

Working With Wood

Art & Design

Grain direction governs cutting, joining and how a piece moves after it is made.

Wood is a bundle of fibres. It is strong along the grain and weak across it, and it changes width with humidity while staying almost constant in length.

MOVES

across the grain

STRONG

along the grain

- Cut and plane with the grain, not against it.
- Wood moves across the grain, not along it.
- Quarter-sawn boards move less than flat-sawn.
- End grain drinks glue and holds badly.
- Long grain to long grain makes a strong joint.
- Softwood and hardwood are botanical, not hardness.

LOOK FOR IT

A wide tabletop screwed rigidly to a frame will split as it shrinks through a dry winter.

Seasonal movement across a 500 mm panel can exceed 5 mm. Design a fixing that lets it move, or the wood will win.