Furniture Joineries & Fixtures (IADP)

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Basic Exploration

Objective : Understand basic wood operations like cutting and chiselling; using fundamental tools like hacksaw, chisels, clamps and bench vice.



Learning Outcome

This was my very first time working with wood, So trying these basic operations really was important to get a feel of the material, its abilities and limitations as well.

Talking about particular learning bits :

- Understanding the cutting rhythm while using a saw.
- Tilting the piece and not the saw while cutting at an angle.
- Not applying too much pressure on the blade; I broke my blade in the first few minutes of cutting.
- Chiseling against the grain prevents chipping.

Milter Joint

Objective : Understand and use Milter joint by making a photo frame.

Learning Outcome

Studying this joint was a step ahead in perfecting our skill of cutting at an angle.

But this time it demanded an absolute level of perfection because even the variation in angle upto 1 or 2 degrees made the side deviate too much.

Although marking inverted sides on single length of bleed and cutting it at one go, was a better decision to make sure they fit perfectly later, but it too wasn’t a guarantee that it will yield a perfect right angle.

Cross Lap Joint

Objective : Understand and use Cross Lap joint by making a lamp.

Learning Outcome

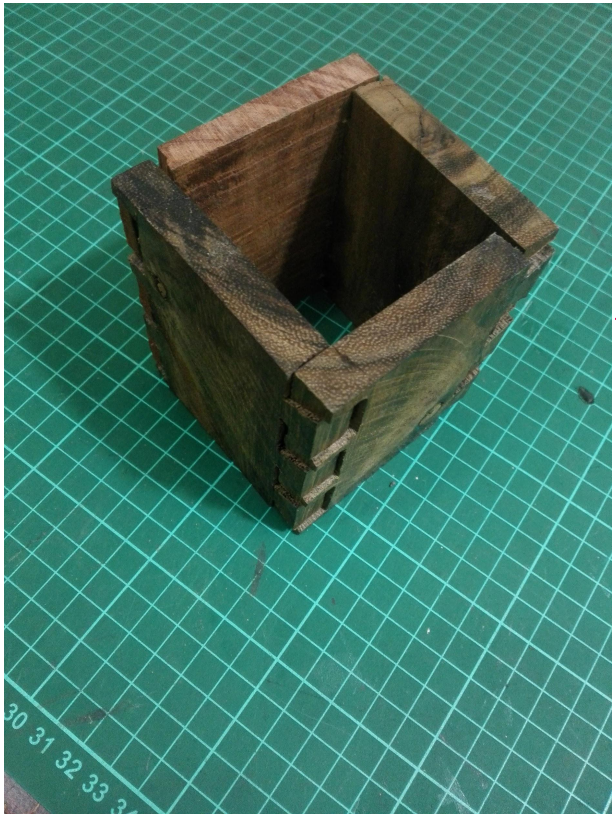
This was the first joint we studied which did not require either adhesive or nails to make the wood hold in place.

But I only learned this after I got my joints slightly loose and hence not fit on its own.

So the main learning here was to not provide too much buffer space in the cavities so as to get tight joints.

Dove Tail Joint

Objective : Understand and use Dovetail joint by making a box.





Learning Outcome

This assignment required patience and precision at another level altogether.

My conclusion after doing this was that instead of marking on both the positive and the negative face of a joint in a single go and cutting and hence testing to see if they fit, it’s better to cut the positive side and correspondingly mark the negative side.

Three Member Joint

Objective : Create an advanced three member (three axis) joint

Learning Outcome

This was the first time I created a joint of my own. The inspiration for the top part came for trisects of a circle, and the way they fit into each other was inspired by concepts of tessellations.

For the third axis, initially I was planning a rather simple support, but Binu reminded to keep in mind the form of the top joint and design the supporting joint in line to it, in such a way that it only heightened the aesthetic beauty I achieved.

Theo Jansen Kinetic Sculpture

Objective : Understand the joints and their movements in Theo Jansen’s Kinetic Sculptures and find their applications.



link to video : https://drive.google.com/open?id=0BwxOxA5v-sweZmhGamU0YTdsUGc

Learning Outcome

Layering and overlapping of members was key part of learning in this assignment.

Layering in different manners helped facilitate and at times hindered motion.

Understanding how to use it to your advantage for both motion and hindering it by correct layering was they key part of learning.

Overall Learning

To summarise, I think essentially this course was about making us understand wood as a material. The advantages and limitations of different types of wood, and the related decision making that hence can be done.

Needless to say joints too was an integral part of learning, understanding which to use where based on the importance of the joint itself and the load it had to sustain in a design.

Overall, I feel much more confident about my skills as a woodworker now. Some key decisions like - understanding grain flow, bends and curves in wood, strength prediction, etc - have started coming instinctively to me and I definitely feel prepared to take on more advamced projects.

Acknowledgement

I would like to express my special thanks of gratitude to our facilitators : Manoj Dangoria, Ritu Sonalika and Binu Bhaskaran who gave me the golden opportunity to do these wonderful assignments.

I would also take the occasion to thank our workshop assistant Mr. David, for his special suggestions and his helping hand in executing all the work.

Also to my friend Aishwarya Jhawar, with whom I did the final project on Theo Jansen's kinetic sculptures; and to Padamchitt Saxena who offered his prior experience in working with wood to help me understand techniques and tools of the trade at
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