

Wood Working Classes Overview

Essential Skills of Woodworking (code ESW)

Wood

- **What you need to understand**
 1. Type – hard vs soft
 2. Types of cuts – Flat, Tangential, Radial
 3. Shrinkage – Movement
 4. Defects and blemishes
 5. Grain
 6. Seasoning
 - a) Air dried
 - b) Kiln Dried
 - c) Moisture content
 7. Twist, cup, bow, crook etc.
- **What this means to you as woodworkers**

Sawyers Talents and The Saw

Why you will need to use hand saws!

1. Types – panel saws, crosscut – rip, backed saws such as dovetail saws
2. Why and when the teeth make a difference
3. Technique – “drop your hand”
4. Cutting to the line, when you should & when you shouldn’t
5. The knife vs the pencil, both are necessary

NOTE: You will be using saws in this session

6. We will not be teaching you to sharpen saws – 6 weeks is not enough time to teach this process: so get them done professionally.

Sharpening

But we will be teaching you how to sharpen everything else you need. Therefore-

1. A little about metal
 - a) Differences
 - b) Why the differences really, really matter
 - c) Molecular makeup (yes I know!) but you need to know!
 - d) Null edge
2. When and how to put a straight or cambered edge on a tool
3. Why jigs / guides matter when sharpening metals that are very hard
4. When and how to grind a primary bevel – how grinding can destroy a tool
5. Using stones to get a secondary bevel, why this is important
6. How not to cut yourself (that isn’t a joke)
7. The ruler trick, terribly misunderstood, but incredibly useful
8. What stones?

Then – practice, practice, practice.

The plane

- Types
 - When & why they are needed
 - Use
 - Setup – really, really important
 - Construction
 - Grain direction again
 - Tricks
- Sound and what to listen for.
- Dimensioning, Plugged or unplugged?
- Jigs
 - we will be making some
 - what's necessary
- Plane to the line – Knife vs pencil again
- **Clamping** – the bench, why you will need one if you are going to use hand tools
- Plenty of practice
- Oh! And why you will fall in love with the hand plane

NOTE: You will be using the core tools including the router plane

Scrapers

- How to get a burr that works
- Tips and tricks in their use

The Chisel

- How not to cut yourself (I'm serious)
- Types
- Bevels = degrees and why it might not matter as much as everyone carries on about!
- Their handles and why they matter more than people carry on about
- How sharp is mandatory! & how not to cut yourself
- How many you need
- Uses
- How to use them with effect and when
- Chisels don't need jigs and that's the point
- Where to use a blunted chisel (seriously)
- Why a chisel stops dead when you are mortising and when sound is important
- Paring – is an art – we will show you

Practice – mortising – paring – chopping

Marking Tools & Joinery

- ***Tools***
 - Pencils
 - Knives
 - Squares
 - Bevel
 - Dovetail markers (eh! Maybe)
 - Rulers – but why you should not measure – parallax errors
 - Protractors
 - Scratch Awls – why the variety
 - Marking Gauges

- ***Joinery***
 - Rebate
 - Dado
 - Half Lap
 - Bridal Joint
 - Through and Blind dovetail

This will be mostly a practical session, also setting you up with good marking skills is nearly as important as sharpening, nearly.

Finishing and Glues

- ***Finishes***
 - About the combination of timber, project, finish
 - Oil
 - Wax
 - Shellac
 - Milk paint

- ***Glue – Types***
 - For what project
 - Open time
 - Creep
 - Clamping

Journeyman (code JMA)

In this course we will look at joinery, how joints resist forces that are applied to the things we make.

Terms such as compression, torsion, shear, tension, bend will make their way into the lessons, by constructing the exercises you will begin to understand how these forces need to be contained and/or used to build your projects successfully. Gluing timber is not enough. The joints we will show you will outlast any glue failure over time. The secret to heritage furniture!

This course will require hand sawing and accurate marking and set out skills. If you feel you are not competent with these skills we recommend you complete the **Essential Skills of Woodworking** (code ESW) course first.

The *first part* of this course, is an exercise, designed to demonstrate the marking out skills that enable the construction of an framing exercise consisting of nine joints that will see the frame finished both square and flat, all done by hand, *with-out* one-off jigs, dust and noise.

The intention is to give you the knowledge to choose the correct joints, to build them accurately and consistently, and therefore, to enable you to move from project to project with confidence.

We would remind you, that these skills will require practice and would encourage you to do just that, it has been our experience that just popping out to the studio (shed) and cutting a joint is just as much fun as building a whole project, and the muscle memory developed is well worth the time invested, also, to say you can do a thing well.... is priceless.

The Joints

- *Butt Mitre*
 - o We will show you how to cut an accurate mitre sawed by hand every time, easily.
- *Butt Mitre with Dowels*
 - o Again an accurate joint by hand and secured with dowels.
- *Corner Bridle Joint*
 - o This is an open mortise that you will cut with backed hand saw, and the though tenon again with a hand saw and fitted with a router plane, cut cleanly and tidily finished this is an incredibly strong joint, very useful.
- *Corner Halving Joint (Half Lap)*
 - o Another long grain to long grain fitted joint, quick fuss free, very strong.
- *Dovetailed Tee Halving Joint*
 - o Designed to prevent a joint pulling apart, bit more complex to cut but worth the effort.
- *Blind Mortise*
 - o Something you will use all the time, fine chisel work.
- *Tee Bridle Joint*
 - o A necessary joint for attaching a rail mid style
- *Crossed Halving Joint*
 - o Build a few doors with glass panels; you will make plenty of these.
- *Tee Butt Joint*
 - o This joint is the last to be constructed; its purpose is to instruct how to measure the correct way to get it flush and square, in this complex structure.

The Joints

The *Second Part* will consist of construction of a small sandpaper box.

- With sloping sides and unequal back and front pieces. Joined by *dovetails*
- and with partitions created with *stopped housings*.
- The *dovetail joint* is a necessary joint to conquer as its mechanical structure is worth the effort, if you require your project to be an heirloom in its ability to last.
- Don't worry, dovetails both hidden and through are easy with a little bit of technique.

I will say this though, there are numerous and diverse writings about dovetail technique, but here is the thing, you **do not** need jigs, and we will teach you just one way, our way. This is the best combination that we could establish from the leaders of the craft.

But there is no one rule, **except this one**, when you find a way to cut dovetails comfortably, stick to it, practice, and stick to it; forget everything else you see, constantly changing will be guaranteed to trip you up, because this sort of work is muscle memory, and that is only developed by consistently using the same technique.

The last word; learn a method that works for you, and stick to it, (whatever the method), and the results will become effortless, consistent and the smile.... well the smile will become constant. This is what we wish to achieve for our students of this course.