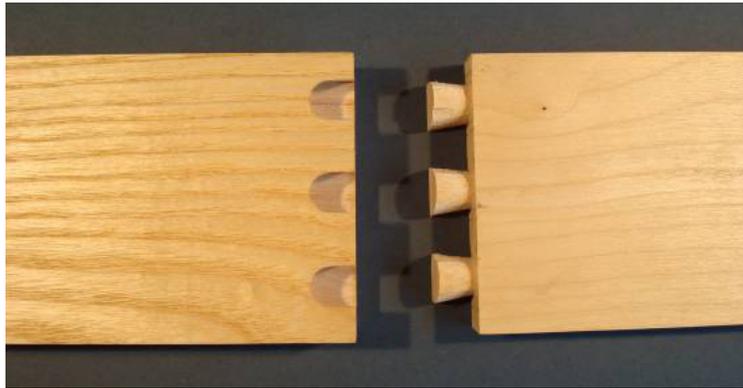


HOW FURNITURE IS MADE



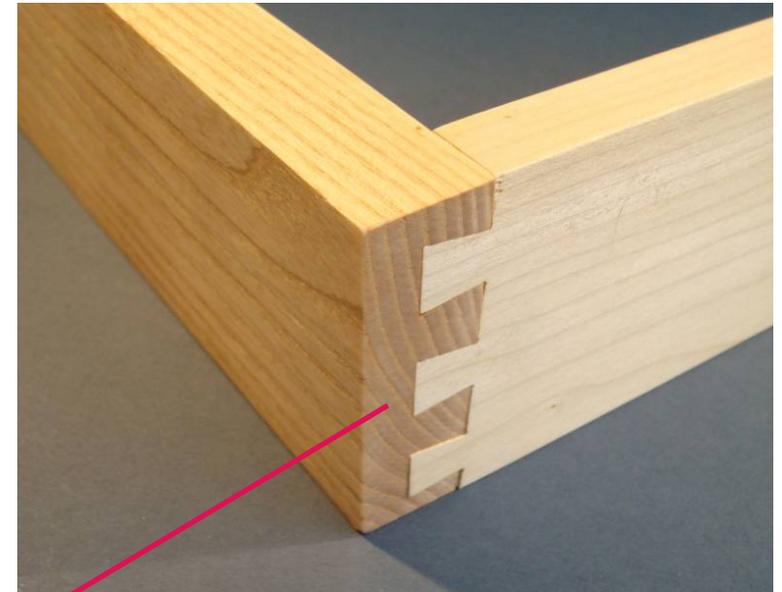
Wood is brilliant for making furniture!

Martin Blakeman is a cabinet maker, a craftsperson who makes fine furniture out of wood. He used to work for the Gordon Russell furniture company here in Broadway.



This is called a **DOVETAIL JOINT**. Why? because when you carefully take it apart the pattern looks like a dove's tail. It is used to join wood together in box shapes, like a drawer or a cupboard.

FACT! What are Joints? Martin has made some examples of how furniture is fixed together - these are called joints (just like where your arms are fixed to your shoulders or your legs to your hips!).



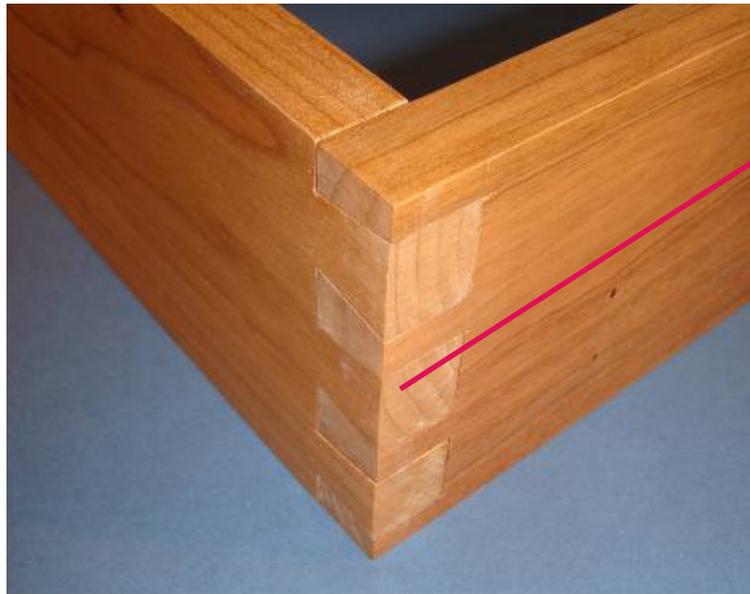
CHALLENGE!

Can you find an example of the dovetail joint on any of the furniture in the museum? Remember not to touch the furniture though!

This dovetail has been made using a machine and is made from ash (the darker grainy wood) and sycamore (paler and not so much grain).

Wood comes in so many different colours!

This is called a **THROUGH DOVETAIL JOINT**. Compare it to the dovetail joint made in ash and sycamore. Can you spot the difference between the two joints?



FACT! We ask you not to touch the furniture because wood is easily scratched. It isn't that we don't like polishing the wood!

Making the joints interesting

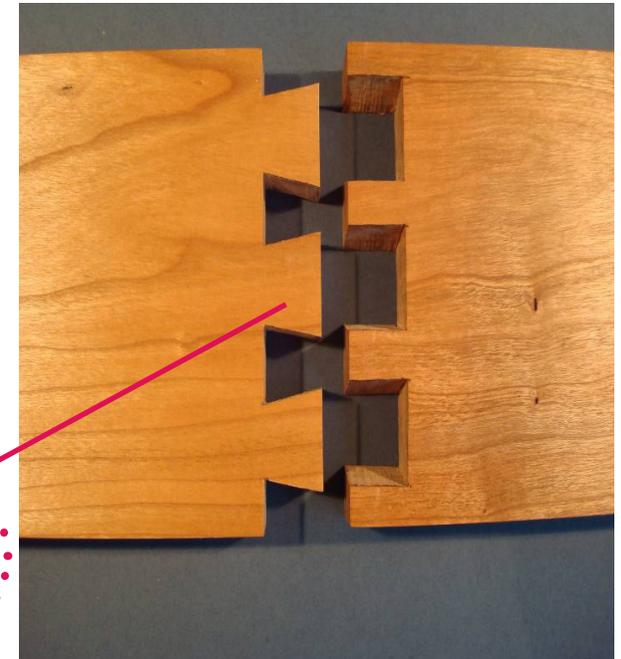
Designers and craftspeople often make the edges look decorative by using interesting patterned wood or leaving the joint for people to see.

CHALLENGE!

Can you find an example of a **through dovetail joint** on any of the furniture in the museum?

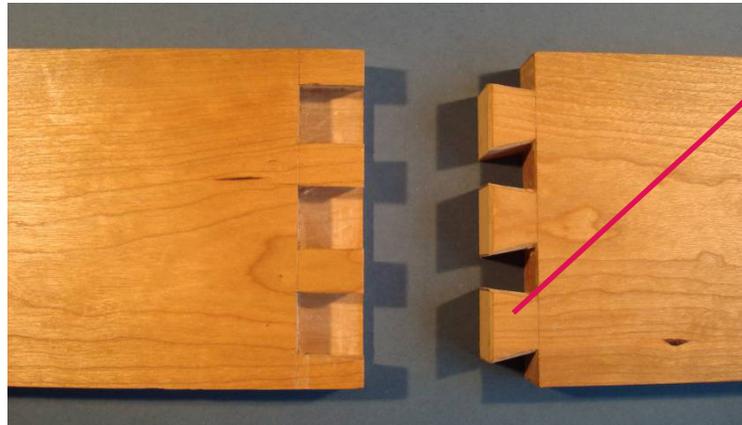
Remember not to touch the furniture though!

These joints have been hand made using beautiful cherry wood. One is glued together and one is not - so please take care!



Wood is a strong material to make furniture from!

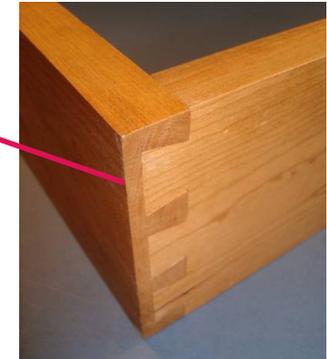
This is called a **LAP DOVETAIL JOINT**. Compare it to the other dovetail joints.



Making the joints interesting

This joint is often used for making drawers - why would a designer or craftsperson want the joint to look like this?

To protect the wood Danish oil is rubbed onto the wood to stop dirt or liquids spoiling it.



CHALLENGE!

Can you find an example of a lap dovetail joint on any of the furniture in the museum?

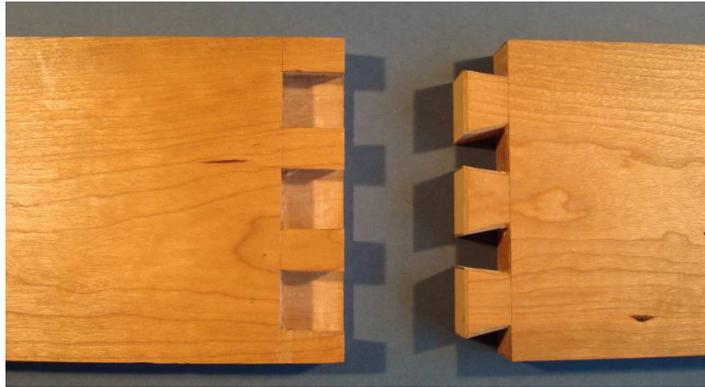
Remember not to touch the furniture though!

Here are some tools a cabinet - maker might use. The mallet (a type of hammer) is used to hit the very sharp metal chisel which shaves or cuts the wood into shape.



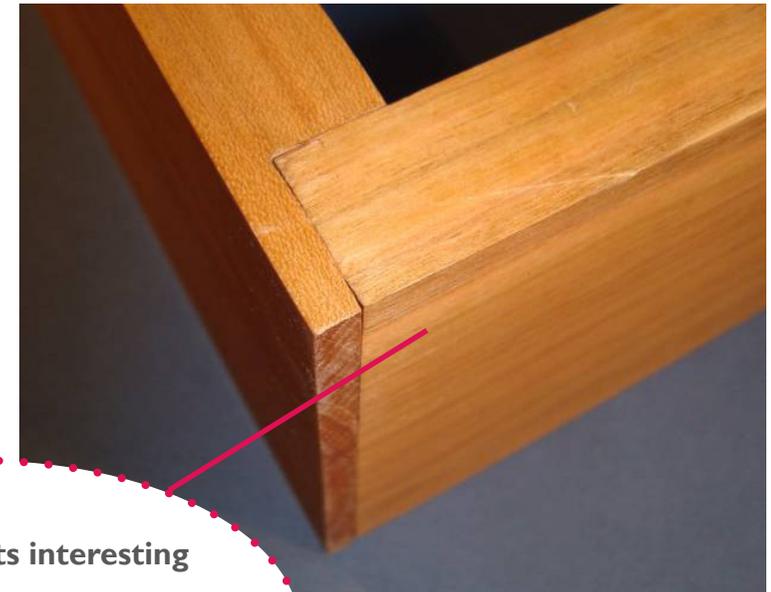
Wood is a good material to work with!

This is called a **SECRET LAP DOVETAIL JOINT**. Compare it to the other dovetail joints. Why would you want it to be a secret?



What kind of wood has this joint been made from?
Can you guess?

Normally the joints would fit together **very tightly** - we have had them made loose so that you can take them apart and have a look.



CHALLENGE!

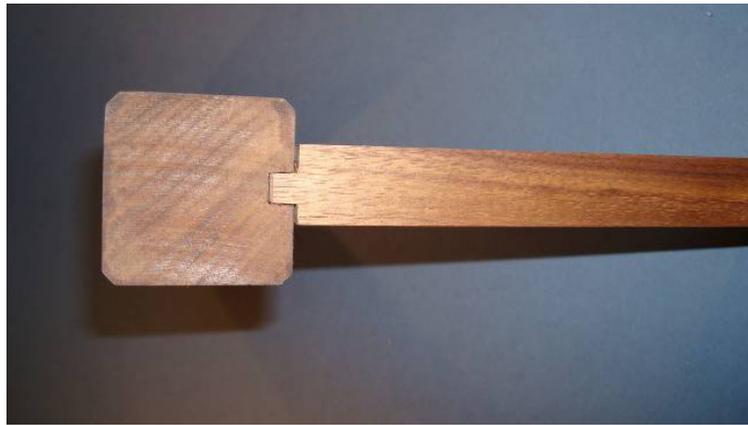
Are there any secret lap dovetail joints in the museum?
They are secret, so maybe you can't see them!
Remember not to touch the furniture though!

Making the joints interesting

This joint is used on a piece of furniture when the designer or maker is thinking about how strong it needs to be and how it looks.

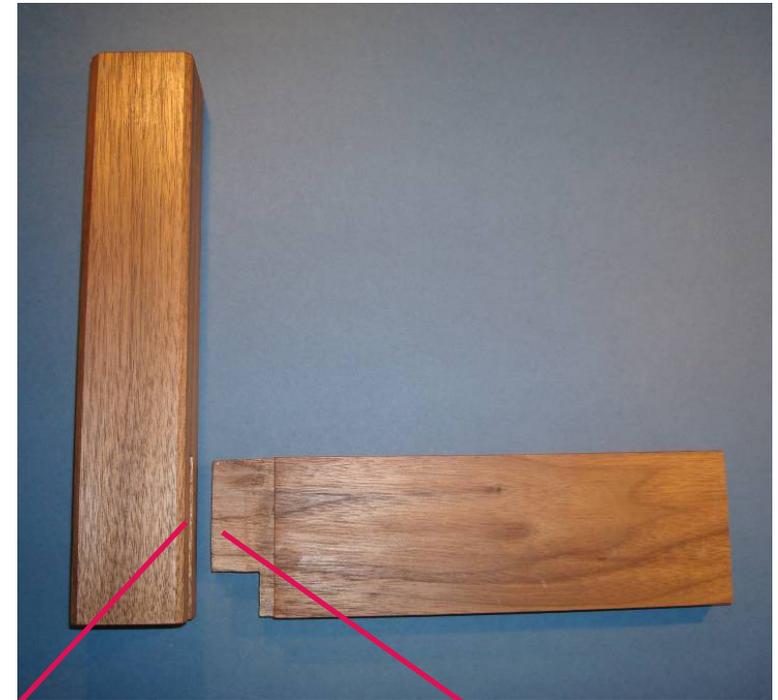
Wood is a strong a robust material!

This is called a **MORTICE AND TENON JOINT**. It is usually used for joints on tables and chairs. This joint has been made from walnut wood.



Why would you need a strong joint for tables and chairs in particular?

TASK! How important do you think measuring is to the cabinet maker?



CHALLENGE!

Have you spotted any mortice and tenon joints on the furniture in the museum?

Remember not to touch the furniture though!

The mortice is the hole which has been chiselled out. The word may well come from an Arabian word, *murtazz*, meaning fixed in.

The tenon is the end of the wood shaped to fit into the mortice hole. It is thought to come from the French word, *tenir*, meaning to hold.

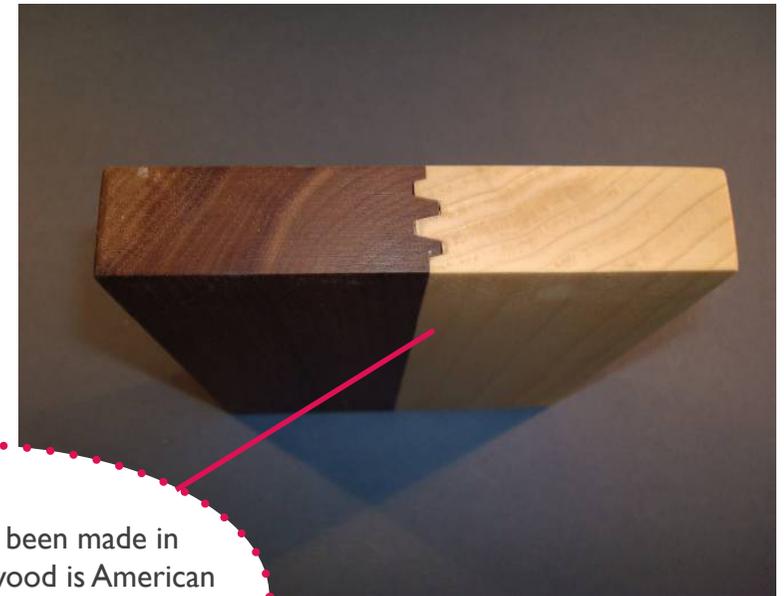
Wood can be used in clever ways!

This is called a **BOARD JOINT**. It is usually used when you want several flat pieces of wood to join together to make a larger piece - maybe the front of a cabinet or a large tabletop.



TASK! How many different patterns can you make using the walnut and poplar board joints?

This board joint has been made from elm. The grain (the stripes showing the growth of the wood) helps to disguise where the joint is. Very clever! This joint has been left unglued.



CHALLENGE!

Can you find any furniture made from American walnut in the museum?

Remember not to touch the furniture though!

This board joint has been made in two woods. The dark wood is American walnut and lighter wood is called poplar. This joint has been glued.



GORDON
RUSSELL
DESIGN
MUSEUM

www.gordonrussellmuseum.org