

PHOTO: LACHLAN PARK



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Traditional timber framing

The art of traditional timber framing is becoming increasingly popular these days as more and more people come to appreciate the beauty of frames handcrafted using these ancient, time-honoured techniques.

For those wanting to learn how to craft a frame themselves, there are now opportunities available, with skilled practitioners teaching the craft in Australia. Which means you don't have to trek off to the other side of the world to learn the skills to either build for yourself or have a professional craft a frame for you!

The following stories give some more details of courses currently on offer as well as an introduction on how to scribe a traditional timber frame.



PHOTO: CHRIS NANCE



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Learning through a course

In May 2015, I attended a three-day Traditional Timber Framing Course, led by Chris Nance of Traditional Timber Frames and held at the Australian Rural Education Centre (AREC) in Mudgee.

The course was designed to encourage participation for all in attendance, no matter what wood working skills they might have. Open to all ages and gender, it attracted attendees from all over Australia, with some from as far south as Geelong in Victoria.

The course had an equal amount of time devoted to theory and practical experience. We all learned about traditional timber framing techniques and then applied that knowledge to the mock up frames that we made.

All participants got the opportunity to be hands on with the same tools that Chris Nance uses on a daily basis, making traditional timber framing mortise and tenon and scarf joints.

The course was enjoyed by all who attended and the course material and trainer were to a high standard. I would thoroughly recommend this course to anyone of any skill level or to anyone who has a general interest in working with timber.

BY JAMIE HARRIS

Why do a course?

As I am an accredited building designer with an interest in sustainable/earthen building materials, I wanted to do the course to complement the previous courses that I had done with straw bale and hempcrete.

I am actually a sixth generation timber cutter (my family started this work in Wollombi) and the last of this line in my family. I love using timber in my design projects; I love how warm it feels when you work with it. Timber is such a versatile building material and it looks absolutely amazing when you have big chunky timber framing, posts and beams.

The others attended for a number of reasons; general interest in sustainable/earthen materials, passion for working with timber and woodworking in general, and the planned future use of traditional timber framing in building projects.

It wasn't long before course attendees were enthusiastically trying out their new skills.

What I learnt

I learned how to:

- make a mortise and tenon joint by hand and with power tools
- make the pegs that are used to lock all the timber posts and beams together
- make a scarf joint, which is used to connect two pieces together to create a longer post or beam
- measure and scribe out a mortise and tenon joint on a green piece of timber.

What now?

I hope to one day design and construct my own traditional timber framed home with earthen materials to create a solar passive, sustainable, small footprint, off the grid home on a parcel of rural land.

I also hope to have the opportunity to design a traditional timber framed home for one of my clients and assist with the construction of it. ♦

Jamie Harris is an Accredited Building Designer with 18 years experience. He has a passion for sustainable building products and is always on the lookout for new sustainable products to incorporate into his design work.





Links & resources

◆ Harris Building Design Services

Building design, drafting and consulting services throughout all areas of NSW.

0428 766 874, www.hbds.com.au

◆ AREC

AREC is a self funded, not for profit organisation that hosts a number of community events, sustainable building training and the Mudgee Small Farm Field Days event.

02 6372 3899, www.arec.com.au

◆ Traditional Timber Frames

Using traditional timber joinery practices to design and create a range of bespoke timber structures ranging from furniture to house frames and trusses.

0415 111 526

www.traditionaltimberframe.com.au



Scribing a traditional timber frame

One of the main differences between traditional timber frame carpentry and other forms of woodwork is the methods used to set out your joints. When you're working with large, variable, sometimes twisted and wonky timbers, the last thing you want is a large twisted and wonky house frame, so it's very important that an accurate and efficient marking system be used.

There are many different ways to scribe together and construct a timber frame and most carpenters will have their own ways and nuances. A method that is very commonplace in British timber framing uses a combination of grid or reference lines placed in important locations on the timbers. These lines, in conjunction with plumb bobs, levels and accurate measurements, are used to individually scribe and mark each joint. Working from these reference lines throughout the building means that the frame can be built to precise dimensions even when the timbers are highly variable.

Editor's note: This is a brief summary of the process, but it is best learned 'hands-on.'

BY CHRIS NANCE

Setting up

Setting out these lines precisely is important in creating a perfect grid through your timber that you can accurately work from rather than relying on the edge of the timber. The basic process involves choosing the most important face and edge and marking these on the timbers.

On the face and edge only, at the end points, mark a point a set distance from the edge of the timber. It might be a centre point or it might be closer to one face. Connect these points, with a chalk line, ink line, string or pencil line. You will now have an accurate line on two faces of the timber.

You then have to transfer these two lines onto the opposite two faces of the timber. Place a prominent mark (called a level reference) onto the face of the beam and wedge the timber so that this level reference is accurately level (this

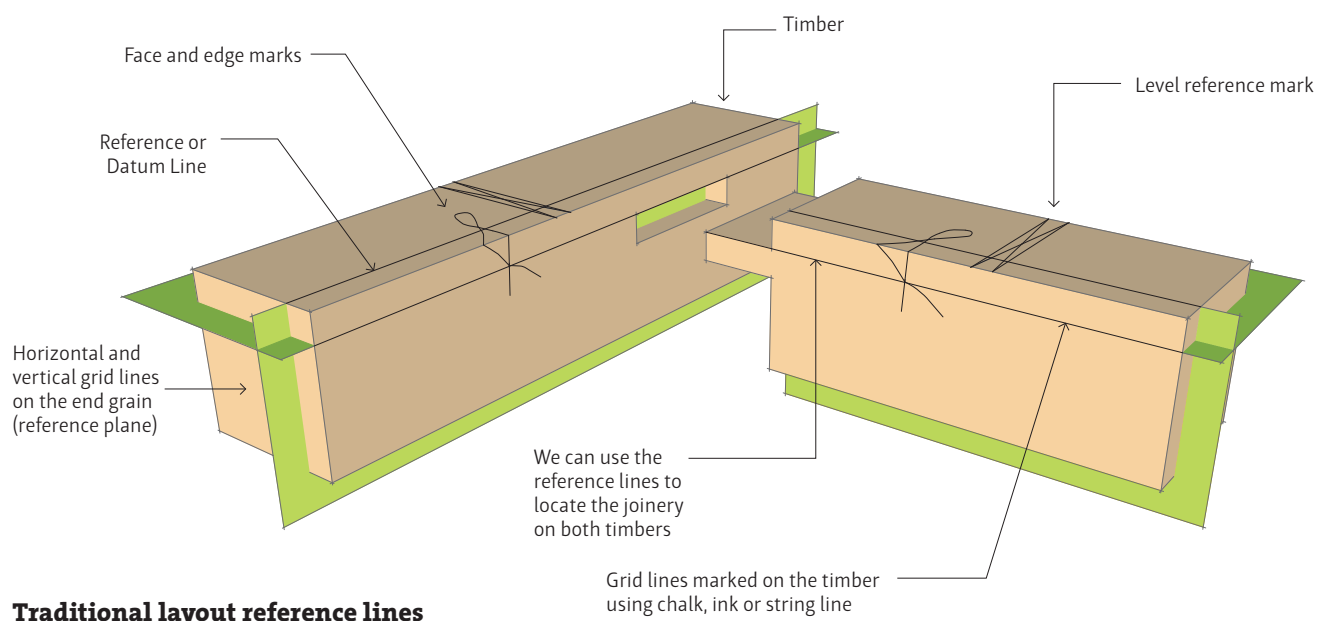
reference will be used throughout the building process and becomes important when laying up the timber into different frames). Using the spirit level, transfer the lines horizontally and vertically on the two ends of the timber. Roll the timber over and connect these grid lines. You now should have a line on each face of the timber, which represents a perfectly square grid through the timber.

Lay up and scribe

Once the timbers are referenced, you will begin to lay up and scribe the frames together. Each timber within the frame must be accurately scribed, taking into account all of the variances of the individual timbers, so that the joinery forms a perfect fit and the overall frame dimensions are accurate.

There are different ways to scribe joints, each with their own benefits. The basic and most common process involves a plumb bob, spirit level and a pencil, as follows.

- Set up the timbers for the frame on saw stools in their approximate locations.



- Starting with the most important timber (often the largest) use a spirit level, wedges and packers to get the reference lines and the cross reference mark exactly level (as above).
- You can then stack up all of your timbers, making sure they are all exactly level and placed in their correct locations according to the plans. Keeping everything level is very important.
- Scribe the joinery together using a plumb bob or level to mark any deflections in the timbers.
- Mark all of the joinery, then double check to ensure all required lines have been drawn.
- Pull apart the timbers to complete any lines and prepare to cut the joints.

There is a high degree of accuracy needed when scribing together a traditional timber frame. By using horizontal and vertical reference lines you are able to create perfect structures using imperfect natural materials. The joinery needs to be highly precise.

It is very important that whichever system you use to create your frame, it allows you to accurately mark joints and factor in any discrepancies in the timbers. This might only be 3mm here and there but it can add up to a significant problem over a large building if it is not accounted for accurately.

By taking the time to carefully scribe and mark out your joints you can be confident that, when the crane is on site and you've mustered all your friends to come and watch, it will all fit together beautifully. Which makes the topping out ceremony all the more fun. ♦

Chris Nance of Traditional Timber Frames leads a small and passionate team of specialist timber framers. He also runs workshops and tailored training packages for specific projects.



Links & resources

♦ Traditional Timber Frames

Using traditional timber joinery practices to design and create a range of bespoke timber structures ranging from furniture to house frames and trusses.

0415 111 526

www.traditionaltimberframe.com.au



Successfully crafted frame

BY ISABELLE HARWOOD

'I would like to learn timber framing and build a shed for myself using this technique, so I can set up my own wood working shed. Do you run courses?'

The answer was yes – Timber Frames of Australia run workshops, teaching the scribe rule technique, and also offer help with design, engineering and crafting of a timber frame.

Lachlan got set on a design for his shed. After some negotiations, TFA offered him the use of indoor yard space, access to some power tools and any help he needed during the five weeks he was anticipated to be at their yard whilst crafting his own frame.

In mid August, with training completed, the second part of this adventure began with timbers arriving, the workshop drawings all ready and Lachlan being very excited to finally put his new skills to good use.

After five weeks the timber frame was packed on a truck, the yard cleaned and Lachlan exhilarated about his achievements – a structure comprising four cross frames and including a ridge beam along the three bays. And all this started with a phone call...



'In August 2015 I began building a post and beam frame using traditional timber framing methods, built from large section native white cypress. Each timber is mortise and tenoned together and then pinned with a hand-shaped peg made from stringybark.'

Stay tuned for further developments as The Barn is raised!' ...Lachlan

Lachlan is not the first to have successfully crafted his own timber frame after completing a workshop. Are you next? ♦

The next introduction level training workshops at Timber Frames of Australia are scheduled for May and August 2016, with an intermediate course planned for September 2016.



Links & resources

♦ Timber Frames of Australia

Beautiful and strong traditional timber frames, quality built from sustainable sources.

08 8390 3150

www.timberframes.com.au

♦ Lachlan Park, Fine Woodworker

Designs and hand makes high quality custom woodwork furniture, using hand tools and sourcing the majority of the wood from fallen or removed trees.

0447 520 818

www.lpwoodwork.com

