Dale Nish Birdhouse

https://cdn.popularwoodworking.com/wp-content/uploads/Birdhouse_Ornaments.pdf?_ga=2.116421765.243879060.1602949736-1255531951.1602949736

For the body:

1. Start with a block of wood about 2" square x 2½" long.
2. Mount the block in a chuck -- careful centering is not required.
3. Turn to about 1⅝" using the tailstock.
   If you decide the other end would be better at the top, leave the diameter large enough to be gripped in the chuck (mine is 1.71").
4. When you're satisfied with the orientation, square off the tailstock end, if necessary.
5. With a ⅝" Forstner bit, drill a hole 1½" deep, using a jacobs chuck in the tailstock.
6. Mark the beginning of the cove, entry hole and perch mounting hole on the body.
7. Although Dale recommended removing the body for drilling, I found using a hand drill with the body still on the lathe works just fine.
8. Drill the ¼" entry hole and the ⅛" perch hole, offsetting the perch hole about ¼" so the bird won't hide the entry hole.
9. Turn the shoulder to exactly 1.00" diameter. This is critical for a later step. Sand the cove now, making sure the shoulder remains at 1.00" dia.
10. Hollow the body, being careful to leave about ¼" of the ⅝" hole at the top and bottom untouched. This is critical to turning the outside of the body.
11. You can begin forming the outside of the body at this point, but don't go too far. Chances are, you'll probably need to do a little rounding after remounting the body on the mandrel.
12. Remove the body from the chuck and mount the body mandrel. The body should then fit snugly on the mandrel with no side-to-slide play. If it's loose, you can wrap the mandrel with a paper towel or a layer of tape, but be careful you don't force the body off center.
    IMPORTANT: Be careful not to make the outside smaller than the inside.
13. Once you're satisfied with the mounting, bring up the tailstock and finish forming the body.
14. While still on the mandrel, using a jacobs chuck in the tailstock, drill a 3/16" hole in the bottom, at least ¼" deep. If you go all the way through, it's OK, but you will be drilling into the mandrel.
15. You can finish-sand it at this point, and apply finish,if desired. (I apply Deft, wipe it off, and repeat until I get the desired finish.)
16. Remove the body from the mandrel and set it aside. Remove the mandrel and store it for the next birdhouse.

For the roof:

1. Start with a block of wood about 2" square x 2½" long.
2. Mount the block in a chuck -- careful centering is not required.
3. Bring up the tailstock and turn a cylinder about 1¾" diameter.
4. Square off the end, making it slightly concave.

5. With a 1” Forstner bit mounted in a jacobs chuck, drill a hole ⅛” deep.
6. Check the fit of the body into this hole. It should be tight with no side play. If it’s too loose, drill a little deeper. If it’s too tight, VERY CAREFULLY enlarge or taper thehole for a good solid fit.
7. Replace the 1” bit with a 5/8” Forstner bit and drill about ½” deep. Check the fit with the roof mandrel, making sure it fits tight and doesn’t bottom out. If it does, drill the ⅝” hole a little deeper.
8. Remove the roof from the chuck and mount the roof mandrel. Force (gently) the roof onto the mandrel and bring up the tailstock.
9. Turn the lower part of the roof to it’s approximate finished shape and cut off the excess length at the tailstock end. The roof peak should be at least 5/16” diameter. Square off the top and bring up the tailstock to mark the center.
10. Drill a ⅛” hole about ¼” deep. Glue a ½” length of ⅛” dowel in this hole. Use CA glue.
11. Create the top detail with a ¼” square, 1/16” long (end grain,not side grain) piece of ebony (or other contrasting wood) and a ¼” square, ⅝” long piece of pink ivory (or other wood, even the same as the top). Glue these two pieces together (end grain). CA works well for this. Drill a ⅛” hole about ⅜” deep in the center of this assembly.
12. Try the fit of the top detail on the dowel sticking out of the roof. Make sure the parts come together tightly. Glue them with CA glue.
13. Bring the tailstock up and finish turn the roof. Make sure the tailstock leaves a dimple marking the exact center.
14. You can finish-sand it at this point, and apply finish,if desired. (I apply Deft, wipe it off, and repeat until I get the desired finish.)
15. Drill a hole for the eyelet in the top with a #57 drill. Install a “Tiny zinc-plated screw-eye, 5/16” long” (www.woodworkingparts.com), using a drop of CA glue.
16. Remove the roof from the mandrel and assemble it to the body, using medium CA glue.

For the finial:

1. Start with a blank about ⅜”x 1” long.
2. Turn to an exact 3/16” dia, cylinder about 5/16” long at one end.
3. Reverse and turn the finial design of your choice on the other end.
4. Sand and finish; glue into the bottom of the body with a drop of CA glue.

For the perch:

1. Start with a blank about ¼” x 1” long.
2. Turn to an exact ⅛” dia. Cylinder about ¾” long at one end.
3. Reverse and turn the end design of your choice.
4. Sand and finish; glue into the perch hole in the body leaving enough length to mount a mushroom bird, if desired.

Bird supply: www.woodturnerscatalog.com or www.factorydirectcraft.com or Amazon
Search for mushroom birds, mini mushroom birds, micro mushroom birds.

Eugen Schlack Birdhouse

http://www.ghwg.ca/techniques/eugen_schlaak_bird_house.pdf

For the body:

1. Start with a blank 2” square x 4” long.
   Drill nesting hole 1” dia x 1¼” deep from what will be the top.
   Drill entry hole ½” dia on the “good” side ¾” down from the top.
   Drill perch hole ⅛” dia 1⅜” down from the top.
2. Mount on the lathe with the nesting hole at the tail stock. If you don’t have some kind of cone live center, you can make one.
   Turn round and then turn a 1¼” (exact) x ⅛” shoulder.
   Turn the body to the desired shape, rough turning the finial before parting off.
   Reverse mount and finish the finial.
3. Sand and finish the body.

For the roof:

1. Start with a blank 2½” square by 3” long.
   Drill a hole 1¼” about 3/16” deep.
2. Mount with the hole towards the head stock. Lots of different ways to mount this: screw drive, pin jaws in expansion mode, home made jam chuck, etc.
3. Turn the rough shape to final length.
4. Drill a hole for the eyelet in the top.
5. Finish turning, sand and finish the top.
6. Remove the roof from the lathe and assemble it to the body, using medium CA glue.
7. Install a “Tiny zinc-plated screw-eye, 5/16” long” (www.woodworkingparts.com), using a drop of CA glue.

Turned Ornament without hollowing

Select a blank with a diagonal of the approximate diameter that you want for the finished globe. It should be at least twice as long as it is on any side. The piece I selected happens to be 1.77” square, but the diagonal is exactly two and a half, so I'm going to end up with an approximately 2½” diameter globe. It can't be any larger than that, but it might be a little bit smaller.

Next, measuring down from the top 1¼” in this case, I drilled a 1¼” on one side, then rotated the blank and drilled another hole. So just to make sure that everything is covered, I'm going to use the flats that are at least two and a half inches long to cover those holes in more talk about that later.

The next thing to determine is what thickness you need to cover those holes and to keep the globe round (no flat sides on it). Use a circle template that just fits over the blank. So in this case, I took a hole drill and made my own. There's a 2 ½” hole.

Measuring the distance from the flat side to the template shows that I need ⅜” thickness to cover the hole and keep the globe around. Okay, so I'm going to probably select a ¼” thick slab plus an ⅛” thick slab to cover those holes.

Before going any further working on this blank, we need to mark the centers, because we're going to be turning this axially. The centers must be marked exactly! This is really critical. If you don't have it exactly centered when you mount it between centers on the lathe, then the four circles or ovals, whatever we end up with, will not be identical all the way around. So that's the importance of getting the centers marked right?

Okay, when we glue the covers on for these holes, it's not too critical getting them all square and lined up but what is critical is that they don't get wider than the piece; In other words, wider than the square, which in this case is 1.77”. We probably want to make them maybe exactly 1.75” just to make sure they don’t hang over the sides. What's going to happen if you don't get those sides lined up square, you'll have to take off more of the corners and the globe will get smaller. Okay, not a big deal, but don't cut into the hole. Again, don't make the inside bigger than the outside.

The next important thing is: it's important to use contrasting wood for the covers, so that it actually shows something. There's no point going through this exercise if you're going to have one uniformly colored globe when you're done. Okay, it's much easier to start with a solid piece and hollow it, if that's what you want.

Also make sure that the pieces you're gluing on don't hang over the sides, In other words, if they're wider than 1.77 or even if they slipped to one side while you're gluing them, it means the piece that you're going to add on the adjacent side is not going to lay flat, and that's a real problem. First of all, it may come off while you're working on the lathe or there might just be an ugly gap there when you're all done. So keep that in mind. It has to be somewhat centered on there and when you're turning this just remember when you get to these corners be very careful because you can see

there isn't a lot of wood left on the corners, and you don't want to take off more than you have to at that point.

Also if you're using multiple layers like I'm doing here, if the outside layer is ⅛" thick and the inside is ¼", just remember you have less than an eighth of an inch to work with when you're rounding this thing. If you start taking off too much, then that outside layer is going to go away. You'll probably be alright to take an eighth of an inch off of this and still have a globe but at that point it will only be two colors, not three. So just something else to keep in mind.

As for the length of the slabs. I guess the only thing you should consider there is the final shape of this piece. Some people like long skinny ornaments. If you want something like that, you might want to use longer pieces and move the holes down further into the blank. If you want it round, a perfect sphere, or if you want it a little bit squatty, which is kind of the way I like to make them (they don't always turn out that way) then you can use, as I've indicated here, the piece about 2½" long. The critical thing is that it has to be at least square and so if these are 1.77" wide, they need to be at least 1.77" long, and that will give you the perfect sphere.

Take your time when gluing this up, it's really critical getting these pieces all aligned and I know I have a problem when I glue up things, especially well where there's multiple sides to the gluing process, that the pieces slip around and they're very hard to keep in line. You might even want to make a fixture so that as you're gluing this together, you can keep them aligned. Melamine is very good for this. You can lay the long blank on the side and take the cover pieces and hold them up against it. That keeps them pretty well aligned.

Once that's all glued in place and the glue has had plenty of time to dry, you're ready to mount it on the lathe. For now, I'm going to assume that there are no finials or icicles on this piece. that it's just going to be the wood rounded top and bottom.

And so the logical way to turn this piece is with the short en,d that is the end where we've drilled out the centers, should be towards the tail stock. Not so critical at this first point. But we're going to mount thiis center to center and turn a tenon on the other end.

Okay, so we'll go ahead and mount it on the lathe and turn a tenon on it. We're not going to touch the square part yet at all. Once the tenon is turned you can part it off keeping plenty of length, but not so much that it's going to wobble when you mount it. We'll bring the tail stock up for most of the turning until the final shaping is really done. Then it'll just be supported in the chuck with the tailstock removed. Again, where the tailstock was there's going to be just a little dimple there. You can't help that and you're going to turn that off and eventually sand.

Form the other end of the globe. Now, this is where it really gets critical. You want to leave enough wood so that you don't snap this thing off, okay? So like you were turning a finial or anything else, leave a little bit of wood there. We're going to hand sand that later and we need to sort of know where the center is because we need to drill a hole for the eyelet right there. Also while it's still

captured in the chuck, you might want to even bring the tailstock up with a soft pad on it just to stabilize it. We're going to finish sand and apply the final coat of lacquer.

Now, you can take it off, put the eyelet in, hang it outside and spray the heck out of it if you want to. I still prefer finishing on the lathe. So, that's just my thing, But you do what you want there. When you get to that point, you're really done with this. I mean, you can do whatever you want.

One last thing on this: we used a square blank to start with just over one and three-quarter inches. You can use anything you want. I'm going to try one someday that's a bit smaller, maybe a one inch globe. Size yours to the tree you have. A 12 foot fir might look good with 3 - 4 inch ornaments.