

# Tonewoods: Concepts and Controversy

By Mike Nash, Luthier & Owner of Alien Guitar Factory



Webster's defines "resonate", as "to continue to produce a loud, clear, deep sound for a long time." And when Tonewoods are mentioned, resonance is the mantra of the practicing luthier. But that said, it's a hot-button topic among those I converse with.

I've seen videos of epoxy-treated cardboard guitars, converted shovels and brooms, plexiglass or lucite, a microwave oven, and even a cinder block test for the least possible resonance! As a budding luthier myself I find these builds obnoxious, because it challenges the validity of tonewoods in the first place. But take heart faithful readers! It's not all snake oil out there.

In the world of electric guitars, at least 85% of your tone comes from your pickups, with another significant chunk coming from your amp. That's the cold hard facts. But pick up a Les Paul and the Mahogany characterizes the sound with something fuzzy and soft at the top. Never harsh. Add a Maple top to it, and the treble is increased, with a little high-end "snap". Side by side comparisons with identically built guitars, but one with a Maple cap, has been shown to make a tonal difference within the range of human hearing. Tonewood is indeed scientific fact.

In my last article, I mentioned that tonal transfer works best in the straightest grain possible. But everyone loves a lot of figure. Figure dampens resonance a bit, but it doesn't eliminate it. Burls are beautiful, but offer almost no tonewood benefit. An intriguing chart I found (from people that like to sell you stuff) comes from Warmoth guitar products. Its useful, but I wouldn't rely on it exclusively.

<http://www.warmoth.com/Bass/Options/WoodDescriptions.aspx>

It uses the industry standard "warm" and "bright" descriptions. This should give you a great place to begin understanding most common species of tonewoods and their specific uses (body, neck, fretboard).

When seeking out uncommon woods, I have found that denser does not always mean brighter. For example, Rosewood, and its variations are "warm" and I have found that Zebra-wood and Ziricote are the two loudest woods in either electric OR acoustic builds. I encourage you to Google and Youtube, and listen to some audio of various woods and judge for yourself, because the tonal characteristic are so

widely varied among these beautiful woods and can't always be described with just two words.

Construction techniques are also a vital component of the guitar's tone. The grain direction insures the neck and body resonate as one tree, so the neck pocket needs to be tight as possible. The nut should also be installed tightly, with a resonant material. The engineering of the bridge, as well as it's method of attachment to the body matter greatly to tonal transfer and sustain. It takes proper hardware and solid construction to give the wood it's best chance to have it's loudest possible voice in the mix.

*Editor - Mike Nash rediscovered an interest from his youth, in how electric guitars were made, and decided to become a student of luthiery at Red Rocks Community College. He now builds custom guitars under the name "Alien Guitar Factory" based in Castle Rock, Colorado.*

For more information about Mike's current projects and available instruments, contact him at: [alienguitarfactory@gmail.com](mailto:alienguitarfactory@gmail.com) or look up Alien Guitar Factory on Facebook.



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