

Cindy Drozda, Woodturner

P.O. Box 19065 - Boulder CO 80308 - ph/fax 303-449-7170 - cindy@cindydrozda.com

CD's hints for successful box-turning

Start with dry wood.

Either use kiln dried material, or rough out the box and let it dry long enough to be sure. Weighing is one way to keep track of the drying process, and "just giving it plenty of time" is another. A simple drying kiln can be made from an insulated box with a light bulb inside and holes around the top and bottom to allow airflow.

Minimize asymmetrical distortion by using endgrain material or burls.

With the grain of the wood parallel to the bed of the lathe, and the growth rings of even radius, distortion due to moisture exchange will at least be even. Burls usually distort less, and distort more evenly, than straight-grained material.

Choose material that takes detail nicely.

Close grained, hard woods like maple, most burls, and most exotics take box details better than open-grained woods like oak or ash.

Beautiful materials add to the beauty of the box.

Not to suggest that the form should be secondary....

Think in the scale of the project when choosing your material.

Small projects will show the details of the figure in the wood differently than larger projects. Species like Boxelder burl with its tight small eyes will be shown off with good effects in a small box better than curly American Cherry which needs a larger piece to display its figure.

Think in the scale of the project when choosing design details, too.

It's helpful to draw the design to scale, or turn a "test shape" from scrap wood to get a feel for the exact proportions that will look good. The most pleasing proportions tend to follow the "golden mean", which is a ratio of 1:1.618 (or 1/3:2/3, 2/5:3/5)

To make things easier on yourself, choose design details that your fingers (or other devises) can get into for sanding.

Keep it relatively small for a good fitting lid over time.

In most cases, a piece of wood smaller than 4" will not distort too much during seasonal moisture changes.

Form is everything!

This is true no matter what you are turning, no matter what the size! Take the time to make the shape as good as you can get it, inside and out.

Choose a relatively soft wood with even grain for jam chucks.

Soft Maple, Alder, Cherry, Mahogany, and Poplar are better choices than Oak, Aspen, Pine, Walnut, Hard Maple, and hard exotics.

Higher lathe speeds can yield a cleaner cut.

A lot of light cuts at higher speed leave you with a smoother surface that needs less sanding. Oh, and sharp tools help, too.

Be sure you are comfortable turning at the speed you are using.

If the lathe is vibrating, it's too fast. If you're nervous, it's too fast.

And for safety at any speed:

Use the tailstock for support as long as possible, and whenever possible.

Even if it means some redundancy in the steps of sanding. This way only the lightest of cuts, close to the center of the piece, will be made with no support. How frustrating to have the piece that you have been working on for hours fly off the jam chuck and go spinning into oblivion!

Use tape for insurance when finishing the bottom without the tailstock.

Let the box top and bottom sit around for a couple of days before doing the final fit of the lid.

This will give you the best chance of it not changing in your environment.

Take into account where the owner of the box lives in relation to where the box was made.

For example, if you live in a very dry climate, and you make your lids fit a bit loose, the owner who lives in a wet climate is more likely to have a good fitting lid.

Tune the fit of the lid for the owner of the box.

A woodturner might appreciate a tight fit, but a lot of non-woodturners are intimidated by it. They usually expect to lift the lid and have it come off of the box without forcing. Also, if the box is intended to hold something (like a piece of jewelry, for instance), the lid might need to be opened with one hand since the other hand is holding the object that is going to be put into the box. On the other hand, a pill box that is intended to be carried in a pocket would want a tight fitting (or threaded) lid so it wouldn't come off unless the owner wanted it to.

Use a waterproof finish on the box, inside and out, to minimize moisture transfer due to humidity changes.

The secret to a smooth finish is: Sanding!

Especially on a small project, visible sanding scratches detract from your beautiful form. And it is faster to get a smooth finish by sanding to a finer grit while the piece is on the lathe than by applying more coats of finish.

There is no "magic finish" that will make a poorly sanded project look good!

Slow down the lathe for sanding.

The paper will cut better without burning, and the wood will not get too hot. A good rule of thumb that I use is: if my fingers are too hot to be comfortable, I slow the lathe down until my fingers can stand the heat.

Life is too short for dull or low quality sandpaper!

Fresh grit will cut faster, and generate less heat. Good quality abrasives will usually last enough longer to be a better bargain in the long run than the cheap stuff.

Make the bottom look good.

Everyone likes to look at a nice bottom! Watch people look at your work, and you'll see almost everyone turn it over to look at the bottom. Here's your chance to give them a surprise bit of detail work that makes your piece stand out from the others'.

Sign your work.

With or without the date. The person who owns your box wants to know who made it, and that the maker is proud enough of his/her creation to sign it. Most people also like to know what kind of material the piece is made of. Even if you are keeping the piece for your own archives, you will want to know.

Take as much time as you need to make the project as good as you can make it, but don't get carried away. There are no prizes for speed, but repetition makes a person proficient. Make another one, and another. You will be amazed at your rapid improvement in both technique and speed!

Look everywhere for inspiration!

Other turners' work, books, pottery, museums, architecture, etc. Absorb it all, and don't worry about copying. By the time you have made enough of a design to be proficient, it will have evolved into your own style, you won't be able to help it!

Please use eye protection and a dust filter when working with wood!
Life is short enough as it is....

Some very good box (and other) books:

"Turned Boxes, 50 Designs" by Chris Stott

"Turning Boxes with Richard Raffan" by Richard Raffan

"Turned Bowl Design" by Richard Raffan (some great stuff about shape and proportion - and a box is just a bowl with a lid, anyway!)

"Art and Fear" by Ted Orland and David Bayles

Richard Raffan, Ray Key, and Chris Stott also have excellent videos that cover basic box-turning.