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The Specifiers Issue

Antique Shopping

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Fred Berger, like many shoppers, went straight to the Internet when he was preparing to renovate his home in Bradenton, Fla.

"I was looking for sources of old wood," he said. He found many sources, made some calls and immediately gravitated toward antique heart pine logs recovered from southern rivers. Berger was lucky. He quickly decided on a type of reclaimed wood for which comparison shopping is difficult. "It turned out very nicely, and I'm extremely happy with my purchase," Berger said.

Unfortunately, buying antique wood is seldom this straightforward. As one customer put it, "At some point in the shopping process I went from enthusiasm to confusion to frustration to dismay. I thought it would be simple but was assaulted with so many comments and differences that it was impossible to compare!"

According to a flooring awareness study in 2000 by Environmental Design and Construction, 70 percent of respondents said they were not familiar with antique woods.

It is the same old apple-to-oranges story wherein one manufacturer's description and definition of a product recovered from old buildings, piers and even rivers may be completely different from another's. So much so, in fact, that there is discussion among leading reclaimed flooring manufacturers to form an association within the NWFA to create a common set of ethics, definitions and standards (see sidebar below).

"Philosophically, we really need an organization to level the playing field," says Jay Henderson, founder of Henderson Corporation in Boise, Idaho. "It's just a matter of getting the right players together to make it happen. It is long past due." Too often, he said, customers order from "wannabe players" who dabble in reclaimed wood flooring and can't deliver the look of what is seen in magazine ads. "It costs the customers a lot more in the long run, and they often aren't pleased with the final product."

Antique Heart Pine Defined

At the 2002 NWFA convention, reclaimed wood floor manufacturers met to assemble a standard set of definitions. Thus far, the group has agreed upon the following terms that apply only to antique heart pine. Future plans for this association include standard terms for other types of reclaimed wood such as antique Douglas fir, antique oak, antique chestnut and others. The association will exist within the National Wood Floor Association and will be self-governing, with inspections to ensure that all wood marketed under the name of the association is truly reclaimed and does not come from standing trees. The goal is to enable consumers to buy these products with a guarantee that they are reclaimed and that they will receive the grade they have specified.

Reclaimed Wood Floor Association Terms Commonly Used to Grade Antique Heart Pine

Checks: Surface checks, slight cracks in the grain of the wood, occur naturally in all heart pine. If the product is properly air-dried and slowly kiln-dried, checks can be sanded out or filled.

Grain pattern: There are three distinct grain patterns: plainsawn, vertical and curly. Plainsawn typically has an arching grain pattern in each board. Vertical is a tight pinstriped grain pattern that requires a larger log and can waste some wood. Curly or burl grain is the rarest of all: one in every few hundred logs produces a board or two. Curly grain wood is usually reserved for a newel post, cabinet front or flooring inlays.

Growth rings: An annual growth ring consists of a band of light-colored "early wood" put on in the Spring and a band of darker "late" wood from the end of the growing season. Longleaf pine often lived 400 or 500 years. Original growth wood grew slowly, sometimes taking up to 30 years to put on just 1 inch of girth. The highest grades of heart pine require an average of eight growth rings per inch or more, while other grades may average six per inch. New heart pine generally has less dense growth rings.

Hardness: The scale used to measure wood hardness is called the Janka (yahn-kah) scale. Measurements are taken by dropping a 4-millimeter steel ball from 4 meters away onto the wood. On the Janka scale, antique heart pine measures 1225, compared with red oak at 1290. New heart pine is about one-half as hard and is comparable to Southern yellow pine at 670.

Heart content: Heartwood is formed when sapwood becomes inactive and is infused with additional resin compounds. It develops slowly in the center of the tree as the tree matures. The older the tree, the higher the heart content. According to the Forest Service, a 200-year-old longleaf pine averages 65 percent heart content, and all the 200-year-old trees are protected and cannot be cut. Heartwood that has at least one third in the darker growth rings (latewood) is stronger and produces a more durable, stable wood. Longleaf heart-

It is the specialists in this niche who have learned—often the hard way—how to deliver standard, reliable grades. But even among them, grading differs from company to company. That's why more established companies make a determined effort to guide customers through each step of the process. These companies have questionnaires, guides and checklists to help educate customers prior to their purchase, plus they spend considerable time with first-time customers.

"When we tell a potential customer that our heart pine is antique, we are guaranteeing it is at least 200 years old and is mostly, if not all (depending on what the customer selects), heartwood," said Carol Goodwin of Goodwin Heart Pine Company in Micanopy, Fla. "We exceed the most recent standards last published by the Southern Pine Inspection Bureau in 1924."

When choosing a reclaimed product, consumers should inquire about numerous factors including: the percentage of heart, growth rings per inch, how the wood is reclaimed, age of the tree, and knot size and frequency. And as with any business, the more reputable manufacturers tend to deliver a consistent, high-quality product and a guarantee.

"The buzzword in this market is confusion," said John Williams of Mountain Lumber in Ruckersville, Va. "There are competitors out there who will lay claim to anything. For instance, you will hear that one company said their wood is dry because the moisture content is 13 to 14 percent. But the standards set forth by NWFA call for 6 to 9 percent, and that's generally what is essential to proper installation (with an HVAC system)."

Williams also believes an association that sets consistent standards will be beneficial to consumers, and thus antique wood manufacturers. The challenge, he notes, will be how those standards are established, implemented and enforced.

"This is a very primitive industry," said Henderson. "The reclaimed market is growing because of the unique benefits of the virgin growth wood. Until business standards are established, consumers should shop carefully and understand exactly what they are getting."

wood turns a rich color when exposed to light and oxygen. As heart content decreases, color tones can vary widely ranging from pale red to yellow in a single board.

Kiln drying: A process by which moisture is removed from wood with heat and dehumidification. This ensures the wood can easily acclimate to a building interior and avoid excessive shrinkage when properly installed.

Knots: Standard knots occur infrequently in the next best grade, often called select or select and better, and may be up to 1½ inches. No knots indicate a higher grade and larger, more frequent knots indicate a lesser grade. The knot itself is the dark center and does not include the "casing" or slightly less dark area created when the tree grew around where the limb once was. Oval knots are measured by averaging the widths.

Longleaf pine: Longleaf (Pinus palustris) is the legendary "antique heart pine" wood. The Longleaf ecosystem was once the largest contiguous forest on the North American continent. Today it covers less than 2 percent of its original range. Longleaf has more oleoresin than any other pine species. This is the quantity of resin that gives antique heart pine its unusual hardness and durability. It takes 90 to 125 years to develop even 30 percent heartwood, and the conditions for slow, dense growth to develop a majority of heart no longer exist.

Nail staining: Caused when the metal "bleeds" around the nail hole. Nail holes are in the select grades of heart pine, but may be larger in lesser grades. They can be filled on-site.

Natural color: Heart pine is yellow when first cut and turns red when exposed to oxygen and ultraviolet light. Beginning almost immediately, the heartwood will ripen within weeks and will continue to richen in color over the first several months. The heartwood portion of building-salvaged heart pine is usually already red except for some "yellow heart" areas, commonly occurring next to a resinous area that may have prevented the "yellow heart" area from oxidizing. Once cut, the yellow heart will turn red. Some finishes amber over time and can also change the natural color of the wood.

Old growth vs. original growth: Today old growth is a relative term. A 40-year-old longleaf pine might be considered old growth in today's forests. When specifying antique heart pine, use the term "original growth" to indicate wood that grew slowly and had to compete for nutrients and sunlight resulting in mostly dense resinous heartwood.

Pitch pockets: Small pockets of crystallized resin occur infrequently in heart pine. In the best grades, pitch pockets will be no larger than ⅛ inches wide, but can be up to ¾ inch or more in lesser grades.

Resin: Highly resinous wood is harder and more resistant to deterioration. Oleoresin, the type of resin from longleaf pines, made the United States the world leader in naval stores production until the middle of the 20th century. Longleaf sapwood contains from 1 to 3 percent resin, while the heartwood contains from 7 to 24 percent resin. The resin buildup is mostly in the latewood or the dark ring of the pair that make up a growth ring. The percentage of latewood is the factor most closely linked with weight and strength.[1] Longleaf has the heaviest concentration of resin of any of the pines.

Sapwood: Sapwood (non-heart) is the lighter colored wood on the outer perimeter of the log. It does not deepen in color and is not as hard as the heartwood. The best grades of heartwood do not contain any sapwood. Grades with 50 percent or more sapwood may today still be called heart pine.

[1] *Longleaf Pine, Wahlenberg, 1946, USDA Publication, page 38.*