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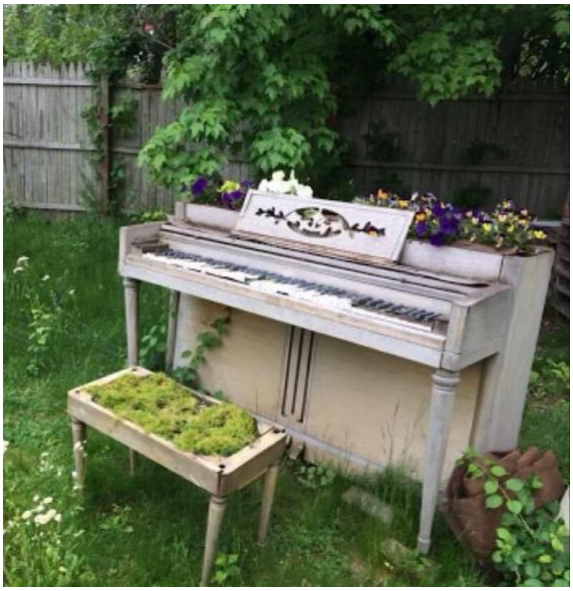

Can't See the Piano For the Trees

Therefore, if you love pianos, you must respect trees because you could not have one without the other.

About 80% of an acoustic piano is made out of wood. The highest quality pianos use the best woods available and are comparable to fine cabinetry and furniture. Like all wooden instruments, each part of the piano serves a specific function and requires a certain wood for that part. Different woods have different weights and hardnesses and these factors all depend upon the trees from which they are extracted. It's important to remember that all wood comes from felled trees that have been milled in certain ways to produce workable lumber. Therefore, if you love pianos, you must respect trees because you could not have one without the other. The two main types of trees, coniferous or evergreen and deciduous, produce either a soft wood or a hard wood. Soft woods are supple and light and crush easily under your fingernail and hard woods are heavier and are the ones that crush your fingernail. Each wood, after it has been milled into a board, must be seasoned appropriately so it does not warp and twist after being shaped into a piano part. If the wood is too "green," meaning that it has not been seasoned correctly, it will deform quickly with changes in environmental conditions leading to poor quality wooden products.

The action frame and various piano action parts consist of both soft and hard woods. The key sticks are made out of sugar pine or spruce and are light to allow for fast movement, but remain stiff along the grain. The black key tops are manufactured from ebony to resist wear from playing. The wippens or repetitions and the hammer shanks are made out of maple or hickory to give them strength and durability. The hammers have a core wood of either maple or mahogany depending on the weight required to match the size of the piano. The frame that keeps all the action parts together and in good alignment is usually also made from maple, cherry, or mahogany, or a combination of the three. These inner woods remain unfinished and raw. In the past, manufacturers have experimented with dipping these parts in oils to help stabilize them, but the oils ended up creeping into the joint pins and causing verdigris so the idea was eventually abandoned.

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The case parts are made of a hardwood, usually oak or maple and are covered with a veneer of walnut, cherry, mahogany, or a number of other fancy and exotic woods. A cheaper hardwood is usually used for the veneer if the piano will be painted black or some other color, because the natural look of the wood will be covered over by the paint. Many manufactures use MDF board, a type of panel made from resin glue and sawdust, for case parts in modern times because it is cheap, but unfortunately it is also much heavier than a natural wood. If your piano lid is very heavy, it is likely MDF. The rim of a grand piano is made from multiple thin sheets of hardwood glued or laminated together to provide supreme strength. All of these dense hardwoods used in case design contribute to the overall weight of the piano.

The whole soundboard panel is slightly convex to give the instrument resonance.

The soundboard, the large panel underneath or behind the strings, is a complex structure. It is made from diagonal, quarter-sawn boards of spruce, usually of the Sitka variety, held together by thicker pieces called ribs running close to perpendicular to the boards. The whole soundboard panel is slightly convex to give the instrument resonance. The bridges, where the strings attach to the soundboard, are usually made of a hard maple. The pinblock or wrest-plank, where the tuning pins live, is a multilayered laminated structure made from hard rock maple, a type of maple that is as hard as a rock, thus the name. Each layer of the pinblock has the grain running perpendicular to the previous layer giving it a strong and stable grip on the tuning pins.

Pianos are made from a number of different woods, each serving a specific function to give the player the best musical experience possible for the instrument.

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