

Chapter 1

Discovering the Basics of Woodworking

In This Chapter

- ▶ Introducing wood
- ▶ Figuring out your tools and getting organized
- ▶ Finding out even more about wood

If you're like me (and all the other woodworkers I know), you became interested in woodworking because you wanted to use your hands to build something of lasting value. Maybe the motivation was partly economic — why pay a fortune for poorly made, ugly furniture, right? — and partly a need to create something of your own.

Regardless of why you got interested in woodworking, you want to know how this whole craft works. Well, this chapter leads you through the basics of the woodworking process and shows you where to go in this book for answers to your questions.

Getting the Lowdown on Wood

One of the most important aspects of woodworking is understanding the properties of wood. I know this seems obvious, but you'd be surprised about how many woodworkers I talk to who don't know why wood acts the way it does. Wood changes with the weather and the stresses put upon it (such as when it's stacked in a pile under a bunch of other wood). It expands and contracts and can twist, warp, or cup depending on the stresses that exist within it (from the direction of the grain in the board). Being able to look at a board and determine where those stresses are and how they may impact the board as it experiences changes in humidity requires some basic understanding of wood and how it's made.

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Many species of wood fall into two general categories: hardwoods and softwoods. Knowing which type of wood is which and being able to choose the right wood for your goals can help reduce the negative impact of the inherent instability that is a part of solid wood. As you discover the variability of wood, you'll undoubtedly come to appreciate that some wood products allow you the same level of beauty without having to worry about the wood changing shape on you. These include veneers and manufactured wood products such as plywood and Medium Density Fiberboard (MDF). All this talk of wood is covered in more detail in Chapter 2.

Setting Up Shop

You need tools to work with wood. And most woodworkers think tools are great. I know I love buying and using tools. Heck, I'm the first to admit I have a problem. (Does anyone know of a 12-step program for tool addicts?) I buy tools like candy (well, more than I buy candy, actually). I have special tools for almost any imaginable task and I can't ever seem to get enough. Such is the life of a woodworker.

You don't need to get addicted to buying tools, but you will become dependent on using them. That's okay because by knowing how to use your tools you can build just about anything that you can imagine.

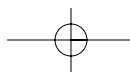
Tooling up

I dedicate several chapters in this book to exploring the exciting world of tools. From age-old hand tools to the most modern machine for milling wood, Chapters 5, 6, and 7 cover them all (well, not *all* of them, that would be insane, not to mention take up the entire book). Not only do you get to see what tools are what, you also get a glimpse into how to use each of them safely and effectively.

Working safely



Speaking of safety, woodworking is one of the most dangerous hobbies that you can get into. Wood is harder than skin and bone, and the tools that you use to cut and shape wood can do real damage real fast if you happen to slip or make a mistake. Not to worry, though. Chapter 3 gives you the heads up on creating a safe shop in which to work and on keeping safe while working. As an added bonus, Chapter 19 offers ten habits to get into that can make your woodworking time accident free.



Getting organized

With all this tool talk, you'll probably be tempted to buy every one that I describe in this book. Well, to keep you from going broke, I offer some advice on which tools to buy when, so that you can slowly and sanely build your workshop as you build your woodworking skills. See Chapter 4 for more on this topic. Chapter 8 helps you set up your shop so that you can get to all of your tools without hassle. You can also explore shop essentials, such as lighting and electrical requirements, to ensure that you can see what you're doing and can run all the tools you want to use.

Working with Woods

Woodworking is not all about tools and wood. Okay, it largely is (especially if you're a gear junkie like me). But even more important are the skills required to use the tools to craft the wood into the projects you want to create.

Putting the wood together

The first step in developing woodworking skills is to be able to discern the best glues, joints (ways of connecting two pieces of wood), and fasteners to use. Whether you need a dovetail joint for a drawer front or a mortise-and-tenon joint for a table leg, Chapter 10 introduces you to the wonderful world of wood joints. With an understanding of the joints in Chapter 10, you can build any furniture project and make it strong and durable.

Of course, these wood joints would be almost useless without some sort of adhesive to go with them. Chapter 9 walks you through the most common types of adhesives available for woodworkers and shows you the best one for each job. In Chapter 11, I go over the ins and outs of screws and nails and show you when and where to use them to improve the strength of your joints.

Following plans

The key to making furniture is having a plan. (Or is that the key to life? I always forget.) The good news for beginning woodworkers is that you don't need to develop the plan; you need only to follow it. Project plans are abundant and easily found (check out Chapter 21 for some project-plan resources). After you get familiar with the way plans are written, you can build just about anything (depending on your skills, of course).

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After you review the plans that you've chosen, you can pick out the wood and other materials and get to work. (Check out the Cheat Sheet and Chapter 2 for information on buying wood.)



But, before you start cutting, spend some time figuring out which board to cut the part from. Tabletops, for example, look best if you choose boards that have similar grain patterns and overall color. Likewise, drawers and doors look great if you can use one board for pieces that are next to each other. Chapter 12 helps you figure all this out.

Building projects (and skills)

As far as I'm concerned, you can never have too many project plans to choose from. For example, I may like a Craftsman-style table, but you may think that the style is too clunky looking and prefer the elegant lines of a Shaker design. With this in mind, I provide three chapters of project plans, each with several variations on basic projects that not only give you some great furniture but also help you progressively build your woodworking skills.

Chapter 13 details making bookcases — the basic part of a carcass. Chapter 14 digs into tables where you get a chance to practice your edge-to-edge joints for building tabletops and use the most common and durable joint that exists — the mortise and tenon. Chapter 15 goes a little farther by providing plans to make a dresser and an armoire. By the time you finish with these chapters, you'll be well on your way to feeling comfortable making furniture and will be ready to tackle more ambitious projects.

Finishing up

When the project is together, you're only halfway done. The next step involves getting a smooth, blemish-free surface and preparing the wood for a stain or topcoat. Chapter 16 helps you explore the varied world of sandpapers and wood fillers.

After you have smoothed the wood, you can then decide whether you want to add any color and, if so, what type. You can choose from stain or paint and from water-based, oil-based, or lacquer-based products. You have many options and I'm sure you can find one that works for you. Chapter 17 helps you make sense out of all the choices and shows you how to apply these products.

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The final step in any woodworking project is protecting the wood from moisture and damage. Chapter 18 includes lots of information about the most common types of topcoats. Because not all of them provide the same degree of beauty and protection, you get a chance to compare the pros and cons of each topcoat so that you can choose the best option for you and your project.

Moving on

As much as I'd like to provide a book with everything you'll ever need to know about woodworking (as if I even know all that!), it's just not possible. Chapter 21 is my way of helping you to keep exploring this immense craft by providing you with a bunch of resources. This chapter contains contact info for woodworking magazines, addresses for helpful Web sites, and ideas to help you keep expanding your knowledge and skills.

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