



## Woodworking wisdom

A QUARTER-CENTURY OF SHOP KNOWLEDGE, DISTILLED

BY JERRY C. FORSHEE

**I**t was 25 years ago that I took my first hands-on woodworking class. In the years since, while developing my skills, I have discovered that woodworkers are an amazing class of people. They're almost always eager to share their knowledge, experiences, and tools with those less experienced. It's often like they have no secrets. Since so many have shared their time and wisdom with me during my woodworking journey, I've tried to do the same. In this article I will talk about the pieces of woodworking wisdom I've learned along the way.

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### Safety first

There is often more than one way to accomplish a given procedure, but the best method always puts safety first. No matter what you're doing in the shop, your well-being should always be the priority.

#### HANDS AT 3 IN.

To protect your hands and fingers, keep them at least 3 in. away from all blades, cutters, and guards.

#### STOCK AT 12 IN.

If your workpiece is less than 12 in. long, pause to consider if the process or machine you've chosen is safe for this operation. Every machine and tool has inherent limitations. For example, attempting to plane a board that is shorter than the distance between the infeed and outfeed rollers could cause serious kickback. In this case, either keep the stock overlong while planing or turn to hand tools to thickness it.

#### KNOW WHEN TO STOP

If you begin to feel tired, don't hurry or work past your peak efficiency; that's when accidents are likely. Take a break. The work will be there when you come back.

#### TAKE TIME FOR SAFETY

Never hesitate to spend the time and money to protect yourself. Use safety glasses for your eyes, earplugs or muffs to protect your hearing, and a dust mask and/or point-of-origin dust collection to protect your lungs. Use push sticks, push paddles, and featherboards—unlike your fingers, these are expendable. Finally, trust your gut. If an operation doesn't feel right, consider using a different tool, jig, or fixture, or ask a more experienced woodworker for assistance or advice.



## The right mindset

One's mindset and knowledge are essential and come before the ability to execute. Staying in the right frame of mind will help you every time in the shop.

### WORK WITH WHAT YOU HAVE

To do great woodworking, it is not necessary to own all the latest tools, aids, jigs, and gizmos. Instead, be creative: Find a way to accomplish your goal with what's at hand. Successful problem-solving is an essential skill in woodworking.

### LEARN FROM THE EXPERIENCES OF OTHERS

We all learn through our own experiences. But most importantly, we learn from the experiences of others, whether through books, magazines, videos, woodworking classes, or other avenues. Take advantage of others' experiences to expand your woodworking knowledge and save yourself from making blunders.

### YOUR TIME'S MORE PRECIOUS THAN YOUR WOOD

The most valuable resource in woodworking projects is the time you put into them. So work smart to manage your projects efficiently. Don't aim for economy by skimping on wood; you may end up paying with your time. Mill extra stock in case flaws show up as you build or you make a mistake. And always save mis-machined parts and cutoffs for testing machine setups and finishing processes.



## The material

Each species and each board has its own characteristics, so it's important to know how to work your stock without it fighting back. Trust me: The wood will win every time.

### WOOD ALWAYS MOVES—DEAL WITH IT

It's crucial to understand that wood forever takes on and gives up moisture, causing it to continually expand and contract. In other words, wood's always moving. Learn how the tree grows, as well as the properties of the different types of grain (flatsawn, riftsawn, quartersawn) and how they move. This will allow you to design and construct your projects to cope with wood movement.

### BOARDS KNOW HOW BIG THEY ARE

You can't make a measuring error if you don't measure. Use an existing part to set up a machine rather than measuring the part and then using the measurement for setup.

### FIBERS TEAR OUT WHEN NOT BACKED UP

Try to avoid tearout, which not only creates surface blemishes but also can leave gaps in joints. When routing around the edges of a panel, rout the end grain first so that you remove any tearout when routing the long-grain edges. Similarly, when trimming stock, crosscut first so subsequent ripping can remove any blowout. Also, use a zero-clearance throat plate to help limit tearout. When cutting a rabbet or dado, use a push stick or pad to back up the cut.

## Procedures

With safety at the forefront, your mindset honed, and an understanding of your material, you're ready to get the most out of your shop time. Just make sure you don't get in your own way.

### USE REFERENCE FACES

To keep parts organized, keep track of which face, edge, or end is your reference surface, and use the same surface for all similar pieces. If you switch reference surfaces, parts may not fit or you may have too many pieces of one type and not enough of another. For example, if you are cutting offset tenons on table aprons, ensure that the offset is always on the same side of the apron. When milling parts, take the time at your bench to label each one, then stack them in the order and orientation they'll be processed at the next machine. This way, you'll be able to mill the parts quickly and accurately without having to find the reference surface on each one.

### REHEARSE GLUE-UPS

Make your glue-ups more successful and less stressful by practicing with dry-fits. Lay out the parts, decide where you'll apply glue, map what clamps go where, plan how clamps will be supported, and organize cauls—and then make sure they're handy. If the assembly is particularly daunting, don't hesitate to rehearse the same glue-up more than once.

### SNEAK UP ON IT

Woodworking is a subtractive process. Once wood is removed, it's difficult and time-consuming to restore, and sometimes the only option is throwing out the mistake and starting over. Thus, as you fit the joint or machine the part, proceed cautiously and slowly, regularly checking for fit or size to ensure that you don't remove more wood than necessary.



### FINALLY, TO BE A BETTER WOODWORKER, DO MORE WOODWORKING

Don't be discouraged with your results; woodworking skill is learned and increases with experience and practice. Your success will ultimately depend on finding what safety practices, techniques, and procedures work best for you given your talent, experience, tools, stock, and project. Each project you make will be better, in some regard, than the last because of your increased experience. Learning from your own mistakes can be powerful, so reflect on and embrace them.