

### white paper series (1)

# Architectural Woodwork for Custom Hospitality

DESIGN FUNDAMENTALS: FF&E SPECIFICATIONS

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#### ARCHITECTURAL WOODWORK

Some of the FF&E specifications you'll need to know and look for when researching architectural woodwork include:

- 1. Types of Veneer Cuts
- 2. Grains & Figuring
- 3. Material Selection



#### TYPES OF VENEER CUTS

#### What is veneer?

Veneer is a thin layer of wood which is cut from the vertical trunk of a tree. In woodworking, veneer refers to thin slices of wood, usually thinner than 0.1181 in (1/8 inch), that typically are glued onto core panels of substrates (typically wood, particle board, or MDF to produce flat panels such as doors, tops and flat panels for cabinets, and parts of furniture).

Veneer is obtained either by "peeling" the trunk of a tree or by slicing large rectangular blocks of wood into thin sheets that are laminated to substrates, known as flitches. The appearance of the grain and figure in wood comes from slicing through the growth rings of a tree and depends upon the angle at which the wood is sliced. Each type of slicing (cut) process gives a very distinctive type of

grain, depending upon the tree species, providing a particular aesthetical look.

In addition, the way the veneer cuts are matched produces a unique look. Veneer is obtained by slicing a rectangular block of wood into thin sheets. Sheets cut from the same block are called a flitch. As you move / flip through the flitch, the grain will have a consistent flow from one sheet to the next, as they all come from the same tree and are cut in succession.

The appearance of the grain on the veneer depends greatly on how the block of wood is cut. Each "cut" has its own look, allowing the same species of wood to take on different appearances.

TYPE OF CUTS	DESCRIPTION	IMAGE	YIELD
FLAT CUT	Plain Slicing is the method most often used to produce veneers for high quality architectural woodworking.The slicing is done parallel to a line through the center of the log. A combination of cathedral and straight grain patterns result, with a natural progression of pettern from leaf to leaf.		This cut wil show the grain with repeating arches, also known as cathedrals due to their similarity in shape to cathedral ceilings, This is the most commonly used veneer cut in hospitality.
ROTARY CUT	This veneer is created by spinning the log and peeling off a continuous sheet. Think of a roll of paper towels, and you get the idea. Rotary-cut veneer has wild, random grain patterns, though, so it's best suited for projects that will be painted. this cut is not typically used in furniture.		This cut will yield veneer with a broad grain pattern with no plain sliced or quartered appearance. This process yields the most veneer per log and is usually less expensive than sliced veneer.
QUARTER CUT	Quarter Slicing simulates the quarter sawing process of solid lumber, with slicing occurring oughly parallel to a radius line through the log segment. As a result, the individual leaves are narrow for many species. A series of stripes is produced, varying in density and thickness from specie to specie.		This cut provides less yield from the tree than flat cut, due to the angle of cut. Therewfore it is more expensive then the same specie of lumber cut in a flat cut manner.
RIFT SWEN	Rift Swen veneer is made by tilting the log to a slight angle, so that the slices are more perpendicular to the growth rings. The slices get laid out side by side, but the grain pattern shows up as fairly straight lines instead of repeating arches.		Less yield from the tree than both flat cut and quarter cut, therefore, it is more expensive than the same specie of lumber cut in a flat cut or quarter cut matter.

As mentioned in "The Real Wood Bible" by Nick Gibbs, (1) Woodworkers never stop talking about the grain of a wood. The grain is the texture seen in a cut surface of wood. Here are the main issues that keep them talking, and what designers consider when planning a custom hotel furniture piece:

#### GRAIN TEXTURE

This refers to the "openness" of the grain. Most woods can be classified as coarse (open) grain, or fine (closed) grain. Closed grained woods are easier to bring into a high sheen level, while this will be much harder to achieve on an open grain wood. For hospitality use, while high sheens are used and can be achieve by using different veneer variations, open grain veneers such as walnut, oak and sapele are recommended for natural finishes and provide a durable surface to withstand the day to day abuse furniture takes.

#### MAKE SURE YOUR VENEER SAMPLES HAVE FULL DISCLOSURE OF THE VENEER GRAIN AND FIGURING GRAIN VS. FIGURING

The figure & grain are different things; however the figuring of a wood piece is affected by the grain.

In fact, the figure of a particular piece of wood is, in part, due to its grain and, in part due to the cut, or to innate properties of the wood. A few of the most unique figuring can be found on woods such as: rosewood, walnut and maple.



FROM LEFT TO RIGHT: ROSEWOOD, OAK & MAPLE.

Figuring can also be referred to as curling or a curl. Figuring and curling can also occur from movement or swaying of the tree in windy environments.

#### MATERIAL SELECTION

Selecting appropriate materials and finishes for a project requires considering more than aesthetics. Specifications should be durable, functional, and meet budgetary and safety needs of the project:

> Making an initial selection - select materials that meet the budgetary and design req uirments. If unsure, consult with your FF&E supplier for advise.

> Industry standards - consider whether an item confirms to industry standards, and whether requirements are mandatory or optional, depending on the location of the project.

> Codes / regulations - there may be federal, state or local governance related to FF&E, such as flammability requirements.

> Samples / mockups - it is recommended to procure actual samples or mock-ups from the vendor for final approval by the designer and client. Be sensitive to the timeline that this may require. Each project may vary depending on the number of pieces and design complexity.

> Work with a supplier that can advise if the material selection is appropriate for your project.

