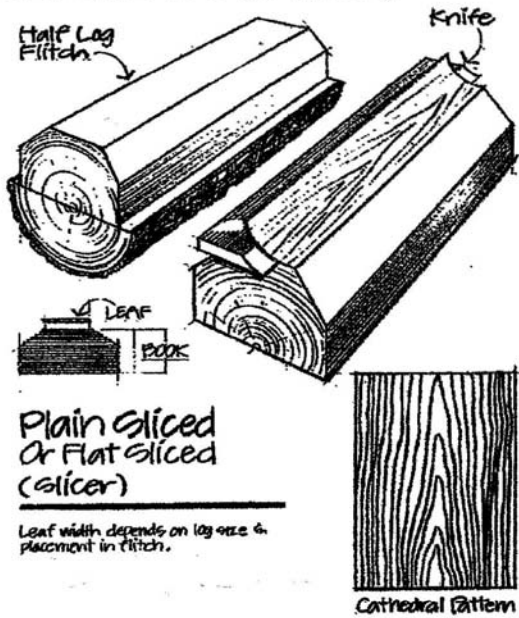


GRAIN

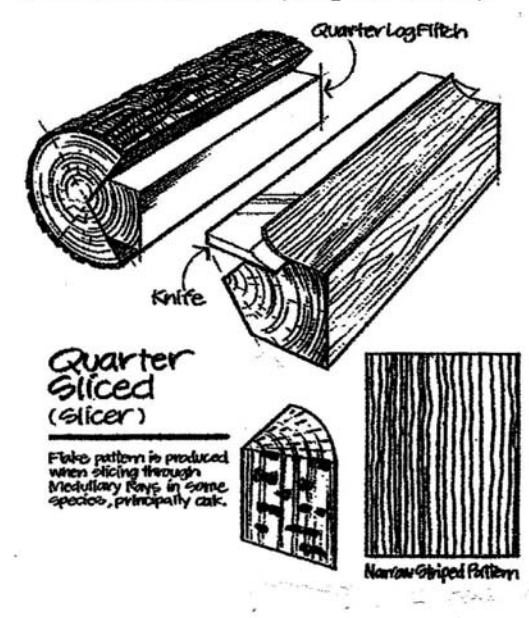
Grain is the stripes in the wood created by growth rings which may be tight, indicating slow growth, widely spaced, indicating quick growth or any variation in between. Different woods have distinct grain patterns that help identify them. The grain is caused by the fact that trees in non-temperate zones of the world grow at different rates in the summer (late growth) than they do in the spring (early growth). The density and coloration of the early and late growth can vary significantly. Growth rings tell how old a tree is, since there is one per year. The appearance of the grain pattern in woods can be changed dramatically by making a different kind of cut in the wood. The most common cutting terms to see include plain sliced (flat cut), rotary sliced, quartersawn (quarter cut), and rift cut.

GRAIN VENEER CUTS

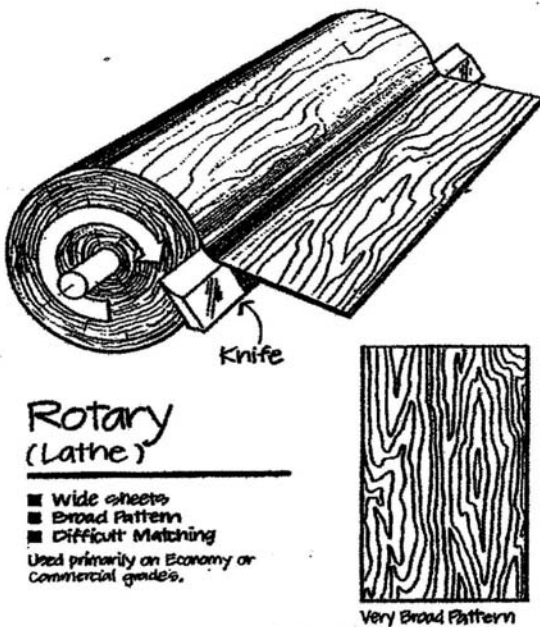
PLAIN SLICED (or flat cut)



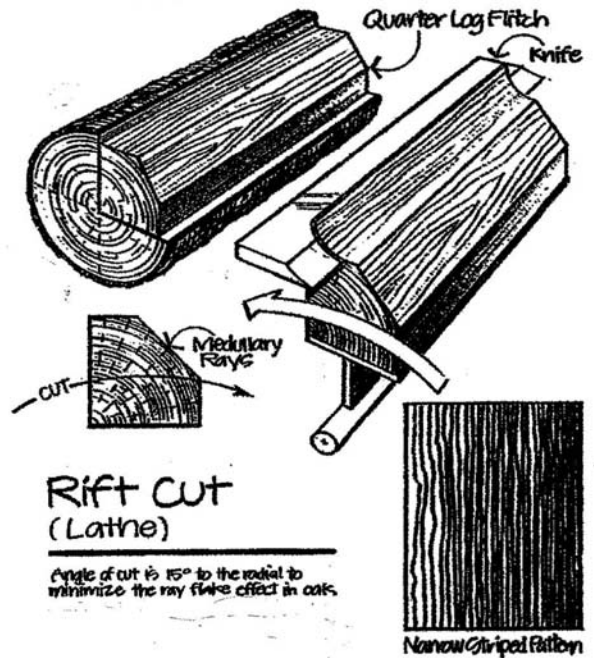
QUARTERSAWN (or quarter cut)



ROTARY SLICED



RIFT CUT





PLAIN SLICED (red oak)



QUARTERSAWN (red oak)



ROTARY SLICED (red oak)



RIFT CUT (red oak)

FIGURE

Figure is the form of the grain and color patterns in wood that give it a unique appearance. There are many factors or characteristics that go into making up the figure, and some of the terms that are associated with figure are fiddleback, block mottle, peanut shell, pomelle, quilted, spalting, curly, bird's eye, and more. The figure of woods is heavily influenced by how the wood is cut.



FIDDLEBACK

Fiddleback figure is caused by contortions in grain direction such that light is reflected differently at different portions of the grain, creating an appearance of undulating waves. Fiddleback figure is a form of curly figure where the curls are very tight and fairly uniform, generally running perpendicular to the grain and across the entire width of a board. The name comes from the fact that such wood became popular to use on the backs of violins (fiddles).

Fiddleback (ash)



CURLY

Contortions in grain direction sometimes reflect light differently as one moves down the grain and this creates an appearance of undulating waves known as curly grain and can be so strong an effect that your eyes will swear that a flat piece of wood has a wavy surface.

Curly (avodire)



BLOCK MOTTLE

When wavy grain in a wood combines with spiral, interlocked grain to produce a wrinkled, blotchy figure, this is known as mottle. This figure appears as broken-up broad cross markings across the grain. If the mottled figure is scattered randomly it is technically called "broken mottle" but if it appears as a regular checkerboard pattern it is called "block mottle", and a very regular, sharp, block mottle is called "razor mottle. Anigre, Makore, and Sapele frequently exhibit all kinds of mottle figure, and it also occurs in Mahogany, Koa, Bubinga, African Satinwood and some other species.

Block mottle (eucalyptus)



PEANUT SHELL

This form of blistered or pomelle figure is found fairly often in Tamo and less frequently in a few other woods, where the grain pattern forms into the classic shape of a peanut shell. It has a very "busy" look but can be very attractive.

Peanut shell (tamo)



POMELLE

Pomelle is a type of wood figure that resembles a puddle surface during a light rain. Some say this has a "suede" or "furry" look. It's usually found in extremely large trees of African species like Sapele, Bubinga and Makore. The name Pomelle comes from the French word for "quilted".

Pomelle (sapele)



QUILTED

Quilted figure somewhat resembles a larger and exaggerated version of pomelle or blister figure but has bulges that are elongated and closely crowded. Quilted grain looks three-dimensional when seen at its billowy best. Most commonly found in Maple, it also occurs in Mahogany, Moabi, Myrtle, and Sapele, and less often in other species.

Quilted (maple)



SPALTING

Spalting is a dark vein caused by a pattern of bacterial rot in dead wood that once stabilized often looks like a black ink line of varying thickness and great irregularity drawn through the wood. In some trees, spalting is never black-line and in fact can be VERY vague, amorphous, blotchy black or dark-gray areas. In some woods, spalting causes some color changes other than black. Some spalted woods are very colorful. Spalting can be encouraged by keeping a dead tree moist. Spalting is a form of decay and if spalted wood isn't stabilized at the right time, it will just rot.

Spalted (maple)



BIRD'S EYE

This figure, which looks like “eyes,” is the result of depressions in the surface of the trunk which distort the succeeding growth rings. This figure is found almost exclusively in Northern Maples and is always rotary cut.

Bird's eye (maple)



BURL

A burl is a lump-like, distorted growth on a tree, caused by an injury to the tree or an infection just under the bark or the existence of an unformed bud which has all the genetic material necessary to grow a full branch, or even a whole tree, but which for some reason did not grow properly. The result is that the tree cells divide and grow excessively and unevenly in a process similar to cancer cells in a mammal. Burls are sometimes called tumors on wood.

This continued growth follows the contour of the original deformity, producing all manner of twists, swirls and knots in the wood fiber. Usually, this results in a spectacular pattern.

Burl (oak)

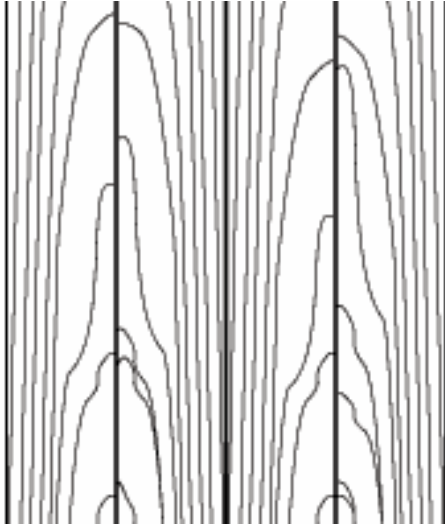


CROTCH

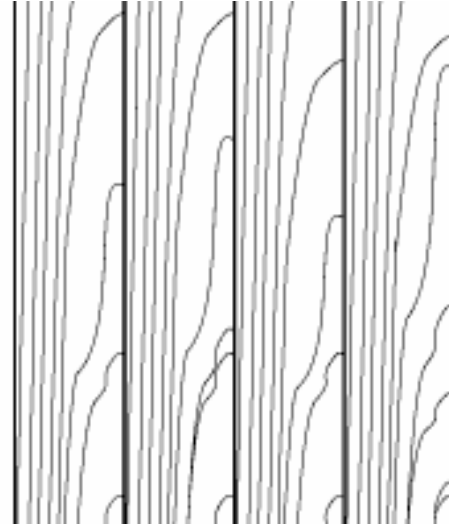
Crotches are an extreme form of compression wood. They are caused by the forces exerted within the tree to support a main branch where it joins the trunk. Crotch wood frequently exhibits an extreme degree of grain variation. This causes the wood fibers to twist and compress, creating various figures and grains that can be very beautiful. Unlike burls, crotches have grain that, while quite distorted, is basically the same grain as the other wood in the tree and does not tend to the extreme swirls and eyes of burl wood. Shapes of flames or plumes are usually visible.

Crotch (walnut)

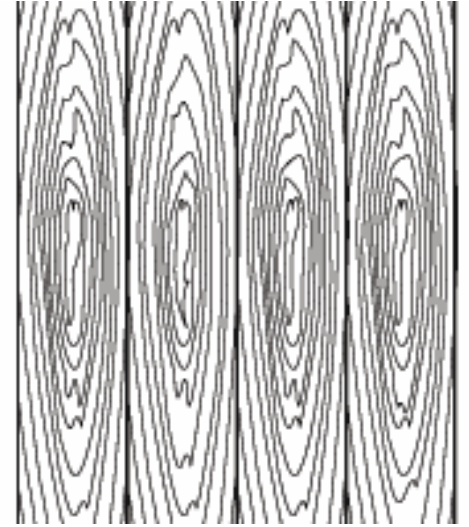
VENEER MATCHING TYPES



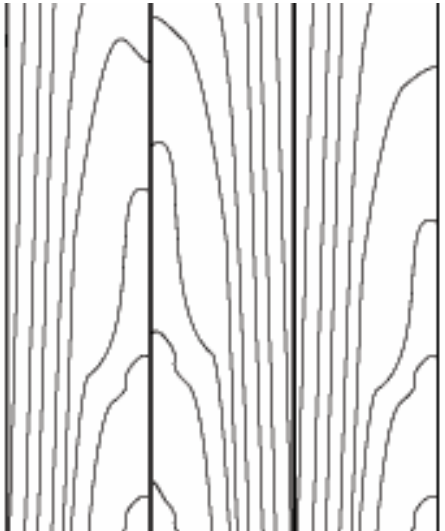
BOOK MATCH



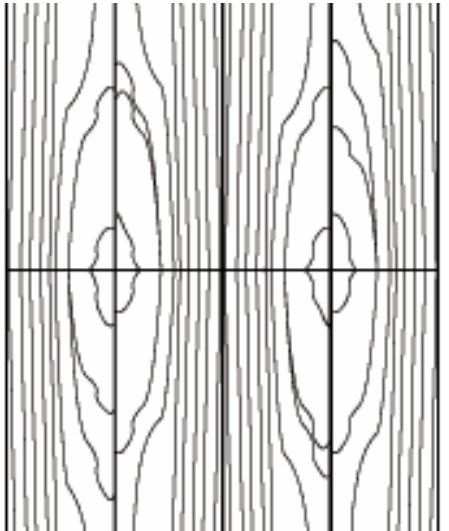
SLIP MATCH



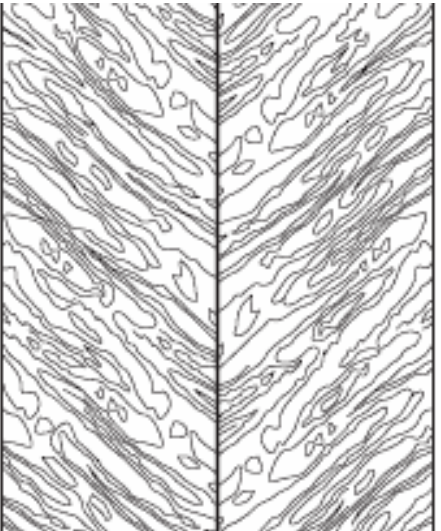
CENTER MATCH



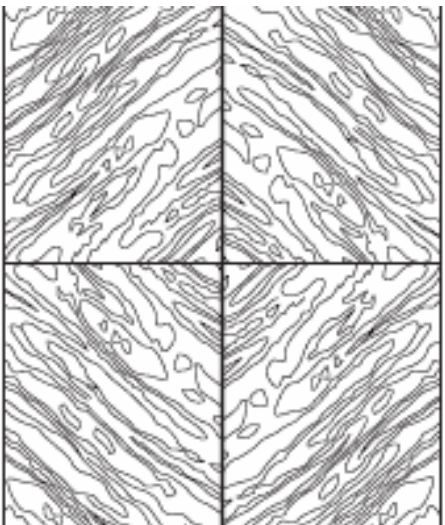
BALANCE MATCH



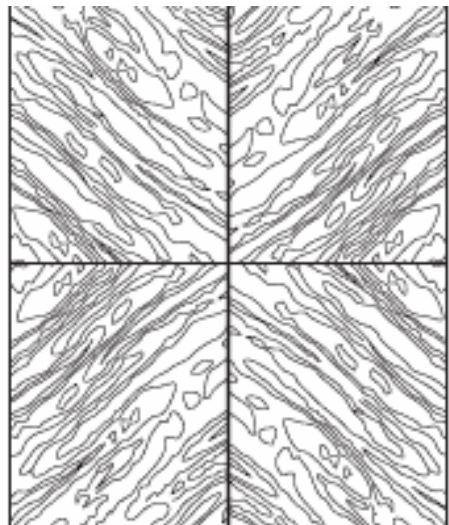
BOOK & BUTT MATCH



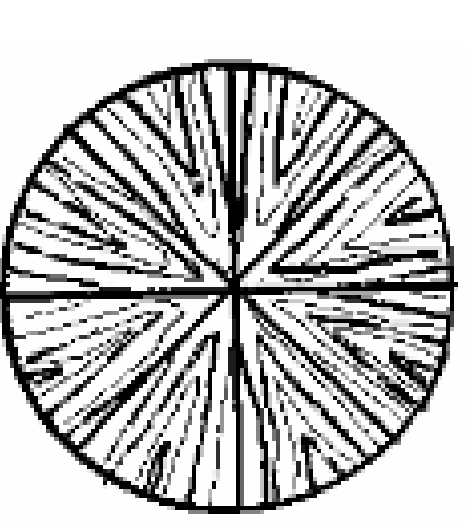
HERRINGBONE MATCH



DIAMOND MATCH



REVERSE DIAMOND MATCH



STARBURST MATCH