body and a dynamic stance to push the tool through the cut.

Once you have turned a 1/2" (13mm) cylinder, shape the cylinder to form a head and neck (**6**). Sand the head, neck, and back.

Remove the tailstock and seat the tenon in the chuck so that the cylinder body is aligned on the original axis of rotation. Now you can focus on the body of the turkey and a pedestal (**7**).

Use a parting tool to mark the bottom of the pedestal. Sand the body and pedestal, then finish parting off the turkey, angling the parting tool to slightly undercut the base. Hand sand the base, cleaning up torn grain or stub of wood left by the parting process.

### *Hole for toothpicks*

Drill a 5/8"-3/4" (16cm-19cm) diameter hole in the back of the turkey using the head and neck to center the drill (**8**). Take care to avoid drilling through the bottom of the turkey. Angling the bit will make the toothpicks tilt backwards, creating the "tail" of the turkey. If your drill press doesn't have a swiveling head like mine, the turkey needs to be well secured and padded clamp jaws will keep your hands out of harm's way.

### *Turn a hat*

Any turkey that comes to the table should be dressed, and so our project needs a hat. A contrasting species of wood works best, and because the hat is small, a shop scrap should fill the need. The finished hat will be about 1-1/4" tall x 7/8" wide (3cm x 2cm).





**9. Hollow the hat**



**10. Check the fit**



**11. Shape the outside**



**12. Drill a hole**

Mount a spindle blank in your chuck, held at the base by a tenon. After truing the blank, hollow out the interior of the hat (9). Frequently check the fit to ease up to the correct size (10).

Shape the outside of the hat (11), sand it, and part it off. You'll need to hand sand the top of the hat. A parting tool or skew chisel is useful for defining the brim, while a spindle gouge allows you to refine the shape of the crown. A slight outward sweep looks stylish.

### ***Attach a beak***

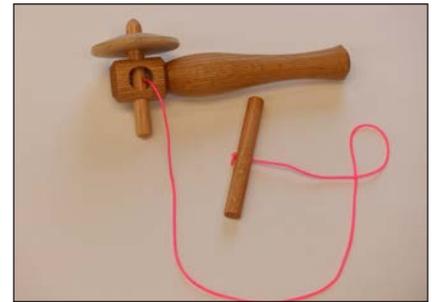
Drill a small hole in the face, aligned with the neck (12). I like to angle the beak downward, which entails drilling the hole at an angle. The bit will want to skate, so starting the hole with an awl is helpful.

The beak is a section of toothpick secured with a droplet of glue. I also attach the hat at this stage with a couple of drops of glue.

Finish options for a project of this nature are flexible. A spray finish is quick and easy, but oil-based finishes also work well.

*Peg Bellamy is a member of the Okanagan Woodturners Guild, the Arizona Woodturners Association, and Women In Turning. She believes we learn the most by teaching others our craft. She can be reached at [cloggal@gmail.com](mailto:cloggal@gmail.com)*





# Pull-string spinning top

by Rick Rich

Kids of all ages love spinning tops. This pull-string top makes a great stocking stuffer and provides practice on fundamental spindle and faceplate turning skills. Suitable blanks may be in your scrap bin already, and the tools are standard ones you likely have as well, **1** & **2**.

## Find the wood

You will need a piece of hardwood 8-1/2" (22cm) long cut 1-3/8" (3.5cm) square; I used straight-grained red oak split from a sawn plank. You will also need a 1/2" (12mm) dowel 8-1/2" (22cm) long. You could turn the dowel yourself or use a store-bought one of red oak, as I did. Last, choose a scrap of 5/8" (1.5cm) thick hardwood board cut 3" (7.5cm) square. You could saw it round, but it's simple and quick to round it on the lathe.

**Pull-string top**, left, loaded and ready to go. Top right, turned handle and spinning top. Below right, fit the top, insert the string and rewind



**1. Tools** — From left, scroll chuck, 3/4" (20mm) spindle roughing gouge, 1/2" (12mm) skew, 3/8" (10mm) bowl gouge, froe for splitting straight-grained spindle blank from sawn hardwood board, live center, and drive center.

# PROJECT: Pull-string top

## Prepare the blanks

The largest blank will be the spindle-turned handle that holds the top while you pull the string. It needs two holes bored to intersect, **2**. One hole is 1/2" (12mm) in diameter and the other is 3/4" (20mm). They are bored at 90° to each other 1-1/2" (3.7cm) from the end of the blank. They need to be straight and true, so take your time and use the drill press if you have one. I used spade bits in a cordless drill, with a small square and a mirror to help me bore straight.

Cut the dowel so one piece is 4-1/2" (11.5cm) long and the other is 4" (10cm). Drill a 1/2" (12mm) hole through the center of the square piece and glue in the longer dowel, leaving about 1" (2.5cm) extending on one side. Give the glue time to dry, which takes longer when the shop and wood are cool. Bore a 1/8" (3mm) hole through the long part of the dowel about 1" (2.5cm) up. Bore a small hole through the other dowel, right in the middle, to anchor the string; this is the puller handle. You can see all the holes in **2**. For a nice touch, countersink the small holes to help the string go in later.

The string is mason's line, available at any hardware store. Cut a piece 24" (60cm) long and put a dab of CA glue on one end to stiffen it. This makes it easier to put through the countersunk holes in the dowels. That's it for prep work, now for the turning.



**2. Prepared blanks** — Bore the spindle blank and dowels as shown, using 3/4" (20mm), 1-1/2" (12mm) and 1/8" (3mm) bits. The wood is red oak (spindle and dowel) and poplar (body of top).



**3. Turning the top** — With the bowl gouge, cut into the face and toward the headstock.

## Turning the top

Start with the top. Some chucks have standard jaws that will clamp down on a 1/2" (12mm) dowel, such as the Oneway Talon in photo **3**. If yours won't, use pin jaws. Put the short end of the exposed dowel into the chuck and bring up the tailstock, then tighten the chuck jaws. I have a revolving center with the center point removed that neatly fits the end of the dowel, so the dowel runs quite true. Another method



**4. Skew pares dowel** — Clean up the dowel and trim the end.

is to locate exact center of the dowel end and carefully hold it with whatever live center you have, being careful not to split the dowel with the point.

Use a bowl gouge to round the blank and true what will be the top of the top. It is crossgrain, so come at it from the face and slice toward the headstock, **3**. Use the skew to true the dowel—it needs to be a loose fit in the handle—and clean the end of the dowel, **4**. Sand and finish as desired.

## PROJECT: Pull-string top



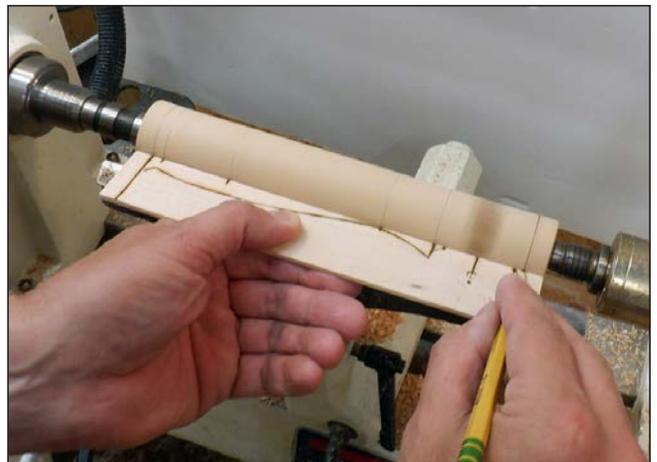
**5. Remount** — Reverse the workpiece in the chuck to turn the bottom side and spinner point.



**6. Completed top** — Sand and finish the wood as you go.



**7. Handle** — Use the spindle roughing gouge to round the handle blank.



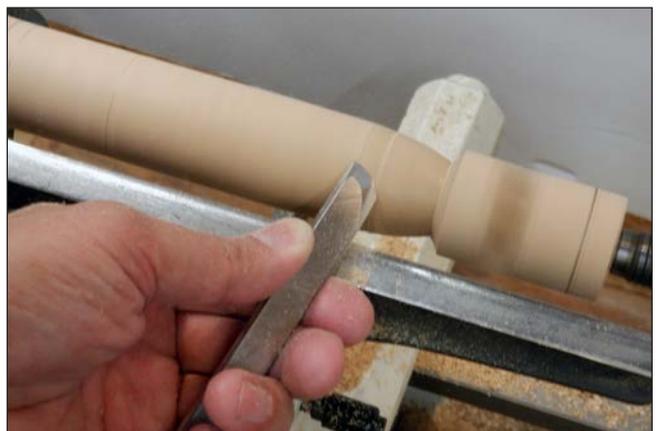
**8. Story stick** — Use it to mark out the handle length and locate the low and high points of your design.

### **Top, continued...**

Now turn it around and grab the long end of the dowel in the chuck. Don't clamp too hard or you will leave marks. You will not need the tailstock, with the top resting against the chuck jaws, **5**. True the bottom and turn the dowel into a blunt point on which the top will spin. Sand and finish as desired, **6**.

### **Turning the handle**

Remove the chuck and install a drive center. Mount the spindle blank between centers and turn round, **7**. I use a story stick because I am making several dozen as Christmas gifts and want them to be the same shape, **8 & 9**. Decide what shape you want your handle to be and turn it, being careful to leave enough wood



**9. Turning the handle** — Skew chisel pares the curved shapes.



## PROJECT: Pull-string top



**10. Turning the handle** — *The skew chisel easily cuts a long sweeping curve.*



**11. Finishing cut** — *The red oak handle takes a nice texture straight from the skew chisel.*

### ***Handle, continued...***

around the drilled holes for strength, **10** & **11**. Sand, finish, and part. I leave small nibs on the end, and use a small pull saw to cut them off after removing the finished blank from the lathe.

### ***Assembly***

Put the glue-hardened end of the string through the puller handle dowel hole and tie a knot on

the other end so it won't keep going through. A little glue on the knot keeps it from unravelling later. Put the top through the 1/2" holes, and push a little bit of string through the hole in the top dowel visible in the 3/4" hole. Wind up the string, pull firmly and lift the handle from the spinning top to watch it go.

*Rick Rich is a part-time turner who belongs to Cascade Woodturners in Portland, OR, and South-west Washington Woodturners in Vancouver, WA.*

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# Lidded box makes a personal gift



by Linda Ferber

Box making is one of my favorite woodturning passions, but scaling a box to appropriate proportions and getting a perfect lid fit can seem like overwhelming challenges to a beginning turner. This project presents a simple approach to turning an elegant and functional box that also makes a memorable holiday gift.

The box has an inset lid, a style I first saw made by Johnny Arkoosh. The box can be opened with one finger inserted in the center of the lid and without having to lift the box. Lifted by its sides, there is little chance of the lid coming off and spilling the contents.

## Choose your stock

Because of the box's modest size, shop scraps will often cover your material needs. Select a dry 3-1/2" (9cm) square blank that is 2" – 2-1/2" (5cm-6cm) thick for the base. For the lid, look for a 1/4" (6mm) thick x 3-1/2" square in contrasting wood. I recommend endgrain (spindle) orientation for the body of the box.

## Turn the body

Mark the centers on the tops and bottoms of each blank with a center hole punch or awl.



## 1. Turn a tenon at the base

Starting with the base, mount the block on your lathe between centers. After truing the blank with a roughing gouge, switch to a spindle gouge and turn a tenon on the bottom to match your chuck jaws (1).

Shape the exterior of the box, leaving a ring of wood between the tenon and side of the box. The gentle curve on the exterior of this box will be duplicated on the inside.

Reverse the blank on the lathe using the four-jaw chuck to grip the tenon. The top of the jaws should rest against the base of the ring and the box should run true.





### 2. Reverse chuck and mark opening

I measure the width of my chuck jaws opened just slightly more than their smallest diameter and transfer this measurement to the top of the box (2). This will define the inset for the lid and will leave a fairly thick wall for the box, which makes it easier to turn and creates a solid, stable vessel in spite of its small size.

Determine the depth of the recess for the lid. I like the lid to sit flush or slightly below the rim surface. The lid recess will also act as a recess for your chuck jaws, so it should be at least 1/8" (3mm) deep, but it is likely you'll want your lid to be thicker than that—perhaps a 1/4" (6mm) or more. Cut the recess using a scraper (3).

Determine the depth of the box. The tenon at the base of the form will be turned away and the bottom of the ring will become the box's base. With this in mind, subtract the wall thickness from the height of the box—this number is the depth of the box with uniformly thick walls.

Using a Forstner bit in a Jacobs chuck, bore a depth hole. A carbide tool such as the Hunter tool will make turning the interior an easy operation. A spindle gouge or round-nose scraper are other options. Sand the interior to completion. I use a shopmade sanding stick that makes sanding in small spaces safer than risking a finger (4).



### 3. Cut the recess



### 4. Use a sanding stick



### 5. Reverse chuck the box

#### *Complete the exterior*

Reverse the box on the chuck, bringing the tailstock up for support (5). Reduce the diameter of the base ring and continue moving the line of the exterior towards the base. The ring can either be shaped as a foot for the box, or can be turned





**6. A glue stick follows a curve**

away to leave the box with an integrated foot. A contour gauge or a flexible glue stick are my two favorite tools for checking the exterior curve (**6**, **7**). Either will reveal flat spots. After establishing a satisfying curve, sand through the grits on the outside of the box.

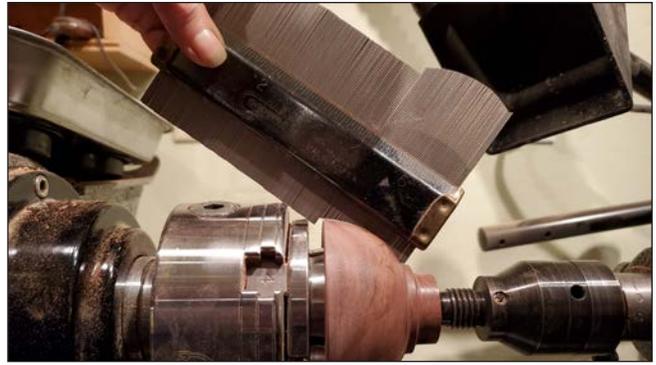
### *Turn the lid*

Remove material from the lid until it is the same thickness as the recess. Making the lid a little loose is good, but remember the lid needs to rest on the recess and cannot be smaller.

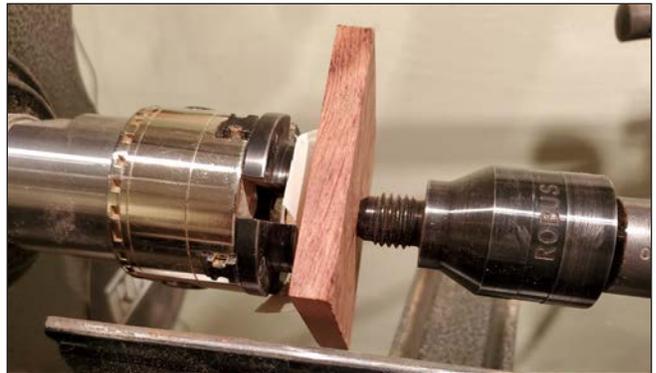
I use a shopmade friction drive to turn the lid. The drive is made from a scrap slightly smaller in diameter than the lid I am making, and about 1/4"-thick. I mount this between centers and turn a tenon on the tailstock side. I then reverse mount the blank in my chuck jaws, turn the outsides round, and true the face. I cover the face with double-sided turner's tape.

I can now mount the lid blank between centers using the friction drive (**8**). I use the tailstock to center the blank and press it against the tape. I'll drill through the center of the lid, so I don't worry about the revolving center leaving a mark. Keeping the tailstock in place adds security. Place a pencil line on the lid to guide you to the finished diameter. The beauty here is you can measure with the actual box (**9**, **10**).

Depending on your blank, you may wish to reduce the thickness of the lid. This can be done with the blank on the friction drive and the tailstock in place. If you leave a tenon between



**7. A contour gauge shows flat spots**



**8. Use a friction drive on the lid**



**9. Measure for the lid diameter**



**10. Verify the lid diameter**



### 11. Drill through the lid

the tailstock center and the lid that is smaller in diameter than your drill bit, the drill will remove the center tenon for you.

When you have a good fit, drill the center with a Forstner bit sized for an index finger; 1/2" (13mm) for me. Drill slowly until you see you have gone through the entire lid (11). Sand the lid.

The lid offers two sides to embellish. I like to put color on one side and a design on the other.



### 12. A dyed burl lid adds texture

Enjoy making these boxes! I have tried many variations (12), even a square box using my Cole jaws to turn the bottom – go wild and have fun.

*Linda Ferber, a frequent contributor, is AAW's program director and founding editor of Woodturning FUNDamentals.*

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Beyond round and brown

# Getting started with color: it's all about surface preparation

by Carol Hall

During much of the year, turners rely on wood grain, tone, or form to carry their work to success. But holiday season rolls around to find ornaments begging for color.

By Googling “clip art” followed by your choice of topic, you can see copyright-free art on any subject. Pinterest can be a great springboard for ideas and can provide the details needed to make your images pop. Journaling your narratives in a sketchbook, or on a phone, is a great way to curate ideas. Repeating those ideas across several pieces isn't redundant - you are rendering a body of work on a specific theme.

## Surface Preparation

For the best outcome, do not hurry surface preparation, but be sure to R-U-S-H:

**R** - Raise the grain if you plan to embellish your work with paint. By wetting the entire piece and then completing

your final sanding, you will minimize getting a fuzzy surface.

**U** - Use “wet water.” This is 100 parts tap water mixed with 1 part Dawn dish soap. The soap breaks the surface tension, allowing paint to flow better. You can also add 1 part PVA white glue for a bit more stick. Wet water is a game-changer if you want soft edges and filmy color changes.

**S** - Seal the surface with sanding sealer (two or three coats) or a 1-lb cut of blonde flake shellac (one or two coats). Shellac will impart an amber tone to the wood, and after it dries you will need to thoroughly degloss the piece with acetone on a paper towel so the grain is sealed but the top surface is receptive to paint.

**H** - A heat lamp will help the paint dry quickly, so less wait time between processes.



*Sandcastle Ornament, tribute to Dave Hardy. Acrylic on turned wood with sand texturing, in collaboration with Michael Kagan.*

## Image transfer

It's tricky to transfer an image drawn on a flat piece of paper to a 3-D form. Crumpling the paper to break down the fibers, until it gets a softened suede feel, will allow it to bend and wrap across a curved surface. Redraw the lines onto the wood with carbon paper, or transfer using Xylene. For a Xylene transfer, make a reversed copy of your art on a toner photocopier. With the toner side of the paper toward the wood, lightly brush on a thin coating of Xylene and rub with a hard surface. Peel back the paper and let dry.

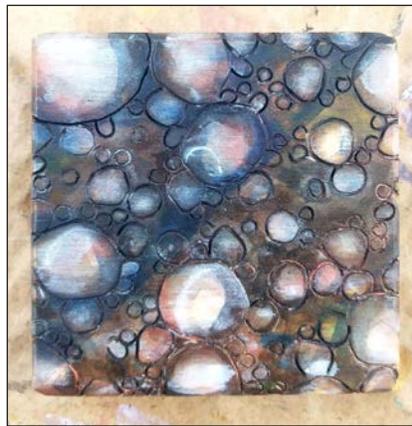


**Sample boards** — *Translucent airbrush colors make lovely watercolor washes..*

### **Pyrography**

After drawing your imagery onto the wood, make it permanent with pyrography. Buying the best and strongest unit possible makes all the difference — I use a Burnmaster Hawk setup, because you can easily regulate the heat, and recovery time on the pen is super fast, which accounts for the smooth, consistent burning it produces. This pen also allows you to make your own tips out of nichrome wire.

Creating flowing lines takes practice. Interrupting the burn stroke will impart a dot-dash look. Going across grain requires finesse, whereas burning with the grain usually glides evenly. You can also burn over paper to transfer the design; the paper buffers the heat and makes for a smoother line. Keep a wire brush handy so you can scrape the ash off your tips, which makes them better at burning and gives them longer lives.



Here's another use for your heat lamp. On cold days in the studio, a wooden piece can be a big heat sink for your pyro pen, making drawing good lines a challenge. Warm the wood under the heat lamp before you start burning.

### **Paint**

Different paints can make a huge difference but cheap paint is not much help. I like to work wet on wood, because I can't stand a plastic-looking surface. Golden Fluid Acrylic Paints immediately emulsify when thinned down but retain strong pigment and binder density.

I do not use dyes in my current work because I like to build up translucent layers of color slowly and have the layers be affixed to the wood so that they do not continue to move while additional colors are topping them. By using a colorant with a binder you can thin down the paint into beautiful watercolor-like washes that allow the wood grain to show through and avoid the plasticity look of opaque student-grade acrylics. I like Chroma Craft airbrush paints because they are juicy with color and translucent, even though I apply them with a brush. They already contain a lot more binder than watered-down thick acrylics; for greater adhesion, mix in a drop of Minwax Polycrylic. Of course, surface prep is key.

### **Brushes**

Most of the time I use a 1/2" (12mm) square brush. Turned on its side it's a 1/4" (6mm) brush - two for one. To paint large, I use a nylon 2" (5cm)



angled sash brush. Same deal, only bigger. You can bust out those tiny three-hair brushes to tickle in tiny dabs of color, but I get the best results from a few brushes with finesse and practice.

You don't need expensive brushes. Use the cheap white nylon ones sold in the hobby aisle. When brushes get ratty, they are great for creating scumbled and stippled surfaces, so enjoy them for the whole curve of their lifespan.

### **Water**

Because I work very wet, there are always spray bottles on hand and a heat lamp to set colors quickly. Some spray bottles have tap water, while others have alcohol (because paint will run away from it, not to it). But the most useful one is filled with "wet water." You could purchase pre-made surfactants but this DIY version is just as good.

It's never too soon to change out the water you use to clean brushes. If it is dirty, it's going to impart that color to the paint.

### **Color means something**

Everyone has "go to" colors, a personal palette that pleases and carries personal meaning. Colors have a vocabulary and evoke feelings — it is difficult to combine red and green and not have people think of Christmas.

For me, Prussian blue is the color of air. Glazing this color over an area will make it recede. Red is powerful and screams for attention. Rich blacks can be made by combining opposite colors — Alizarin crimson with terra vert makes the most dense, living black.

### **Unpainting**

When your paint goes astray, unpaint it before it dries. Lift the paint with a clean, barely damp brush and wipe the paint off on a paper towel. Rinse, wipe excess water off on a paper towel, repeat. If your surface is properly prepared, unpainting is a breeze.

### **Paint and release**

I often paint with my friend Mike. He practices "paint and release." When he isn't happy with his work, he sands it off so he can try again. No stress - just another go. I think that's much better than nagging a piece into submission.

### **Colored pencils**

A pencil is more familiar and can feel more natural than using a brush. There are three kinds of colored pencils on the market - Polycore, watercolor, and Inktense. Polycore (oil- and wax-based) are soluble with solvents like mineral spirits. Watercolor pencils are water soluble. Color from either of these needs to be tacked down with layers of fixative to avoid smearing. Hairspray (Aquanet) is the

same as expensive artist fixative. Pencil color can get wax bloom if you apply too many layers, resulting in white, cloudy colors. Inktense pencils are made of water-soluble ink. Once wet and dried, each layer is sealed and will not move. Multiple layers can be applied over the top of each other.

### **Flaws are opportunities**

When I first started collaborating with woodturners, I got mostly cast-off pieces that had flaws. Cracks, blemishes, and other problems can be your chance to push the envelope. Stitch them, fill them with an unexpected material, or bring attention to them. A flaw can be dazzling.

### **Create, destroy, create**

Not everything you make is a wonder. There is bliss in releasing it into the fire. Thank it for teaching you new skills, the most important being, "It is not worth keeping this one," and set it ablaze. Or let another artist cut it in half and paint it purple. Sometimes pushing things to their limits will give you new vision. Permission to fail will set you free!

*Carol Hall is an award-winning artist who creates embellished woodturnings that push the envelope of color, narrative and surface treatment.*  
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# WOODTURNING FUNDAMENTALS

*is an informative digital publication and online learning portal aimed at new turners. Whether you're starting a new hobby or plan to become a pro, the projects, techniques, tips, videos, and resources in WOODTURNING FUNDAMENTALS will help you build essential knowledge and skills. The AAW publishes WOODTURNING FUNDAMENTALS digital publication free to members four times each year.*



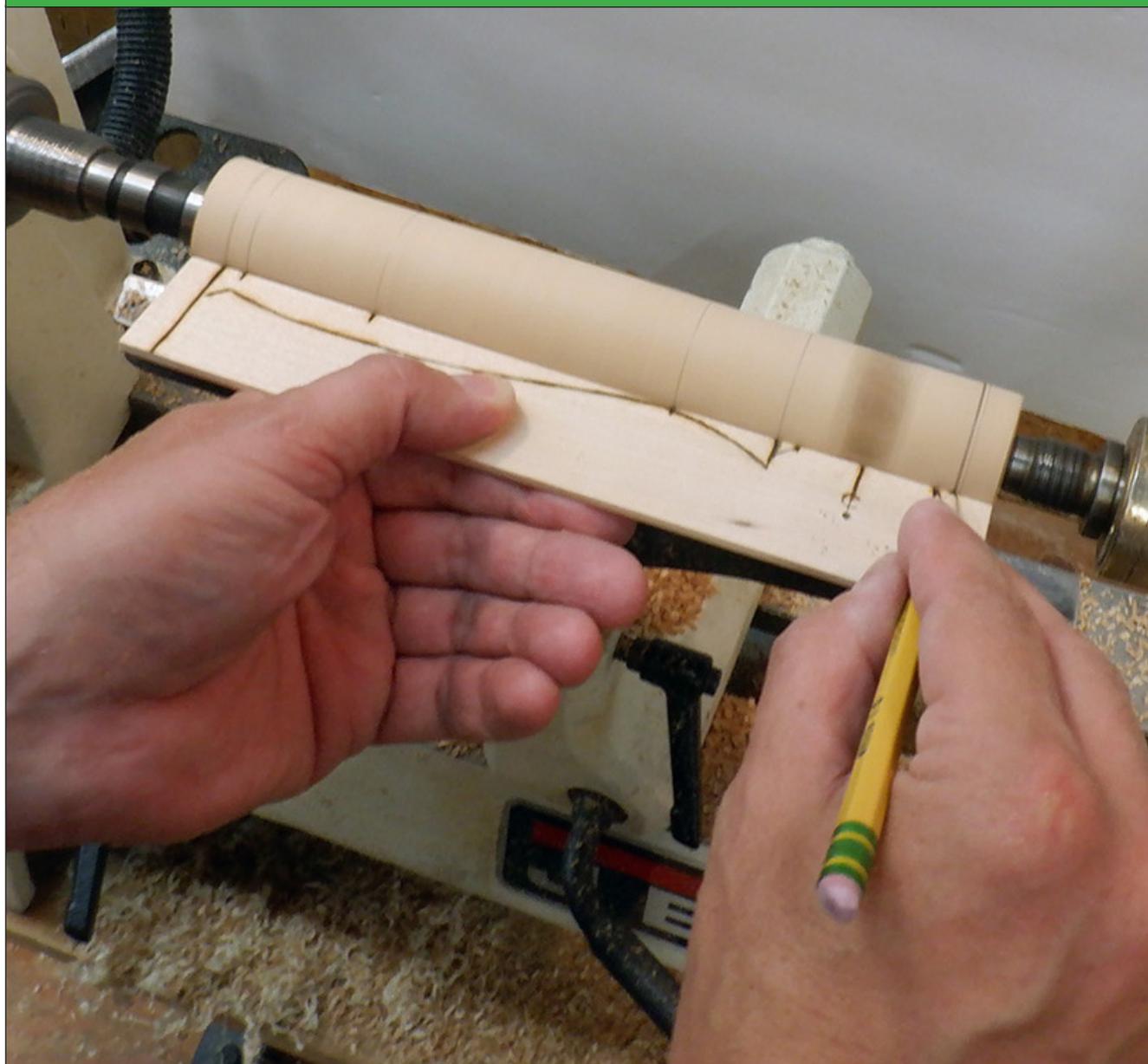
## Happy Colors for Happy Holidays

*Keith Tompkins of Tivoli, NY, colors these ball-and-finial ornaments with translucent airbrush paints. For more on the process, see page 45 and the Dec. 2019 American*

*Woodturner. Globes are 2" (5cm) at the equator, overall length about 7" (18cm). This lovely trio first appeared on AAW's member forum, quickly garnering many, many likes.*

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