



About wood *and* *sustainability*

About wood

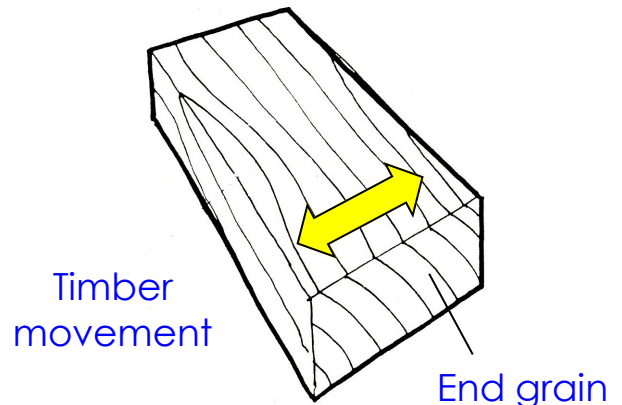
Wood is humankind's oldest renewable resource. Its use throughout history ranges from buildings, boats, waggon wheels, sledges and furniture, to paper, medicinal ointments, pit props and tribal masks.

It is a fibrous material, depicted by grain and is stronger in one direction than the other.

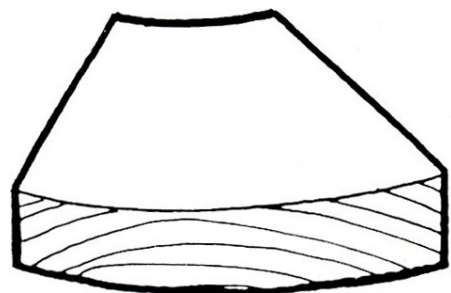
If you take an axe to firewood you will see the wood splits easily down the grain. But woods vary enormously in how easily they split.



Another essential feature of wood is that it is like a sponge; it absorbs and releases moisture from the atmosphere and it moves. That means it shrinks and expands across the grain.



Moisture content is useful to know as in England in mid-summer a piece of wood left outdoors will have a moisture content of about 25%. For indoor use wood needs to reduce to about 10% so the process of 'seasoning' (drying) is required to reduce the moisture content to a level that will prevent the wood splitting, twisting and warping. That's what wood naturally does!





When a log end (a butt) is left to dry out it will shrink and split. This is often used as a feature in furniture today such as this stool.

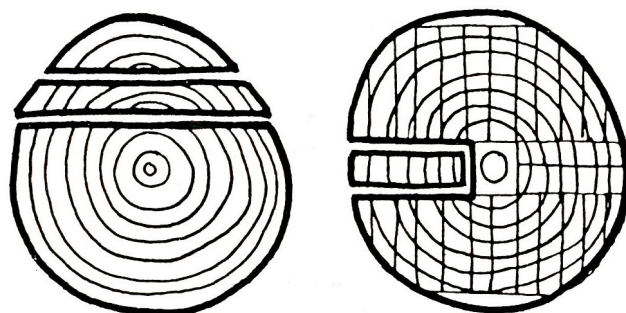


Wood is immensely versatile and whereas it generally rots in water it is used for boats and piers. It will burn, sometimes oak beams will char while their steel counterpart buckles. Miners used to prefer wooden pit props as they creaked before they gave way.

Woods are divided into hardwoods (leaf-bearing) and softwoods (coniferous) and generally but not always hardwoods are hard and softwoods soft. Balsa wood is a hardwood and Pitch pine is a softwood.

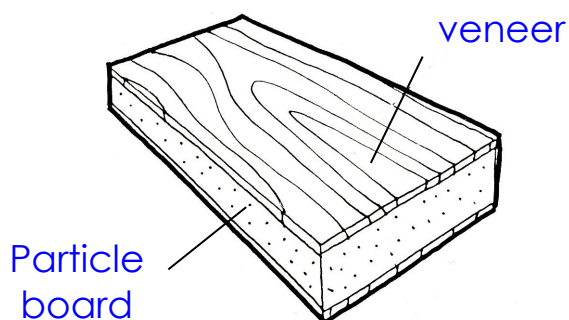
Logs are converted into boards or planks by slice or quarter

sawn cutting, the latter being more stable because the annual rings are shorter. Annual rings tend to straighten out in the drying process.



Slice cut and quarter sawn log conversion

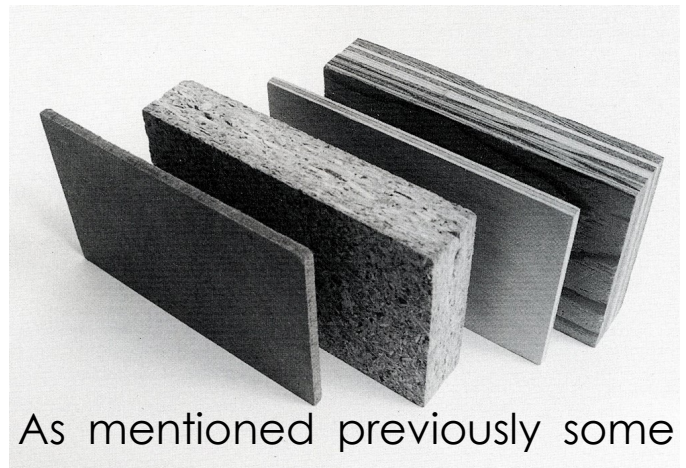
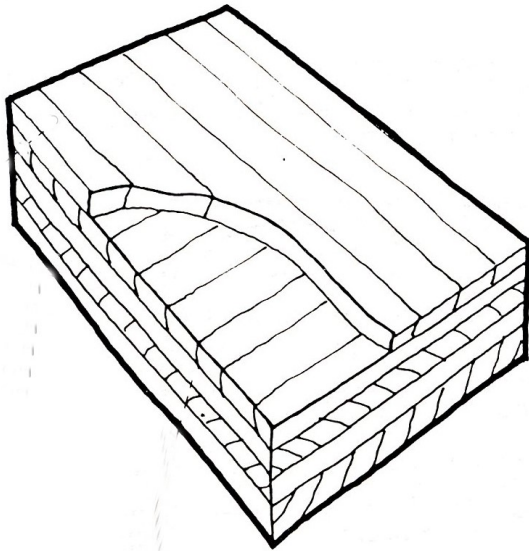
A veneer is a paper thin slither of wood glued onto a particle board core such as chipboard or medium density fibreboard (MDF). Much furniture is veneered which helps conserve the supply of solid wood.



Veneers are cut from the log by rotary peeling or slice cutting, the latter gives better figure.



Plywood is another manufactured board using thicker veneers with alternate grain direction to give immense strength. It has been an under-rated material but has been used for aeroplane manufacture.



As mentioned previously some

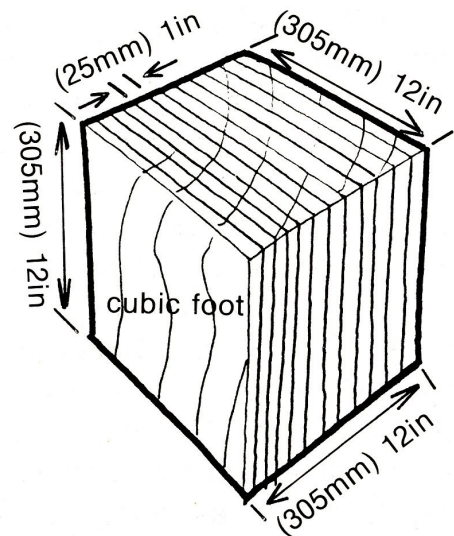
Some manufactured boards

woods split easier than others, some are very soft such as Cedar of Lebanon which has a perfumery smell and is used for traditional drawer bottoms.

Wood is generally treated to protect it and enhance its visual appearance.

Of the many thousands of timber species on planet Earth only a fraction are commercially classified. There are families of woods such as Eucalyptus, Oak, Mahogany and pine.

Each timber has its character and it is important to select the right wood for the job. For a beginner it is best to start using a soft wood such as one of the pine or pine woods or Jelutong (which is a hardwood).



Wood tends to be measured by the cubic foot or metre. Board widths vary between species.

Wood is bought generally as rough sawn or dressed (planed sides and edges) and manufactured board bought in sheets, the standard size in the UK being an 'eight by four' (8ft x 4ft or 4480 x 2240mm). Smaller sizes can be bought at the DIY superstores ('sheds').

When buying rough sawn timber it has to be dressed but for the beginner it is much better to purchase already prepared timber (PAR = Planed All Round),

Always check the planks or boards are straight and not bowed or twisted and as knot free as possible.

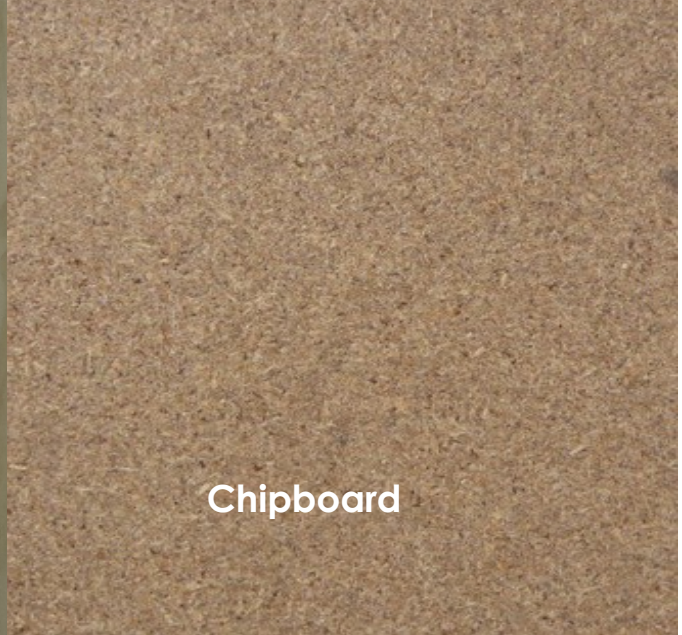
Storing timber and manufactured boards (chipboard, MDF and plywood) should be in a dry environment. Planks are best stacked horizontally with spaces (stickers) between them ideally and manufactured board sheets vertically and as vertically as possible to avoid bowing.

Offcuts can be stored vertically in boxes.





Brazilian pine plywood



Chipboard



Bubinga



Ash



English walnut



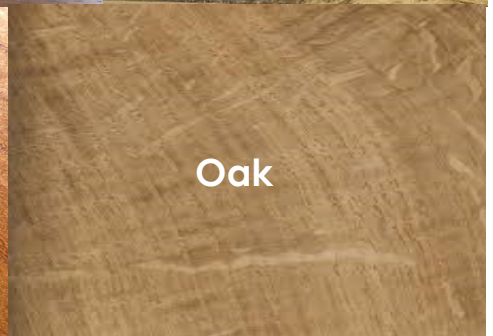
Buhr oak



Brown oak



Dutch elm



Oak



Japanese ripple sycamore



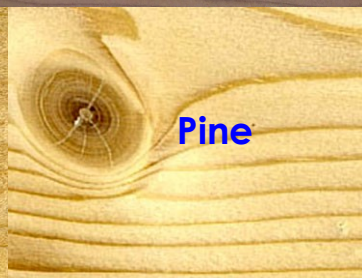
Cherry



Pine end grain



Maple



Pine



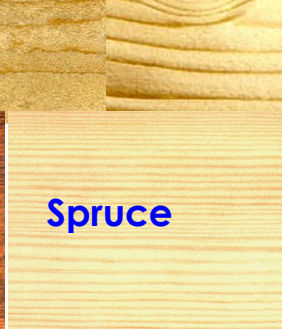
Yew



Larch



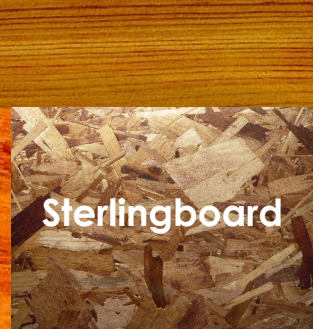
Rio rosewood



Spruce



Mahogany



Sterlingboard

Sustainability

Sustainable and eco-friendly are not just trendy terms but now almost default mode of the younger generation of woodworkers who face a planetary crisis ahead.

It is almost a miracle that the planet hasn't already run out of trees, considering the huge and widespread consumption.

In an age of dual truths (not to mention mistruths) whilst home grown sustainable timbers are increasingly used, just look at the contents of the average skip in an affluent town or city.

It is often a treasure trove of valuable pieces of wood, discarded in ignorance less than a decade after it has been used in a fashionable and expensive fitted kitchen.

Sustainable wood sourcing aims to protect the natural environment and support local ecosystems. By choosing wood from local sources, each tree once felled can be replaced,.

In the UK there are many small mills that specialise in home grown timbers such as English oak, elm, ash, and sweet chestnut. Portable mills which are essential chainsaws are also used.



A log given to Jeremy Broun from Kew Gardens
Storm timbers being converted into specified

Sustainable, renewable, reclaimed and re-cycled are not mainstream culture but an increasing awareness of a few more people today .

Jeremy Broun made furniture from reclaimed wood such as salvaging pitch pine church pews as early as 1973.



Man and Nature table designed and made by Jeremy Broun in 1990 from an ash tree grown at Kew Gardens and fallen in the Great Storm of 1987.



Rescuing a piece of firewood

In his local pub, Jeremy Broun was warming his hands on a cold winters night in front of an open fire, He noticed the logpile was spalted sycamore. Nobody else would have noticed this and he took a piece back to his workshop to convert into a beer mat. He sliced the wedged shaped wedge piece and joined it in quarters. The centre (pith) had fallen out. After a coat of matt varnish he gifted it to the pub landlord.

Spalted wood was once given away at timberyards as a disease caused by logs left lying for too long. Today it is a treasured expensive material used decoratively in turnery and furniture.

Spalted timbers (in the UK) are generally beech and sycamore.



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